

**THE POVERTY OF PLACE: A COMPARATIVE STUDY OF FIVE
RURAL COUNTIES IN THE MISSOURI OZARKS**

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by
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FIVE RURAL COUNTIES IN THE MISSOURI OZARKS

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ABSTRACT

Research on nonmetro poverty indicates that it tends to be both geographically discrete and persistent over time. Low income counties have been shown to have a negative effect on the income of bordering counties, increasing their poverty rates. These characteristics of rural poverty are evidenced throughout the U.S.A. by the existence of clusters of persistent low income counties. Although the existence of regions of poor rural counties have been noted since 1974, little county-level research has been done to further the understanding of the dynamics driving this phenomenon or to discover what types of public policies are likely to be successful at breaking up these areas of persistent poverty.

The existence of a five county group in the south central Missouri Ozarks which contains four persistent low income counties clustered around a fifth county which has never been designated persistently poor creates an anomaly which invites study. This dissertation examines this cluster of counties in an attempt to discover why, contrary to what is expected, the county at the center of this group has been notably more prosperous over time than her persistently poor neighbors.

When Lyson's concept of economic distance is applied to the five county region a relationship between the degree of county remoteness/isolation and low income appears to emerge. The counties with the highest remoteness value are found to have the lowest per capita income. Furthermore, the relationship between degree of remoteness/isolation and per capita income is found to be persistent over time, and indicates that the relationship between remoteness and income is ongoing. Research shows that the advantaged county developed transportation routes out of the region early in its history, reducing its isolation. The four persistent low income counties remain relatively isolated to date. Research conducted in this dissertation indicates that the relative isolation of the four counties is an important contributory factor to their persistent low income over time.

The findings underscore the importance of the reduction of isolation to economic development. Further, they indicate that state investment in efficient transportation and technology routes in and out of persistent low income counties may be an important step towards breaking up clusters of persistent nonmetro poverty.

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CHAPTER 1. INTRODUCTION, DEFINITIONS, HYPOTHESIS AND RESEARCH DESIGN

Introduction

The past thirty-five years have been dynamic in the field of poverty research and policymaking. Researchers such as Harrington (1962), Auletta (1962), Murray (1984), Mead (1986), and Wilson (1988) have seen their research findings translated into public policies such as the War on Poverty (1965), the Family Support Act (1987), and the Personal Responsibility and Work Opportunity Reconciliation Act (1996), as well as a host of state-level initiatives throughout the nation.

Starting with Harrington's (1962) call to action, policy and research have fleshed out the understanding of what constitutes poverty, who are the poor and what types of policy initiatives are most successful at lowering the numbers of Americans living below the poverty line. Researchers such as Duncan (1992); Ellwood (1988); and O'Hare (1988, 1992, 1996) have examined the unique aspects of rural poverty and to posit what kinds of policy initiatives will best reduce nonmetro poverty.

This examination is long overdue. Poverty policy has historically been designed for an urban cohort. The results, according to Watkins and Watkins (1984) and Browne (1993) has been to marginalize the rural poor. The tangible outcome is that rural poverty rates remain higher than the rest of the country, approaching those of inner cities and focused in geographically discrete regions of persistent, long-term poverty (O'Hare 1992). The identification by the Census Bureau of clusters of Persistently Low Income counties

since 1950 invites, according to Weinberg (1987, 407), "Intensive investigation of individual county clusters to discover the structural reasons for pockets of rural poverty."

These pockets of rural poverty are places in which the likelihood of being poor is increased by mere fact of residence (Weinberg 1987, 406). Rural poverty researchers have, in recent years, reiterated the importance of place in the poverty characteristics of any region. As Ilvento and Garkovich (1989, 3) note, "While individual characteristics may be the basis for the distribution of poverty among the members of a community, **the nature of the local economy** is the basis for the **extent of poverty** in that community."

Within the Missouri Ozarks is a cluster of counties which have been designated Persistently Low Income counties since 1950 (Bellamy & Ghelfi 1988; Davis 1979; Ghelfi et al. 1993; Hoppe 1985). Four of these PLI counties (Ozark, Douglas, Shannon and Oregon) border another county (Howell) which, in contrast to her neighbors, has remained relatively prosperous over time. This dissertation will compare the socio-economic traits of these PLI counties and the relatively advantaged county and discover the dynamics behind the dichotomy of well-being in this region. The resultant findings may assist policymakers in identifying effective strategies to break up the many clusters of persistent poverty found throughout rural America.

In this chapter, the basic concepts central to this dissertation will be defined. A research design is also included which explains the key research questions to be answered as well as the methodology to be used.

Definition of Terms

Robert Haveman defines poverty as, "That composition of the population with less than acceptable well-being" (Haveman 1987, 57). Rural poverty researcher Cynthia M. Duncan states that being in poverty means "Individuals who do not command sufficient economic resources to meet basic needs of food, shelter and health care" (Duncan 1992, 35). Rural sociologists Julia and Dennis Watkins state, " However defined, poverty in either an absolute or relative sense implies the inadequate consumption of both goods and services believed necessary to maintain a socially defined adequate living standard" (Watkins & Watkins 1987, 59).

This dissertation will adopt the measure of poverty most often used by poverty researchers, the Orshansky Index. Developed in the mid-1960s, it is based on the assumption that food constitutes approximately one-third of a family's budget. The Orshansky Index is, therefore, three times the cost of an economy food plan as defined by the United States Department of Agriculture (USDA). Thresholds vary by age and size of a family and are updated to reflect cost of living changes as measured by the Consumer Price Index. In 1994, for instance, the Poverty Threshold for a family of two adults and two children was \$15,029 and \$7,108 for a single Individual over the age of 65 (O'Hare 1996, 5).

Although the Orshansky index is widely used by policy researchers and policymakers alike to determine who is poor, its very simplicity makes it unsuited to be used as the single measure of poverty. As Duneier (1992) noted in his study of inner-city men, it does not treat a host of life quality issues, including personal values and measures

of personal satisfaction. It is also not sufficient to an understanding of well-being in a rural setting. Therefore, recent works by Ellwood (1988), Halperin (1993), O'Hare (1992) and others on the attitudes of the rural poor and their use of multiple livelihood strategies will also be applied to the populations studied in this paper.

The term rural refers to U.S. counties and their populations which are defined by the U.S. Census Bureau as non-metropolitan. Non-metro counties have no cities of 50,000 population or more. They can be further sub-divided into four groups: Non-metro counties which are adjacent to large metro areas (over 1,000,000 population); Non-metro counties which are adjacent to small metro areas (under 1,000,000 population); Non-metro counties which are adjacent and which contain a city of 10,000-49,999; Non-metro counties which are nonadjacent without city of 10,000 or more (Ghelfi et al. 1993, 6).

For the purposes of this study, rural will mean non-metro counties that are nonadjacent to major metropolitan areas, either with or without a city of 10,000-49,999. This is the generally accepted definition of the term rural in the field of rural poverty research and is the definition used by the key literature cited in this paper.

Sub-populations within the Poverty Cohort

Following the work of Harrington and the War on Poverty policy initiatives of the Great Society (1965), poverty researchers began to examine their understanding of the poverty population. As research developed, the understanding of who the poor are broadened from the concept of a homogeneous group whose needs could be met by mass policy to the realization that the poor in America contain many sub-populations of considerable diversity. The works of Auletta (1962) in defining a culture of the poor,

Ricketts & Sawhill (1988) in locating 880 inner-city census tracts of persistent poverty, Hill (1985) in focusing on unwed teenaged mothers and the feminization of poverty, Wilson (1988) in identifying an urban underclass, Ellwood (1988) in studying the working poor and Duncan (1992) in focusing on the rural poor were instrumental in creating an understanding of the American poverty population as a group of diverse populations of identifiable cohorts who share enough socio-economic characteristics to allow policymakers to fine tune or "target" populations with specific policy initiatives designed for the unique needs and traits of that group.

Recent research has identified the rural poor as a group which are at once persistently poor and geographically discrete. In 1979, Davis identified 255 rural counties as being Persistently Low Income (PLI). He defined Persistently Low Income as being those counties whose per capita income remained in the bottom quintile of income distribution nationwide since 1950 (Davis 1979; Hoppe 1985; Bellamy and Ghelfi 1988; Ghelfi et al. 1993). Weinberg (1987) further discovered through regression analysis of the PLI counties that geographic determinants of poverty do exist. Contiguity to an PLI county was found to cause adjacent counties to have poverty rates 3.42 - 3.76 percentage points higher simply due to proximity (Weinberg 1987, 406).

According to O'Hare and Curry-White (1992), areas of persistent poverty in rural America can be understood as the rural equivalent to the urban underclass identified by Wilson (1987). Indeed, it is hard to understand why poverty research on the underclass has largely overlooked rural America, where poverty rates approach those of metro

America , public assistance programs are widely underutilized (Rank 1986; Rank and Hirschl 1991, 1993) and communities in poverty are concentrated and persist over time.

Research on the underclass has overlooked rural residents, even though the poverty rate in rural America, like that in central cities is persistently above the national average. Census Bureau data show that the poverty rate among the nonmetropolitan population was 16.3 percent in 1990 compared with 13.5 percent nationwide. The 1990 poverty rate in central cities was 19.0 percent. In the suburbs, where nearly half the U.S. population lives, the poverty rate was only 8.7 percent...**There is a clear urban bias in underclass research**...Aside from the empirical evidence about the underclass in rural America, many of the factors put forth to explain the underclass can also be observed operating in rural America. (O'Hare and Curry-White 1992, 11-12)

Those underclass factors shared by the urban and rural underclass include: 1) Racism, 2) Outmigration of middle-class residents, 3) and structural economic changes eliminating traditional sources of employment for men (O'Hare & Curry-White 1992, 12).

Rural Poverty Populations: The Evolution of Targeted Policy

The eagerness of policymakers and the public to deal with poverty within our borders has caused poverty research and poverty policy to be intertwined and has fostered a sense of urgency and dynamism in the field.

Poverty Policy, as such, dates back to the New Deal legislation which, in 1935, created the first national "welfare" programs which aided widows, the blind and the disabled, while creating social insurance programs for the elderly. As noted by Patterson (1986), this was the first Golden Age of poverty policy in which substantial improvements in welfare and social insurance benefits occurred as a result of a severe nationwide economic depression.

According to the 1940 census, 68% of Americans were listed as poor based on their earnings at the close of the Great Depression (O'Hare 1996, 13). By 1973, the poverty rate had declined to an all-time low of 11.1%. According to O'Hare, the reduction of poverty rates from 1945 to 1973 was due at least in part to the sustained and vigorous economic expansion following the war, but also to policies put into place by government during this period.

Patterson (1986) names the postwar boom period the second Golden Age of poverty policy. To the economic expansion was added the War on Poverty, designed by the Johnson Administration to create a Great Society. The impetus behind the War on Poverty legislation, however, was very different from that of the New Deal. In this case, policy was motivated by a period of sustained affluence and an accompanying expansion in the American standard of living combined with great confidence in the capacity of government to solve the problems of inequity in society. The War on Poverty came about partly in response to Michael Harrington's book, *The Other America*, which drew attention to the inconsistencies of persistent poverty within U.S. borders. Harrington argued that such poverty was structural in nature and could be remedied by policies which removed the structural impediments to material success faced by the poor. Many programs were created during the War on Poverty period, each designed either to remove the structural causes of poverty or to ameliorate the effects of poverty, especially on children and the elderly:

Behind the War on Poverty was a belief that the roots of poverty are more structural than individual. The responsibility lies in the environment and

institutions...It is these, rather than the poor themselves, which must be changed (Haveman 1987, 10).

The first part of the two-pronged policy was based on a strategy of creating more jobs and labor demand through job training, education and incentives to employers to hire. The second part was to create legal equality through anti-discrimination legislation. Included in this strategy was increased political participation and advocacy by those in poverty, designed to lead to a restructuring of political and social institutions so that the poor could become part of the mainstream of American society. Entitlement programs were expanded, including Aid to Families with Dependent Children (AFDC) and the Food Stamp program was created and administered by the United States Department of Agriculture. Also created were a host of empowering programs designed to educate and train recipients to function in the job market. These programs included the Job Corps, CETA and others. Implicit in the policy design was the political empowerment of the poor through community action agencies, legislation such as the Voting Rights Act (1965) and the creation of the Economic Opportunity and Equal Opportunity Commissions.

Incredibly, this complex set of policies was based on a set of assumptions about the dynamics of poverty which were based on little or no replicable research. Scholarly inquiry into the causes and nature of poverty did not occur until **after** the programs of the Great Society were in place, and many policies were administered for years without any type of rigorous evaluation, "Many programs, particularly Great Society social programs, were never subject to systematic evaluation according to the canons of social science" (Hansen 1983, 273).

Poverty rates did decline until 1973, and the decline was widely attributed at the time to the success of Great Society programs. However, scholars began noting that a persistent minority of those who availed themselves of entitlement programs stayed in those programs for years, instead of using them as temporary assistance. Citizens and policymakers alike noted with alarm what appeared to be a growing population of inter-generational poverty, which were singularly resistant to even the most energetic policy initiatives.

At this point, policy researchers began to examine the assumptions and hypotheses upon which American poverty policy had been based. By the mid-1980s, the search for the causes of poverty had shifted from structural explanations such as those posed by Harrington (1962) and (1988), Bane & Ellwood (1983) and Hill (1985) to those which emphasized personal characteristics such as education, work attachment, and family composition (Murray 1984; Mead 1986; Butler & Kondratas 1987). Ameliorative poverty policies were blamed for producing social pathologies among the poor and thwarting personal initiative. Aid to Families with Dependent Children (AFDC) and the Food Stamp program, in particular, were seen as providing the poor with a life of ease and preventing the development of desirable personal traits such as work, responsibility and community (Mead 1986). Many of the resulting policy prescriptions were paternalistic in nature, emphasizing the enforcement of a self-actualizing work effort on those receiving public assistance. These researchers redefined welfare as "workfare" and their research findings, particularly Mead's (1986), were embraced by policymakers. Through the passage of The

Family Support Act (1987), congress enabled the states to experiment with a variety of welfare-to-work initiatives, such as the FUTURES program in Missouri.

In 1988, Ellwood (1988) enriched the understanding of the poor by identifying a cohort within the poverty population who worked but remained poor. The existence of this cohort belied work as the panacea for the problem of poverty in this country. Ellwood named this cohort the "working poor." Ellwood's research is especially important to the understanding of rural poverty because research has shown that the rural poor are more likely to be the working poor. The nonmetro poor generally have a higher attachment to the labor market and are more likely to live in intact families and to be working than the urban poor (Hoppe1993, 37).

Following Ellwood, researchers such as Shapiro (1989) and Tickamyer et al. (1993) examined the problem of low wages, loss of manufacturing jobs and their effect on fostering long-term structural nonmetro poverty. The problem for the working poor, Shapiro and others tell us, is not that they don't work, but that their work does not pay a sufficient wage to raise them above the poverty threshold.

Wilson (1987, 1996) was among the first to examine the impact of disrupted labor markets on the urban poor. Bellamy (1988), Ilvento and Garkovich (1989) and Garkovich (1997) have verified the impact of labor market changes on the rural poor. They find that poverty is not only dependent upon the personal characteristics of the individual in poverty, but also upon the economic vitality of the place in which the poor individual lives. This is especially true of rural communities whose labor markets are often dependent on a single industry or a few industries for employment and are, therefore,

much more subject to the vagaries of the market place than more diversified metropolitan labor markets (McGranahan 1988). In addition, rural areas tend to have a lower prevailing wage, lower incomes, a lower tax base and therefore, fewer public resources (Browne 1994, 105).

It was the intertwining of poverty research and resultant policies and the evaluation of those policies which created an understanding of the diverse nature of the poverty population which now exists. There is not one homogeneous poverty population, but a population which consists of several cohorts, each sharing socio-economic characteristics and special needs. It was as a result of this evolution of the understanding of the diversity of the population that researchers and policymakers alike began to focus on the needs of the nonmetro poor.

Persistent Low Income Counties in the Missouri Ozarks

Rural America contains a higher proportion of the poor than the rest of the nation. Nonmetro citizens are more likely to be working at least part of the year and to be paid relatively less than workers in the rest of the nation. Furthermore, rural poverty populations tend to be discrete and geographically identifiable. As Ilvento and Garkovich have noted, "The persistence of poverty clusters of rural communities demands strategies directed at stimulating rural economic development" (Ilvento and Garkovich 1989, 17). In those persistently poor counties, Garkovich notes, " It can be said that we find **places in poverty, not just people in poverty**" (Garkovich et al. 1997, 2). She maintains that individual characteristics are important in determining who is poor, socio-economic characteristics of that person's location will largely dictate the extent of that poverty. As

noted by Lerman and Mikesell (1988, 765), "Where the poor are located is of fundamental importance in forming anti-poverty strategies."

The Missouri Ozarks region offers a unique laboratory to examine the importance of place in the rural poverty equation. In 1990, Missouri was one of only four states outside the South with poverty rates exceeding 15 percent (Duncan 1992, 16). Of the 255 counties identified as Persistent Low Income (PLI) counties in the nonmetro U.S., 94% are located in the South and 3 percent are in Missouri. In Missouri, Carter, Oregon, Ozark, Ripley, Shannon, Douglas, Wayne and Bollinger Counties in the Ozarks region have earned the Persistent Low Income designation by remaining in the bottom quintile of income nationwide since 1950 (Davis 1978, 19; Bellamy and Ghelfi 1988; Ghelfi et al. 1993, 11; Hoppe 1985). These counties have remained among the poorest of the poor, nationwide, for almost 50 years.

Little is understood about clusters of persistent poverty in nonmetro America. Simply identifying PLI counties by per capita income does little to explain the dynamics behind their prolonged spell of poverty. As noted by Weinberg (1987, 406):

...the statistical analysis...have confirmed the common-sense observation that pockets of poverty exist in the United States. Unfortunately, although the statistical analysis confirms a priori expectations, it does not characterize the underlying reasons, such as resource scarcity, for multi-county pockets of poverty. Regions may lack economic development for many reasons, such as lack of natural resources, lack of adequate labor supply, or lack of the capital necessary to create jobs and sustain employment...**these factors can only be isolated by intensive investigation of individual county clusters, not by broad statistical analysis of all counties.**

Because of the statistically verified influence of mere proximity, state governments or regional commissions could have an important political

role in focusing resources for economic development on the problems of multi-county areas.

This dissertation will undertake an "intensive investigation" of four of the Persistent Low Income counties in the Missouri Ozarks contrasting them with the relatively more prosperous county in their midst in order to understand the "underlying structural reasons" for this particular pocket of rural poverty.

This dissertation should bring to light important differences in the development, resources and populations of these counties and identify critical factors which enabled the non-PLI county to prosper over time. When the differences among these counties have been identified, it may be possible to draw conclusions which will enable policymakers to devise initiatives which will assist in breaking up this particular cluster of persistent nonmetro poverty.

Research Questions

This dissertation will address four questions regarding the cluster of Persistently Low Income Counties (PLI) in the south central Ozark region of Missouri:

1. Why do four PLI counties (Ozark, Douglas, Shannon and Oregon) border a county (Howell) which has never been designated PLI and has been relatively prosperous over time?
2. When compared to each other in measures of socio-economic well-being, how are these five counties similar? How do they differ?
3. Can it be determined if low population density is a cause of or a result of poor economic development in the disadvantaged counties?

4. What policy implications can be drawn from this research as regards the economic development of persistent low Income counties in south central Missouri?

The five counties studied will be compared by socio-economic traits and attitudinal differences in an attempt to discover why there is significant variation in population density, economic activity and per capita income among geographically contiguous counties which share essentially the same location, history and traditions, demographic composition, natural resources and political culture.

Hypothesis

It is the hypothesis of this study that remoteness will be found to be an important contributing factor to the persistent poverty of the four disadvantaged counties in the study and that public policy which reduces the isolation of these counties, such as efficient transport systems, will help break up this cluster of persistent rural poverty.

Remoteness values for each county will be calculated by applying Lyson's (1993) concept of economic distance. Economic distance incorporates all the "costs of overcoming the frictions of distance" and translates to remoteness. There are three measures of economic distance: 1) travel costs to advantaged areas; 2) travel time costs to advantaged areas; 3) costs of disrupting personal linkages to the native area.

The economic distance values computed for each county in this dissertation will be found to be a strong indicator of the county's degree of remoteness, and will evidence a relationship to per capita income. **The greater the economic distance value of each**

county, the greater will be its degree of remoteness and the lower will be its per capita income.

For the purposes of this dissertation, the terms remoteness and isolation will be used interchangeably. Degree of remoteness, or isolation, is widely accepted in the field of economic geography and rural sociology as increasing with the distance from the place being studied to the nearest urban center, or Metropolitan Statistical Area (MSA):

The hierarchy of urban places, from major cities down to villages, continues to be an important component in the organization of settlement structure...(Size of place groupings)...are extremely important today in tying together communities at all levels of the urban hierarchy (Fuguitt, Brown and Beale 1989, 11, 422).

This "urban hierarchy" is a hierarchy of well-being. Generally, the farther the distance from a particular place to an urban center, the poorer that community will be (Brown and Beale 1989; Fuguitt, Labao 1990; Hathaway 1968; Knox and Agnew 1989; Scott and Storper 1986). Tolbert and Sizer applied this principle to nonmetro America in their 1996 study of rural Labor Market Areas (LMAs) and Commuter Zones (CZs). Labor Market Areas and Commuter Zones were identified by constructing travel frequency matrices using journey-to-work data from the 1980 and 1990 censuses. Trade centers for each commuting zone were identified by frequency of commutes to that place. Tolbert and Sizer's research will be used in this dissertation in order to establish economic distance values for each county. Remoteness values for each county will be calculated based on the economic distance/cost of traveling to the trade center in each commuting zone. Distance to the nearest MSA (Springfield, MO) will also be considered but will be found to be beyond a feasible commuting distance for most of the counties.

The advantaged county in the study will be found to be both a trade center for much of the region and to have had more established historic transportation routes connecting it with MSAs in Missouri and Arkansas, while the disadvantaged counties will be found to have remained largely isolated and remote from traditional transportation networks. Remoteness will be found to be a hindrance to the economic development of the PLI counties over time and also to the ability and willingness of citizens to commute or outmigrate to more advantaged regions.

Attitudes towards mobility and migration will also be examined. **Mobility** will be defined as the ability and willingness of individuals to commute across county lines in order to find employment. Individuals who are mobile will retain their residence in their native community, but commute to work. A **commuter** will be defined as an individual who maintains his historic residence in his rural community, but drives across county lines in order to work. **Migration** will be defined as changing residence cross-county lines. A migrant, therefore, will be an individual who moves from his native community to a community in another county (Hathaway 1968).

Both quantitative and qualitative analysis will be used to examine both the socio-economic factors in these counties and the attitudes toward migration and mobility, education and economic development. In doing so, it will attempt to fulfill the critical task of theory and research as identified by The Task Force on Persistent Rural Poverty of the Rural Sociological Society in 1993, "...To identify and define the specific characteristics or aspects of "rural" life that result in certain areas having poorer economic outcomes" (Lyson et al. 1993, 135).

Factors such as the natural resources, historic migration patterns, political culture, and the history of the five county region will be examined and expected to show little or no significant difference from county to county. However, the three aspects of economic distance are expected to show a strong relationship to the relative disadvantaged/advantaged position of the county as measured by per capita income.

This finding will have public policy implications. Most recent policy initiatives have concentrated on the micro aspects of poverty: human characteristics such as work ethic and responsibility. Federal policies such as the Family Support Act (1987) and the Personal Responsibility and Work Opportunity Reconciliation Act (1996) and the state-level poverty initiatives they fostered address the perceived cause of poverty as being micro in nature. The core of these poverty initiatives is based on teaching such values as work and responsibility.

This study will build on the works of Hoppe (1985), Weinberg (1987), Ilvento and Garkovich (1989), O'Hare (1995) and others, who have posited that the rural poor differ from the urban poverty cohort in significant ways and that their poverty is related to the poverty of place. Furthermore, the existence of rural "pockets of poverty" throughout the nation which exist over time and prove resistant to both the tide of economic trends and to poverty initiatives provides the researcher with a unique laboratory in which to study the cause and effects of persistent rural poverty (Weinberg 1987).

The finding of this dissertation is predicted to be that the development of efficient transportation routes will be an effective policy initiative to reduce poverty in isolated

clusters of poor counties. When degree of remoteness is reduced, economic development is likely to follow.

Methodology

The five counties studied are Ozark, Shannon, Oregon, Douglas and Howell. Ozark, Shannon, Oregon and Douglas have been designated Persistent Low Income Counties since 1950 (Bellamy and Ghelfi 1988; Davis 1979; Ghelfi et al. 1993; Hoppe 1985). PLI designation means that they have remained in the bottom quintile of nonmetro counties when ranked by per capita income since 1950. These four counties border Howell County, which has been relatively prosperous over time and has never been designated a PLI county. The relative well-being of the five counties will be examined by applying the USDA Index of County Well-Being to them. In 1970, the United States Department of Agriculture established four indices of county well-being: socio-economic status, family status, health status and alienation. This dissertation will apply the USDA Index of County Well-Being to the counties under examination in order to determine their relative well-being.

Factors indicating relative health of each county will include: Birth rates, including births to mothers under 20 years of age; Mortality rates, including infant deaths. Factors indicating socio-economic well-being will include: Total population; Total personal income including per capita income; Education level, including percent high school and college graduates, average per pupil expenditure in grades K-12; Annual retail sales in county; Unemployment rate; Number of farms, including land in farms as percent of total; Total nonfarm businesses and size of labor force. Statistics indicating family status

include: Children under 18 living in two-parent families; Female heads of household; Percent of county population 65 years and older. Statistics indicating degree of alienation will include mortality from suicides and cirrhosis of the liver (indicator of alcoholism).

The traits held in common by the five-county region will also be examined.

Natural resources including minerals, soil, climate and water; Political culture, including dominant political party affiliation; Demographic composition; Geographic location; Historic migration patterns and settlement of the counties will be examined. It is hypothesized that little significant difference will be found in these factors.

Having established the relative socio-economic prosperity of the advantaged versus the disadvantaged PLI counties, and having found little or no difference in natural resources, history and political culture to explain the disparity of well-being among the five counties, economic distance factors in each county will be calculated and examined. As the five county area is examined, significant differences will be discovered in the travel costs and travel time costs in the disadvantaged versus the advantaged county. These two factors create remoteness. Remoteness will be found to have a relationship to per capita incomes in those counties found to be most remote.

The first and second aspects of economic distance, travel costs and travel time costs, for each county will be calculated using Tolbert and Sizer's (1996) concept of commuting zones as subareas of Labor Market Areas. Estimates of commuter costs in terms of time and money will be used to determine the ease with which commuters from the disadvantaged counties can access the relative prosperity of the trade centers in their

commuter zones. And, poor transportation routes out of the county will also be found to be a hindrance to the location of industry in the county.

The last variable in the economic distance equation, the costs of disrupting personal linkages to the native area, will be measured through survey research of attitudes towards migration, economic development and education. The attachment to place is very strong among rural people (Halperin 1990, Lyson et al. 1993). This attachment is manifested in a variety of attitudes. It can take the form of resistance to mobility and also can be expressed as resistance to changes in the community wrought by the economic development of a rural region (Halperin, 1990).

The importance of group attitudes to public policy was established by Elazar and Zikmund (1975) and Elazar (1984) in studies of state political cultures and was used by them to predict public policy outcomes in states. As Elazar and Zikmund found, in those regions where attitudes favor tradition over progress and innovation, policy initiatives will be stymied (Elazar and Zikmund 1975, 39). The importance of understanding community values when developing state poverty policy will be found to be important to policy outcomes:

Overlooking communities in poverty research has meant that this literature has failed to comprehend the meaning and significance of ethnicity, kinship traditions, culture and other factors that bind these communities together (Snipp et al. 1993, 197).

Measuring the attitudes behind the attachment to place will be accomplished by a survey instrument administered to residents of each of the five counties. Responses of county residents will be contrasted to responses of individuals who have moved out of the

five county region. Comparative analysis will be applied to the data based on residence. The answers of these separate cohorts will then be analyzed in order to determine how remoteness impacts attitudes towards economic development, migration and education in the five county area.

The time and travel costs for each community will then be added to the attitudinal findings to finally compute an economic distance value for each county. When these values are obtained, it is expected that the data collected will bear out the hypothesis of this paper: The greater the economic distance value an individual has to overcome, the less likely they will be willing to pay the cost. Survey results should verify that those living in the most isolated PLI counties will be most resistant to the three factors of education, migration and economic development; Residents of the non-PLI county will show relatively less resistance to education, migration and economic development; Those who have migrated out of the five county area will show the least resistance to education, migration and economic development.

Halperin's taxonomy of shallow rural and deep rural will be applied to these counties by the degree of resistance to change and mobility as shown in the survey. It is posited that the disadvantaged counties will be found to be deep rural and the advantaged county will be found to be shallow rural (Halperin 1990, 67).

Finally, the effect of population density on economic development will be examined. In 1986, Rank, and in 1988 and 1991, Rank and Hirschl conducted studies to determine why rural people underutilize the Food Stamp program. The initial expectations of the studies were that it was the higher work attachment, and other cultural

factors, of rural people that caused them to underutilize the program. However, the ultimate conclusion of the studies was, that when all other variables were controlled, population density was the single most significant determinant of Food Stamp usage by any population.

Building on the work of Rank and Hirschl, this study will examine whether there is also a relationship between population density and per capita income of the counties studied. It is expected that the analysis will find that lower population density will translate into lower personal income of county residents. The study will also incorporate the work of Fischer (1975) and ask whether deeply rural counties have created a "universe" of rurality which discourages positive attitudes towards education, mobility and economic development.

Policy Implications

These findings will have implications for policymakers. In constructing policy to reduce county clusters of poverty, it is important to recognize the nature of county attitudes. As policymakers formulate policy to penetrate areas of persistent rural poverty, they may need to acknowledge that there will be citizens who eagerly take advantage of the policy routes constructed to assist their moving to better jobs and prosperity, but there also will be a cohort who are threatened by changes and who choose to remain behind. This study posits that the resistant group will show a higher attachment to place and security than their more risk-prone and mobile cousins:

Migration is a risky undertaking and those who migrate may be more prone to taking risks thus depriving the region they leave of a sizeable part of the native population who are most likely to become entrepreneurs (Lyson et al. 1993, 111).

This study will establish that resistance to economic development, education and mobility exists to greater degree in disadvantaged than advantaged counties and therefore, are a factor for policymakers to consider in constructing policy.

The findings will be easily translated into policy. This dissertation does not deal with individual characteristics which may or may not increase the likelihood of poverty. Rather, it deals with the structural aspects of persistent rural poverty. As such, it will provide a ready tool to policymakers for breaking up clusters of persistent rural poverty. The findings will show that a critical determinant of the existence of persistent low income county clusters is remoteness/economic distance and that an important socio-economic variable which influences degree of remoteness is the historic transportation routes. The lack of efficient transport networks will be shown to allow isolated areas to create their own universe of rurality which is resistant to education, development and mobility. Policymakers will find that appropriating funds to construct transportation routes to extend technology into the PLI counties will assist in the break up of this particular cluster of persistent rural poverty.

Overview of Dissertation

This dissertation is a comparative study of five rural Missouri counties. It is the hypothesis that in comparing the four persistent low income counties to the advantaged

county in their midst, remoteness will be found to be an important contributing factor the persistent poverty of the disadvantaged counties.

Chapter 2 will review the disciplinary literature relating to poverty research in general and rural poverty in particular.

Chapter 3 will examine the unique socio-economic characteristics of the nonmetro poor, contrasting them to the poor in other parts of the nation. Cochran et al. (1996) four contexts of the policy environment, demographic, economic, institutional and cultural contexts will be applied to nonmetro America. This chapter will also focus on the policy environment in Missouri and the effect recent changes in political institutions will have on nonmetro Missouri.

Chapter 4 examines the socio-economic status of the five counties in this study to determine if there is, in fact, a difference in the well-being of the counties. Howell County will be found to lead the four PLI counties on many measures of socio-economic well-being.

Chapter 5 will begin to address the question of why Howell County is relatively more prosperous than her PLI neighbors. In this chapter, the natural resources of each county will be compared to see if part of the disparity lies in the relative natural wealth of the counties. No significance difference will be found in the natural resources of the region. Then, the political and cultural history of each county will be examined to see if there is an explanation for their different socio-economic status in these areas. Again, no significant differences will be found among the counties as regards migration patterns, historical settlement or political culture.

Chapter 6 examines the concept of economic distance and applies the two quantitative measures of economic distance to the five county area. This chapter will test the hypothesis that remoteness as measured by economic distance will be predictive of the economic well-being of each county. It will be found that the more remote the county, the lower will be its per capita income. In addition, this relationship between degree of remoteness and low per capita income will be found to persist over time, lending further credence to the hypothesis.

Chapter 7 measures the third cost of economic distance: the cost of disrupting personal ties to the resident community.

Chapter 8 summarizes the findings of the paper and examines those findings in light of the hypothesis. The hypothesis and policy recommendations will be examined in the context of the entire study.

CHAPTER 2. REVIEW OF LITERATURE

Introduction

In the field of poverty policy and research, the policy cart has sometimes come before the research horse. Many of the New Deal and the Great Society poverty programs were based on the "hunches" of policymakers and program administrators about the dynamics driving poverty and the way to address those dynamics. Many of the programs were based on the assertion that the causes of poverty were largely structural in nature. It was assumed that public policy which removed structural impediments such as discrimination would, therefore, be successful at bringing the poor into the mainstream of economic prosperity. Programs were administered for years, in many cases, without rigorous evaluation of their outcomes.

By the mid-1970s growing concern about policy outcomes brought a sense of urgency to the field of poverty research. Particularly disturbing was the perceived existence of a cohort within the poverty population who appeared to use programs intended as temporary assistance as a way of life. As researchers rigorously examined the assumptions and hypotheses upon which the programs of the War on Poverty were structured, two schools of thought began to emerge, the social man approach and the economic man approach.

The Development of Two Paradigms in the Field of Poverty Research: Social Man versus Economic Man, 1975-1985

In 1982, Auletta's work on the culture of poverty became a turning point for examining the mores and values of the poor themselves, and turned the focus of poverty research away from structural causes of poverty towards an examination of the individual in poverty. With this effort, replicable and cumulative evidence began to be built answering the serious questions of who are the poor, what are their characteristics, and what dynamics produce poverty in America; "Policies directed at alleviating poverty rest on a set of assumptions regarding the demographic composition of the poor and the psychological dispositions of poor individuals (Haveman 1987, 10)."

Culture of poverty researchers posited that the poor have distinct values, aspirations and psychological characteristics which prevent them from achieving economic prosperity and produce behavioral pathologies which are likely to prevent them from moving out of poverty. Further, they advanced the idea that the social pathologies of the poor were persistent and could be transmitted inter-generationally. This theory encouraged researchers to explore the character of the poor and their interaction with the system.

According to Katz (1996), from this point, poverty scholars followed, until the late 1980s, two separate paradigms of human behavior and its interaction with its environment. Social man theorists such as Bane (1983), Ellwood (1983), Wilson (1988), Duncan (1984), Ricketts & Sawhill (1988), Reischauer (1987) and Corcoran (1985) saw poverty as primarily caused by structural forces in American society. The fact that individuals are

in poverty, these scholars maintain, is not due to fault or lack of virtue on their part.

Those in poverty aspire to success, like other citizens. The difference lies in the fact that due to social and economic obstacles, they cannot be successful. The proper direction for poverty policy lies, therefore, in removing those structural barriers:

The evidence refutes the hypothesis that poverty is caused by psychological factors and that poverty and dependency are usually passed on from one generation to the next... It is clear that anti-poverty policies should concentrate on events and their consequences rather than on the psychological dispositions of the poor (Corcoran et al. 1985, 517, 532).

The second group of scholars share an economic view of human motivation and behavior. Scholars such as Murray (1984), Auletta (1982), Mead (1986) and Butler & Kondratas (1987) maintain that individuals are primarily motivated by economic self-interest. If they must exert a work effort or face starvation, they will work. If, however, the state will provide them with public assistance, food stamps and public housing at less cost than their work effort would, then that is the course of action the individual will pursue. Implicit in this paradigm is the assumption that these individuals are able-bodied and able to work and that jobs are available if they will only seek them; "We could probably reduce welfare dependency significantly if we simply withheld help from all but the disabled (Butler & Kondratas 1987, 12)."

Like Harrington's (1962) book, which acted as a call-to-arms for the War on Poverty, Charles Murray's (1984) book, *Losing Ground: American Social Policy, 1950-1980*, proved to be a rallying point for the economic man paradigm of the dynamics of poverty. Murray argued persuasively that public assistance such as Aid to Families With Dependent Children (AFDC) and the federal Food Stamp program were destroying the

incentive to work among recipients and were the direct cause of social pathologies among the poor.

Mead's (1986) book, *Beyond Entitlement: The Social Obligations of Citizenship*, applied rigorous research to some of the issues raised by Murray. Mead stressed themes of citizenship and obligation. Citizens are not entitled to support without returning their work effort to the state, he maintained. Furthermore, good citizenship and functioning could be taught to citizens and the state should take a paternalistic role in demanding that citizens function according to the values of the civic society.

One of Mead's greatest contributions to the field of poverty policy was his evaluation of the WIN program, a job placement program for the poor, in New York. His research emphasized the importance of teaching functioning to the poor by finding that the most successful caseworkers in the WIN program were those who used paternalistic tactics to impress the need to get a job on their clients.

Mead's examination of the assumptions underlying the policies directed at the poor was a significant benefit to the body of research on the poor. As noted by Hansen (1983), without rigorous evaluation of policy initiatives by researchers, policymakers are at a loss:

Without some baseline measurement, some agreement on what was being measured, and planning for evaluation as part of the program design, indications of progress or failure could be based only on political expedience and partisan considerations (Hansen 1973, 273).

Mead's weakest point was his assumption that work was available for anyone who wanted it and the almost magical qualities he assigned to work. The work experience, he asserted, is self-actualizing, teaches functioning, and is a seeming panacea for all the ills of

social welfare policy. According to Mead, welfare apart from work is self-defeating to a culture. It was Mead who coined the phrase "workfare." The economic man paradigm researchers had a lasting effect on poverty research. As noted by Reischauer (1987), it was generally agreed, after 1987, that poverty policy should encourage recipients to uphold values of work, family, responsibility and community.

The Composition of the Poverty Population: Discovering Diversity, 1985-present

While the debate between the social man paradigm and economic man paradigm continued, other poverty researchers were fleshing out research on the composition of the poverty population. Duncan (1984) used Panel Study of Income Dynamics data, a longitudinal study, to draw conclusions about the nature of the American job experience. He discovered the existence of "spells" of poverty which affected many families with much more frequency than was anticipated. He concluded that job experience in America was much more dynamic from year to year than had been previously assumed.

Hill (1985) used both the longitudinal data of the PSID and the cross-sectional data of Current Population Studies to verify diversity within the poverty population and to debunk stereotypical images of the poor, verifying dynamic changes within the composition of the poverty population such as the increasing feminization of poverty and the existence of a group of "persistently poor" within the larger poverty population. She noted that the vast majority of those in poverty in any given year are the "temporarily poor" and that this group shares more characteristics with the non-poor population than with the persistently poor. The persistently poor, she noted, were predominantly black (62%), southern (68%) and lived in female-headed households (61%) (Hill 1985, 479).

Corcoran et al. (1985) found that the occurrence of poverty among the general population was much more common than widely assumed, with 25% of the cohort studied ranking as poor in some year between 1969-1980. They found that most of the families which experienced poverty did so for short periods of time. A small group, however, experienced poverty over longer periods. This persistently poor group was named "the underclass." This was the birth of the underclass concept which Wilson (1987) would expand upon:

An examination of this subset of long-term poor suggests that the conception of an underclass made up of youths or welfare mothers living in large cities may target attention to groups that have difficult, long-term problems, but it does not characterize most of the individuals in the U.S. who find themselves in need (Corcoran et al. 1985, 518).

Following the discovery of sub-populations within the poverty population as a whole, researchers honed in on defining specific populations which share enough similarity in socio-economic traits to allow the identification and isolation of specific traits (Bane & Elwood 1983; Duncan 1985; Ellwood 1988; Ellwood 1992; Hill 1985; Levitan & Shapiro 1987; Mead 1986; Ricketts & Sawhill 1988; Wilson 1987).

Bane and Ellwood (1983) used PSID data to substantiate the dynamics of spells of poverty, finding that the longer a poverty spell lasted, the less likely the individual or family was to come out of it. They suggested that policy aimed at providing amelioration was probably adequate in providing short-term relief to the temporarily poor, but that entitlement programs become "An essential part of life for the chronically poor" (Bane & Ellwood 1983, 215). They also concluded that the average poor black child was in the midst of a spell which probably would last almost 20 years (234).

Wilson (1987) continued the examination of the persistently poor by positing the existence of an urban underclass, a profoundly disadvantaged group who were isolated from the mainstream of America socially, economically and geographically. Wilson, a sociologist, studied the social pathologies of inner-city black families and constructed a "black marriageability index." His thesis was that the pathologies of the inner-city are partly the result of a decline in the suitability of the black male as a marriage partner. When a male possesses no skills and no employment, Wilson maintained, there is little incentive to bond together as nuclear families. He called for macro-economic policy which would improve the job situation in the inner-city. By targeting the pathologies of this group, he brought to the attention to the structural obstacles to the assimilation of this group into mainstream American society.

Ricketts and Sawhill (1988) moved to pinpoint geographical concentration of the urban underclass in their important study of census tracts. They located 880 census tracts in the U.S. where the occurrence of four factors they isolated as typical of an underclass population existed at levels at least one standard deviation above the mean. The four factors were high school dropouts, prime-aged males unemployed, welfare recipients and female heads of households. The study found that virtually all urban underclass tracts were located in the northeastern U.S. They also found that the underclass tracts were disproportionately located in older industrial cities and that residents of these areas were 59% black, 10% Hispanic, 63% lacked high school diplomas or GED certificates, 50% were in poverty and a large proportion of the population were disabled (Ricketts & Sawhill 1988, 316). The confirmation by Ricketts and Sawhill of geographically discrete

areas of underclass poverty in the inner-city was viewed by some with alarm and invited policy experimentation, as noted by Patterson (1986):

The American version of the lumpenproletariat , without work and without hope existing at the margins of society, could bring down the great cities, sap the resources and strength from the entire society and, lacking the usual means to survive, prey upon those who possess them (Patterson 1986, 215).

As mid-decade census data became available, Burtless (1987) identified a continuing trend toward income maldistribution. The 1990 census confirmed that the top economic echelons of American society were gaining in proportion of wealth, while the lower three quintiles were losing wealth share (Burtless 1987, 82).

Soon after, several important works appeared which focused on the needs and plight of another cohort within the poverty population as a whole: the working poor. Levitan and Shapiro (1987) shed light on the plight of the minimum wage worker and Ellwood (1988) clearly defined the working poor as two-parent families in which at least one parent works a 40 hour week and which still does not have enough annual income to make it above the federal poverty threshold. Ellwood maintained that the existence of the working poor was a "glaring contradiction" to the American Dream that all those who work hard will advance and prosper.

Diversity Within the Poverty Population: Focusing on the Nonmetro Poor

The discovery of the working poor called into question a basic assumption of workfare advocates such as Mead that anyone who wants a job can find a job that will provide a family supporting wage. According to O'Hare (1989):

There is little evidence that today's poor are poor by choice as Murray (1984) implies. Government benefits for the poor and near-poor are not

large enough to lure many into a life of welfare...and most evidence indicates that people in these programs remain recipients for only a short time. Most of the working-age poor who can work, are working or looking for work. The simple fact is, many young workers cannot find steady jobs that pay enough to support a family (O'Hare 1989, 37).

In 1985, the Ford Foundation increased the scale of its Rural Poverty and Resources Program to support a series of related grants for research, analysis and "new thinking" regarding changes in Rural America. This research culminated in 1992 with a volume edited by the Director of Research for the Aspen Institute, Cynthia M. Duncan, *Rural Poverty in America*, which contained a series of studies on aspects of rural poverty and had as its central theme "The paucity of rural work opportunities that pay a living wage" (Duncan 1992, xv).

At almost the same time, rural sociologists banded together in the Rural Sociological Society Task Force on Persistent Rural Poverty to produce a series of studies on the dynamics of change in rural America and the persistence of poverty in rural regions. As a part of the volume they produced, *Persistent Poverty in Rural America*, the effect of geographic location on poverty was examined. Lyson et al. (1993,135), "Examined the relationships among territory, economic development processes and poverty." As a result, the effects of the space and locality characteristics of places in poverty began to be taken into account when examining the causes and persistence of rural poverty.

The understanding of the answer to the question, who are the poor, continues to be sought by poverty researchers in a variety of disciplines. Researchers such as Duncan

(1984); Hill (1985); Ellwood (1988); Wilson (1987) and O'Hare (1988) alerted scholars to the existence of sub-populations within poverty population as a whole. In the last decade, much of poverty research has been directed toward fleshing out the understanding of sub-populations such as the elderly, female-headed households, teen-aged mothers, the working poor and the nonmetro poor. As the understanding of the various components of the general poverty population becomes more detailed, broad generalizations about the dynamics driving poverty in America are increasingly called into question, and policy targeted to specific cohorts is seen as being increasingly useful.

In the study of the nonmetro poor, it has become increasingly apparent that an approach which addresses the perceived shortcomings of the individual in poverty is not adequate to explain persistent, pervasive poverty that exists in geographically discrete regions. Increasingly, rural poverty is understood as driven by the structure of rural economies. In recent years researchers from the fields of political science, rural sociology and economics have turned their attention to the significance of place in the poverty equation of nonmetro areas.

Perceptions of the realities of nonmetro economies have, in the past, been prone to stereotypical images of an economy dominated by agriculture. The effect of the macroeconomic downturn of the 1980s on nonmetro America prompted Browne (1994) to indict both the policy process and widely-held stereotypes of rural areas. The resulting poor fit between population and policy was due, according to Browne, to the "capture" of legislative attention by corporate farm interests and the decline of rural populations which resulted in a smaller voice in the policymaking institutions. Browne attempted to alert

policymakers to the paucity of valid information on the true composition of the nonmetro environment in which the farming sector no longer comprised the dominant sector of the nonmetro economy. Increasingly, Browne noted, nonmetro areas relied on service jobs and light manufacturing to support local economies. The changing structure of the U.S. economy and the export of light manufacturing jobs to other nations with lower labor costs during the 1980s had damaged many nonmetro economies and altered the dynamics of persistent poverty in nonmetro America, according to Browne.

Metro and Nonmetro Poverty Populations: Applying the Underclass Concept

During the latter half of the 1980s, researchers began contrasting nonmetro and metro poverty in an attempt to better understand the dynamics driving rural poverty. Political scientists Corcoran et al. (1985) analyzed Panel Study of Income Dynamics data and found that rural poverty is both more persistent and more geographically concentrated than metro poverty. Rodgers and Weiher (1988) found that the poverty rates of nonmetro Americans and residents of the inner cities to be comparable. Hoppe (1993) found that although poverty rates of nonmetro and inner city Americans compare, there are important differences in the socio-economic traits of the two populations.

O'Hare (1989) applied the underclass classification which had first been used by Ricketts and Sawhill (1988) to describe census tracts of concentrated inner city poor to areas of persistent nonmetro poverty. He found similarities between the groups, noting that nonmetro persistently poor regions were as isolated, concentrated and as poor as the inner city underclass tracts. He posited that the underclass concept of a people separated physically, economically and socially from the mainstream of nationwide economic

prosperity could be applied to the areas of persistent nonmetro poverty in the nation and maintained that the situation of the nonmetro underclass was as deserving of policy intervention as that of the metro underclass.

The Structural Causes of Nonmetro Poverty

As the decade of the 1990s began, partly in response to the economic hardships experienced in the 1980s by nonmetro America, the study of rural poverty gained dynamism. Researchers in disciplines such as Anthropology, Political Science, Rural Sociology and Economics began to focus on the structural causes of nonmetro poverty.

Anthropologists such as Halperin (1990) investigated the "deep" and "shallow" rurality of nonmetro populations and the effect degree of rurality had on the willingness of nonmetro people to participate in what she referred to as "the mainstream capitalist economy." Rural Sociologists such as Campbell et al (1993) conducted field research in nonmetro America finding the existence of a "hidden economy" which enabled nonmetro individuals to survive in cash poor, persistent low income regions. They labeled the areas of concentrated poverty they studied as "forgotten places", existing beyond the salutary effects of the nationwide economic expansion experienced during the 1990s.

Rural sociologists Garkovich et al. (1997); Lyson et al. (1993); Gorham (1987); Tickamyer (1992); and O'Hare (1988, 1990, 1996) and political scientists such as Ellwood (1988), Levitan and Shapiro (1987), Shapiro (1989) and Cuoto (1994) examined the effect of labor market changes on nonmetro economies.

Gorham (1987) studied the wages paid rural workers and found that they were consistently lower than those paid metro workers, even for similar work. Shapiro (1989)

noted that low wages coupled with part-time seasonal employment predominate in nonmetro America and drive poverty rates up. O'Hare (1989) noted duality in nonmetro labor markets. That is, the existence of two labor pools. Secondary workers are paid minimum wage, receive no benefits and are often kept under full-time working status. This group is trapped in poverty, according to O'Hare, and has little likelihood of gaining a wage which will enable them to rise above the poverty level, even with full-time work. Primary workers are the more fortunate group and also smaller in number. This is the promotion-track group who are often salaried and receive benefits. The existence of this duality means, according to O'Hare, that full employment in nonmetro areas does not necessarily mean a reduction in poverty levels or general prosperity for the population. He stresses that secondary workers who support a family cannot rise above poverty even with full-time work. Secondary workers who do manage to rise above the poverty line often find themselves "near-poor", barely above poverty level, and especially vulnerable to economic downturns.

Garkovich et al. (1997) verified that rural workers are more likely to earn lower wages than their metro contemporaries, because rural markets pay less, even for the same type of work. She notes that the best hope for reducing rural poverty is to raise the minimum wage to "living wage" levels of over \$7.00/hour. Tickamyer (Duncan, 1992) also cites low prevailing wages as the primary cause of persistent poverty in rural America and notes that until wages rise it is unlikely that nonmetro America will share equally in the prosperity of the rest of the country. Levitan and Shapiro (1987) and O'Hare and Pauti (1990) found that young nonmetro workers are at especially high risk for low wage

employment and that this phenomenon fueled the outmigration of educated rural workers in the 1980s.

The Impact of Nonmetro Outmigration

O'Hare (1990) studied the migration patterns of high school seniors in a nonmetro setting and found that as a community's per capita income rises, the likelihood of outmigration of high school seniors decreases. The widespread loss of rural population during the 1980s was fueled at least in part by the lower wages paid in rural vs. metro America.

The loss of population has significant negative effects on nonmetro economies. One effect of sparse population was discovered by Rank (1986) and Rank and Hirschl (1988, 1991) in their study of the reasons for the underutilization of the Food Stamp program by nonmetro people. Their initial expectation was that higher rural attachment to values such as work and self-reliance mitigate against accessing public assistance. They found, however, that the single most important determinant of the use/nonuse of the Food Stamp program was population density. Low population density, they concluded, contributes to remoteness and isolation and stymies the dissemination of information about programs available. They also posited that, as noted by Fischer (1975) high population areas allow the development of "universes" of individuals which reward behavior which departs from prevailing cultural norms. In a sparsely populated rural setting, there is little opportunity for a universe to form which might support public assistance recipients, independent of a culture which discourages such usage.

Hoppe (1993) found that low population density prevents nonmetro areas from achieving the economies of scale necessary for economic development. Sparsely populated communities often do not either the labor pool or the tax base necessary to invest in infrastructure necessary to attract jobs and industry to their area.

Barriers to Accessing Services in Nonmetro America

Watkins and Watkins (1984) note that the barriers such as time and distance limit nonmetro access to services such as health care, public assistance and higher education and are a part of the dynamic of sparse population. Buttel et al. (1993) note that due to the structure of the rural environment, rural people are likely to have less access to economic opportunities. Because these barriers are a part of the rural environment, they maintain, it is unlikely that these inequities, involving one-third of the population of the country, will be redressed without state intervention.

Lower levels of human capital skills widely found in nonmetro America are also a result of rurality, distance and difficulty of access, according to Bowden (1986). These generally lower skill levels among rural workers are one factor behind lower prevailing wages in nonmetro America. Bowden noted that rural residents suffer from "an educational disadvantage" reflected in higher illiteracy rates and high school dropout rates than found in the rest of the country. Other researchers such as Fuguitt, Brown and Beale (1989) have studied education levels in nonmetro American and found them to be consistently lower than those found in metro America.

The implications of lower human capital skills on nonmetro labor markets was verified by Gorham and Harrison (1990) in their multivariate analysis of factors associated

with low earnings in nonmetro areas. They found that the cost of low educational attainment increased 1979-1987. During this period the proportion of low waged workers with less than a high school education increased from 42.3% to 54.6% (Gorham and Harrison 1990, 79-87).

These findings make Long's (1990) discovery of a persistent rural-urban education gap especially important and points to one area which most nonmetro poverty scholars agree must be addressed if nonmetro America is to prosper: the need for access to better education and improved human capital skills.

Areas of Persistent Nonmetro Poverty: The Impact of Proximity

Davis (1974) conducted an analysis of per capita income in nonmetro counties for the United States Department of Agriculture (U.S.D.A.) He ranked nonmetro counties by per capita income in 1950, 1959 and 1969 and identified 255 counties which remained in the bottom quintile in each period as being persistent low income (PLI) counties. Hoppe (1985) extended the analysis to 1975 and 1979 PLI data and found that 231 of the original PLI counties remained so classified. He noted that the 231 counties were arranged in clusters a geographically discrete fashion, the majority of which were in the south, although pockets of PLI counties also existed in North Dakota, Minnesota, South Dakota, New Mexico and Missouri. Characteristics the populations of these counties shared were low population density, relatively lower levels of educational attainment, a poverty rate almost double the nonmetro average, high proportion of elderly and low earnings. In his analysis of earnings in the PLI counties, Hoppe concluded that a rise in per capita income was a critical factor in the 67 counties which "escaped" the PLI designation, 1969-1979.

Other scholars began to focus on clusters of persistent rural poverty and to gauge their impact on the nonmetro economy as a whole. Beale (1989) analyzed the compositional features of rural poverty and cited pockets of persistent rural poverty as a major reason poverty rates in the rural U.S. remain above those in metro areas. He noted two factors fostering the concentration of nonmetro poverty in discrete regions: 1. Low wages; 2. A higher incidence of work-limiting health disability.

Weinberg (1987) conducted regression analysis on pockets of poor nonmetro counties and found that when other factors such as demographics, labor markets, institutions and fiscal correlates were controlled, mere proximity to a PLI county raised the poverty rates of surrounding counties by significant levels. PLI counties were found to have a dampening effect on the economies of their bordering counties, even if they were not PLI counties themselves.

As the decade of the 1980s advanced, and the worsening rural economy was perceived as turning back many of the advances that had occurred during the "Rural Renaissance" of the 1970s, the plight of nonmetro communities caused the Rural Sociological Society to form the Task Force on Persistent Rural Poverty. This task force brought rural sociologists together to study the dynamics of persistent rural poverty. In 1993, this effort culminated in *Persistent Poverty in Rural America* which contains analysis of trends in rural poverty, nonmetro labor markets, minority and ethnic issues pertinent to nonmetro poverty, and analysis of various nonmetro sub-groups such as women, children, families and the elderly.

Included in this work was a chapter by Lyson et al. dealing with uneven economic development and its impact on nonmetro economies. This chapter bridged the disciplinary gap between poverty, territory and economic development processes and accessed important literature from the New Industrial/Economic Geography and the New Rural Sociology literature (Knox and Agnew 1989; Krugman 1991; Labao 1990; Lyson and Falk 1992; Scott and Storper 1984; Storper and Walker 1989) which had begun to take note of the impact of spatial location and theories of economic development.

Explaining the Persistence of Geographically Concentrated Nonmetro Poverty: Locational Theories of Economic Development

Storper and Walker (1989) examine historic patterns of economic development and determine that economic growth occurs where space is most "friendly." Krugman (1991) adds to the choice of location for economic development the concept of "historical accident" which brings an industry to an area initially. That industry and other factors such as good transport networks and a sufficient labor pool attracts other growth to the area. Over time, a developing area may reach agglomeration, or returns to centralization. At this point, the original area has acquired advantages in infrastructure and a critical mass of goods and services which will draw more growth to the area.

Knox and Agnew (1989) portray human beings as time and effort minimizers who are discouraged from mobility by barriers. Knox and Agnew (1989) identify five factors which will determine the sites which will be chosen for economic activity. These five factors all bear on ease of accessibility and mobility.

Labao (1990) maintains that economic development will always be uneven as capital seeks out those locations which allow maximization of profit. Regional disequilibrium is viewed by Labao as the normal outcome of capital mobility and accumulation.

Lyson et al. (1993) examine these theories which explain, as they put it, "territorial lumpiness" and agree that without capital intervention from the state, economic development will probably never reach equilibrium across the spatial plain. They note that "Rural poverty is best viewed as one outcome of an uneven development process" (Lyson et al. 1993, 135). They maintain that space and time create frictions and that economic activity and employment opportunities tend to cluster geographically. Unlike the Neoclassical view of economic development which views labor as perfectly mobile and likely to relocate wherever jobs are available, Lyson et al. note that ties to community are especially strong among nonmetro people and likely to keep them in disadvantaged regions despite the fact that migration to a more advantaged region holds the possibility of increased economic rewards.

Like Knox and Agnew (1989), Lyson et al. (1993) see labor as easily discouraged from mobility by any of a number of barriers involving time, economic cost, distance and disruption of linkages to resident communities. Remoteness is a very important concept because the more remote a region, the less likely it will be that residents will migrate to better paying locations. **Degree of remoteness**, according to Lyson et al. **is in itself a cause of lower income**. They propose the concept of economic distance as a way of measuring the remoteness of any community. Economic distance measures all the costs of

overcoming the frictions of distance and accessing more advantaged areas. Economic distance costs are comprised of three factors: 1. Travel costs of travel to advantaged community; 2. Travel time costs to advantaged community; 3. Costs of disrupting personal linkages to resident community.

The higher the economic distance costs of travel to an advantaged community, Lyson et al maintain, the less likely it will be that the trip will be made. Economic distance costs will mitigate against the decisions of individuals to access more advantaged areas. In addition, Lyson et al. imply that **the higher the economic distance costs of accessing a more advantaged area, the lower will be the real income of the remote and disadvantaged area.**

Lyson et al. (1993) lament the lack of research on the relationships between territory, economic development processes and poverty. They see these variables as being related and assert that understanding the relationship among these variables as the best hope of understanding the uneven development of nonmetro America and the persistence of rural poverty.

They see the heavy reliance on market forces and neglect of social and political forces to explain economic development as unfortunate. Market forces cannot adequately explain the persistence over time of populations which choose to remain in poor rural areas. Lyson et al. maintain that the concept of economic distance best explains why rural poverty can be expected to persist in disadvantaged areas, understanding how to reduce economic distance may point to policy solutions which will dispel these clusters of persistent rural poverty.

Theories of Rural Economic Development

Storver and Williams (1991) examine recent rural economic development theory and identify two early and relatively unsuccessful approaches to rural economic development: 1. Factory Chasing (1950-1960); 2. Industrial Park/Capacity Building (1970-1980). These development strategies were relatively unsuccessful and sometimes left the community holding an empty building and the economic bag when industries relocated to areas, with even lower wage scales than nonmetro America.

The last economic development model identified by Storver and Williams (1991) is unique to each community and is developed with community involvement and initiative. This is the current paradigm for rural economic development. It does not assume that bigger is always better, but allows each community to access its own strengths and to address its own weaknesses before seeking to attract industry.

Although this would seem to be the most beneficial approach to encouraging economic development in rural areas, it is apparent that some rural areas are too small, as noted by Hoppe (1994), to achieve economies of scale either in infrastructure, available labor pool, or efficient transport networks to attract any large employer. Fuguitt, Brown and Beale (1989) submit that "pooling" resources among rural communities may make these communities more attractive to industry.

Pooling requires efficient transport networks which will enable residents from smaller communities to travel with relative ease (low economic distance costs) to a trade center. Trade centers have developed roughly every 100 square miles throughout nonmetro America in recent years (SCOCOG, 1991). Trade centers often have services

such as regional medical centers, institutions of higher education, retail outlets, and manufacturing and service units. If efficient transport networks exist, smaller communities can access the jobs and services at their trade hub.

Political scientist Cuoto (1995) researched clusters of persistent low income counties in Appalachia and noted that wealthier counties tended to radiate some degree of wealth to bordering disadvantaged counties. His findings indicate that if less-advantaged communities can physically access trade centers with relatively few barriers to mobility, they will prosper from their relationship with the more advantaged area.

As noted by Lyson et al. (1993), if the economic distance costs between the outlying communities and the trade hub are reduced through the creation of efficient transport networks, remoteness will also be reduced. With the reduction of remoteness, real income should rise, thus reducing the poverty in the outlying regions. The creation of efficient transport networks between PLI counties and a central trade hub would appear to be a policy which has the potential of breaking up clusters of persistent low income counties which exist throughout the nation.

CHAPTER 3. CHARACTERISTICS OF THE RURAL POOR

Introduction

Approximately thirty percent of Americans live in areas designated nonmetro by the U.S. Census Bureau (Buttel 1993, 323). The institutions and environment of nonmetro America differ in significant ways from those of metro America, yet, these differences often escape the notice of those crafting public policy that impacts on nonmetro Americans (Browne, 1994). The lack of understanding of rurality has sometimes resulted in a poor fit between policy and population, and partially explains the underutilization of anti-poverty programs by rural people (Ellwood 1988; Jensen 1988; Rank 1986; Rank and Hirschl 1988, 1991, 1993; Watkins and Watkins 1984). It is axiomatic that in order to draft policy which will both achieve policy goals and be utilized by the target population, it is necessary to understand that population.

In this chapter, several aspects of rurality and rural poverty will be examined in order to better understand the target population in the five rural Missouri counties in this study. The concept of rurality as a function of population characteristics, as well as space and distance factors, will be discussed. It will be noted that, in general, rural people work more for less money, are less willing to relocate and cling tighter to traditional values than do their urban peers.

Secondly, the relationship between the characteristics of rurality and poverty will be examined. Nonmetro location will be found to be one of the most compelling factors indicative of poverty status. Among the variables cited as important in understanding the

relationship between geographic and structural impacts of rurality and poverty are distance from a metropolitan center, availability of work, family structure, human capital assets and the social/cultural aspects of the environment. Rural poverty rates will be found to approach those found in inner city tracts, yet the socio-economic differences between metro and nonmetro poverty populations are significant. The high poverty rates found in nonmetro America will take on added significance because of the high proportion of near-poor found in rural areas. The poor and near-poor, those living at or under 200% of the poverty rate, are precariously perched on the edge of poverty and are hypersensitive to macroeconomic trends. The near-poor, described by Ellwood (1988) as the "working poor," will be found to constitute a majority of the populations of the five counties under study.

Because of the established tendency of the poor and near-poor to be strongly affected by macroeconomic trends, understanding the relationship between the macroeconomy and rural America will be important. The third section of this chapter will, therefore, examine macroeconomic trends since World War II and their impact on nonmetro populations, including the short-lived "rural renaissance" of the 1970s and the impact of the economic downturn of the 1980s on nonmetro counties. The economic upturn of the 1990s will also be examined, as well as the possible impact of future macroeconomic trends on the five counties under study.

Having examined the relationship between rurality and poverty and between the macroeconomy and rural poverty, the chapter will next examine the policy environment found in nonmetro America in an effort to determine the types of policy that are most

likely to be utilized by the nonmetro poor. The question of why rural people historically underutilize poverty amelioration programs will be considered.

Finally, Cochran's et al (1996) four contexts of the policy environment (demographic, economic, institutional and cultural contexts) will be applied to nonmetro America and, more specifically, to the five counties under study. This approach reflects a geographic and structural examination of poverty used by researchers such as Weinberg (1987), Duncan (1992), Wilson (1987, 1996), Halperin (1990), Buttel et al. (1993) and others.

To Be Rural in America

Three out of ten North American citizens reside in rural and small town areas where they have distinctively less access to opportunities because of their limited access to programs and facilities fostering economic development. Redress in the form of rural economic policy is necessary to ensure that this 30% of the population can indeed play on the much-vaunted level playing field (Buttel et al. 1993, 323).

The key characteristics which contrast rural and urban populations in America are population size and density, and space and distance characteristics which "...Result in a different scale of life with different responses of institutions." This "different scale of life" is reflected in many measurable outcomes when nonmetro and metro citizens are compared. Nonmetro Americans generally experience lower educational attainment, poorer health status and housing quality, lower incomes, are more likely to have assets and a more traditional family structure than their metro peers (Watkins and Watkins 1984, 10, 24).

When compared to metro families, rural families are more likely to be intact and working. Hamrick found that 69.2% of rural families are two-parent families (Hamrick 1997, 31). There are fewer female-headed households in rural than urban America, although the number of female-headed households is growing in rural as well as urban America. In 1989, Hoppe found that 15.6% of the poor in Midwest households were female-headed compared to 25.7% of metro households (Hoppe 93, 15).

Nonmetro Americans also tend to have a higher attachment to work. In his groundbreaking study on poverty in the 1950s, Harrington (1962) found that "Rural individuals had a higher degree of adherence to the protestant work ethic than did urban individuals and they also had more negative attitudes toward poverty" (Harrington 1962, 43). In the 1980s, O'Hare (1988) found that this trend was still holding, with fifty percent of the nonmetro poor working as opposed to 38% of the urban poor (O'Hare 1988, 9).

Not only do rural workers work more than their urban counterparts, but they earn less. In her examination of labor markets, Tickamyer found that rural labor markets pay lower wages than urban markets, resulting in a greater portion of working individuals with incomes 1-2 times the poverty rate in rural than urban areas (Duncan 1992, 45-62). Gorham found, in 1987, that nonmetro workers were 45% more likely to earn low wages than their metro counterparts and that 75% of young rural workers earned yearly incomes well below the poverty level (Duncan 1992, 21-40). These statistics translate into income distribution which favors metro areas:

In 1987, the vast majority of the richest fifth of households -- 88%-- resided in urban locations. Only 12% of the households in the top fifth

resided in rural areas. By contrast, some 29% of households in the poorest fifth lived in rural areas (Barancik 1990, ix).

In general, rural worker skills are also lower than those found in metro America. Bowden (1986) found higher illiteracy rates and high school drop out rates in rural versus urban areas. He also noted a 10% gap between rural and urban high school completion rates that has persisted since 1960, and that the gap between rural and urban college completion rates widened 1960-1986. In Bowden's estimation, "Rural residents continue to suffer from an educational disadvantage when compared with urban residents" (Bowden 1986, 8).

Fuguitt, Brown and Beale (1989, 295) also found a significant difference in metro/non-metro high school completion rates. The U.S. high school completion rate for males nationwide was 74.1% in 1980. For nonmetro males the rate was 68.2%. The high school completion rate for nonmetro males employed in agriculture was 58.3%, sixteen percent lower than the national average.

Rural sociologists Watkins and Watkins (1984) found a significant difference in health care services available to rural Americans. The space and distance barriers to health care delivery inherent in rural America is further exacerbated by structural factors. Both the Medicare and Medicaid programs reimbursed nonmetro health care providers at rates up to 1/3 lower than metro providers until 1995. This lower reimbursement rate was justified by a perceived lower cost of goods in nonmetro areas, and has further exacerbated the problems of health care delivery to rural Americans (Watkins and Watkins 1984, 18).

Indeed, one might reasonably assume that with the lower wages, less human service access and lower worker skills found in nonmetro America, the cost of living would also be lower. In fact, Garrett et al. (1993) found that for such critical commodities as groceries, transportation, utilities and health care, costs were "proportionally more expensive" in nonmetro than metro areas (Garrett et al. 1993, 233).

A 1976 study of human service delivery in nonmetro America found that although 31% of the U.S. population lived in rural areas, that population contained 44% of the nation's poor, 60% of the substandard housing, 12% of the nation's physicians and 18% of the nurses (Bast and Schmidt 1976, 3-4). Recent studies indicate that those proportions remain relatively constant in the 1990s (Hoppe 1993).

Even though nonmetro Americans are more traditional in many ways than metro Americans, the social trends of this century have had an impact. Fuguitt, Brown and Beale (1989, 5) studied changes in the rural population as evidenced in the 1930, 1950, 1960 and 1980 censuses and noted an increase during that period in single person households, numbers of elderly and percent of female workers. They also noted a shift in rural labor markets away from resource extraction and manufacturing and towards a service economy.

Finally, it is important to examine one more difference between metro and nonmetro individuals: ownership of assets. As noted by Rodgers and Weiher (1988), rural people are more likely to have assets than their nonmetro peers. In Halperin's study of Appalachian culture, she noted that access to land assets gives the rural poor more flexibility and independence in responding to economic events than their urban peers.

Land assets provide a range of livelihood strategies which can be employed in hard times (Halperin 1990, 143). For instance, a recently divorced daughter can move a mobile home onto her parent's farm property and have access to childcare assistance, transportation and garden/livestock resources through this association while maintaining a separate household.

In summary, nonmetro Americans generally work longer hours for less pay, have lower human capital skills, suffer significant geographic and economic impediments to receiving human services such as health care and public assistance, are more likely to have assets and to live in two parent families than their metro counterparts.

The Poor and the Near-Poor in Rural America

Examining poverty on a geographic basis leads one to the conclusion that poverty is mainly a rural problem (Weinberg 1987, 383).

Apart from the disability of the household head, rural location is the most powerful factor associated with black childhood poverty (Duncan and Rodgers 1988, 1013).

Rodgers and Weiher (1988) found that the poverty rates in nonmetro America are comparable to the poverty rates found in the inner cities, yet they found important differences between the metro and the nonmetro poor. Like rural citizens above the poverty line, the rural poor are more likely to be employed, more likely to be married, less likely to have children and more likely to have assets, but a lower income than their metro counterparts. Additionally, they are much less likely to receive public assistance and be

minorities (Rodgers and Weiher 1989, 763). Poor rural families are also more likely to have two parents than their metro counterparts, with 44% of the nonmetro poor living in two parent families contrasted with 37% of the suburban poor and 27 % of the central city poor in 1990 (Hoppe 1993, 13).

Corcoran et al. (1985), in their analysis of data from the Panel Study of Income Dynamics, found that **rural poverty is more persistent than urban poverty**. Rural poverty tends to be deeper, to last longer and to be more geographically concentrated. In O'Hare and Curry-White's examination of recent trends in rural poverty, they found that 7.8% of the nonmetro poor are in the midst of a long-term spell of poverty, contrasted to 4.4% of the urban poor. They also found that the nonmetro poor are more geographically concentrated with 39% living in high poverty areas as contrasted to 26% of the urban poor (O'Hare and Curry-White 1992, 1-3).

Geographically discrete regions of persistent poverty can be said to be a defining characteristic of nonmetro America. In Beale's analysis of the compositional features of rural populations he cited these pockets of persistent poverty as a major reason poverty rates in rural America remain above those in metro areas. He found that despite the fact that nonmetro populations had a lower proportion of three typically low-income groups, blacks and Hispanic minorities, households of unrelated individuals and female-headed households with children, "With these compositional features, one would expect poverty to be higher in metropolitan areas, yet it has always been higher among rural and small-town people" (Fuguitt, Brown and Beale, 1989, 381-382). Beale attributes the higher poverty rates found in nonmetro America to three factors: more worker-related poverty

due to low wages, a higher incidence of work-limiting health disability and "**...Large pockets of chronic...poverty, especially in southern Appalachia and the Ozark-Ouachita Highlands**" (Fuguitt, Brown and Beale, 1989, 382).

Duncan (1992) also found that long-term poverty is greater in nonmetro areas and that, unlike many of their urban peers, the rural long term poor tend to "live by the rules." Many of the rural poor are not poor because of an aversion to work, but because so few good-paying jobs are available to them. She also found that the most vulnerable to poverty in rural America were those lacking a high school diploma and who live farthest from metropolitan areas, and noted a growing number of female-headed households among the long-term rural poor, although at rates lower than the incidence found among urban populations (Duncan 1992, 41-62).

Rural poor families are also more likely to have two parents than their metro counterparts, with 44% of the nonmetro poor living in two parent families contrasted with 37% of the suburban poor and 27 % of the central city poor (Hoppe 93, 13).

Despite the fact that nonmetro poverty is more pervasive and of longer duration than metro poverty, the nonmetro poor are significantly less likely to receive public assistance than the metro poor. O'Hare (1988) found that only 35% of the eligible nonmetro poor receive cash welfare assistance and that anti-poverty programs have historically had little to do with helping nonmetro people escape poverty. Rank and Hirschl (1988) found that the nonmetro poor who do utilize public assistance tend to be more attached to work than their metro counterparts, exiting eight months earlier, on average. In their longitudinal study of AFDC and Food Stamp usage, Rank and Hirschl

(1988) found that 79% of nonmetro recipients exited with a median exit time of 16.7 months, compared to 54% of the urban poor with a median exit time of 28 months (Rank and Hirschl 1988, 195).

Garkovich et al (1997) noted that because rural labor markets pay less than urban markets, more rural than urban workers earn the minimum wage. Even with full-time work, minimum wage laborers will not rise above the poverty level. "Gross earnings of a year-round full-time (minimum wage) worker receiving \$5.15/hour will be \$206/week, \$628/month, \$10,712/year. A worker must make \$7.28/hour to bring a family of four to today's poverty level" (Garkovich, Hansen and Dyk 1997, 7).

The focus on the rise and fall of poverty rates by researchers and policymakers tends to mask the fact that even among those who are above the poverty line in nonmetro America, a disproportionate number are barely above the line, and prone to slipping into poverty. Those whose incomes fall within one to two times the poverty rate are "...Very vulnerable to economic downturns" (Hamrick 1997, 35). This vulnerability adds to both the pervasiveness and the intransigence of rural poverty.

Those whose incomes fall within 1-2 times the poverty rate have only recently received serious attention from poverty researchers. O'Hare (1988) labeled them the "new poor," Ellwood identified them as the "working poor" (1988), Shapiro (1989), Hamrick (1997) and others label them the "near-poor." Tickamyer (1992) and Shapiro (1989) find that the near-poor status results from persistent low wages in nonmetro areas, a not surprising outcome of lower wages and the part-time seasonal employment that has long been typical of the nonmetro landscape (Tickamyer 1992, 31-42).

In 1990, 19% of Missourians fell within the near-poor category. In the Missouri Ozarks, the ranks of the near-poor swell even higher. In 1990, the five counties in this study had near-poor population rates varying from 29-37% , that is, 15-23% higher than the national rate. Furthermore, when near-poor percentages are combined with poverty rates in these counties (which vary from 22-27%) those who are not poor or near-poor form a minority of the population. In Oregon County, for instance, the poverty rate was 27% in 1996 and the near-poor percentage was 34%. In 1990, therefore, only 39% of the county population had incomes higher than twice the poverty rate (Table 3-1). This is more pervasive poverty than found in nonmetro America at large:

In 1995...in the United States...Rural workers were much more likely than urban to be near-poor -- 20 percent of rural workers were near-poor, 14 percent of urban workers. The share of rural workers with family income over twice the poverty level was 71 percent, versus 79 percent of urban workers (Hamrick 1997, 35).

To put it another way, only a minority of the population in the five counties in this study have incomes above 200% of the poverty level and are, therefore, not extremely vulnerable to macroeconomic trends as they effect the nation and the state. In light of this, optimism about the recent economic gains made in rural Missouri seem out of place. Given the preponderance of poor and near poor populations in rural Missouri, recent economic gains are likely to prove fragile and, with the winds of a macroeconomic downturn, not likely to be sustained.

Table 3-1
Percent of Population by Poverty Status, 1990
**PL - Poverty Level*

	<u>Below 100% PL*</u>	<u>100-200% PL*</u>	<u>Over 200% PL*</u>
Missouri	13%	19%	65%
Howell County	25%	29%	44%
Oregon County	27%	34%	38%
Douglas County	25%	32%	42%
Ozark County	22%	32%	45%
Shannon County	24%	37%	38%

Source: US Bureau of the Census

The logical conclusion to be drawn from this data is that to be poor in nonmetro America is often to be working poor. Katz (1996), in his history of American poverty policy, noted that the willingness to create public policy to assist the poor has historically depended on whether the group was perceived as being deserving or undeserving. This designation was based largely upon public perception of the willingness of the group to work. Groups who have received public assistance in the past, the elderly, the disabled and children, have fallen into the deserving category, that is, individuals deemed unable to work, not able but unwilling to work.

Ellwood (1988) notes the irony that exists due to the "poor support" that the working poor have historically received in this country's policy history. The nonmetro poor, he tells us, are largely the deserving poor, by the standard of willingness to work.

Davis agrees:

The poverty income differentials between the urban and rural poor are not related to any predisposition on the part of the rural poor to avoid work, **since a significantly larger proportion of the rural poor works compared to the urban poor** (Davis 1994, 197).

The question of why the rural poor have been largely overlooked by policymakers is, therefore, a puzzling one. Duncan (1992) posits that the rural poor are less visible and their behavior is generally less threatening to the public on a day to day basis as reasons policymakers overlook their unique needs. Hoppe (1993) maintains that poverty is generally perceived as a problem for urban rather than rural areas, despite the fact that poverty is proportionally higher in nonmetro America. O'Hare (1988, 13) concurs, stating that "The public image of the poor in the 1980s was based on media attention to the growing urban underclass...and...left the impression that poverty is largely, if not solely, an urban problem" (O'Hare 1988, 13).

Macroeconomic Trends and Rural America

...It is as if poor families are out in the ocean, swimming against the policy tide. Only the heroes or the very fortunate make it to shore. A society that wishes to reduce the number who swim only to drown has to do something about the tide (Garrett et al. 1993, 256).

In examining nonmetro poverty, recent economic history indicates that the "tide" nonmetro Americans swim against is macroeconomic downturns. Campbell, Spencer and Amonker (1993) note that outmigration from the Missouri Ozarks region is

largely in response to two factors: the national economy and regional changes (Lyson et al. 1993, 36). In Wilson's seminal study of the urban underclass, he prescribed macroeconomic solutions to pervasive ghetto poverty, and was widely criticized for it, but the economic history of nonmetro America in the 1970s, 1980s, and 1990s seems to verify that the persistently poor and the near poor are hypersensitive to macroeconomic trends.

In their examination of the impact of macroeconomic trends on nonmetro economies, Fuguitt, Brown and Beale (1989) noted the effects of the 1960-1980 nationwide shift from a largely agriculture and manufacturing economic base to more service sector employment as having increased the vulnerability of rural economies to cyclical macroeconomic changes due to four factors: the internationalization of markets, the deregulation of financial markets, the greater level of labor market specialization and the resulting smaller net size of nonmetro labor markets (Fuguitt, Brown and Beale 1989, 260).

The effect of these changes on nonmetro America, according to Zuiches and Browne, was exacerbated during the post-World War II period when the loss of agricultural jobs and general economic stagnation led many of the better educated to flee nonmetro America for job prospects in metropolitan areas (Ford, 1978). This "brain drain" was not reversed until the 1970s when rural America enjoyed what is widely hailed as a "rural renaissance." This period of relative prosperity was fueled by rising prices for farm products, the relocation of manufacturing assembly plants to nonmetro areas in pursuit of low wages, the return migration of retirees to childhood homes and quiet, less expensive

environments and the OPEC embargo which stimulated the domestic energy industry (Duncan 1992, xxi).

Unfortunately, the rural renaissance of the 1970s ended with the decade. Spurred by double-digit interest rates, the rural economy went sour, and within a few years, the immigration pattern of the 1970s halted. "The slowed nonmetro population growth in the 1980s seems to signal a return to the general rural decline of the 1950s" (Bowden 1986, 3).

According to Long (1990), nonmetro per capita income in real terms stagnated and fell in relation to metro per capita income during the 1980s, and a widening rural-urban income disparity grew. Rural unemployment rates exceeded those of urban areas, as well, and rose faster. "At one point in the decade, the rural poverty rate was 35 per cent higher than in metro areas" (Long 1990, ii-iii).

Population trends in nonmetro America also reversed themselves from the previous decade. Census data showed that 50% of nonmetro counties lost population, 1983 to 1985, a rate 2.5 times higher than in the 1970s. In 1986, rural job growth hovered at 4% contrasted to a 13% urban rate, and unemployment rates exceeded 9% in over 1,000 non-metro counties (Bowden 1986, 3). The sluggish economy fueled a sustained out-migration and a rise in rural poverty, especially among young families, as low-skilled jobs were lost to other nations. This trend coupled with a decline in the farm sector and in rural-based resource industries such as timber, oil, gas and mining resulted in a widening gap between metro and nonmetro well-being a return to the rural "brain drain" reminiscent of the 1950-1969 period (O'Hare 1988, 1-3).

Lichter et al. (1993) examined nonmetro/metro migration patterns 1985-1986 and found a 2.6/100 outmigration from rural areas by college-educated persons and a .17/100 immigration rate by non-college educated metro individuals: "Nonmetro areas are clearly exchanging their best educated for less educated (immigrants) from the metropolitan areas" (Lichter et al. 1993, 55).

Indeed, the only poverty cohort in nonmetro America, which experienced a decline in poverty rates during the 1980s was the elderly, who benefitted from government transfers such as Social Security, SSI and Medicare. But even the nonmetro elderly did not fare as well as their urban cousins, consistently sustaining higher poverty rates (Duncan 1992, 3-20).

With the close of the 1980s, the winds of economic change again blew in rural America, bringing an economic recovery which reversed the downward trends of the 1980s and echoed those of the 1970s. From 1990-1996, real earnings increased 1.8% in nonmetro areas, and the recovery seemed to pick up velocity with each passing year. Median nonmetro household income, for example, increased 2.9% 1994-1995 (Hamrick 1997, 4-11). Low interest rates and increased exports have been identified as significant macroeconomic trends influencing the rural economic turnaround of the 1990s. "Rural labor markets are more sensitive to exchange rate movements and appear to be more export-dependent than those of urban areas" (Hamrick 1997, 4-11).

The migration patterns of the 1980s were also reversed. From 1990-1996, the nonmetro population rose approximately 6%, with one-half of that increase coming from immigration (1.5m) from metro areas. Additionally, many metro immigrants brought their

retirement incomes with them and fueled a rise in per capita income throughout nonmetro areas, 1990-1996. These employment, income and population trends were especially pronounced in "high amenity" nonmetro areas such as the Ozark-Ouachita Plateau in Missouri, according to the Economic Research Service, USDA (Hamrick 1997, 4-11).

Despite the economic and population expansion, by mid-decade nonmetro median personal income was \$17,933, just 78% of metro median personal income, \$22,915 (Hamrick 1997, 28). And, although the nonmetro poverty rate had declined slightly to 15.6% in 1995, it remained above the urban poverty rate of 13.4% and human capital skills in rural America continued to lag behind those of metro areas. Indeed, a nonmetro-metro poverty gap of 2.2% has remained almost constant since 1991 (Hamrick 1997, 31).

Despite the relative prosperity of the 1990s, rural America remains vulnerable to economic downturns. Low wages translate into high numbers of poor and near-poor individuals who are either in poverty or perched on the edge of poverty. There is no reason to believe that the rural labor market equation has changed significantly since the 1980s. This being the case, nonmetro America may be only a national economic downturn from once again experiencing rising poverty rates.

The Policy Environment in Rural America

Given the persistence of poverty in rural America, it remains problematic to researchers and policymakers alike that the nonmetro poor underutilize existing poverty programs when compared to metro utilization figures. Ellwood (1988) posited that cash assistance programs violate the values of individuals and pose unreconcilable personal conflicts which limit program utilization. His treatment of the working poor advocated

policies such as minimum wage increases and the expansion of the Earned Income Tax Credit as methods which would be more palatable to the nonmetro working poor. Rank (1987) and Rank & Hirschl (1988, 1991, 1993) attempted to determine why rural people underutilize entitlement programs in four different studies, finding that population density and rural values were key variables in the underutilization of public assistance.

Rank and Hirschl combined qualitative and quantitative methods, including interviewing a 2% random sample of rural families eligible for public assistance in Wisconsin. The cases selected were interviewed at six month intervals. Among the reasons cited for resistance to participating in public assistance were feelings of shame and ignorance of programs available. Quantitative analysis was used in order to identify the variables most predictive of public assistance usage by nonmetro populations. In their final study, which used longitudinal data from the Panel Study of Income Dynamics, Rank and Hirschl concluded that the single most important predictor of public assistance utilization was population density. They concluded that values were less of an obstacle to rural Food Stamp usage than isolation. "Population density leads to more accurate information about welfare programs and to less adverse attitudes towards such programs" (Rank and Hirschl 1993, 615). Fischer's study of gang behavior in urban settings found that high population density allows groups to operate outside of the social norms of the wider population. He found that once a critical population density is reached, "universes" develop within the general population which provide reinforcement and maintenance of an aberrant value system which runs counter to the population at large (Fischer 1980). Interpreted in light of the Rank and Hirschl studies on the underutilization of public

assistance by nonmetro people, it would seem that many rural areas lack the population density necessary to allow the development of a universe with values supporting the use of public assistance.

The Rank and Hirschl study is an example of sound research methodology which successfully combines quantitative and qualitative aspects. Contrasted to this is a study on hunger in America conducted in 1986 by The Physicians Task Force on Hunger in America under the auspices of the Harvard University School of Public Health. This study identified 150 "hunger" counties in the United States. No field research was conducted and conclusions were drawn entirely from computer analysis of income and food stamp participation statistics for 1984 from the Census Bureau and the United States Department of Agriculture. Those counties in which 20% or more of the population had incomes below the poverty line and in which at least 33 percent of eligible Food Stamp recipients did not draw benefits were designated as "hunger counties", that is, counties in which a sizeable portion of the population was deemed malnourished (Brown 1985). Four of the five counties in this study were among the 17 Missouri counties designated as "hunger counties." Interestingly, the only county which was not included, Shannon County, is regarded as being among the poorest of the poor counties in the region, sustaining poverty levels of 24% and near-poor levels of 37% in 1995 (U.S. Commerce Bureau of Economic Analysis). When the Task Force reported its findings, two congressmen from Missouri questioned the validity of the conclusions, as did many local residents. When five members of the Task Force visited Howell County in 1986, the most common answer they

received to the question of why people who are eligible for food stamps do not use them was "pride" (Ellison 1986, 1).

One questions the validity of a study based on income and food stamp statistics with no field research or qualitative data on the socio-economic traits of the population. Indeed, Halperin asserted in her study of poverty in Appalachia that per capita income statistics are an incomplete measure when determining the relative well-being of deeply rural people. She identified a series of "multiple livelihood strategies" employed by Appalachian families to augment cash income. Campbell, Spencer and Amonker (1993), in their treatment of poverty in the Missouri Ozarks, also note the prevalence of "adaptive behaviors to poverty" which "Provide resources necessary to supplement their limited cash income and mitigate the effects of poverty" (Lyson et al. 1993, 31). The income and food stamp measures which the Harvard study used are no doubt of significance. However, the degree of that significance cannot be accurately ascertained without field research. As noted by Rank, "The quantitative sample is designed for statistical modeling of various events, whereas the qualitative sample and the field research provide greater insight into those events" (Rank &Hirschl 1988, 193).

These studies point out the importance of knowing one's research population, quantitatively and qualitatively. Key to the understanding of any population, metro or nonmetro, is the concept of political culture and the resulting policy environment. As noted by Kincaid:

Political culture is an enduring set of publicly shared and socially communicated beliefs, values and traditions about politics which constitutes a general framework of plans, recipes, rules and instructions

for the conduct of political life, especially who gets what, where, when and how (Kincaid 1980, 108).

Elazar (1984) identified operative political cultures in the United States which can be used to predict policy outcomes in any designated state to a significant degree. He was among the first to apply the concept of political culture at the sub-national level and to show that the concept was valid in predicting political outcomes.

Cochran et al (1996) expanded on the concept of political culture by identifying four contexts which comprise the policy environment. These are the institutional, economic, demographic and cultural contexts of the environment under study. The sum of these characteristics allow the researcher a great deal of insight into what is and is not politically feasible in regards to the population under study. Applying the concept of the policy environment to nonmetro America can be useful in identifying the aspects of rurality which bear on political feasibility and the acceptability of policy to rural people. That is, the likelihood that a policy will be utilized and will achieve its policy goals. The institutional context explains the policymaking dynamics which bear on the population under study; The economic context examines the institutionalized modes for the distribution of resources; The demographic context describes the target population by demographic and socioeconomic characteristics; The ideological or cultural context defines the values paradigm of the population that determines what will and will not be acceptable to the target population (Cochran 1996, 7-15).

The Demographic Context of the Rural Policy Environment

Policies directed at alleviating poverty rest on a set of assumptions regarding the demographic composition of the poor and the psychological

dispositions of poor individuals. Evidence from long-term study of a representative sample of low-income individuals shows that poverty is very widespread, but not usually persistent, and that the characteristics of the persistently poor do **not** conform to the conventional wisdom (Corcoran et al. 1985, 516).

In 1992, O'Hare and Curry-White examined the racial composition of the nonmetro population and found it to be quite different from the metro population. Fifty-five percent of nonmetro populations are white, contrasted to 17% of the inner city population. Forty-seven per cent of the nonmetro population is female, compared to 60% of the central city census tracts. In addition, rural populations are older than inner-city populations, as a whole (O'Hare and Curry-White 1992, ii).

In the state of Missouri, the race distribution in 1990 was 87.7% white, 10.7% black, 1.2% Hispanic and 1.2% Asian and Native American. The five counties in this study are notably lacking in racial diversity. In both the 1980 and 1990 census, none of the counties had fewer than 98.9% white population and only two of the counties showed any black population at all, and that at only 1% or 2% of the total population. Hispanics are a little better represented in the five county area, varying in 1990 from 3-5% of the population. Asians and American Indian populations in the five county region vary from 1-3% (US Census Bureau). It is apparent at first glance that this five county area of the Missouri Ozarks is singularly homogenous in racial composition over time and does not reflect either national or state population trends. When the migration patterns and history of this area is examined in Chapter 5, some of the reasons for this lack of diversity will become apparent.

Nationwide, the elderly comprise a higher proportion of the nonmetro population than the metro population. In 1996, 18% of the nonmetro population was elderly contrasted to 15 percent of the metro population (Hamrick 1997, 52). In the five counties examined in this study, the elderly population ranges from 16.2% in Douglas county to a high of 21.1% in Ozark County. The average for the five county area is 18.38%, roughly equivalent to the nonmetro elderly population nationwide. The nonmetro elderly are the only group whose poverty rates fell 1973-1987, due largely to Social Security, SSI and Medicare payments. Nonetheless, the rural elderly have higher poverty rates than their metro counterpart (Duncan 1992, 3-10).

Hamrick found that the rural elderly are less healthy than their metro counterparts, have less education, lower incomes and are more likely to own their own homes at a rate of 84% compared to 76% for the metro elderly. (Hamrick 1997, 55). Interestingly, Glasgow et al (1993) found that the rural elderly are happier than the metro elderly with their circumstances, despite the lower income and services found, with 90% indicating that they were very satisfied with their lives (Glasgow et al. 1993, 283).

As noted earlier, nonmetro citizens are more likely to live in two parent families, reflecting more traditional beliefs about sexual behavior and marriage. Nonetheless, the trend towards out of wedlock births is rising in nonmetro as well as metro areas. There is also an increasing number of single parent households in rural areas, although at lower than urban rates. McGranahan sees this as a troubling trend in rural America. In his study which correlated socio-economic traits with crime rates, the most highly correlated factor was the percent of the population not living with both parents. "Incomplete, or broken

families, is a key link to rural crime rates -- not poverty, race or population growth" (McGranahan 1986, 2).

The nonmetro population is, by definition, less dense than in urban areas. Long (1990) found that rurality, or sparseness of population, is one factor in obstructing economic growth. The sparsity of settlements make rural areas "... Largely unsuitable for complex manufacturing operations" (Long 1992, 3). Rank and Hirschl (1993), as noted earlier, found sparsity to be highly correlated to the underutilization of public assistance by rural people.

Population growth in nonmetro areas has experienced a resurgence since the 1980s. Three-fourths of the nation's 2300 non metro counties have increased in population, 1990-1996, compared with less than half during the 1980s (Hamrick 1997, 46). It remains to be seen if this population growth will continue in the face of a nationwide economic downturn.

The Institutional Context of the Rural Policy Environment

Interest groups present a dilemma to democratic government
All persons have a right to make their opinions known to government
decision makers, but if lobbying becomes a profession in which
well paid and skillful political leaders represent the claims of the
wealthy and powerful, the idea of political equality among all citizens
can be seriously compromised (Pilant 1994, 112).

Examining the interaction between political institutions and rural America indicates that rural America has been losing political influence over the past century as it has lost population. At the turn of the century, the majority of Americans lived in nonmetropolitan areas. By 1990, that situation was reversed, with 79.4% of the U.S. population classified

as metro by the Census Bureau, as opposed to 20.6% nonmetro. In Missouri, rural citizens in 1990 comprised a slightly higher proportion of the population with 68.2% metro and 31.8% nonmetro (Pilant 1994, 2). At either the national or state level, these figures translate into a super majority of metro citizens. In a majoritarian system, this means a loss of influence over public policy outcomes for nonmetro citizens. The result of the declining rural influence in state and national legislatures can be seen in such policies as the national deregulation of the transportation and communication industries, the elimination of field researchers by the USDA in 1980, and the ongoing reduction in federal subsidies to rural America which has occurred since the 1980s. This decline in the subsidization of rural life is especially hurtful, as noted by Watkins and Watkins (1984), because rural areas are generally poorer than urban areas, "In rural America, the tax base is insufficient to generate needed dollars. Furthermore, low-income rural people already pay a disproportionate share of their income in sales, excise and property taxes" (Watkins and Watkins 1984, 53).

Supreme Court decisions which mandated redistricting at the state and federal levels in 1964 (*Baker v. Carr*, *Wesberry v. Sanders*, *Reynolds v. Simms*) pried political control of the state and federal legislatures from entrenched rural interests. The courts found that, as the U.S. population migrated to urban areas throughout the 20th century, the rural-dominated legislatures failed to redistrict accordingly. As noted by Sauer (1918, 420), "One vote in Boone County is as effective as three in St. Louis County or in a part of St. Louis City." No doubt these "one man, one vote" rulings were just and fair, but they also

were the death knell to the dominance of public policy by rural interests which had existed since the beginning of our nation's history.

The rise of interest group pluralism since 1974 further exacerbate the decline of rural influence on public policy at all levels. Lowi's (1969) indictment of what he termed "Interest Group Liberalism" lamented that such a system rewards those who are organized and wealthy. Rural Americans are, for the most part, neither. As a matter of fact, the political history of rural America shows rural people singularly resistant to political organization. Thelen's study of Missouri political history asserts that it was rural resistance to change and economic progress that caused the state to fail to live up to its promise of becoming the commercial heart of the nation at the turn of the 19th century (Thelen 1991).

As noted by Browne (1994), one result of the decline of rural influence on congress has been that the only rural groups whose interests are represented to the federal government are corporate farming interests which are representative of only a small portion of the rural populace. Browne maintains that there are two main reasons that poverty persists in rural America:

- 1) The larger failure of policymakers to discover -- much less apply -- the many remedies needed to alleviate poverty in general;
- 2) The near inability of U.S. governing institutions to deal successfully with the wide range of rural needs. (Browne 1994, 1)

Added, therefore, to the problems inherent in the loss of political representation due to population decline, many rural areas find themselves excluded, by virtue of their lack of organization and wealth, from influencing public policy through interest groups. The same is not true for metro America. For instance, there is a prestigious Urban Institute in

Washington, D.C., which engages in ongoing research on urban policy problems and lobbying of the congress on behalf of metro America. There is no Rural Institute.

Added to the disinclination of rural people to organize politically is a general distaste for the political process in Missouri, identified by Elazar as the individualistic/traditionalistic political culture. Elazar found that Missourians regard government as a necessary, but unpleasant, evil, and are generally distrustful of government. Therefore, policymakers in the state see their roles as primarily "conservative and custodial." This lack of citizen confidence in government coupled with the desire that government do as little as possible translates into a low tax, low service level orientation in the state (Elazar 1984; Pilant 1994).

According to Pilant, Missouri is conservative politically, programmatically and financially. In ranking Missouri in comparison to the other states by level of financial support for the following policy areas in 1990, he found that Missouri has more wallet than will when it comes to dealing with funding public policy. When ranked against the 50 U.S. states:

Table 3-2
Missouri/ 50 States, 1990: Level of Support by Policy Area
1=most/ 50= least

Population, 15/50 states
Total Land Area, 19/50
Elementary & Secondary Education, 40/50
Higher Education, 46/50
Highways, 44/50
Welfare, 43/50
Corrections, 41/50
Health, 38/50
Police Services, 34/50
Natural Resources, 33/50
Hospitals, 30/50

(As far as state income is concerned, Pilant found that Missouri ranks relatively well in agriculture and manufacturing income as compared to the 50 states:)

Farm market value added, 16/50 states
Manufacturing value added, 16/50

(Pilant 1994, 2, 114)

Due to the political culture of the state, therefore, the Missouri General Assembly does not often act as a policy innovator. Generally, action is taken only if citizens demand it, or if they are required by external forces, such as the federal courts in the case of public school desegregation rulings regarding Kansas City and St. Louis and the recent passage of SB380, The Outstanding Schools Act.

The ideological fervor of the Missouri Republican and Democratic parties is not as keen as in many other states. Paddock measured the ideological cleavages between the two major parties in thirty state party systems. Of the party systems compared, only 11

were closer in ideology than Missouri's Democrats and Republican. Missouri's parties differ on many issues, but Democrats are generally more conservative than the national party and, therefore, more in tune with their generally conservative constituents (Paddock 1995). This allows pragmatism to mediate partisanship and enables outstate legislators cross party lines on issues beneficial to nonmetro Missourians, fostering a rural-urban cleavage in the General Assembly. According to Pilant, outstate legislators have historically banded together to block legislation beneficial to urban areas and to prevent the nomination of gubernatorial candidates from St. Louis or Kansas City (Pilant 1994, 9).

In fact, the rural component of the legislature has been successful in maintaining a high level of influence on the General Assembly, despite population losses. This has been effectively accomplished by two tactics: keeping the major metropolitan areas of the state divided so that they rarely combine their votes on an issue and through exercising seniority. Rural Missourians historically tend to retain their individual legislators in office over many terms. Therefore, since party leadership positions are largely, but not exclusively, based on seniority, this has allowed outstate legislators to dominate the political leadership of the Missouri General Assembly. For instance, the current Speaker of the House, Steve Gaw, is from Moberly. The previous Speaker, Bob Griffin, held the post for eighteen years and was from Cameron. The current Pro Tem of the Senate, Bill McKenna, is from Barnhart and the previous Pro Tem, James Mathewson, is from Sedalia. Until his re-election defeat in November, 1998, the chairman of the Senate Appropriations Committee, arguably the second or third most powerful position in the state, was Mike Lyber from Huggins, an unincorporated rural settlement. The seniority system of the state legislature has worked to

the benefit of rural Missourians. However, this will almost certainly change in the next few years due to the imposition of term limits on House and Senate members, effective 1992, when Missourians voted to amend the state constitution to create eight year term limits for the House and Senate. When rural Missourians, ever distrustful of government, voted in favor of term limits, they were unwittingly limiting their political influence in the legislature. Due to term limits, it is reasonable to expect more pronounced urban influence on future legislation.

Political party control in Missouri is, not surprisingly, relatively decentralized. Cotter et al. (1989) measured party organizations in the states and found the Missouri Democratic party to be moderately weak and the Missouri Republican party to be moderately strong when four measures were applied to each: party budget; professionalization of leadership positions; money and services provided to candidates; accessibility of headquarters (Cotter et al. 1989, 32). The state party system is a modified two party system with one party hegemony at the county level. The source of county-level party dominance can be traced back to the Civil War when border war raged along both the Kansas-Missouri and Missouri-Arkansas borders. In the Missouri Ozarks, immigrants 1830-1850 were predominantly anti-slavery Union sympathizers from the hill country of Kentucky and Tennessee. These immigrants settled the western half of the Ozarks, from Howell County to the Kansas border. The counties of the western Ozarks are still dominated by the Republican Party (Rafferty 1983). In Howell County, for example, the entire courthouse is Republican, and it is unusual for a Democrat to be successful in county or state races in Howell County. The same is true for her sister counties to the west. The eastern half of

the Ozarks, however, was settled by immigrants who were southern sympathizers and who migrated into the Ozarks from slave-holding areas of Kentucky and Tennessee before and after the Civil War. These counties remain, to this day, predominantly Democratic (Fenton 1957). The county which borders Howell County to the east, Oregon County, has a courthouse which is entirely Democratic. It is as unlikely for a Republican to be elected in Oregon County as it is for a Democrat to be elected in bordering Howell County. The five counties in this study follow this historic pattern of party alignment to this day. Shannon and Oregon counties to the east are predominantly Democratic, while Howell, Ozark and Douglas counties to the west are strongly Republican. In commenting on the persistence of historic traditions in the Missouri Ozarks, Rafferty (1983, 146-147) noted:

Because for many years only a few outsiders entered the area, the values, beliefs, technology, and general lifestyle came to be patterned after those of the first immigrants...The Ozark social region has been, until recently, something of a backwater area, with a distinctive and unchanging cultural landscape.

In conclusion, the Institutional Context of the rural policy environment in Missouri finds rural citizens losing representation in the General Assembly in tandem with the loss of population in nonmetro counties. Rural legislators of both parties have, for years, made up for their lack of numbers by voting together on many issues deemed to be of mutual benefit to rural Missourians and by uniting against metropolitan interests and candidates. Two recent trends will weaken the influence of outstate Missouri on state policy: The increased influence of interest groups, which favor the wealthy and organized; and term limits, which will rob rural office holders of the opportunity to gain and hold senior leadership positions in the Legislature over time.

The Economic Context of the Rural Policy Environment

Poverty is as much a symptom of a malnourished economy as it is a reflection of the work-limiting characteristics of individuals (Ilvento and Garkovich 1989, 16).

Rural workers have lower skills and less education than their urban peers. Rural jobs pay less, on average, than metro employment. When it comes to determining which of these two statements is causative and which is resultative, one is caught in a classic "chicken or the egg" dilemma. Both these traits have economic impacts on Rural America. As noted by Duncan (1984) in his analysis of Panel Study of Income Dynamics data, years of schooling was found to be responsible for 20% of the variation in hourly earnings, a rate twice that of all other characteristics measured (Duncan 1984, 111). Tickamyer (1992) analyzed data by labor markets and found that poverty rates vary according to the type of labor available. Narrowly based labor markets, such as those which predominate in rural America, tend to have the highest poverty levels. She also found that rural labor markets, overall, have more working poor than urban markets due, in part, to lack of diversified labor markets (Duncan 1992, 59).

Lyson et al. (1993) note the existence of a dual labor market in rural America. Primary sector jobs offer advancement and benefits, but are very limited in number. Secondary sector jobs are generally low paying service jobs which offer employees no benefits or advancement and are readily available. O'Hare (1988, 5) has noted that most of the growth in the rural labor market during the 1980s was in low-paying service and trade sector jobs. He found that less than 10% of employment was farm-based, 15% was in

resource based industries such as farming, mining or timber, manufacturing employed 18% of rural workers, 5% were in construction and 63% were in the service and trade industries. He also noted that the increase in service and trade sector jobs indicates a shrinking of the manufacturing base in rural America and does not bode well for better wages, benefits or jobs for better skilled workers.

Lyson et al. (1993) also noted another trend in nonmetro labor markets that does not appear to bode well for the future: the increasing number of businesses in rural communities which are owned by absentee corporations. These businesses pull revenue out of the community to their corporate hub and return little to the community. They noted studies conducted in 1946 and 1970 by Mills and Ulmer which contrasted communities with largely locally-owned businesses with communities in which most of the businesses were absentee owned: "Small business dominated communities offer better social, economic and political welfare for a community than do those dominated by few, large, absentee-owned firms" (Lyson et al. 1993, 120).

The deregulation of the transportation and communications industries mentioned earlier has hastened the demise of the rural small businesses by placing them in competition with large absentee-owned corporations who benefit from economies of scale such as owning their own transportation fleets and warehouses. When local business owners pay freight, they must charge higher prices than those with in-house transportation. The net effect has been the "Walmartization" of many rural areas and the demise of locally-owned businesses. This has not been beneficial to the social, economic and political welfare of rural communities, as noted by Lyson et al. (1993).

Hamrick (1997) noted that the single most important factor impacting on rural labor markets was interest rates. She notes that the high interest rates in the 1980s were the "...Key to suppressing rural labor market recovery" (Hamrick 1997, 4). Rural labor markets are also susceptible to adverse exchange rate movement and appear to be much more export-dependent than urban labor markets (Hamrick 1997, 11). Rural labor markets appear to be more sensitive to economic downturns because rural towns are often dependent on one or two industries for much of their employment. A recession in one or both of those industries can send an entire community into a tailspin. During the recession of the 1980s, for instance, rural unemployment ran 26% higher in some regions than urban unemployment rates. O'Hare noted that this reflected the limited ability of local economies to respond to economic shifts due to lack of diversification in their economies (O'Hare, 1988: 4). Bowden (1986) found that the structure and performance of rural labor markets impacts strongly on the rural poor. He also noted the higher work effort of rural people.

The presence of an "underground" economy in nonmetro America has been attested to by many researchers. Halperin (1990) offers one of the most in depth examinations of the hidden rural economy. Through visiting open air markets in Appalachian counties and interviewing participants, she was able to discover a network of alternate income activity. Her work gives evidence to the existence of an underground rural economy whose members do not participate in the upwardly mobile trek of many Americans and who are not interested in doing so. These individuals will not work a steady job, will not partake of education and government programs and choose instead to live a life of multiple livelihood strategies, based largely on kinship associations. In these kinship associations:

What may appear as quitting a job or as irresponsibility toward a job may simply be replacing wage labor with one or a set of work tasks that are safer, offer better pay and more time flexibility and provide greater independence and a sense of self-worth. Sporadic employment is only sporadic...to the mainstream capitalistic economy (Halperin 1990, 143).

In their examination of the underground rural economy, Garrett et al. (1993), found that the key to benefitting from alternative income strategies such as provisioning, gardening or hunting is the willingness to work: "Families who participate actively in the non-market economy can enjoy a higher living standard than monetary income alone would suggest. In order to do so, however, they must work" (Garrett et al. 1993, 233). The extent to which the non-market economy exists in the five counties in this study is unknown at this point. Certainly, flea markets and bartering exist openly. This issue will be treated in Chapter 5.

In conclusion, for a variety of reasons, rural labor markets pay less and offer fewer benefits than urban markets. According to the neoclassicist theory of labor markets, labor is perfectly mobile and will follow capital. This has not happened in rural America. Although many have outmigrated, many have not. Snipp et al. (1993) contend that rural labor is, in fact, relatively immobile and resistant to relocation in pursuit of higher wages and better working conditions. The reason that rural people remain in poor counties when prosperous areas exist within 60-100 miles of their location (as is the case of Springfield, Mo., in relation to the five counties studied here) has to do with rural values. As noted by Snipp et al. the immobility of rural labor can only be understood when one realizes that to nonmetro

people, "Community life, shared traditions and sense of place have great value" (Snipp et al. 1993, 197).

The Cultural Context of the Rural Policy Environment

Politics... is based on people. People possess cultures, habits and customs. Cultures vary by nation-state and also within regions, states and localities. Political culture remains today as one of the more fruitful conceptual frameworks to help us understand particular political systems (Pilant 1994, 10).

Despite economic hardship and limited upward mobility opportunities in areas of persistent rural poverty, the local rural community appears to provide residents with feelings of security and stability along with strong ties to family and friends. When residence in the rural area has been of long duration, the impact of local culture defines each resident's place in the subsociety, thereby producing a set of values and norms which are reinforced through interaction with his or her own group. These **noneconomic assets** which have allowed rural residents to weather changes in the structure of agriculture and limited employment opportunities... have been defined as among the **few things which endure** (Lyson et al. 1993, 134).

What values do rural people share which impact on their willingness to partake of public policy? Although the values of rural people do differ in measurable ways from urban citizens, underlying the perpetuation of those values is isolation, remoteness and low population density. Rank and Hirschl (1993) found, in four separate studies on the underutilization of public assistance by rural people that the single most important variable in determining program use was population density. Areas with lower population densities had lower utilization rates, areas with higher densities had higher utilization. As noted earlier, the key characteristics which contrast rural and urban populations is population size and density, and space and distance characteristics which "Result in a different scale of life with different institutions" (Watkins and Watkins 1984, 10).

As Lyson et al. (1993) noted at the beginning of this section, it is isolation which enforces community norms and values and allows them to persist over time. Brown (1988) in his study of the effect of migration on political attitudes found that mobility inevitably weakened previously held attitudes. Conversely, then, staying put reinforces the values of the community to which one is attached.

Larson defines values as "Conceptions of desirable states of affairs, criteria for choice or justification for behaviors" (Ford 1978, 92). Glenn and Hall (1977) used questionnaires on religious, moral, minority-majority issues and political issues from 1953-1965 to determine rural belief systems. They found that rural people were consistently more fundamental in their religious beliefs and more conservative on political issues than urban citizens. They also found rural people to be less tolerant on majority/minority issues and more rigid on moral issues (Glenn and Hall 1977, 40).

Watkins and Watkins (1984) identified seven sociocultural descriptors of rural people, building on the work of Glenn and Hill (1977) and Larson (1978). They found that rural citizens are more conservative, more distrustful of outsiders, more work-oriented, more religious and resistant to change, more prejudiced and ethnocentric, and more likely to vote than urban citizens (Watkins and Watkins 1984, 21). Halperin (1990) found that place attachment, independence, privacy, dependence on family and security were among the most cherished values among rural Appalachian people.

Ironically, although nonmetro people are more likely to be poor than their metro neighbors, they tend to have negative attitudes towards those in need of public assistance. Osgood (1977, 43, 46) studied attitudes towards public assistance in Pennsylvania using

three sets of attitude indicators. In all three, residents of rural Pennsylvania were less likely than urban residents to support Welfare programs or to be sympathetic to recipients of public assistance. Flora (1992) echoes these findings in her study of Midwestern farm communities. There she noted a marked lack of concern from the nonpoor to the poor based on feelings that the poor have failed to work hard enough to escape poverty. Anyone receiving public assistance benefits, she noted, were further distanced from the nonpoor and stigmatized (Duncan 1992, 201-214).

Dill and Williams also noted a heavy reliance on family in rural communities. This reliance provides security, they noted, but can be a double edged sword as reliance on family limits mobility (Duncan 1992, 97-110). Lyson et al. (1993) found that those nonmetro residents with deep roots in the community, strong kinship ties in the local area, large investments in the community and an inability to assimilate easily into a new social environment were least likely to migrate: "An assessment of community attachment, community satisfaction and community norms provides a lens through which rural individuals view opportunities in areas outside their own community" (Lyson et al. 1993, 133).

Many anti-poverty programs fly in the face of rural values such as attachment to work and independence from institutions. In order to craft policy which will be utilized by nonmetro people to reduce persistent poverty, it is necessary to build that policy around the values of rural people. "Programs for rural areas should be designed differently from those that are to operate in urban areas" (Osgood 1977, 46). An example of a policy decision made without regard for local values or culture was noted by Watkins and Watkins (1984).

In this case, a badly-needed daycare center was organized in a rural community based on a needs assessment. Not built into the center were the cultural norms of the community it was to serve, and it was, therefore, doomed to a 70% vacancy rate. Key local factors which were ignored included the fact that the building had formerly been used for a mentally handicapped children program, the center was located too far from the district where most of the employment was located, and, perhaps most important, the staff was hired from a larger community fifty miles away, instead of using local "known" residents (Watkins and Watkins 1984, 50).

When policy ignores the attachment to place, reliance on family and fear of change inherent in rural communities, it often will not be successful in achieving its goals:

By ignoring the attachment of people to their rural places, strict market-oriented policy based solely on individual self-interest weakens the likelihood of success of any federally-supported local development program, just as it undermines the sense of community and common purpose (Buttel et al. 1993, 325).

Conclusion: To Be Poor and Rural

In examining the factors of rurality and poverty, the impact of the macroeconomy on rural areas and the contexts of the rural policy environment, this chapter has laid a foundation on which future chapters will be built. As has been shown in this chapter, nonmetro Americans have higher poverty rates than their metro cousins. Even the nonmetro poor are more likely to work, to live in two parent families and to "live by the rules" than their metro counterparts. Nonmetro citizens in poverty tend to be the working poor and are more vulnerable to the vagaries of the macroeconomy than those who live in more diverse labor markets. They are less likely to participate in poverty programs

designed to ameliorate the effects of low income and share a high attachment to their community. It is community attachment which mitigates against migration to more prosperous areas.

It is apparent from this chapter that the rural poor are a cohort discrete unto themselves. Their poverty is more persistent and more geographically concentrated than the poverty found in metro America. Indeed, persistent pockets of poverty which have existed over time throughout rural America are one of the main factors keeping poverty rates high.

It is important to understand the political culture of nonmetro America in fashioning policies designed to break up the pockets of chronic poverty found in areas such as the Ozark-Ouachita highlands. As Watkins and Watkins (1984) note above, policies designed to assist the nonmetro poor which do not take their unique characteristics into consideration are unlikely to be utilized. It is axiomatic that a policy which is not accessed cannot affect outcomes, either for good or ill.

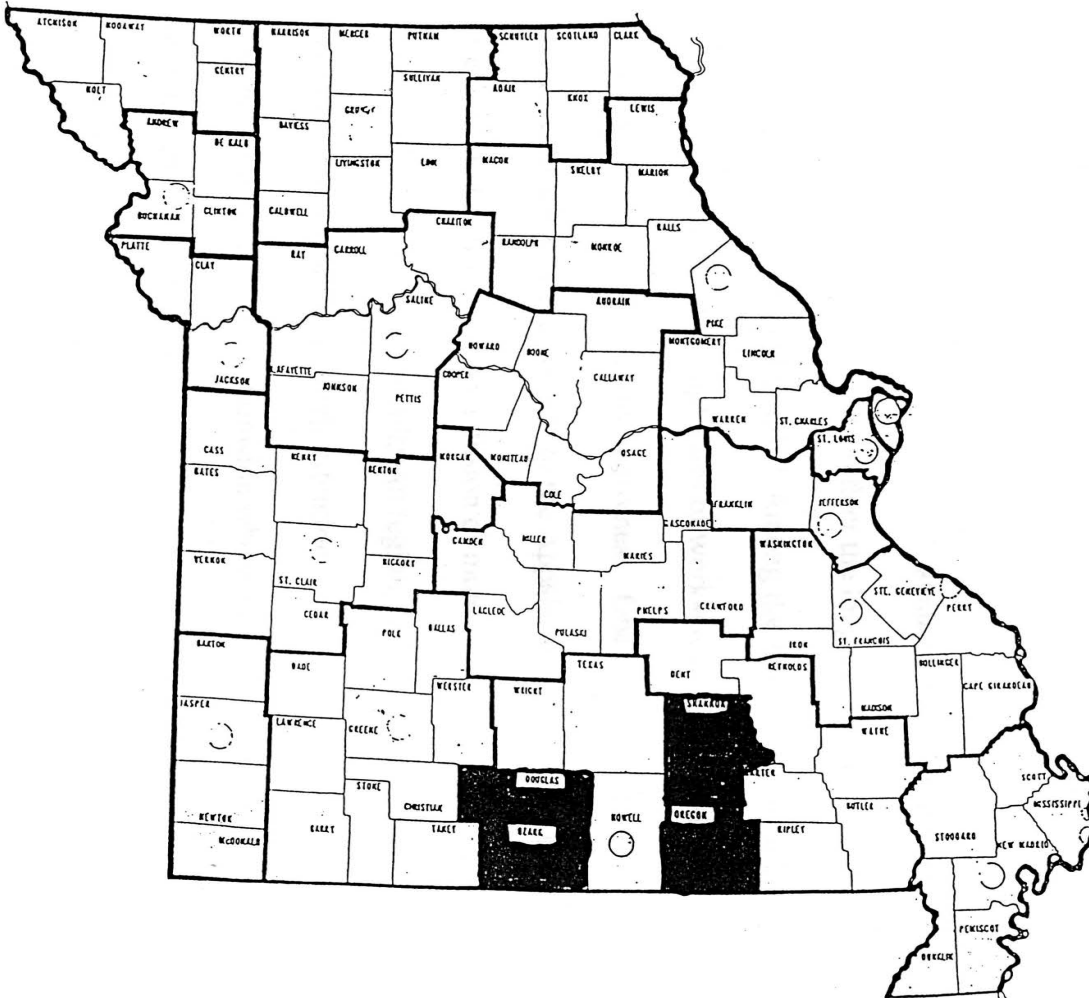
CHAPTER 4. A COMPARISON OF THE SOCIO-ECONOMIC CONDITIONS IN THE FIVE COUNTY REGION

Introduction

The Missouri Ozarks is predominantly rural and conforms to many of the nonmetro norms discussed in Chapter 3. But, as Campbell et al. (1993) noted of the region, when it comes to poverty, many Ozarks counties are like other nonmetro counties, only poorer. Generally, a good income, the opportunity to improve human capital skills and access to the economic rewards are harder to come by from the rocky hills of the Missouri Ozarks.

The Ozarks-Ouachita Uplands is generally recognized as a region of 98 counties in Arkansas, Missouri and Oklahoma. This area is recognized as a geographic area, an economic planning region, a cultural region and a region regarded as "high amenity" because of its varied topography, clear mountain streams, numerous lakes, springs and caves and natural beauty. From an agricultural perspective, the region is one of poorer soils and rapid drainage which generally will not support row cropping and is more suited to livestock production. Since 1900, many counties have experienced population losses due to outmigration. In the 1970s, migration trends reversed in those counties with recreational lakes or proximity to metropolitan areas. The Branson region and Lake of the Ozarks region are examples of this positive growth trend. Ozarks counties without amenities attractive to tourists and retirees and remote from metropolitan centers, however, have generally not shared in this prosperity.

PERSISTENT LOW INCOME COUNTIES



Persistent Low Income Counties

Figure 4-1

Although the counties of the Missouri Ozarks counties are heterogeneous in many ways, there are commonalities: The population is relatively old; Income levels are low for a substantial number of residents and poverty rates are high; Many of the counties are less developed, economically. The region has more low-paying , low skill jobs and seasonal employment than most other regions in the state and nation and the area evidences a persistent pattern of extraction of wealth and resources by outside interests. All of these factors "...Result in a residual which is poor in income, in marketable job skills and in other resources" (Campbell et al. 1993, 39).

Fuguitt, Brown and Beale (1989, 359) found many similarities between the Ozarks region and the Appalachian highlands "... (which) reflect the long-established high incidence of poverty among ...people of the highland South." Among the similarities noted between the two regions were low education rates, high rates of work-preventing health disability, high material poverty, isolation and cultural distinctiveness. One of the differences they note between the two regions is that the poverty of the Appalachian region has benefitted from extensive research and has had "a heavy infusion of money" through the Appalachian Regional Commission. The Ozarks-Ouachita Plateau region, on the other hand, has received no "heavy infusions" and little scholarly attention.

In 1979, Davis identified counties nationwide whose per capita income had remained in the bottom quintile of income when ranked with nonmetro counties in the years 1950, 1959, and 1969, designating them Persistent Low Income (PLI) counties. Subsequent county-level income analysis by Hoppe (1985) and Ghelfi et al. (1993) indicates that the four PLI counties studied here have remained in the bottom quintile of per capita

income to date. Of the five (Howell, Ozark, Douglas, Oregon and Shannon), only Howell is not designated a PLI county, despite the fact that it is bordered on three sides by PLI counties. This runs counter to what is expected. Weinberg (1987), Tickamyer et al, (1993), and Adams and Duncan (1992) assert that there is a relationship between poverty rates and proximity. As noted by Weinberg, when other factors (demographics, labor markets, institutions, fiscal correlates) are controlled, mere proximity to a persistently poor county raises poverty rates in neighboring counties by 3.4-3.8% (398). This would lead one to expect a degree of uniformity among the relative wealth of persistently poor regions. Four of the five counties in this study conform to this expectation. Howell County does not.

This apparent anomaly is the focus of this dissertation. The research question is, why has Howell County experienced relatively more prosperity over time than the bordering counties of Ozark, Douglas, Oregon and Shannon? It is hoped that the information learned in this study can be applied to the four PLI counties to improve their economic status. As noted by Weinberg:

Because of the statistically verified influence of mere proximity, state governments...could have an important political role in focusing resources for economic development on the problems of multi-county areas (Weinberg 1987, 407)

The hypothesis of this paper is that **remoteness will be found to be an important contributing factor to the persistent poverty of the four PLI counties under study and, therefore, public policy which reduces the isolation of these counties, such as the**

construction of well-engineered highways and extension of technology to the region, will help to break up this particular cluster of persistent rural poverty.

This chapter will determine whether there is, in fact, a difference in the socio-economic well being of the five counties. The USDA Index of County Well-Being will be applied to each county to determine their relative well-being. In addition to the USDA Index, the counties will be compared using other indices of socio-economic well-being, such as population dynamics, transportation, health services, labor market data and education levels.

A Comparison of the Five Counties Using the USDA Index of County Well-Being

In 1970, the United States Department of Agriculture constructed an index by which to compare the well-being of counties in the U.S.A. in order to report on socio-economic patterns by region and place of residence. The factors used in this measure were:

USDA Measure of County Well-Being

- I. Socio-Economic measures:** income, poverty, education, dwellings with complete plumbing. (Indicative of a county's economic base and standard of living.)
- II. Health status:** Mortality rate, infant mortality rate, mortality from influenza and pneumonia. (Reflects physical health problems of a county's total population.)
- III. Family status:** Proportion of children 18 years and under living with both parents, difference in percentage of males and females in the labor force for persons 16 years of age and older, and percentage of families headed by females.
(Indicative of social well-being and correlates positively with Health and Social-Economic status.)

IV. Alienation: Mortality from suicide and from cirrhosis of the liver (a result of alcoholism) indicates the level of alienation from group life (Davis 1979, 2-3).

(Table 4-1) reflects these measures for each county. On analyzing the statistics for each measure, it is apparent that, although useful, these measures alone do not present a clear picture of the relative socio-economic status of each county in this study, and sometimes raise more questions than they answer.

The first measure, per capita income figures for the counties, reflects that the non-PLI county, as expected, had a significantly higher per capita income in 1994 than each of her PLI neighbors. The greatest difference is between Howell and Shannon counties, 21.3%, and the least difference is between Howell and Ozark counties, 7.7%. Howell County's PCI was 19.6% higher than Douglas County and 9.3% higher than Oregon County for the same year. Per capita income has increased in all five counties in recent years, following nationwide nonmetro trends as noted by Hamrick (1997, 5):

...The nonmetro population grew by about 6% 1990-96...(and) rural per capita income grew over 1992-1995. This trend is particularly striking in high-amenity counties such as in the Pacific and intermountain West, the Appalachians, the **Ozark-Ouachita Plateau**, the Upper Great Lakes, and rural New England.

All five counties experienced an increase of 40-45% in per capita income, 1984-94. This seems impressive until PCI figures are compared for the same period at the state and national level (Table 4-2).

Table 4-1
USDA Selected Indicators of County Well-Being

	Howell	Oregon	Douglas	Ozark	Shannon
Socio-economic status:					
<i>Per Capita Income, 1994:(B)</i>	\$14,155	\$12,945	\$11,833	\$13,136	\$11,665
<i>% change, 1984-94: (B)</i>	40.6%	40.9%	39.7%	41.9%	45.9%
<i>Poverty rate, 1996 (C):</i>	25%	27%	25%	22%	24%
<i>% High School Grad., 1990(A):</i>	35.9%	38.5%	37.4%	37.7%	37.9%
<i>% College Degree, 1990(A):</i>	8.7%	7.8%	7.5%	8.0%	6.0%
<i>Occupied Mobile Homes, 90(E):</i>	1,653	536	686	749	452
<i>% of total occ. hsing, 1990(E):</i>	13.5%	13.9%	15.0%	21.5%	15.5%
<i>% change, 1980-90(E):</i>	108.7%	76.9%	76.3%	98.1%	43.9%
Health status:					
<i>Deaths/100,000, 1995(D):</i>	566.8	612.4	483.8	506.7	547.1
<i>(Low, High, Normal range/MO)</i>	N	H	N	N	N
<i>Infant deaths/1000 b., 1996(E):</i>	9.1	10.0	8.4	2.1	10.0
<i>Deaths/100,000/ Pneumonia&Influenza, 1995(D):</i>	11.1	13.2	12.3	13.2	16.2
<i>(Low, High, Normal range/MO)</i>	N	N	N	N	N
Alienation status:					
<i>Deaths/100,000/Suicide, 1995(D):</i>	13.5	12.0	18.2	13.7	5.4
<i>(Low, High, Normal range/MO)</i>	N	N	N	N	L
<i>Deaths/100,000/Cirrhosis, 1995(D):</i>	8.2	3.9	5.0	3.1	3.1
<i>(Low, High, Normal range/MO)</i>	N	N	N	N	N
Family status:					
<i>% Married couple families, 1990(A):</i>	85.8%	85.4	87.8	88.8	90.2
<i>% Chldrn/married couple fam., 90(E):</i>	78.4%	77.3%	80.9%	84.2%	86.9%
<i>% Female-headed househlds, 90(A):</i>	10.4%	9.4%	7.9%	7.4%	7.9%

Sources:

A) U.S. Bureau of the Census

B) AgriFacts, Howell, Oregon, Douglas, Ozark, Shannon Counties, 1998, University of Missouri Extension, Columbia, MO

C) U.S. Dept. of Commerce, Bureau of Economic Analysis

D) Center for Health Management & Epidemiology, Mo. Dept. of Health

E) Report of Citizens for Missouri's Children (KidsCount)

Table 4-2
Per Capita Income

	Missouri	U.S.
<i>Per Capita Income, 1994</i>	\$20,749	\$22,073
<i>Per Capita Income, 1984</i>	12,877	13,554
<i>% Change, 1984-1994</i>	61.1%	62.85%

Source: U.S. Census Bureau

Even though the five counties in the study are doing markedly better than they were in 1984, it is apparent they are in not doing as well as the state as a whole, or the nation.

Poverty Rates for the five counties in 1996 are uniformly high, varying from 22% in Ozark County to 27% in Oregon County. Interestingly, on this measure, Howell County has a higher poverty rate than all but two of her PLI neighbors. For all five counties the rates are significantly higher than the Missouri 1996 Poverty Rate, 13%, the U.S. rural rate of 15.6% and the U.S. urban poverty rate, 13.4% (Hamrick 1997, 5).

This measure leaves us with an obvious questions: If Howell County has a significantly higher PCI, why does it also have a higher poverty rate than several of the PLI counties? To answer this, it is necessary to look beyond the measure of those below the poverty level and include the near-poor, or those earning under 200% of the poverty rate. All five counties have significant populations with incomes under twice the poverty rate. Generally, those with incomes 100-200% of poverty are considered "near-poor" and are often those who have seasonal work and/or minimum wage jobs without benefits and are the first to suffer economically in a recession. In all five counties, the portion of the

population with incomes above twice the poverty rate is a minority. However, Howell and Ozark counties have more of this population than the other three.

Table 4-3
Percent of Population with Per Capita Incomes
above 200% of the Poverty Rate, 1996

Howell	44%
Oregon	38%
Douglas	42%
Ozark	45%
Shannon	38%
Missouri	65%

Source: U.S. Department of Commerce, Bureau of Economic Analysis

Howell and Ozark counties exhibit the largest populations with incomes above poor and near-poor levels. Upon examining measures for the five counties, it will become apparent that, of the four PLI counties, Ozark County is a special case. Her poverty is lower and her per capita income is higher than the other three PLI counties. This may be due to the influx of retirees and tourism dollars into Ozark County in the past two decades. Ozark County contains parts of two large recreational lakes, Norfork and Bull Shoals. This makes her a high amenity county and several retirement/recreational communities such as Cloud Nine Ranch are located within her borders. In addition, Ozark County is the only county in the group to be designated a "retirement destination" by the USDA. A retirement destination county is a county which experienced immigration of persons aged 60 and over, 1990, of 15% or more (Ghelfi, 1993). Ozark County's improved economic condition in

recent years reflects the positive economic benefit of being both a retirement and a tourism destination.

According to the USDA index, education measures indicate that the percent of high school graduates in all five counties are higher than the state's 1990 figure, 33.1%, although college graduate rates are in all instances lower than the state 1990 figure of 17.8%. In this measure, Howell County has the highest percentage among the five counties, indicating a somewhat better-educated population, perhaps due to the location of Southwest Missouri State University-West Plains, a two year college with a student population of roughly 1,000 and a branch of Southwest Baptist University, a four year institution, within Howell County's borders.

In assessing housing quality, statistics on mobile home occupation were used instead of those for houses with indoor plumbing. In all five counties mobile homes are often the housing of choice for many of the poor and near-poor. Therefore, proportion of mobile homes as part of occupied housing is a good indicator of the relative wealth of these communities. In this instance, Howell County has experienced the largest increase in mobile home occupation, 1980-1990, 108.7%, yet has the lowest number of mobile homes as per cent of total occupied housing, 1990. This would indicate that, although numerous, mobile homes constitute a lower proportion of occupied housing in Howell, than in the PLI counties in this study. On this measure, Howell County would again seem to fare better than her PLI neighbors.

Health status indicators used in the USDA index indicate that the people of the five county region are not as healthy, on some measures, as the rest of the state. Infant

mortality rates, in particular, are higher (Table 4-1) in four of the five counties than they are statewide or nationwide. In 1995, Missouri's infant mortality rate was 7.4 / 1000 live births and nationwide the rate was 7.6 / 1000 live births (Pollard 1998, 6). Infant mortality rates in the five counties under study range from 10 / 1000 live births in Oregon and Shannon Counties to 8.4 / 1000 live births in Douglas County. The one exception is Ozark County which has an infant mortality rate markedly lower than state and national averages, 2.1 / 1000 live births.

Deaths from pneumonia and influenza are within normal ranges for Missourians as a whole. Deaths from cirrhosis of the liver and suicide, indicators of alienation, are in normal to low ranges for all five counties. This measure of health status does not address access to health services in each of the five counties, nor does it reflect causes of accidental and work-related death in the region which are significantly higher than state norms. These factors will be addressed later in this chapter.

Family status measures in the USDA Index of County Well-Being indicate that the citizens of these five rural Ozarks counties are like other rural citizens: more prone to be married. Shannon county had both the highest proportion of married couple families, 90.2% and the highest percent of children in married couple families, 86.9%. All five counties had higher proportions on these indices than the state as a whole, which had 70.3% married couple families and 74.9% of children living in married couple families in 1990 (U.S. Bureau of the Census). These statistics speak to the generally conservative social climate in the Missouri Ozarks.

The final measure in the USDA index, female-headed households, also reflects conservative rural social trends as a whole. All the counties in this study were under the nationwide and statewide percentages for female-headed households of 8.7%. Oregon County had the lowest measure, with 4.5% of households headed by a woman. Ozark County was high, with 7.4% of households female-headed and may be in part due to the higher elderly proportion of the population in Ozark County.

Taken as a whole, the USDA Index of County Well-Being points out some notable differences among the five counties. For instance, that Howell County has a higher per capita income, a lower number of mobile homes as percent of occupied dwellings and a higher proportion of college graduates than the PLI counties in the study. In other measures, however, Howell County appears undifferentiated from her poorer neighbors. Based on these measures, one could conclude that the difference between Howell County and her PLI neighbors is one of degree and not kind. She is less poor, but still poor, especially in light of the nationwide prosperity of the 1990s.

Yet, in traveling through these counties, Howell County appears notably more prosperous. It has a better primary road system with several new bridges, a more diversified economy, two colleges, a large regional stockyard, a regional airport, two hospitals, one of which is a regional medical center, 44.5 full-time physicians (1998), a population center approaching 10,000 (1990) with full-time Chambers of Commerce, roughly triple the population (32,000+, 1990) and labor force of the other counties and an economy which draws immigrants and new businesses annually. Traveling to the county seats of the PLI counties is often over narrow roads without shoulders, many of the bridges

are narrow concrete structures built by the WPA in the 1930s, there is one physician per county, in most instances, although one county has two physicians, there are no hospitals, no colleges, and only one county, Douglas, has a full-time Chamber of Commerce within its borders.

When these counties lose a major employer, as Douglas County did when Emerson Electric Inc. closed in 1996, they often lose population and struggle for years before attracting another employer. These counties are beautiful geographically, but, often lack access to services necessary to attract many retirees or industry. They are, as Campbell et al. (1993) noted, "Forgotten places" in this time of nationwide prosperity. The USDA Index of County Well-Being has not accurately portrayed this five county region. To do this, more factors must be analyzed. In order to get a clear comparative view of the socio-economic status of each county, other measures will now be examined.

Population Dynamics in the Five County Area

...It seems clear that the most predictable way to reduce the migration rate from a given area, or to reduce the likelihood that a given individual will choose to migrate, is to increase the economic return to labor in the rural area, thus tipping the cost-benefit calculation in favor of the **place of origin** (DeJong and Gardner 1981,284).

Maintaining population has been a problem for Ozark, Douglas, Oregon and Shannon Counties since 1900 (Table 4-4). Perhaps due to the persistent low income of these counties, outmigration has exceeded immigration and natural increase rates until recently. Of the five counties studied, **only Howell, the non-PLI county, has a higher population density today than it had at the turn of the century.** Shannon County has the lowest density at eight people per square mile. The sparseness of Shannon County's

Table 4-4

Population Density for the Five County Area 1900 to 1990

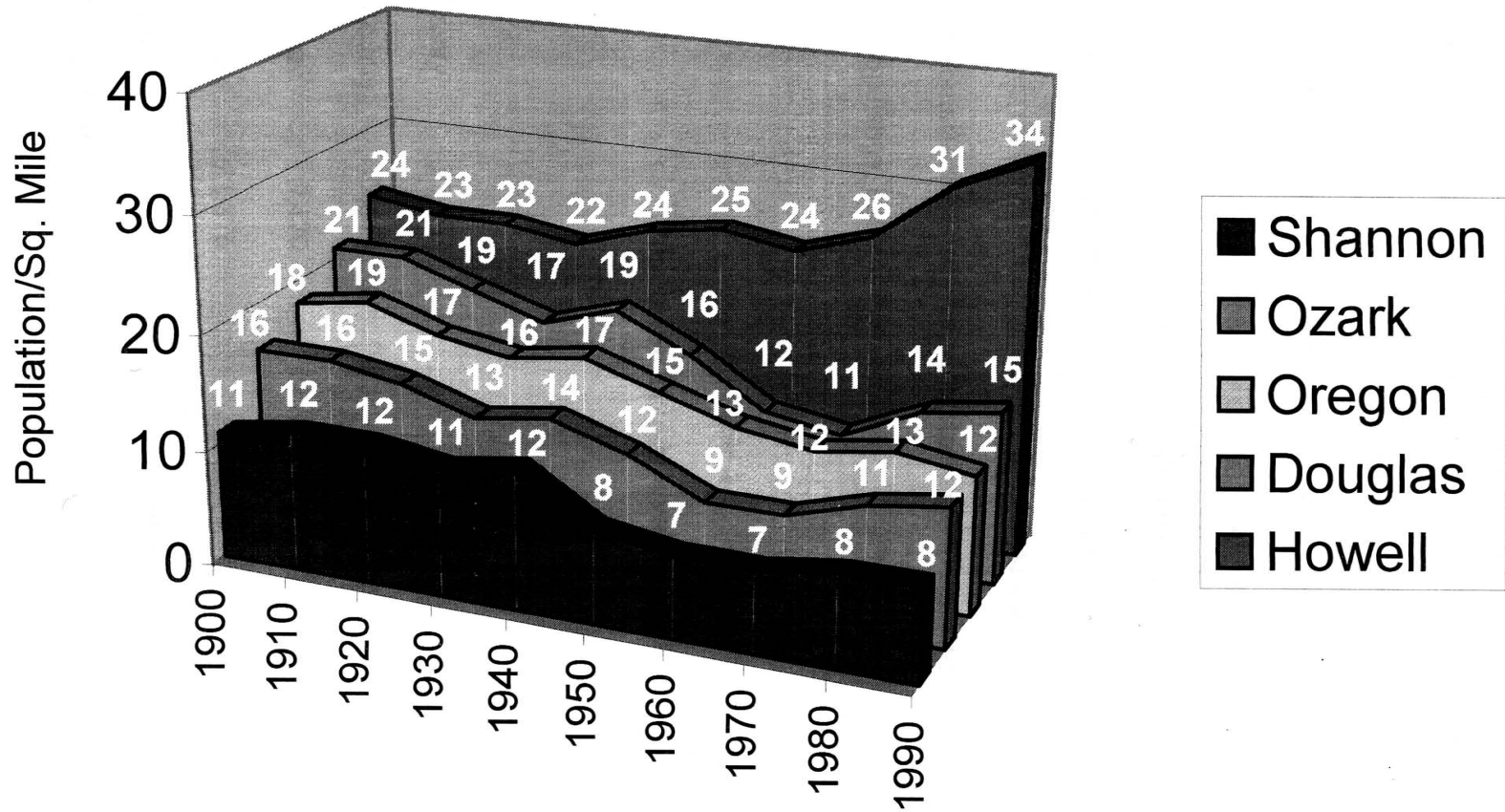


Table 4-4

population can be appreciated when one realizes that at six or less people per square mile a county is classified as a frontier. The population density of all five counties is below the state average in 1990 of 66 persons per square mile, but Howell County's density is over double that of the highest population density PLI county, Ozark, and more than four times that of the sparsest county, Shannon. As one might expect, total population in Howell County is also from two to four times greater than the PLI counties.

The population of all the counties increased during the "Rural Renaissance" of the 1970s, but during the 1980s, Douglas and Howell gained population, while Oregon, Ozark and Shannon counties remained essentially the same. During the 1990s, all five counties have gained population, but at varied rates:

Table 4-5

Population Trends, 1990-1995

	1990	1995	%Change
Howell County	31,447	34,507	10%
Shannon County	7,613	8,070	6%
Oregon County	9,470	10,029	6%
Douglas County	11,876	12,120	2%
Ozark County	8,598	9,517	11%

Source: US Bureau of the Census

Once again, Howell and Ozark counties are leading the other counties in gains over the past five years.

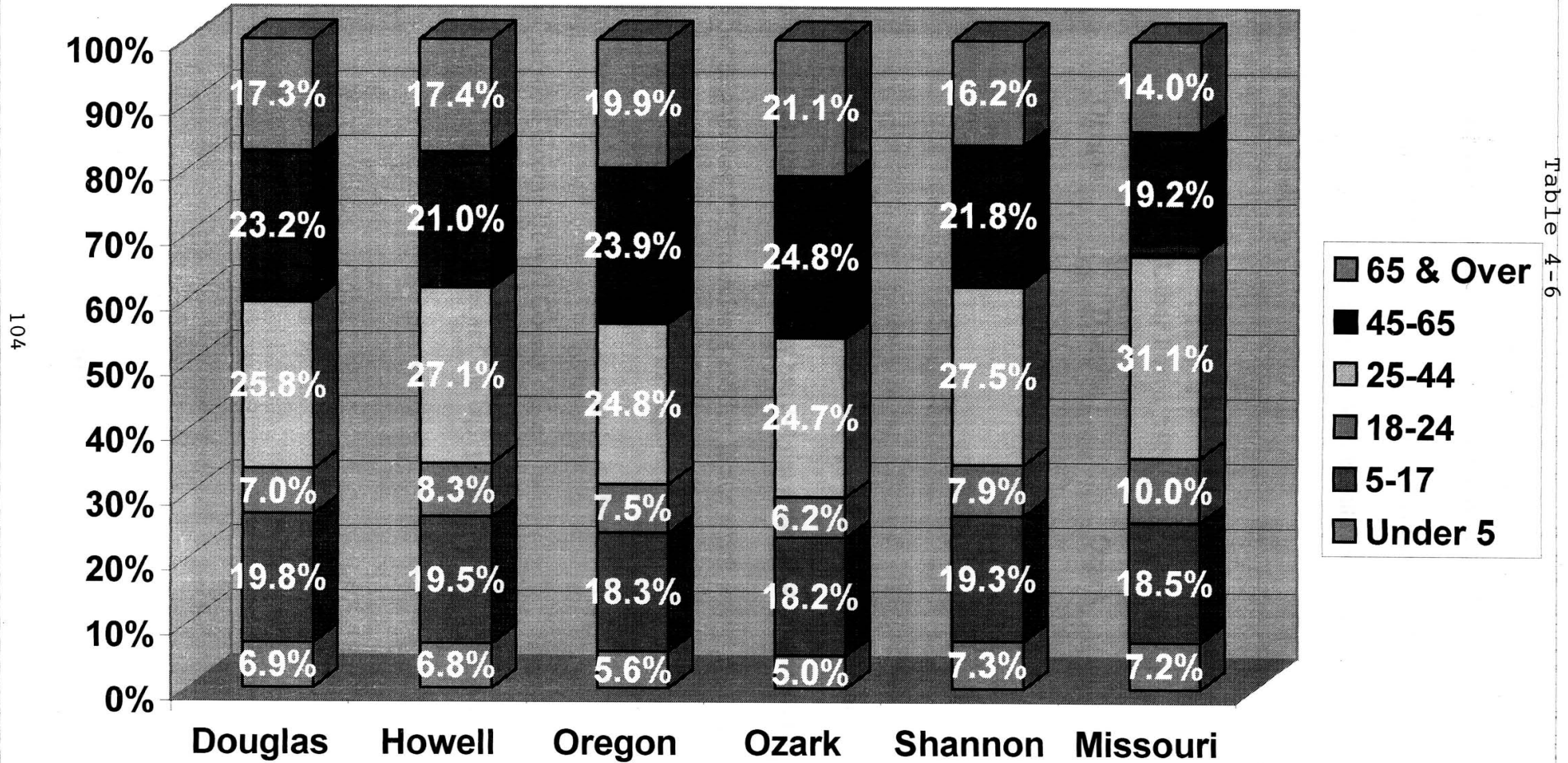
Population trends and density are important to economic development of a county from several perspectives. As noted by Deavers (1992), low population densities make it impossible for rural areas to achieve economies of scale necessary to provide many services. Residents of sparsely populated areas must contend with geographic barriers to receiving such essential services as health care, fire protection, water, waste disposal and police protection. As noted by Deavers, "In many cases, rural people have to provide individually for services that would be collectively provided in urban settings" (Deavers 1992, 185).

In addition, industry looks for a sufficient labor pool in a prospective location. Finally, the tax base which provides revenue for county infrastructure improvements with which to attract prospective immigrants and industry is obviously lower in sparsely populated areas. In conclusion, several aspects of sparseness mitigate against the economic development of a rural region.

The distribution of persons by age cohorts is also important to the economic life of a region. Areas with higher proportions of elderly will have increased demands on social services and may benefit from government transfer payments and retiree incomes. Campbell et al (1993) noted that the Missouri Ozarks has a higher proportion of elderly than many other regions in Missouri and in the U.S. The highest proportion of elderly in the five counties under study, as might be expected, is in Ozark County (Table 4-6).

Table 4-6

Demographic Distribution: Person by Age, 1990



Source: Missouri State Census Data Center: Basic Demographic Trend Report

Available workforce is also adversely affected in low population counties. When comparing Howell County to the PLI counties by labor force size, the PLI counties are disadvantaged by both the relatively small size of their populations and the high proportion of their population which is elderly:

Table 4-7
Labor Force, 1996

Howell	Oregon	Douglas	Ozark	Shannon
17,603	4,514	6,306	4,189	4,025

Source: U.S. Bureau of the Census

As might be expected, the counties with the highest population also have the highest labor force available. The fact that Howell County has 3-4 times the labor pool available compared to her neighboring PLI counties is another factor which would draw industry to Howell County when considering locating in the region.

The relatively higher level of economic activity in Howell County is also reflected in the percent of personal income Howell County citizens receive in the form of transfer payments. Due to the high poverty rates and the high proportion of elderly in the region, government transfer payments comprise almost 1/3 of personal income in the five counties:

Table 4-8
Transfer Payments as Percent of Personal Income, 1996

Howell	Oregon	Douglas	Ozark	Shannon
28.2%	33.9%	29.2%	31.7%	31.7%

Source: Agrifacts, Howell, Oregon, Douglas, Ozark and Shannon Counties, University of Missouri Extension Service, 1997

Transfer payments include income from Social Security, Other Retirement, Veterans Benefits, Unemployment Insurance and Welfare benefits. In their examination of rural healthcare, Watkins and Watkins (1978, 62), noted that 65% of transfer payments received by rural areas in 1976 was in the form of Social Security payments, 13% was for public assistance, 6% for veterans benefits, 5% for Medicare payments and 11% "other."

In summary, in all measures examined indicating population dynamics: population size and density, population change, 1900-95, age structure of population, and available labor force, Howell County exhibits a stronger position when compared to the four PLI counties. On only one measure does another county exceed Howell, and that is when Ozark County exceeds Howell County's population growth by 1%, 1990-95. Again, this is probably due to the influx of retirees into Ozark County in this decade and is not indicative of the growth of a manufacturing center, as is the case in Howell County.

Comparative Labor Markets in the Five County Area

The types of jobs available in these counties will also impact on the well-being of its citizens. In recent decades, many light manufacturing jobs which had been located in rural America have gone abroad, seeking an even lower wage work force (Hoppe 1988, 13). Such was the case when Emerson Electric Inc. closed its Ava, MO, plant (in Douglas

County) and relocated to Mexico in 1996. One of the advantages nonmetro communities have historically had in attracting industry is low wages. In recent years, however, that comparative advantage has waned because of even lower wages available abroad. Particularly in more remote nonmetro locations, as noted by Ilvento and Garkovich (1989, 5), new businesses tend to be small, low-paying service firms. In their study of nine rural counties in Kentucky they noted that 40% of new businesses had no full-time workers and, therefore, paid no benefits, and paid average weekly wages of \$202. As they noted, "Impoverished counties offer fewer and lower paying jobs. They lack the essential human and economic resources that would encourage sustained economic growth."

Lichter et al. (1993) linked human resources with labor market outcomes and poverty. They noted that rural workers have lower skills in education, cognitive skills and worker experience than their metro counterparts. But, they also found that even rural workers with equal skills are paid less than their metro counterparts. "The fundamental problem (behind nonmetro poverty) resides in the low wages and inadequate employment opportunities found in rural America, especially among young adults, minorities, women and the least educated" (Lichter et al. 1993, 64).

Service sector jobs have increased as a proportion of total jobs available in the Missouri Ozarks, as they have throughout nonmetro America. This is significant to the relative economic well-being of these counties because service jobs, such as retail work, on average pay only 62% of the prevailing hourly wage that manufacturing or managerial jobs pay (Burghardt and Fabricant 1987, 35). In 1999, five counties had 8.9-13.5% of their jobs in the service industry and 42-45.7% of the work force consisted of females (Missouri

State Census Data Center, Civilian Labor Force, 1990). Schiller (1973) found that secondary workers are often the bridge between poverty and near poverty for low waged families:

Poor families often send wives and other family members into the labor force to supplement the low wages of the family head. These secondary workers contribute a great deal to family incomes and often help lift a family above the poverty standard (Schiller 1973, 68).

As noted by OHare (1989) there is duality in rural labor markets. Managerial and manufacturing jobs are more likely to pay relatively well, provide benefits such as health care, and bring with them prospects for promotion. Service sector jobs, on the other hand, are often carefully kept under a 40 hour full-time status and have no benefits and pay minimum wage, or a little more with little or no prospect for advancement.

Of the five counties, Howell County had the largest share of manufacturing jobs in 1995, with 4,000 manufacturing jobs available. Approximately 4,800 service sector jobs were available in the county in the same year. Employment is growing fastest in the service sector and declining fastest in the farm sector, where 2,000 jobs were available in 1995 (Howell County Baseline, 1998-2007, UMC Extension, 12). Howell County has also achieved diversity in its manufacturing sector, with six manufacturing firms employing from 95-652 individuals. In addition, the regional medical center employs 898 (Community Profile, Howell County. Missouri Department of Economic Development 1997-1998, 4).

The PLI counties in this study have very few manufacturing units, and have generally not achieved diversity in their manufacturing base. Douglas County, for instance, has only one town with over 2000 population and one of its three manufacturing plants

closed down in 1996. Oregon County has no major manufacturers, nor does Shannon County, other than a small cap (hat) factory located in Winona and a shoe factory in Birch Tree (one of the few left in the region). Ozark County has no major manufacturing firms. As noted by Deavers (1992) the dependence on one or two manufacturers, or one or two commodities makes the entire community's well-being subject to the vagaries of the market. Again, part of the problem for these counties is economies of scale: "Most rural areas are too small to achieve a meaningful diversification in their economic base analogous to that achieved in urban areas"(Deavers 1992, 186).

The lack of relative diversification in the PLI counties as compared to Howell County is one factor driving commuter rates in the five county region, as noted in Table 4-9. A much higher percent of the labor force commutes out of the four PLI counties than is the case for Howell County and this is true over time. The percentage of commuters from the PLI counties varied from 30.2 to 38.5 percent of the labor force in 1990. Only 9.6% of the Howell County labor force crossed county lines in the same year (Table 4-9).

Income from Agriculture in the Five Counties

Agriculture is an important part of the economy of each county in this study. Missouri is a major agricultural producing state and 2nd in production of livestock only to Texas. In 1995-96, Howell County ranked 6/114 counties in total cattle production and 36/114 counties in total agricultural cash receipts, with a cash value of \$39,575,000. Douglas County had the second highest agricultural cash receipts of the five county region, \$29,886,000, and ranked 13/114 counties in total cattle production and 67/114

Table 4-9
Commuting Patterns, 1960-1990
% Labor Force Commuting Outside of County of Residence

	1960	1970	1980	1990
South Central Missouri	12.0	18.7	20.7	28.3
Howell	4.4	5.5	5.3	9.6
Oregon	8.9	16.2	16.9	30.2
Douglas	14.0	14.6	24.3	33.4
Ozark	7.3	20.4	35.4	34.1
Shannon	14.9	32.4	18.9	38.5

Source: U.S. Department of Commerce, Bureau of the Census

counties in total agricultural cash receipts. Oregon County had the third highest agricultural total cash receipts of the five county region, \$26,134,000, and ranked 23/114 counties in livestock production and 74/114 in total cash receipts. Ozark County was fourth in total agricultural receipts, receiving \$26,016,000, and ranking 21/114 counties in livestock production and 36/114 counties in total cash receipts. Shannon County's agricultural receipts were markedly lower than the other four counties in the study, \$5,404,000, and she ranked relatively low, 90/114 counties in livestock production and 78/114 counties in total agricultural cash receipts. The only counties in the region producing row crops were Howell and Oregon counties, who placed 91/114 counties and 93/114 counties in wheat production in 1995-96. This is a reflection of the relatively poorer soils in this five county area as compared to the rest of the state (County Agri-Facts, UMC Extension 1997).

In 1996, 47-53% of the population in the PLI counties relied principally on farming. In many of these farming families, the wife works a waged job in town and it is her cash income that enables the family to "keep its head above water" economically. By way of contrast, in Howell County, where the land is generally more suited to agricultural production than the PLI counties, only 41% of individuals relied on farming as a principal occupation in 1996 (Howell, Oregon, Douglas, Ozark and Shannon County Agrifacts 1997).

Tourism in the Five County Region

The tourism industry has grown throughout the state in the post World War II period. Especially in those counties with lakes, rivers and springs, tourism has meant cash income for the local economy. The tourism industry, however, is predominantly served by low-waged, seasonal employment that does little to lower county poverty rates. As noted by Martin (1994, 170) in his study of the effect of tourism on the community of Pigeon Ford, Tennessee: "Tourism stifled economic diversification, increased cost of living, created traffic problems and produced primarily low-wage seasonal jobs" (Martin 1994, 170).

But Martin also notes that tourism is often the only recourse for communities who find their agricultural income falling and lack a manufacturing base to provide jobs to local residents. This would appear to be the situation in some of the PLI counties, especially Shannon County and Ozark County, where tourism revenues constituted 22.6% and 33.0% of county total income, respectively, 1996 (Table 4-10):

Table 4-10
Total County Personal Income and Income from Tourism, 1991-1996

	<u>Tourism\$/1991</u>	<u>Tourism \$/1996</u>	<u>91-96 Tourism \$ % Increase</u>	<u>Total Personal Income, 1996</u>	<u>1996 Tourism \$ as % of Total Income</u>
Howell	\$25,156,605	\$ 41,830,254	66%	\$534,397,000	7.8%
Oregon	\$ 6,234,747	\$ 12,392,658	99%	\$136,054,000	9.1%
Douglas	\$16,472,759	\$ 26,398,589	60%	\$145,161,000	18.2%
Ozark	\$30,575,615	\$ 42, 651,101	39%	\$130,273,000	32.7%
Shannon	\$14,046,650	\$ 22,526,090	60%	\$ 99,240,000	22.6%

Source: Mo. Division of Tourism & OSEDA, University of Missouri-Columbia

As noted in the chart above, the county with the highest total personal income, 1996, also relies the least tourism as a portion of total county income. This speaks to both the diversity of the economic base in Howell County and to the generally low wages and seasonal employment that tourism brings to the economic mix of any community. It is not a surprise, therefore, that the county which relies heaviest on tourism as a portion of total county personal income is also the most remote county as measured by economic distance values in Chapter 6 and is also the county with the lowest per capita income, 1996.

The Hidden Economy

O'Hare (1989) agrees with Ilvento and Garkovich (1989), Tickamyer et al (1993), Burghardt and Fabricant (1987) and others, that low wages drive rural poverty. The rise of the service sector in nonmetro America and decline of manufacturing has impacted negatively on nonmetro standards of living, especially among the entry-level worker. This

is certainly true in the five county area under study. Given this situation in rural labor markets, it is easier to understand why such a large portion of the counties under study fall into the poor or working poor (near-poor) categories:

The emergence of this group of marginal workers is often linked to changes in our economic structure which no longer offers large numbers of unskilled or semi-skilled workers high-paying jobs in the manufacturing sector (O'Hare 1989, 44).

Simply put, in the region under study, the jobs available to low-skilled workers do not, generally, pay well, offer any benefits, or have many prospects for advancement. As noted by Campbell et al. (1993), many citizens of the Ozarks have responded to this bleak employment prospect by devising ways to supplement limited cash income. The shortage of cash in nonmetro America has led to the development of a noncash economy in which goods are bartered and labor is traded. As noted by Bloomquist et al (1993, 99), "Survival is a process of constantly struggling to acquire resources from three primary sources: work, welfare and kin."

Adaptive strategies as planting a garden to supplement the grocery budget are found throughout the five county region. In 1970, Green and Hoover surveyed 1,250 counties in Missouri, Arkansas and Oklahoma and found that 68% of poor households planted gardens and 28% produced meat for household consumption. In the Ozarks, protein supply is also supplemented by hunting, with some families depending almost exclusively on wild game for family meat supplies.

Campbell et al. (1993) conducted field studies in Douglas County in 1993 and observed the involvement of a family involved in dairy farming in the noncash economy.

They concluded that the noncash economy in Douglas County was both "ubiquitous" and impossible to measure. Degree of involvement in the noncash economy depended on several factors including: "Ambition, stage of life, current resources, health, and the amount of cash available compared to the necessary cash threshold."

We have tried to speculate on how much income or wealth is generated through the informal economy and have decided it is an impossible task. The tangled web of interactions is constantly changing from day to day and even from hour to hour (Campbell et al. (1993, 45).

What is apparent is that this informal economy exists and that it allows families with marginal incomes to survive and to stay in their communities. Involvement in this economy depends on informal linkages and kinship ties. The importance of "knowing" community members and which individual is skilled at what service is the basis for the "tangled web of interactions." The common thread that runs through the informal economy is its dependence on the willingness to work. Campbell et al. described the work of the individuals they observed as "multiple and continuous." It is no wonder that rural people, in general, are found to have a high attachment to work. For many of them, survival depends upon it.

Education as Change Agent: Access and Utilization

Given the limited prospects for good wages as an unskilled laborer, the importance of gaining skills to qualify for better jobs becomes obvious. As noted by Ilvento and Garkovich (1989, 8), "Low educational achievement is the best predictor of low income."

The USDA Index of County Well-Being measured educational attainment largely by high school graduation rates. Based on this statistic, each county in this study has a

higher rate of high school graduation than the state as a whole. This would seem to indicate a relatively solid education base. But this statistic has limited value as an indicator of educational attainment in the five county region. A more telling statistic reflects the percent of residents who never attended high school at all. These counties have over twice the number of residents who never attended high school, 1990, than the state as a whole, with Howell County having the lowest percent in this category. The counties also have slightly higher levels of high school drop-outs than the statewide percentage. In addition, fewer county residents have attained some college education than the statewide norm. At the four year college degree level, all counties have less than half the state percent of college graduates and Shannon County has only a third as many college graduates as the state. On these measures of educational attainment, Howell County leads the PLI counties, although at rates below state norms.

Table 4-11 clearly illustrates the low education attainment of the citizens of these five counties. The counties have many more residents who never attended high school and many fewer who graduated from college (Table 4-11).

Illiteracy rates in the five county region are also markedly higher than that in the state as a whole, (Table 4-12). Workforce education is important to economic development and illiteracy statistics points to problems in the workforce education of this region. Of the five counties, Howell County has the lowest illiteracy rate, but all counties in this study have illiteracy levels considerably higher than the state average in 1990, 10.9%.

Table 4-11
Highest Grade Completed, 1990/ % of Population

	<u>Less than 9th Grade</u>	<u>Some High School</u>	<u>High School Graduate</u>	<u>Some College</u>	<u>College 4 yr degree</u>
Missouri	11.6	14.5	33.1	23.0	17.8
Howell	20.2	18.6	34.9	17.6	8.7
Oregon	21.7	19.0	38.5	13.0	7.8
Douglas	23.3	16.8	37.4	14.9	7.5
Ozark	22.2	16.9	37.7	15.2	8.0
Shannon	26.0	20.0	37.9	10.2	6.0

Source: OSEDA: Missouri Social and Economic Profile

Table 4-12
Adult Illiteracy in the Five County Area, 1988

County	Douglas	Howell	Oregon	Ozark	Shannon	Missouri
Percentage	15.5	14.3	15.8	15.4	15.9	10.9
State Rank x/115	23	38	21	24	18	

Source: University Extension, University of Missouri, Office of Social and Economic Data Analysis

Long (1990) identified three major factors limiting educational attainment in rural America: Distance from post-secondary schools; Low attachment to education by parents; Low education attainment by parents. These three factors limit education in the five counties under study. Survey research conducted among students at SMSU-West Plains

campus indicates that 45% of the students are the first in their extended family to attend college (Morrison Survey 11/97). Remoteness and access is also an important factor affecting educational outcomes. Economic distance analysis in Chapter 6 will show that those counties with the highest isolation/remoteness values are also the counties with the lowest educational attainment.

Education is critical to improved standards of living, (Gorham and Harrison 1990) conducted multivariate analysis of factors associated with low earnings in nonmetro America, 1979-1987. They found that the labor market position of workers aged 16-24, high school dropouts, workers with only a high school education and black men worsened from 1979-1987. Specifically, they found that among those with a high school education or less, percentage of low wage earners increased, 1979-1987, from 42.3% to 54.6% (Gorham and Harrison 1990, 54).

Long (1990) discovered a rural-urban education gap that is persistent and is most pronounced at the higher levels of education. In 1990, 22.5% of metro citizens had a college degree as compared with 13.0% of nonmetro citizens (Long 1990, 136). In the same year, only 6-8% of the residents of the four PLI counties had earned a college degree.

It can safely be said that the need for a better educated populace is critical to this region. Of the five counties in this study, only Howell has post-secondary education available. As noted earlier, Howell County has both a two year and a four year institution in its borders. This provides an important access point for the citizens of the five county region to gain education. In addition, a \$3.5 Technology Center is being constructed at SMSU-West Plains to bring computer technology training into the region. One major

industry, Caterpillar, Inc. has recently located in Howell County, drawn by the prospect of a continuously available skilled workforce (Evans 1998). Once again, it appears that Howell County can provide resources that the surrounding counties would benefit from. This reinforces the need for better technology and transport networks among the five county area.

Another problem the counties in this study have is that per pupil expenditures on public education are low because of low income and resulting tax effort. As noted by McGranahan (1988), nonmetro counties tend to have lower incomes, a lower tax base and therefore, fewer public resources. Although the state redistributes education funds to all counties to insure each Missouri student has at least a "foundation" for their education, per pupil expenditures vary widely in the state. In Ozark County, for instance, the Gainesville R-5 School District spent \$4,386.70 per pupil during the 1996-97 school year. By way of contrast, in the same year in St. Louis County, the Ladue School District spent \$9,220.31 per pupil (MODESE Annual Report of School Data 1998). The lower amount of money available per pupil in the public school systems of the five counties in this study results in lower teacher salaries, fewer technology resources and classroom crowding.

Entwisle and Alexander (1992) noted the impact of poverty on education when they studied the effects of summer vacation on the education of children and found that the single most harmful variable to the retention of knowledge is poverty:

It is not race or family status that controls summer gains, it is economic status. For children in poverty, every summer meant a loss; For those not in poverty, every summer meant a gain. The telling point is that being below the poverty line hurts all children (Entwisle and Alexander 1992, 82).

Once again, the question is, which comes first, poverty or low-educational attainment? What is clear is that they are co-dependent variables inextricably related. To solve one, you must address the other. In the Missouri Ozarks, poverty is high, and educational attainment is low. Of the five counties, only Howell County contains post-secondary educational opportunities within its borders. The importance of that contribution to the economic prosperity of the entire five-county area is significant.

Transportation: Getting There from Here in the Five County Region

A basic infrastructure is necessary to support most private sector production: electricity, water, communications, roads. These are necessary supply-side inputs to business...without this infrastructure, rural communities could not grow and compete for new jobs, and firms would be unable to expand (Fox 1986, 13-15).

Transportation is a serious limiting factor for all aspects of rural life, especially employment, training, childcare and service utilization. It is also a major item in rural school budgets, which limits the programs that can be offered (Garrett et al. 1993, 233).

As the quotes above indicate, infrastructure and transport networks are critical to the socioeconomic well being of any community. Fox (1986) notes that service-related firms are even more concerned about access than are manufacturing firms, stressing the importance of proximity to markets to their success, and concludes that rural communities near large urban markets will probably fare best economically. Unfortunately, the five counties in this study are not close to large urban markets. In addition, the counties are disadvantaged by a rough topography that makes road construction difficult and expensive. Of the five counties, perhaps it is in roads that development is most uneven. Howell County is the only county of the five with a four lane highway. Its major artery, U.S.

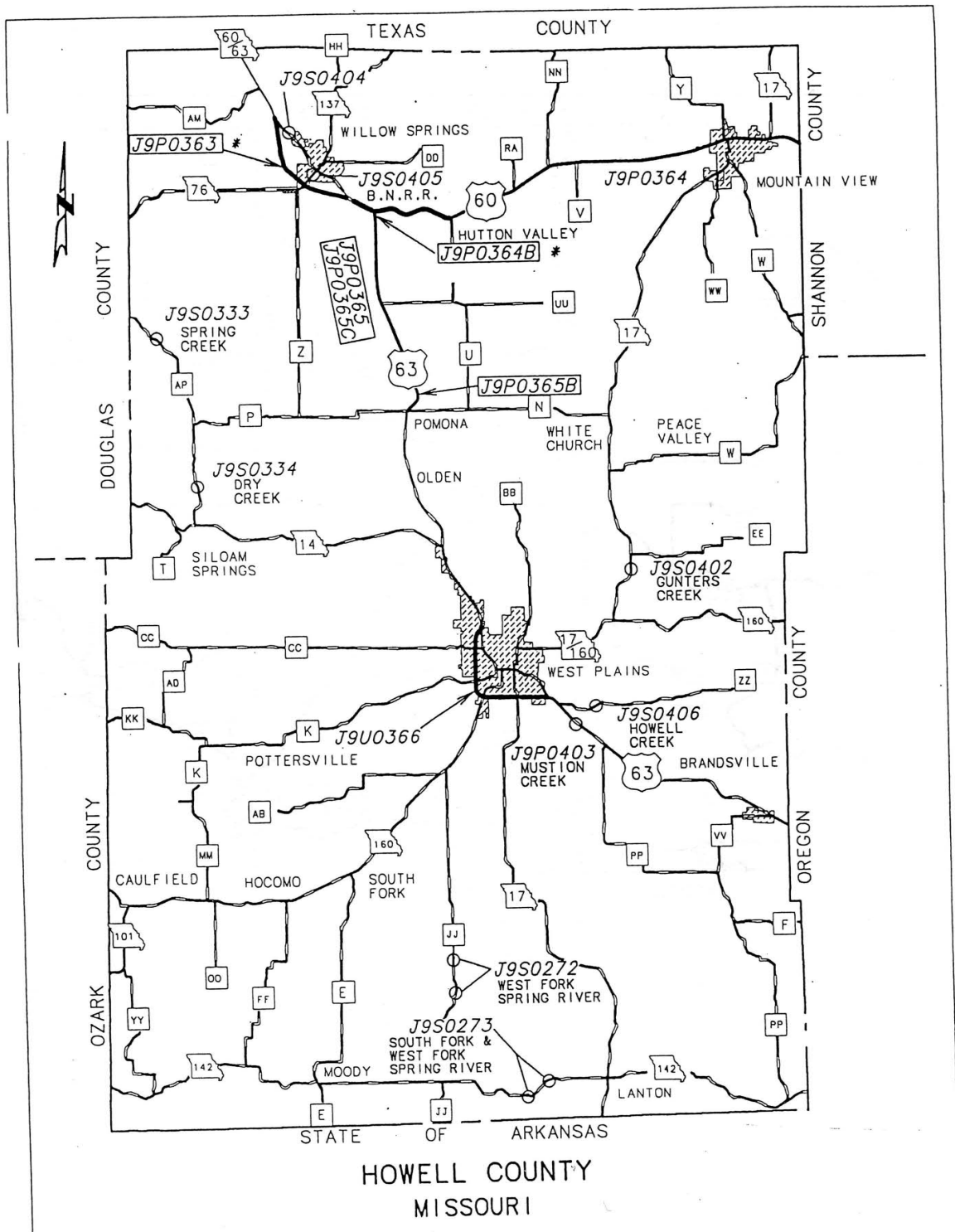
highway 63, will soon be completed as a four lane, limited access highway to Springfield, MO, and runs southeast-northwest, through the length of the county, connecting smaller rural communities with the hub, West Plains, and with points north and south outside the county. In addition, running east to west in the northern half of the county is U.S. highway 60, a well-engineered road with broad shoulders, which gives county residents access to communities to the east, including Poplar Bluff, Sikeston and Cape Girardeau. These are the primary roads in Howell County. Both are well-engineered, have broad shoulders and have seen significant expansion and improvement in the past decade. In addition, Howell County has a complex network of secondary roads which are, in general, narrow two-lane unlimited access structures with no shoulders (Figure 4-2).

Oregon County has a short stretch of U.S. highway 63, cutting across its southwest corner. Other primary roads, including state highways 19, 160, and 142 are narrow two lane unlimited access structures with no shoulders (Figure 4-3). The extensive secondary road system is similar to that found in Howell and the other counties.

Douglas County has one well-constructed state highway 5, which intersects with U.S. highway 60 in Wright County to give relatively easy access (1 hour) to Springfield, MO, from Ava. The rest of the primary roads in Douglas County, state highways 14, 76, 95 and 181 are narrow two lane unlimited access structures with no shoulders (Figure 4-4).

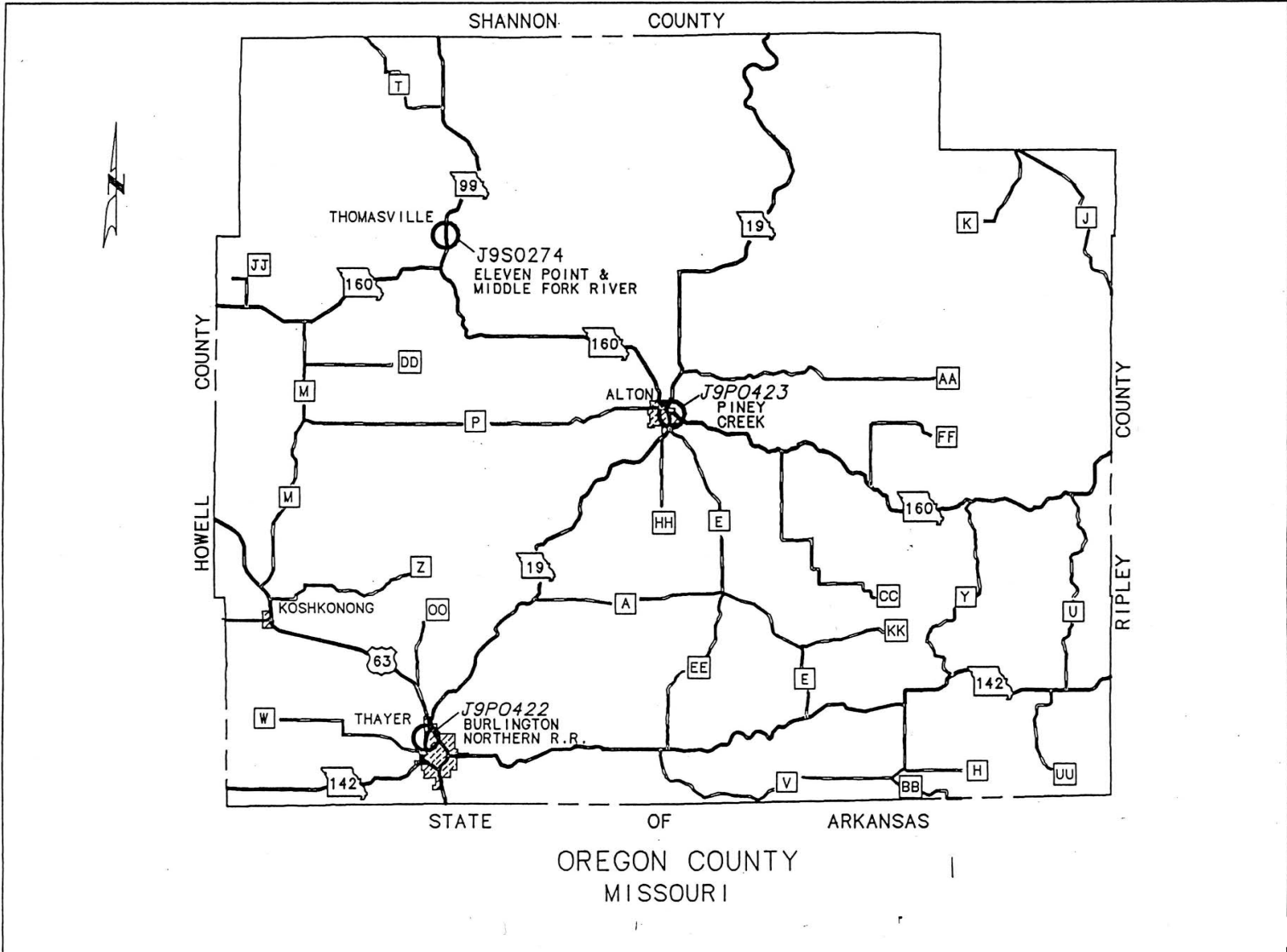
Howell County, Primary and Secondary Roads

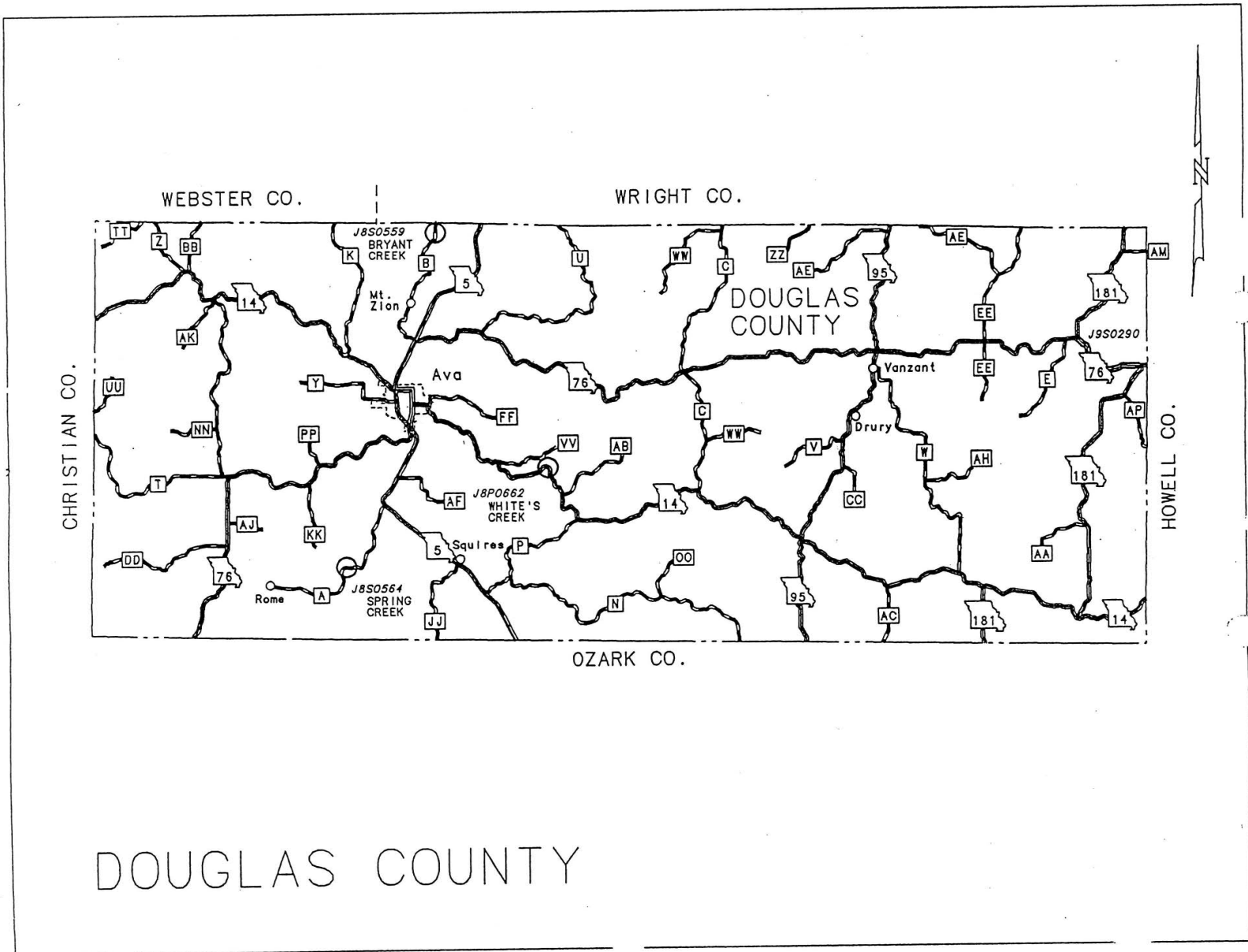
Figure 4-2



Oregon County, Primary and Secondary Roads

Figure 4-3





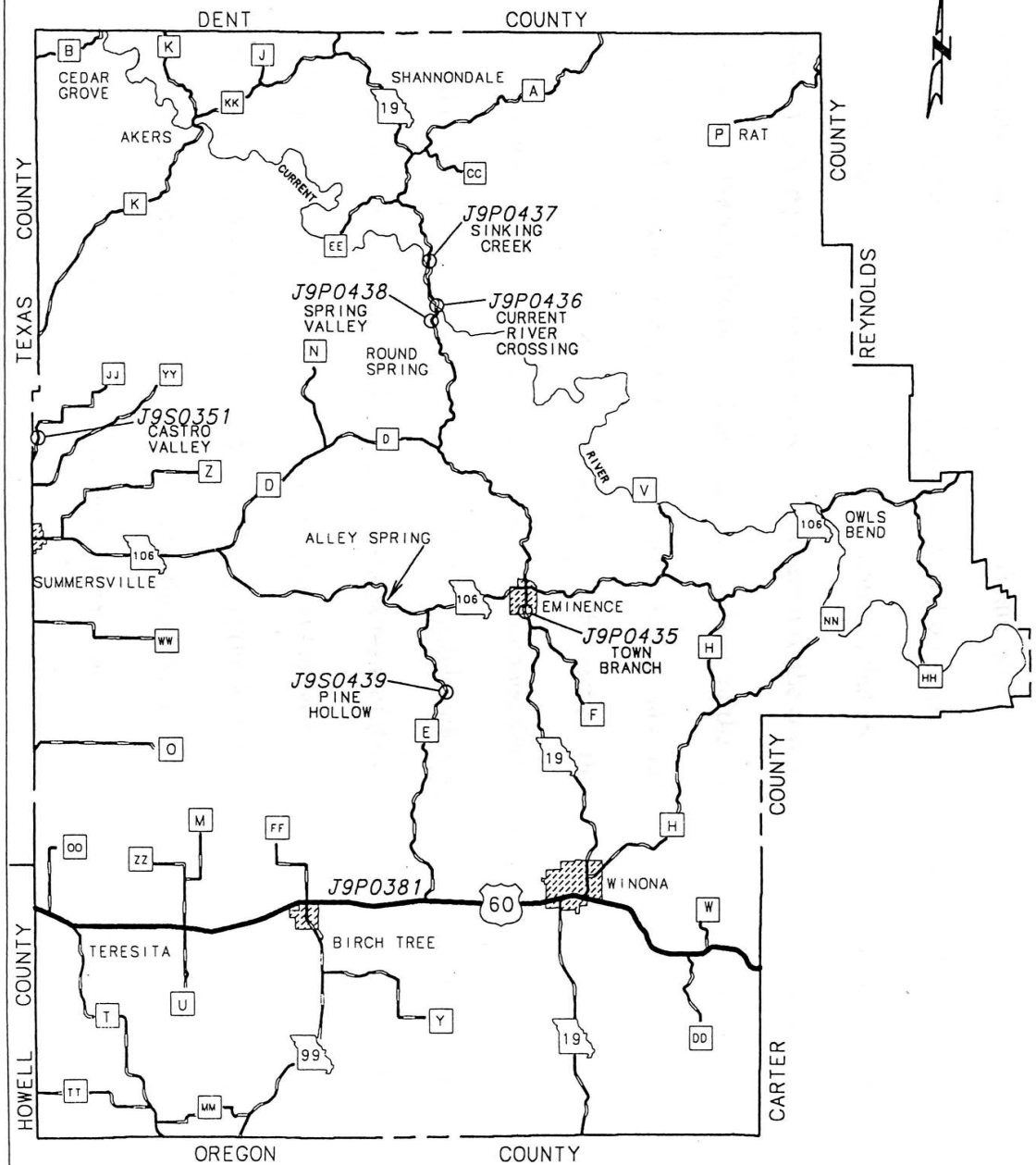
Douglas County, Primary and Secondary Roads

Figure 4-4

DOUGLAS COUNTY

SHANNON COUNTY MISSOURI

MISSOURI DEPARTMENT OF TRANSPORTATION



Shannon County, Primary and Secondary Roads

Figure 4-6

Ozark County has one well-constructed state highway, 5, which continues southward from Douglas County to Gainesville and the Arkansas border. The rest of the primary highways, state highways 160 , 95 and 185 are two lane unlimited access structures with no shoulders (Figure 4-5).

Shannon County has one well constructed highway, U.S. 60, which travels east to west across its southern quadrant. The other primary roads, state highways 99, and 19 are as narrow as the roads in the other counties. Again, all the counties have extensive secondary roads which are sometimes asphalt and sometimes gravel (Figure 4-6).

A major difference among the five counties is that Howell County has good access through U.S. highways 60 and 63 which connect it to the commercial centers of the state and nation. Perhaps the best indicator of the condition of the roads in this region is the death rate from motor vehicle accidents which is high in all counties relative to statewide rates (Table 4-13). As noted at the beginning of this section, the lack of good transportation routes has a dampening effect on economic development. It is the hypothesis of this dissertation that one of the best public policy efforts that can be exerted to bring the PLI counties into the economic mainstream of the state is the construction of well engineered north-south and east-west highways in each county. Remoteness and poverty are positively correlated. As noted by Fox (1989, 208), "Infrastructure investments in transportation and quality of telecommunications and electric services are likely to be the most important infrastructure-related development tools in rural communities."

Leading Causes of Death for the Five County Area - 1985 to 1995															
County	Douglas			Howell			Oregon			Ozark			Shannon		
Cause of Death	Number	Rate/100,000	Sig	Number	Rate/100,000	Sig	Number	Rate/100,000	Sig	Number	Rate/100,000	Sig	Number	Rate/100,000	Sig
All Causes	1407	483.8	N	4394	566.8	N	1528	612.4	H	1139	506.7	N	904	547.1	N
Accidental Deaths	76	52.8	H	177	48.2	H	77	65.0	H	54	53.7	H	48	56.3	H
Motor Vehicle	43	37.4	H	102	29.4	H	41	42.9	H	34	38.1	H	32	42.6	H
Work-Related	6	6.4	N	12	6.0	H	3	4.5	N	4	5.3	N	1	2.0	N
Alienation Deaths															
Suicide	28	18.2	N	46	13.5	N	13	12.0	N	17	13.7	N	6	5.4	L
Liver Disease and Cirrhosis	9	5.0	N	36	8.2	N	7	3.9	N	5	3.1	N	3	3.1	N
AIDS	1	0.1	L	8	2.6	L	0	0.0	L	1	1.4	L	2	2.6	N
Homicide and Legal Intervention	7	6.1	L	17	5.6	L	6	5.5	L	6	7.2	N	5	6.9	N
All Injuries and Poisonings	117	81.9	H	249	69.7	H	97	83.0	H	82	80.0	H	66	76.3	N

Source: Center for Health Information Management and Epidemiology, Missouri Department of Health

Telecommunications and The Information Superhighway: Constructing an Off-Ramp to the Missouri Ozarks

The development of telecommunications in the five counties in this study has progressed throughout most of the twentieth century. The elimination of party line service and completion of private line modernization in the counties occurred recently. According to the Missouri Public Service Commission, most of Howell County private line service was completed by 1994, Ozark and Shannon County modernization was largely completed in 1995-96 and Douglas and Oregon Counties were completed in 1997-98. Once private line service was completed, technology access into these counties via the internet could be established.

Of the five counties in this study, only Howell County has a private Internet server, Town square Internet, which has roughly 2,000 subscribers in the area. The northern part of Howell County and the four PLI counties are being furnished internet service through the Missouri Express Project, a grant administered by the Missouri Department of Economic Development through the University of Missouri Extension Service. Under this program, internet service is made available to individual county organizations, each with a local governing board which organizes hook-ups and sets fees. Fees vary from \$16- \$20 a month per subscriber and service is limited to private individuals. In addition, each county also provides computer access through 8-10 public work stations in each county located at public facilities such as libraries, gas stations, and senior citizen centers.

This program has only been in place for two years in some of the counties and is just getting established in others. It has generally been more enthusiastically received than

had been anticipated. In Douglas County, the Greater Ozarks Information Network (GOIN') has roughly 350 subscribers and 380 monthly users of the public work stations. GOIN' is currently extending its internet access service into Ozark County where it has about 50 subscribers at this time.

ORTRACKM, the Oregon County network currently services roughly 250 subscribers since coming on line last year. SCAN, the service for northern Howell County has 450 subscribers and is in the process of extending its service into Shannon County. According to Extension Agents in the region, this is not seen as a commercial venture, since businesses are precluded from subscribing to the service. The service is seen as an educational tool for the people of the area and as a way to "Let the rest of the world know about our county" (Solomon, 1998).

It is hard to overestimate the importance of bringing technology access to these isolated counties. High technology jobs can be indifferent to geographic barriers and pay higher wages than jobs now available in these areas. As noted by Deavers (1992, 185) "There is a growing consensus that modern information and communications technology may be partly substituted for scale." The building of a Technology Center at the SMSU West Plains Campus (completion 1999) will bring two year college degrees in computer technology to the region. In addition, SMSU- West Plains is currently constructing a distance learning alliance with area high schools, GRIZZNET. Within a few years, it is anticipated that this system will link area high schools to educational opportunities generated by the university.

As noted by Storver and Williams (1991, 180) "A strong educational system is required to support development." The coming of technology access to this area coupled with improved educational opportunities could possible leap frog these counties decades ahead in terms of reduction of isolation and increase in per capita income. Modern information and communications may indeed drastically reduce the frictions of distance through technology. Obviously, the poverty of the five counties studied will limit the ability of residents to access technology. Eight to ten public work stations will not educate a wide percentage of the populations and many of the county residents are precluded from owning a computer by cost. The best hope, at this time, for technology training appears to be to educate children in the five county area through the public schools and public libraries in conjunction with university programs for young adults and older workers.

Although all public schools in the region offer some computer training to their students, the poverty of the school districts limits the amount of technology access offered. This makes institutions such as public libraries an important part of public education in technology.

Of the five counties under study, Howell County has the most extensive library access for its citizens. Howell County does not have a county-wide public library system. The three largest communities in the county, West Plains, Willow Springs and Mountain View, each have their own city libraries. The libraries in all three communities receive city support and are full-time libraries.

The West Plains Public Library is currently undergoing an expansion, with the construction of a \$2.5 million library that will offer extensive computer/internet access to

patrons. This has been a community-wide effort in West Plains with \$1.2 million privately funded through individual donations and \$1.3 million through the city and grants. The Willow Springs Library has one computer with internet access for patrons and there is a one hour limit to using the computer. The Mountain View Library has five computers available to patrons with internet access. In addition, SMSU-West Plains has 23 computers and internet access available to the public. Taken as a whole, Howell County residents have better access to computers, especially when compared to the PLI counties.

Of the four PLI counties, Oregon County has the largest countywide library system by virtue of a county library tax which was passed in the 1960s. There are five public libraries in the county. The main libraries are at Alton and Thayer. Both libraries are full-time libraries with two computers each offering internet access to patrons. The part-time libraries are located in Koshkonong, Thomasville and Myrtle and have no computer access for patrons.

Douglas County has one public library, in Ava. It is funded by a county tax and is open full-time. It has two computers available to patrons with internet service.

Ozark County has one public library, in Gainesville. It is all volunteer and receives no funding from any source. It has no computers and, therefore, no internet access available to patrons.

Shannon County also has one library, in Winona. It is also volunteer operated and receives one city donation of \$1500/annually. It has no computers and no internet access for patrons.

In the five county area, Howell County appears to have the best access to technology, both through a local internet server, and through the library system and through the university library. Oregon County has the second best access for its patrons, followed by Douglas. Ozark and Shannon currently have no public access to the internet through their public library system. The expansion of internet service to the region through the Missouri Express Project will increase computer availability both to individual subscribers and through public institutions such as libraries and schools.

Access to Health Care in the Five County Area

As with their metro counterparts, economically disadvantaged rural families face significant barriers to adequate...care. However, rural families face additional access problems which reflect the inherent constraints of rural existence.

These problems include the great distances that rural families must travel to obtain basic and specialty care, and the sparsely populated nature of rural America, which makes it difficult to maintain comprehensive health services. These barriers are reflected in the health status of rural infants (Hughes and Rosenbaum 1989, 299).

In the earlier discussion of health status, the populations of the five counties were found to have higher infant mortality rates than Missourians as a whole. The earlier statistics did not address the limited access to healthcare in the PLI counties. Nor did it address other mortality causes which rank these counties high as compared to the rest of the state (Table 4-13).

On examining availability of health care professionals in the five county area, it appears that Howell County has the best access to health care of the five county region. Howell County has two hospitals, Ozarks Regional Medical Center in West Plains and St.

Francis Hospital in Mountain View. County-wide there are 44.5 practicing full-time physicians (Ozarks Medical Center statistics 1998).

The four PLI counties have no hospitals, although citizens of Douglas County can access the Springfield Health care community, which is one hour's drive, in less time than it takes to get to West Plains. In addition, Ozarks Medical Center in West Plains has undertaken providing rural health care to adjacent counties. It maintains clinics in Shannon County at Winona, in Oregon County at Thayer, and in Ozark County at Gainesville. In addition, it maintains clinics in Wright County and at two locations in Arkansas (Salem and Mammoth Spring).

Oregon, Ozark and Shannon counties each have one full-time physician and Douglas County has two. In addition to a physician shortage, the four PLI counties have a nursing shortage. Although 32% of Missourians are nonmetro, only 13% of nurses practice in nonmetro counties in Missouri. The four PLI counties in this study are among the 41 counties in Missouri with less than 20 registered nurses per 10,000 people (Sullivan 1991, 5). SMSU-West Plains has a two year nursing program which graduates 25-30 registered nurses annually. This school has helped alleviate the nursing shortage in Howell County.

As noted by Hughes and Rosenbaum (1989), rural families are less likely to have medical insurance because fewer nonmetro employers offer medical insurance to employees. This is especially true of small, low-waged businesses such as predominate in rural areas. They found that 40% more nonmetro women of childbearing age were completely uninsured for healthcare in 1987 than metro women (Hughes and Rosenbaum

1989, 305). In the five counties in this study, percent of hospital Emergency Room utilization by uninsured individuals under the age of 65 , 1994-1996, ranged from a low of 22.9% in Howell County to a high of 31.9% in Douglas County. This compares to 27.7% for the state as a whole.

In conclusion, there appears to be more health care in Howell County. The PLI counties evidence both physician and nurse shortages and their citizens face significant physical and economic barriers to receiving health care. As Vivien Brake, RN, at Ozarks Medical Center commented, "We haven't scratched the tip of the iceberg on preventive health care."

Conclusion: Howell County and her PLI Neighbors

In comparing Howell County with the four PLI counties in this study, several measures were applied. The first measure, the USDA Index of County Well Being, verified that Howell County citizens have a substantially higher per capita income than the other counties, but failed to give a complete picture of the socio-economic contrasts among the counties. When population dynamics in the five counties were compared, Howell County led in most measures. Comparing labor markets in the five counties showed that the preponderance of manufacturing jobs in the region are located in Howell County. Howell County also led in every other job category and had the highest agricultural production cash value of the five counties as well as the highest personal income of all the counties. All counties had roughly the same percent of high school graduates, but Howell County had the lowest percent of residents who had not attained any high school education and the

highest proportion of college graduates. Howell County is also the only county in this study to offer post-secondary institutions, including a nursing school, within its borders.

Howell County is also the only county in the study with a four lane limited access highway and with major transportation routes running the length and width of the county. The four PLI counties have generally limited primary and secondary roads as modes of transportation. The secondary road system in Howell County, however, is as limited as those of the PLI counties. The high rate of death in these counties due to motor vehicle accident attests to the generally poor quality of the road systems.

Access to computer technology is greater in Howell County as it is the only county with a private internet server at this time and has libraries in its larger communities offering internet access to patrons. Two of the PLI counties do not have computer access available to patrons through their public library systems and the other two have limited access. The Missouri Express Project is expected to increase internet access in the PLI counties in the coming months, both by offering internet service to subscribers and internet access to the public through work stations located throughout each county. Finally, Howell County is the only county in the study with hospitals and has 20-40 times more doctors than the neighboring counties.

On almost all measures, therefore, it would appear that the citizens of Howell County have generally more access to economic and educational opportunity. One commonality that runs through all counties is the large proportion of near-poor and poor residents. This is due largely to the low wages in the region. It would appear that the application of both educational opportunities and the relocation of technology industries

may be the best hope for higher wages in this area in the years ahead. The Michael J. Lybyer Technology center now being constructed at SMSU-West Plains may give area residents access to the tools and industry the labor pool needed to improve the jobs available in the region.

CHAPTER 5. EXPLAINING THE CONTRADICTION: PATTERNS OF DEVELOPMENT IN THE FIVE COUNTY REGION

Introduction

Upon examination, it is apparent that the five counties of Howell, Oregon, Douglas, Ozark and Shannon in the south central Missouri Ozarks region do not conform to existing theories about the poverty of place. Weinberg (1987), Tickemyer et al. (1993) and Adams and Duncan (1992) assert that there is a clear relationship between poverty and proximity. Four of the five counties in this study (Oregon, Douglas, Ozark and Shannon) have been identified as persistently low income counties (PLI) since 1950 (Davis 1979). Persistent Low Income counties have per capita incomes which have remained in the bottom quintile of income when ranked with nonmetro counties in the years 1950, 1959 and 1969. Subsequent studies by Hoppe (1985), Bellamy and Ghelfi (1988) and Ghelfi et al. (1993) have found that these four counties remain persistently poor to date.

According to Weinberg, the existence of this cluster of persistent low income counties should result in higher poverty in every county they border. Yet, in the middle of these four PLI counties is Howell County, which has never been designated a PLI county. Chapter 4 closely examined the socio-economic conditions in the five county area and found that Howell County generally ranks higher than her four PLI neighbors based on both the USDA Index of County Well-Being and other socio-economic measures. Based on these measures, Howell County appears to be more prosperous over time than her PLI neighbors.

The question being considered here is, why has Howell County exhibited relatively more prosperity than the bordering counties of Oregon, Douglas, Ozark and Shannon? In earlier chapters, aspects of rurality and rural poverty were examined and applied to the five county region. The impact of rurality on political institutions and responses to public policy was examined. That analysis indicated that public policy which ignores the political culture of rural people will fall short of policy goals. The importance of understanding the target population is critical to the success of any policy. The overriding purpose of this dissertation is to further the understanding of pockets of persistent rural poverty in the hope that it will add to knowledge which will result in public policy which will effectively reduce entrenched rural poverty in areas such as this.

Lyson et al. (1993) identified several factors as instrumental in the development of geographic clusters of persistent rural poverty: economic forces, political culture, technological circumstances and historical circumstances (Lyson et al. 1993, 107). Chapters three and four of this study addressed the political, technological and cultural aspects of rural poverty and their applicability to the five county region. This chapter will examine the history and natural resources of the counties to determine if these factors explain the difference in economic development among the five counties.

The approach of this chapter will be two-fold: First, the natural resources of each county will be examined to determine if there are inherent factors which would explain Howell County's relative well-being; Secondly, the history of the five counties will be examined, including patterns of settlement and development, to see if there are historical explanations for the differences in the counties. This chapter will find that the resources

and history of these counties are similar. However, from the coming of the railroad to the area in the 1882-83, the development of historic transportation routes has favored Howell County over the four PLI counties. The development of transportation routes into and out of the area will be shown to be a major factor in the relative economic well-being of Howell County. Chapter Six will then focus on existing transportation routes in the five counties and assign economic distance costs to each county. It is hypothesized that the economic distance costs of each county will correspond to the per capita income of the county. The higher the economic distance value of a county, the lower will be its per capita income. If this relationship is exhibited, then the primary hypothesis of this paper, that isolation and remoteness are strongly related to low income, will be supported.

Comparative Natural Wealth in the Five Counties Under Study

As noted by Sauer (1918, 404), "Geographic factors have, in most cases, been most potent in determining the time and manner of settlement of the (Ozarks) region." Weinberg (1987), examined rural pockets of poverty in the U.S. and identified several factors which impede economic development in places in poverty. Among the factors he cited were resource scarcity, geographic factors such as soil quality, subsurface minerals, water access, and regional history. This chapter will examine each of these factors as they relate to the five counties. The soil of the Ozarks region is generally of poor quality. Geologists describe it as a Karst topography which is a limestone base that interacts chemically with water as it wears away to produce sinkholes, caves, honeycomb-like structures of rock, underground rivers and springs. Although the topography is aesthetically pleasing, lending itself to clear rock-lined streams and high tree-covered

bluffs, it is less satisfactory from an agricultural perspective. As water wears away the limestone base of the Karst topography:

Soil formation is among the slowest on earth. There are three types of soil found in Karst areas. There are the shallow soils, the rocky soils and the imported soils (those carried from upstream by rivers and streams and deposited in narrow valleys)...Nutrient impoverishment of Karst soils is the norm (Rossiter 1992, 24).

In the nineteenth century, farming in the Ozarks was almost exclusively subsistence level. A family ate what it raised, and when there was an occasional commodity surplus, it was usually bartered for goods or services in the cash-poor region. In the twentieth century, the introduction of better grasses and improved farming practices has enabled the area to develop beef and dairy industries. As noted in Chapter 4, the region contributes significantly to the state's livestock industry.

Howell County's agricultural income and livestock production ranking, however, is higher than that of the four PLI counties and all the counties are significantly above the agriculture income and ranking of Shannon County (Table 5-1). This suggests that there may be a resource-based reason for these differences, and indeed, there is. In fact, although all of the counties share a Karst topography, the Ozarks region in Missouri is divided into topographical subregions, and three of these regions come together in this five county area. Ozark and Douglas counties, to the farthest west, are largely contained in the White River Hills region of the Ozarks; Howell County, in the center of the five counties, is entirely within the Central Plateau region; Shannon and Oregon counties, to the farthest east, are largely included in the Courtois Hills region.

Table 5-1
(1) County Rank/114 Mo. Counties in Total Livestock Production, 1995-1996
--AND--
(2) Total Cash Receipts (in thousands), All Agricultural Products, 1995-1996

	Howell	Oregon	Douglas	Ozark	Shannon
(1)	6/114	23/114	13/114	21/114	90/114
(2)	\$39,575	\$26,134	\$29,886	\$26,016	\$5,404

Source: County Agri-Facts, 1997, University of Missouri Extension Service

Of the three regions, the Central Plateau, or upland dome, is most amenable to agriculture. As noted by Rafferty (1983) in his geographical study of the Missouri Ozarks, most of the larger communities in the Ozarks region are located on this Central Plateau. It is less hilly than the regions to the east or the west and is described by Rafferty as an upland prairie which is "remarkably level" when compared to the surrounding areas. This region is regarded as more receptive to settlement than its neighbors and historically, principal roads and railroads have followed its ridge lands through the Ozarks. West Plains, in Howell County, is the commercial center of this region: "West Plains is the only town of size for many miles...and has a long tradition as a regional livestock market and retail trade and service center..." (Rafferty 1980, 230).

McKinney (1990), in his study of cultural changes in the Missouri Ozarks, also noted the difference between the topography of the Central Plateau and the rest of the Ozarks:

Although more susceptible to drought damage than the deeper soils of north Missouri and Iowa, this land is generally suited for ... agricultural purposes and was utilized by Ozarks Farmers 1920-1960 for fruit, grain,

crops, hay and pasture...Significant plateau prairie regions exist in LaClede, Phelps, Texas, Dent, Wright, Webster and **Howell** counties (McKinney 1990, 52).

This assessment must be tempered with the knowledge that this entire region remains a Karst topography, with poor soils, and is unsuited for most row cropping, as noted in the agriculture reports on the region (Howell County Agri-Facts, UMC Extension 1997, 1). However, the Central Plateau of the Missouri Ozarks is well suited for hay, pasture and livestock production, and most of Howell County, and the eastern portions of Ozark and Douglas counties, as well as the western portion of Oregon county benefit from this agricultural environment.

Almost all of Shannon County and much of Oregon County is contained in the Courtois Hills region. It is the most isolated and hilly region in the Missouri Ozarks. This region contains no large towns and is extremely rugged and beautiful, containing more natural springs than any other area in Missouri, earning it the name, the Big Springs Region. The Courtois Hills region is poorer agricultural land than that of the Central Plateau by virtue of its slope. The roughness of this land is attested to by the fact that by 1930, all townships in Missouri had a post office, "...Except two adjacent ones on the isolated and rugged Shannon-Oregon County border" (Shortridge 1980, 89). In addition to having poor agricultural resources, Shannon and Oregon counties also have more acreage owned by the U.S. Forest Service than the other counties in this study:

Table 5-2
Acreage Owned by U.S. Forest Service, 1998

County	Total Acres	Acres owned, U.S. Forest Service	%/Total
Howell	594,000	49,276	8%
Oregon	507,000	105,553	21%
Douglas	521,000	40,946	8%
Ozark	468,000	38,512	8%
Shannon	642,000	83,385	13%

Source: U.S. Forest Service, 1998

The high percentage of publicly-owned land in Shannon and Oregon counties speaks not only to the unsuitability of the land to agriculture, but it also limits funding available for county services.

The White River Hills region of the Ozarks, which contains significant portions of Ozark and Douglas counties to the west, is described by Rafferty (1983) as being second only to the Courtois Hills region in hilliness and its "superlative scenery." He notes that farming is almost exclusively livestock and dairy in this region which extends all the way to Branson, MO. The beauty of the area has recreational potential as it contains several large lakes: Parts of the Norfolk and Bull Shoals Lakes in Ozark County, and all of Table Rock and Taneycomo Lakes in the counties to the west. Tributaries of the White River, such as Bryant Creek and the Norfolk River, cut through the two PLI counties in this region, whose beauty was noted by Henry Schoolcraft when he was in Douglas County

(although it was not an organized county at the time) on November 18 and 19, 1818, exploring the sources of the White River (Wood 1996, 5).

Land fertility in the five county region can be compared by corn acreage. Rafferty notes that, in 1969, Howell county had the most corn acreage of the five county area, followed by Douglas, Oregon, Ozark and Shannon counties (Rafferty 1983, 155). Agricultural income of the five counties roughly reflects the percentage of upland prairie acreage within each county's borders. It is interesting to note that although Howell County has the highest agricultural productivity among the five counties, it relies **least** on agriculture as a principle occupation (Table 5-4). This is indicative of the economic diversity that Howell County has achieved in this century.

Table 5-3
Farming as Principal Occupation/ Five County Area, 1996

County	Total Number/Farm Operators	% Listed Farming as Principal Occupation
Howell	1706	41%
Oregon	791	47%
Douglas	1187	53%
Ozark	802	52%
Shannon	424	48%

Source: County Agri-Facts, University of Missouri Extension Service, 1997

The heavy dependence on agriculture as a principal occupation in areas with the poorest agricultural resources would appear to increase the likelihood of poverty in these

counties. As noted by Rossiter: "With little agriculture (income) and even less industry to offer jobs, the scattered residents of the rural Ozarks -- unless they have independent incomes--are often poor" (Rossiter 1992, 24). Other factors which impact on agricultural production: soil texture, average annual temperature, average annual precipitation and average annual number of days with snow cover are largely undifferentiated from county to county within the area (Rafferty 1980, 27).

Aside from limited iron ore deposits in eastern Howell and western Oregon counties, the five county area does not share in the mineral resources possessed by counties of the "Lead Belt," northeast of the region, and none of the counties have mineral deposits sufficient to sustain a mining industry, although there are remnants of small abandoned iron ore mines from the 19th century throughout Howell and Oregon counties.

Timber is an abundant resource in the five county area and all of the counties harvest timber. Between 1880-1930 approximately 1.5 billion board feet of lumber were extracted from the Ozarks region. In 1899 alone, 723,754,000 board feet were harvested. Most of the money from these timber sales went to absentee-owned lumber companies outside the region. The local citizens, in most cases, worked as laborers in this process and the timber was railroaded out to the rapidly growing urban centers and used to build expanding cities. The "cut and get out" policy of the lumber companies eventually depleted the Ozarks timber. By 1931, only 75,000 board feet were extracted from the region as depleted resources and the Great Depression put an end to this period of resource extraction in the Ozarks (Rossiter 1992, 380-381). The intensive

lumbering also damaged soil resources in the area as "...Successive waves of timber cutting with no thought to future growth or yield...(resulted in)...humus lost and topsoil destroyed" (Hellinger 1972, 13). Lumbering continues as an industry in the five county region today, but not at levels approaching the 1880-1930 period.

No discussion of the natural resources of this area would be complete without considering the other resource the Ozarks has in abundance, water. Over 10,000 springs exist in the Ozarks region and over 100 of them have a daily flow of over 1,000,000 gallons of water each. Shannon county has three first magnitude springs, each with an average flow of over 64 million gallons of water a day. The entire Ozarks has an abundant and ever-circulating underground water system. This water is chiefly utilized for recreation, although its potential in future decades could become significant if water supplies, nationwide, decline.

In conclusion, all five counties in this study have abundant supplies of water and timber, no significant mineral deposits and relatively poor soil for agricultural purposes. Howell County has the largest portion of the preferable upland prairie contained in the Central Plateau and Shannon County has the least. These portions of prairie land contained in each county is reflected in the agricultural incomes of each. Of the five counties, Howell County has the highest agricultural production, but relies the least on full-time farming for income. Although Howell County does have more marginally better land for agriculture than the PLI counties, this difference does not adequately explain Howell County's relative prosperity when compared to that of the four PLI counties.

Settlement Patterns in the Five County Area

...Every region of the country has its own "history." History is critical to understanding how a region will develop, because historical circumstance serves as a constraint to economic development...regional and local opportunity structures are configured by cultural, political, social and economic forces both inside and outside a region (Lyson et al. 1993, 106).

Not having found a marked difference in natural resource wealth among the five counties, it is necessary to examine the history and political culture of the five county area. Perhaps different groups of migrants carried cultural values to these counties which created a political culture more conducive to economic development in Howell than in her neighboring counties. Perhaps some devastating historical event occurred which impacted more negatively on the PLI counties. As noted by Lyson et al. above, the combined history of a people has an impact on economic development because it is a significant factor in the political culture of a region.

The Ozarks region was one of the last areas in Missouri to be settled. Because of the almost impassable terrain and its poor agricultural prospects, it presented an inhospitable face to Missouri's first settlers, who moved along the paths of least resistance into the fertile valleys of the Mississippi and Missouri rivers. Following the first wave of the westward expansion, the periphery of the Ozarks was settled, beginning in the early decades of the 1800s. To the west, the Springfield Plain was settled first with the St. Louis-Springfield road becoming the first transportation route that extended toward (although not into the interior) of the Ozarks. To the east, migration moved haltingly westward, penetrating the Ozarks from the original French settlements along the

Mississippi River. From the north, migration moved south from the Missouri valley regions. This pattern of development was unlike the westward expansion of the United States which had preceded westward with each passing decade at a steady rate. Historians describe the settlement patterns of the Ozarks as "More of an unobtrusive infiltration than the passing of a frontier" (Gerlach 1976, 12).

The first settlements in the five county area did not occur until the 1830s, and that penetration was minimal. Not until the 1840s do communities appear in all five of the counties (Shortridge 1980, 76-81). By the 1850s, these communities, though small, were well-established in each county. Most of the migrants into this area were Ulster Scots, or Scots-Irish. Fenton notes that these people must have favored poor and rocky soil because they migrated from the Scots Highlands to the hills of Virginia and North Carolina and then moved on to the mountains of Kentucky and Tennessee before settling in the Ozarks (Fenton 1957, 4-5).

Rossiter, in her history of the settlement of the Ozarks region, describes the Scots-Irish:

As livestock farmers and hunters and gatherers, the Scots-Irish had no need for expensive valley soils. They could be content with the less desirable hill country that reminded them of their ancestral homes in Ulster and southwest Scotland. They were self-sufficient, fiercely independent, and often anti-government. They were unimpressed by, and not dependent on, organized society (Rossiter 1992, 288).

The geographic isolation of the Ozarks did not dismay these people, according to Rossiter. Many welcomed it and used that isolation to preserve their culture:

Clannish and ultraconservative by the traditions of hundreds of years, even reaching back for generations in the old country, the Scots-Irish

found the Ozarks Hills quite suited to their already well-established way of life (Rossiter 1992, 283).

Hellinger, in 1972, and Rafferty, in 1983, both noted that the impact of these early settlers in establishing the political culture of the Ozarks is still felt to some extent in the twentieth century. Rafferty described the social system of the Ozarks as stable, noting that kinship relations remained strong and extended back generations with social activities focusing on schools and churches. He found the population of the Ozarks to be homogeneous, with 98% of residents both white and native born (Rafferty 1983, 147).

Pre-Civil War migration patterns into the five county area were similar in that the migrants were predominantly of Scots-Irish origin, but different in their orientation toward slavery, the major political issue of the day. As the outbreak of the Civil War drew closer, these counties polarized east and west in their support or opposition to the slave states and the Union. What Rafferty describes as a "political fault line" became evident, dividing southern and northern sympathizing counties. That dividing line ran through the middle of the five counties in this study: "A political fault line runs north and south through the middle of the Missouri Ozarks...formed by the eastern boundaries of Miller, Camden, LaClede, Wright and **Howell** counties" (Rafferty 1983, 144).

This partisan political cleavage separated the eastern Ozarks counties, which were settled by, "...Many small farmers, artisans and shopkeepers who...were Jackson Democrats before the Civil War...(and)...who found renewed reason in the trials of civil strife to remain loyal Democrats," from the counties to the west, who were settled by "...Scots immigrants (to whom) the mountains of Tennessee and Kentucky and (later) the

Ozarks of Missouri had a comfortable feeling...(they were) an isolated, independent, self-reliant type...indifferent to slavery and strongly loyal to the union...staunch supporters of the Republican faith" (Fenton 1957, 5-6). Migration into the two areas after this period reinforced the original partisan alignment of these counties. As noted by Sauer, in this period people usually migrated in groups from the same regions and settled near like-minded residents with whom they could be comfortable (Sauer, 1918). These migration patterns have reinforced the partisan alignments in this region which persist to this day and go back to the first pre-Civil War settlements in these counties. The conservative nature of rural people in general, and Ozarkers in particular, have preserved traditional voting patterns:

The rural populace reacts less vigorously to events and political policies than do other portions of the (Missouri) population. In most cases, catastrophic events and policy pronouncements are used by the rural folk to rationalize whatever political faith they inherited. However, a Great Depression, or an important economic issue can occasionally produce a tremendous change in voting behavior. Since the Civil War, however, these shifts in voting behavior have always been followed by a return to the faith of their fathers, unless accompanied by a population change (Fenton 1957, 170).

Just as the Civil War experience had an important and lasting effect upon the political orientation of these counties, it also impacted heavily on their economic development patterns. All five counties suffered lost population and suffered significant setbacks to commercial development as a result.

Prior to the Civil War, communities in the five county region were small, but established. Originally, the five counties had been included as parts of two large counties which contained hundreds of square miles. With the passage of time, starting with the

easternmost counties and moving west, the original counties were subdivided, creating Oregon and Shannon counties in 1841, and Howell, Douglas and Ozark counties in 1857. At the time the Civil War began, Howell County had a population of approximately 3,000 and West Plains was already a trade center with a population of 150. The other five counties had similar populations in 1860. Douglas County had a population of 2,257 and Alton had been established as the county seat of Oregon County in 1857. When the war broke out, the Ozarks became embroiled in civil strife. As Alice Carey Risley noted, in West Plains and Howell County:

When the war broke out, the situation of the county made it a thoroughfare for all the raiding parties of both armies, and the people were compelled to seek a country less dangerous. Only about one dozen families remained in the county during the war. In 1863, Dabner Pennington says that he was in the town in the summer...and the only living thing he saw was a cat. ..In the fall of 1863 ...guerillas burned the town. Not a house was left standing (Risley 1952, 8-9).

Howell County's experience was common to all five counties in the area. The county seats of Shannon and Douglas counties were also burned, and bushwacking was common throughout the Ozarks:

Although steady progress toward modernity was made prior to the Civil War, that conflict and its horrendous effects and aftermath plunged the region into a kind of dark ages that surpassed anything experienced by the rest of the country, and from which it took much longer to recover (Rossiter 1992, 283).

Both Confederate and Union forces sent recruiters into the Ozarks region during the Civil War to conscript residents for military service. Those men who remained out of the conflict were often "outlaws" who did not care to fight for either side and preyed on the local populace. The social chaos which resulted in the five county region during the

Civil War is epitomized by the experience of a group of Irish settlers from St. Louis who settled in Oregon County in 1857. These families had long been out of work in St. Louis and the Catholic Church, seeking to find them gainful employment, assigned Father Joseph Hogan the task of locating and purchasing land suited to the establishment of an agricultural community. His unfortunate choice of poor, rocky soil in Oregon County coupled with the widespread marauding in the county during the Civil War caused the community to fail and, ultimately, disappear. To this day, the region is called the Irish Wilderness and the precise nature of the community's demise remains something of a mystery.

The Coming of the Railroad

Following the Civil War, Missouri began a rapid expansion in commerce and industry. Up until this point, the history and development of the five county area is largely undifferentiated. With the coming of the railroad to the Ozarks after the Civil War, however, Howell County becomes notably more favored by the placement of commercial transportation routes in the area. This advantage laid the foundation for the accumulation of capital and the diversification of industry in Howell County at an early date. The establishment and expansion of local business contributed to Howell County's ability to hold its population after 1900, and later in the century to experience net population increases, while the four PLI counties lost population. Because of their lack of historic transportation routes, the four PLI counties remained largely outside of this commercial expansion. As Rossiter noted in her examination of Ozark County, "...The railroads bypassed the county... and it remained almost completely isolated for lack of good roads"

(Rossiter 1992, 344). Howell County, however, by virtue of gaining the railroad, also gained the advantage necessary to prosper commercially relative to her neighbors.

Before the Civil War, river and road traffic were the main modes of commercial transportation in the state. State government had long recognized the importance of transportation to the growth of commerce and had tried to promote the development of good quality overland roads in the state. In 1822, the General Assembly passed an act making each county responsible for maintaining all roads within its borders and requiring all "free males" from 16-45 years of age to work on the roads within their districts. Later, acts by the General Assembly granted contractors the right to build bridges and toll roads. In 1849, the legislature chartered plank roads, in an attempt to acquire hard-surfaced roadways which would not become a hopeless mire in wet weather. The technology to make overland roads passable in all weathers, however, did not exist until the twentieth century. This is one reason why railroads were so eagerly embraced by the state legislature as a mode of reliable transportation. In 1836, the first meeting was held in St. Louis to arrange state government support of railroad construction. In 1849, a national railroad convention was held in St. Louis, and in 1851, railroad construction began in St. Louis, subsidized by federal and state aid in grants of both land and funds. Railroad construction in Missouri preceded after that date, according to van Ravenswaay, "According to the rhythm of these (public) transfusions" (van Ravenswaay 1994, 99).

The Civil War proved river traffic and existing overland routes to be too slow and unreliable. The speed and efficiency of the railroad as a mode of transportation was

preferred. Following the war a period of wild railroad promotion ran throughout Missouri: "Small systems were chartered, promoted, sometimes built, then sold or abandoned, almost always with a heavy loss to investors" (van Ravenswaay 1984, 101).

The expansion was rapid, sometimes haphazard and almost always supported with taxpayer funds. In 1852, five miles of railroad track had been completed in Missouri. By 1870, 2,000 miles were complete. Every decade from 1870-1910 saw roughly 2,000 more miles of track laid in Missouri (Myer 1963, 469).

Missouri communities competed with each other for railroad track placement. Communities saw the coming of the railroad as the guarantee of commercial expansion for their community and the loss of the railroad as its death knell. Events would prove them correct. Prior to the coming of the railroad to Howell County, Thomasville, located on the Eleven Point River in Oregon County, had been regarded as the commercial center of the region. West Plains was so named because it was located on the plains west of Thomasville. When the railroad bypassed Thomasville for West Plains, West Plains thrived and Thomasville waned and today has a population of less than 500 (Neathery 1994, 9).

By 1868, the railroad companies owed Missouri taxpayers \$31,735,840. Only \$6,131,496 was ever paid off, leaving Missourians with \$25,604,344 in bonds and interest to retire. The debt was finally paid off in 1903 (Parrish et al. 1992, 218). Thelen (1986) asserts that the "Primitive and frequently violent struggles between the local taxpayers and railroad promoters over construction of Missouri's railroads," caused Missourians to view government with more cynicism even than was their natural wont (Thelen 1986, 62). By

1880, Missouri ranked third among the states in bonded debt of local governments for railroad aid. Citizen outrage ran high. In Christian and Taney counties, feuds broke out between the progressives (Baldknobbers) and the natives. In 1872, Cass County citizens halted a train carrying county and city officials responsible for the railroad bond debt in Cass County and brutally murdered all of them (Thelen 1986, 67-68).

Railroad lines bypassed the interior Ozarks until 1883. Although the railroad had been called the St. Louis-San Francisco Railroad (Frisco) since 1858, the route included a ride by train from St. Louis to Tipton, MO, at which point riders embarked on a stagecoach ride that "swung on a great arc" around the Ozarks along the St. Louis-Springfield Road (today the route of Interstate 44) to meet the Memphis Railroad at Little Rock, Ark., and only then to proceed by train to Texas and northwestward to San Francisco (van Ravenswaay 1994, 100).

From 1882-1883 the Kansas City, Fort Scott and Memphis Railroad (later to become the Burlington Northern) finally extended across the interior of the Ozarks, following roughly the same route it takes today. In the five county region, the railroad clips the southwest corner of Oregon County, where a railroad terminus was established at the town of Thayer. From there, it cuts diagonally across the length of Howell County entering at the southeast and exiting into Wright County at the northwest corner. Thus, many Howell County communities were connected to the wider commercial world, both southeast and northwest of the county:

The railroad had a tremendous impact on the entire area, not only because freight, including tools of progress, could be hauled in, but because the area's products could be hauled out to urban markets.

And that's why Howell County was able to become one of the outstanding counties in this area very early in its history. **They had more track mileage than any other county** (in the area) (Neathery 1994, 10).

McKinney (1990) notes the economic importance of having the railroad pass through a town to the residents of the Ozarks:

Commercial railroads spanning the Ozarks contributed much to the economic growth and development in the area, especially to the towns situated along the routes... (becoming) the link from the Ozarks interior to the wholesale supply houses in Springfield, Memphis, and Kansas City (McKinney 1990, 133).

Road-building technology at this time was not adequate to the challenge of the rugged terrain of the Ozarks and so those counties without railroad service were effectively excluded from commercial development. As noted by Rossiter (1992), "Those counties bypassed by the railroad, in particular, were stranded in the past" (220). In 1918, when most of the track laid in Missouri was complete, only three counties lacked any miles of track: Douglas, Ozark and Dallas counties. Two of those counties are PLI counties. Of the other two PLI counties in this study, Shannon County had only a short line which was used to deliver lumber to the railroad siding in Oregon County. When the lumber industry shut down, this line closed as well (Rossiter 1992, 221). The track in Oregon County, the fourth PLI county, barely clipped its southwest corner and did not afford the kind of countywide connection to the wider commercial world that Howell County gained. Therefore, the effective result of the period of railroad expansion was to place Howell County exclusively in a position of access as it related to the possession of commercial transportation routes in the area.

The Timber Boom and Bust, 1880-1930

At the turn of the century, lumbering became a major source of cash to the inhabitants of all five counties. As noted earlier, timber was harvested intensely and eventually the industry ground to a halt due to depletion of resources. "After years of living on the cash economy under the watchful eye of the (lumber companies), the destitute populace found it impossible to return to the barter system of the earlier days in the Ozarks" (Rossiter 1992, 381). Those who remained in the Ozarks following the decline of the timber industry sometimes used "...Tie-hacking as a convenient way to earn cash, because they could get 50 cents for each tie that they delivered to a railroad collection point" (van Ravenswaay 1986, xii). Needless to say, these were tough times, economically. With the decline of the timber industry, many citizens left, seeking cash employment in more prosperous regions. This out-migration sapped the economic viability of the four PLI counties in this study.

From 1920-1960, for instance, Shannon County's population fell from 12 to 7 persons per square mile, and all the PLI counties suffered heavy population losses during this period. Howell County, however, was able to maintain its population, its population density never falling below 22 persons per square mile.

When the timber industry began to dry up, Howell County's transport network system enabled local business and civic leaders to work together to attract a small industrial base which included three creameries and two soda bottling plants. In addition, the railroad enabled the county to develop a fruit industry marketed to the urban centers of the Midwest and a regional stockyard (Neathery 1994, 66). The income provided to the

county by this economic base stemmed the loss of population so that by 1950 Howell County had again attained 1900 population density levels. Today, it is still the only county of the five in this study with greater population density than it had in 1900. The sparseness of population in the five PLI counties makes economic development more difficult. As noted by Storver and Williams (1991, 211), "The sparse population of most rural areas discourages large employers from locating there."

The Counties after Mid-Century: Deep and Shallow Rurality

In attempting to understand the developmental differences among the five counties it is helpful to apply Halperin's taxonomy of shallow rural and deep rural. Deep rural counties, as defined in Halperin's study of Appalachia, are isolated geographically and are most distant from urban areas. They are largely inaccessible, or only accessible with difficulty, because of lack of infrastructure and geographic and cultural barriers. Deep rural counties have small-scale rural agriculture economies, no shopping malls and residents often employ multiple livelihood strategies such as home gardens and seasonal protein from hunting and fishing to supplement low incomes. In these counties, bartering supplements limited cash available and there is an active underground economy (Halperin 1990, 67). Campbell et al. (1993), in their field study of Douglas County, assigned it a deep rural classification, based on the county's lack of major highways, low to modest incomes, lack of mass merchandisers, other than one Walmart store, and the "barely urban status" of the one city of size, the county seat of Ava, which had a population of 2,800 (Campbell et al. 1993, 39).

Applying this same criteria to the other PLI counties of Oregon, Ozark and Shannon counties, all appear comparable to Douglas County on the measures Campbell et al. (1993) cite. None of these counties has a city of over 3,000 population, mass merchandisers other than an occasional Walmart, most families have low to modest incomes, and few major highways traverse their borders. This designation is important because, by their very environment, deep rural counties are less likely to develop economically. For deep rural counties, problems of low population and human capital skills, limited tax base for available infrastructure investment, lack of diversity in the economy and isolation create a frustrating cycle that is extremely difficult to break without a significant and sustained infusion of funds from larger governmental units.

Howell County, unlike the four PLI counties, does not fit the deep rural designation, but would appear to be a shallow rural county. That is, a county in which urban and rural interface with a mix of institutions. In a shallow rural county small farms, factories, market places and shopping malls exist and offer residents more diverse labor market opportunities. Roads and infrastructure are more numerous and better maintained due in part to the higher tax base available to the county. Shallow rural counties have geographical accessibility to major urban markets. The multiple livelihood strategies of the barter economy exists in shallow rural counties side by side with mainstream capitalism and tends to be more limited than in deeply rural counties. The shallow rural county has sufficient population to provide a labor pool to attract industry. Wages are low in these counties, and most incomes are also low to moderate, but there are higher incomes as well (Halperin 1990, 139).

Technology Penetrates the Ozarks Region, 1950-1998

It was not until the 20th century, with the coming of the automobile, the development of year-round road technology, and the establishment of the Mo. Highway Commission in 1913, that the isolation of the interior Ozarks was diminished. As noted by Hellinger, "The **dominant characteristic** of the interior Ozarks until highways penetrated the region in the 1930s was **isolation**" (Hellinger 1972, 51). Van Ravenswaay (1984, 84) agrees with this assessment, "The development of the central Ozark upland...has been the result of modern highway construction induced by the development of automobile travel" (van Ravenswaay 1984, 84).

In the development of these transport networks, Howell County also had a clear advantage over her PLI neighbors. During the Depression years, public money for infrastructure impacted the five county area. In 1932, Twin Bridges opened on Highway 14, connecting Douglas County to West Plains. In 1933, the bridge over the Jack's Fork river connected Shannon County with Hwy 60. Other bridges were built and roads constructed that, according to one long-time native, "Opened up areas that had never been accessible before in these counties" (Morrison 1998).

The introduction of the automobile to Ozarks communities in the 1920s and 1930s had another important effect on the Ozarks: it increased the "cash hunger" of the region, as cash was necessary to acquire the modern means of transportation. The automobile also enabled Ozarkers to travel to nearby towns for day work and thus to continue to live in their rural communities, but commuting necessitated roads for access (McKinney 1990, 136).

Roads were not by any means the only factor reducing the isolation of these counties during the twentieth century. During this period, phone service was extended to these counties, although the elimination of party line service with the completion of private lines to these counties has only been accomplished in the 1990s. In the 1940s and 1950s, radio came into the region, creating a larger sense of community and raising the consciousness of county residents of life beyond their community borders. In the 1960s, television brought the world into Ozarks living rooms, and in the 1990s, internet service is being made available to all the counties in this study through the Missouri Division of Economic Development subsidization.

World War II also had an important impact on the five county region. When the soldiers returned home from the war, many wanted to "Settle down, have families and lead a normal life" (Morrison, 1998). This desire for normalcy and prosperity would fuel the post-war economic boom felt throughout the nation. In the Ozarks, however, many soldiers came home to communities that had little to offer them by way of employment. The experience of Robert Neathery was fairly typical of these young men and women:

When I came home, I talked with Paul Thompson, who had become a fifty percent partner in our (appliance) business and who kept it running through the war, and he said, "Well Bob, if you've got anything you can do to make some money you better go do it...There's just no money coming in to support you" (Neathery 1994, 107).

Neathery took a job as a salesman for a company based in Elkhart, Indiana, where he built up enough cash and found an investor who enabled him to return to West Plains and start a radio station in 1947.

The fact that Howell County had become a trade center following the establishment of the railroad put it in a stronger position, economically, than many of the counties in the region after the war. The PLI counties were generally not so fortunate. As Table 5-4 illustrates, from 1940-1970, population of the four PLI counties declined sharply:

Table 5-4
Population Per Square Mile (Density), 1900 and 1940-1970

	1900	1940	1950	1960	1970
Howell	24	24	25	24	26
Oregon	18	17	15	13	12
Douglas	21	19	16	12	11
Ozark	16	14	12	9	9
Shannon	11	12	8	7	7

Source: USDC, Bureau of the Census: MO Office of Administration

Following the war period, several light manufacturing businesses were established in the five county region. Shoe factories, curtain factories, uniform factories and sporting goods factories all brought jobs, but low wages, to the region. Tourism also began to grow as an industry in the area but again, tourism generally brought low wage and seasonal work.

The history of the PLI counties 1900-1970 was generally been one of steady outmigration and low economic development. Howell County history for the same period was one of stable population and moderate economic growth. In 1970, all counties began

to experience population growth, partly as a result of return migration of retirees to the region and the development of tourism as an industry. In the 1970s, the West Plains Chamber of Commerce aggressively pursued manufacturing industries such as Marathon Electric and Eaton Electric and health care professionals. At some point during the decade, the community reached the point of agglomeration, or returns to investment. From 1970-1990, Howell County's population has increased 30% and the pace of economic activity has increased concomitantly. Even the decade of the 1980s, which brought tough economic times to most of rural America, did not slow down the growth in Howell County. The PLI counties, on the other hand grew modestly, 1970-1990, or simply held their own.

The Evolution of Civic Leadership

The establishment of a culture of local businessmen and civic leaders working together for the betterment of the community early in the century proved to be an asset to Howell County throughout the twentieth century. As Strover and Williams (1991) noted in their study of rural areas and economic development, rural communities who prosper have three elements that set them apart from less prosperous communities: 1. locally owned, progressive businesses; 2. An actively involved business leadership which exerts a sustained effort to diversify the economy; 3. Civic leadership which encourages a cooperative spirit among the various groups in the community (Storver and Williams 1991, 112). Mills and Ulmer (1946) studied various municipalities and discovered that those areas with high levels of civic spirit also had higher levels of civic welfare, including lower poverty rates, lower unemployment and higher educational attainment. They

defined civic spirit as widespread participation in civic affairs, and found that the driving force behind such a civic spirit is the small businessman. They found this to be true for several reasons: the small businessman has some time and money to invest in volunteer efforts, is fairly well educated, has been trained by his small business experience in initiative and responsibility, is in constant contact with administrators and political figures of his city and, most importantly, he stands to benefit from increased commercial activity in the area (Mills and Ulmer 1946, 141).

Early in the history of West Plains, civic spirit became an important function of the small business community. At the turn of the century, local leaders such as C.T. Aid and longtime Mayor Jim Harlin, among many others, constantly promoted West Plains business. In 1900, West Plains established the first full-time Chamber of Commerce in the region and it has been actively working for economic development since. In the 1950s, for instance, a community-wide effort was organized using local funds and federal (Hill-Burton Act) funding to construct West Plains Memorial Hospital. Newspaper Editor Frank L. Martin, III, remembers the drive as something in which the entire community participated. Individuals raised the money to buy doors, or rooms. Workers at the West Plains Daily Quill, and other businesses donated 50 cents out of their weekly paychecks. Today, that hospital is Ozarks Medical Center, a regional medical center with rural satellite clinics located in the surrounding counties.

Another expression of civic spirit occurred in 1963, when local leaders cajoled, pressured, and lobbied the state legislature and the governor to authorize the establishment of a "residence center" of Southwest Missouri State University in West Plains.

Community support for that campus in the next thirty years has allowed it to become an independently accredited campus of the SMSU system, averaging over 1,000 students.

In 1990, business leaders and the Chamber of Commerce organized a successful drive to win voter approval for the funding of a Civic Center which contains an Olympic-sized swimming pool, a community theater, meeting rooms and a large arena which houses college basketball games and other community events, including a rodeo. In 1997, the community organized to obtain funding for a new city library.

Over the years, community leaders have successfully campaigned with both the public and the political organizations necessary to promote the growth of both West Plains and Howell County. It has long been a part of the culture of West Plains and surrounding Howell County communities for business leaders to join the local Chamber of Commerce and volunteer time in its activities. They have worked on the Industry and Transportation Committee of the Chamber of Commerce for decades to get funding for improved roads in Howell County. In the past five years, their efforts have culminated in getting the main highways (63 and 60) in Howell County designated "Highways of National Significance" which has opened the door for increased federal funding for expansion of the highways to four-lane. Other businessmen and women have worked on Doctor Recruitment Committees or Governmental Affairs Committees, or Tourism Committees or any one of several other ongoing community development activities. These efforts have paid off in terms of a relatively diversified labor market within the county, designation of West Plains as "One of the Top 100 Small Towns in America" and as a Model Community by the

Missouri Department of Economic Development. One longtime civic leader ascribed the relative success of Howell County in recent decades to several factors:

Expansion of the economic base has been obtained through the **persistent effort of county leaders** and by working the political system for our betterment. In addition, the banks in the community have always set aside their differences and worked together for the improvement of the community at large, that was very important. Furthermore, the establishment of SMSU-West Plains, the Industrial Development Corporation, and the regional airport at Pomona has had a unifying effect on the county. We do not so much work for the betterment of West Plains anymore--we tend to think countywide (Thompson 1998).

To the fortunate circumstance slightly flatter topography, Howell County added commercial transportation routes and an active and civic-minded business community. This combination has enabled Howell County to prosper throughout the twentieth century.

Each PLI county also has active civic organizations, but the sparse population and geographic isolation of these deeply rural counties combine to make the successful application of civic-mindedness difficult. The recent economic development history of Douglas County is a good example of this dynamic. In the 1950s, Douglas County's population had significantly declined and county leaders feared that Ava was going to become a "ghost town" if the trend continued. County civic leaders joined together in an effort to attract job-producing industry to the area. As a result, they raised \$24,000 for an industrial park and "persuaded" the state to build Highway 5 to connect Ava to Highway 60 and Springfield. The community built a plant which brought Rawlings Sporting Goods manufacturing to Ava. In addition, their efforts brought Emerson Electric, Inc. to Ava (although it has since closed) and a wood treatment plant. In the ensuing years, the community built a \$350,000 school, refurbished the ballpark, expanded sewage and water

systems , and started a guided tour through the nearby mountains which attracted tourism to the area. Finally, they added feeder pig and cattle marketing programs for the area.

These efforts resulted in a \$1 million increase in business activity in the county by 1990, the building of 120 new homes, 1950-1990, and an increase in net population. Ava was cited as "A rural community which has refused to die," by the Missouri Department of Agriculture (Wood 1996, 14).

Although these gains may appear small by some standards, they are gains, nonetheless. The populace of Douglas County has benefitted from these efforts. The key to Douglas County's turn around was the involvement of local citizens in a coordinated effort to bring new businesses to the community and the creation of an improved highway (5) which reduced its isolation, creating access to an urban center. Douglas County's experience indicates that when civic spirit is exercised and county isolation is reduced, successful economic development outcomes can occur.

Community development efforts continue in Douglas County. In the face of the closing of the Emerson Electric, Inc. plant, the Chamber of Commerce is working with economic development institutions at the state level to attract a light manufacturing business to the area. The Ava Chamber of Commerce Economic Development Specialist expects such a plant to locate in Ava within the next year. It should be noted that Douglas County is the only county other than Howell to have a full-time Chamber of Commerce. It is also the only county in the area under study to have completed a needs assessment study with the Missouri Department of Economic Development. Howell County is developing its study at this writing.

Conclusion

It is apparent from reviewing the history of the five counties that following the Civil War, Howell County began to take on a different development pattern than the bordering counties. Howell County gained a significant advantage over her neighbors when the railroad traversed the county southeast to northwest. This allowed it, and especially West Plains, to become a trade center for the area. Early on, Howell County had a locus of local business leaders in West Plains who worked together for the development of the local economy. This proved an advantage for the county.

Douglas County's recent economic development history illustrates the importance of public policy which reduces the remoteness and isolation of these counties. Given the isolation of the four PLI counties in this study, it is unlikely that civic spirit alone can be exercised with successful economic development outcomes without assistance from larger governmental units.

The citizens of the Ozarks are often stereotyped as recalcitrant and resistant to progress. In fact, when values of family and community connectedness can be maintained, the people of this region have shown an eagerness to embrace economic progress. This is one of the findings of the survey research which will be discussed in chapter seven.

McKinney (1990) noted the willingness of Ozarkers to adapt to economic and social change in his study of cultural changes in the Ozarks, 1920-1960:

The fabled stubborn adherence to a subsistence lifestyle on an Ozarks hillside, when there were other viable opportunities available, simply did not exist to any great degree in any of the Ozarks region during the time period under study (McKinney 1990, 388).

What is apparent from the efforts of Douglas County is that when community leaders work together and pool their resources, make a plan and receive assistance from larger political units to reduce county isolation, community betterment follows. With this type of civic spirit evident, the provision of decent transportation routes connecting these counties to the wider commercial world seems eminently justified.

CHAPTER 6. REMOTENESS AND POVERTY: ECONOMIC DISTANCE AND PERSISTENT LOW INCOME COUNTIES

Introduction: The Contrast Between the Socio-Economic Status of Howell County and her PLI neighbors

Earlier chapters in this study have addressed the disparity of relative well-being between Howell County in the south central Missouri Ozarks and the four bordering counties, Oregon, Douglas, Ozark and Shannon, which have been continuously designated Persistent Low Income Counties. Persistent low income is a United States Department of Agriculture and Census Bureau designation which is assigned to those counties which place in the bottom quintile of Per Capita Income nationwide, 1950-present (Davis 1979; Ghelfi et al. 1993; Hoppe 1985).

The fact that Howell County, at the center of a cluster of the poorest counties, is notably more prosperous over time than her neighbors is not what rural poverty researchers expect to find. Analysts such as Weinberg (1987), and others, have found that mere proximity to PLI counties has adverse effects on poverty and income in neighboring counties, influencing them to have significantly higher poverty rates.

Of the five counties in this study, only Howell County has a greater population density today than it did at the turn of the century. The extensive and ongoing out-migration from the four PLI counties in the twentieth century (a trend not stemmed until the 1970s) robbed them of human capital and the ability to develop strong economies.

This chapter will examine the connection between remoteness and persistent poverty more rigorously. Theories of what causes uneven development across space will

be examined and Lyson's concept of Economic Distance will be applied to the five county region to determine the degree of isolation experienced by each county in the study and to discover if there is a relationship between degree of isolation and per capita income in each county. If a relationship is found, then it is posited that a policy of reducing the isolation of these regions through the improvement of transportation networks (roads, bridges, technology access) will result in a reduction of the relative isolation of these regions and may enable them to escape the persistent poverty they have experienced for decades.

Economic Development across Time and Space: "Territorial Lumpiness"

The continued concentration of industry and jobs in Howell County over time, relative to her neighbors, is typical of the historic unevenness of economic development across space, according to Lyson et al. (1993) :

In dynamic capitalist societies, economic development, by definition, will be uneven. Because space or territory is not frictionless, ensembles of economic activities and employment opportunity tend to cluster geographically. This territorial "lumpiness" of economic life means that **rural poverty is best viewed as one outcome of an uneven development processes** (Lyson et al. 1993,135).

Those who study economic development from a spatial perspective note that the tendency of transportation routes to develop along the paths of least resistance and for business activity to cluster along these routes is a guiding principal of locational economic development. As noted by Storper and Walker (1989), "Economic growth will occur where space is most friendly... (These) spatial relations are society-forming" (226-227).

Krugman (1991) reviews the history of the economic development of the United States from a locational perspective and notes that, more often than not, the reason one area waxes and another wanes is due to a "historical accident":

The whole process of industrialization within the United States was marked by... stories of small accidents leading to the establishment of one or two persistent centers of production... The resulting pattern may be determined by underlying resources and technology at some very aggregative level; but at ground level there is a striking role for history and accident (Krugman 1991, 61, 67).

The tendency of economic growth to concentrate geographically is universal, according to Krugman, and such factors as population density and better transport networks which result from economic growth create increasing returns which encourage still more economic activity in the same location. "These... increasing returns and cumulative processes are pervasive and give an often decisive role to historical accident" (Krugman 1991, 25).

It is difficult to pinpoint the exact reason why the railroads chose to traverse Howell County instead of the other counties in this study. Perhaps it was one of those "accidents of history" that Krugman outlines. Individual county historical resources are very limited, and even after interviewing many sources, including the residents in each county who are the keepers of local county history, it is hard to find a conclusive reason for that choice. Certainly, the less hilly terrain of Howell County had to have figured in the decision. Perhaps the fact that Howell County was a Union sympathizing county during the Civil War (although Douglas and Ozark Counties were also Union counties)

made it more inviting to post-Civil War planners. Each of these factors were probably of some importance to the decision.

But, it is an undeniable fact of history that previous to the coming of the railroad, the economies of the five counties under study were largely undifferentiated and consisted of subsistence farming. After the railroads, Howell County's economic development history assumed a local vitality that differed from that of her neighbors and resulted, ever so slowly, in the development of a relatively diversified economy as the twentieth century progressed.

Several theories have been advanced over the years in an attempt to explain why some areas prosper more than others. Neoclassical Economic Theory maintains that business enterprises locate where they can best maximize profits and that labor supply is perfectly elastic. Workers migrate to labor deficient areas in a "relatively routine" manner. In the neoclassical approach to economic location, imbalances are temporary and will be overcome with time, migration of labor and additional development. Eventually, the system will reach equilibrium.

This approach to locational theory fails to explain why people choose to remain in economically depressed regions over time and resist migration to more prosperous labor markets. This is especially true of nonmetro citizens, who tend to have strong attachments to their communities. As will be noted in the survey results in this chapter, the vast majority of nonmetro residents in the five counties surveyed take pride in long residence in their rural communities and are resistant to relocation, even in the face of poorer economic

outcomes than might be experienced in more prosperous locations (Survey Data, Morrison, 1997 & 1998).

Central Place Theory is a second explanation of the unevenness of economic development which assumes neither perfect elasticity of labor supply nor ultimate economic equilibrium. As such, it does a better job of explaining the economic dynamics of the five counties under study. Central Place Theory maintains that the well-being of a community will depend upon its relationship in space to a metropolitan business center, or central place. The farther the nonmetro community is from the economic center, the less prosperous it will be. This creates a hierarchy of well-being, so to speak, depending on distance from the central place. This model is useful in explaining wage differentials between metropolitan and nonmetropolitan areas and is also consistent with some regions having more highly trained workers than others. This view does not assume labor supply to be perfectly elastic and notes that there are significant barriers to labor mobility. These barriers perpetuate the unevenness of development and will not allow the system to move to equilibrium unless, "The state can help redress spatial differences through investments in technology, infrastructure and human resources to expand productive capacities and markets of lagging regions" (Lyson et al. 1993, 110).

Lyson et al. describe the barriers to labor mobility as the concept of economic distance. Nonmetro communities will have the frictions of distance, or economic distance, between their location and an advantaged economic area. The higher the cost of overcoming that economic distance, the less likely the disadvantaged area will benefit from any association with the more prosperous region.

A third theory of locational economics refines on Central Place theory and maintains that, due to the dynamics of economic systems, perfect balance, or equilibrium between places is unlikely. The Structural Political/Economic perspective views regional differences as a consequence of the accumulation process. Changes in that process affect local and regional markets. In this model, capital is seen to be elastic and to be continually in search of profit. This mobility of capital leaves some areas impoverished and others flourishing. Regional disequilibrium is viewed as a normal outcome of capital mobility and accumulation (Labao 1990, 166-168). Knox and Agnew (1989), identify five key factors which determine the sites which will be chosen for economic activity: distance, accessibility, diffusion, transportation networks and agglomeration.

Humans are viewed as effort and distance minimizers who will choose to travel to those areas which can be accessed with a minimum effort. Areas which are not too distant (either in real or perceived terms) and which offer easy accessibility will be utilized. Even if there is excess demand for goods and there is no intervening source to satisfy that demand, "If the distance between the locations of demand and supply is too great or too costly, interaction will not take place" (Knox and Agnew 1989, 65). Geographic barriers that prevent diffusion of ideas and innovations will also limit accessibility. Transportation networks are essential to the location of economic growth centers: "The accessibility of locations is fundamentally affected by the transport networks that integrate the isotropic plain. **Interaction is channeled by these networks**" (Knox and Agnew 1989, 65).

Finally, those economic regions which are not too distant and which have relative ease of accessibility, allowing interaction and diffusion of innovation with convenient transportation networks will reach the threshold of agglomeration:

The more accessible locations acquire advantages over others in the form of agglomeration economies, or returns to centralization. The principle of agglomeration as a function of accessibility, therefore, is the ultimate determinant of why some economic activities tend to cluster and others are distributed relative to the demands of the cluster (Knox and Agnew 1989, 66).

"Economic Lumpiness" in the Five County Area

Based on transportation networks, infrastructure and services available to industry and citizens, Howell County would seem to have reached agglomeration, or returns on centralization, at some point during the 1970s. As noted in the previous chapter, since 1970 business activity and growth of population has accelerated markedly. Using population density as a marker, in 1970, Howell County finally surpassed 1900 density levels after fluctuating 24-22 persons per square mile for the first seventy years of the century. Since 1970, population density has steadily increased to 34 persons per square mile in 1990, over 2-4 times greater than that of the other counties in the study. It is obvious that something happened during the decade of the 1970s to change the population dynamics of Howell County. That something was reaching the point of agglomeration, or returns to centralization. It is interesting to note that the decade of the 1980s, widely seen as a time of economic hardship for rural areas following the "rural renaissance" of the 1970s, was a time of steady growth in Howell County based on population density trends.

An example of the dynamic of agglomeration in Howell County is the concentration of medical services for a several county area there following the investment of local citizens in a hospital in the 1950s which led to an increase in Howell County's physician census and, ultimately, the construction of an expanded regional medical center. The regional medical center has, in turn, attracted more physicians and allied health services to the county to the point where Howell County now has 44 resident physicians as compared to 1-2 in the surrounding counties. The establishment of West Plains Memorial Hospital in West Plains led to the creation of Ozarks Medical Center which has created an agglomerative medical economy which, in turn, attracts more medical services and businesses to the county.

The result is a concentration of economic resources in West Plains and Howell County. Similar concentrations occur in southern Missouri and northern Arkansas at points approximately every 100 square miles. Cuoto (1995) noted similar distributions of relative well-being and poverty throughout the rural counties of Appalachia. In identifying subregions of economic status on a county by county basis, Cuoto found clusters of up to fifteen counties whose relative wealth as measured by poverty rate and per capita income vary significantly from its neighbors. Within these clusters, he found that a relatively healthier economy would have some radiating effect on the counties surrounding it. The relatively wealthier counties sometimes bordered less wealthy counties which in turn bordered the poorest counties. Thus, Weinberg (1987) would seem to be proven correct in his assertion that persistent low income counties radiate poverty to their bordering

neighbors. Cuoto has proven the principle in the converse, relatively wealthy counties radiate some degree of economic health to their neighbors (Cuoto 1990, 115).

Spatial economic differences operate within the five counties in this study. Howell County, at the nexus of area transportation routes has reached an agglomeration point of attracting both more industry and concomitant infrastructure improvements from the state. The four PLI counties are largely outside of the scope of such returns on concentration. As noted by Scott and Storper, "Geographic unevenness is induced by the patently irregular distribution of basic resources and transport opportunities...all of which create pressures which lead to high level of development in some areas and relative backwardness and stagnation in others" (Scott and Storper 1986, 302).

Labao (1990) noted the importance of spatial location to economic well-being. She seems to equate degree of remoteness of a community to the level of its socio-economic well-being:

A community's geographic region and distance from a metropolitan center are important determinants of its level of well-being. Even after taking into account economic structure and work force characteristics, **more geographically isolated rural areas have poorer economic well-being, higher unemployment, poorer education and higher infant mortality.** (Labao 1990, 219)

The relative remoteness and isolation of the four PLI counties are the result of both geographic barriers, such as the Ozarks Mountains, and poor transportation networks.

Deavers (1992) sees "Remoteness stemming from geographic barriers as serious impediments to modernization and development for many rural areas" (Deavers 1992, 186). The problems of remoteness are compounded by low density settlements such as

those are found in the four PLI counties. Deavers maintains that remoteness and low population density deliver a "double whammy" to rural counties which make it impossible to achieve the economies of scale necessary to develop essential services such as adequate health care and sanitation services. Residents in these counties are often required to travel considerable distances to access services, or do without.

The "New" Rural Comparative Advantage

In trying to find solutions to the disadvantages the four PLI counties face in attracting jobs and income to their communities, remoteness and low population are only two of several factors stacked against them. Another impediment to development is the structural changes in the wider American economy. The internationalization of markets and structural changes in the economy have undermined the historic rural comparative advantage of cheap labor and historic reliance on primary production of natural resources and agriculture. Cheaper labor can be found abroad, and many rural areas lack skilled labor pools to attract new technologies. The result, according to Wiedemann and Kingslow (1989) is a rural economic development "dilemma" which results in low levels of job development and out-migration of capital and brainpower from rural areas (Wiedemann and Kingslow 1989, 35-36).

Gaston (1992) feels that there are still comparative advantages that accrue to rural areas, despite changes in the macro economy. These advantages are different from the cheap labor, relaxed regulations and nonexistent unions that brought jobs to rural America in the past. The new rural advantage to attracting jobs are "amenity based." These locational assets of rural areas include lower population densities than metro areas

experience, lower crime rates and pleasant natural environments. To the degree that rural areas can capitalize on these assets, Gaston asserts, they can be successful at attracting employers to their areas. However, a serene countryside does not immediately translate into industry relocation. In addition to their pastoral environments, rural counties must have enough wherewithal to provide the key infrastructure needs of industry and efficient transport networks to get goods to market. In addition, they must not have such low population densities that they cannot provide a sufficient labor pool. Roberts (1990) links the economic viability of rural areas to their ability to provide basic community services and meet individual needs in areas such as health care.

Given this description of the "amenity based" comparative advantage of rural areas, Howell County would be the clear preference for location of businesses in the central Ozarks region, and indeed, it is. Once again, the benefits of agglomeration would seem to accrue only to Howell County in this region. Howell County does contribute to the well-being of her neighbors insofar as residents of the PLI counties commute to Howell County for work and the provision of essential services such as health care. The feasibility of such a commute, however, will depend on the economic cost of overcoming distances to the commuter.

The Concept of Economic Distance: Calculating the Costs of Overcoming the Frictions of Distance

Lyson et al. (1993) maintain that understanding the economic costs of traveling from disadvantaged regions to more advantaged areas will help researchers calculate the degree of remoteness of the disadvantaged area. The greater the degree of

remoteness/isolation, Lyson et al. tell us, the less likely the disadvantaged resident will make the effort to overcome it. This view of remoteness concurs with Knox and Agnew's (1989) which found humans to be effort and distance minimizers who will do without goods if the distance to obtain the goods is too costly, either in real or perceived terms.

The concept of economic distance as a means of measuring degree of remoteness rests on calculating the economic, physical and psychological costs of relocation to the individual and is based on measuring three factors: 1) Travel costs; 2) Travel time costs; 3) Costs of disrupting personal linkages to the area:

The greater the economic distance between an advantaged and disadvantaged region, the greater the cost of obtaining information about opportunities available by migrating and the greater the costs of making a physical move. So the more remote the disadvantaged region, the less likely that migration will eliminate the **lower real income that is, itself, a result of remoteness** (Lyson et al. 1993, 110).

Remoteness, according to Lyson et al., results in lower real income. Based on this posited relationship, it is the hypothesis of this paper that, after calculating economic distance values for each of the five counties in the study, those counties with the highest economic distance values (and therefore, most remote) will have the lowest per capita incomes.

In order to measure the values of economic distance for each of the five counties in 1994, the following formulas were constructed:

Table 6-1
Economic Distance

1. Travel costs: $A+B \times 2 =$ round trip travel costs

(\$1.00/gallon)

A = $\frac{\text{Miles from community of residence to destination}}{15 \text{ miles per gallon gas}} \times \text{cost of gasoline} =$ fuel costs

B = Miles from community of residence to destination \times \$.29 = vehicle costs per mile

(Cost of gasoline and vehicle mileage per gallon are industry averages, 1994. The \$.29 per mile vehicle costs is the amount allowed by the Internal Revenue Service, 1994)

2. Travel time costs: $\frac{C}{60} \times D \times 2 =$ round trip travel time costs

C= Minutes of travel from community of residence to destination

D = \$4.25/hour (wage/hour)

(\$4.25 is the federal minimum wage for hourly work, 1994)

The third value to be considered, cost of disruption of linkages to resident community is more difficult to calculate since the values are attitudinal. This value is calculated via survey research, the results of which will be discussed in chapter seven.

Calculating Economic Distance Values for the Five County Region

Commuting is one way PLI county residents can escape the poverty of their community if they can access jobs and wages in a more economically advantaged region. This will only be possible if the economic costs of the commute are not prohibitive. If it is unlikely, as the research indicates in the past three chapters, that any of the PLI counties have the population density, infrastructure or services available to attract many good wage

and jobs producing industries, then the best hope for the residents to improve their standard of living may lie in traveling to regions with labor deficits in order to gain sufficient income to continue to live in their community.

In order to calculate the economic distances for residents of these counties, it is essential to know their commuting destination. It cannot be assumed that the four PLI counties are predominantly commuting to Howell County for work. Given Knox and Agnew's theorem of human locational behavior, people are most likely to travel to places at the least cost of effort and distance. Since many of the connecting roads from Howell County to the PLI counties are less than optimal, they may pose barriers to efficient commuting routes between these counties, and hence, reduce commuter activity.

Tolbert and Sizer (1996) used journey to work data from the U.S. Census in 1980 and 1990 to determine commuting zones among counties in the U.S. Their work was significant to the understanding of rural commuting patterns because they examined journey to work data independent of Metropolitan Statistical Areas (MSAs). Previous commuter studies were limited to MSAs which excluded nonmetro areas by definition. Their study identified 741 Commuter Zones (CZs) within 394 Labor Market Areas (LMAs):

A key purpose of this delineation has been to identify those labor markets operating beyond the boundaries of cities, based on the assumption that the strengths and weaknesses of the labor force and the nature of opportunities available in rural, more sparsely settled, local economies continue to differ from those found in the larger, more densely populated city economies (Tolbert and Sizer 1996, 19).

In the Tolbert and Sizer study, Labor Market Areas are based on both commuting patterns and population criteria and meet the Census Bureau criteria of a minimum population of 100,000. Commuter zones, however, have no population limits and are based on frequency matrices of commuter flows between origin counties and destination counties. Some LMAs have only one CZ. This is true of the CZ that Douglas County is in, which extends to Greene County and includes the MSA of Springfield, MO. Other LMAs, especially those containing no MSAs, are aggregates of multiple CZs combined by magnitude of commuting relationships. In 1980 and 1990, a typical CZ had four counties. The range was from one to 21 counties in 1980 and one to 19 counties in 1990. Tolbert and Sizer take this to be a "clear sign of more intercounty commuting in 1990 than in 1980" (Tolbert and Sizer 1996, 19).

From the data, Tolbert and Sizer created three subcategories based on the size of the largest place:

Small town Rural: Population of largest place, 1990, less than 5,000. (This would include the four PLI counties in this study.)

Small urban Center: Population of largest place, 1990, more than 5,000, but less than 20,000. (This would include Howell County in this study.)

Larger urban Center: Population of largest place, 1990, more than 20,000.

When the Commuter Zones (CZs) for the five counties in this study are examined, it is noted that the counties fall into three different CZs and two separate LMAs. Four of the five counties, Howell, Oregon, Shannon and Ozark are in LMA90=251 which covers

an extensive nonmetro area with eighteen counties extending from Texas County, Mo., in south central Missouri to Cleburne County, in north central Arkansas (and not far from Little Rock). This LMA has a population of 294,145 and includes five different CZs.¹ Howell, Oregon and Shannon Counties are in CZ 25102, which also includes Texas County, MO and Fulton County, AR (Figure 6-1). This would indicate that journey to work data from the 1990 census shows that the most frequented commuter routes were among these counties. Therefore, these five counties of CZ 25102 define a trade area, or local economy. The largest places, that is the centers with the highest population, are trade centers within the area. As noted by Fuguitt, Brown and Beale (1989), place size denotes the position of that place in the economic hierarchy:

The settlement structure may be viewed as an array of cities of different sizes and their hinterlands interrelated through a complex division of labor. Though population size certainly does not uniquely determine what a place does, it is an indicator of its position in the settlement hierarchy that has emerged with the process of urbanization (Fuguitt, Brown and Beale 1989, 383).

This would indicate that West Plains in Howell County, as the place of highest population, is a trade center for the CZ of Oregon, Shannon, Texas and Fulton Counties. In estimating economic distances for these counties, therefore, commuter routes between the higher population places in each county to West Plains would reflect the most predominant commute in the area. As noted by Tolbert and Sizer:

These commuting zones were intended for use as spatial proxies for local labor markets. . . Readily available county-level data can be organized to correspond to the commuting zone geography. Our work with commuting zones suggests that they are **meaningful spatial units and plausible representations of local economies** (Tolbert and Sizer 1996, 20).

Figure 6-2, Commuter Zone 25101
Includes Ozark County
(Tolbert and Sizer 1996)

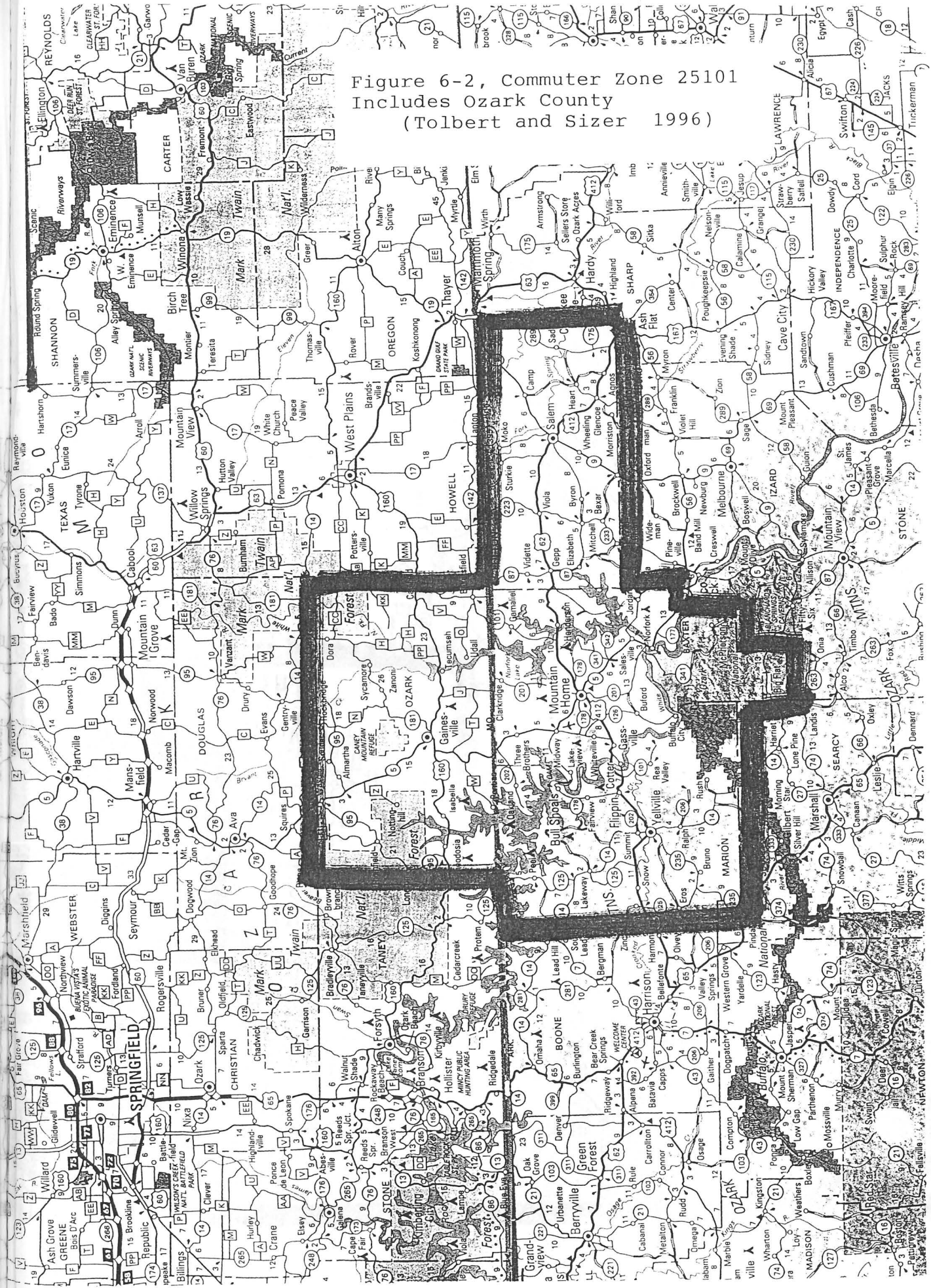
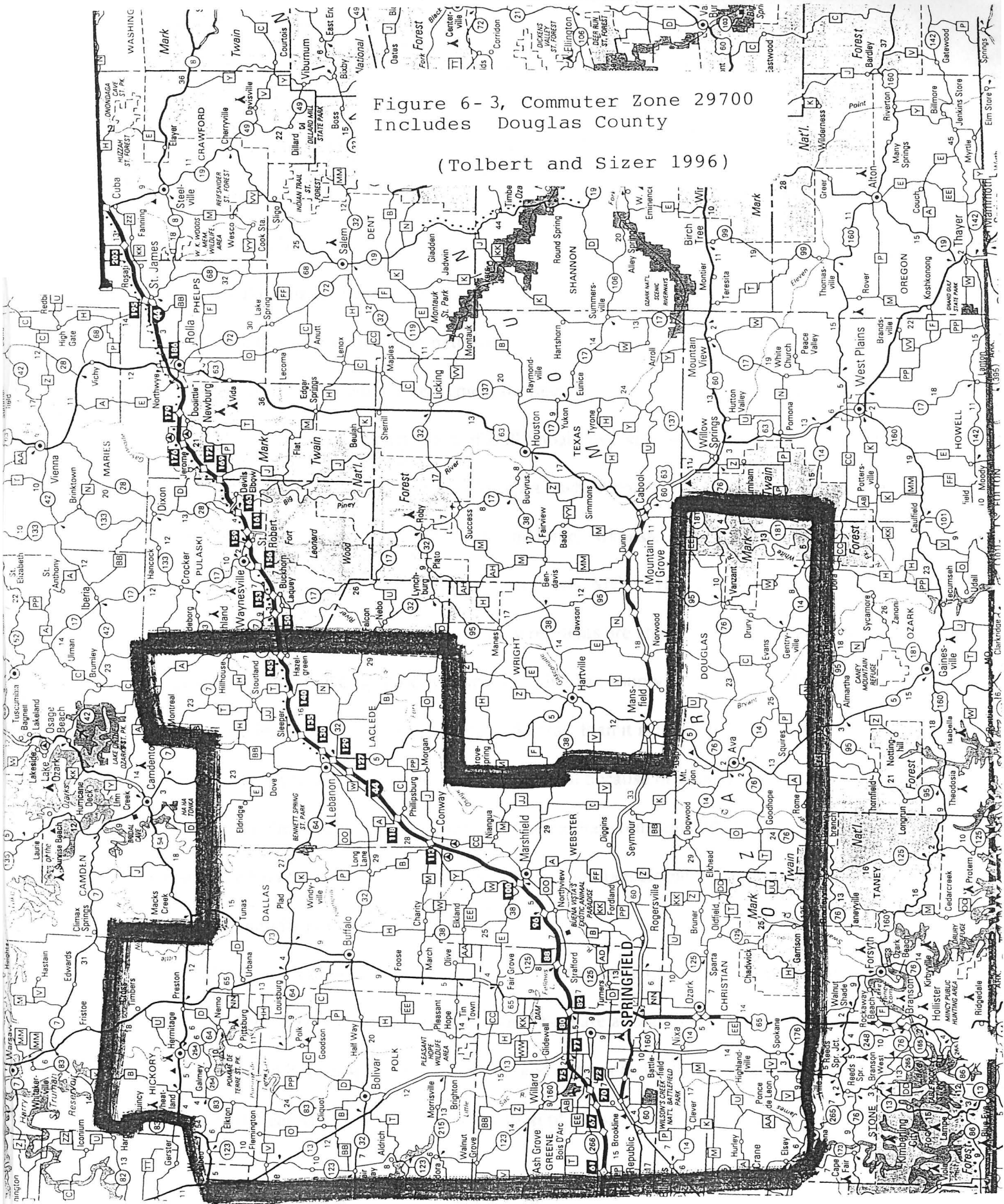


Figure 6-3, Commuter Zone 29700
Includes Douglas County

(Tolbert and Sizer 1996)



The two other PLI counties in this study, Ozark and Douglas, fall into two different CZs, although Ozark County does fall into the same LMA with Howell, Oregon and Shannon counties.

Ozark County is in CZ 25101 which contains only three counties: Ozark County, MO, and Fulton and Baxter counties in Arkansas. (Figure 6- 2) According to Tolbert and Sizer, Ozark County's commuting patterns predominantly extend southward toward the lake areas which have made it a retirement destination county in the past two decades. Although Ozark County has a portion of Bull Shoals and Norfork Lakes, the bulk of both lakes is in Marion and Baxter counties, Arkansas, which complete CZ 25101. Also in Baxter County is the community of Mountain Home, Arkansas, which is a regional hub and shares some of the characteristics of West Plains, MO, in Howell County, including a regional medical center. Many Ozark County residents are able to work, shop and obtain services in Mountain Home, Ark. Gainesville, MO, the county seat of Ozark County, is closer in driving time to Mountain Home, Arkansas, than it is to West Plains, MO. Even though the roads to both towns are less than optimal because of geographic barriers such as the Gainesville Monandocks, a series of five mountain remnants which form significant physical barriers to travel, the shorter distance to Mountain Home, Ark., apparently "channels" activity in that direction.

Douglas County, as noted earlier, falls into the same LMA and CZ as Springfield, MO , LMA 90=297, CZ 29700 (Figure 6-3). There are a total of nine counties in this LMA/CZ which has a population of 361,945 and encompasses the counties east and south of the Springfield MSA. Thanks to the creation of Missouri highway 5 in the 1960s,

Douglas County residents can access the labor markets and services of Springfield MSA more easily than they can those of Howell County. It makes sense, therefore, based upon the premise that humans are distance and effort minimizers, that the bulk of commuter traffic from Douglas County would travel towards Springfield, MO. It should be noted, however, that this assumption does not take into account the third factor in estimating Economic Distance, the costs of disrupting ties to the local community.

Survey research in Chapter 7 indicates that Howell and Douglas county residents share similar attitudes towards education, mobility and change. This might make commuting to Howell County for work psychologically easier than traveling to the MSA of Springfield, MO, even though it is much more costly, economically, to travel to West Plains.

After calculating the economic cost of travel for each of the five counties within their particular commuting zones, one can see that the cost of travel to more advantaged destinations rises as distances increase and the quality of roads declines (Table 6-2). For example, the highest cost of commuting between population centers among the five counties is between Douglas and Howell Counties (Howell County is outside the Douglas County CZ, probably because of the difficulty of overcoming the distance to that county). An individual commuting from Ava to West Plains only travels 16 road miles farther, round trip, than one commuting to Springfield, which is in the Douglas County CZ. However, the travel time cost of travel to Springfield is \$44.90 (round trip) whereas the travel time cost for the same individual to West Plains is \$55.60 (round trip). The difference in travel time costs is largely due to the difference between the transport

networks from Ava to Springfield and Ava to West Plains. Highways 5 & 60, which connect Douglas County residents to Springfield are relatively straight roads with wide shoulders (Hwy 60 is a limited access 4-lane highway with a 65 mph speed limit). Conversely, Hwy 14 from Ava to West Plains is narrow and winding, lacks shoulders, and is widely regarded in the area as dangerous. A highly skilled driver might be able to maintain an average speed of 45-50 mph on Hwy 14. Most residents allot 90 minutes for the drive from Ava to West Plains.

The effect of the high cost of similar commutes from the PLI counties of Ozark, Shannon, Ozark and Douglas has a quelling effect on activity between these counties and more advantaged areas. An individual living in Eminence, for instance, cannot justify driving to West Plains for a minimum wage job which will pay a gross salary of \$170.00/week (1994 minimum wage= \$4.25/hour) when he must pay out \$277.80/week to commute (1994 costs). In addition, because two of the travel cost factors (wear and tear on the vehicle, \$.29/mile, and time costs) are "invisible," the individual may be unaware they are being incurred until his vehicle breaks down. Thus, they can pose a "trap" for low waged workers who unwittingly are driving themselves into debt by long commutes to low waged jobs.

Because of travel costs and travel time costs comprise significant economic distances in these counties, an unskilled worker, for the most part, is precluded from commuting to the more economically advantaged areas in his CZ. As a result of economic distance, he is limited to the economy of his home county. Workers traveling from Douglas County to Springfield may find higher waged jobs in a metropolitan area which

Table 6-2
The Economic Costs of Travel among Most Populated
Communities Within Commuter Zones
-1994--

<u>Origin / Destination (Mileage)</u>	<u>Travel Costs</u>	<u>+ Time Costs =(x2)</u>	<u>Economic Cost/RT</u>
	Min. wage, 1994 = \$4.25/hr.		
<i>Ozark County</i>			
Gainesville/Mt.Home (26 mi)	\$ 9.27	\$2.13(30 min)	\$ 22.80/day, 114.00/wk
*Gainesville/West Plains(43mi)	15.33	4.25(60 min)	39.16/day, 195.80/wk
<i>Howell County</i>			
Willow Spgs/W. Plains(24 mi)	8.56	2.13(30 min)	21.38/day, 106.90/wk
Mt. View/West Plains(23 mi)	8.20	2.83(40 min)	22.06/day, 110.30/wk
Suburbs/West Plains (10 mi)	3.56	.71(10 min)	8.54/day, 42.70/wk
<i>Oregon County</i>			
Alton/West Plains(30 mi)	10.70	2.48(35 min)	26.36/day, 131.80/wk
Thayer/W.Plains (23 mi)	8.20	2.13(30min)	20.66/day, 103.30/wk
<i>Shannon County</i>			
Eminence/W.Plains(57 mi)	20.33	4.95 (70 min)	50.56/day,252.80/wk
Winona/W.Plains(46 mi)	16.40	3.54 (50 min)	39.88/day,199.40/wk
<i>Douglas County</i>			
Ava/Springfield(52 mi)	18.55	3.90 (55 min)	44.90/day,224.50/wk
*Ava/West Plains(60mi)	21.40	6.38 (90 min)	55.56/day,277.80/wk

* *Outside designated Commuter Zone*
Business Standard mileage \$.29/mile, 1995 Master Tax Guide. Chicago: Ill.

makes the commute feasible. However, few workers will be able to afford to drive the route from Ava to West Plains for very long.

In order to test Lyson et al.'s assertion that remoteness translates into lower income, it is necessary to compare the degree of remoteness in each county with its Per Capita Income. If Lyson et al. is correct, a relationship should be evident by rank ordering degree of remoteness as determined by economic distance and noting whether the most remote county has the lowest per capita income of the five. Based on the average of the economic distance calculations of the cost of a week's commute from population centers in each county to the trade center in their respective commuter zone, the most remote county in this study is Shannon (\$226.10/wk), followed by Douglas (\$224.50/wk), Oregon (\$117.55/week), and Ozark (\$114.00/wk). Average economic distance costs for Howell County (\$86.63) indicate that it is the least remote of the five counties. Comparing these economic costs of travel with per capita income figures, 1994, should indicate whether there is a relationship between degree of remoteness/isolation and income, as posited by Lyson et al. (1993).

Table 6-3
Degree of Remoteness and Per Capita Income

Degree of Remoteness Remoteness, 1 = most/ 5 = least (Cost of intra -CZ Travel, 1994)	- and -	Per Capita Income Per Capita Income, 1=lowest / 5=highest 1994*
<i>Shannon County</i> (\$226.10/wk)/ 1		\$ 11,665/ 1
<i>Douglas County</i> (\$224.50/wk)/ 2		11,833/ 2
<i>Oregon County</i> (\$117.55/wk)/ 3		12,945/ 3
<i>Ozark County</i> (\$114.00/wk)/ 4		13,136/ 4
<i>Howell County</i> (\$86.63/wk)/ 5		14,155/ 5

**Source: University of Missouri, Columbia: County Agrifacts, 1997*

As the (Table 6-3) indicates, there appears to be a relationship between remoteness, as defined by average costs of travel into and out of areas examined and per capita income. That is, the county with the highest travel (economic distance) costs also has the lowest per capita income. It should be noted that the cost of commuting is much higher for Shannon and Douglas Counties within their CZs than it is for Oregon, Ozark or Howell Counties. The \$100 plus differential indicates that Douglas and Shannon are much more remote than the other three and, indeed, per capita income figures 1988-1996 indicate that Shannon and Douglas counties "take turns" having the lowest per capita income of the five county area (Table 6-4). These figures indicate that, although per capita income has increased in the 1988-1996 period in each county, the counties have maintained the same rank during this period. In examining Table 6-4, the ranking of

counties by per capita income seems fairly constant. From 1988-1996, Shannon and Douglas counties remain at the bottom of per capita income. Oregon and Ozark counties have the next highest per capita incomes, and all four are exceeded by Howell County's per capita income for every year in this period. **This income pattern conforms to the degree of remoteness assigned to the five counties as calculated by economic distance.** This remarkably persistent pattern of income disparity lends further **credence to the concept of economic distance as a measure of remoteness and to the negative influence of remoteness on real income:**

Table 6-4
Per Capita Income 1988-1996

* (Rank of Remoteness, 1=Most Remote, 5=Least Remote)

<u>Rank*</u>	<u>Location</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>
1	Shannon Co.	7664	8710	9496	10273	10540	11391	11966	12262	12425
2	Douglas Co.	8502	9423	9729	10095	10815	11508	11027	11570	11839
3	Oregon Co.	8918	9589	10288	10808	11823	12130	12501	13214	13501
4	Ozark Co.	9926	10769	11178	11795	12123	12750	12796	13349	13533
5	Howell Co.	10504	11526	11934	12694	13345	13925	14109	14886	15212
	Springfield MSA	14226	15263	16006	16998	18148	18755	19766	20884	21702
	Missouri	15933	16980	17672	18369	19207	19784	20749	21927	22984
	U.S.A.	17132	18258	19209	19752	20652	21273	22073	23327	24451

Source: U.S. Dept. of Commerce, Bureau of Economic Analysis

increased 9.2% when adjusted for inflation. Of the five counties in this study, only Howell County exceeded the Missouri per capita income growth rate, 1990-1996. **Shannon and Douglas Counties**, the counties with the highest degree of remoteness based on the economic distance values calculated in this study, **were cited as two of only eight counties in the state with 1996 per capita incomes of less than \$13,000** and exhibiting "Small amounts of growth, 1990-1996" (OSED, UMC, 1996). It might also be noted here that the per capita income figures for the two other PLI counties in this study, Ozark and Oregon, were only slightly above the \$13,000 pci mark in 1996.

Per capita income figures are important to nonmetro counties not only as an indicator of relative economic well-being, but also as a factor in out-migration, particularly among the young and better educated. O'Hare (1990) studied migration patterns among rural high school seniors and found that as a community's per capita income increased, the likelihood of out-migration by high school seniors decreased. He also found that those who left tended to be the better-educated seniors. O'Hare warned that continued out-migration of the young and well-educated from poor rural communities will have "serious consequences" and will "hamper" efforts to revitalize rural America (O'Hare 1990, vi). The low per capita income of the PLI counties increases the likelihood that better educated citizens will leave, according to O'Hare's findings.

Since low-waged workers from remote counties cannot "get ahead" by commuting to more advantaged areas in their CZs for employment, the next logical consideration of an individual wanting to improve his economic situation might be to relocate to a more economically advantaged area. The willingness of individuals to

consideration of an individual wanting to improve his economic situation might be to relocate to a more economically advantaged area. The willingness of individuals to relocate often depends upon the real or perceived costs of disrupting personal linkages to their communities. These attitudes towards mobility and relocation comprise the third element of economic distance, according to Lyson et al. (1993) and will be measured by the application of survey research in Chapter 7.

Conclusion: The Economic Costs of Mobility to the Five County Area

This chapter has set out to measure the first two aspects of economic distance: travel costs and travel time costs for each county in 1994. After calculating economic distance costs on these two measures for each county, a remoteness ranking was assigned based on the costs calculated. The county with the highest economic distance costs in economic terms was given the highest remoteness rank, 1. The county with the lowest economic distance costs on these two measures received the lowest remoteness ranking, 5. The other counties were assigned rank based on whether their economic distance cost rankings were higher or lower. To test the relationship between remoteness rank and income, 1994 per capita income figures for each county were also ranked from lowest pci (ranked 1) to highest pci (ranked 5). When 1994 per capita income figures were applied to the 1994 remoteness rankings of each county **the relationship between degree of remoteness and pci was upheld in every case.** Per capita income figures were then compared for all counties 1988-1996 and it was noted that the same rank among the five counties with regard to per capita income was maintained over the entire period, with one

minor exception. This indicates that the relationship between low income and remoteness/isolation is persistent over time.

The conclusion of this chapter is that **the evidence supports the hypothesis of this paper that remoteness is an independent variable which has significant causative effect on the incomes of the residents of isolated counties. There appears, based on this analysis, to be a strong relationship between degree of remoteness and per capita income indicating that the greater the degree of remoteness of a county, the lower will be the per capita income of that county.**

Added to the findings of Chapter 5, that the key reason Howell County has been more prosperous over time is the early development of transport networks which reduced county isolation and enabled it to maintain its population and develop commerce, the findings of this chapter demonstrate that **the relationship between remoteness and low per capita income is compelling.**

It seems unlikely, based on these findings, that the relative isolation of the PLI counties will allow them to become vibrant economies in the near future. They lack the resources to redress the causes of their isolation and their remoteness appear to mitigate against significant improvement in their economic condition in the near future. Barring outside intervention from government in the form of policies designed to reduce their remoteness and tie them into the prosperity of more advantaged areas, they will likely remain persistently poor. In Chapter 7, the third aspect of economic distance will be measured: the cost of disrupting linkages to the community. It is expected that the residents of the four PLI counties will evince more community attachment and resistance

to mobility than Howell County residents. The residents of the entire five county area are also expected to exhibit more community attachment and resistance to mobility than individuals who have relocated outside the five county area, whether out state or out of state. Chapter seven will test this expectation and add the psychological costs of economic distance to the monetary costs of economic distance calculated in this chapter.

CHAPTER 7. CALCULATING THE PERSONAL COSTS OF MOBILITY

Introduction

Chapter 6 calculated the economic distance costs for each county and found a strong relationship between remoteness and income in the five counties studied. The third economic distance value is attitudinal. This chapter will calculate the third economic distance value, the costs of disrupting linkages to community, through the use of survey research.

Survey Sample Populations: Determining Whether Residents of the Five County Area are Resistant to Mobility

In order to determine the costs of disrupting linkages to resident communities, a survey instrument was constructed and administered to residents of the five county area. The survey measured attachment to community and attitudes towards mobility, economic progress and education. The survey population was drawn from a list of approximately 12,000 individuals who had registered to attend classes at the two year college in West Plains as some point between 1963-1997. The reason this population was chosen was to allow tracking of individuals who had migrated from the five county region in order to contrast responses from individuals who had remained in the five county region with those who had migrated. The first survey period got responses from 1,904 individuals who had remained in the five county area. The second survey period searched out people who had moved out of the five county area. Locating these migrated individuals was a time-consuming and laborious process, and eventually, 159 respondents were reached. It was expected that the answers from the residents who remained in the area to questions on

community attachment, mobility, economic development and education would differ from the responses received from those who had severed linkages with the area by moving away.

During the second survey period, 211 individuals were also located who had remained in the five county region, although they had moved from their previous address (address at the time of registration at the university). Their responses were compared to the first set of responses to verify the results of the earlier five county survey. In fact, the second survey to the five county area replicated (with some minor variance) the results of the first. This indicates that the questions asked in the survey were time neutral and that the validity of the survey was not affected by different time frames of administration. The first survey administration took place November, 1997, the second administration was in April, 1998.

Finally, in October, 1998, the survey instrument was administered to a random sample of the population of the five county area to see if different responses would be elicited. This sample acted as a control group to see if administering the survey to a pool of college registrants skewed the results from those which would have come from the general population. As noted earlier, the reason the university registrant pool was used was to enable individuals who had migrated from the region to be tracked. The follow-up administration of the questionnaire to a random sample of the five county population was, therefore, a necessary control to check the first two sets of data for skewing due to the specific population queried.

Survey Construction

Survey construction was based on attitudinal surveys which had been administered in Appalachia (Battista and Hougland, 1989). The questionnaire (Appendix A) used was developed with the rural populace in mind. I was also mindful of the fact that I was using student researchers with limited surveying experience and therefore kept the survey as simple and brief as possible. Survey questions were constructed with rural cultural norms in mind and avoided questions which might be regarded as inappropriate. As Spencer (1992) noted in his ethnographic study of Douglas County, "People's social economic lives are very private affairs and every attentive researcher is well aware of the prying and implicit rudeness involved in asking for ...personal information" (Spencer 1992, 87). Rural people, according to Spencer, are well aware of the connection between power and knowledge and they will rarely divulge information that they feel would give the questioner power over them, and especially not to a student researcher. For this reason, questions about income levels were left out of the survey. Where possible, student researchers were given names to contact in their own rural communities, thus enhancing response rate. This strategy was especially effective as over 85% of the individuals contacted agreed to respond to the survey .

Additional protocols were also based on the cultural norms of rural residents:

1. Student researchers identified themselves by first name. This is in keeping with the lack of anonymity in rural communities and the desire of rural people to "know" who they address;
2. Student Researchers asked permission before proceeding with questions, and were not penalized for nonresponsiveness of contacts. This was to prevent them from

"pressuring" respondents to answer and in keeping with the cultural norms of rural society; 3. Student researchers were carefully instructed not to depart from the wording of the questionnaire, to discourage modeling of answers; 4. Student researchers were instructed to read all the answer options before the respondent made a choice.

The data was then analyzed by four groupings: 1. Respondents from one of the five counties in this study (each county's responses were kept discrete); 2. Respondents who had migrated from the five counties but lived within the commuter zones of the five counties; 3. Respondents who had migrated from the five counties and lived in outstate Missouri or Arkansas or out-of-state; 4. A random sample of respondents from the five counties. (This group was screened so that anyone who had already answered the questionnaire in a previous sampling was excluded).

Expected Outcomes of Survey Research

It was anticipated that attitudes toward community attachment would be strongest among the individuals from the most deeply rural and remote counties of Shannon, Oregon, Douglas and Ozark Counties. Further, it was expected that community attachment would be less strong in the shallow rural county of Howell. Community attachment in the commuter zones outside the five counties was expected to be weaker still and weakest in individuals residing outside the region and out- of- state. This would indicate that the strength of community attachment is stronger in the most remote areas and weaker among those who have migrated out of the area. It would also indicate a greater economic distance cost for residents of more remote counties, indicating that they are not only isolated by time and travel costs of commuting to more advantaged areas, but

Table 7-1
Survey Responses Reflecting Community Attachment and Mobility

Residence & *Remoteness 1=most/5=least	% 10+ yrs residence (2D)	%First in family to attend college(3A)	%Commuting 30+ min. to work (6A)	% Willing to Relocate for better job (7D)
*1 Shannon	81%	39%	12%	5%
*2 Douglas	59%	46%	22%	28%
*3 Oregon	74%	41%	31%	9%
*4 Ozark	76%	49%	34%	9%
*5 Howell	70%	37%	13%	9%

N= 1904, Survey Administered to college registrants, November, 1997

Live in CZ, but Outside 5 cos.	30%	46%	19%	15%
Live outside CZs/ Out state	24%	39%	18%	11%

N= 159, Survey Administered to college registrants, April, 1998

*1 Shannon	73%	N/A	28%	3%
*2 Douglas	68%	N/A	32%	2%
*3 Oregon	60%	N/A	34%	5%
*4 Ozark	67%	N/A	28%	2%
*5 Howell	69%	N/A	18%	8%

N= 1236, Survey Administered to random sample, October, 1998

also by the strength of attachment to community. As noted by Lyson et al. (1993, 133):
“An assessment of community attachment and satisfaction provides a lens through which individuals view opportunities in areas outside their own community.”

Measuring Community Attachment and Mobility

Questions 2, 3, 6 and 7 in the questionnaire were patterned after similar surveys conducted in Appalachia and were expected to shed light on the question of community attachment and resistance to mobility (Table 7-1). Those choosing response 2D from the pool of college registrants indicate that Shannon, the most remote of the PLI counties, has the highest percentage of respondents who have lived in their community for 10 or more years. The other counties in the study fall in the seventy percent range in choosing this option, except Douglas County in which 59% of the respondents indicated they had lived in their communities for 10 or more years. Students noted in their qualitative remarks that most respondents expressed great pride in their long residence in their communities and often told the interviewer exactly how many years they had lived in the community and how proud they were to live there. This would indicate strong community ties throughout the five county region which would cause the cost of disrupting ties to the community to relocate to be relatively high.

Not surprisingly, length of residence was markedly shorter for the two groups who had migrated outside the five county area. Of those living within the Commuter Zones of the five counties, but outside county borders, only 30% indicated they had lived ten or more years in their community. The group exhibiting the lowest percentage with over ten years residence in their community were those living out of the Commuter Zones, either in

outstate Missouri or out of state. Of this group, only 24% had lived in the same community over ten years.

An analysis of variance was run on the responses to question 2 to see if there is significance in the degree of variation in the responses from each of the four samples. Significance is found at levels of .05 or less ($p < .05$). Significance indicates that there was more variation from the mean between the units analyzed than within each individual unit. If the means in a particular test of variance are far apart, the size of the F value will be great and the null hypothesis is rejected.

$$F = \frac{\text{variation among the sample means}}{\text{variation within the samples}}$$

The analysis of variance (ANOVA) test was employed to test the validity of the conclusions drawn about the degree of community attachment evinced by respondents in each sample queried. Community attachment is an indicator of the third measure of economic distance as conceived by Lyson et al. (1993) and is the cost to the individual of disrupting linkages to their community by commuting or relocating. The greater the community attachment evinced, the more costly mobility will be and the higher will be the resultant economic distance costs.

Analysis of variance was run on Question 2 to see if there was significant variance among the responses of four samples to the question about length of residence (Table 7-1). ANOVA found a significant difference among the four populations:

Table 7-2
ANOVA/Length of Residence: PLI Counties: Howell County:
Commuter Zones: Out State and Out-of-State

		Sum of Squares	df	Mean Square	F	Sig.
2A	Between Groups	40.044	4	11.261	9.817	.000
	Within Groups	420.986	367	1.147		
	Total	466.030	371			

The difference in length of residence reflected among the four samples might be explained by the fact that those living in the commuter zones and out state had, in fact, migrated from the five county area. Therefore, the difference between the answers to length of residence might be a function of the sample. However, migration literature indicates that length of residence indicates attachment to community:

When migration is viewed within a social structure, dependence upon the local community and assimilation elsewhere appear as critical determinants of whether motivation for migration becomes actual movement. Those with deep roots in the community...are likely to resist migration (Uhlenberg 1973, 309).

Based on this interpretation, long residence would be indicative of community attachment/resistance to migration and the results of question 2 supports the secondary hypothesis that attachment to community/resistance to mobility increases with remoteness.

Table 7-3: Cross Tabulation

			reszone					Total
			unknown location	Howell	Other 4 counties	In CZ outside 5 counties	outside CZ or out of State	
2A	no response	Count	0	1	0	0	2	3
		Expected Count	.1	.9	.8	.7	.5	3.0
		% within 2A	.0%	33.3%	.0%	.0%	66.7%	100.0%
		% within reszone	.0%	.9%	.0%	.0%	3.0%	.8%
	ans a (Less than 1 year)	Count	3	13	4	12	13	45
		Expected Count	1.7	13.8	11.7	9.8	8.0	45.0
		% within 2A	6.7%	28.9%	8.9%	26.7%	28.9%	100.0%
		% within reszone	21.4%	11.4%	4.1%	14.8%	19.7%	12.1%
	ans b (1-3 years)	Count	4	16	11	24	16	71
		Expected Count	2.7	21.8	18.5	15.5	12.6	71.0
		% within 2A	5.6%	22.5%	15.5%	33.8%	22.5%	100.0%
		% within reszone	28.6%	14.0%	11.3%	29.6%	24.2%	19.1%
	ans c (4-10 years)	Count	3	17	14	21	9	64
		Expected Count	2.4	19.6	16.7	13.9	11.4	64.0
		% within 2A	4.7%	26.6%	21.9%	32.8%	14.1%	100.0%
		% within reszone	21.4%	14.9%	14.4%	25.9%	13.6%	17.2%
	ans d (over 10 yrs)	Count	4	67	68	24	26	189
		Expected Count	7.1	57.9	49.3	41.2	33.5	189.0
		% within 2A	2.1%	35.4%	36.0%	12.7%	13.8%	100.0%
		% within reszone	28.6%	58.8%	70.1%	29.6%	39.4%	50.8%
Total	Count	14	114	97	81	66	372	
	Expected Count	14.0	114.0	97.0	81.0	66.0	372.0	
	% within 2A	3.8%	30.6%	26.1%	21.8%	17.7%	100.0%	
	% within reszone	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Among the random sample (Table 7-1), those who had lived in their community ten years or longer ranged from 60-73%. This seems to indicate that the general population of these counties are also very stable and resistant to migration.

The pattern of these answers is what one might expect. Those who have moved away from the five counties are, by virtue of having relocated, more mobile and less likely to have long term residence in their communities. Qualitative notes from student researchers on those who were reached out state indicated a persisting pride in the community from which they had migrated and great interest in how the community was doing.

Response 7D (Table 7-1) asked respondents if they would be willing to relocate for a better-paying, more secure job. Of the five counties in the study, the responses were relatively uniform. Willingness to relocate was lowest (5%) in Shannon County, the most remote of the PLI counties. Howell, Ozark and Oregon had 9% of respondents indicate they would be willing to relocate for a better job. The outlier in the five county group is Douglas, with 28% indicating a willingness to relocate. Perhaps Douglas County's inclusion in a LMA/CZ with an MSA makes a larger group of residents more comfortable with the idea of relocation. One can only surmise that exposure to Springfield may have a weakening effect on community attachment in Douglas County. Another possible explanation might be the recent closing of a major employer, Eaton Corporation, in Ava. Many jobs were lost when the plant closed and they have not yet been replaced (although the Chamber of Commerce is actively pursuing a replacement industry). The relatively

higher willingness to relocate may indicate personal response to this situation in Douglas County.

As expected, those who had outmigrated from the five county area expressed a greater willingness to relocate for a better, more secure job at rates varying from 11-15%. Since these individuals have already uprooted themselves once, it seems likely that another move would be less formidable than it would be to a resident who remained in his or her home community.

Among the random sample, even fewer individuals indicated that they would be willing to relocate for a better job. When the answers of the random sample on mobility and community attachment are considered, they indicate strong community attachment and resistance to migration, just as the answers of the college registrant pool do.

Analysis of variance on the responses to question 7 shows a significant difference between responses of the four cohorts: The PLI County residents; Howell County residents; Migrants living in Commuter Zones; Migrants living out state and out of state.

- “7. How far would you be willing to drive to have a better paying, more secure job?
- A. Farther than I am driving now.
 - B. 1-60 miles
 - C. Over 60 miles
 - D. I would be willing to relocate
 - E. No response”

The responses to question 7 appear to support the hypothesis that community attachment increases with remoteness and that the economic distance costs of more remote counties is, therefore, higher based on this attitudinal measure.

Table 7-4

**ANOVA/Question 7 Attitudes towards Mobility: PLI Counties: Howell County:
Commuter Zones: Out State and Out-of-State**

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
7A Between Groups	20.514	3	6.838	5.761	.001
Within Groups	426.806	368	1.187		
Total	457.320	371			

Question three from the survey (Appendix A) might appear to be a question about education, but it is really a question about breaking community ties. Being the first in your extended family (as the question phrased it) to attend college means that you have stepped out of the family paradigm, either with or without family support. This question was not posed to the random sample because it was anticipated that most of the sample would not have attended college, based on college attendance statistics for the five counties.

It was expected that the more mobile residents, that is, those from outside the five county region, would be less likely to be first generation college students and to come from homes where at least one parent had attended college. In his study of rural high school seniors, O'Hare (1990) noted that seniors who had left their communities in 1986 had better educated parents than the those who did not leave. Two-thirds of the migrating

Table 7-5: Cross Tabulation

			reszone					Total
			unknown location	Howell	Other 4 counties	In CZ outside 5 counties	outside CZ or out of State	
7A	ans e (no response)	Count	0	9	4	17	10	40
		Expected Count	1.5	12.3	10.4	8.7	7.1	40.0
		% within 7A	.0%	22.5%	10.0%	42.5%	25.0%	100.0%
		% within reszone	.0%	7.9%	4.1%	21.0%	15.2%	10.8%
	ans a (no further than now)	Count	0	25	28	0	1	54
		Expected Count	2.0	16.5	14.1	11.8	9.6	54.0
		% within 7A	.0%	46.3%	51.9%	.0%	1.9%	100.0%
		% within reszone	.0%	21.9%	28.9%	.0%	1.5%	14.5%
	ans b (1-60 mi)	Count	4	58	49	14	20	145
		Expected Count	5.5	44.4	37.8	31.6	25.7	145.0
		% within 7A	2.8%	40.0%	33.8%	9.7%	13.8%	100.0%
		% within reszone	28.6%	50.9%	50.5%	17.3%	30.3%	39.0%
	ans c (over 60 mi)	Count	7	6	7	43	32	95
		Expected Count	3.6	29.1	24.8	20.7	16.9	95.0
		% within 7A	7.4%	6.3%	7.4%	45.3%	33.7%	100.0%
		% within reszone	50.0%	5.3%	7.2%	53.1%	48.5%	25.5%
	ans d (would relocate)	Count	3	16	9	7	3	38
		Expected Count	1.4	11.6	9.9	8.3	6.7	38.0
		% within 7A	7.9%	42.1%	23.7%	18.4%	7.9%	100.0%
		% within reszone	21.4%	14.0%	9.3%	8.6%	4.5%	10.2%
Total	Count	14	114	97	81	66	372	
	Expected Count	14.0	114.0	97.0	81.0	66.0	372.0	
	% within 7A	3.8%	30.6%	26.1%	21.8%	17.7%	100.0%	
	% within reszone	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

seniors had at least 1 parent with post high school experience as compared with 46% of those who stayed (O'Hare 1990, 2). Therefore, those respondents from more remote areas were expected to exhibit a higher percentage of first generation college students. The results did not bear out this expectation as there was little differentiation between percentages of first generation college students among the five counties and the groups from outside the five counties.

Of the four PLI counties, those who were among the first in their extended family to attend college ranged 39-49% (Table 7-1). In Ozark County the percentage was highest, 49%. Forty-six percent of those living in the CZs, but outside the five counties, were first generation college students, a percentage roughly equal to the four PLI counties. Outstate respondents indicated that 39%-49% were among the first to attend college in their families.

Overall, this question does not seem to indicate mobility or community attachment of the respondents, as all groups showed roughly 39% percent of first generation college students, much higher than the 33% of migrating high school seniors who were first generation college students in the O'Hare study. This may be indicative of the fact that in this five county area, there was no access to higher education before 1963 unless the individual outmigrated. Therefore, there may be lower incidence of parents who are college attendees in this nonmetro region than in the nonmetro regions O'Hare studied. Certainly, the low rates of post high school experience in the five county area would support this view.

It was anticipated that the answers to survey question six , whether respondents commute over 30 minutes one-way to their job, would be indicative of attachment to community and willingness to commute rather than relocate. Of the five PLI counties, 22-34% of the respondents from Douglas, Oregon and Ozark counties make the long commute and only 12-13% of the residents of Shannon, the most remote county, and Howell, the least remote. The small percent of Howell County long commuters is probably due to their proximity to major sources of employment in Howell County. In Shannon County, given the analysis of the cost of travel to the trade center of the CZ (West Plains) the reason for the low percent of commuters may be due to fact that the cost of commuting is so high, that the prevailing wage does not make it feasible. Those outside the five counties all commute thirty minutes or more at roughly 20% rates .

Interestingly, the random sample showed some variation on this question, but only among respondents from Shannon and Douglas counties, the counties with the highest economic distance factors. In these counties 28% and 32% of respondents indicated that they commuted 30+ minutes to work. Among the college registrant sample, only 12% and 22% indicated that they do so. This would seem to indicate that fewer of the better educated in these remote counties have to make the long drive to find work. It should be noted, however, that these individuals were willing to drive to West Plains to attend college. This would indicate that they were not adverse to commuting, just that fewer of them do so to find work. For the other, less remote, counties in this study, the percent of 30+ minute commuters was similar among college registrants and the random sample.

Overall, the questions bearing on community attachment and mobility indicate that **the attitudes of those surveyed from the five counties are similar, whether from the college registrant pool (Nov. 97, April 98) or from the random sample (Oct. 98).** All five counties showed strong community attachment and unwillingness to relocate for better jobs. Of the five, Douglas county residents exhibited the weakest community attachment and the strongest mobility. One can hypothesize that this is due to her inclusion in an LMA/CZ with a major metropolitan area, or possibly to recent loss of jobs in the community of Ava. Shannon County, the most remote county based on travel costs showed both the strongest attachment to community and the least willingness to relocate.

The five counties differed from those who live outside their borders, either in their CZs or out of state more than they differed from each other on matters of community attachment and mobility. A much smaller proportion of those living outside the five county area had long length of residence (10+ years) and a greater proportion (with the exception of Douglas County) were willing to relocate for a better job.

The conclusions to be drawn from this analysis of the data is that generally the residents of the five counties exhibit stronger community attachments and less willingness to relocate than residents of areas outside the five counties.

In addition, qualitative notes of student researchers indicated a high degree of attachment to community across the five county sample in both the November 1997 sample of college registrants and the October 1998 random sample of all counties. Qualitative notes indicated that the value of other factors in the questionnaire, such as economic growth, was gauged by most respondents in terms of its effect on continued

residence in the community. This was particularly exhibited in the question about attitudes towards building and growth (Question 8, Appendix A). The value of growth was generally interpreted as a positive value because it was perceived as bringing jobs into the area which would allow residents to make a living and continue to reside there.

Measuring Attitudes Toward Education and Economic Development

Attitudes toward economic development and education were measured by questions 5 and 8 (Table 7-6). Again, the questions were patterned after surveys used among nonmetro people in Appalachia to gauge their attitudes towards progress.

Those who strongly agreed that economic development was a good thing in the five county area ranged from 37% in Douglas County to 58% in Shannon County. When answers 8A and 8B are combined, the percent indicating a positive orientation to economic development in the five county area ranged from 78% in Shannon County to 94% in Douglas County.

Among the random sample of the five counties, positive attitudes towards economic development were also evident. When answers A (Strongly agree) and B (agree) "That building and growth are a good thing" are combined for the random sample, respondents choosing these answers vary from 81% in Ozark County to 85% in Howell County. The random sample largely mirrors the attitudes of the college registrant group toward building and growth.

Overall, attitudes towards economic development are positive in the five county area. This is not what one would expect to find in remote regions with strong community attachments. Student researchers noted time and again in their qualitative comments that

respondents answered this question stating that they favored building and growth in the area by adding, "So my kids can get jobs and don't have to move away."

This response indicates an attachment to family and community that sees economic development as a source of job growth which extends the possibility of keeping the extended family intact. In the outlying areas, support for economic development was also strong, although it is interesting to note that the outstate and out of state group were less positive than respondents from the five counties.

Respondents who chose question 5A (Table 7-6) indicated that they felt that having their children attend college was a top priority. Overall, a high percentage of the college registrant respondents chose this answer. It was expected that this question might be answered differently by the random sample, since college registrants have already indicated strong support for higher education by virtue of their registration at college. However, this was not the case. The random sample of the five counties stated that having their grandchildren or children attend college would be very important/a top priority by rates varying from 59% in Howell County to 71% in Oregon County. In Douglas and Oregon County this answer was chosen at a higher rate among the random sample than among college registrants.

This indicates a high level of support for education throughout the five county region and is especially surprising given the distribution of education levels among residents of these five counties. It is remarkable that there is such a high level of support for education as indicated on the survey in an area with generally low educational attainment. **This would indicate that there may be good demand in this region for**

higher education if the economic cost/distance of attaining that education is not too high.

In summary, Survey results indicate a high level of attachment to community and strong resistance to relocating among respondents from both the college registrant and random sample groups in the five county area. The attitudinal responses of Howell County and the PLI counties were not as clearly differentiated as expected. The expectation that citizens from Howell County would show much less community attachment and resistance to mobility was not indicated. In fact, the response rates from each of the five counties were similar on each of the attitudinal questions. Those from outside the five counties showed weaker community attachment and more acceptance of relocation than those within the five county area.

The positive attitudes toward economic development exhibited within the five county area are rooted in community and family attachment. The idea that job growth will allow children to get jobs close to families is an appealing one to the residents of the five county area. Respondents from outside the five county area also showed themselves to be positively oriented to progress and growth, but more willing to relocate for a better job.

In estimating the attitudinal aspect of economic distance in the five county area, the analysis indicates that for most of the residents who responded to the survey, disrupting personal linkages to their community by migrating would be painful. This finding increases the economic distance costs estimated earlier for these five counties.

Table 7-6
Survey Responses Reflecting Attitudes towards
Economic Development and Education

Residence & *Remoteness 1=most/5=least	<u>%Strongly agree economic growth a good thing(8A)</u>	<u>%Agree economic growth a good thing(8B)</u>	<u>%Indicate children attending college a top priority(5A)</u>
*1 Shannon	58%	20%	76%
*2 Douglas	37%	57%	53%
*3 Oregon	53%	33%	69%
*4 Ozark	54%	36%	73%
*5 Howell	55%	29%	73%
<u>N=1904, Survey Administered to college registrants, November, 1997</u>			
Live in CZ, but Outside 5 cos.	53%	46%	85%
Outstate & Our of state	48%	35%	65%
<u>N=159, Survey Administered to college registrants, April, 1998</u>			
*1 Shannon	43%	41%	68%
*2 Douglas	39%	46%	64%
*3 Oregon	47%	41%	71%
*4 Ozark	25%	56%	62%
*5 Howell	37%	48%	59%
<u>N=1236, Survey Administered to random sample, October, 1998</u>			

Remoteness, Low Income and Low Educational Attainment in the Five County Area

As indicated in Chapter six, a relationship exists between degree of remoteness and low per capita income (pci) in the five counties under study. When per capita income is ranked for the five counties, from 1988-1996, the relationship appears to persist over time

A relationship also appears to exist between county remoteness rank and educational attainment. As noted in Table 7-7, there appears to be a relationship in the five county area between educational attainment and income, just as there is between remoteness and income. As a matter of fact, remoteness, education and income appear to be interrelated. For example, the most remote county, Shannon, also has the lowest number of college graduates and the highest proportion of residents who have not attained a ninth grade education. Illiteracy rates also follow the general direction of remoteness rank. When the educational attainment figures in Table 7-7 are rank ordered from lowest attainment to highest, the relationship is even clearer.

It would appear from these rankings that remoteness, educational attainment and per capita income are related variables among these five counties. This is expected, based on research on income and education. The relationship between educational attainment and income has long been noted among poverty researchers. As noted by Schiller (1973, 39):

...A direct link between educational attainment and income should be apparent. And in fact it is. People with college educations are rarely found among the ranks of the poor, whereas, people who fail to acquire a high school diploma are all too often poor (Schiller 1973, 39).

Danziger, Sandefur and Weinberg (1994, 293) also note a relationship between education and income, finding that the difference “Between weak knowledge of elementary mathematics and master were associated with a predicted wage differential at age 24 of \$1.15/hour in 1980.” Blank (1997, 63) analyzed changes in the average weekly wages, nationwide, from 1979-1993 and found that real wages fell during that period, -22.5% for high school dropouts, -11.9% for high school graduates, -5.3% for individuals with some post high school training. The only group which experienced an increase in wages during this period was those with a college degree. College graduates experienced an increase in average weekly real wages, 1979-93, of +9.8%. Once again, education and income would seem to be linked.

One reason for this relationship, according to Blank, is that less-skilled workers in this country are at a comparative disadvantage to workers in the industrializing world. This trend is not expected to weaken in the future because technological changes in the U.S. economy will inevitably create a need for a more skilled workforce in the years ahead.

Based on this analysis, extending educational opportunities to the residents of the PLI counties may be as important as reducing their isolation and would almost certainly assist in lowering poverty rates. In examining the five county area, the only county with access to post-high school education is Howell County. Howell County has two institutions of higher education, a branch of Southwest Baptist University and the West Plains Campus of Southwest Missouri State University. Howell County also has a

Table 7-7
Educational Attainment, Remoteness and Income, 1990

	Remoteness (1=highest/5=lowest)	Less than 9th Grade (% Population) (A)	College, 4yr degree (% Population) (A)	Illiteracy, 1988 (% Population) (A)	PCI 1990 (B)
Shannon	1	26.0%	6.0%	15.9%	\$ 9496
Douglas	2	23.3%	7.5%	15.5%	\$ 9729
Oregon	3	21.7%	7.8%	15.8%	\$10288
Ozark	4	22.2%	8.0%	15.4%	\$11178
Howell	5	20.2%	8.7%	14.4%	\$11934

Source: (A) OSEDA: Missouri Social and Economic Profile
(B) US Department of Commerce, Bureau of Economic Analysis

Table 7-8
Educational Attainment, Remoteness and Income, 1990, by Rank

	Remoteness (1=most/5=least)	Less than 9th Grd^a (1=most/5=least% pop)	College, 4yr degree (1=least/5=most% pop)	Illiteracy, 1988^a (1=most/5=least% pop)	PCI 1990^b (1=lowest/5=highest)
Shannon	1	1	1	1	1
Douglas	2	2	2	3	2
Oregon	3	4	3	2	3
Ozark	4	3	4	4	4
Howell	5	5	5	5	5

Source: ^a = OSEDA: Missouri Social and Economic Profile
^b = US Department of Commerce, Bureau of Economic Analysis

vocational-technical school and a technology training center, featuring two year degrees in computer technology is slated to open at SMSU-West Plains Campus in 1999.

The West Plains Campus, in particular, has as its mission, "Providing quality educational opportunities" to the residents of the seven county area surrounding Howell County and including the five counties in this dissertation. The campus is an open admissions institution that offers an Associate of Arts Degree in General Studies, several applied science degrees and an Associate of Science Degree in Nursing. Special non-credit courses are offered in English and math to help students achieve competency before embarking on the regular college curriculum. Follow-up studies of students who acquire their Associates Degree at the West Plains Campus indicate that those who go on to other institutions of higher learning are generally successful.

Surveys of SMSU-WPC nursing alumni ten years after graduation show that 76% of the respondents were employed full-time in the health field with an average income of \$21,000-\$30,000. Sixteen percent of the respondents indicated that their average income exceeded \$36,000. Most of the nursing alumni are female, and women historically receive lower wages than males in this region. This makes their high incomes, relative to the PCI of the area, remarkable and an encouraging sign of what the added value of education can do for the citizens of the area (Roth 1994, 1).

It would appear that Howell County has educational resources which could be of assistance in improving human capital skills and reducing the poverty of the region. However, as noted by Knox and Agnew (1989) earlier in this dissertation, humans are time and distance effort minimizers. If the effort to get to the educational resources in

Howell County is judged too great, in either real or perceived terms. The trip will not be made. It appears that improving access to Howell County via an improved road network into and out of the PLI counties would enhance the ability of citizens to commute there for higher education and technical training. As Weidemann and Kingslow (1989, 245) in their study of the importance of education to rural economic development noted:

What is clear is that new initiatives for rural economic development must focus on improving . . . the underdevelopment of human resources . . . the role of institutions of higher learning in training and technology transfer for enterprise development is a critical component of any development initiative.

Regional Economic Development: Remoteness and “Pooling”

In attempting to answer the question of how to reduce the poverty rates in the five county area, it is important to examine the recent economic development experience of nonmetro America. Storver and Williams (1991) examined technology and economic development in four rural communities in an effort to identify which communities were successful in improving their economic status and why. They found that community involvement was key to any successful strategy and identified three recent models of rural economic development:

1. Factory Chasing (1950-60s) - rural communities competed against each other, offering a wide variety of tax abatement and property incentives to attract factories with little or no consideration of whether the unit was desirable for their community, or of how committed the factory was to the community. Many of these initiatives proved to have less than satisfactory outcomes for the communities involved.
2. Industrial Park/Capacity Building (“If we build it, they will come”) (1970s-80s) - this model was generally as unsuccessful as the first due to lack of market research, nonresponsiveness to markets and inadequate scale.
3. Community Involvement Model (1990s) - This model of development acknowledges that communities are organic, dynamic, heterogeneous and

possess unique directions, capabilities and needs and that **economic development or development programs themselves do not create jobs and economic growth, but rather that businesses and entrepreneurs and communities do.** The emphasis of this model is on community involvement, assessment of needs and planning for desired outcomes (Storver and Williams 1991, 207).

The last model is one that takes into account the unique geographic and spatial constraints of an area and works within the policy context of the community. It is a self-help program in which communities must identify where they are, what their problems are and where they want to go. As part of this developmental model, the creation of community alliances around a regional hub is an important concept for communities which are too small to achieve economies of scale: “For small communities, lacking anything approaching the capacity to achieve economies of scale, the best strategy may be to “pool” resources around a “hub” small rural city” (Storver and Williams 1991, 208).

These hubs are larger communities, like West Plains in Howell County, which have the capacity to act as a regional resource center. Based on the analysis of jobs and services available in Howell County, it appears well able to serve as a hub for the five county in this dissertation. In addition, survey research indicates that the residents of the five county region share much the same values and political culture which would make commuting among the counties less costly in terms of disrupting local linkages.

Fuguitt, Brown and Beale (1989, 431) in their analysis of small town America agree that “pooling” of resources will allow smaller communities to benefit from scale economies and to reach the “critical mass” necessary to prosper. They also note that the recent trend of population growth in rural America should continue based on the preference shown by people for smaller scale communities in recent years.

The attachment of residents of the five county area to their residential communities makes the ability to commute to more advantaged areas a critical enabling concept: “Commuting is extremely important today in tying together communities at all levels of the urban hierarchy” (Fuguitt, Brown and Beale 1989, 422). Research on the economic distance costs of commuting from the PLI counties to West Plains in this study indicates that for the most remote counties in the region, Shannon and Douglas, the costs of commuting to Howell County are prohibitive. Costs are also high for Ozark and Oregon counties. These costs are due to the number and quality of the roads that extend into these counties and pose a significant travel cost and travel time cost barrier to inter-county transport.

The South Central Ozarks Council of Governments, a regional planning institution that operates in the five county area, recently conducted a study on the roads in these five counties and proposed roadway improvements. Improvement projects were prioritized by ranking them 1-5, with 1=lowest priority and 5=highest priority. Rankings were based on the level of economic activity on the road and the connectivity to the regions analyzed. Of the five counties, only Howell received a rating of 4.5 on any proposed project. The roads in the four PLI counties received rankings of 1-3 (SCOCOG Transportation Report 1991, 10-3). One can hardly blame SCOCOG for ranking the PLI counties low based on these criteria. They are not well connected to the wider world and have generally low levels of economic activity. However, this situation is not likely to change as long as improved roadways come only **after** a marked increase in economic activity:

As economic development proceeds, an economy’s spatial structure changes from one characterized by small, isolated and functionally

undifferentiated communities to one of interdependent regions with a center-periphery structure. **Only government comprehensive planning with a focus on projects and their regional coordination is seen as a plausible solution (to uneven development).** Interregional equilibrium cannot occur naturally as most models expect: Even the advanced economies of Western Europe and the U.S.A. continue to be plagued with problems of depressed areas (Knox and Agnew 1989, 79).

It appears unlikely, based on the research in this paper, that the four PLI counties will be able to attract enough employers to become vibrant economies in the near future.

It appears equally unlikely that the people who live in these beautiful, rocky-soiled counties will pack up and move to places where a living can be more easily wrested. This puts the policymaker who wishes to break up this cluster of persistent poverty in the Ozarks at an impasse. The mountain will neither move to Mohammed, nor will Mohammed move to the mountain, so to speak.

Conclusion: Remoteness and Poverty in the Five County Region

Chapters six and seven have set out to test whether remoteness will be found to be an important factor in the persistent poverty of the four counties in the dissertation, and to test Lyson's (1993) assertion that lower real income is the result of remoteness.

To that end, the three components of economic distance were calculated: Travel costs, travel time costs and the costs of disrupting personal linkages to the resident community. It was expected that the three aspects of economic distance would indicate the degree of remoteness in each county and exhibit a strong relationship to the advantaged/disadvantaged position of the five counties in terms of their per capita income, 1994. Those counties with the highest economic distance costs were stipulated as the most remote. When 1994 per capita income figures were applied to the counties, it was

found that the county with the highest remoteness rank was also lowest in per capita income. The relationship between degree of remoteness and per capita income applied in every case. Per capita income figures were obtained for all counties, 1988-1996 and it was noted that the same ranking among the five counties with regard to per capita income were maintained over the entire period, with one minor exception. This indicates that the relationship between low income and remoteness is persistent over time.

In Chapter seven, measures of attitudes among residents of the five county region and former residents who had relocated indicate that residents of the five county region have higher community attachment and resistance to mobility than do those outside the region. Survey research data and qualitative data both indicate a strong attachment to community among all five counties in this dissertation. This indicates that the third aspect of economic distance, the costs of disrupting personal linkages to the area, would be high to the residents of these counties and adds to the actual economic costs of distance/isolation calculated earlier.

The conclusion of this dissertation is that the **evidence would seem to support the hypothesis that remoteness is an independent variable which has significant causative effect on lower incomes of the residents of isolated counties. Analysis also indicates that remoteness may have a causative effect on low educational attainment.**

A secondary hypothesis of the paper was that survey research would show that those living in the most isolated, deeply rural counties would have more negative attitudes towards education and economic development. The data collected did not support this

hypothesis. Respondents from within the five county area were very positive about economic development, although a rural reason was often given: That with economic development would come the jobs which would enable their children to stay nearby instead of having to migrate to find work. The respondents were also very supportive of education, with a large majority from each county indicating that it was a “top priority” for their children to attend college. This positive orientation to higher education was evident among both the college registrant sample and the random sample.

Respondents who had relocated outside the five county region also evidenced positive attitudes towards economic development and education. The study did not find, as expected, that resistance to economic development and education exists to a greater degree in disadvantaged than advantaged counties, although it did find that residents of the five counties were more resistant to mobility and more attached to their community than those from the outside area.

Added to the findings of Chapter five, that an important reason Howell County has been more prosperous over time is the early development of transport networks which reduced county isolation and enabled it to maintain its population and develop commerce, the findings of this chapter demonstrate that **the relationship between remoteness and low per capita income is compelling.**

Based on the research conducted in this dissertation, it appears that investing in efficient transport networks into and out of the PLI counties will enable the West Plains area in Howell County to become a resource hub for the five county area. This may enable all the communities in the region to pool their resources in an alliance relationship

and better achieve economies of scale. Better access to these counties in an alliance relationship may also make them more attractive to industry and stimulate their local economies.

Further, it is likely that if the economic costs of travel to the service hubs are reduced, PLI county residents are more likely to make the commute. It is apparent from the attitudinal research in this dissertation that Howell County and the four PLI counties are of one mind, essentially, in their view of the world. Family and community are among the most cherished values of the residents of all five counties. This would make commuting to Howell County for health care or educational opportunities less painful to the residents of the PLI counties and, therefore, more likely to be undertaken if the economic costs of travel were reduced by improving the road systems.

Reducing the barriers of poor transport networks from the PLI counties to Howell County might, as Cuoto's (1995) research on poverty counties in Appalachia indicates, allow more of the economic prosperity of Howell County to radiate to her neighbors. Growth projections for Howell County include an increase in commuters from 3,550 in 1997 to 4,400 by 2007 with a projected net increase of 5,000 jobs (Cox et al. 1998). This would indicate that improving the road networks to the surrounding counties will enable residents of these counties to partake of the ongoing growth in Howell County and may reduce the levels of persistent poverty in these areas.

As has been noted earlier in this study, many believe that technology will eventually overcome geographic isolation and make location less constraining to economic well-being of individuals. The effort by the state to bring internet access to all the

counties of this region is important. It will be interesting to see what economic development impact it will have on this area in the years to come. Other efforts are being made to overcome the frictions of distance with technology, as well. SMSU-West Plains Campus is currently putting together a distance learning center, GRIZZNET, which will have the capacity to send university programs to the farthest reaches of the area.

This dissertation has demonstrated that the reduction of poverty in the PLI counties is mitigated by geographic isolation. The PLI counties do not have either the tax base or the population to address the problems implicit in a poor transport network system. This is an area where a government committed to breaking up clusters of persistent poverty can and should step in. With the capital investment of state funds to extend technology and improved roads to the PLI counties, this particular cluster of persistent poverty should be dissipated.

CHAPTER 8. BREAKING UP CLUSTERS OF PERSISTENT NONMETRO POVERTY: AN ASSESSMENT OF RESEARCH FINDINGS AND POLICY IMPLICATIONS

Howell County and Its Persistent Low Income Neighbors: A Comparative Study

Poverty in nonmetro America differs in many ways from that found in the rest of the country. Not only do many of the socioeconomic traits of the rural poor differ from the metro poor, but nonmetro poverty tends to be both more concentrated and more persistent over time. These characteristics of rural poverty are evidenced throughout the USA by the existence of pockets of persistent low income counties.

Persistent low income (PLI) counties, which rank in the bottom quintile of per capita income when ranked against all nonmetro counties nationwide, not only tend to cluster geographically, but also have a negative effect on the incomes of the counties they border, driving up their poverty rates. The existence of a five county group in the south central Missouri Ozarks which contains four PLI counties clustered around a fifth county which has never been designated persistently poor creates an anomaly which invites study. This paper examines this five county pocket of nonmetro poverty in an attempt to discover why, contrary to what is expected, the county at the center of this group has never been PLI and has been relatively more prosperous than her persistently poor neighbors over time.

The configuration of this pocket of poverty confounds locational economic development theory on several points. All the counties are roughly equidistant from the nearest SMA, so central place theory fails to explain this phenomenon. This cluster has

persisted since at least 1950, when the PLI designation was first applied, so there has been no notable movement toward equilibrium as one would expect applying a neoclassical approach, as a matter of fact, although the disadvantaged counties have suffered from outmigration throughout most of the twentieth century, survey research finds the majority of residents in all the counties to be long term residents who express great pride of place and resistance to relocation. This confounds what would be expected applying market solutions to the uneven distribution of economic resources in these five counties. Obviously, something else is going on here. That "something else" is not explained by the conventional approaches to locational economic theory.

This study attempts to discover why these counties vary in economic well being. Some of the questions addressed include: What variables or variable has caused these five counties to develop in an uneven manner over time; Why do residents remain in persistently poor counties when their economic best interests dictate they migrate; What has caused Howell County (the more advantaged county at the center) to be relatively prosperous over time and can the PLI counties benefit from that difference; What kinds of public policy will be successful at breaking up this cluster of persistent low income counties?

Alternate Explanations for Uneven Development: Remoteness and Income

In recent years, an alternative theory of locational economic development has developed which does not assume either eventual equilibrium or the perfect elasticity of labor. This view recognizes barriers to labor movement and assumes, due to historical accident and agglomeration forces, that economic development will be inherently uneven

across the spatial plain. One way for residents of poor communities to redress inequities, according to this theory, is to migrate to more advantaged communities, or, if they are very resistant to migration, to commute to those regions to access jobs and income.

Lyson et al. (1993) find this view helpful in explaining the persistence of regional poverty in rural America and have developed the concept of economic distance as a method of measuring the formidability of barriers to labor movement. Economic distance measures "all the frictions of overcoming distance" and calculates the effect of remoteness on an area. Remoteness is a measure of all the barriers to the movement of labor to labor markets. Lyson et al. (1993) view remoteness as an independent variable which in itself is a cause of low income in isolated areas.

Primary and Secondary Hypotheses

The primary hypothesis of this paper is that remoteness will be found to be an important contributing factor to the persistent poverty of the four PLI counties (Ozark, Douglas, Oregon and Shannon Counties) and that economic distance values will be a strong indicator of each county's degree of remoteness and will be predictive of the economic well-being of each county as evidenced by per capita income. A strong inverse relationship will be found between degree of remoteness, as calculated by the three indicators of economic distance, and per capita income.

A secondary hypothesis of this paper relates to community attachment/resistance to mobility. It is hypothesized that attachment to community/resistance to mobility will be strongest in the most remote counties. Attachment to community/resistance to mobility will be weaker in the non-PLI county but stronger than that found among migrants from

the five counties who have settled outside the counties but within commuter zones. Finally, attachment to community/resistance to mobility will be weakest among migrants who have moved out of the region (out state or out-of-state).

The primary hypotheses was tested by calculating the economic distance value for each county. The economic distance value calculated for each county determined the remoteness rank assigned to each county (1=most remote, 5=least remote). The per capita income of the counties was then compared to the remoteness rank to determine if the two variables exhibited a relationship. If an inverse relationship between degree of remoteness and per capita income is found, the primary hypothesis will be supported.

The secondary hypotheses was tested by using survey research to measure the strength of community attachment/resistance to mobility in each of five samples: PLI counties; Howell County; Migrants who had relocated outside the five counties but within wider commuter zones; Migrants who had relocated outside the commuter zones, either out state or out of state. If the strength of community attachment weakens with the distance of the sample from the PLI counties, the secondary hypothesis will be supported.

Applying Lyson's Concept of Economic Distance to the Five County Region

When comparative analysis of the five counties was conducted, they were found to be more alike on measures such as natural resources, historical settlement patterns, political history and culture than they were different. One difference that was discovered indicated the potential influence of remoteness on income in the counties. Early in its history, historic transport networks had been located in Howell County, the advantaged county, exclusive of the four PLI counties. The establishment of railroad routes and major

highways which ran the length of Howell County and largely bypassed the PLI counties was cited by several sources as an important reason Howell County was able to hold its population during the twentieth century and develop into a several county trade center. Examination of the socio-economic traits of the counties supports this view. For instance, Howell County is the only county of the five that had a higher population density in 1990 than it did in 1900.

The location of historic transport networks in Howell County, exclusive of the PLI counties, appeared to be a significant difference among the counties and to have contributed to the isolation of the four PLI counties. To test that influence, the three values of economic distance were calculated for each county. Travel costs and travel time costs from each county to the trade center of their commuter zone were computed to establish an economic distance value. Those counties with the highest monetary and time cost of travel to the trade center in their area were assigned the highest economic distance values. Economic distance values were then translated into a rank of remoteness. Counties were ranked 1, most remote, to 5, least remote.

Remoteness and Income

In order to test whether income and remoteness were related, per capita income figures were compared on a rank order basis with the remoteness rankings computed by applying economic distance measures to each county. It was found that the counties with the highest remoteness ranking had the lowest per capita income in 1994.

To test the persistence of the relationship, per capita income figures were compared among the five counties, 1988-1996. With one minor exception, the counties

maintained a per capita income rank which corresponded with their remoteness rank throughout this period.

The conclusion of this analysis is that not only does there appear to be a strong relationship between degree of remoteness and low income, but that relationship seems to be persistent over time. The primary hypothesis was supported by this analysis.

Locational Impact on Attitudes towards Mobility

The third measure of economic distance is attitudinal. This is the cost of disrupting personal linkages to the community by commuting or migrating to more advantaged areas. The attitude which would mitigate against migration is community attachment/resistance to mobility. It was the secondary hypothesis of this paper that disrupting community linkages by migrating or commuting would be most painful for residents of the most remote counties (PLI) and relatively less painful for residents of Howell County. Community attachment was expected to be weakest as evinced by those who had migrated out of the five county area. The farther the individual was located from the PLI counties, the weaker it was expected their community attachment/resistance to mobility would be.

The secondary hypothesis was tested by survey research. Residents in the PLI counties, Howell County, migrants who remained in the commuter zones but outside the five counties and migrants who had moved outside the commuter zones, either out state or out of state were surveyed. The results of the survey were then analyzed to see if community attachment was, in fact, strongest in the most remote areas.

In this instance, the secondary hypothesis was supported, although the PLI counties and Howell County did not show much variation in the strength of their community attachment. Residents from all the counties showed strong attachment to community as measured by willingness to relocate, commute and length of residence. Survey results on community attachment/resistance to mobility for the two samples who had migrated outside the five county area supported the secondary hypothesis more strongly. These groups had generally more positive attitudes towards mobility and relatively weaker attachment to community.

It was also anticipated that respondents from the more remote areas would evince a higher degree of negative attitudes towards economic development and education. This did not prove to be the case. Residents of all five counties expressed positive attitudes about growth and progress in their communities and ranked education as "a top priority" for their children.

Residents of the five counties often gave as a reason for their positive view of economic growth that they felt that it would create jobs which would allow them or their children (or both) to remain in their resident communities and make a living. This indicated that economic growth and development were seen by most respondents from the five county area as something which would allow their community to survive and, therefore, a positive value from the perspective of community attachment.

In applying these findings to the remoteness ranking of each county based on economic distance, it was concluded that even though there was not a significant

difference in community attachment/resistance to mobility among the five counties, community attachment values were uniformly high for each county, and higher than they are for those outside the five county area. This was interpreted to mean that the cost of disrupting linkages to communities within the five county area would be high and added to the economic distance costs of these five counties.

One unanticipated finding of the survey research was the similarity of attitudes among the five counties. Each county evinced strong community attachment and similar positive orientation towards , community, education and economic growth. This can be interpreted to mean that travel within the five county area might be less psychologically painful, and therefore less of a barrier to mobility, than accessing other areas, such as the nearest SMA, Springfield.

As Cuoto (1994) noted in his study of poverty counties in Appalachia, in situations where a PLI county borders a relatively more prosperous county, the more advantaged county tends to impact positively on the income of the poorer county. Although Cuoto did not establish the degree of this positive influence on income, he noted the phenomenon to be fairly widespread. Based on Cuoto's findings, therefore, it is reasonable to assume that the more advantaged county can have a salutary effect on the income levels of the less advantaged counties **if economic distance costs are not so high that they create significant barriers to mobility.** This would seem to indicate that one possible solution to areas of persistent rural poverty would be the improvement of transport networks to more advantaged areas. This would enable residents from poorer regions to access the relative wealth of more advantaged areas.

One problem with this solution to the persistence of poverty in this region is that largely due to geographic barriers to travel, the five counties have developed three different commuter zones which travel to three different trade centers. The roads that radiate out into the four PLI counties from the more advantaged county at the geographic center of this five county group often do not facilitate access. This has a retarding effect on the positive effect the relative prosperity of the advantaged county can have on its poorer neighbors.

Conclusions and Policy Recommendations

This study found that Lyson et al.'s concept of economic distance is useful in explaining the configuration of the five counties in the study relative to their economic well-being. Income and remoteness were found to be related. The research did not determine the degree of that relatedness or whether, as Lyson et al. posit, remoteness in itself is a cause of low income. However, it did find that the relationship persists over time and appears to be very strong. **Reducing remoteness**, then, based on this conclusion, **can be expected to have a positive influence on county per capita income.** An obvious solution to isolation would be the construction of better transport linkages, such as highways, that would enable residents to access the trade center in Howell County. This is an expensive solution and cannot be practically undertaken by these counties, whose persistent poverty and low population make a tax effort sufficient to produce efficient transport networks unlikely.

Such an undertaking would have to be planned, executed and largely paid for by larger governmental units. This would take a commitment by government to the principle

that persistent nonmetro poverty is inherently harmful to the greater body politic and therefore justifies an energetic and extraordinary revenue effort to reduce that poverty and bring those citizens into the mainstream of prosperity that Missourians have enjoyed throughout this decade. Research indicates that with better transport networks, remoteness will be reduced and income can be expected to rise.

A second, and less expensive, policy solution is the reduction of remoteness through technology. The state of Missouri has already funded an initiative which is extending internet access to all of these counties. This should continue. Although these counties are low income, they are generally regarded as being high amenity. Americans have expressed a preference in recent decades for living in smaller population, high amenity areas. It is possible that with technological access, more individuals and businesses will locate in these counties.

The policy solution proposed in this study is twofold: 1. Reduce geographic isolation of the PLI counties by improved transport networks to the trade center in Howell County. This will allow residents to not only access job opportunities, which are estimated to continue to grow into the next decade, but also to access vital services such as health care and higher education; 2. Continue funding the extension of technology access to the counties in this study. Technology "leap frogs" over geographic barriers and may become a substitute for physical transport networks in the future.

Finally, in order to access the technological jobs of the future, educational attainment must be raised in the five county area. Research indicates that increasing access to technology training and higher education through local institutions already in

existence such as the West Plains campus of Southwest Missouri State University will contribute to the reduction of poverty in this area. Ongoing plans to offer college courses through distance learning centers should be pursued. The opening of a computer enhanced technology program at the campus in 1999 will offer important new opportunities to area residents. With the extension of opportunity and access to that opportunity it is reasonable to conclude that this persistent pocket of nonmetro poverty will dissipate in the coming decades.

Appendix A

Telephone Survey of SMSU-WPC Alumni:

1. First, write in the identification number for this caller. This number is your research number (on file folder) plus the number of this caller on your list. For instance, if your research number is 02 and this is your 1st name on the list, the identification number will be 02001. If it is the 55th name on your list, the identification number will be 02055. Darken the corresponding ovals to the identification number.

2. SCRIPT:

Hello. This is _____. I am a student at SMSU-West Plains. We are calling former students of the West Plains campus and asking their opinions. Do you have time to answer a few short questions?

If yes: Thank you. If no, go to question 10,11 and 12 and fill out reason.

First of all, I need to verify your address for our records. (Caller will read address from their calling list and note any changes on the list)

Now, I need to ask you a few questions:

1. How long did you attend the West Plains Campus?

- A. One year or less
- B. One to two years
- C. Graduated with Associates Degree
- D. Transferred to another institution

2. How long have you lived in your community?

- A. Less than 1 year
- B. 1-3 years
- C. 4-10 years
- D. Over 10 years
- E. Don't know/no response

3. Were you among the first in your extended family to attend college?

- A. Yes
- B. No
- C. Don't know
- D. No response

4. Do you feel that attending the West Plains Campus has helped you either in your job or in your quality of life?

- A. Strongly agree
- B. Agree
- C. Disagree

- D. Strongly disagree
- E. Don't know/no response

5. **How will you feel about your children attending college?**

- A. Very important/a top priority
- B. Important but not essential
- C. Not important or a priority
- D. I would prefer that they not attend college
- E. Don't know/no response

6. **Do you drive over 30 minutes one-way to your job?**

- A. Yes
- B. No
- C. Don't know
- D. No response

7. **How far would you be willing to drive one-way to have a better paying, more secure job?**

- A. No farther than I am driving now.
- B. 1-60 miles
- C. Over 60 miles
- D. I would be willing to relocate to the area
- E. Don't know/no response

8. **There is a lot of building and growth going on in our general area. Overall, do you feel that it is a good thing ?**

- A. Strongly agree/a good thing
- B. Agree/a good thing
- C. Disagree/ a good thing
- D. Strongly disagree / a good thing
- E. Don't know/no response

8. **What is your educational goal?**

- A. Technical training certificate
- B. 2 year college degree
- C. 4 year college degree
- D. post-graduate degree
- E. Don't know/no response

Questionnaire script, pg. 3

9. **What kinds of things would you like to see the West Plains Campus do in the future?**

- A. Offer more courses
- B. Offer four year degrees
- C. Offer more job specific training
- D. Other (indicate in notes)

That is all the questions I have to ask you, thank you very much for your time.

Researcher notes:

10. Subject was

- A. Male
- B. Female

11. County of residence:

- A. Howell
- B. Shannon
- C. Oregon
- D. Douglas
- E. Ozark

Other: (indicate in notes)

12. Interview could not be conducted with subject. Reason:

- A. Subject has moved out of the area.
- B. Subject is deceased
- C. Subject was noncooperative or made inappropriate remarks.
- D. Other (indicate in notes).

Appendix B

Script for telephone survey 10-01-98 to 10-30-98

Hello. This is _____. I am a student at SMSU-West Plains. We are calling residents of _____ county and asking for their opinions. Have you already been answered questions to a survey for SMSU?

If yes, "Thank you. We appreciate your help very much. Good bye."

If no, "Would you mind answering a few short questions:"

1. **How long have you lived in your community?**
 - A. One year or less
 - B. 1-3 years
 - C. 4-10 years
 - D. Over ten years

2. **There is a lot of building and growth going on in our general area. Overall, do you feel that it is a good thing?**
 - A. Strongly agree/ a good thing
 - B. Agree/ a good thing
 - C. Disagree/ a good thing
 - D. Strongly disagree/ a good thing

3. **How do you think you will feel about your children or grandchildren attending college?**
 - A. Very important/ a top priority
 - B. Important, but not essential
 - C. Not important, or a priority
 - D. I would prefer they not attend college

4. **Do you drive over 30 minutes one-way to your job or work?**
 - A. Yes
 - B. No
 - C. Unemployed right now
 - D. Retired

5. **How far do you think you would be willing to drive one-way to have a better paying, more secure job?**
 - A. No farther than I am driving now
 - B. 1-60 miles
 - C. Over 60 miles
 - D. I would be willing to relocate to the area
 - E. No response

6. **How would you describe your education?**
 - A. Some high school
 - B. High school graduate or GED recipient
 - C. Some college hours
 - D. College graduate/ 2 year degree
 - E. College graduate/ 4 year degree or more

7. **County of Residence:**
 - A. Howell
 - B. Shannon
 - C. Oregon
 - D. Douglas
 - E. Ozark

Thank you very much for your help. Good bye.

Appendix C

Kathy Morrison

	Survey									
	Nov 1997									
QUE	Howell	Shannon	Oregon	Douglas	Ozark	Howell	Shannon	Oregon	Douglas	Ozark
Q1A	606	29	134	60	104	47%	49%	47%	79%	58%
Q1B	459	14	98	8	55	35%	24%	34%	11%	31%
Q1C	97	5	26	3	11	7%	8%	9%	4%	6%
Q1D	30	2	20	3	5	2%	3%	7%	4%	3%
Q2A	21	0	1	2	5	2%	0%	0%	3%	3%
Q2B	93	3	20	9	10	7%	5%	7%	12%	6%
Q2C	197	2	44	18	22	15%	3%	15%	24%	12%
Q2D	907	48	212	45	137	70%	81%	74%	59%	76%
Q2E	0	0	1	0	1	0%	0%	0%	0%	1%
Q3A	561	23	119	35	88	43%	39%	41%	46%	49%
Q3B	943	29	155	38	83	72%	49%	54%	50%	46%
Q3C	16	0	5	1	1	1%	0%	2%	1%	1%
Q3D	7	1	0	0	1	1%	2%	0%	0%	1%
Q5A	953	45	197	40	132	73%	76%	69%	53%	73%
Q5B	212	8	73	28	36	16%	14%	25%	37%	20%
Q5C	27	0	1	2	3	2%	0%	0%	3%	2%
Q5D	2	0	0	0	0	0%	0%	0%	0%	0%
Q5E	31	0	7	4	5	2%	0%	2%	5%	3%
Q6A	163	7	89	17	61	13%	12%	31%	22%	34%
Q6B	999	44	179	52	107	77%	75%	62%	68%	59%
Q6C	11	0	0	1	2	1%	0%	0%	1%	1%
Q6D	43	1	9	4	4	3%	2%	3%	5%	2%
Q7A	302	15	75	16	34	23%	25%	26%	21%	19%
Q7B	609	27	151	25	104	47%	46%	53%	33%	58%
Q7C	78	2	12	2	7	6%	3%	4%	3%	4%
Q7D	117	3	25	21	17	9%	5%	9%	28%	9%
Q7E	115	5	15	10	12	9%	8%	5%	13%	7%
Q8A	718	34	152	28	98	55%	58%	53%	37%	54%
Q8B	383	12	94	43	64	29%	20%	33%	57%	36%
Q8C	63	4	24	1	5	5%	7%	8%	1%	3%
Q8D	22	0	5	1	3	2%	0%	2%	1%	2%
Q8E	29	2	4	1	4	2%	3%	1%	1%	2%
	1302	59	287	76	180					
Summary totals for all five counties for each question.										

Appendix D

		Kathy Morrison					
		Commuter Zones		Survey Apr 98			
QUES	Zones 1,2,3	Zones 4,5				Zones 1,2,3	Zones 4,5
Q1A	0	0				0%	0%
Q1B	31	20				38%	30%
Q1C	12	6				15%	9%
Q1D	4	1				5%	2%
Q2A	12	13				15%	20%
Q2B	24	16				30%	24%
Q2C	21	9				26%	14%
Q2D	24	16				30%	24%
Q3A	37	26				46%	39%
Q3B	42	36				52%	55%
Q3C	1	3				1%	5%
Q3D	0	0				0%	0%
Q5A	69	43				85%	65%
Q5B	12	10				15%	15%
Q5C	0	3				0%	5%
Q5D	0	0				0%	0%
Q6A	15	12				19%	18%
Q6B	64	51				79%	77%
Q6C	1	0				1%	2%
Q6D	1	3				1%	5%
Q7A	14	20				17%	30%
Q7B	43	32				53%	48%
Q7C	7	3				9%	5%
Q7D	12	7				15%	11%
Q8A	47	32				53%	48%
Q8B	41	23				46%	35%
Q8C	0	2				0%	3%
Q8D	2	1				2%	2%
Q9A	1	2				1%	3%
Q9B	5	7				6%	11%
Q9C	37	32				46%	48%
Q9D	30	18				37%	27%
		81	66				

Summary totals for all five commuter zones for each question

Kathy Morrison

Follow-up

Survey Apr 98

QUEST	Howell	Shannon	Oregon	Douglas	Ozark	Howell	Shannon	Oregon	Douglas	Ozark
Q1A	49	1	21	5	16	43%	33%	45%	50%	43%
Q1B	39	2	24	4	16	34%	67%	51%	40%	43%
Q1C	19	0	2	1	1	17%	0%	4%	10%	3%
Q1D	6	0	0	0	4	5%	0%	0%	0%	11%
Q2A	13	0	2	0	2	11%	0%	4%	0%	5%
Q2B	16	1	8	0	2	14%	33%	17%	0%	5%
Q2C	17	1	6	1	6	15%	33%	13%	10%	16%
Q2D	67	1	31	9	27	59%	33%	66%	90%	73%
Q2E						0%	0%	0%	0%	0%
Q3A	46	1	25	7	17	40%	33%	53%	70%	46%
Q3B	64	2	22	3	20	56%	67%	47%	30%	54%
Q3C	1	0	0	0	0	1%	0%	0%	0%	0%
Q3D	0	0	0	0	0	0%	0%	0%	0%	0%
Q5A	74	3	33	7	30	65%	100%	70%	70%	81%
Q5B	32	0	13	3	7	28%	0%	28%	30%	19%
Q5C	3	0	1	0	0	3%	0%	2%	0%	0%
Q5D	0	0	0	0	0	0%	0%	0%	0%	0%
Q5E						0%	0%	0%	0%	0%
Q6A	12	1	12	5	15	11%	33%	26%	50%	41%
Q6B	99	2	33	4	19	87%	67%	70%	40%	51%
Q6C	0	0	0	0	1	0%	0%	0%	0%	3%
Q6D	2	0	1	1	2	2%	0%	2%	10%	5%
Q7A	25	0	12	5	12	22%	0%	26%	50%	32%
Q7B	58	2	25	5	17	51%	67%	53%	50%	46%
Q7C	6	0	3	0	4	5%	0%	6%	0%	11%
Q7D	16	1	5	0	3	14%	33%	11%	0%	8%
Q7E						0%	0%	0%	0%	0%
Q8A	53	3	27	1	20	46%	100%	57%	10%	54%
Q8B	36	0	18	9	15	32%	0%	38%	90%	41%
Q8C	12	0	2	0	2	11%	0%	4%	0%	5%
Q8D	4	0	0	0	0	4%	0%	0%	0%	0%
Q8E						0%	0%	0%	0%	0%
	114	3	47	10	37					
Summary totals for all five counties for each question.										

Appendix F
Kathy Morrison
Survey Oct 1998

Ques						306	211	280	219	220
	Howell	Shannon	Oregon	Douglas	Ozark	Howell	Shannon	Oregon	Douglas	Ozark
Q1A	10	4	12	9	3	3%	2%	4%	4%	1%
Q1B	24	13	31	14	17	8%	6%	11%	6%	8%
Q1C	62	40	68	45	51	20%	19%	24%	21%	23%
Q1D	210	154	168	150	148	69%	73%	60%	68%	67%
Q2A	113	90	131	86	54	37%	43%	47%	39%	25%
Q2B	146	86	116	100	124	48%	41%	41%	46%	56%
Q2C	36	23	19	20	32	12%	11%	7%	9%	15%
Q2D	11	7	11	10	7	4%	3%	4%	5%	3%
Q3A	180	143	200	140	137	59%	68%	71%	64%	62%
Q3B	109	58	69	63	71	36%	27%	25%	29%	32%
Q3C	15	8	7	12	8	5%	4%	3%	5%	4%
Q3D	2	0	2	2	2	1%	0%	1%	1%	1%
Q4A	55	60	95	70	62	18%	28%	34%	32%	28%
Q4B	160	87	110	101	107	52%	41%	39%	46%	49%
Q4C	26	25	22	19	19	8%	12%	8%	9%	9%
Q4D	63	36	51	29	31	21%	17%	18%	13%	14%
Q5A	52	37	42	45	50	17%	18%	15%	21%	23%
Q5B	128	83	121	101	109	42%	39%	43%	46%	50%
Q5C	12	10	22	15	19	4%	5%	8%	7%	9%
Q5D	24	7	14	4	4	8%	3%	5%	2%	2%
Q5E	89	63	75	52	38	29%	30%	27%	24%	17%
Q6A	92	53	61	64	58	30%	25%	22%	29%	26%
Q6B	112	83	99	82	83	37%	39%	35%	37%	38%
Q6C	36	29	56	36	38	12%	14%	20%	16%	17%
Q6D	22	14	23	22	15	7%	7%	8%	10%	7%
Q6E	37	31	31	0	25	12%	15%	11%	0%	11%
	306	211	280	219	220					
	1254		1236		18					
	Total Forms		Total Completed		Blanks					

kms-11xx

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