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ATTITUDES TOWARD RURAL INDUSTRIAL DEVELOPMENT: A NORTHEAST-CENTRAL CALIFORNIA STUDY

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A NORTHEAST-CENTRAL CALIFORNIA STUDY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

by

Vivien O. Canora, B.A., M.A., M.A.

* * * * *

The Ohio State University
1983

Reading Committee:
Ted L. Napier
William L. Flinn
David O. Hansen
Paul V. Peterson

Approved By

Adviser

Department of Agricultural Economics
and Rural Sociology
ACKNOWLEDGMENTS

My thanks to Dr. Ted L. Napier for having been the compleat adviser, and to my husband, Toy, for seeing me through this.
VITA

September 6, 1945 . . . . Born—Cebu, Philippines

1964 . . . . . . . . . . . . . . . . B.A., University of San Carlos
Cebu City, Cebu, Philippines

1971 . . . . . . . . . . . . . . . . M.A., University of San Carlos
Cebu City, Cebu, Philippines

1980 . . . . . . . . . . . . . . . . M.A., The Ohio State University
Columbus, Ohio

Center for Research in Vocational
Education, The Ohio State
University, Columbus, Ohio

FIELDS OF STUDY

Major Field: Rural Sociology

Studies in Community Development. Professor Ted L. Napier

Studies in Rural Sociology. Professor William L. Flinn
and Professor David O. Hansen

Studies in Communication. Professor Paul V. Peterson
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CHAPTER I
INTRODUCTION

Rural industrial development has been perceived by many people as a panacea for rural development problems. Consequently, many rural areas have sought to improve their socio-economic situations by means of industrialization. Rural industrial development has become an important focus of research studies. These have revealed that rural industrialization is viewed by many as providing employment possibilities for local people and as generating new income opportunities. With this in mind, communities have been known to exert concerted efforts aimed at attracting proposed industries to their localities.

Rural industrial development has been shown to have negative consequences as well as positive effects. Environment pollution, cost-of-living increases, increase in cost of private and public services, and increase in unemployment rates, have been some of the most-often-reported negative impacts of the implementation of industrialization as a development option.

For the most part, however, the literature has indicated that rural residents generally favor the idea of
industrialization for their local areas. The volume of studies pertaining to attitudes toward rural industrialization has slowly, but steadily, increased in recent years. This particular study seeks to add to the growing body of research undertaken in rural industrialization by assessing the relative importance of certain factors in the explanation of attitudes toward rural industrialization. Examination of these factors could add to existing information concerning rural industry, specifically, how anticipated rural industry is perceived by local residents.

Since it is people living within the target communities who are mainly affected by the impact of area development programs, it is vital that their support be gained in the implementation of such programs. To gain their support, it is important for planners to be able to channel regional development efforts in the direction that best conforms to what the local residents need and desire. A key to ascertaining needs, desires and expectations of local people is the understanding of how people perceive particular development options. Hence, in the case of industrial development, assessment of attitudes of the people in a community toward industrialization of their rural area is essential. The present study was thus undertaken with a view toward ascertaining such local attitudes.
The theoretical framework for the study is based on social exchange theory. In essence, social exchange theory posits that people are willing to internalize certain costs in order to gain certain rewards, and that people will tend to engage in action options which demand fewer costs or which would mean greater profits for them. The assumption, in the case of industrialization as a development option, was that industrial development would generate rewards for local people, and that the costs involved would be found relevant to industrial development. Social exchange theory was therefore deemed appropriate as a basis on which to couch the analysis.

This study was designed to ascertain and assess rural residents' attitudes toward the concept of industrial development and to investigate some factors that might be relevant in terms of predicting these attitudes. A sample was drawn from a four-county region in California where industrial development could occur. Perceptions of different aspects of rural industrial development relative to the individual resident, the family, and the region were gauged using a Likert-type attitude scale. It is hoped that the findings of this research will contribute to industrial development research in general, and industrial development attitude research in particular, as they are used in the planning and implementation of regional development programs. A study of "vested interest" factors
could add to the growing knowledge of how different segments of a populace perceive various aspects of rural industrial development. Such information can be used in critically examining the relationships, if any, between those "vested interest" variables and attitudes toward rural industrialization. Also, the information can show the extent to which a rural resident's "vested interests" in his/her region and its development can be predictors of his/her attitudes toward local industrialization. Different types of statistical analysis were performed on the data in an effort to gather relevant information on a particular development option which might be useful to planners' future regional development efforts.

The Sierra Economic Development District and the Sierra Planning Organization, agencies concerned with development planning in northeast-central California, commissioned a regional survey encompassing a rural four-county area adjacent to and west of Lake Tahoe. This present study uses portions of the data collected in that project. The data were collected by trained interviewers, coded by the agencies' staff, and keypunched for computer analysis. Additional programming was undertaken at The Ohio State University for the analyses needed for this paper.

The Lake Tahoe Basin and the nearby mountainous areas of Placer and El Dorado were not included in the
study since they were considered atypical of the development region as a whole. The unique nature of the Tahoe Basin economy requires special research attention addressing specific research questions. This was deemed falling beyond the designated scope of this study. The southeastern portion of El Dorado and Placer counties were likewise excluded from the study due to federal ownership of land in the national forest. The area outside the Tahoe Basin which was excluded from the study was sparsely populated and lacking in development resources as well as public services.

Economic activities in the region under study are many and varied. Cottage industries, timber-extraction and cattle-raising are foremost among the concerns of the residents of the northern part of the region. Timber-extraction is likewise the main occupation in the northeastern and central areas. The more mountainous central section is characterized by cattle-raising, fruit-growing, construction work, and service-related activities. Land in the southern and southwestern sections of the study area has been put to either residential or commercial use. There still is, however, some farming as well as natural-resource extraction being undertaken. Finally, an important aspect of the entire four-county region is tourism, with outdoor recreation constituting the major attraction.
The sheer variety and number of economic activities operative within the study region indicate the difficulties associated with planning development programs which will cater to the wishes of the majority of the populace. For one thing, over-emphasis upon industrial development of the region may serve to reduce the attractiveness of the area for outdoor recreation purposes. Furthermore, farming interests may suffer from development efforts designed to increase the service sector through increased taxation and increased demand for residential land.

The heterogeneous nature of the economic activities of the study area combined with the participatory-democracy orientation of the economic planning agencies generated considerable impetus for public involvement in the development planning of the study area. Given the limited budget and the time constraints for public involvement in the decision-making process, a survey was deemed the most feasible way of involving the local people.

The primary objectives of the survey were: (1) to determine the relative importance of development problems within the region from the perspective of the resident population; (2) to determine the relative importance of alternative development options which could be implemented in the study region; and (3) to determine the types of work skills which exist in the population that could be employed in the accomplishment of development goals.
Rural Industrial Development: The Phenomenon

Since the purpose of this research effort is to study rural industrialization, the concept must be defined. Before the literature concerning the phenomenon of "rural industrial development" or "rural industrialization" can be investigated, the concept and its related components must be examined. The first components to be discussed are: "rural" and "industrialization."

The National Research Council workshop on the Quality of Rural Living used the term "rural" to refer to those areas lying outside standard metropolitan statistical areas (National Research Council, 1971:125). The Bureau of the Census labels as "rural people" those persons who live in the open country or in villages having populations of 2,500 or less. The distinction between "rural" and "urban" has been established by this body since the 1910 census (Hildreth, 1971:118). This purely geographic and residential perspective, though useful insofar as the United States Bureau of the Census' purposes are concerned, does not take into account other factors that could
contribute toward people's "rurality." Among these factors are people's occupations or their personal values (Rogers and Burdge: 1972:18).

Since persons who lived in the country or in towns of less than 2,500 were considered by the census bureau as being "rural people," it follows that all others who did not fall into that classification were to be considered "urban people." In 1950, the bureau expanded the so-called "urban areas" to include the densely settled fringe around large cities and the incorporated as well as unincorporated places of over 2,500.

Among the rural population, further distinction is made between the "rural-farm" populace and the "rural-nonfarm" populace. Rural-farm people are those who live in the open country on farms. The remaining rural people are considered rural-nonfarm, and constitute the bulk of the rural populace living in villages or in the open country but not on farms (Rogers and Burdge, 1972:18-19).

The farm population was delineated by the United States Bureau of the Census in 1960 as consisting of persons living in rural territory or on places of ten or more acres from which annual sales of farm products amount to $50 or more, or on places of less than ten acres from which annual sales of farm products amount to $250 or more.
"Rural" can thus be defined geographically as the
consensus bureau has done; or it can be made to refer to
certain attributes of social organization—attributes
such as authoritarianism, independence, and individualism
(Hildreth, 1971:119). However, this could—as Hildreth
points out—bring about some difficulties, as some
populous cities might consequently be classified as rural.

In a very general sense, though, the term "rural"
has been used to refer to open country settlement, towns
and cities that are outside of metropolitan areas: hence,
nonmetropolitan counties (Haren, 1974:34). This is the
sense in which it is used in this present study.

"Industrialization" and "Rural Industrialization"

"Industrialization" has been defined as "the
process which involves a changeover from either agricul­
ture or domestic activity to factory production on a
growing scale" (Nettle and Robertson, 1966).

It has also been described as the appearance of
new functional roles linked with machine technology
(Apter, 1965).

Napier (1980) defines "industrialization" or
"industrial development" as the building of new—or the
expansion of existing—manufacturing firms within the
region.
The rural areas, not unlike urban areas, or even the so-called fringe areas, are beset by many economic problems. Many, if not most, of these problems have been analyzed as being rooted in the prevailing employment opportunities in these areas. It has been noted that one of the foremost ways for these areas to either remedy or improve these conditions is by rural industrial development.

"Rural industrial development," or "nonmetropolitan industrial development," as Summers and his colleagues (1976) choose to call the phenomenon, is defined as "the spatial redistribution of economic activity within an already industrialized society" (Summers et al., 1976:xv). To elaborate on this definition, they include the consequences this spatial redistribution of economic activity has for "social and cultural patterns in the subnational region experiencing industrial invasion" (Summers et al., 1976:xv).

Summers and his associates underscore the importance of nonmetropolitan industrial development research because it is closely related to social change at the local community or regional level.

Although considerable research has been undertaken in the area of industrial development, relatively little has been focused on the isolation of the correlates of attitudes toward rural industrialization.
Rural Industrial Development: Its Impact

Rural or nonmetropolitan industrial development, when it has occurred, has been observed to produce many changes in local groups. Wolf (1977) labels this resultant change, brought about by such action (here, the phenomenon of rural industrialization), "impact." Once these changes take place, certain responses occur in the form of what Wolf calls "effect(s)"; impacts where causal action and direction of change are not clearly identified, he labels "implications" (1977).

The impacts of industrialization on rural communities have not only been numerous, but varied (Maurer and Napier, 1981). One way of looking at them would be to first group them under the major categories "positive" and "negative" (Rogers et al., 1978; Summers et al., 1976; Scott and Summers, 1974).

Positive Impacts

Industrialization is generally viewed as being beneficial to rural residents. Proponents of rural development have claimed that rural industrialization will aid in the emergence of economic diversification and thus generate new income sources within the local economy, create jobs for local people, and provide opportunities for young adults to work and remain in their home communities rather than being forced to migrate to other areas.
in search of employment (Maurer, 1977:1).

Studies show that the type and magnitude of economic benefits derived from industrial development in rural areas is affected by a number of factors including age, sex, education achieved, employment, as well as occupational hierarchy level.

People in the community where a new industrial plant has been established often view such economic development as being beneficial since it will provide new jobs, thus raising incomes and improving levels of living in the local community. Employment at new industrial plants has been perceived as improving local income levels since rural industries have been found to consistently pay higher wages than what these people could ordinarily earn from farm work.

When studies have been conducted in community groups impacted by industrialization, local residents have indicated that they believed their community had benefited from industrial development (Summers et al., 1976). Persons employed at the industry, however, were noted as being more likely to hold this positive opinion than those who were not employed there.

In addition, residents of extremely rural areas which had experienced little industrial development have indicated overwhelmingly favorable attitudes toward industrialization as a way of improving their economic
conditions (Andrews et al., 1960).

Other studies have shown that persons who possess more relevant characteristics for gaining industrial benefits (that is, those who are male, younger, better educated, employed, and are on a higher level in the occupational hierarchy) are more likely to receive benefits from the industrialization. And, those who have directly benefited from the industrialization have also been found to have more favorable attitudes toward the local industrial plant (Summers et al., 1976:125).

**Negative Impacts**

Diversification and expansion of the economic base of a small town or rural area can give rise to a multiplicity of negative consequences. Industrialization has been found to increase the costs of public services such as education (Summers et al., 1976:97-101). Industrial development usually creates problems associated with financing and taxing for schools and other services.

Other problems often linked to rural industrial development are: integration of new residents (whether transient or permanent) into the community; financing and developing of private business to provide expanded services; changes in the local power structure; and, finally, increased taxation to enable the local government to function in accordance with the industrialized rural community's
increased expectations.

Industrial development of some rural areas has not succeeded in keeping the young adults of the community from leaving the small town in search of better opportunities elsewhere (Summers et al., 1976:2). Also, industrial growth in such areas has even served, at times, to either bring about or aggravate pollution of the environment. Furthermore, attendant to this kind of growth, has been an observed increase in the cost of living (Maurer, 1977).

This increase in cost of living and the corollary increase in demands made on existing services as an effect of industrial development, have tended to adversely affect older people (Scott and Summers, 1974). Most older people have retired and are thus on fixed incomes, rendering them less able to cope with these changes.

Also noted was the fact that women and lower class people were often at a disadvantage in the competition for industrial benefits (Summers et al., 1976). Most industrial-type work roles have been observed to be filled by males; and, people in lower socio-economic levels have been found to possess fewer resources relevant to industry than people in higher socio-economic levels (Summers, 1973: 21-22; Summers et al., 1978:3).
Studies have also shown that job skill factors affect the type of benefits people gain from industrial development (Summers et al., 1976). People who have less education or who have inadequate training, and, consequently, possess fewer work skills, are less likely to find employment brought about by rural industrial expansion. The same observation was noted in terms of age: the older rural people were usually less likely to be employed by the newly set up local industries.

Still another negative factor noted by Rogers et al. (1976) is the inequality that characterizes the distribution of costs and benefits of industrial development among the residents located near the industry site. New residents may get hired by the new industry, increasing the demand for local services, causing an increase in the cost of these public services. Where the newly created industry's demand is for female employees, unemployment may increase among males who remain in the area because their mates are employed there. And, income generated by newly employed women may cause changes in consumption patterns (more convenience food purchases, more household services being performed outside the home) which could lead to socio-economic development without growth.

Finally, even the expectations of benefits prior to the actual establishment of an industrial plant or factory
in a rural area have been discovered to oftentimes be quite exaggerated, thus inevitably causing frustration and disillusionment among the local people. The disappointment of not finding employment in the newly created industry, for instance, would constitute additional costs that the residents would have to internalize.

Given all this, the industrial development of small towns and rural areas in general is still staunchly urged by rural industrialization proponents (Scott and Summers, 1974:107). They counsel that the process should be "embraced gently," though, with full knowledge of all the possible varied ramifications.

It is Scott and Summers' (1974:107) considered opinion that negative aspects of rural industrial development can be minimized by local communities combining efforts to draw industry to their areas by forming multi-county or regional development bodies and plans themselves.

Since this present research effort deals with the study of attitudes toward rural industrial development, the sections that follow will discuss literature pertinent to the study of attitudes and attitudes toward rural industrial development.

The Study of Attitudes

Blumer is reported to have observed at an American Sociological Society meeting held some thirty years ago,
that numerous studies of attitudes have been undertaken, although no one has ever seen an attitude. Be that as it may, scientists have stressed the fact that unobservables have always been of fundamental importance to scientific progress because they affect behavior (Merton, et al., 1979:258).

This particular unobservable—the attitude—Kerlinger summarizes as "an organized predisposition to think, feel, perceive, and behave toward a referent or cognitive object" (Kerlinger, 1967:110-122, 1973:495-496; Kretsch and Crutchfield, 1948:152; Newcomb, 1950:118-119; Rokeach, 1968:112). A referent is a category, class, or set of phenomena: physical objects, events, behavior, or constructs (Brown, 1958:7-10).

Kerlinger adds that an attitude is an "enduring structure of beliefs that predisposes the individual to behave selectively toward attitude referents" (1973:495-496). That is, a person's attitude will cause him to think, feel, perceive, and behave selectively toward certain objects, events, behavior or ideas.

For the purposes of this paper, a nominal definition of the concept "attitude" is the one offered by Rokeach and Kliejunas (1972:194-201). An attitude, they explain, is a "relatively enduring organization of beliefs around an object or situation predisposing one to respond in some preferential manner." That is, relatively
deep-rooted beliefs about something which triggers particular responses or reactions in an individual.

In order for an attitude toward an object or situation to be formed or changed, Maurer and Napier elaborate (1981:102), some sort of appraisal of the object or situation must take place. Among the possible bases for an assessment are: on one hand, the benefits or advantages perceived as derivable from the object or situation; or, on the other hand, the costs or disadvantages attendant to the object or situation.

The specific situation this study is concerned with is "rural industrialization."

**Attitudes toward Industry and Industrialization**

A study of attitudes toward industry was undertaken by Shively (1974:92) in Nebraska. The intent of the research was to determine the factors affecting the location of industry. Shively reported a disturbing fact: the smaller the community, the lower the percentage of responses indicating favorable attitude toward industry. The report points out the suspicion, distrust, and even outright hostility which greet new industries in smaller communities. The study findings suggest that community leaders should be cautious about assuming that everyone in town wants a new industry. The findings suggest that leaders should exert efforts to not only find out what the
people think, but, where necessary, initiate educational programs that explain why industry is needed and what it can and will do for a town.

As mentioned earlier, the attendant or resultant benefits and costs of rural industrialization have been found to be usually unequally distributed. Nevertheless, rural people have been reported to generally express favorable attitudes toward industrialization (Andrews and Bauder, 1967; Summers et al., 125).
CHAPTER III
THEORETICAL ORIENTATION

The Study of Attitudes

Germaine to the understanding of the idea of "attitudes toward rural industrial development" is understanding of the concept of attitudes.

Attitudes are viewed as antecedents of action. It is argued that assessment of attitudes will provide insight into behavior (action) when the object of the attitude or attitudes is encountered. Thus, evaluations of attitude toward rural industrial development should provide a means of predicting action or behavior response when development programs involving industrialization are proposed and subsequently implemented. The basis for this assertion is dissonance theory (Festinger, 1957:1-31) which posits that behavior and cognitions are generally in agreement. The sequence of reasoning is as follows: first, people perceive objects and make interpretations in the context of their cultural definitions; second, attitudes are formulated about the perceived object; and, third, behavior is partially governed by the attitudes when the object is encountered in the future.
Thus, attitudes should reflect anticipated consequences of proposed change for the individuals holding the attitude. If people believe that a proposed change will benefit them, then they should reflect a positive attitude toward the development activity. If, on the other hand, people somehow think that a proposed change will either be of no benefit at all to them, or will entail more costs than benefits, then they would probably harbor—or even exhibit—a negative attitude toward that development activity.

It is argued that individuals conduct mental cost-benefit assessments of change programs which contribute to the formation of attitudes about the change-producing stimulus (Homans, 1961:53-60). The factors that people use in the evaluation of potential consequences of development programs include many variables in addition to economic factors; therefore, social exchange theory was deemed appropriate for the development of theoretical hypotheses for testing in this study.

The Theoretical Perspective

A theoretical perspective derived from selected components of social exchange theory was adopted as the basis for conducting this study. The social exchange perspective developed for this study emphasizes the relation between perceived costs and perceived benefits and a
person's attitude toward the factor associated with those costs and benefits (Ekeh, 1974; Blau, 1961; Homans, 1964; Simpson, 1972). A basic assumption of the model is that people are benefit-seeking and punishment-avoiding creatures. People base their attitudes and behavior on their assessments of likelihood of receiving benefits from all action situations (Ekeh, 1974; Turner, 1974). Factors suggested by this perspective as being important to the assessment of development options are: perceived costs and perceived benefits.

Using this theoretical model, a study was conducted (Napier, 1974) in an effort to examine the impact of a reservoir development project on a local community sample. The respondents were asked a series of questions about the factors they considered important in their evaluation of a development option (in this case, reservoir/park development). From the responses to those questions, discussions with respondents, and the literature on social impact assessment, Napier concluded that attitudes toward a development option were based on an underlying dimension encompassing the assessment of the "goodness" or "badness" of the option based on perceived costs, perceived benefits, and a relative assessment of the two. Primarily from discussions with the study respondents, Napier noted that the application of social exchange theory to evaluation of development alternatives might usefully
tap two factors mentioned by the respondents: (1) perceived need of the development option being evaluated, and (2) the disruptive/integrative effects of the option on community life. The model was subsequently adapted to relate to industrial development in rural areas.

This present study is being undertaken from the "Vested Interests" theoretical perspective. This was developed on the basis of utilitarian orientations fashioned out of social exchange theory (Ekeh, 1974; Turner, 1974). The major assumption is that people tend to seek rewards; and, by the same token, tend to avoid punishment. Having this tendency to desire rewards for their actions, people consequently tend to evaluate prospective involvement in action situations in terms of rewards on one hand, and punishment or costs on the other.

Underlying concepts of this theory are the concepts of "rewards" and "costs." Reward is defined as anything perceived to be of some value to an individual, which the individual receives as the result of an action situation. Examples of such rewards that have been cited are: money, power, esteem and social approval. "Costs" would include those things which are required to gain a reward or rewards. They could also refer to foregone rewards.

The theoretical orientation constructed for this study suggests that people are motivated into action by valued rewards. The implication is that, faced with having
to make a choice from among a particular set of alternative actions, a person has a greater tendency to choose that action option which would not only be associated with reward(s), but which would also mean minimizing costs. Also, an individual may choose the option that is least costly because, of all the alternatives open to him/her, that option would be most beneficial. This line of reasoning suggests that commitment to action options requires some type of reward system to motivate people to action.

Given the importance of costs and benefits in understanding attitudes toward a phenomenon (such as rural industrialization), components of social exchange theory were selected which consider costs and benefits critical elements in the study and understanding of human behavior (Ekeh, 1974; Heath, 1976; Blau, 1974; Homans, 1950; Simpson, 1972; Turner, 1974).

"Vested Interests"

In ordinary day-to-day usage, the term "vested interest" carries a meaning of close involvement of a person or a group of people in promoting personal advancement or advantage, usually at the expense of others. "Vested interests" usually pertain to a number of such groups cooperating or competing in pursuing selfish goals and exerting powerful controlling influence. In the legal
sense, the term denotes a right or title that can be conveyed to another. Finally, the concept can also refer to a strong concern for something from which one expects private benefit. It is this last meaning which is the context in which this study is couched.

In essence, "vested interest" refers to a strong concern for something from which one expects benefit. It denotes a characteristic or a past activity which relates to an individual's possible future commitment of resources to obtain particular desired rewards (Maurer, 1977). Thus, reference will be made to "vested interests" an individual has or may have in the region in which he or she lives.

Studies have shown that these "vested interests" are a function of a number of factors. Among such factors are age, sex, education, occupation, income, presence in the household of family members who are working or are actively seeking work, length of residence in the county, and unemployment. The rural industrialization literature indicate that these factors have been shown to affect rewards and costs associated with rural industrial development. They have thus been singled out for investigation in this present research undertaking. These characteristics have been designated as independent variables for study in relation to attitudes toward the general concept of rural industrial development.
Given the theoretical perspective of this study, it is suggested that direct as well as indirect costs and benefits associated with rural industrial development options will be analyzed, weighed, and evaluated by the target population. It is also suggested that the assessments will be significantly related to these people's attitudes toward the idea of industrialization of their area. It is further suggested that people's "vested interests" in their county enter into and affect or even determine the outcome of these evaluations. It is finally suggested that "vested interests" are a function of certain individual factors, among which are those mentioned above (age, sex, occupation, income, presence of household members either working or seeking work, length of county residence, and unemployment).

When people believe that they will benefit from a particular development option, they tend to be more likely to have favorable attitudes toward it. Conversely, when they think they may have to internalize costs, they tend to be more likely to have unfavorable attitudes toward that development option (Napier and Mast, 1980:5). This type of logic suggests that factors people bring into an action situation which affect their probabilities of accessing benefits and internalizing costs are important determinants of how a particular development option will be perceived.
The perceived potential benefits derivable from rural industrial development are the rewards which an individual anticipates receiving from industrialization in the region. According to the basic propositions of the exchange perspective, people participate in action situations in order to receive desired rewards; and, the more rewarding an activity is for an individual, the more likely that individual is to participate in the activity. It is assumed that rewards of industrialization to the family (such as the individual or a member of his or her family obtaining employment with a newly created local industry) are perceived by people within the region as desirable, and are defined as rewards. If this assumption is correct, people would be more likely to be committed to industrial development when industrial expansion is perceived to be a means of producing these rewards. Since it is assumed that people tend to favor activities which they feel will bring them desired rewards, it is reasoned that perceived benefits (rewards) from industry will be significantly related to attitudes toward rural industrial development.

The more vested interests one has in a potential action situation, the more rewards one perceives he or she might stand to gain from activities related to that exchange situation. If people bring relevant characteristics (investments) to action situations which will
increase benefit potential, they will perceive the action option as benefiting them. When people believe that they will benefit from a particular development option, there is a greater tendency for them to view it favorably; conversely, when they believe that they will have to internalize costs connected with the development option, they tend to be much less supportive of the action taken or proposed (Napier and Mast, 1980:5).

In the context of rural industrial development, it is theorized that individuals in the affected area with more vested interests in the region's development will anticipate receiving more benefits from industrial expansion. Since it is theorized that people who perceive that they will derive more benefits from industry will tend to be more likely to have favorable attitudes toward industrialization—then, those in the area who have more vested interests in the region's development should be more likely to have favorable attitudes toward industrial development.

The Application of Vested Interests to Rural Industrial Development Attitude Research

The more relevant the social characteristic or past experience is to the norms or activities of the exchange situation, the more of a "vested interest" the individual possessing the characteristic or experience has
in the exchange situation.

The "vested interest" factors considered in this study are discussed below.

**Sex:** Sex is an ascribed status which an individual brings into a social exchange situation.

While some rural industries hire primarily women (Summers *et al.*, 1976:53-54), the fact remains that most industrial-type work roles are filled by males.

In terms of "traditional" rural values, males are responsible for the support of their families. That role is a norm, and such capacity for fulfilling the role of family provider is considered a valuable reward for employment activity. Industry is one possible source of employment opportunities and the attendant rewards associated with employment.

Industrial development, therefore, extends an opportunity for male primary income earners to obtain the reward of employment as a means of support for themselves as well as their families and households. Since, among primary income earners, males have a higher probability of being employed by rural industry (Summers *et al.*, 1976), they should perceive a greater possibility of obtaining rewards, and should thus tend to be more likely to have favorable attitudes toward industry in general. It is, therefore, hypothesized that male primary income earners
will tend to be more likely to have favorable attitudes toward rural industrial development than female primary income earners.

**Age.** Age is a factor that can affect anticipated benefits from rural industrial development. Maurer and Napier (1978) and Summers and his colleagues (1976) note that younger individuals are more likely to become employed by rural industries, due, in part, to the fact that employers prefer to hire younger people because they have more years remaining for employment. Summers et al. (1976) point out that older individuals generally receive few benefits from rural industrialization. In a community experiencing or anticipating social change, older individuals may perceive the anticipated change(s) as more threatening than would the more easily adaptable younger people. It has been observed that a possibility exists that older individuals who have achieved high positions in local communities are not able to maintain the status positions they have already achieved when the group is restructured following external development (Wright, 1974). In general, older people have become accustomed to existing social structures in the community; and they have become better adjusted to those social structures. They tend to view anticipated change as potentially disruptive of their established routines and lifestyles.
Anticipated change accompanying industrial development could be viewed as possibly affecting long-practiced behavior, especially behavior relative to local interaction patterns in the community. Also, the elderly are more likely to be living on fixed and lower incomes, and would be more affected by cost-of-living increases which often accompany rural industrialization. Because of these adverse effects (costs) of industrialization, older persons' attitudes toward industrial development should be less likely to be favorable, and even be more likely to be unfavorable. Age is, therefore, hypothesized to have a negative association with favorableness toward rural industrialization. The hypothesis is mainly predicated on the fact that younger adults have more years available for career investment and have a higher probability of being employed in the new local industry or industries.

**Education.** One aspect of an individual's past activities which can affect probabilities of receiving benefits from development options, is education. It is a measure of the amount of schooling or formal training a person has received. It is, moreover, an indirect gauge of skill level which is important in determining employment potential. It has been suggested that deficiencies in education severely limit the opportunities an
individual may have to change occupations (Bluestone, 1972). It has been noted that people with more education are not only more skilled—hence, less likely to have problems finding employment—but also tend to receive higher salaries than those on lower educational levels (Killingsworth, 1964). As to jobs generated by industrial expansion: Summers points out that individuals with more education—more training and better job preparation—generally have an advantage over persons with less education when competing for jobs generated by industrialization (Summers, 1973:21-22).

Since education is a past activity that constitutes a personal investment on the individual's part, and is associated with benefit potential, it is important to the test of the theoretical perspective. The more years of formal schooling one has completed, the greater the investment one has made in obtaining training for certain action situations. Consequently, people with more education would expect to benefit more from industrial development. Such persons would also have training which could enable them to receive rewards resulting from the new industry. It is, therefore, posited that people with higher educational achievement levels will tend to be more likely to have favorable attitudes toward rural industrialization than those with lower educational achievement levels.
**Occupation.** Occupation is another indicator of an individual's skill level. The underlying assumption is that one is usually employed in an occupation which is closely related to one's skills. Persons qualified for higher-skilled or professional occupations are generally more sought after by industries, and are given the higher-paying jobs. Job skills represent past activity relevant to industrial development. People with higher-level or better job skills will have a greater probability of receiving more rewards from rural industry, both directly and indirectly. The rewards derived from new industrial development may take the form of increased job opportunities, higher income, or more secure occupations.

People who have previously held high-skilled jobs can contribute more relevant skills to new jobs generated by the establishment of new industries in the area. People who have more relevant skills have a higher probability of gaining rewards from the situation. Thus, it is hypothesized that persons with higher-skilled occupations or who are on higher levels of the occupational hierarchy will tend to be more likely to have favorable attitudes toward rural industrialization than persons with less-skilled occupations or who are on lower levels of the occupational hierarchy.
Income. Although it might be supposed that low-income rural residents naturally favor industrialization efforts since they would perceive new industry as providing employment opportunities in the form of additional or better-paying jobs, research findings have not shown this to be necessarily true.

For instance, a study conducted in Southeastern Ohio (Maurer, 1977) revealed that income exhibited no significant direct effect on attitudes toward rural industrial development. From that finding, he suggested that, regardless of income level, rural people will perceive the effects of industrialization as indirectly benefiting them.

In a subsequent study, Bachtel (1978:84) discovered that people in lower socio-economic levels tend to be less adaptable to social change situations, while those in higher socio-economic levels tend to be better able to adjust to and cope with such social change situations. Furthermore, people in lower income levels have been observed to be less actively engaged in employment generated by rural industrialization due to less education or inadequate training, and, consequently, fewer work skills. Moreover, they have been found to possess fewer resources relevant to industry. Higher-income people, on the other hand, have been observed to be more likely to have achieved higher educational levels or to have taken
advantage of more training courses or programs, resulting in more relevant work skills for new industries (Summers, 1973:21-22; Summers et al., 1978:3). Higher-income people, therefore, should be more likely than lower-income people to perceive industrialization as potentially beneficial. It is hypothesized that income will be significantly related to attitude toward rural industrial development, and in a positive manner.

Presence of Other Household Members Working or Seeking Work. It is reasoned that the greater the number of members of one's household who are either working or seeking work, the more likely one will be to have favorable attitudes toward industrial development. It is argued that new employment opportunities will increase the probability that household members will find work in the local area and not be forced to migrate to find employment.

The number of household members who are either working or are actively seeking work represents another social characteristic (family size) which is brought into an action situation by an individual. As the number of household members in the labor force increases, so does the probability that a member of the individual's family will receive some reward(s) in the long run from rural industrialization, since there would then be more people
to whom opportunity for rewards would be available. These long-run rewards could be received in the form of employment at the plant or factory for some member(s) of the household. The greater the number of members in a household who are either actually working or are actively looking for work, the greater the probability that benefits from industrial development will be received. Therefore, it is posited that presence of other household members who are working or are seeking work will be positively related to attitude toward rural industrial development.

**Length of Residence.** Long-term residents in an area will tend to hold stronger attachments to their community than short-term residents. Having lived in the area for greater lengths of time, they will tend to have stronger feelings about their community's welfare, well-being, and betterment, than those who have lived there for fairly shorter periods. The long-term residents would tend to place more value on efforts that would enhance their community's improvement, especially if such efforts—for instance, industrialization—would contribute to the improvement of the local area's economic viability. It is thus argued that long-term residents in a county would have a greater propensity to value the development of the local area than short-term
residents. It is hypothesized, then, that length of county residence will be significantly related to attitude toward rural industrialization, and in a positive direction.

**Unemployment.** Unemployment may be used as an indicator of past activities. Studies have shown that the reduction of unemployment is one of the prime expectations out of rural industrial development (Summers, et al., 1975). The unemployed would see rural industrial development as the opening up of employment opportunities, and, consequently, the improvement of their chances of finding and landing jobs. These unemployed people would thus perceive benefit arising from industrialization in their area. The perception of benefit can be argued to bring about favorable attitudes toward rural industrialization. Hence, it is hypothesized that unemployment will be positively related to attitude toward rural industrial development.

**Variables and Hypotheses**

Hypotheses were generated concerning possible relationships between the "vested interest" factors isolated for investigation and attitudes toward rural industrialization.

To recap, the "vested interest" variables identified in the study are: age, sex, education, occupation,
income, length of residence in the county, presence of other household members working or seeking work, and unemployment. The variables are indicative of both social characteristics and past activities which are seen here as "vested interest" factors people bring into an action situation. It is posited that the more investments a person brings into an exchange situation, the higher the probability of his gaining rewards from the rural industrial exchange situation. Consequently, that person is more likely to perceive deriving benefits from the anticipated industrialization.

Granted that people seek to participate in those activities which they feel will bring them rewards, individuals who perceive the possibility of receiving valuable rewards from the anticipated industrial development should tend to be more likely to have favorable attitudes toward industrialization. Those persons with more "vested interests"—that is, those with characteristics, skills and past activities relevant for gaining benefits—will tend to perceive more possible rewards from the industrial development of their locality, and should, therefore, tend to be more likely to have favorable attitudes toward rural industrial development.
General Hypotheses

- It is hypothesized that income, education, occupation, unemployment, and presence of other household members working or seeking work will be positively associated with attitudes toward rural industrial development.

- It is hypothesized that males will tend to be more likely to have favorable attitudes toward rural industrial development than females.

- It is hypothesized that age and length of residence will be significantly correlated with attitudes toward industrial development, but in a negative direction.

Specific Hypotheses

1. It is hypothesized that younger people (primary income earners) will tend to be more likely to have favorable attitudes toward rural industrial development than older people.

2. It is hypothesized that people with higher incomes will tend to be more likely to have
more favorable attitudes toward rural industrial development than people with lower incomes.

3. It is hypothesized that people of higher educational achievement levels will tend to be more likely to exhibit more favorable attitudes toward rural industrialization than those on lower educational achievement levels.

4. It is hypothesized that residents with professional or higher skilled occupations will tend to be more likely to have favorable attitudes toward rural industrialization than those with less skilled occupations.

5. It is hypothesized that unemployed residents will tend to be more likely to have favorable attitudes toward rural industrial development than employed residents.

6. It is hypothesized that male primary income earners will tend to be more likely to have favorable attitudes toward rural industrial development than female primary income earners.
7. It is hypothesized that long-term residents will tend to be less likely to have favorable attitudes toward rural industrial development than short-term residents.
Universe and Sample

The target population of the study consisted of the adult residents living within portions of four rural counties located in northeast-central California. The counties in which the study participants lived at the time of the research effort were: El Dorado, Nevada, Placer and Sierra. The suburban areas of Sacramento located in the study counties were excluded from the sampling frame since the objective was to assess attitudes of rural people toward rural industrialization. Thus, the study population consists entirely of small-town and open-country residents. The estimated population of the four-county region in 1978 was 79,000.

Six hundred and forty subjects were drawn from the study region on a systematic sampling basis (Blalock, 1960). Field staff members were deployed throughout the study area to collect data. The interviewers were instructed to debrief respondents in terms of additional information the respondents desired to provide. In every tenth dwelling within the study area (with the initial
residence chosen at random), the head-of-household or his/her mate was asked to participate. If the individual asked to participate in the study refused, the field researcher was instructed to select the adjacent occupied dwelling until a person consented to participate in the study. At that point, the original sampling procedure was reinstated. A total of seventy-five percent of those requested to participate actually agreed to take part in the project.

The sample was restricted to the head-of-household or mate because certain essential socio-demographic information would only be known to such persons. All commercial buildings were eliminated from the sampling frame; however, multiple-family dwellings were included.

The survey questionnaire was administered using the drop-off/pick-up-later technique (Napier, 1980). That is, a copy of the questionnaire was left with the prospective respondent, to be picked up on an agreed-upon future date (usually two or three days later). The field researcher explained the questionnaire and left it to be completed at the respondent's leisure.

To ensure that the sample would not be clustered, the sample distribution was continuously monitored by a field research director. Furthermore, the sampling frame had been devised in a manner that would ensure that the participants from each of the geographic areas included
in the scope of the study would proportionately represent the resident population. Comparison of the sampling distribution with census data indicates its being proportionate to the four-county region's population distribution. Table 1 presents the characteristics of the sample.

Inspection of Table 1 shows that primary income earners in the study area are primarily male (79.4 percent of the sample), middle-aged (average, 48.9 years of age), have had some college education (average, 13.2 years of schooling), have lived in the county surveyed for an average of 11.9 years, have an average family income of $18,052, and are primarily employed at the skilled level. Approximately 22.3 percent of the primary income earners studied, however, have experienced unemployment at some point in the three-year period immediately preceding the time the survey was taken. And, about 32.2 percent indicated that there were other members of their households who were either actually working or were seeking work. This suggests that the surplus labor in the region may be much higher than the unemployment data for primary income earners revealed.

The Survey Instrument

To assess participant attitudes toward rural industrial development as well as toward other development options, a structured questionnaire was generated which
### Table 1. Characteristics of the Adult Study Sample (N=540)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Descriptive Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean Age of Primary Income Earner</td>
<td>48.9 years</td>
</tr>
<tr>
<td>Sex of Primary Income Earner</td>
<td>79.1% male</td>
</tr>
<tr>
<td>Mean Education of Primary Income Earner</td>
<td>13.2 years</td>
</tr>
<tr>
<td>Percent of Primary Income Earners who were Unemployed within the Last Three Years</td>
<td>22.3%</td>
</tr>
<tr>
<td>Mean Length of Residence in County</td>
<td>11.0 years</td>
</tr>
<tr>
<td>Households with Other Members Working or Seeking Work</td>
<td>32.2%</td>
</tr>
<tr>
<td>Distribution of Total Family Income:</td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Less than $7,000</td>
<td>4.1%</td>
</tr>
<tr>
<td>$7,000 to $13,999</td>
<td>22.1%</td>
</tr>
<tr>
<td>$14,000 to $20,999</td>
<td>30.3%</td>
</tr>
<tr>
<td>$21,000 to $29,999</td>
<td>34.5%</td>
</tr>
<tr>
<td>Occupation of Primary Income Earner:</td>
<td></td>
</tr>
<tr>
<td>Type of Occupation</td>
<td></td>
</tr>
<tr>
<td>Professional &amp; Executive</td>
<td>16.1%</td>
</tr>
<tr>
<td>Skilled, White &amp; Blue Collar</td>
<td>54.8%</td>
</tr>
<tr>
<td>Unskilled, White &amp; Blue Collar;</td>
<td></td>
</tr>
<tr>
<td>Permanently Unemployed; Homemaker</td>
<td>29.1%</td>
</tr>
</tbody>
</table>
employed a combination of several research methodologies. The research techniques which were used to gather essential data were: rank-ordered questions designed to assess commitment to specific development problems; Likert-type scales (Edwards, 1957) intended to measure attitudes toward the concepts of rural industrial development, outdoor recreation development, as well as commitment to technology as a means of solving problems; questions with forced-choice responses formulated to examine employment and work roles as well as human capital investments; and content-specific questions aimed at obtaining relevant socio-economic information about the respondent and the respondent's mate.

The measurement instrument used to examine attitudes toward rural industrial development and attitudes toward outdoor recreation development was a modified version of previously used measurement devices (Napier and Wright, 1974; Napier et al., 1977; Napier et al., 1978). Reliability measures formulated from the above-mentioned previous researches have shown the scales to be highly reliable.

For this particular study, only attitudes toward rural industrial development (RID) will be analyzed. In addition, data related to socio-economic characteristics and human resources, as well as other related participant characteristics will be presented and discussed in the
context of how they related to attitudes toward rural industrial development.

Operationalization of the Rural Industrial Development Scale

To measure attitudes toward rural industrial development, a scale was put together using Likert-type attitude items. The scale items had been devised and used in past research (Maurer, 1977; Napier, 1971, 1972, 1975; Napier and Maurer, 1978; Napier and Bachtel, 1978), and subsequently modified for use in gauging attitudes toward rural industrial development. The scale consists of items which are statement evaluations of industrial development. Their construction was based on the vested interests perspective noted in the previous chapter. Prior research employing the technique have been noted (Hough and Clark, 1969; Maurer, 1977; Maurer and Napier, 1978; Napier and Bachtel, 1978; Pierce, 1976).

The attitude statements are evaluations of rural industrialization with reference to the individual, the individual's family, and the region in which the individual lives. The benefit of jobs is singled out, since jobs have often been among the most significant anticipated benefits of industrial development. The scale also contains general evaluations of industrial development. Among these evaluations are the need, justification, overall
"goodness" or "badness" of industrial development, and, finally, indirect effects of industrial development upon the region. In this way, "favorableness" or "unfavorableness" of the respondent's attitudes toward rural industrialization was determined. In essence, the scale includes both a general evaluation of the specific object of the attitude (industrial development of the region), and the particular value—for the individual as well as the individual's family—anticipated from the attitude object.

The rural industrialization scale consists of eight item statements. The respondent was asked to indicate his/her reaction to each statement by choosing from among five categories under which he/she might classify the reaction to the statement. The five categories were: "SA" (Strongly Agree), "A" (Agree), "U" (Undecided), "D" (Disagree), and "SD" (Strongly Disagree). They were weighted from 1 to 5, depending upon whether the item was positive or negative. Higher scale scores signified positive attitudes toward rural industrial development (Maurer, 1977:63; Bahtel, 1978:112).

The first item on the scale addresses the perceived benefit of rural industry to the individual and the individual's family. Based on the "vested interest" perspective and on previous research, it is assumed that people consider personal benefit a desirable reward, and
that it might be a potential explanatory variable of general attitudes toward industrialization. The remaining seven items measure general attitudes of the individual toward rural industrial development for the region. Among the aspects addressed are costs of industrial development, problems created by industrial development, and general perceptions of need for industrial development. Other concepts included are industrial siting and perceived impact of industry upon the region as a place of residence. The resultant scale was intended to measure overall assessment of rural industrial development.

The scale item statements, the reaction alternatives, and the corresponding assigned weights are presented below. Higher scale scores indicate more positive orientations toward rural industrialization.

Item Analysis of Rural Industrialization Scale

In order to determine measures of reliability of the sampled respondent data, an item analysis was conducted on the total RID scale. A Pearson product-moment correlation matrix table was also prepared to show intercorrelations among the eight items of the scale. Finally, data on factor analysis of the RID scale are presented and discussed in the context of defending the reliability of the scale.
The Scale Item Statements.

1. Industrial development in my region will benefit me or some member of my household.  
   5 4 3 2 1

2. The costs of industrial development in my region can be justified.  
   5 4 3 2 1

3. Industrial development is not needed in my region.  
   1 2 3 4 5

4. The disadvantages brought to my region by industrial development will offset the advantages.  
   1 2 3 4 5

5. Industrial development in my region will create many problems for people living here.  
   1 2 3 4 5

6. Industrial development of my region will provide many jobs for local people.  
   5 4 3 2 1

7. Industrial development will make my region a better place in which to live.  
   5 4 3 2 1

8. Industrial development will benefit my region.  
   5 4 3 2 1
Table 2 presents the correlation of each item separately with total score (i.e., item-total) and the summative effects of the items together as an overall internal consistency reliability coefficient. Inspection of Table 2 reveals that each item has a high positive correlation with the RID Total Score with coefficients in the .90s, and an overall internal consistency coefficient of .93 for the total RID scale. The high positive association between each of the items (Table 3) indicates the items are highly correlated and can be legitimately combined into a composite index. This means that the eight items on this scale are measuring some underlying construct—in this case, attitude toward rural industrial development. The coefficient alpha, an internal consistency measure, is employed to assess this relationship between total-scale score and the items that comprise the scale. An alpha of .93 is considered a very high value of reliability.

Table 4 contains the factor matrix of the intercorrelations among the eight attitude items on the RID scale. Inspection of this table confirms the findings of the item analysis. The high loading values demonstrate that all of the items loaded on one factor. This analysis was undertaken to ensure that the scale was measuring one underlying construct which it proves. Only one factor emerged from the factor analysis.
Table 2. Item Analysis of Rural Industrial Development Scale for Survey Respondents (n=640)

<table>
<thead>
<tr>
<th>Attitude Statement Number</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Item Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.19</td>
<td>1.34</td>
<td>.91</td>
</tr>
<tr>
<td>2</td>
<td>3.09</td>
<td>1.20</td>
<td>.92</td>
</tr>
<tr>
<td>3</td>
<td>3.19</td>
<td>1.36</td>
<td>.91</td>
</tr>
<tr>
<td>4</td>
<td>2.95</td>
<td>1.25</td>
<td>.94</td>
</tr>
<tr>
<td>5</td>
<td>2.86</td>
<td>1.24</td>
<td>.92</td>
</tr>
<tr>
<td>6</td>
<td>3.65</td>
<td>1.09</td>
<td>.92</td>
</tr>
<tr>
<td>7</td>
<td>2.88</td>
<td>1.27</td>
<td>.91</td>
</tr>
<tr>
<td>8</td>
<td>3.19</td>
<td>1.27</td>
<td>.91</td>
</tr>
<tr>
<td>Item Mean Total</td>
<td>3.12</td>
<td>1.26</td>
<td>--</td>
</tr>
<tr>
<td>Scale Mean Total</td>
<td>24.99</td>
<td>8.19</td>
<td></td>
</tr>
</tbody>
</table>

Alpha Coefficient for RID Scale .93
Table 3. Pearson Product-Moment Correlation Matrix of Rural Industrial Development Scale Items for Survey Respondents (N=640)

<table>
<thead>
<tr>
<th>Attitude Statement Number</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.74</td>
<td>.73</td>
<td>.45</td>
<td>.58</td>
<td>.59</td>
<td>.71</td>
<td>.76</td>
</tr>
<tr>
<td>2</td>
<td>.71</td>
<td>.40</td>
<td>.60</td>
<td>.61</td>
<td>.63</td>
<td>.73</td>
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<td>3</td>
<td>.49</td>
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<td>.60</td>
<td>.72</td>
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<td>.77</td>
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</tr>
<tr>
<td>4</td>
<td>.18</td>
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<td>.47</td>
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<td>.44</td>
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<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>.51</td>
<td>.63</td>
<td>.66</td>
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<td>6</td>
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<td>7</td>
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<td></td>
<td></td>
<td></td>
<td>.84</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All correlations are significant at the .001 level.*
Table 4. Factor Matrix of Rural Industrial Development Scale Items for Survey Respondents (N=640)

<table>
<thead>
<tr>
<th>Attitude Statement Number</th>
<th>Factor 1</th>
<th>Communality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.837</td>
<td>.700</td>
</tr>
<tr>
<td>2</td>
<td>.812</td>
<td>.659</td>
</tr>
<tr>
<td>3</td>
<td>.870</td>
<td>.756</td>
</tr>
<tr>
<td>4</td>
<td>.535</td>
<td>.286</td>
</tr>
<tr>
<td>5</td>
<td>.762</td>
<td>.581</td>
</tr>
<tr>
<td>6</td>
<td>.701</td>
<td>.491</td>
</tr>
<tr>
<td>7</td>
<td>.863</td>
<td>.746</td>
</tr>
<tr>
<td>8</td>
<td>.902</td>
<td>.813</td>
</tr>
</tbody>
</table>
Operationalization of the Independent Variables

The factors designated as independent variables in this study are: sex, age, education, occupation, income, length of residence in the county, presence of other household members who are either working or are seeking work, and unemployment within the past three years. These variables have been chosen because they are considered indicative of relevant socio-economic characteristics as well as past activities of the rural residents.

The variables were measured in the following manner:

"Age" was determined by asking the respondent the age, in years, of the primary income earner on his/her last birthday.

"Sex" was measured in terms of the gender of the primary income earner. The response was coded as a dummy variable with a 0 assigned to "male," and a 1 assigned to "female."

"Education" was measured as the number of years of formal schooling completed by the primary income earner.

"Occupation" was recorded as the major occupation of the primary income earner. If the primary income earner had retired or was temporarily unemployed, the occupation entered was the last occupation before retirement or becoming unemployed. The questionnaire item asking
for occupation was open-ended, and the responses were classified under eight categories which had been based on the census occupation classification. The occupation categories developed were: "professional," "executive" (managers, administrators), "skilled white collar worker," "skilled blue collar worker," "unskilled white collar worker," "unskilled blue collar worker," "permanently unemployed," and "homemaker." The eight occupational groups were assigned values in descending order (8 to 1) and were treated as metric measures in subsequent analysis (Abelson and Tukey, 1970; Kim, 1975; Labovitz, 1970).

"Income" was recorded as the total family income for the year immediately preceding the time of the survey. The variable was operationalized as twenty-five $1,000-increment categories which ranged from "$0.00-$999.00" to "$2,000-$2,999", plus a twenty-sixth category, "$25,000 and above." The categories were weighted 1 through 26, with the lowest category weighted 1 and the highest, 26.

"Length of Residence in County" was measured in terms of number of years the family had lived in the county where they were residing at the time the survey was conducted.

"Presence of Other Household Members Working or Seeking Work" refers to the presence in the household of persons, aside from the primary income earner, who were either actually working or were actively seeking work at
the time of the survey. A 1 was used to indicate that there were no such household members; a 2, that there were such household members.

"Unemployed" was operationalized as whether or not the primary income earner had been unemployed at any time within the three years immediately preceding the time the survey was taken. A 1 was used to indicate that the primary income earner had experienced unemployment within the specified period; a 2, that he/she had not.

Other variables were included in a second analysis to test for significance. They were measured as follows:

"Health Status" was measured by providing the respondent with a continuum ranging from 0 to 10 according to which the health condition of the primary income earner could be gauged. A value of 0 would represent an assessment of very poor health, while a value of 10 would indicate perception of excellent health.

"Commuting Distance to Work" was measured in miles travelled by the primary income earner one way.

"Perception of How Closely Work Skills and Work Roles Matched" was measured by asking the respondent to note whether the primary income earner was overtrained for the job, whether his/her work skills matched job requirements, or whether he/she was undertrained for the job. Weighting values for the responses were 1 through 2, with
"overtrained" responses assigned a value of 1, "work skills match job requirements" assigned a 2, and "undertrained" a 3.

"Special Training Undergone" was assessed by asking the respondent if the primary income earner had had any special training that would constitute preparation for his/her work role. Positive responses were assigned a value of 1 and negative responses a value of 2.

"Satisfaction with Present Work Role" referred to the primary income earner's satisfaction with his/her work role. It was measured on a continuum of 1 to 10, with 0 indicating very strong satisfaction, and 10 representing great dissatisfaction with the job.

"Family Size" was operationalized as the number of family members living in the household at the time the survey was conducted.

Statistical Presentation and Analysis Procedures

Data on subject characteristics are reported using descriptive analysis such as central tendency statistics. Attitude items were analyzed to assess the relative importance of each item. Correlations between the independent variables (age, sex, education, occupation, income, length of residence in county, presence of other household members working or seeking work, and unemployment) and the dependent variable ("RID"—attitude toward rural
industrial development) were calculated to test the hypotheses. Missing data for each variable were assigned the variable mean and used in statistical analyses.

The RID index scores were regressed against the selected independent variables purported to indicate "vested interests" to assess the explanatory power of the independent variables when all of them were considered simultaneously.

Finally, one-way analysis of variance (ANOVA) was employed to determine if there were significant differences in RID scale scores between people who were overtrained or undertrained for their jobs, and people who matched their jobs in terms of training. This variable was nominal in nature, requiring the use of analysis of variance.
CHAPTER V
FINDINGS AND ANALYSIS OF DATA

This chapter is concerned with the presentation, analysis, and interpretation of the data pertinent to the study. The study was designed to assess local attitudes toward rural industrial development. In this regard, the present investigation has been guided by two major objectives, namely:

1. to determine the relative importance of rural industrial problems within the region from the perspective of the resident population, and

2. to determine the predictive importance of certain primary-income-earner characteristics, identified as "vested interest" variables in this study, in terms of attitude toward rural industrial development.

In light of these two objectives, the analyses and interpretation of the data will be discussed.
Objective 1

As stated above, the first objective was to determine the relative importance of rural industrial development problems within the region, from the perspective of the resident population. Specified rural-industrial-development problem-statements embodied in the constructed scale served to direct the assessment of residents' attitudes toward local rural industrial development.

Table 5 presents the descriptive findings for each problem-statement as ranked on the five-point Likert-type scale. Inspection of the data in Table 5 will show that the study respondents tend to be slightly positive toward industrial development of their rural area. However, many of them believe that industrial development of their region will not necessarily make it a better place in which to live, and may even create problems for local residents (statements 4, 5 and 7).

In contrast to this negative outlook, the majority of the item-statements were perceived positively by the respondents. In particular, respondents perceived industrial development as providing many more local jobs while benefiting the region (statements 1, 6 and 8). Of the eight item-statements, five were perceived positively by the respondents. Overall, the reactions to the other three problem-statements showed that the respondents were unfavorable toward the idea of rural industrial development.
Table 5. Frequency Distribution and Percentages* of Survey Respondents to Attitudes toward Rural Industrial Development Statements (N=660)

<table>
<thead>
<tr>
<th>Attitude Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Undecided</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>No. Resp.</th>
<th>Mean X</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Industrial development in my region will benefit me or some member of my household.</td>
<td>110 (17.2)</td>
<td>216 (33.7)</td>
<td>85 (13.3)</td>
<td>110 (17.2)</td>
<td>102 (15.9)</td>
<td>217 (17.2)</td>
<td>17 (3.2)</td>
<td>3.1</td>
</tr>
<tr>
<td>2. The costs of industrial development in my region can be justified.</td>
<td>60 (9.4)</td>
<td>222 (34.7)</td>
<td>146 (22.8)</td>
<td>99 (15.5)</td>
<td>90 (14.1)</td>
<td>23 (3.6)</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>3. Industrial development is not needed in my region.</td>
<td>110 (17.2)</td>
<td>101 (15.8)</td>
<td>83 (13.0)</td>
<td>207 (32.3)</td>
<td>116 (18.1)</td>
<td>23 (3.6)</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>4. The disadvantages brought to my region by industrial development will offset the advantages.</td>
<td>100 (15.6)</td>
<td>143 (22.3)</td>
<td>125 (19.5)</td>
<td>168 (26.2)</td>
<td>71 (11.1)</td>
<td>33 (5.2)</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>5. Industrial development in my region will create many problems for people living here.</td>
<td>108 (16.9)</td>
<td>169 (26.4)</td>
<td>99 (15.5)</td>
<td>192 (30.0)</td>
<td>52 (8.1)</td>
<td>20 (3.1)</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>6. Industrial development in my region will provide many jobs for local people.</td>
<td>124 (19.4)</td>
<td>323 (50.5)</td>
<td>68 (10.6)</td>
<td>72 (11.2)</td>
<td>34 (5.3)</td>
<td>19 (3.0)</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>7. Industrial development will make my region a better place in which to live.</td>
<td>61 (9.5)</td>
<td>171 (26.7)</td>
<td>13 (22.3)</td>
<td>116 (18.1)</td>
<td>128 (20.0)</td>
<td>21 (3.3)</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>8. Industrial development will benefit my region.</td>
<td>88 (13.7)</td>
<td>225 (35.2)</td>
<td>121 (18.9)</td>
<td>88 (13.7)</td>
<td>95 (14.8)</td>
<td>23 (3.6)</td>
<td>1.2</td>
<td></td>
</tr>
</tbody>
</table>

*Percentages are in parentheses. Sums may not be exactly 100.0 due to rounding error.
efforts being implemented within the sampled region.

These findings suggest that the residents of the study region will evaluate proposals to implement rural industrial development strategies very carefully. Given these findings, it is likely that there will be supporters of rural industrial development, but there is a high probability that there will be many who will resist the introduction of industrial development within the study region.

**Objective 2**

The second objective was to determine the predictive importance of primary-income-earner characteristics, identified as "vested interest" variables in this study, in terms of attitude toward rural industrial development. To achieve this objective, an assessment was made of the predictive contribution of certain primary-income-earner characteristics and past experiences to the explanation of the variance in attitudes toward rural industrial development. Specifically, the analysis sought to ascertain which of the selected independent variables were significant predictors of rural industrial development attitudes.
Seven independent "vested interest" predictor variables are included in the analyses. The variables are:

1. Age of Primary Income Earner
2. Presence of Other Household Members Working or Seeking Work
3. Education of Primary Income Earner
4. Total Family Income
5. Sex of Primary Income Earner
6. Primary Income Earner's Length of Residence in County
7. Unemployment of Primary Income Earner in the Last Three Years

Table 6 presents the correlation matrix for the variables included in the analysis. There were seventeen significant coefficients in the correlation matrix, but only three of the independent variables were significantly correlated with the dependent variable (Attitude toward Rural Industrial Development) at the .05 level. They were: "Age of Primary Income Earner" (-.11), "Presence of Other Household Members Working or Seeking Work" (.11), and "Total Family Income" (.08). The correlations were significant at the .05 level, but were very low. These three correlations indicate that there is a negative correlation between age and attitude toward rural industrial development, a positive correlation between presence of other household members working or seeking work and attitude toward rural industrialization, and a positive
Table 6. Pearson Product-Moment Intercorrelation Matrix for Seven Independent Subject Variables and the Dependent Variable (N=640)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Household</th>
<th>Age Memb.</th>
<th>Educ.</th>
<th>Income</th>
<th>Sex</th>
<th>Residence</th>
<th>Unemployment</th>
<th>ATT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.0</td>
<td>- .22**</td>
<td>- .12*</td>
<td>- .07**</td>
<td>.24**</td>
<td>.13**</td>
<td>- .11**</td>
<td></td>
</tr>
<tr>
<td>Household Members</td>
<td>1.0</td>
<td>.10**</td>
<td>.23**</td>
<td>- .06</td>
<td>- .05</td>
<td>- .05</td>
<td>.11**</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>1.0</td>
<td>.28**</td>
<td>.00</td>
<td>- .11**</td>
<td>.15**</td>
<td>- .05</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income</td>
<td>1.0</td>
<td>- .25**</td>
<td>.00</td>
<td>.30**</td>
<td>.03**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>1.0</td>
<td>.06</td>
<td>- .04</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>1.0</td>
<td>.07**</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployment</td>
<td>1.0</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATT.</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

# Age of Primary Income Earner
# Presence of Other Household Members Smoking or Seeking Work
# Education of Primary Income Earner
# Total Family Income
# Sex of Primary Income Earner
# Primary Income Earner's Length of Residence in County
# Unemployment of Primary Income Earner within Last Three Years
correlation between income and attitude toward rural industrialization. The hypotheses associated with these three variables are accepted.

In order to assess the predictive contribution of the seven independent variables when all variables were considered simultaneously, the attitude toward rural industrial development index scores were regressed against the independent variables. Table 7 reports the results of the regression analysis.

Inspection of Table 7 shows that the first independent variable to enter the regression equation was "Age of Primary Income Earner." It accounted for 0.013 of the variance in the dependent variable. The summary statistics for the entering of the age variable into the regression equation are: $F(1,638)=8.18$, which is significant at the .05 level. The addition of the variable "Presence of Other Household Members Working or Seeking Work" to the regression equation produced a significant increase (0.007) in the percentage of variance accounted for in the dependent variable. The summary statistics for the addition of the household members variable are: $F(1,637)=4.84$, which is significant at the .05 level. The addition of "Education of Primary Income Earner" to the regression equation produced a significant increase (0.007) in the dependent variable over the variance explained by the first two variables in concert. The summary
Table 7. Simple and Multiple Correlations of the Seven Independent Variables: Age, Household Members, Education, Income, Sex, Residence, and Unemployment with RID (N=640)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R Square</th>
<th>R Square Change</th>
<th>Simple R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.113</td>
<td>0.013</td>
<td>0.013</td>
<td>-0.11</td>
</tr>
<tr>
<td>Household Members</td>
<td>0.142</td>
<td>0.020</td>
<td>0.007</td>
<td>0.11</td>
</tr>
<tr>
<td>Education</td>
<td>0.163</td>
<td>0.027</td>
<td>0.007</td>
<td>-0.05</td>
</tr>
<tr>
<td>Income</td>
<td>0.179</td>
<td>0.032</td>
<td>0.005</td>
<td>0.03</td>
</tr>
<tr>
<td>Sex</td>
<td>0.185</td>
<td>0.034</td>
<td>0.002</td>
<td>0.03</td>
</tr>
<tr>
<td>Residence</td>
<td>0.187</td>
<td>0.035</td>
<td>0.001</td>
<td>0.02</td>
</tr>
<tr>
<td>Unemployment</td>
<td>0.188</td>
<td>0.035</td>
<td>0.000</td>
<td>-0.01</td>
</tr>
</tbody>
</table>

*Age of Primary Income Earner
Presence of Other Household Members Working or Seeking Work
Education of Primary Income Earner
Total Family Income
Sex of Primary Income Earner
Primary Income Earner's Length of Residence in County
Unemployment of Primary Income Earner within Last Three Years
statistics for the addition of the education variable are:
\[ F(1,636) = 4.31 \], which is significant at the .05 level.
Subsequent additions to the regression equation of the
four remaining independent variables produced no signifi-
cant increase in the percentage of variance accounted
for, over that explained by "Age of Primary Income Earner," "Presence of Other Household Members Working or Seeking Work," and "Education of Primary Income Earner" in con-
cert.

The regression findings indicate that, among the
seven independent variables considered, "Age of Primary
Income Earner" is the best predictor of attitudes toward
rural industrial development; however, the amount of
explained variance indicates that none of the variables
entering the equation are good predictors of RID. The
first three independent variables which entered the reg-
ression analysis explained a mere 2.7 percent of the
variance in the dependent variable. These findings indi-
cate that the three significant variables are relatively
unimportant in understanding attitudes toward rural indus-
trial development.

In addition to the above procedures, regression
analyses were conducted on the RID scores using a total
of thirteen predictor variables. These included the seven
previously considered independent variables, plus six others
derived from the data set. This was done in an attempt to
examine other dimensions of the attitude toward rural industrialization variable.

The analyses were undertaken using two different groups of primary income earners. The first group included all the primary income earners (that is, the entire sample), while the second group consisted of only those currently employed (those who had retired were excluded). These analyses were undertaken to find out whether or not the exclusion of workers who had retired would make any difference in the group's attitude toward rural industrial development. The disaggregation of the data set in this manner produced a sample of 370. A listwise deletion of missing data cases was used to formulate the total sample to test for potential error related to attributing to missing data the mean for the variable. This approach resulted in a total sample size of 514 (retired included).

A total of thirteen independent variables were included in this phase of the analysis. The selected predictor variables were:

1. Age of Primary Income Earner
2. Total Family Income
3. Education of Primary Income Earner
4. Primary Income Earner's Length of Residence in County
5. Presence of Other Household Members Working or Seeking Work
6. Sex of Primary Income Earner
The relationships of the predictor variables with the dependent variable, RID attitude score, were analyzed in the same manner as reported in the preceding section. Table 6 presents the correlation matrix of the thirteen variables. This analysis included retired workers, but excluded any cases with missing data for any of the variables used in the analysis. Two of the independent variables were significantly correlated with the dependent variable at the .05 level. Those two were: "Age of Primary Income Earner" (-.13) and "Total Family Income" (.09).

In order to assess the predictive contribution of the thirteen independent variables on RID scores, stepwise multiple regression analysis was performed on the data. Table 9 reports the results of the stepwise multiple regression analysis. Inspection of this table shows that the first independent variable to enter the regression
Table 8. Pearson Product-Moment Correlation Matrix for 13 Independent Variables and the Dependent Variable for Primary Income Earners Including Retired Workers (N=514)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>RID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>-.07</td>
<td>-.18*</td>
<td>.24*</td>
<td>.21*</td>
<td>-.14*</td>
<td>-.06</td>
<td>-.03</td>
<td>-.27*</td>
<td>-.02</td>
<td>-.08</td>
<td>.06</td>
<td>.14*</td>
<td>-.13*</td>
</tr>
<tr>
<td>Income</td>
<td>.28*</td>
<td>.02</td>
<td>-.23*</td>
<td>-.26*</td>
<td>.05</td>
<td>.05</td>
<td>.26</td>
<td>-.31*</td>
<td>-.15*</td>
<td>.19*</td>
<td>.01</td>
<td>.09*</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>-.18*</td>
<td>-.12*</td>
<td>-.02</td>
<td>.05</td>
<td>-.07</td>
<td>.05</td>
<td>-.44*</td>
<td>-.05</td>
<td>.25*</td>
<td>-.03</td>
<td>-.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence</td>
<td>.04</td>
<td>-.01</td>
<td>.02</td>
<td>-.09*</td>
<td>-.19*</td>
<td>.08</td>
<td>-.09*</td>
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<td>.04</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Household Members</td>
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<td>.04</td>
<td>.02</td>
<td>-.27*</td>
<td>.04</td>
<td>-.06</td>
<td>.00</td>
<td>.12*</td>
<td>-.09*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sex</td>
<td>-.03</td>
<td>-.09*</td>
<td>-.19*</td>
<td>.13</td>
<td>.04</td>
<td>-.06</td>
<td>-.09*</td>
<td>.03</td>
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</tr>
<tr>
<td>Health</td>
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<td>-.07</td>
<td>.14</td>
<td>-.04</td>
<td>-.04</td>
<td>-.03</td>
<td>.04</td>
<td></td>
<td></td>
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<tr>
<td>Distance Commuted</td>
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<td>-.07</td>
<td>.14</td>
<td>-.04</td>
<td>-.04</td>
<td>.03</td>
<td>.04</td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Family Size</td>
<td>-.09*</td>
<td>.01</td>
<td>.09</td>
<td>-.04</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Occupation</td>
<td>-.09*</td>
<td>-.21*</td>
<td>-.03</td>
<td>.02</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>.09</td>
<td>-.15*</td>
<td>-.19*</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Variable Composite</td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.03</td>
</tr>
</tbody>
</table>

Skills

*p < .05

# Age of Primary Income Earner
Total Family Income
Education of Primary Income Earner
Primary Income Earner's Length of Residence in County
Presence of Other Household Members
Working or Seeking Work
Sex of Primary Income Earner
Health Status of Primary Income Earner
Distance Commuted by Primary Income Earner to Work
Family Size
Occupation of Primary Income Earner
Job Satisfaction of Primary Income Earner
Training Programs Undergone by Primary Income Earner
Matching of Job Skills and Job Requirements of Primary Income Earner
Table 9. Simple and Multiple Correlations of the 13 Independent Variables: Age, Income, Education, Residence, Household Members, Occupation, Satisfaction, Variable Composite, and Skills with the Dependent Variable PID for Primary Income Earners including Retired Workers (*=5").

<table>
<thead>
<tr>
<th>Variable</th>
<th>Multiple R</th>
<th>R Square</th>
<th>R Square Change</th>
<th>Simple R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>0.135</td>
<td>0.018</td>
<td>0.013</td>
<td>-.13</td>
</tr>
<tr>
<td>Income</td>
<td>0.152</td>
<td>0.023</td>
<td>0.005</td>
<td>.09</td>
</tr>
<tr>
<td>Education</td>
<td>0.165</td>
<td>0.028</td>
<td>0.005</td>
<td>-.02</td>
</tr>
<tr>
<td>Residence</td>
<td>0.176</td>
<td>0.031</td>
<td>0.003</td>
<td>.03</td>
</tr>
<tr>
<td>Household Members</td>
<td>0.132</td>
<td>0.033</td>
<td>0.002</td>
<td>-.09</td>
</tr>
<tr>
<td>Sex</td>
<td>0.187</td>
<td>0.036</td>
<td>0.004</td>
<td>.03</td>
</tr>
<tr>
<td>Health</td>
<td>0.191</td>
<td>0.037</td>
<td>0.004</td>
<td>-0.02</td>
</tr>
<tr>
<td>Distance Commuted</td>
<td>0.192</td>
<td>0.038</td>
<td>0.001</td>
<td>-0.02</td>
</tr>
<tr>
<td>Family Size</td>
<td>0.185</td>
<td>0.038</td>
<td>0.001</td>
<td>.03</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.196</td>
<td>0.038</td>
<td>0.000</td>
<td>.02</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.196</td>
<td>0.038</td>
<td>0.000</td>
<td>.01</td>
</tr>
<tr>
<td>Variable Composite</td>
<td>0.196</td>
<td>0.038</td>
<td>0.000</td>
<td>-.01</td>
</tr>
<tr>
<td>Skills**</td>
<td></td>
<td></td>
<td>-0.03</td>
<td></td>
</tr>
</tbody>
</table>

*See Code * of Table 8 for complete meaning of each independent variable.

**The tolerance level for "Skills" variable was insufficient for further computation.
equation was "Age of Primary Income Earner." It explained .018 of the variance in the dependent variable. The addition of the independent variable "Total Family Income" to the regression equation did not significantly increase (only .005) the percentage of variance accounted for by the "Age" variable alone. The addition of each of the other eleven independent variables, each acting in concert with the variables added to the regression equation, did not account for a significant portion of the unexplained variance in the dependent variable (RID).

The regression findings indicate that, among the above thirteen independent variables assessed, "Age of Primary Income Earner" is the best predictor of attitudes toward rural industrialization. Age accounted for 1.8 percent of the variance in the dependent variable. Such explanatory power is of little consequence. The addition of the other twelve independent variables to the age variable contributed only an additional 2.0 percent of explained variance. These findings suggest that additional variables did not significantly contribute to the explanation of the variance in the dependent variable. Use of the mean values for missing data did not adversely affect the study findings.

Table 10 presents the correlation matrix of the thirteen variables focused on people presently employed (retired people were excluded from the analysis). None of
Table 10. Pearson Product-Moment Correlation Matrix for 13 Independent Variables and the Dependent Variable for Primary Income Earners Excluding Retired Workers (N=370)

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>RID</th>
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<tbody>
<tr>
<td>Income</td>
<td>.20*</td>
<td>0.08</td>
<td>.17*</td>
<td>.26*</td>
<td>.05</td>
<td>.24*</td>
<td>-.17*</td>
<td>-.35*</td>
<td>-.20*</td>
<td>.02</td>
<td>-.33*</td>
<td>.07</td>
<td>.08</td>
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<tr>
<td>Age</td>
<td>-.07</td>
<td>-.07</td>
<td>-.06</td>
<td>-.14*</td>
<td>-.01</td>
<td>-.14*</td>
<td>-.04</td>
<td>-.03</td>
<td>-.05</td>
<td>.33*</td>
<td>-.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skills</td>
<td>-.06</td>
<td>.01</td>
<td>.06</td>
<td>.02</td>
<td>.08</td>
<td>-.10*</td>
<td>-.25*</td>
<td>-.05</td>
<td>-.06</td>
<td>.01</td>
<td>-.05</td>
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<tr>
<td>Variable Composite</td>
<td>.12*</td>
<td>-.03</td>
<td>.25*</td>
<td>.02</td>
<td>-.07</td>
<td>-.17*</td>
<td>-.02</td>
<td>-.20*</td>
<td>-.08</td>
<td>-.03</td>
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<td></td>
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<tr>
<td>Family Size</td>
<td>-.06</td>
<td>.06</td>
<td>-.18*</td>
<td>-.21*</td>
<td>.01</td>
<td>-.10*</td>
<td>-.09*</td>
<td>-.18*</td>
<td>-.01</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Distance Comuted</td>
<td>-.06</td>
<td>.04</td>
<td>-.12*</td>
<td>-.02</td>
<td>.00</td>
<td>.05</td>
<td>-.14*</td>
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<tr>
<td>Education</td>
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<td>-.07</td>
<td>.07</td>
<td>-.43*</td>
<td>-.16*</td>
<td>.00</td>
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<tr>
<td>Household Members</td>
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<td>-.06</td>
<td>.10*</td>
<td>.05</td>
<td>.01</td>
<td>-.04</td>
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<tr>
<td>Sex</td>
<td>.03</td>
<td>-.03</td>
<td>.16*</td>
<td>-.05</td>
<td>.00</td>
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<td></td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>-.02</td>
<td>.10*</td>
<td>-.07</td>
<td>.03</td>
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</tr>
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<td>Health</td>
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</tr>
<tr>
<td>Occupation</td>
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<td></td>
</tr>
<tr>
<td>Residence</td>
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<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>

*p < .05

# Total Family Income
- Age of Primary Income Earner
- Matching of Job Skills and Job Requirements of Primary Income Earner
- Training Programs Undergone by Primary Income Earner
- Family Size
- Distance Comuted by Primary Income Earner to Work

Education of Primary Income Earner
- Presence of Other Household Members Working or Seeking Work
- Sex of Primary Income Earner
- Job Satisfaction of Primary Income Earner
- Health Status of Primary Income Earner
- Occupation of Primary Income Earner
- Primary Income Earner's Length of Residence in County
the variables correlated significantly with the dependent variable which is due to the much smaller number of cases, resulting from disaggregation of the data set. Thus, step-wise regression analysis was not conducted these particular data.

Inclusion of the retired people in the total sample did not adversely affect the findings.

In the course of the analysis of the data, the possibility was considered that some relationship may be found between attitude toward rural industrial development and worker perception of their training in relation to the actual job requirements.

From the sample, two groups were arbitrarily created: 1) those primary income earners who perceived their training and skills matching the requirements of their jobs; 2) those primary income earners who perceived their training and skills not matching the requirements of their jobs (that is, perceptions of being either over-trained or undertrained for the job).

One-way analysis of variance was used to determine if there were significant differences in RID scores between these two groups of workers. Table 11 gives the mean values and related data for these two groups. Table 12 gives the Analysis of Variance Summary and the results of the ANOVA procedure. It shows that there were no significant differences between the mean values of the two
Table 11. Mean Values and Standard Deviations for RID Scores for Two Groups of Primary Income Earners by Requirements of the Job (N = 539)

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overtrained/Undertrained</td>
<td>95</td>
<td>26.09</td>
<td>3.93</td>
</tr>
<tr>
<td>Hatched</td>
<td>414</td>
<td>25.34</td>
<td>3.01</td>
</tr>
<tr>
<td>Totals</td>
<td>539</td>
<td>25.47</td>
<td>3.18</td>
</tr>
</tbody>
</table>
Table 12. Analysis of Variance of RLQ Scores by Primary Income Earner Requirements of the Job (n=539)

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>4.275</td>
<td>4.275</td>
<td>0.660*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>537</td>
<td>3597.023</td>
<td>67.034</td>
<td></td>
</tr>
</tbody>
</table>

*not significant
groups. The findings indicate that "matched" and "over-trained/undertrained" workers tend to have similar attitudes toward rural industrial development.
The primary purpose of this research was to assess and analyze the attitudes of local people toward rural industrial development in a nonmetropolitan, four-county area located in northeast-central California. The study was intended to contribute to the existing body of knowledge concerning attitudes toward rural industrialization. The study of the relation of "vested interest" factors with rural industrialization attitudes was done in order to add to the available information that decision-makers require in their determination and implementation of future area development action programs.

The present research undertaking had two main objectives. The first objective was to determine the relative importance of rural industrial development problems within the study region from the perspective of the resident population. The second objective was to determine the predictive importance of certain primary-income-earner characteristics, identified as "vested interest" variables in this study, in terms of attitude toward rural industrial development. A comprehensive review of the
study objectives was presented in Chapter V.

The dependent variable for this research study is attitudes toward rural industrialization. Residents of rural communities experiencing increased manufacturing activity may have positive, negative, or neutral attitudes toward industrialization, depending upon how they are affected by the industrial activity and the resulting community changes, or depending upon how they perceive anticipated industrial activity and resulting community changes will affect them. The measurement instrument used to examine attitudes was a Likert-type scale which was a modified version of a previously used measurement device. The design for this scale had been based on social exchange theory, with emphasis on the relation between perceived costs and perceived benefits and a person's attitude toward the factor associated with costs and benefits.

Social exchange theory basically argues that people are benefit-seeking and punishment-avoiding creatures, and base their attitudes and behavior on their assessments of likelihood of receiving maximum benefits for the least cost.

The scale was composed of eight item-statements. These item statements were part of a scale that had originally been generated to measure attitudes toward a reservoir-park development in an earlier study. That scale had been theoretically based on cost-benefit assessment
applicable to attitudes toward a development option. It was tested, revised and used in an Ohio study. After that study, it was further revised. Reliability measures formulated from the above researches have shown the scales to be highly reliable. The resultant revised version of the scale was used in this California study.

The primary use of the scale was for describing the sample population in terms of positiveness or negativeness of their attitudes toward rural industrial development. The concepts included in the scale statements involved general perceptions of the need for industrialization, benefits derivable from industrialization, and problems triggered by or accompanying industrialization.

The independent variables for the study were: sex of the primary income earner, age of the primary income earner, education of the primary income earner, occupation of the primary income earner, total family income, primary income earner's length of residence in the county, presence of other household members either working or seeking work, and unemployment of the primary income earner at any time within the three years immediately preceding the time the survey was taken. These factors were designated "vested interest" variables. They had been selected in light of their being considered indicative of relevant socio-economic characteristics as well as of past activities of the rural residents as discussed in Chapter III.
The statistical techniques used in the analysis of the study data were: correlation, multiple regression, and analysis of variance. Correlations between the independent variables and the dependent variable were calculated to test the hypotheses. The attitude scale index scores were regressed against the independent variables purported to indicate "vested interests" in an effort to assess the explanatory power of those independent variables.

The study found that the residents tended, overall, to be slightly positive toward industrial development in their area. However, many of them believe that industrialization will not necessarily make their region a better place in which to live, even possible creating problems for the residents. The respondents reacted positively to five of the item-statements on the scale. In particular, they perceived industrial development as providing many more local jobs while benefiting the region. Reactions to the other three item-statements indicated an unfavorableness of attitude toward the idea of rural industrial development efforts being implemented in the region.

Given these findings, it is likely that there will be supporters of rural industrial development; but there is a high probability that there will be many who will resist the introduction of industrial development within the study region.
Of the seven independent "vested interest" variables studied, only three were significantly correlated with the attitude-toward-rural-industrial-development dependent variable. The correlation coefficients among the variables in the analysis provide partial support for the theoretical model as it was presented. Age of primary income earner, presence of other household members who are working or are seeking work, and education of primary income earner, were correlated with attitude toward rural industrial development. The correlations were significant at the .05 level. However, the correlations were very low. The three correlations indicate that:

1. As age increases, attitudes toward rural industrial development have a greater tendency to be unfavorable.

2. The greater the number of other household members who are either working or seeking work, the greater the tendency for attitudes toward rural industrial development to be favorable.

3. The higher the family income, the greater the tendency for attitudes toward rural industrial development to be favorable.

An assessment was made of the predictive contribution of the factors designated as "vested interest" variables to the explanation of the variance in attitudes toward rural industrialization. Analysis was done to
ascertain which of those variables could be considered significant predictors of rural industrial development.

The first three independent variables (age, presence of other household members working or seeking work, and education) appeared to be significant; however, they explained only 2.7 percent of the variance in the dependent variable, leaving 97.3 percent of the variance still unexplained. The regression findings indicate that, in light of the amount of the explained variance in the dependent variable, none of the independent "vested interest" variables could be considered good predictors of attitudes toward rural industrial development. The model collapses relative to the "vested interest" variables' power to predict residents' attitudes toward rural industrial development.

It is, therefore, concluded that the "vested interest" variables studied are inadequate as predictors of attitudes toward rural industrial development since they explain very little of the variance.

Given the subject characteristics of the sampled resident population, future industrial development goals will need to include these characteristics among the factors to consider in the determination of types and kinds of commerce and industry to be developed within the region. Planning should take into consideration the residents who, on the average, are middle-aged and have
been moderately long-term residents of the community. It should also be noted that there is a great number of older retired people who perhaps could be used in some types of rural development efforts. The study revealed considerable unemployment among the people studied. The fact that 22.3 percent of the study region's primary income earners had been unemployed at some point in the three years preceding the survey, suggests that a substantial work force is available provided that the relevant subject characteristics can be positively utilized in the formulation of rural industrial development goals for the region.

Much has yet to be done if people's attitudes toward rural industrialization are to be better understood. But, as has been shown by this study, the answers to countless questions may not be found in the study of social characteristics/past experiences/"vested interests." Rather, knowledge in this area may be furthered by investigations in the direction of structural considerations. It is hoped that subsequent related research efforts will explore this direction of study.
APPENDIX

QUESTIONNAIRE USED IN THE STUDY
1. **Instructions**

Please read the list below. Which do you think are the three (3) most important development problems in your region? Place a one (1) by the most important problem. Place a two (2) by the second most important problem, and place a three (3) by the third most important problem. (Mark only three.)

1. New housing
2. Solid waste (garbage) pick up
3. Jobs/industrial expansion
4. Planning and zoning
5. Drug abuse
6. Sewage improvements
7. Over population
8. Education
9. Water supply
10. Highway improvements
11. Recreational facilities
12. Crime, vandalism, trespassing
13. Fire protection
14. Financing of public service
15. Health services
16. Other (Please note the problem)

---

**Instructions**

Listed below are several statements about industrial development in your region. Industrial development means the building of new or the expansion of existing manufacturing firms within the region. How do you feel about the following statements? There are no right or wrong answers.

If you completely agree with the statement, circle **strongly agree** (SA). If you basically agree with the statement, circle **agree** (A). If you have
no feelings about the statement or are uncertain circle undecided (U). If you basically disagree with the statement, circle disagree (D). If you completely disagree, circle strongly disagree (SD).

(Scale Meaning)

Example: Snow White is beautiful.

<table>
<thead>
<tr>
<th>SA</th>
<th>A</th>
<th>U</th>
<th>D</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>Agree</td>
<td>Undecided</td>
<td>Disagree</td>
<td>Strongly Disagree</td>
</tr>
</tbody>
</table>

2. Industrial development in my region will benefit me or some member of my household. SA A U D SD

3. The costs of industrial development in my region can be justified. SA A U D SD

4. Industrial development is not needed in my region. SA A U D SD

5. The disadvantages brought to my region by industrial development will offset the advantages. SA A U D SD

6. Industrial development in my region will create many problems for people living here. SA A U D SD

7. Industrial development of my region will provide many jobs for
Local people.  

8. Industrial development will make my region a better place in which to live.  

9. Industrial development will benefit my region.  

Listed below are several statements about outdoor recreation development. Outdoor recreation development means the building of new or expansion of existing outdoor recreation facilities within the region. How do you feel about the following statements? There are no right or wrong answers.  

10. Outdoor recreation development will benefit me or some member of my household.  

11. The costs of outdoor recreation development in my region can be justified.  

12. Outdoor recreation development is not needed in my region.  

13. The disadvantages brought to my region by outdoor recreation development will offset the advantages.  

14. Outdoor recreation development in my region will create many jobs for local people.  

15. Outdoor recreation development in my region will create many problems for people living here.
16. Outdoor recreation development will make my region a better place in which to live. SA A U D SD

17. Outdoor recreation development will benefit my region. SA A U D SD

The following statements are about technology. How do you feel about the introduction of more complex technologies in industries and our lives in general? Technology means machinery such as computers, new assembly line equipment, new farm machinery, and other mechanical means of production. There are no right or wrong answers so feel free to express your own opinion.

18. Technology usually improves efficiency. SA A U D SD

19. Progress within the U.S. usually cannot be achieved without more complex technology. SA A U D SD

20. Most people within the U.S. benefit from technological advancements. SA A U D SD

21. Technology usually makes our lives more comfortable. SA A U D SD

22. Technology is the best way of solving most development problems within the U.S. SA A U D SD

23. The social costs of technology are often greater than the benefits received. SA A U D SD
Technology is basically good.

Technology most often creates more problems than it solves.

Most of our energy problems will be solved by technology.

People should not block the development of technology within the U.S.

To accomplish economic development objectives frequently requires trained and available people. The next series of questions is designed to evaluate employment status and skill levels within the region. Please answer each question as completely as possible. All answers will be held in strictest confidence. There is no way that your response may be identified.

Please give us some information about the primary income earner within your household.

Is the primary income earner retired? Yes No

If no, skip to Question 31.

How long has the primary income earner been retired? years.

If the primary income earner is retired, would he/she like to have a job if one was available? Yes No don't know

Age of primary income earner? age in years at last birthday.

Sex of primary income earner? male female.

Years of school completed by primary income earner? years.
34. a. What is the occupation of the primary income earner (if unemployed or retired, what was his/her last occupation)? Please be specific.

34. b. Please tell us a little about the primary income earner's occupation.

35. On the continuum below, please circle the number that best represents the present health status of the primary income earner in the household.

```
Excellent  Average  Very Poor
Health    Health    Health
0  9  8  7  6  5  4  3  2  1  0
```

36. What percentage of total family income is earned by the primary income earner? _____ percent.

37. How far each day does the primary income earner commute to his/her job? (If presently unemployed or retired, how far did he/she have to commute to his/her last job?) _____ miles one way.

38. Is the primary income earner willing to commute farther to work each day? _____ yes _____ no _____ don't know

39. If yes, how far would he/she be willing to commute each day to work? _____ miles one way.

40. If the primary income earner is not commuting, would he/she be willing to commute to get another job? _____ yes _____ no _____ don't know

41. If yes, how far would he/she be willing to commute? _____ miles one way.

42. In terms of the primary income earner's present job (if presently unemployed or retired, answer the question in terms of last job) which of the following best describes his/her job skills and
job requirements?

<table>
<thead>
<tr>
<th>Over trained</th>
<th>Work skills match</th>
<th>Undertrained</th>
</tr>
</thead>
<tbody>
<tr>
<td>for job</td>
<td>for job</td>
<td>requirements</td>
</tr>
</tbody>
</table>

43. Is the primary income earner a member of a labor organization? _____yes _____no.

44. If yes, what is the name of the labor organization? ____________________________

45. Has the primary income earner taken special training to prepare for his/her job? _____yes _____no

46. If yes, which of the following training programs has the primary income earner taken? (Check all that are appropriate.)

- 1. Vocational training program (high school)
- 2. Federal training program
- 3. Company sponsored training program
- 4. Technical college program (2 year program)
- 5. Technical college program (4 year program)
- 6. Four year college program (B.A. or B.S.)
- 7. Graduate study (advanced degree)
- 8. Apprentice to another worker
- 9. Learned by doing (without guidance)
- 10. Adult education program
- 11. Other (Please tell us something about the training experience)

47. How useful was the job training noted in Question 46 to the primary income earner in terms of the work he/she is now doing or the last job held? (Circle the number that best represents the usefulness of the training.)

<table>
<thead>
<tr>
<th>Very Useful</th>
<th>Somewhat Useful</th>
<th>Not Useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

48. Were these training programs necessary to get the job which the primary income earner now holds or the last job he/she had? _____yes _____no
49. In what way(s) did the job training help the primary income earner? (Check all appropriate responses.)
   __ 1. Helped get job
   __ 2. Helped get promotion
   __ 3. Helped get salary increase
   __ 4. Helped get a better job
   __ 5. Increased ability to do job
   __ 6. Other (Please tell us how the training helped the primary income earner.)

50. Which of the following best describes the type of company in which the primary income earner now works or, if unemployed or retired, where he/she last worked? (Check only one.)
   __ 1. Heavy industry (manufacturing)
   __ 2. Light industry (fabricating, finishing)
   __ 3. Construction (housing, highway)
   __ 4. Education (teaching)
   __ 5. Public service (govt. employee, police or fire officer)
   __ 6. Timber (cutting, processing)
   __ 7. Agriculture (fruit, vegetable, animal production)
   __ 8. Service (appliance repair, dry cleaner, TV repair shop)
   __ 9. Small business operator (clothing store owner and operator, restaurant owner and operator, hardware store owner and operator)
   __ 10. Professional practice (M.D., lawyer, dentist)
   __ 11. Mining (gold, limestone)
   __ 12. Sales (wholesale and retail trade)
   __ 13. Recreation (tourism related job, recreation resort personnel)
   __ 14. Transportation (aviation, commercial trucking, railroad employee)
   __ 15. Communication (newspaper, radio, TV)

51. Does the primary income earner work more than one job? _____yes _____no
52. If yes, about how many hours a week does he/she work at the second job? _____hours per week

53. From time to time everyone experiences temporary unemployment. Has the primary income earner been unemployed at any time during the last three years? _____yes _____no

If no, skip to Question 59.

54. If yes, how many weeks during the last three (3) years was he/she unemployed? _____weeks

55. For what reason was the primary income earner unemployed? (Check the best reason.)

1. Laid off
2. Company mechanized job
3. Quit for personal reasons
4. Health problems
5. Personal problems with employer
6. No opportunity to advance
7. Seasonal work
8. Low pay
9. Company terminated employment
10. Other (Please tell us a little about the reason why the primary income earner was unemployed)

56. Did the primary income earner seek employment while he/she was unemployed? _____yes _____no

57. During the unemployment period, did the primary income earner seek employment information from the Employment Development Department? _____yes _____no

58. If yes, circle the number that best represents the usefulness of the Employment Development Department in helping the primary income earner find suitable work.

<table>
<thead>
<tr>
<th>Very Useful</th>
<th>Somewhat Useful</th>
<th>Not Useful At All</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 9 8 7 6 5 4 3 2 1 0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
59. How did the primary income earner learn about his/her present or last job? (Check best answer.)
   1. Friend
   2. Relative
   3. Employment agency
   4. Newspaper
   5. Employment Development Department
   6. Co-worker
   7. Neighbor
   8. Company recruiter
   9. Other (Please tell us the source used.)

60. Approximately how many weeks a year does the primary income earner work? _____ weeks per year

61. Approximately how many hours a week does the primary income earner work when he/she is employed? _____ hours per week

62. Circle the number that best represents how the primary income earner feels about his/her present job (if unemployed or retired, answer the question in terms of the last job held).

   Hates the job  Somewhat likes  Likes the job
   very much          the job     very much
   10  9  8  7  6  5  4  3  2  1  0

We are interested in knowing some things about other family members and their work skills and job experience. Please answer each question as fully as possible.

63. Are there members of your household other than the primary income earner who are working or actively seeking work? _____ yes _____ no

64. How many people in your household over 18 years of age, other than the primary income earner, are employed? _____ number

65. How many people in your household over 18 years of age, other than the primary income earner, are presently unemployed but would like to have a job? _____ number
66. Describe these people by completing the information below:

<table>
<thead>
<tr>
<th>Relationship to primary income earner</th>
<th>Age</th>
<th>Sex</th>
<th>Education level</th>
<th>Presently employed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>Male</td>
<td>Years</td>
<td>Yes</td>
</tr>
<tr>
<td>2.</td>
<td></td>
<td>Male</td>
<td>Years</td>
<td>Yes</td>
</tr>
<tr>
<td>3.</td>
<td></td>
<td>Male</td>
<td>Years</td>
<td>Yes</td>
</tr>
</tbody>
</table>

The following questions are about the work experiences and job skills of the spouse of the primary income earner.

67. Has the spouse of the primary income earner been unemployed in the last three years and actively seeking work outside the home?  yes  no

68. If yes, how many weeks has the spouse of the primary income earner been unemployed in the last three years (must have been seeking work to be called unemployed)?  weeks

69. Has the spouse of the primary income earner received any special training to prepare for a job?  yes  no

70. If yes, what type of training has the spouse of the primary income earner received? (Check all that are appropriate.)
   1. Vocational training program
   2. Federal training program
   3. Company sponsored program
   4. Technical college program (2 year program)
   5. Technical college program (4 year program)
   6. Four year college program (B.A. or B.S.)
   7. Graduate study (advanced degree)
   8. Apprentice to another worker
   9. Learned by doing (without guidance)
   10. Adult education program
   11. Other (Please tell us something about the experience.)
71. Would the spouse of the primary income earner like to work outside the home if a job was available? ____yes ____no ____don't know ____already works outside the home

The next series of questions is about your family in general.

72. How long has your family lived in your present county of residence? ____years

73. How many family members are presently living in your household? ____members

74. Which of the following statements best represents how your family would feel about moving to another area (at least 100 miles away) for employment reasons?
   ____1. My family would be very happy to move
   ____2. My family would be happy to move
   ____3. My family would be neither happy nor sad about moving
   ____4. My family would be sad about moving
   ____5. My family would be very sad about moving

75. When your children reach the age of 18, do you believe they will be able to find work in the local area? ____yes ____no ____don't know ____not applicable

76. If jobs are available in the local area when your children reach 18 years of age, do you believe your children will want to stay in the local area? (Check the best response.)
   ____Definitely yes
   ____Probably yes
   ____Maybe
   ____Probably not
   ____Definitely not
   ____Don't know
   ____Not applicable

77. Is your household engaged in any type of farming? ____yes ____no

If no, skip to Question 82.
78. If yes, how many acres are you presently farming?  
____ acres

79. How many hours a week (on the average) does it take to adequately do the farm work?  
____ hours per week

80. Is farming your family's primary occupation?  
____ yes  ____ no

81. If no: Assuming your family could earn an adequate income from farming, would you farm full time?  
____ yes  ____ no  ____ don't know

82. Which of the following income categories best represents your total family income (before taxes) last year (January 1, 1977 to January 1, 1978)? Please check only one category.

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ 0 - 999</td>
<td>$13,000 - 13,999</td>
</tr>
<tr>
<td>$1,000 - 1,999</td>
<td>$14,000 - 14,999</td>
</tr>
<tr>
<td>$2,000 - 2,999</td>
<td>$15,000 - 15,999</td>
</tr>
<tr>
<td>$3,000 - 3,999</td>
<td>$16,000 - 16,999</td>
</tr>
<tr>
<td>$4,000 - 4,999</td>
<td>$17,000 - 17,999</td>
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<td>$5,000 - 5,999</td>
<td>$18,000 - 18,999</td>
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<td>$6,000 - 6,999</td>
<td>$19,000 - 19,999</td>
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</tr>
<tr>
<td>$12,000 - 12,999</td>
<td>$25,000 - 29,999</td>
</tr>
<tr>
<td>$30,000 and above</td>
<td></td>
</tr>
</tbody>
</table>

Thank you for participating in this study.

To be completed by the interviewer.

83. County in which interview was taken?  
   El Dorado  ____ Placer  ____ Nevada  ____ Sierra  
   (MUST BE COMPLETED)

84. Sex of respondent?  ____ Male  ____ Female  
   (MUST BE COMPLETED)

85. Interviewer's name   ____________________________
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Brinkman, George  

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Heady, Earl

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Napier, Ted L. and Dianne Stromme East

Napier, Ted L., John H. Pierce and Douglas C. Bachtel

Napier, Ted L. and Cathy J. Wright

Napier, Ted L. and Cathy J. Wright

Nettle, J.F. and Roland Robertson

Newcomb, T.

Perry, Charles S.
Rogers, David L., Willis Goudy and Robert G. Richards

Rogers, David L., Brian F. Pendleton, Willis Goudy and Robert G. Richards

Rogers, Everett R. and Rebel J. Purdye

Rogers, Everett R. and Floyd E. Shoemaker

Rokeach, Milton

Rokeach, Milton and Peter Kliejunas

Rosenberg, Morris

Rosenblatt, Samuel H.

Scott, John T., Jr.

Scott, John T. and Gene F. Summers
Shaffer, Ron and Luther Tweeten  

Shively, Robert W.  

Smith, Courtland L., Thomas C. Hogg and Michael J. Reagan  

Smith, Eldon D., Brady Deaton and David Kelch  

Smith, Jackie and Luther Tweeten  

Smith, Stephen T., and Glen C. Pulver  

Stanfield, Gary G. and William D. Heffernan  

Summers, Gene F. and Frank Clemente  

Summers, Gene F., Shana D. Evans, Frank Clemente, E.H. Beck and Jon Minkoff  

Turner, Jonathan H.  


