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We have read this dissertation
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Associate Vice Chancellor
and Dean of The Graduate School

POPULATION REDISTRIBUTION AND THE RESTRUCTURING
OF RURAL SETTLEMENT: A WESTERN VIRGINIA CASE STUDY

A Dissertation

Presented for the

Doctor of Philosophy

Degree

The University of Tennessee, Knoxville

Lisa S. Roberts

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DEDICATION

This work is dedicated to my father
Robert C. Roberts (1918-1991)
who witnessed the rural transformation
as a farmer in Washington County, Virginia.

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ABSTRACT

Rural areas in the United States have experienced significant changes in recent decades. The focus of this study is the changing geographical character of a three-county area in the Appalachian Ridge and Valley of western Virginia that has experienced population redistribution and settlement changes. Of particular interest is role that local (life-long) residents play in the redistribution of population and changing settlement patterns for rural areas.

The principal changes for the study area took place after 1950 as the economy shifted from small-scale general farming to employment opportunities in manufacturing and the service sector. Until the 1950s, the structure of rural settlement for the study area remained essentially unchanged. By the 1950s, rural-to-urban population movements within the study area counties depopulated rural areas and brought about general rural decline. Between 1960-1980, the trend reversed itself whereby small towns and the rural countryside were the principal beneficiaries of renewed population (and household) growth. These gains were manifested in significant additions to the housing inventory and concomitant settlement reorganization. The trend was one whereby the new settlement was concentrated near small towns, the interstate transportation corridor, and at higher

densities in the countryside in the form of subdivisions, and road frontage lot arrangements.

A survey among a sample population that built conventional houses or placed mobile homes during the 1970s and 1980s was used to assess attitudes and perceptions concerning the residential location decision. The principal findings of the survey were that land availability, living in the country, a sense of belonging to a community, and a high-value placed on living near relatives were the most important considerations when deciding where to build a house or place a mobile home.

This study concludes that in a relatively short period of time the geographical character of the study area was changed by local residents through settlement reorganization, and that, in all likelihood, this episode represents a once in a lifetime change for the area.

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CHAPTER I

INTRODUCTION

Background

Rural areas in the United States have experienced significant changes in the post-World War II era in general, and since the 1960s in particular. The transformation is well-documented in the academic literature (Taylor and Jones 1964; Shover 1976; Ford 1978; McCarthy and Morrison 1979; Fuguitt, Voss, and Doherty 1979; Gilford, Nelson, and Ingram 1981; Hawley and Mazie 1981; McGranahan 1983; Herbers 1986b). Calvin Beale, noted authority on the rural United States, sums up the changes by writing that

In one sense, the changes taking place in rural and small-town areas today represent an urbanization of countryside and village life. This is not to imply that most rural towns have grown to urban size. Rather, there is a more thorough penetration of rural life by amenities, industries, businesses, institutions, communications, programs, laws, styles, family structure, social ills, and stresses and strains that were once regarded as basically urban in nature (Morrison 1990, 172).

Accompanying the social and economic changes experienced by rural areas is what has been termed a revolution in

the look of the rural landscape (Healy 1985). With increasing reliance on automobile transportation, and off-farm sources of income, more people than ever have opted for rural nonfarm living (Hart and Chestang 1978; Hart 1981; Beale 1990). By 1980, more people than ever before were living in rural areas (including small towns) but not involved in farming as a means of livelihood (Census of Population 1980c).

Researchers describing characteristics of the new rural settlement point to the diminishing boundary between town and country (Smith 1966, Lewis and Maund 1976; Clout 1977; Patel 1980; Doherty 1985b; Herbers 1986b). One observer described the new settlement landscape for the North Carolina Piedmont:

In Rockingham County. . . on a road that could serve as the prototype of the new rural settlement, there are 366 houses, two apartment projects, one mobile home court, one school, and a scattering of churches, stores and service stations.

If incorporated, that settlement would make up a town of about 2,500 people, enough to qualify it as a small city under Federal Government definitions but it would be 13 miles long and one-fourth mile wide. Its name: Route 700 from the city limits of Eden to Route 26 (Herbers 1980, 50).

The diminishing geographic boundary that separates city from country has been described as the galactic metropolis by one geographer (Lewis 1983). Doherty uses the term

"countrified city" to describe the phenomenon (Doherty 1984, 1985a).

Other researchers have pointed to settlement changes that reflect rapid subdivision of rural land for residential purposes, an astonishing amount of new housing, and the random patterns that the developments have taken (Gardner 1983; Healy 1983; Lamb 1987). Frequently juxtaposed with the new settlement are older houses and farmsteads, having served their purposes, in various stages of neglect or abandonment (Hart 1981; Healy 1989; Lewis 1990).

Population Redistribution and the Rural Transformation

Rural to Urban Migration

At the heart of the changes that have come to rural areas in recent decades are trends that began fifty years ago as restructuring took place in mining and agriculture. In each case far fewer people were needed to carry out the work, nor could standards of living be maintained on the relatively small operating units of earlier times (Proctor and White 1962). Most people were faced with the basic choice of leaving in order to maintain or improve their standard of living.

Hundreds of thousands of people made decisions to leave and migration¹ to urban areas proceeded on a large-scale (Lively and Tauber 1939; Brunner 1948; Hagood 1950). Rural-to-urban population redistribution became a long-term trend of internal migration-- long-distance moves between regions and cities-- that transformed patterns of rural population and settlement during the second one-third of the twentieth century (Zelinsky 1962; Gilg 1985; Kirby 1987; Garkovich 1989; Wilson and Ferris 1989a).

The Nonmetropolitan Turnaround

Outmigration from rural areas peaked by the early 1960s. In fact by the 1970s, many rural areas experienced a reversal of population decline, thus creating yet another major population redistribution trend. The so-called nonmetropolitan turnaround received a plethora of attention from social scientists, particularly rural sociologists, and dominated the population redistribution literature of the late 1970s and early 1980s (Beale 1975; Morrison and Wheeler 1978; Brown and Wardwell 1980; Sofranko and Williams 1980; Campbell and Garkovich 1984; Fielding 1985; Fuguitt 1985).

Contributions by geographers to furthering an understanding of the nonmetropolitan population turnaround took

¹Migration is defined as the movement across county geographic boundaries, and typically implies long-distance movements, and long-term tenure (Roseman 1977; DeJong and Gardner 1981).

disparate approaches. Zelinsky (1978) questioned and affirmed the occurrence of the turnaround in Pennsylvania. Geographers at the Bureau of the Census followed with studies focusing on explanatory rationales for the turnaround (Long and DeAre 1980 and 1982). The edited work of Berry and Silverman (1980) amassed a collection of studies focusing on the relationship between population redistribution trends and public policy implications. Finally, and most important with respect to settlement, is the work of Fisher and Mitchelson which addressed macroscale linkages between spatial growth patterns and population redistribution trends, and the "implications for change in the American settlement system" (Fisher and Mitchelson 1981, 301). The renewal of population growth was taking place in the rural countryside, or in small rural towns with fewer than 2,500 residents (Lichter, Fuguitt, and Heaton 1985).

The period from 1970 to 1980 has been recognized as a time of "unprecedented" deconcentration of the population into rural settings (Long and DeAre 1982).

Statement of the Problem

Despite the large volume of research focusing on internal migration and population redistribution, the literature largely emphasizes macroscale perspectives of population movements from or to rural areas. Researchers

have approached the subjects of rural-to-urban, and metropolitan-to-nonmetropolitan migration by analyzing these trends using macroscale, interregional approaches. In addition, researchers have relied largely on the published Census of Population as a data source to document population redistribution trends typically at a regional or county level.

However, broader spatial consequences, impacts, and implications of macroscale migration and population redistribution for rural areas are not well understood. Consequences of migration for rural communities have largely been evaluated in terms of demographic, socioeconomic, and political ramifications (Garkovich 1989). Research aimed at explaining the relationship between population redistribution and settlement changes has focused on the impact of newcomers to rural areas (Johnson 1979; Gardner 1983). Despite documenting phenomenal rural growth trends for small towns and the rural countryside in the 1970s, geographers limited their inquiries to descriptions of the changes taking place.

Considerably less attention has been given to intra-regional and intracounty, redistribution trends and the manifestation and importance of these trends with respect to settlement.² Interregional population redistribution is

²Exceptions are Kollmorgen and Jenks (1951-52); Christensen (1956); Brown 1967; Zelinsky (1978); Hart (1981); Mitchelson and Fischer (1983); Hart (1984).

based on the premise that people are leaving one region and permanently relocating to another geographic area that offers opportunities for the migrant. Intracounty population redistribution may involve immigration, but it also includes local residents who have not been involved in long-term, long-distance migration, and who have made short distance moves within their local area. One authority on rural land use pointed out a decade ago that

Population growth is in fact the tip of the iceberg of nonmetropolitan land use change. A great transformation of the American landscape is in progress, much of it scarcely reflected in immediate (or measurable) population growth (Platt and Macinko 1983, 6).

It is widely recognized that "most residential changes occur within rather than between counties," and that "most changes in residence cover short distances" (Long 1988, 46 and 48). Yet very little is known about the magnitude of the short distance moves, explanatory reasons for choosing a certain residence, manifestations of the residential changes, and implications of the redistribution for overall rural settlement changes.

Through studies of residential mobility (intracounty moves), rural sociologists have enhanced our understanding of local population movements, but the emphasis has been on lifecycle considerations, size of place preference, or the general residential preference for rural areas (Zuiches

1970; Deutschman 1972; Carpenter 1977; DeJong and Sell 1977; Zuiches 1981; Sofranko and Fliegel 1983).

In the Southern Appalachian Region, where there has been significant and well-documented interregional population redistribution, a component of the population is engaged in small-scale, local population redistribution. I contend that local intracounty moves have left an enduring legacy on the landscape. The role the nonmigrant, residual population plays in impacting rural areas through more localized movements has not been addressed in the academic literature on the rural transformation. The main purpose of this study is to investigate the extent to which local populations have undergone redistribution, what the manifestations of the redistributions are, and what explanatory factors account for the movements. In the context of the population dynamics experienced by rural areas, to what extent have local populations contributed to the reorganization of rural settlement patterns, and the transformation of the rural scene?

Objectives of the Study

The following fundamental questions will serve as the principal objectives of this study:

- (1) What are the general population characteristics and redistribution trends for the study area in last five decades within the context of trends for the Southern Appalachian Region?
- (2) To what degree has local population redistribution taken place? Are local rural-to-urban, urban-to-rural, intrarural, and shifts between neighboring nonmetropolitan counties all evident? Is there evidence of spatial stability of the population?
- (3) What explanatory factors account for residential mobility?
- (4) What are the manifestations of local population redistribution on the geographic character of rural areas?
- (5) What are the implications of local population redistribution for settlement change, and how do the implications mesh with our broader understanding of the transformation of rural areas?

Hypotheses

The fundamental hypothesis for this study is that the dominant component of population redistribution and settlement change is local population movement. Specifically, relocation of local families to new residential sites accounts for a high percentage of new house construction and mobile home placement. The impact of the relocations has been residential growth, local population redistribution, and settlement changes in the study area.

Six variables are considered influential in the decision to relocate locally, and testing of these is the analytical core of this study. The six are:

1. **Land Availability** - The availability of land for new house construction and mobile home placement is a key determinant as to where residential growth and settlement changes occur. Rural land has been readily available for sale because much of it is not suitable for commercial farming on a full-time basis, and its price is much greater when sold for residential purposes. Typically, former agricultural land is subdivided and sold in lots which become house sites. Rural land that has been in families for generations is sold or given to family members for homesites.
2. **Existing Housing Availability** - The decision to move to a rural setting, that is the countryside, is based on the unavailability of acceptable housing. As people become more affluent, the existing housing supply is both inadequate and of low quality, hence, there has been a demand for new housing which offers an opportunity to relocate the housing stock.
3. **Public Infrastructure Provision** - The presence of public services in rural areas-- public water

systems, good roads, elementary schools, fire protection-- serve to attract residential use and thus guide the pattern of development.

4. **Family Ties/Roots to a Rural Area** - Family roots in particular rural places can influence local moves.
5. **Desire for Open Space and Rural Lifestyle Amenities** - The high value placed on open space and agrarian values attracts and keeps rural dwellers in rural areas, especially when they are not otherwise disadvantaged by such locations.
6. **Housing Financing Through Government Programs** - Housing financing through the Farmers Home Administration, and Veterans Administration, particularly in the 1970s, removed financing as a deterrent to locating new conventional housing in rural areas.

The Study Area

A study of the role of the local population in intra-county population redistribution should take place in a geographic setting that meets certain important locational and demographic prerequisites. The area should be nonmetropolitan and preferably not integrated extensively with any metropolitan area (s) in close geographic proximity. The area should reflect a relatively stable population situation where there has not been sizeable outmigration or an influx of new arrivals. Since rural population redistribution and settlement change are of particular interest for this study, there should be evidence that rural and small town population growth, particularly during the 1970s, has taken place. Lastly, the geographic setting should

exhibit characteristics of having had a strong rural farm heritage that has experienced a transformation to rural nonfarm economies, lifestyles, and landscapes.

Three Appalachian Ridge and Valley counties in southwest Virginia serve as the project study area (Figure 1). Pulaski, Smyth, and Wythe Counties are nonmetropolitan counties that are situated along the main western Virginia transportation corridor and between the Roanoke and Tri-Cities (the Kingsport, Johnson City, Bristol Tennessee-Virginia) metropolitan areas. Several factors make the Southwest Virginia Ridge and Valley an ideal setting for this study.

First, the study area, like much of the Appalachian Ridge and Valley, has not been subjected to extensive fluctuations in population. Although impacted to some degree by outmigration, especially in the 1950s and again in the 1980s, intraregional immigration from adjacent areas offset drastic population losses. In the 1960s and 1970s, net-migration figures reveal virtual stability for Smyth and Pulaski Counties and modest immigration for Wythe County. The relatively stable population situation in conjunction with evidence for local urban-to-rural and rural-to-rural population shifts taking place at the same time suggest a suitable field laboratory in which to study local population redistribution.

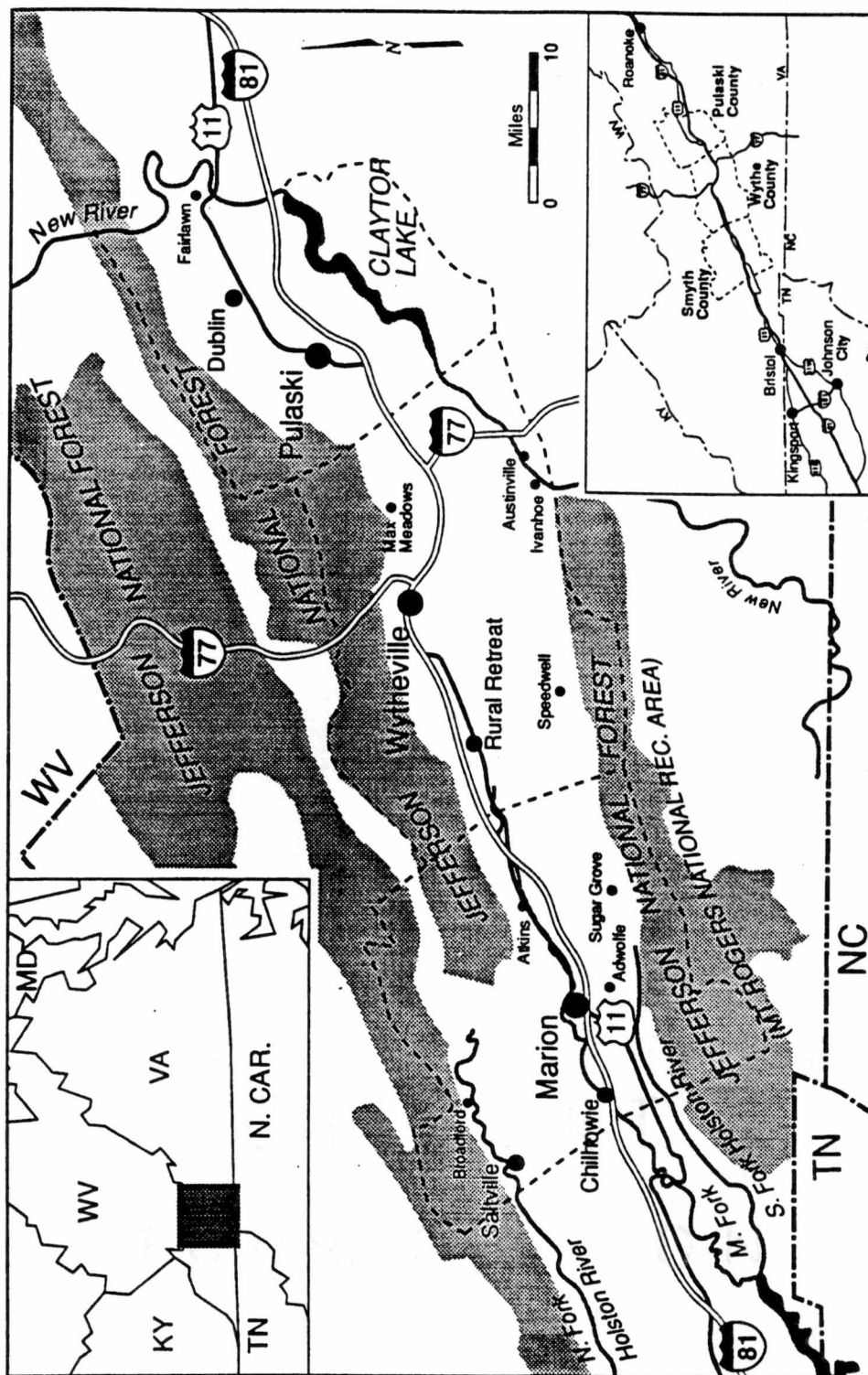


Figure 1. The Southwest Virginia Study Area. Map Prepared by Lisa Castle, U.T. Cartographic Services.

Second, the study area has a sizeable rural population (Table 1). Close to three-fourths of the total population is classified as rural³. In 1980, about one-fourth of the study area's population lived in the county seat towns of Marion (7,029), Wytheville (7,135), and Pulaski (10,106).

TABLE 1

POPULATION BY URBAN AND RURAL CLASSIFICATION 1980:
THE STUDY AREA

	Number	Percent
Urban (County Seats)	24,270	25.8
Rural	69,847	74.2

Source: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48 (Washington, D.C.: U.S. Government Printing Office, 1982), 10-11.

The sizeable rural population consists overwhelmingly of rural nonfarm residents (Table 2). Only about three percent of the rural population of the Southwest Virginia

³The Bureau of the Census definition for the rural population includes those residents of any area who do not meet the qualifications to be classified as urban (living in an incorporated place of 2,500 or more, or in an urbanized area). The rural population is made up of rural farm residents (living on a farm in which \$1,000 or more of agricultural products sold in 1989), and the rural nonfarm population which includes people living in remaining rural settings, including small towns having 1,000-2,500 population thresholds (Census of Population 1980a; Summary Population and Housing Characteristics 1990a).

Ridge and Valley qualify as rural farm. Furthermore, a minor proportion of rural nonfarm residents live in small towns having populations between 1,000 and 2,500. In Smyth and Pulaski Counties, census designated places (CDPs)--unincorporated, densely settled population concentrations with at least 1,000 residents-- account for slightly more people than that for small towns. All in all about 55 percent of the rural nonfarm population resided in the countryside in 1980 (Figure 2).

These figures suggest a sizeable population living in rural settings but not in towns (that fall into the rural

TABLE 2
RURAL POPULATION 1980:
THE STUDY AREA

	<u>Number</u>	<u>Percent of Total Population</u>
Total Rural Population	69,847	
Rural Farm	3,476	3.7
Rural Nonfarm	66,371	70.5
-Places 1,000-2,500	6,793	7.2
-Census Designated Places	7,892	8.4
-Other Rural Nonfarm	51,686	54.9

Source: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48 (Washington, D.C.: United States Government Printing Office, 1982), 10-11, 18-19.

nonfarm category), or on farms per se (Figure 2).

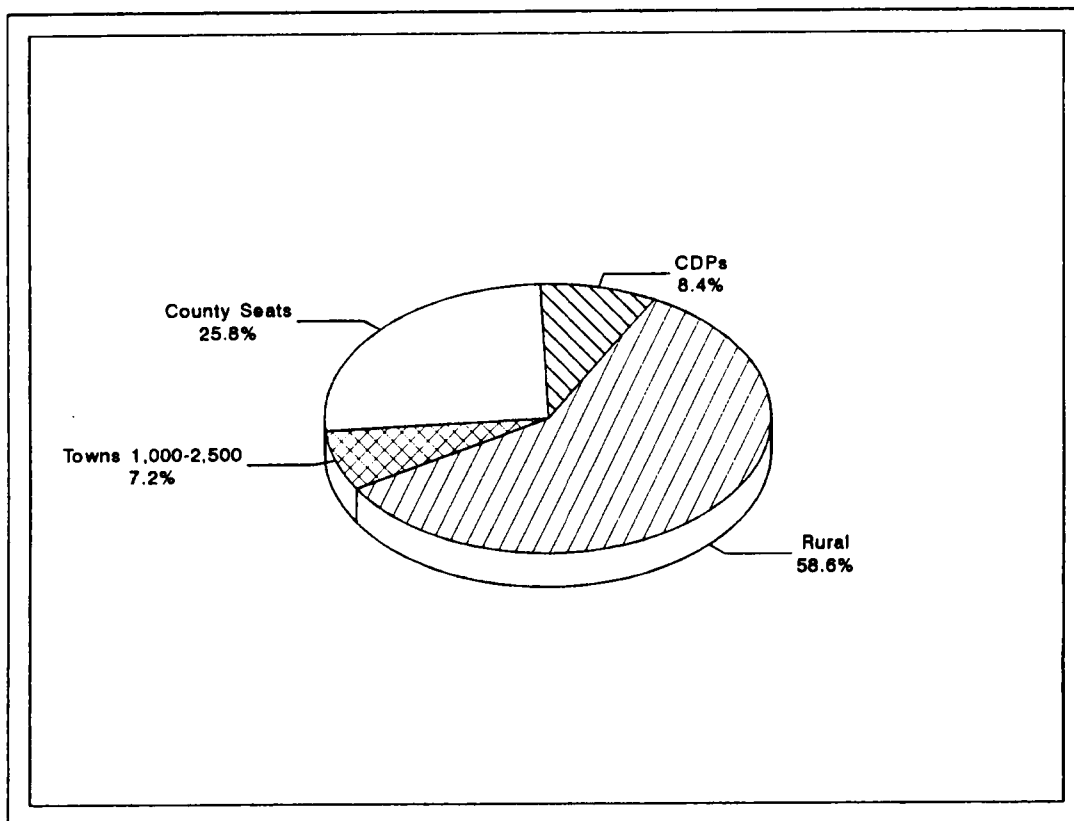


Figure 2. Population Distribution, 1980, The Study Area. Source of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48 (Washington, D.C.: U.S. Government Printing Office, 1982), 8-9, 18-19.

Nonfarm residents frequently combine off-farm employment in manufacturing, or the service sector with part-time raising of beef cattle and/or tobacco as a means of livelihood. The growth of nonmetropolitan manufacturing in the 1960s and 1970s, particularly along the interstate corridor, offers employment opportunities in defense contracting plants, woodworking, automobile parts, and textile manufacturing. Some residents participate in long-distance commuting to nearby metropolitan Washington County, Virginia. Upper East Tennessee has also been a viable option for residents of Smyth County, and some Pulaski and Wythe County residents commute to nearby Montgomery County, or to the Roanoke metropolitan area.

In addition, rates of rural house construction higher than rural population growth indicate the potential for local population redistribution. The implication is that the study area offers a situation whereby there were never large-scale fluctuations in population, yet significant intracounty population redistribution has taken place.

Field observations suggest the extent of rural redistribution of settlement. New conventional houses and mobile homes sited on lots adjacent to paved roads, rural subdivisions, abandoned older, farmhouses, and some settlements left behind in favor of a preference for new rural communities confirm changing rural settlement patterns.

Review of the Literature

The Southern Appalachian Region has been identified as an area that experienced the full-brunt of outmigration after World War II and renewed population growth in the 1970s in conjunction with the nonmetropolitan turnaround (Brown and Beale 1981). The academic literature on population trends in the region is largely concerned with these two themes, and much of it addresses how these trends have impacted the coal mining areas of the Appalachian Plateau. Considerably less focus has been directed to other aspects of population dynamics elsewhere in the region. Very little is known about intraregional migration within the region, or population movements within counties.

Early Studies

Early population studies of the Appalachian Region dealt with rural population distributions and densities. The United States Department of Agriculture's 1935 study Economic and Social Problems and Conditions of the Southern Appalachians devoted a chapter to population distributions and used dot maps to portray the rural farm and nonfarm populations (Manny 1935). In 1940 another USDA monograph Rural Population Density in the Southern Appalachians used isoline techniques to indicate various densities in the region, with the particular intent of correlating population

densities with the physical environment (Marschner 1940). In 1945, Gray's "Population Movements in the Kentucky Mountains," would be the first of many articles focusing on population dynamics in eastern Kentucky. Rupert Vance's publication of "The Changing Density of Virginia's Population" in 1965 continued the propensity to look at the region's population in terms of distribution and density, but with emphasis on rural to urban population shifts within Virginia.

Contributions by University of Kentucky Sociologists

Some of the most important research addressing population redistribution in the Appalachian Region were authored by sociologists at the University of Kentucky. In the well-known Beech Creek study, the significance of kinship in outmigration from eastern Kentucky was demonstrated. The main conclusion drawn was that "members of the same extended family. . . tend to migrate to the same places and migrants from (eastern Kentucky neighborhoods) are now living in a given town. . . almost all related by close kinship ties" (Brown, Schwarzweller, Mangalam 1963, 48).

Population change in the Appalachian Region in the late 1960s was the subject of two chapters in the seminal work The Southern Appalachian Region: A Survey. The chapters, "Population Growth and Characteristics," by John Belcher,

and "The Great Migration, 1940-1960," by James S. Brown and George A. Hillery, Jr., are noteworthy in many respects, not the least of which is the extensive use of thematic maps to show population change and migration characteristics. The publication of an essay on population and migration by Brown in 1970 complimented his earlier work on population in the region (Brown 1970).

The Appalachian Regional Commission

Throughout the 1970s, the Appalachian Regional Commission (ARC) would assume responsibility for disseminating information about population trends in the region. Typically, the approach was to compare trends for subregions, or local development districts, using the ARC's definition of Appalachia. Migration was also of paramount interest to the ARC at this time because of the association of outmigration with lack of economic opportunity in the region. By the mid-1970s, the ARC published numerous studies dealing with lowered rates of outmigration and renewed growth in the region (Appalachian Regional Commission 1979; Pickard 1981a and 1981b).

One of the most important studies on the impact of population redistribution undertaken by the ARC in the late 1970s-early 1980s was the "Settlement Patterns Study." This had as its main purpose documentation of settlement deconcentration and clustering within the region. Using 1980

census enumeration district data, researchers devised a typology of settlement based on distribution and density (Leithauser and Levin 1980; Appalachian Regional Commission 1982).

Additional Perspectives By Geographers

More recent studies by geographers looking at population change and redistribution in the Appalachian Region are not lacking, but with few exceptions, the studies are focus primarily on eastern Kentucky or emphasize the Appalachian Plateau.

Brown and Beale identify the Southern Appalachian coalfields as an area that participated extensively in the nonmetropolitan turnaround of the 1970s. In their view, "the population has been increasing as quickly as it declined" (Brown and Beale 1981, 63).

Return migration has been the focus of a number of studies by geographers. Most notable are the studies of Walker (1979) and White (1983) who examined return migration trends for eastern Kentucky. White's later comprehensive piece looked at the "impact of migration streams on internal redistribution of population within the 32 counties of eastern Kentucky" (White 1989, 351).

Bain and Stitzlein's study (1978) of residential mobility among coal miners in West Virginia and Ohio

demonstrated the preference of commuting to jobs as opposed to living in close proximity to the place of employment.

Bohland (1970) looked at kinship as a site selection variable in a Northeast Georgia setting. His work correlated kinship ties as an Appalachian culture trait with residential locational decision-making.

Three unpublished studies of settlement and the rural nonfarm residents include Sharma's (1973) analysis of southeastern Tennessee-southwestern North Carolina, Icenogle's work on the population distribution of Upper East Tennessee (1970), and Williams's study (1982) of rural residential subdivisions in Loudoun County, Tennessee.

Sources of Information

Six principal research sources are used in this study: (1) county level data from the published censuses of population, housing, agriculture, and manufacturing, (2) data from unpublished census materials, particularly Summary Tape File 3-A for small geographic areas for 1980, (3) 50 hours of interviews with a sample population in Smyth County conducted in the fall-winter of 1989-1990, (4) interviews with other informed persons, (5) U.S. Geological Survey topographic maps from the 1:24,000, 1:50,000, and 1:100,000 series, (6) aerial photos, and (7) field observation.

Organization of the Study

This study is divided into six chapters including an introduction. Chapter II provides background information for the study area's physical setting, historical settlement, and changes to the economy. Chapter III examines population trends and redistribution for the study area in the context of trends for the Southern Appalachian Region. Changes to the housing inventory and the geographic patterns of the new housing are the focuses of Chapter IV. Chapter V looks at the mobility behavior of local residents to ascertain movement histories and behavioral intentions behind the decision to move. The final chapter looks at the implications of intracounty population redistribution and settlement reorganization in light of the rural transformation.

Contributions of the Study

This study will contribute to our understanding of rural areas in a number of ways.

First, this study addresses a component of the rural population that has not been the subject of academic research in geography. Rural residents who did not take part in long-distance outmigration or immigration have not received much research attention, yet the role they play in

the rural geographical change may be integral to our understanding of the rural transformation.

Second, as a study in geographical perspectives on nonmetropolitan and rural areas, it will contribute to a subfield of geography that has received relatively limited attention. As late as the 1970s, noted British geographer Hugh Clout lamented "geography turning away from the countryside," adding that "publications in rural geography are relatively rare and extremely diverse in their emphasis and approach" (Clout 1977, 475). Even during the nonmetropolitan turnaround in the 1970s, a period of intense research scrutiny by rural sociologists and demographers, geographers made limited and cautious contributions to the academic literature.

Finally, this study contributes to our understanding of residential preference decisions that favor settling in rural towns, on the fringes of towns, or unincorporated areas in the rural countryside. With respect to the latter, geographer Glenn Trewartha expressed concern five decades ago about the lack of research on the open countryside by geographers (Trewartha 1943). Trewartha noted that "open country non-farm settlement not only lacks a literature, but its very existence is frequently ignored by writers of rural life..." (Trewartha 1943, 32). Trewartha's clarion call for more emphasis to rural settlement largely went unheeded as

studies by geographers emphasized cultural-historical processes and patterns.

CHAPTER II

THE SOUTHWEST VIRGINIA RIDGE AND VALLEY: GEOGRAPHIC SETTING AND BACKGROUND

Introduction

The purpose of this chapter is to provide background information about the geographic setting and development of the study area. Three principal topics are covered: (1) an overview of the physical geographic setting, (2) historical settlement, and (3) general characteristics of the economy with emphasis on the changing character of farming and the development of manufacturing after mid-century.

The Physical Setting

The principal characteristic of the study area's physiography is the presence of parallel, steep ridges of moderate to high elevations between which lie rolling limestone valleys (Figure 3).

Clinch and Brushy Mountains dominate the northwestern corner of Smyth County, and Big Walker Mountain traverses the northwestern section of study area in its entirety. In

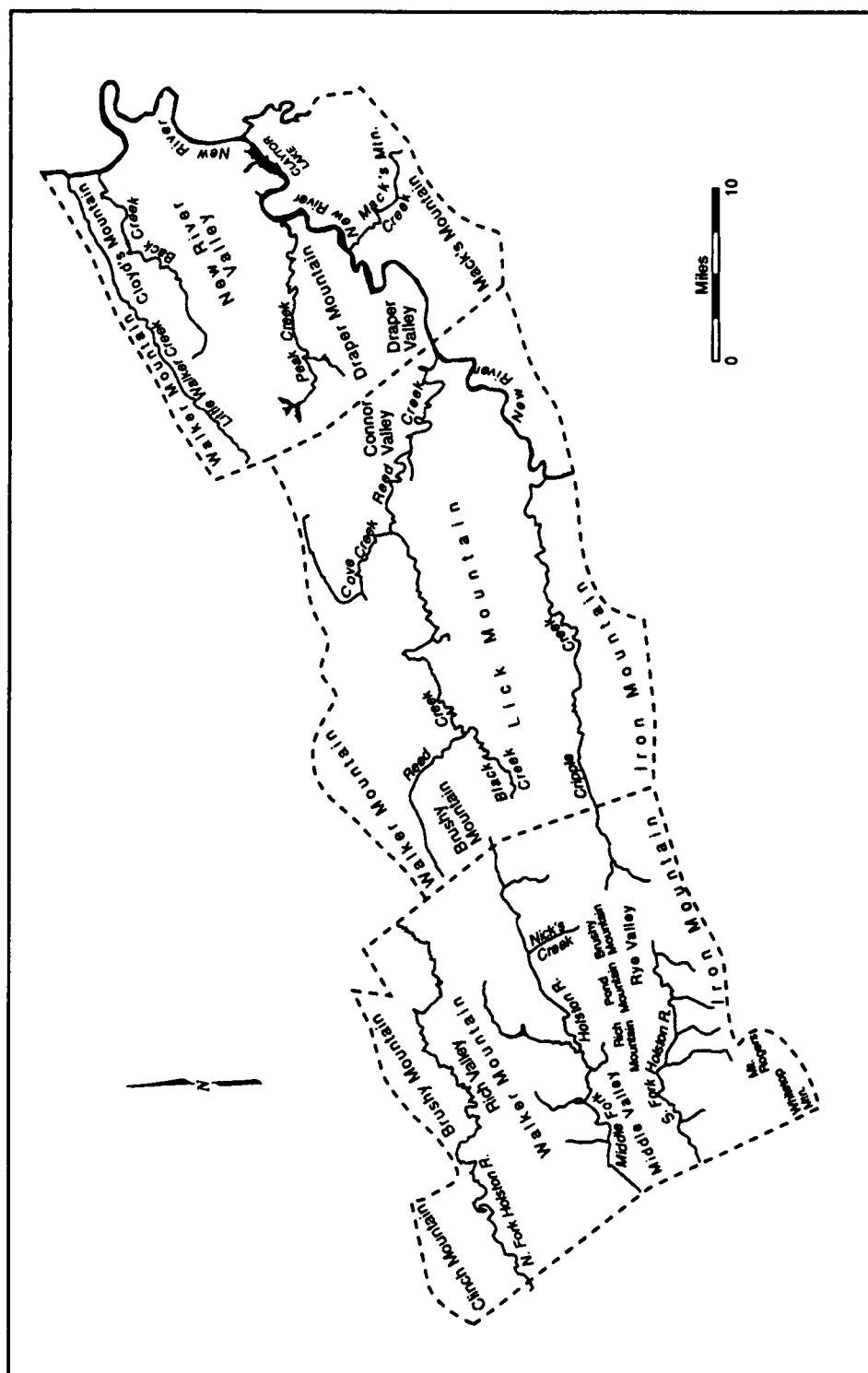


Figure 3. Physiography of the Study Area. Map Prepared by Lisa Castle, U.T. Cartographic Services.

the central part of the study area are a series of subparallel ridges known as (Little) Brushy, Rich, Pond, Lick, and Draper Mountains. Iron, Poplar, and Mack's Mountain, part of the Blue Ridge, form a continuous ridge on the southwest (Figure 3). In southern Smyth County are found Mount Rogers and Whitetop Mountain which are the highest elevations in Virginia. Maximum elevations for the more prominent ridges reach well over 1,000 meters and over 1,700 meters for Mount Rogers and Whitetop.

Between the ridges are valleys that are largely defined by several important rivers and their tributaries (Figure 3). Forks of the Holston River drain Rich, Middle, and Rye Valleys in Smyth County. New River Valley and the valleys of Peak, Reed and Cripple Creek dominate Wythe and Pulaski Counties. Other than along the floodplains of the rivers and creeks, the elevations of the valleys vary significantly from between 500 to 700 meters which gives the valley's appearance a rolling character. Karst landforms features are prominent in the topography of the limestone valleys. Sinkholes, caves, and underground drainage are common.

Dozens of subsequent and obsequent streams (creeks, branches, runs) flow into the various forks of the Holston and New Rivers; hence, countless hollows (minor valleys) are juxtaposed to the major valleys.

Historical Settlement Perspectives

Land grants on the Holston and New Rivers in the study area date to just before the mid-eighteenth century when English land companies were actively claiming and surveying land on Virginia's western frontier. Other than fortified military outposts, such as Fort Chiswell in Wythe County, significant permanent settlements were ephemeral until after the Revolutionary War (Kegley 1936). Historical geographer Ralph Brown designates 1794 as the beginning of "the great influx of settlers into Southwest Virginia and Kentucky . . . when Indians were finally subdued" (Brown 1937, 512).

The study area served as the major thoroughfare for settlers moving into the Upland South in the late eighteenth and early nineteenth centuries. The Great Valley Road, the main route that moved settlers from the Shenandoah Valley to southwest Virginia, connected with the Wilderness and Nashville Roads southwest of the study area, close to the present-day borders for Virginia and Tennessee (Raitz and Ulack 1984). Many migrants moved into the Southwest Virginia Ridge and Valley and points southwest via these major transportation arteries. Dublin, and New Bern in Pulaski County, Draper Valley on the Pulaski-Wythe border, Evansham (Wytheville), Royal Oak (Marion), Seven Mile Ford,

and Town House (Chilhowie) in Smyth County date to the late eighteenth century influx of settlers (Brown 1937).¹

There is no question that limestone valleys were preferred for settlement sites. Most favored were bottom-lands along the North, Middle, and South Fork of the Holston Rivers, New River, and their tributaries, and land that had a spring as a domestic water source (Wilson 1932). Springs have served as the magnets for settlement in rural areas historically and even continue to be a focus of present-day municipal water supplies.² As more settlers moved into the area, the minor valleys, hollows, gaps, creeks, and coves were claimed and settled. Place naming typically reflects the surnames of the original families (Manahan 1961).³

Within the settled valleys, county seat towns, with their government and trade functions, most often served as a focal point of settlement, though smaller towns and hamlets sprang-up in a classic central place hierarchy in

¹Wythe County was formed by 1790, Smyth in 1832, and Pulaski in 1839 (Kegley 1936).

²In the cases where springs serve as municipal water sources, new restrictions imposed by the Clean Water Act of 1990 force the communities to meet new, and rigid, purification standards.

³Some of these include Mitchell Valley, Carlock Creek, Watson Gap, Shular Hollow, Cox Branch, Snider Branch, Wassum Valley, Sloan Branch, MaGavock Run, Conner Valley, Jackson Hollow, Overbay Hollow, Currin Valley, Cleghorn Valley, and Tate Run (USGS 1:50,000 series for Wythe and Smyth Counties 1982, and USGS 1:100,000 series, Radford, Virginia-West Virginia 1982)

the hinterland valley areas. Hamlets developed where roads met, or where rivers and creeks were forded or ferried. Schools, churches, stores, grist and roller mills, and post offices gave these small communities their own sense of place identity. Typically, hamlets were based on kinship ties through family land ownership and marriage (Eller 1982; Raitz and Ulack 1984).

The limestone valleys supported mixed grain and livestock production. Rural self-sufficiency was integral to the functioning of the communities though livestock production had a modestly successful commercial orientation.⁴ Flatboats carried home-manufactured products down the North Fork of the Holston into the Tennessee Valley (Goodwin 1932). In the pre-Civil War era large landholdings and sizeable farm operations were the rule, but by the late nineteenth century many large farms had been divided among heirs and the trend was toward smaller land ownership units. According to Hart, two distinct economies and lifestyles developed in the Appalachian Uplands during the nineteenth century:

⁴Livestock trade was well-developed by the 1880s. A system of grass finishing cattle existed whereby cattle were sold to larger producers who in turn marketed the animals in the Shenandoah Valley and southeastern Pennsylvania. Initially droving was the principal means of delivering cattle to markets, but increasingly rail shipping became important (Roberts 1982).

The people who settled the more favored limestone lowlands, such as the Great Valley became prosperous farmers. These areas were increasingly commercialized and became part of the national economy. The people in the isolated coves and hollows 'back up in the hills' made their own livelihood and were largely separate from the rest of the world (Hart 1991, 44).

Early Settlement and Extractive Industries

The occurrence of minerals-- iron ore, manganese, lead, zinc, salt, gypsum, and anthracite coal-- were also important in the early settlement fabric. Numerous small settlements developed near mines. Of particular importance was Preston's Salines (Saltville) in the northwestern part of Smyth County. The importance of salt and related mineral deposits (gypsum, saltpeter) was recognized by the late eighteenth century. Saltville remained a mining center for the production of salt until the end of the Civil War. In 1893, the Matheison Alkali Works established a plant to manufacture caustic soda and other chemicals on the North Fork of the Holston River. Saltville then became a company town with an economy revolving around the Alkali Works (Wilson 1932).⁵

⁵The plant dominated the economy of the town until the late 1960s at which time it ceased operation reportedly because it could not comply with environmental regulations imposed by the federal government (Newcombe 1971). Today, Saltville is a designated Environmental Protection Agency Superfund Cleanup Site as result of its industrial legacy.

Iron furnaces and forges and "zinc reducing establishments" became the nuclei of small settlements in the southeastern part of the study area where the Ridge and Valley meets the foothills of the Blue Ridge (Boyd 1881; Kegley 1989).

Between 1890 and 1920, the Appalachian Region saw one of "the most frenzied timber booms in American history" (Eller 1982, 87). Selective logging of the more valuable hardwoods had taken place throughout the late nineteenth century, such that by 1900 one resident of Smyth County noted that "the large walnut is nearly all removed" (Boyd and Barnes 1899). In addition, large amounts of lumber were required to fire the iron furnaces. Furniture, wooden handle, and wooden crate manufacturing were found in Marion in the first two decades of twentieth century (Wilson 1932).

By the turn-of-the-century, logging shifted to large tracts of forests usually owned by absentee owners from the northern United States. The Mount Rogers area of Smyth County was intensively logged and the settlement of Konnarock owes its birth to this logging era (Hassinger 1967). Similar scenarios unfolded in Wythe and Pulaski Counties. Tannin production from chestnut, oak, and hemlock bark, and sawmilling led to the establishment of numerous communities commonly referred to as camps (Eller 1982). Gradually these cutover lands were bought by the state and

federal government, and, in 1936 Jefferson National Forest was established (Eller 1982).⁶

Characteristics of Farming and Rural Areas Circa 1940

In 1940, almost three-fourths of the study area's population was rural. Of the rural population, close to 60 percent resided on farms (Census of Population 1940, Part 2).⁷

A number of traits characterized farming and farm life in the 1940s. Typically, farms were small (Figure 4); most farms, in fact, were no larger than 50 acres in size. Average farm size ranged from 83 acres in Smyth County to slightly over 100 acres in Pulaski and Wythe Counties (Appendix A-1). Practically all farmers resided on the land they farmed, and the acreage usually had been passed down in their families, or acquired through marriage.

Family members were the main source of labor, and

⁶Federal and state government, through Jefferson National Forest, Mt. Rogers National Recreation Area, Hungry Mother and Claytor Lake State Parks, Clinch Mountain State Wildlife Reserve, and several fish hatcheries own 46.5 percent of Smyth County, 37.1 of Wythe County, and 18.4 percent of Pulaski County (Center for Public Service 1988).

⁷The definition of farm residence in 1940 was "all persons living on farms without regard to occupation." Nonfarm residence included "all persons living outside cities or other incorporated places having 2,500 inhabitants or more who do not live on farms." (Census of Agriculture 1940).

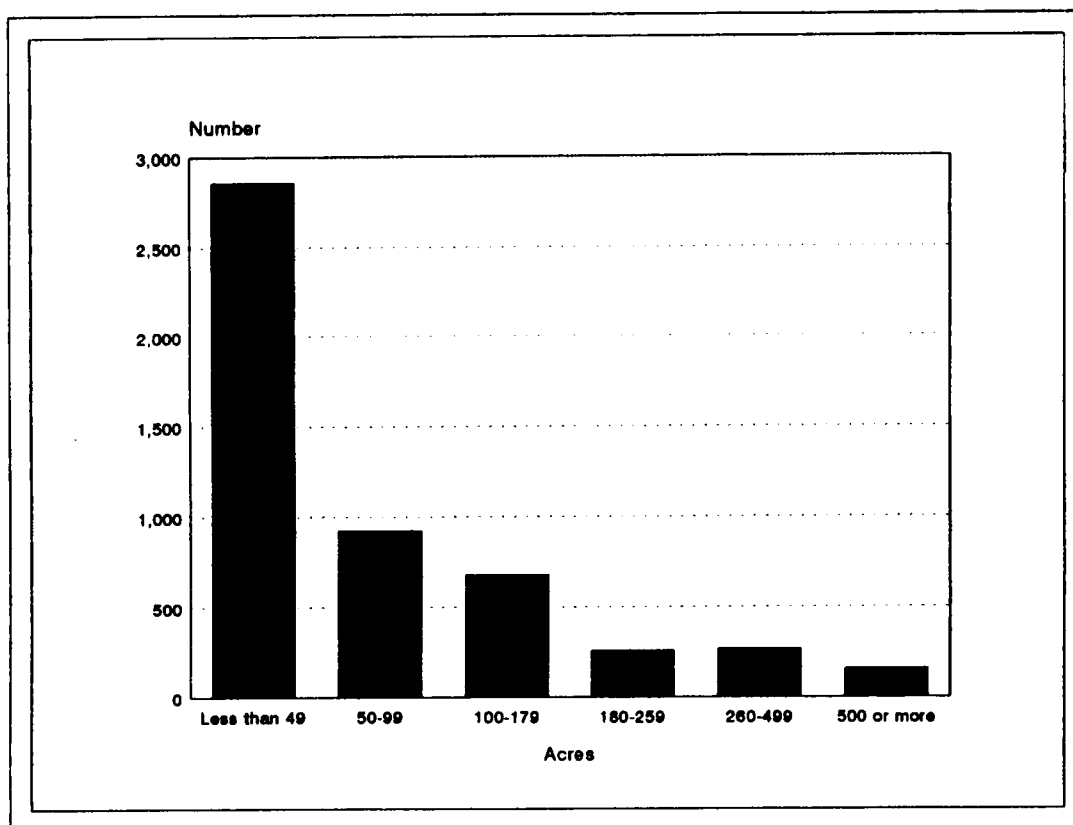


Figure 4. Farm Size in 1940 for the Study Area.
Source of Data: Bureau of the Census, Cen-
sus of Agriculture: 1945, Vol. 1, Statis-
tics for Counties, Part 15 (U.S. Government
Printing Office, 1946), 34-36.

mechanization of farming lagged except on the largest operations.⁸ Hired labor was employed on a need basis, but tenancy and sharecropping were not widespread. Larger farms sometimes offered housing and garden space to a landless family in exchange for labor, but typically these were not tenant arrangements in the same sense that tenancy existed in the Deep South. In addition, there was very little opportunity to rent land to enlarge one's farm because so many families depended on their landholding for their livelihood and subsistence. Yet by 1940, 50 percent of farmers were working off-farm 200 days or more, and at least 40 percent of the population was classified as rural nonfarm (Census of Agriculture 1940).

To a large degree topography dictated land uses. Crop production was oriented to the valleys and river bottomlands, and pastureland to sloping land that was more difficult to work. Draught horses were the main source of power with which to farm, and tractors were few in number. Crop production centered on corn, wheat, hay, oats, and in Smyth County, tobacco, but pasture for livestock grazing dominated land use⁹ (Appendix A-1). Dairy cattle, beef

⁸Farmers relied on custom laborers that provided machinery, principally to harvest crops. This was especially true of grain threshing; someone who owned a threshing machine would go farm to farm.

⁹Tobacco cultivation was introduced to Smyth County during the 1920s. In addition to tobacco, Smyth County enjoyed a favorable reputation for its cabbage and

cattle, and sheep grazed native bluegrass pastures. Much of the wheat, corn, and oat crops were fed to livestock during the winter. Lambs, wool, milk, and beef cattle were the principal sources of income from the farm. Butter, cream, and eggs were sold locally and were an important source of household revenue.

A basic characteristic of farm life circa 1940 was production of food for home consumption. Gardens and orchards supplied produce that was canned, dried, or buried (potatoes, cabbage) for use at other times of the year. Dairy cows, hogs, and chickens (and other poultry) complemented what was raised in gardens. Corn and wheat were processed at local mills for home consumption. In the late 1930s, the southwest Virginia Ridge and Valley was identified as section of a rural region in the U.S. that ranked very high in the amount of farm products consumed by farm households (Mangus 1940).

By the mid-1940s, based on information about Smyth County, one-fourth of the farm residents had running water and telephones. A larger percentage -- 50 percent-- had electricity. Most were living on dirt or gravel roads (Jurney and Cline 1948).

rutabagas. About 1,000 acres of cabbage were grown in 1939 making the county the third leading producer in Virginia (Census of Agriculture 1940). Also the Bonham Apple Orchards added to the diversity of Smyth County's commercial farming (Jurney and Cline 1948).

No attempt was made to reconstruct the settlement pattern circa 1940, but several characteristics are worth noting. Perhaps most fundamental distinction between those living on farms in the valley areas which tended to be somewhat dispersed, and residents clustered in hollows, coves, and gaps where densities were considerably higher.

Farming in Transition

Numerous significant changes took place in farming after 1940. Among these changes are (1) a decline in the number of farms and employment in agriculture, (2) a decrease in the proportion of land devoted to farming, (3) changes in the assemblage of crops, animals and farming practices, (4) a greater emphasis on off-farm work and the concomitant transition to part-time farming and rural nonfarm lifestyles, including the loss of much of the quasi-subsistence economy.

An all-time high of 5,139 farms were enumerated for the study area in 1940. Between 1940 and 1974, there was a continual decline in the number of farms (Figure 5). Since 1974, the number of farms has fluctuated slightly but has remained close to 2,000.

The amount of land devoted to farming, farm size, and land use patterns reveal further changes in the farm sector (Appendix A-1). As less land was devoted to farming,



Figure 5. Number of Farms, 1940-1987, the Study Area. Sources of Data: Bureau of the Census, Censuses of Agriculture: 1940 (Part 3), 1945, (Part 15), 1954 (Part 15), 1964 (Part 24), 1974 (Part 46), 1982 (Part 46), 1987 (Part 46 (Washington, D.C.: U.S. Government Printing Office, 1942, 1946, 1956, 1967, 1977, 1984, 1989).

the proportion of land in farms in the study area decreased. In Pulaski and Smyth Counties, the decrease in land devoted to farming amounted to about 20 percent. In Wythe County the change represented a larger percentage: in 1940, 70 percent of the county was devoted to farming; fifty years later less than half of the land area was being farmed.

While the amount of land devoted to farms decreased, the average farm size expanded. Pulaski County's farms doubled in size, and those in Smyth and Wythe Counties were enlarged by about 75 percent. Farm enlargement probably was impeded by competition for rural land for residential purposes. In fact, the general trend was one of greater fragmentation of rural land that had been formerly farmed as the study area experienced increase demand for rural residential land.

Land use changes further corroborate the transition in farming (Appendix A-1). The key, and most significant difference, is the declining emphasis on grain crop production. Close to 40,000 acres of corn were cultivated in 1940; in 1987, less than 3,000 acres were grown. Wheat cultivation experienced an equally drastic decline. Oats and other small grains, which were of minor importance in 1940, disappeared from the agricultural landscape. Land used for grain cultivation was converted to pastureland or to hay. In Smyth County, tobacco acreage more than doubled

by 1987 which suggests that the crop was more sustainable in the evolving part-time farming system.

The numbers and types of livestock kept on farms also changed (Appendix A-1). The study area experienced a ten-fold increase in the number of beef cattle between 1940 and 1987. The number of dairy cattle showed a slight decrease, but distribution on farms changed drastically. Farms kept a small number of milk cows for domestic uses; by 1987 there were fewer dairy herds and more Grade A producers. As more tractors were adopted fewer farms kept draught horses; the numbers of horses in the farm inventory in 1987 reflect those kept for pleasure riding. Fewer sheep are found today as well, and hogs, once central to the subsistence economy, have all but vanished.

Beef cattle grazing, hay, and burley tobacco proved to be the most sustainable part of the farm system (Appendix A-1). Large, Grade A dairies retained importance in Wythe County. Although involvement in raising beef cattle, hay, and tobacco were not without a certain degree of labor intensity, these products worked well in a part-time farming system. The degree to which part-time farming proved financially rewarding is not known. In any event, farm income became supplemental to work elsewhere.

The Census of Agriculture in 1987 reported 88 percent of farm operators having had off-farm sources of income with practically all working 200 or more days elsewhere. Close

to 60 percent of farm operators indicated a job other than farming as their principal occupation. These figures suggest the degree to which farming was no longer the primary source of income.

Development of Manufacturing

Numerous employment opportunities off the farm existed prior to 1940. In addition to work in mining, logging, and lumbering, and the Olin plant in Saltville that were previously discussed, cotton and woolen mills, furniture, assorted wood products manufacturing, and two sauerkraut canneries offered off-farm employment (Wilson 1932, Kegley 1989).

The World War II era brought weapons manufacturing to nearby Montgomery County, Virginia, and at several locations in upper east Tennessee. From that time until the early 1980s, unprecedented nonfarm job opportunities arose. Between 1950 and 1980, the number of manufacturing jobs nearly doubled, and fewer residents were employed in agriculture (Figure 6). Most plants were small, employing fewer than 20 people (Census of Manufacturing 1954).

Textiles and apparel factories provided a significant number of jobs especially in the 1950s and 1960s (Figure 7). Women working at minimum wage made up a large part of the labor force in these factories (Figure 7). Planners

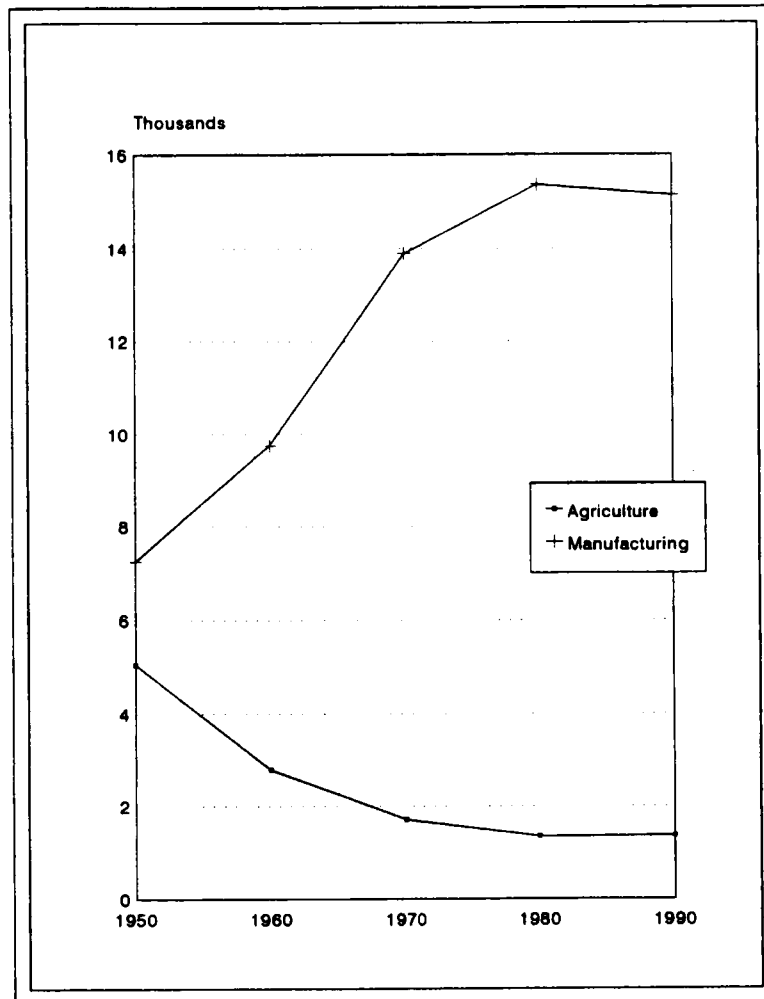


Figure 6. Employment in Agriculture and Manufacturing, 1950-1990, the Study Area. Sources of Data: Bureau of the Census, Census of Population: 1950, Vol. 2, Characteristics of the Population, Part 46, 112-115; Census of Population: 1960, Vol. 1, Characteristics of the Population, Part 48, 252-254; Census of Population: 1970, Vol 1, General Social and Economic Characteristics, Part 48, 454-456; Census of Population: 1980, Vol. 1, General Social and Economic Characteristics, Part 48, 497-499; Census of Population: 1990, Vol. 1, Social and Economic Characteristics, Part 48, 334-336 (Washington, D.C.: U.S. Government Printing Office, 1952, 1963, 1973, 1983, 1993).

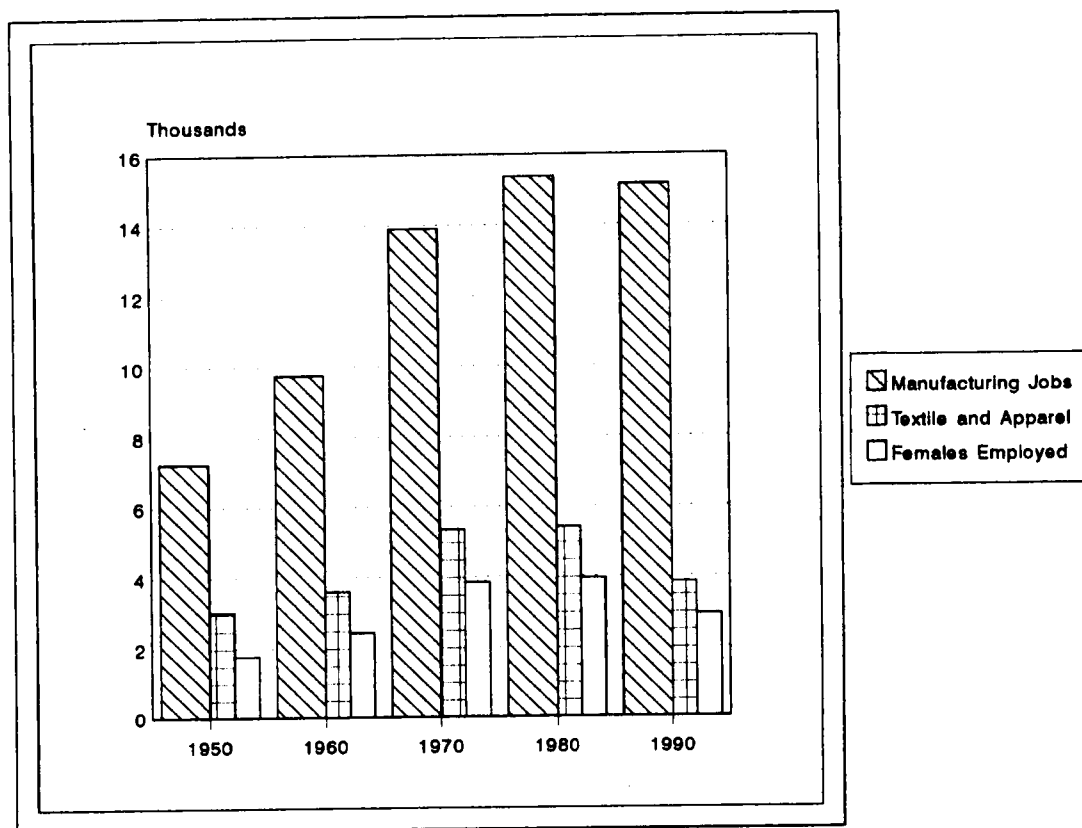


Figure 7. Manufacturing Employment, 1950-1990, the Study Area. Sources of Data: Bureau of the Census, Census of Population: 1950, Vol. 2, Characteristics of the Population, Part 46, 112-115; Census of Population: 1960, Vol. 1, Characteristics of the Population, Part 48, 252-254; Census of Population: 1970, Vol 1, General Social and Economic Characteristics, Part 48, 454-456; Census of Population: 1980, Vol. 1, General Social and Economic Characteristics, Part 48, 497-499; Census of Population: 1990, Vol. 1, Social and Economic Characteristics, Part 48, 334-336 (Washington, D.C.: U.S. Government Printing Office, 1952, 1963, 1973, 1983, 1993).

concluded that "the net-effect of this has been that marginal farm property was kept active on a subsistence basis by the man of the household while his wife was employed. . . in mills" (Mount Rogers Planning District Commission 1973, 63).

By the 1970s, manufacturing jobs diversified and the I-81 corridor in southwest Virginia was recognized as one of the fastest growing industrial areas in Virginia. Per capita incomes saw gains of 150 percent between 1950 and 1970 (Mount Rogers Planning District Commission 1973).

Other jobs existed in construction, retail, and the service sector as these economic sectors developed as well. For example, the Southwestern State Hospital and other hospitals in Marion employed close to 800 people in 1970 (Census of Population 1970c).

Summary

As was the case throughout the Appalachian Ridge and Valley, settlement of the study area was influenced by the region's topography. Valleys, gaps, hollows, coves, and creeks were settled as more people moved to the area in the late eighteenth and early nineteenth centuries.

The limestone valleys, in particular the central valleys, became the focus for settlement. County seat towns served trade and government functions, yet rural areas exhibited their own sense of community and developed into

service centers in their own right. Stores, schools, post offices, mills, and churches formed the nuclei of these rural communities. Most people living in rural areas were related by kinship or marriage.

Mixed livestock and grain farming dominated the study area's economy. Production of food for home consumption, and perhaps local markets, was central to the rural way-of-life.

The World War II era marked the beginning of significant changes to farming and rural life. Overall structural changes in agriculture in combination with new job opportunities in manufacturing and services, for both men and women, accelerated the exit from farming for many. However, many elected to work off-farm, but continue farming on a part-time basis by emphasizing beef cattle and tobacco.

In all probability, the comparisons between 1940 and 1987 in farm numbers, tenure, land uses, crops and animals do not convey the degree to which farm life changed over the nearly fifty years reviewed here.

Economic restructuring after 1940 was accompanied by population movements out of, and within, the Southwest Virginia Ridge and Valley. The following chapter looks at general population redistribution trends taking place over a five decade period.

CHAPTER III

POPULATION REDISTRIBUTION, 1940-1990 INTERREGIONAL, INTRAREGIONAL, AND INTRACOUNTY TRENDS

Introduction

The purpose of this chapter is to examine population redistribution trends for the Southwest Virginia Ridge and Valley over a fifty year period between 1940 and 1990. General redistribution trends for the Southern Appalachian Region are discussed as well in order to provide the context in which to understand trends for the study area. Three time periods-- 1940-1960, 1960-1980, and 1980-1990-- that reflect different phases of regional and local population movements provide the focal points of the discussion.

Population Redistribution Trends for The Southern Appalachian Region, 1940-1960

The Great Migration

The Southern Appalachian Region¹ experienced large-

¹The Southern Appalachian Region refers to the geographic area defined in the seminal study, The Southern Appalachian Region: A Survey (Ford 1962). The definition

scale outmigration during and after World War II. In the 1940s, at least 700,000 people left the region, and over a million people followed during the decade of the 1950s (Brown and Hillary 1962). A lack of employment opportunities within the region to supplement the quasi-subsistence agricultural economy, and the pull of job opportunities opening up in the Midwest and mid-Atlantic regions during and after the war are generally accepted broad explanations for this exodus (Belcher 1962).

Outmigration in the 1940s and 1950s represents the continuation of a long-term trend that began early in the twentieth century. Prior to the 1940s, however, rates of natural increase were high enough to mask population losses through outmigration. By the 1950s, "migration losses exceeded the rate of natural increase" (Brown and Hillary 1962, 54). For the first time ever, the region experienced population decline (Belcher 1962). From the 1950s to the present day, migration behavior has become the key component of population change for the region.

is based on State Economic Areas (SEAs) and includes 190 counties in eastern Kentucky, east Tennessee, western North Carolina and Virginia, north Georgia, northeast Alabama, and much of West Virginia. Appendix A-2 delineates the counties included in Ford's Southern Appalachian Region.

Subregional Diversity in the Magnitude of Outmigration

The numbers of people who left during the Great Migration varied among the three subregions of Appalachia (Appendix A-3 and Table 3).²

TABLE 3

NET-MIGRATION FOR THE SOUTHERN
APPALACHIAN REGION, 1940-1960

Subregion	1940-1950		1950-1960	
	Number	Rate	Number	Rate
Plateau	-488,983	-18.3%	-797,913	-28.7%
Great Valley	- 97,066	- 5.1%	-187,033	- 8.7%
Blue Ridge	-119,800	-14.2%	-133,188	-14.7%
The Region	-705,849	-13.1%	-1,108,134	-19.1%

Source: James S. Brown and George A. Hillery, "The Great Migration," in The Southern Appalachian Region: A Survey, Thomas R. Ford (ed.) (Lexington: University of Kentucky Press 1962), 58.

Predictably, the mining areas of the Appalachian Plateau, and the marginal farming areas of the Blue Ridge contributed most heavily to the streams of outmigrants. Migration from both areas resulted in population decline in the 1940s, and especially in the 1950s (Figure 8) (Brown and Hillery 1962).

²Appendix A-3 shows the approximate geographic areas designated for the Appalachian Plateau, Ridge and Valley, and Blue Ridge subregions discussed in this chapter.

Figure 8. Population Change for the Southern Appalachian Region, 1940-1960. Counties shown in red lost population between 1940-1950; counties shown in green gained population at varying rates. For the 1950-1960 period, the horizontal pattern indicates population losses; the diagonal pattern signifies population gains. Sources of Data: Bureau of Census, Census of Population: 1950, Vol. 2, Characteristics of the Population, Parts 2 (Ala.), 12 (Ga.), 17 (Ky.), 33 (N.C.), 42 (Tn.), 46 (Va.-W.V.); Census of Population: 1960, Vol., 1, Characteristics of the Population, Parts 2 (Ala.) 12 (Ga.), 19 (Ky.), 35 (N.C.), 44 (Tn.), 48 (Va.), 50 (W.V.) (Washington, D.C.: U.S. Government Printing Office, 1952, 1963). Map Prepared by Tom Nolan and Lisa Roberts.

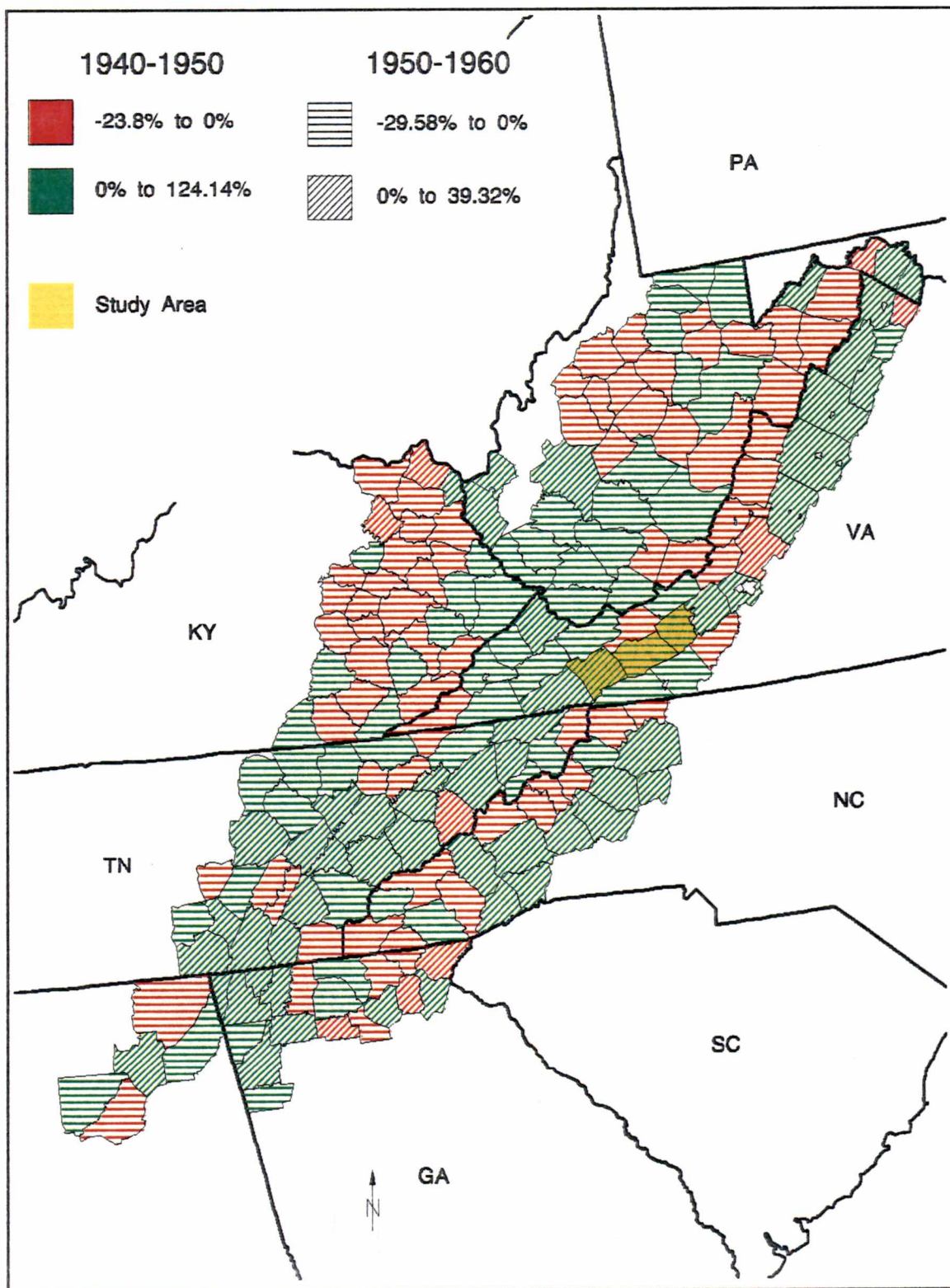


Figure 8

During the 1940s, specific Blue Ridge and Plateau state economic areas in Georgia and North Carolina along with all of eastern Kentucky and central West Virginia began losing population. In contrast, the foothills of the Blue Ridge, the central Cumberland Plateau, and the southern West Virginia coalfields did not experience population decline until after 1950 as outmigration was outpaced by both immigration and rates of natural increase. By the 1950s, broad-scale population loss would be experienced by both the Blue Ridge and Appalachian Plateau subregions (Figure 8) (Brown and Hillery 1962).

In contrast to the Plateau and Blue Ridge areas, the Appalachian Ridge and Valley experienced some measure of overall population growth between 1940 and 1950 (Figure 8) (Brown and Hillery 1962). The Ridge and Valley with its larger cities, better transportation systems, larger manufacturing base, and more productive farms, fared better economically in the World War II era. Residents had options other than outmigration.

Between 1950-1960, modest population gains are seen for most of the Ridge and Valley (Figure 8). Exceptions to this general trends are seen for three areas: the valley areas of Virginia north of Roanoke (but not including the Shenandoah Valley) where population remained unchanged, and the Allegheny-Greenbriar, West Virginia, and the Ridge and

Valley areas of southwestern Virginia which saw population decreases (Brown and Hillery 1962).

Intraregional Redistribution Trends

Complicating the overall picture of population change between 1940 and 1960 was intraregional population redistribution taking place between the Plateau and the Ridge and Valley, and the Blue Ridge and Ridge and Valley. Thousands of people were leaving the Appalachian Region, but others opted to move within the region. To some degree, local population movements from the Blue Ridge and Plateau bolstered the numbers for the Ridge and Valley.

For example, nearly 4,000 North Carolina migrants moved to eastern Tennessee between 1955 and 1960: forty percent were from western North Carolina. About 7,500 people left the southwest Virginia coalfields between 1955-1960 for other places in Virginia: forty percent of the outmigrants settled in the Ridge and Valley counties next door. Half of all outmigrants from eastern Kentucky to Tennessee moved to adjoining areas in the Ridge and Valley of east Tennessee (Census of Population 1967).

There were also considerable population movements within the Ridge and Valley. Not surprisingly, cities and towns throughout the Ridge and Valley were choice destinations for new migrants. Hinterland migration from rural

areas in the Ridge and Valley that accompanied the restructuring of farming, and immigration from elsewhere in the region caused towns and cities to grow. With few exceptions, towns of all sizes grew at rates of 20 percent or more during the 1940s. Most Ridge and Valley towns and cities maintained growth throughout the 1950s as well.³

Population Trends in the Southwest Virginia Ridge and Valley, 1940-1960

General Trends

Between 1940 and 1950, the Southwest Virginia Ridge and Valley study area experienced overall population growth consistent with general trends for the Ridge and Valley. However, two of the counties-- Smyth and Wythe-- had population increases that amounted to 4.6 and 2.7 percent

³Population changes for 22 towns and cities in the Ridge and Valley were examined. The only differential based on population size category that emerges when growth rates are compared is that the largest cities, such as Knoxville and Chattanooga, had some of the lowest population growth for the two decades; Roanoke, Virginia did well in the forties, but experienced slowed growth during the fifties as neighboring Salem developed. Smaller towns and cities fared much better overall. In the 1940s, the five towns having the most significant growth were Front Royal, Virginia (111.8 %), Morristown, Tennessee (61.7%), Lexington, Virginia (52.7%), Staunton, Virginia (49.4%), and Abingdon, Virginia (49.1 %). In the 1950s, experiencing the largest growth were, Salem, Virginia (135.4%), Morristown, Tennessee (63.4%), Athens, Tennessee (40.4%), Greenville, Tennessee (34.8%), Kingsport, Tennessee (34.5%), and Maryville, Tennessee (33.7%) (Census of Population 1940, Parts 2-7).

respectively during the 1940s (Table 4, Figure 9). These low figures suggest that outmigration was probably taking place but had not exceeded natural increase and immigration. In contrast, Pulaski County experienced a sizeable population increase (22 percent) during the 1940s (Table 4, Figure 9). A good portion of this increase is explained by the siting of the Radford Weapons Arsenal nearby. Presumably, jobs in the plant served to entice new residents and impede outmigration. Overall, the county grew by 5,000 residents during the 1940s.

County seats and other towns grew during the 1940s (Table 4, Figure 10). Marion, Dublin, and Wytheville showed healthy growth rates, and Pulaski, Chilhowie and Rural Retreat increased their population, but at somewhat lower rates.⁴ Saltville's population remained unchanged. Evidence for rural population decline is seen in the 1940s Smyth and Wythe Counties (Table 4, Figure 10). In all likelihood local rural to urban population movements were taking place which gave the towns far higher rates of population increases than the counties. Pulaski County's rural areas benefited from the population growth associated with the Radford Arsenal.

Although the Southwest Virginia Ridge and Valley was being impacted by regional and local population redistri-

⁴Refer to Figure 1 ,the reference map for the study area on page 12, for locations of towns discussed herein.

TABLE 4

POPULATION TRENDS FOR INCORPORATED PLACES AND
THE RURAL COUNTRYSIDE, 1940-1960

Geographic Area	Population			Percent Change	
	1940	1950	1960	40-50	50-60
Pulaski County	22,767	27,758	27,258	21.9	- 1.8
<u>Towns</u>					
-Pulaski	8,792	9,202	10,469	4.7	13.8
-Dublin	576	1,313	1,427	127.9	8.7
<u>Remainder of County</u>	13,399	17,243	15,362	28.7	-10.9
Smyth County	28,861	30,187	31,066	4.6	2.9
<u>Towns</u>					
-Marion	5,177	6,982	8,385	34.9	20.1
-Saltville*	2,650	2,678	2,844	1.1	6.2
-Chilhowie	889	1,022	1,169	15.0	14.4
<u>Remainder of County</u>	20,145	19,505	18,668	- 1.8	- 4.3
Wythe County	22,721	23,327	21,975	2.7	- 5.8
<u>Towns</u>					
-Wytheville	4,653	5,573	5,634	19.8	1.1
-Rural Retreat	440	478	413	8.6	-13.6
<u>Remainder of County</u>	17,628	17,276	15,928	- 2.0	- 7.8

Sources: U.S. Department of Commerce, Bureau of Census, Censuses of Population 1940, 1950, 1960, Characteristics of the Population, Part 7 (1940), and Part 46, 48 (1950, 1960), Virginia (Washington, D.C.: U.S. Government Printing Office, 1943, 1952, 1962).

*Includes proportion of Saltville's population in Washington County.

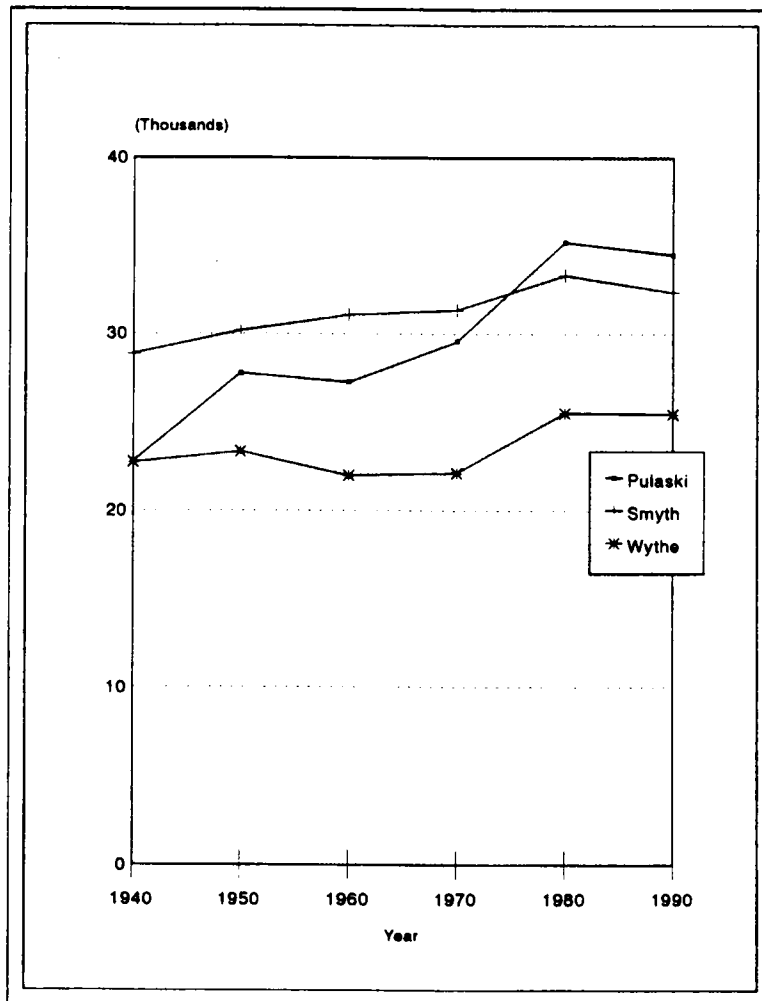


Figure 9. Population Change, 1940-1990, the Study Area. Sources of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48, 8-9; Census of Population: 1990, Vol. 1, Summary Population and Housing Characteristics, Part 48, 40 Washington, D.C.: U.S. Government Printing Office, 1982, 1991).

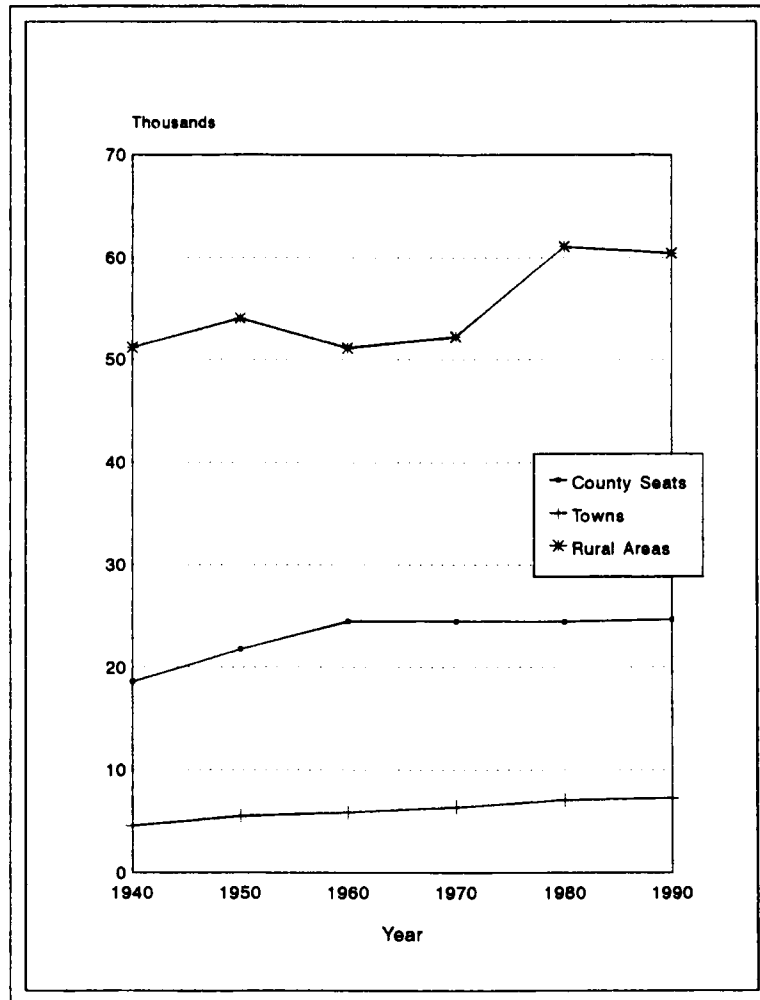


Figure 10. Population Trends for County Seats, Towns, and Rural Areas, 1940-1990, the Study Area. Sources of Data: Bureau of the Census, Census of Population: 1950, Vol. 2, Number of Inhabitants, Part 46, 10-17; Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48, 10-11, 19-20; Census of Population: 1990, Vol. 1, Summary Population and Housing Counts, 41-46 (Washington, D.C.: U.S. Government Printing Office, 1952, 1982, 1991).

bution in the 1940s, it is important to recognize that the vast majority of people living in the study area did not move. In 1950, more than three-fourths of residents were living in the same house as five years previously. Of the 15 percent who moved into a new residence, most (11 percent) stayed in the same county (Census of Population 1950, Part 46).

The 1950s-- the decade of accelerated outmigration for the Southern Appalachian Region-- brought increased outmigration to the study area. Towns continued to grow. The rural areas saw population losses in the 1950-1960 period (Table 4, Figure 10). Overall, the study area saw greater mobility of its population. By 1960, over 40 percent of the population was living in a different house than five years previously compared to 15 percent the previous decade. Most who moved into a different house remained in the same county, although more people than ever had moved to a different county (Census of Population 1960, Part 48).

Destinations for Outmigrants in the Fifties

More than two-thirds of all people leaving the non-metropolitan study area counties relocated elsewhere in Virginia, or to contiguous states (Figure 11). Data on migration for people living in State Economic Area 2 (which includes Smyth and Wythe Counties), and State Economic Area 3 (which includes Pulaski County) reveal that a sizeable

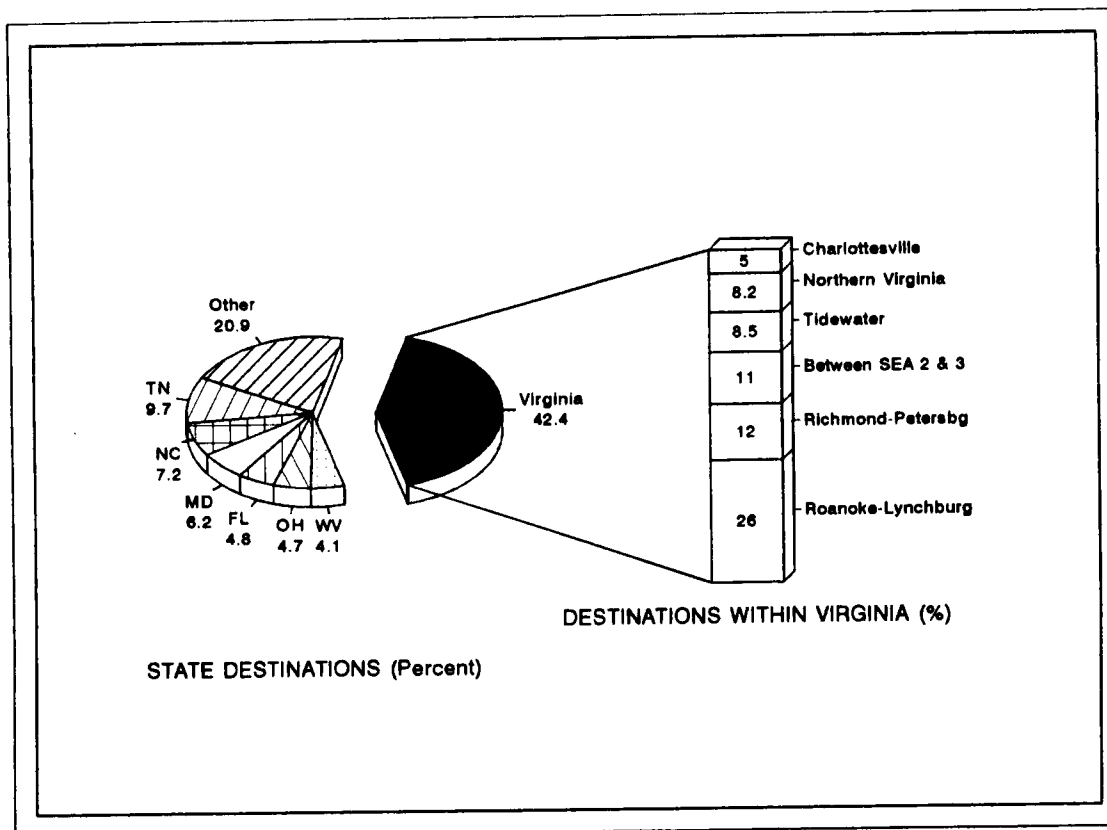


Figure 11. Destinations for Migrants from Virginia State Economic Areas Two and Three, 1955-1960. Source of Data: Bureau of the Census, Census of Population: 1960, Subject Reports, Migration Between State Economic Areas: Residence in 1960 by Residence in 1955 for State Economic Areas and Economic Subregions, Final Report PC (2)-2E (Washington, D.C.: U.S. Government Printing Office, 1967), 165-175.

share of the outmigrants moved elsewhere in Virginia.⁵ Nearly forty percent of outmigrants from SEA 2 went to contiguous states, and slightly over an additional thirty percent remained in Virginia. Over half of all outmigrants from SEA 3 moved elsewhere in Virginia, and one-fifth moved to a contiguous state. Metropolitan areas were favored destinations, especially those in close geographic proximity, such as Bristol, Kingsport, Roanoke, and Lynchburg. In addition, there was considerable shifting between State Economic Areas Two and Three.

Of the one-third of the migrants who moved longer distances, and did not reside in either Virginia, or a contiguous state, Ohio and Florida were choice destinations. Others dispersed throughout the United States, thus leaving no clear-cut pattern of migration destinations.

Trends for the Southern Appalachian Region, 1960-1980

In contrast to earlier decades, the 1960 to 1980 period established a more complex pattern of population trends for the Southern Appalachian Region. Trends for nonmetropolitan U.S. counties in the 1960-1980 period have been generalized

⁵Other counties included in State Economic Area 2 are Bland, Carroll, Grayson, Russell, Scott, Washington, and the cities of Bristol and Galax. State Economic Area 3 consisted of Alleghany, Bath, Botetourt, Craig, Floyd, Giles, Highland, Montgomery, Rockbridge, and four cities--Buena Vista, Clifton Forge, Radford, and Covington (Census of Population 1967).

by Brown and Beale (1981) into four categories based on population changes between 1960 and 1980. The patterns of population change for the Southern Appalachian Region overwhelmingly reveal a mixture of two types of counties identified from the Brown and Beale study: nonmetropolitan turnaround and continuous growth counties.⁶

Nonmetropolitan Turnaround Counties

The nonmetropolitan turnaround refers to the 1970s as a period of renewed population growth for nonmetropolitan counties that lost population in the previous decade. Rates of population increases were consistently higher than for metropolitan areas for the first time in the twentieth century. Between 1970 and 1980, nonmetropolitan counties in the United States experienced average growth rates of 15.1 percent compared to 11.4 percent growth for the nation as a whole, and 10.2 percent increase for metropolitan areas (Statistical Abstract 1981). Many of the nonmetropolitan counties experiencing renewed growth had sustained major losses of population in the 1950s and the 1960s.

Nonmetropolitan turnaround counties include most coal mining areas of the Appalachian Plateau in eastern Kentucky,

⁶McDowell County, West Virginia stands alone as the only county falling into the continuous decline category and is not discussed herein since it represents an anomalous situation. The fourth category in the Brown and Beale classification, the reverse turnaround trend, is not represented in the region.

West Virginia, Tennessee, and southwest Virginia (Figure 12). In addition, a tier of remote counties situated in the Ridge and Valley of western Virginia, and some Blue Ridge counties saw renewed population growth in the seventies after two previous decades of population decreases.

Nonmetropolitan counties in the Southern Appalachian Region realized population gains considerably higher than the average for nonmetropolitan turnaround counties elsewhere in the country (Table 5).

TABLE 5

POPULATION CHANGE, 1960-1980: APPALACHIAN NONMETROPOLITAN
TURNAROUND AND CONTINUOUS GROWTH COUNTIES

Category	Percent Change	
	1960-1970	1970-1980
Nonmetro Turnaround (84 counties)	-11.3	16.1
Continuous Growth (77 counties)	12.0	21.8

Sources: Bureau of Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Parts 2 (Ala.), 12 (Ga.), 19 (Ky.), 35 (N.C.), 44 (Tn.), 48 (Va.), and 50 (W.V.) (Washington, D.C.: U.S. Government Printing Office, 1982).

The core of the coal mining areas of the Plateau in eastern Kentucky, south-central West Virginia, southwest Virginia, and east Tennessee saw population increases of close to 22 percent. Brown and Beale describe the situation as one in which "no other rural region has had a greater

Figure 12. Nonmetropolitan Population Change, Southern Appalachian Region, 1960-1980. Counties shown in green represent continuous growth; blue and fuchsia designate nonmetropolitan turnaround counties (if copied, continuous growth counties and extreme nonmetropolitan turnaround show as black; refer to text for discussion of the growth trends: low-moderate turnaround counties show up as dark gray. White are metropolitan counties, except for McDowell, West Virginia). Sources of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Parts 2 (Ala.), 12 (Ga.), 19 (Ky.), 35 (N.C.), 44 (Tn.), 48 (Va.), 50 (W.V.) (Washington, D.C.: U.S. Government Printing Office, 1982). Map Prepared by Tom Nolan and Lisa Roberts.

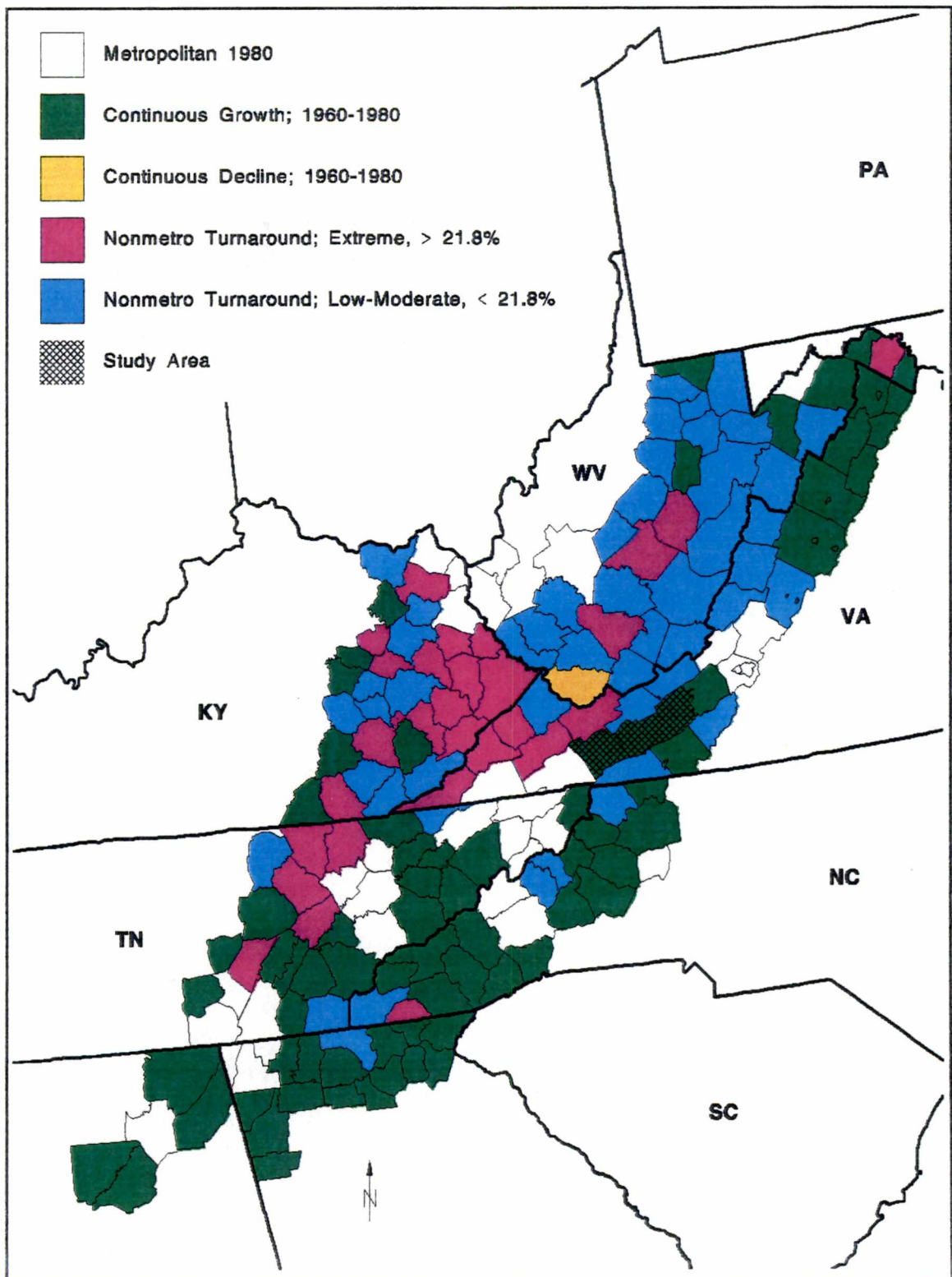


Figure 12

degree of nonmetro turnaround in population trend since 1970 than the Southern Appalachian Coalfields" (Brown and Beale 1981, 62). Other parts of the Plateau in West Virginia and adjacent areas of westernmost Virginia, along with the southern Blue Ridge realized more modest population gains.

Continuous Growth Counties

The second category represents counties in the Southern Appalachian Region that experienced continuous growth from the 1960s through the decade of the seventies (Figure 13). Close to half of the region's nonmetropolitan counties saw continuous growth in the 1960-1970 and 1970-1980 decades which was consistent with their past trend. As a rule, the growth rates for continuous growth counties in the 1970s were considerably higher than that experienced by these counties in the previous decade. In addition, continuous growth counties tended to grow at a somewhat faster rate than nonmetropolitan turnaround counties between 1970 and 1980 (Table 5).

Continuous growth counties make up a core area in the Appalachian Ridge and Valley in Virginia and Tennessee, and much of the southern Blue Ridge of North Carolina and Georgia. Continuous growth counties experienced both lowered rates of outmigration and renewed immigration (Brown and Beale 1981, Pickard 1981b).

Figure 13. Population Change, 1970-1980, Continuous Growth Counties, Southern Appalachian Region. Darkest green represents continuous growth counties that saw highest population growth between 1970-1980 (if copied, these highest growth counties are black; gray shading represents remaining categories with darker gray indicating the second highest growth, etc.). In color, metropolitan counties are shown in yellow (if copied, metropolitan counties are indistinguishable from nonmetropolitan turnaround). Sources of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Parts 2 (Ala.), 12 (Ga.), 19 (Ky), 35 (N.C.), 44 (Tn.), 48 (Va.), 50 (W.V.) (Washington, D.C.: U.S Government Printing Office, 1982). Map Prepared by Tom Nolan and Lisa Roberts.

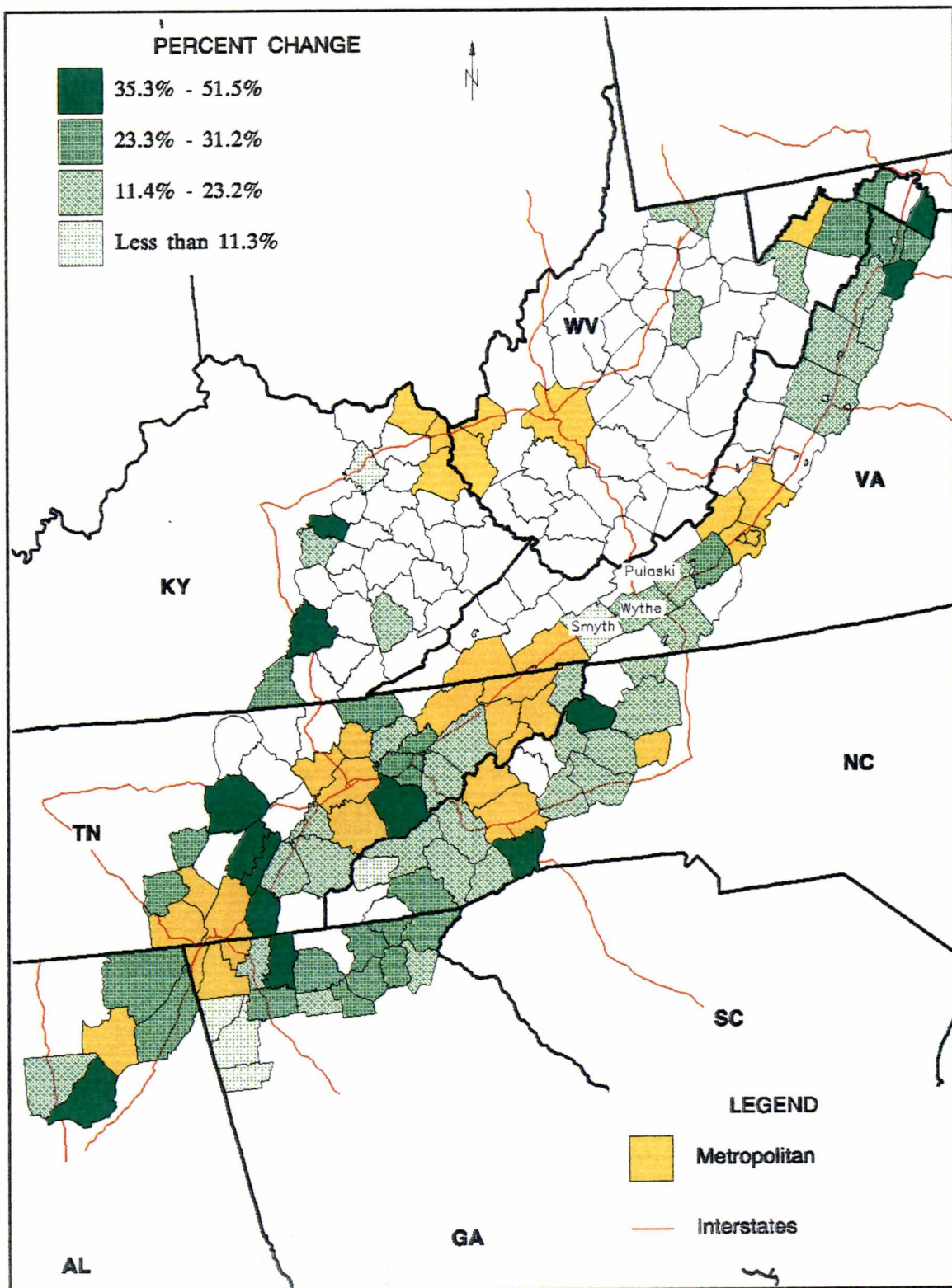


Figure 13

In all probability, this growth trend is coincident with economic and population decentralization taking place within the Appalachian Region and mirrors national deconcentration trends. It is worth noting that higher than average rates of population growth are seen in areas where there was an influx of people because of retirement settlement (the Blue Ridge of North Carolina; Cumberland County, Tennessee) or recreation settlement (Sevier, Tennessee; Watauga, North Carolina) (Figure 13). Increased employment opportunities helped to boost population growth rates. Other counties where universities are located (Montgomery, Virginia; Putnam, Tennessee) benefited as well from population growth (Figure 13). In the case of some counties, there does not appear to be a direct correlation between rates of growth and the existence of interstate highways (Figure 13), although one can speculate that having one of these transportation thoroughfares was certainly no disadvantage in attracting new employers and new residents.

Population and Migration Trends For the Study Area, 1960-1980

The 1960s brought a period of stability and slow growth for the study area's population (Table 6, Figure 9). Smyth and Wythe Counties saw less than one percent increases in residents, and Pulaski County had an 8.5 percent change in population. Virtually no population gains were made

TABLE 6

POPULATION TRENDS, 1970-1990
SOUTHWEST VIRGINIA RIDGE AND VALLEY

Geographic Area	1970	Population		Percent Change	
		1980	1990	70-80	80-90
Pulaski Co.	29,564	35,229	34,496	19.2	- 2.1
<u>Towns</u>					
-Pulaski	10,279	10,106	9,985	- 1.7	- 1.2
-Dublin	1,653	2,368	2,012	43.3	-15.0
<u>Remainder of County</u>	17,632	22,755	22,499	29.1	- 1.1
Smyth Co.	31,349	33,345	32,370	6.4	- 2.9
<u>Towns</u>					
-Marion	8,158	7,209	6,630	-11.6	- 8.0
-Saltville*	2,527	2,376	2,300	- 6.0	- 3.2
-Chilhowie	1,317	1,269	1,971	- 3.6	55.3**
<u>Remainder of County</u>	19,675	22,974	21,469	16.8	- 6.6
Wythe Co.	22,139	25,522	25,466	15.2	- 0.2
<u>Towns</u>					
-Wytheville	6,069	7,135	8,038	17.6	12.7
-Rural Retreat	872	1,083	972	24.1	-10.2
<u>Remainder of County</u>	15,198	17,304	16,456	13.9	-4.9

Sources: U.S. Department of Commerce, Bureau of Census, Census of Population 1980, Number of Inhabitants, Part 48, and Census of Population 1990, Summary Population and Housing Characteristics, Part 48 (Washington, D.C.: United States Government Printing Office, 1982, 1991).

*Includes some population in Washington County

**Reflects annexation in 1989

through migration for Smyth or Pulaski County, and Wythe County's migration was relatively modest. The study area continued to experienced net-outmigration; the principal age group leaving consisted of those between 20 and 24 years (Census of Population 1970d).

In the 1970s, population trends for the study area were consistent with general trends in the Appalachian Ridge and Valley in that growth was the rule albeit at differing rates among the three counties. Smyth County's 6.4 percent increase in population was higher for the county than the previous decade but stands out as being low when compared with other counties in the Southern Appalachian Region. Again, Smyth County saw virtually no population growth through migration, and experienced continued outmigration of its young adult population (Census of Population 1980e). Pulaski and Wythe County exhibited considerably higher rates of population growth at 15.3 and 19.2 percent, respectively (Table 6).

Trends for Towns and Rural Areas

The period from 1960 to 1980 brought a different phase of population trends to the study area's county seats, small towns, and rural areas.

County seat towns realized consistent increases to their populations in the 1940s and 1950s, but the 1960s brought little growth for Marion and Pulaski (Table 6,

Figure 10). Wytheville had a modest 7.7 percent increase in the town's population in the 1960s, and a sizeable 17.6 percent growth in population during the 1970s. The latter trend is explained by the annexation of residential areas that had developed at the town's municipal boundary.

As a rule, small towns and rural areas were the areas that experienced increases in the number of residents between 1960 and 1980 (Table 6, Figures 10 and 14). Small town population trends showed a variety of patterns of population change from 1960 to 1980. Dublin and Rural Retreat saw healthy population increases over the twenty year period. Dublin's growth was especially impressive in the 1970s when the town experienced more than a forty percent increase in the number of residents. Rural Retreat's population more than doubled in the 1960s and continued to increase to over 1,000 by 1980.

In Smyth County, Saltville's population decreased by about 500 people over the two decades. This is attributable to the town losing its major employer, the Olin Chemical Works, which closed in 1969. Chilhowie experienced growth in the 1960s, but this growth stabilized during the 1970s. No population growth was occurring in the town, although there was evidence for population growth at the town's geographic fringe.

For the most part, the remaining rural areas of the study area counties were growing during the 1960-1980

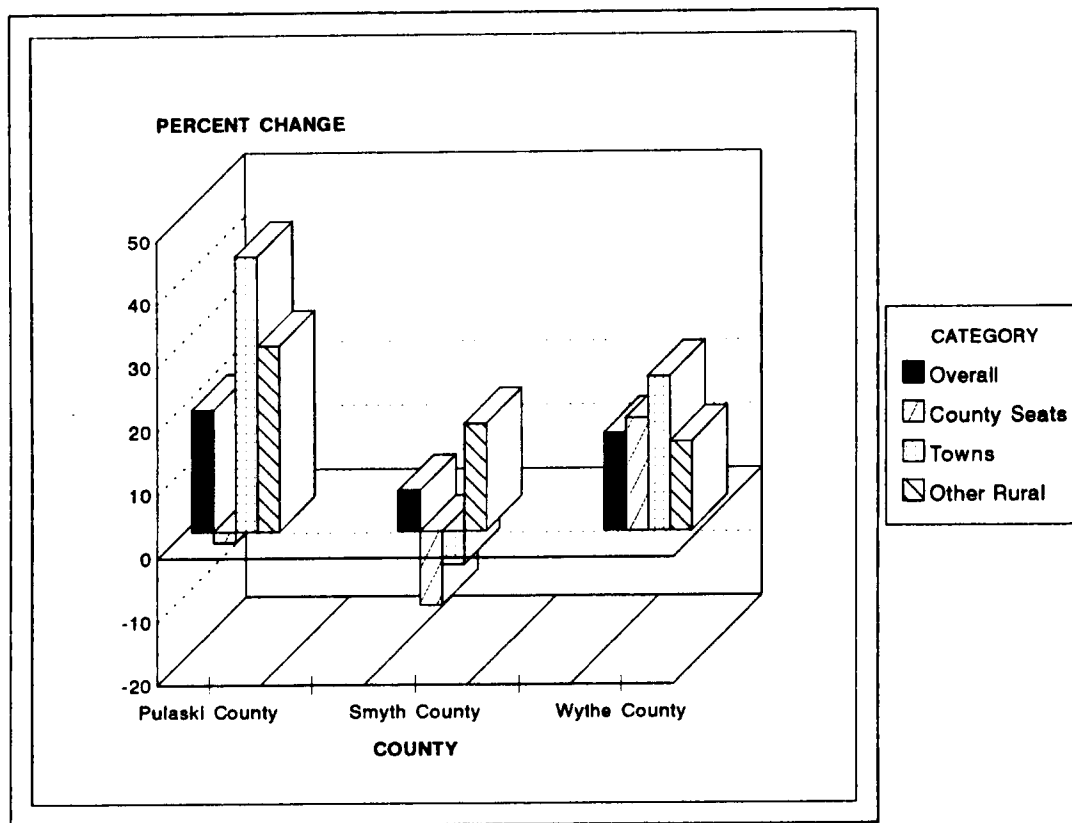


Figure 14. Intracounty Population Trends, 1970-1980 for the Study Area. Source of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48 (Washington, D.C.: U.S. Government Printing Office, 1982), 10-11.

period. Growth rates were far higher for the rural countryside in the 1970s than in the 1960s.

Geographical mobility trends in the late 1970s paralleled those of ten years earlier. Sixty percent of the study area's residents did not move at all (Figure 15). Of the nearly 40 percent of those living in a different house, close to two-thirds remained in their same county of residence.

Population Trends for the Study Area During the 1980s

The populations of the three counties of this study declined from 1980 to 1990 (Table 6). This trend parallels that for the Appalachian Region where half of all counties experienced population decreases (Census of Population 1990a, Parts 2, 12, 19, 35, 44, 48, 50).⁷ In fact, many of the nation's rural counties lost population which may be attributable to renewed outmigration, low birth rates and

⁷The pattern of population losses for the Southern Appalachian Region during the 1980s mirrors the 1950s in many respects. The geographic areas seeing the greatest losses are the Plateau areas of eastern Kentucky and West Virginia. In addition, all of southwest Virginia lost population as did remote Ridge and Valley Counties in eastern West Virginia, and western Virginia. Parts of the Blue Ridge of Virginia, North Carolina, and Georgia are exceptions to the comparison with trends during the 1950s.

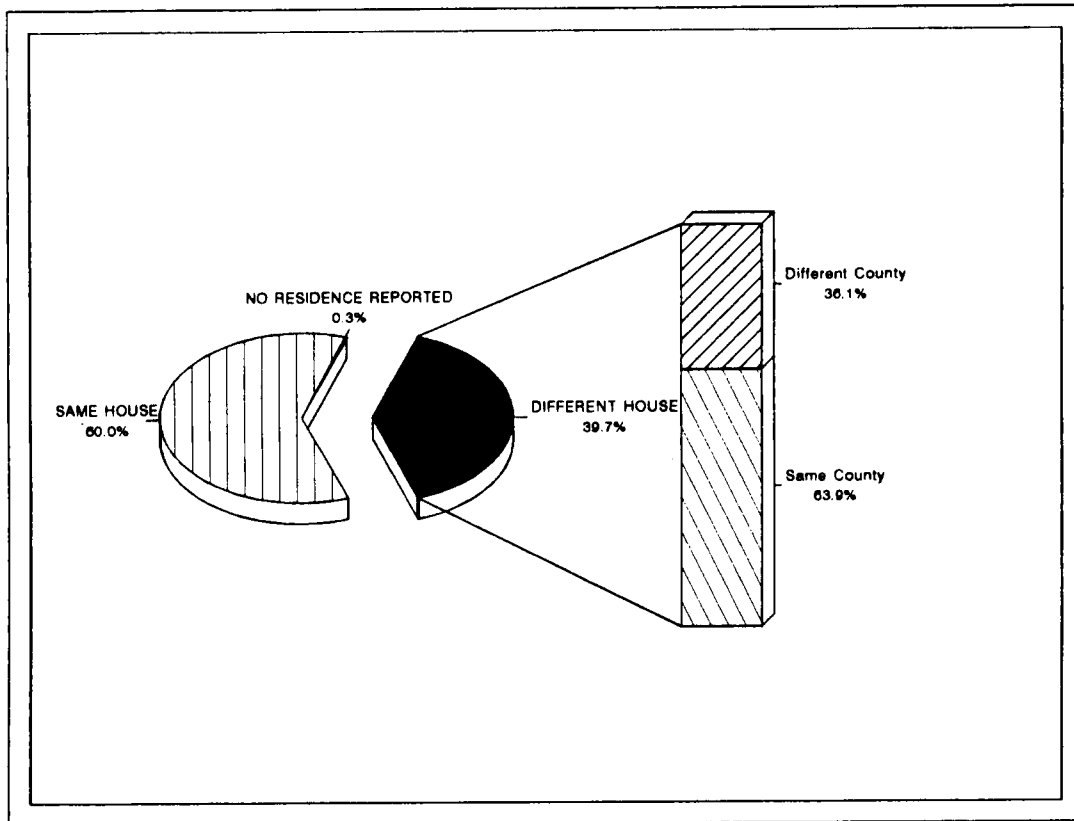


Figure 15. Geographical Mobility, 1975-1980, the Study Area. Source of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, General Social and Economic Characteristics, Part 48, (Washington, D.C.: U.S. Government Printing Office, 1983), 445-447.

increased mortality among their populations (Fuguitt, Brown, and Beale 1989; Johnson 1989; Cromartie 1993).

Smyth, Wythe, and Pulaski Counties are among counties in the Southern Appalachian Region with higher than average proportions of their populations 65 years of age or older (Census of Population 1990a). Given that these counties have no large-scale, well-organized retirement developments, it is reasonable to assume that the population is aging in place. As a result, birth rates are very low (Virginia Center for Health Statistics 1991). As of 1984, Pulaski County had a birth rate of 7.7 per 1,000 residents, which ranked it among the five counties in the U.S. with lowest birth rates (County and City Data Book 1988). The combination of outmigration by the younger population and an aging population structure in the study area counties virtually dictates a no-growth situation.

Summary

The Southwest Virginia Ridge and Valley experienced population fluctuations in the era of the Great Migration akin to those impacts felt throughout the Southern Appalachian Region. In the 1940s, growth was the general trend, but rates varied among the study area counties as some residents began to leave and seek perceived opportunities outside the region, or elsewhere in the Ridge and Valley.

During the 1950s, the overall population trends parallel those being felt by areas in the Southern Appalachian Region experiencing outmigration. The study area's rural countryside was most impacted by population losses between 1940 and 1960. However, towns, especially, the larger county seats, gained population through local rural-to-urban distribution. By the 1960s, the study area's population stabilized as outmigration from and population movements within the region waned.

In the decade of the nonmetropolitan turnaround of the 1970s, Pulaski and Wythe Counties saw renewed population growth which principally impacted small towns and the rural countryside. Smyth County's small towns and rural areas also saw overall growth in the 1970s. At the same time, rates of population growth for Smyth County are relatively low. Net-migration has not been significant in recent decades.

The release of the 1990 census showed renewed population loss for the study area counties as outmigration of the younger population resumed and, and the population ages.

The influx of new residents from intracounty, urban-to-rural and rural-to-rural population redistribution in conjunction with moves made by residents already residing in rural settings in the study area, set the stage for rapid and pervasive changes to the geographic character of the area. The most significant landscape manifestation of these

changes is a transformation in the housing inventory and ultimately, spatial reorganization of settlement, the subjects of the following chapter.

CHAPTER IV

CHANGES TO THE HOUSING INVENTORY AND THE CHANGING SPATIAL PATTERNS OF NEW HOUSING

Introduction

The main objective of this chapter is to analyze changes in housing and housing patterns which are tangible evidence for local redistribution of population and settlement change taking place in the study area.

Three key changes related to housing are examined (1) changes in household size, numbers, and composition, (2) the recent age-structure of housing, and (3) abandonment, decline, and disappearance of the older housing stock. Background information on general housing trends for the United States are presented in order to assess the degree to which local changes in the Southwest Virginia Ridge and Valley mirror national trends. The period after 1960 is emphasized.

In addition, the spatial pattern of new housing is analyzed for the study area. Smyth County serves as a case study to look in greater detail at geographic patterns and

explanations for the patterns of housing with emphasis on the 1970s and early 1980s.

Household Size, Composition, and Numbers in Transition

The National Picture

In recent decades, the United States has experienced significant changes in size, composition, and numbers of households. Between 1960 and 1990, average household size declined from 3.3 to 2.6 persons. Moreover, throughout the twentieth century, average household size has fallen. Consequently, the rate of household growth has outdistanced the population growth rate since 1900 (Fuguitt, Brown, and Beale 1989).

The 1960s and 1970s were decades of particularly rapid new household formation in the United States (Figure 16, Appendix A-4). Rates of household growth were twice that for the population. The primary catalyst behind the explosion was the formation of nonfamily households consisting of persons living alone (Figure 16). Single-person households increased by 50 percent in the 1960s, then by more than 75 percent between 1970-1980 (Bureau of Census 1989a; Fuguitt, Brown, and Beale 1989; Bureau of Census 1991). These sizeable increases in households reflect fundamental social changes taking place in American

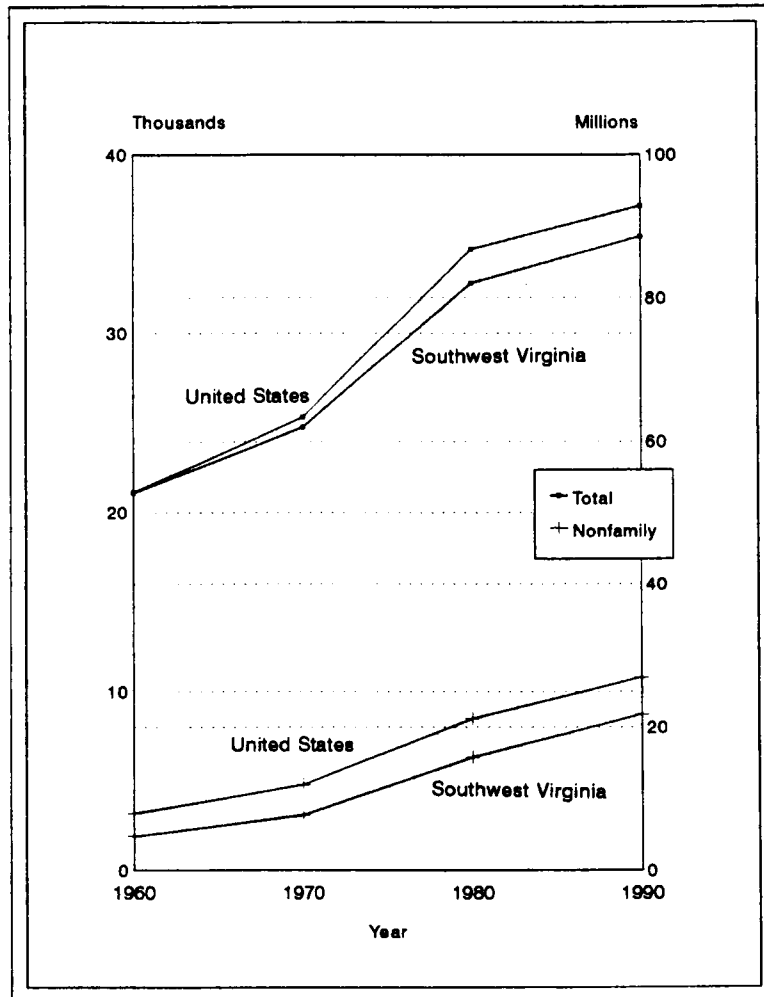


Figure 16. Household Formation Rates, 1960-1990, United States and the Study Area. Sources: Bureau of Census, Census of Population: 1960, Vol. 1, General Population Characteristics, Part 48, 29; Census of Population: 1970, Vol. 1, General Population Characteristics, Part 48, 45; Census of Population: 1980, Vol. 1, General Population Characteristics, Part 48, 11-12; Census of Population: 1990, Vol. 1, Summary Population and Housing Characteristics, Part 48, 55-57; Statistical Abstract of the U.S.: 1990, 45 (Washington, D.C.: U.S. Government Printing Office, 1963, 1973 1982, 1991).

household structure.

Before 1970 household formation rates in cities were higher than those for rural areas. By the seventies, household formation rates for rural areas approximated urban rates. Rural areas in the U.S. experienced an eight percent increase in households in the 1960s. Between 1970 and 1980, the rate of change had tripled to 25 percent (Appendix A-4).

Household Trends for the Southwest Virginia Ridge and Valley

Average household size declined for the study area as well between 1960 and 1990 (Appendix A-4). The 1970s were clearly a period of rapid household formation for the study area (Figure 16, Appendix A-4). Overall rates of household formation were between one-third to one-half higher in the seventies when compared with the previous decade. By the 1980s, household formation rates slowed to a thirty-year low. The formation of nonfamily households was very strong during the 1970s, doubling over the ten-year period.

County seats, small towns, and the rural countryside shared in the increase in households (Figure 17). However, between 1970 and 1980, the rate of household formation in the countryside was more than double that for towns of the study area. In addition, household formation clearly out-paced population growth in both town and country settings,

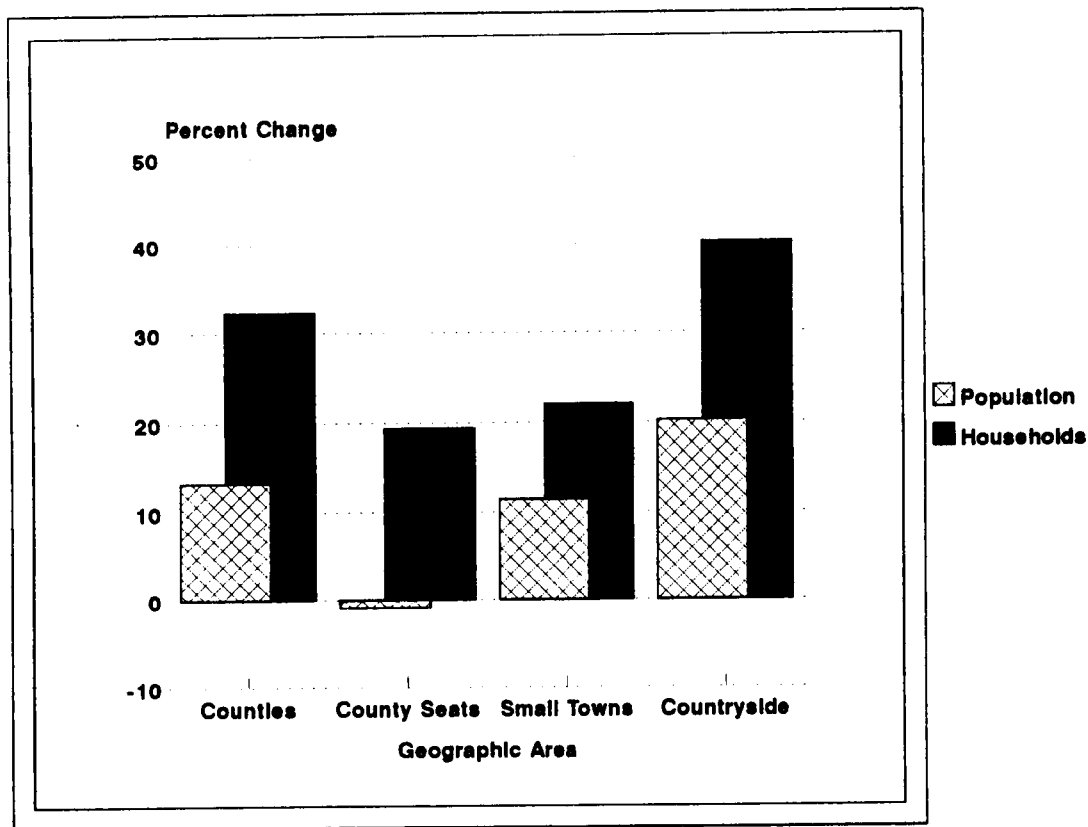


Figure 17. Comparison Between Population and Household Changes, 1970-1980, the Study Area. Sources of Data: Bureau of the Census, Census of Population: 1980, Vol. 1, Number of Inhabitants, Part 48, 8-10, 19-20; Census of Population: 1970, Vol. 1, General Population Characteristics, Part 48, 44-45; Census of Population: 1980, Vol. 1, General Population Characteristics, Part 48, 11-12 (Washington, D.C.: U.S. Government Printing Office, 1973, 1982, 1983).

but new household additions to the countryside stand out.

Although household growth was pervasive for towns and the rural countryside, differences emerge when comparing household composition. As is the case in many rural settings, the traditional married couple household dominates. Rural trends in nonfamily households consist predominantly of persons living alone. At least half of those living alone are 65 years or older, which reflects the older age-structure of the area's population. Of those living alone, the overwhelming majority are elderly females.

Overall, the three decades between 1960 and 1990 saw a sizeable increase in the number of households, but the 1970s stand out as the decade of most rapid household changes. In Pulaski County the increase amounted to 6,000 new households in Smyth County 4,400, and in Wythe 4,000.

Upward trends in household formation should be reflected in increased amounts of housing.

Changes to the Housing Inventory

National Trends

As of 1980, close to half of all year-round housing in the United States was created in the twenty-year period

between 1960 and 1980 (Table 7).¹ The changes were pervasive in that the trends were seen in metropolitan and nonmetropolitan, urban and rural settings alike. The 1970s saw the most significant changes to housing.² In the seventies, it was new rural nonfarm housing that made the greatest strides.

The rapid changes which took place in housing in the U.S. between 1960-1980 may be explained by a myriad of factors. In addition to decreased household size and an increase in the number of households, greater affluency, a favorable financial climate for purchasing homes, a modernization ethos and high social value placed on homeownership converged to produce what may be viewed as profound changes in housing for the United States.³

¹In comparison, roughly one-fourth of the housing inventory in the U.S. was built before 1940.

²Another way to look at the age-structure of U.S. housing is by comparing figures for median year structures were built by broad geographic categories for which data are available. In 1990, 1965 was the median age of U.S. housing. For urban areas, the median age is 1964. The median age for all rural areas was 1971 which reflects a newer age-structure of the housing stock. Within rural areas, median age figures for housing are (1) places with 1,000-2,500, 1964, (2) places of 1,000 or fewer residents, 1960, (3) rural farm, 1951, and (4) other rural, 1972. Clearly rural areas other than those associated with small towns and farms were the recipients of far greater amounts of new housing (Census of Housing 1990b).

³In fact, the 1960-1980 period was one in which most nonmetropolitan counties in the Southern Appalachian Region experienced sizeable additions to their housing stock.

TABLE 7
AGE-STRUCTURE OF U.S. HOUSING IN 1980

	TOTAL (1,000s)	BEFORE 1940 Number	Per- cent	1960-1969 Number	Per- cent	1970-1979 Number	Per- cent
<u>United States</u>	86,759	22,414	25.8	17,087	19.7	22,744	26.2
<u>Metropolitan</u>	64,632	15,652	24.2	13,361	20.7	8,105	25.3
<u>Nonmetropolitan</u>	22,127	6,762	30.6	3,726	17.1	3,291	28.7
<u>Urban</u>	64,666	16,426	25.4	13,176	20.4	7,368	23.5
<u>Rural</u>	22,093	5,988	27.1	3,911	16.0	4,029	34.2
Places 1,000-2,500	2,807	994	35.4	436	15.5	359	24.8
Rural Farm	1,821	963	52.9	212	11.6	154	16.7
Rural Nonfarm*	17,465	4,031	23.1	3,263	18.7	6,561	37.5

Source: Bureau of Census, Census of Housing: 1980, Vol. 1, Detailed Characteristics, Part 1 (Washington, D.C.: U.S. Government Printing Office, 1983), 65.

*Rural Nonfarm refers to all rural housing not classified as existing in small towns of 1,000-2,500.

Housing Inventory Changes for the Study Area

Year-round housing increased by comparable proportions for the study area (Table 8). Between 1960 and 1980, Pulaski and Wythe Counties experienced 47 percent increases in year-round units, and Smyth increased its housing stock by 44 percent.

Based on the numbers of building permits issued for single-family units, the period of most intense change for the counties under study began about 1968 and lasted until 1975-1977. Additions to the inventory gradually decreased thereafter (Figure 18).

A breakdown of housing age-structure within the three counties reveals its basic spatial variation (Table 8, Figure 19). During the 1970s, geographic areas other than county seat towns experienced the greatest housing additions, which parallels overall population redistribution trends. The small towns of Dublin, Chilhowie, and Rural Retreat, particularly, had large additions to their inventories. In addition, the remaining rural areas-- those close to small towns, census designated places, and the countryside-- experienced substantial gain in new housing. By 1980, one-quarter of the study area's housing came existence between 1970 and 1980.

TABLE 8
AGE-STRUCTURE OF HOUSING FOR TOWNS, CENSUS DESIGNATED PLACES,
AND REMAINING GEOGRAPHIC AREAS, 1980

	Total Year Rd.	1975-79	Percent	1970-74	Percent	1960-69	Percent
Pulaski Co.	13,188	426	9.0	2,411	18.3	2,210	16.8
-Pulaski	4,119	160	3.8	350	8.5	595	14.4
-Dublin	909	148	16.3	179	19.7	181	19.9
-Fairlawn	689	34	4.9	32	4.6	157	22.7
-Pulaski North	519	39	7.5	45	9.4	80	17.0
-Remainder	6,952	1,232	17.7	1,801	25.1	1,189	17.1
 Smyth Co.	 12,189	 1,270	 10.4	 1,812	 14.9	 2,333	 19.1
-Marion	2,610	165	6.3	273	10.5	424	16.2
-Chilhowie	491	33	6.7	71	14.5	97	19.7
-Saltville	729	87	11.9	89	12.2	138	18.9
-Adwolf	393	73	18.6	77	19.6	139	35.4
-Allison Gap	381	15	3.9	12	3.1	47	12.3
-Sugar Grove	406	46	11.3	46	11.3	72	17.7
-Remainder	7,179	851	11.9	1,244	17.3	1,416	19.7
 Wythe Co.	 9,720	 1,681	 17.3	 1,452	 14.9	 1,301	 13.4
-Wytheville	2,812	327	11.6	325	11.6	369	13.1
-Rural Retreat	448	39	8.7	87	19.4	73	16.3
-Remainder	6,460	1,315	20.4	1,040	16.1	859	13.3

Sources: Bureau of the Census, Census of Housing: 1980, Vol. 1, Detailed Housing Characteristics, Part 48, 108, 136, 139, 155-157; Census of Population and Housing: 1980, Summary Tape File 3-A, Microfiche (Washington, D.C.: U.S. Government Printing Office, 1983, 1985).

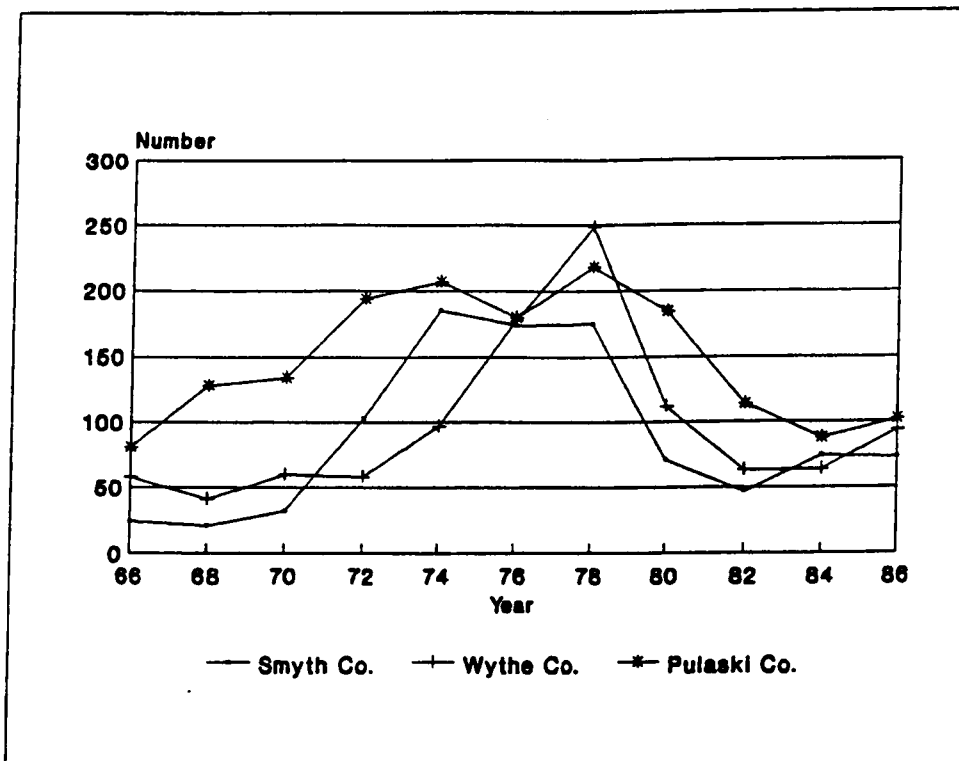


Figure 18. Building Permits Issued for Single-Family Units, 1966-1986, Pulaski, Smyth, Wythe Counties. Sources of Data: Bureau of Census, Housing Units Authorized By Building Permits, Construction Reports, 1966, 1968, 1970, 1972, 1974, 1976, 1978, 1980, 1982, 1984, 1986, 1988 (Washington, D.C.: U.S. Government Printing Office 1967, 1969, 1971, 1973, 1975, 1977, 1979, 1981, 1983, 1985, 1987), 298-299 (1966), 67-68 (1967-68), 309-310 (1969-70), 313-314 (1971-72), 309 (1973-74), 314 (1975-76), 327-328 (1977-78), 320-321 (1979-80), 336-337 (1981-82), 343-344 (1983-84), 245-246 (1985-86).

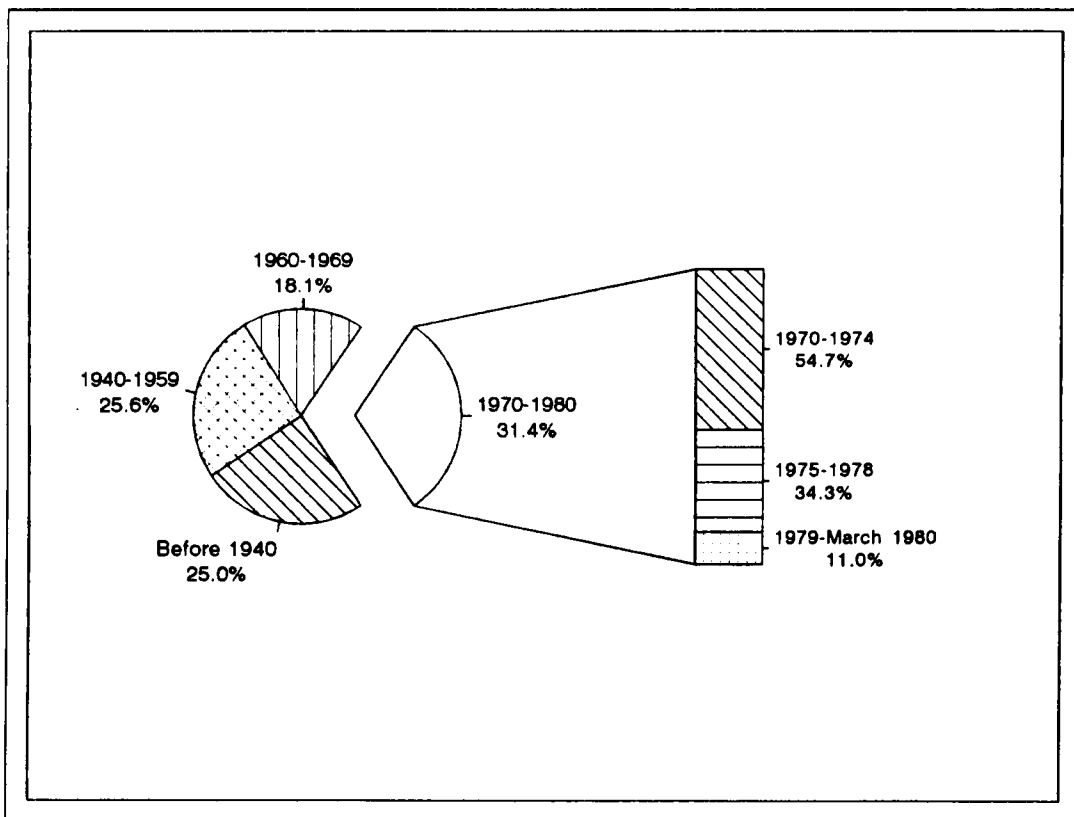


Figure 19. Age-Structure of Rural Housing in 1980, the Study Area. Source of Data: Bureau of the Census, Census of Housing: 1980, Vol. 1, Detailed Housing Characteristics, Part 48 (Washington, D.C.: U.S. Government Printing Office, 1983), 261-263.

Mobile Homes and Rural Housing Changes

The proliferation of mobile homes is one of the most significant changes in the housing composition for the study area. Permits issued to site mobile homes approximate, and in some years exceed, those for conventional, site-built units (Figure 20, Appendix A-5). After 1975, site-built housing barely outpaced mobile home increases, but during the 1980s, mobile home permits were fifty to one hundred percent greater than the number of permits for site-built houses.

Less than ten percent of mobile homes were sited in each of the county seats. Mobile homes made up 12.2 percent of the rural housing inventory in Pulaski County, 14.4 in Smyth County, and 18.3 in Wythe County (Census of Housing 1980b). In 1980, mobile homes were the choice of residence for rural nonfarm households. By contrast, only one to three percent of the farm population occupied mobile homes as residences. By 1980, mobile homes made up a large proportion of the new housing. It was ten percent in Pulaski, 22 percent in Smyth, and 42 percent in Wythe County.⁴

⁴The locational significance of mobile homes in the study area meshes with general locational trends for mobile homes in the United States. The American Housing Survey for 1989 reports that over two-thirds (67.4%) of mobile homes are found in rural areas (including incorporated places with fewer than 2,500 residents). Places meeting the 2,500-10,000 population threshold have the highest proportion of mobile homes in the U.S.

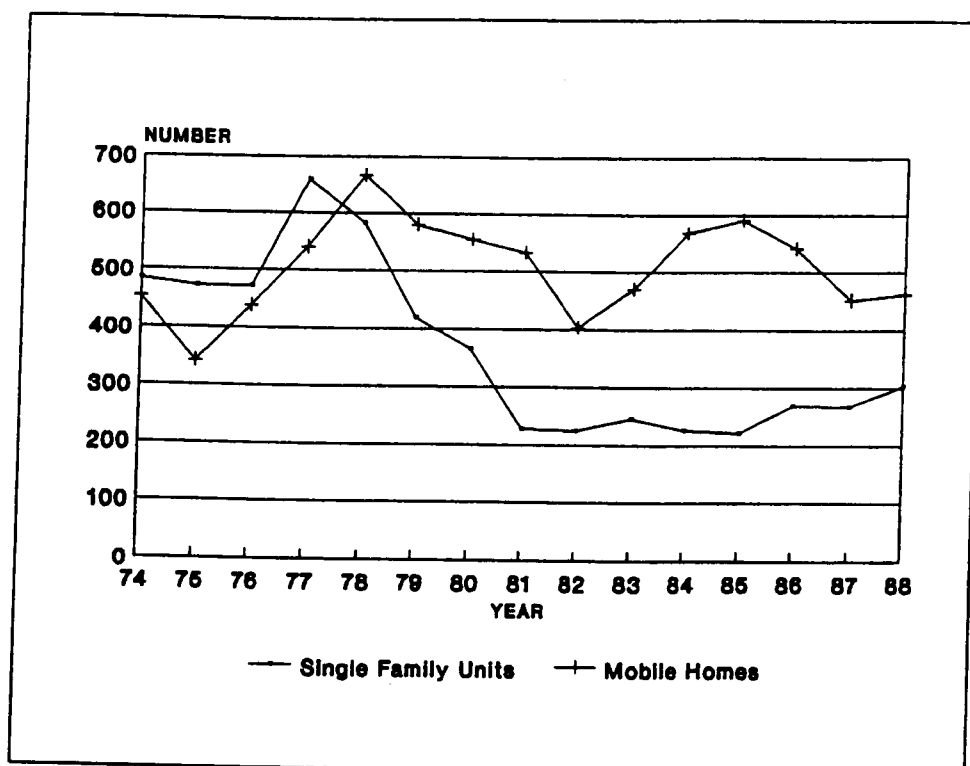


Figure 20. Building Permit Activity for Site-Built, Single-Family Units and Mobile Homes, 1974-1988, the Study Area. Sources of Data: Tayloe Murphy Institute, Housing Units Authorized: Data for Planning Districts, Counties, and Cities, 1974-1979 (Charlottesville: University of Virginia, 1976-1979), and Center for Public Service, Virginia Statistical Abstract, 1986 (Charlottesville: University of Virginia, 1988).

Mobile homes are about one-fourth the cost of site-built housing. The median cost of a single-wide mobile home is about \$27,000, compared with \$120,000 for a newly constructed conventional home (Statistical Abstract 1991). A doublewide costs less than half as much as a conventional house. Cost alone makes mobile homes an attractive option for individuals who would otherwise be excluded from participating in homeownership. In 1970, a single-wide mobile home cost about twenty percent of the cost of conventionally built house, and a multisectioned mobile home cost thirty-five percent of a site-built house (Hwang 1982).

A second advantage to the mobile home is that it can substitute for rental housing in rural areas and small towns (Koebel, Engelen-Eigles, and Cavell 1991). Many individuals who are not financially able to purchase a conventional home and who would otherwise need to rent, could afford a mobile home.

The third advantage is that the mobile home offers is that it may be readied for occupancy quickly. A new mobile home has tremendous appeal to homeowner because it can arrive furnished with appliances and furniture (Jackson 1990). Jackson notes that "for a great many families, the trailer is a sensible way of living. . . and it remains the most practical low-cost dwelling we have and is well-adapted to a way of life that is becoming increasingly common in both urban and rural America" (Jackson 1990, 368).

Disappearance of the Older Housing

The high levels of new house construction and mobile home placements has been accompanied by abandonment, decline, and the eventual disappearance of a substantial proportion of the older housing stock.⁵

To some degree, many houses were left behind prior to the 1960s as the population became more mobile and redistribution took place. Later, the large volume of new house construction and mobile home use brought about upgrading of the housing stock in general. As a result older, substandard units were not being used because of the new additions to the housing inventory (Gilford, Nelson, and Ingram 1981).

Rates of disappearance for the study area's older housing are calculated using comparative data reported by the Bureau of the Census in 1960, 1970, and 1980. For each period, the number of houses reported as having been built before 1940 is compared (Table 9). Comparisons between each time period reveal that the total number reported as having been built before 1940 decreased from 1960 to 1980. The decline in pre-World War II housing stock is indicative of removal of older houses from the inventory.

Figures calculated for the study area reveal that by 1980 at least 2,400 old houses had disappeared from the

⁵Reference to the older housing stock is used to mean houses built before 1940.

rural housing inventory in roughly two decades. This figure does not take into account the number of abandoned houses not yet torn down.

TABLE 9
DISAPPEARANCE RATES FOR RURAL HOUSING BY 1980

County	Houses Built Before 1940 (Numbers Reported For)			Disappearance
	1960 Census	1970 Census	1980 Census	1960-1980
Pulaski	2,277	1,963	1,533	743
Smyth	3,127	2,805	2,402	725
Wythe	3,182	2,573	2,223	959

Sources: Bureau of Census, Census of Housing: 1960, Vol. 1, 1, States and Small Geographic Areas, Part 8, ; Census of Housing: 1970, Vol. 1, Detailed Housing Characteristics Part 48, 232, 234, 237; Census of Housing: 1980, Vol. 1, Detailed Housing Characteristics, Part 48, 261-263 (Washington, D.C.: U.S. Government Printing Office, 1963, 1973, 1983).

In addition, houses built between 1940 and 1960 that may also have been abandoned and torn down have not been accounted for. Hence, the disappearance of housing may, in fact be significantly greater than the table shows.

Older, often substandard houses, were abandoned as new housing options became more available (Gilford, Nelson, and Ingram 1981). New housing seems to be preferred over remodeling old farm houses. Older houses that lacked plumbing (water and bathroom facilities), had poor

insulation, and deficient electrical wiring were often prohibitively expensive to renovate when compared with building a new house or moving into a mobile home. Persons growing up in two-story farmhouses have memories of being cold in the winter, carrying water, and having "outhouse" (outdoor) toilet facilities. When possible these people readily opted for modern housing in their adult lives. Ultimately, upgrading through new housing meant rejection of some older housing. The propensity to abandon older housing notwithstanding, much of the older housing stock continues to exist and provides housing for a segment of the rural population. In most cases, weatherization and plumbing have upgraded old houses now occupied, particularly in cases where residents have opted to carry on tradition by living in the houses that have been passed through families.⁶

The Spatial Pattern of New Housing

By the early 1960s, population, household, and housing changes discussed previously manifested themselves in settlement reorganization.

⁶It is worth noting that older, substandard housing, was relegated to farm laborers at one time. Even in recent years, rural houses that have not been upgraded have been sought out by the rural indigent. Even this phenomenon is changing as low income households opt for mobile home living, or subsidized housing in towns.

Changes for the Study Area

United States Geological Survey (USGS) 1:24,000 series topographic maps were used as the principal source to document the study area's changing housing and settlement patterns. Comparisons were made between 7 1/2 minute quadrangles published about 1960, and photorevisions completed between 1977 and 1985 (Appendix A-6). Comparisons between the U.S.G.S. 7 1/2 minute quadrangles in two different time periods gives a generalized picture of the new housing patterns, and by extension, settlement changes.

The most apparent changes reflect development (1) at the municipal boundary, or in close proximity to towns, and (2) in concert with the interstate/state highway 11-E corridor (Table 10, Figure 21). An estimated 40 percent of all new housing located in conjunction with towns, or the principle transportation corridor. Housing growth also occurred along state highways and county roads, but usually in close proximity to the Interstate 81/State Route 11-E transportation axis.

Each of the county seats saw new housing, mostly in the form of subdivisions or mobile home parks at, or near, the edge of their corporate limits. In the cases of Marion and Wytheville, subdivisions located within the town limits grew and spilled into the adjoining areas, thus creating the fringe housing development effect. Marion experienced

TABLE 10

PRINCIPAL GEOGRAPHIC AREAS IMPACTED BY
POPULATION REDISTRIBUTION

LOCATION	COUNTY	NEW HOUSING	% FOR COUNTY	REDIS- TRIBUTION
Pulaski North	Pulaski	157	5.2	438
Dublin Boundary	Pulaski	592	21.0	1,670
11-E Corridor 2 miles west of Dublin	Pulaski	60	2.7	169
Interstate 81	Pulaski	161	5.8	454
Route 100, north of Dublin	Pulaski	171	6.1	481
Wytheville Boundary	Wythe	237	20.0	666
Fort Chiswell	Wythe	50	4.2	140
Rural Retreat	Wythe	100	8.3	281
Marion Boundary	Smyth	120	4.8	384
Atkins, I-81/11-E	Smyth	50	2.0	160
Seven Mile Ford	Smyth	213	8.6	682
Adwolf	Smyth	170	6.9	544
Chilhowie Boundary & Area South of I-81	Smyth	198	14.0	800
Pleasant Heights	Smyth	150	6.0	480
Allison Gap	Smyth	75	3.0	240

Sources: United States Geological Survey, 1:24,000 Series Topographic Maps for the Study Area, 1958-1985 (Washington, D.C.: U.S.G.S.).

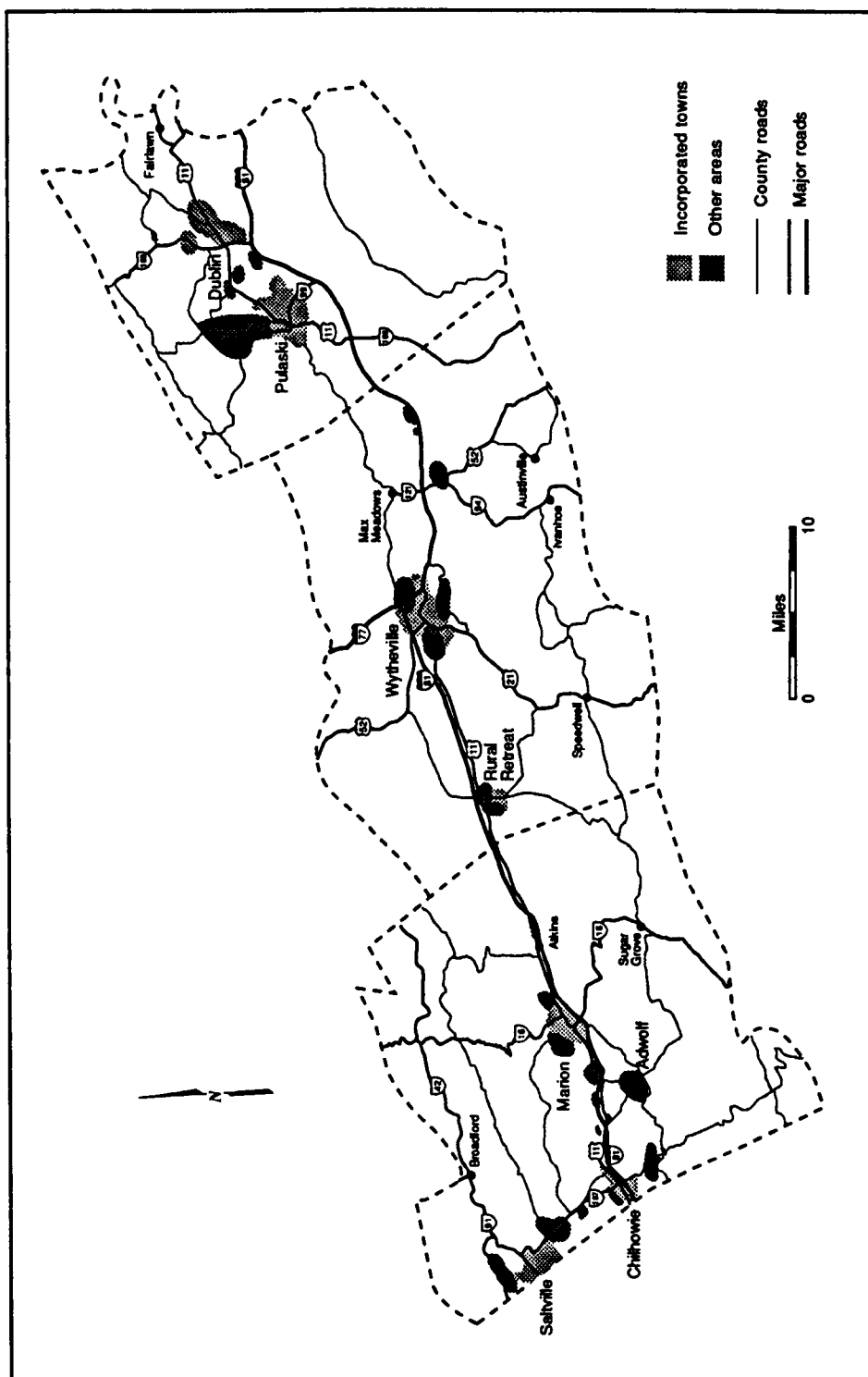


Figure 21. Areas With Most Significant Housing Growth (Other Areas). Map Prepared By Lisa Castle, U.T. Cartographic Services.

the smallest degree of fringe development. Most housing developed on the east side of town just off State Route 11. Wytheville's fringe population was annexed by the late 1970s increasing the town's population by more than 500 (Center for State and Local Government 1989-1990).

Pulaski did not experience the same pattern of growth in that its fringe development was more dispersed. The census designated place, Pulaski North, was the site of most population and housing growth. Growth was seen in the form of four subdivisions-- Gallimore, Tyson Hills, Hilton Village, and Bella Vista.

Fringe housing development were seen in Chilhowie, Dublin, Saltville, and Rural Retreat were as well, with magnitudes that equalled that for the county seats. Small subdivisions and mobile home parks developed at the northern edge of Chilhowie, but the most significant changes took place south of town. Rural Retreat grew on the north and northwest toward the Interstate 81/State Route 11 Corridor. Dublin saw the most significant changes south and east of town near Route 11-E , and close to the Radford Arsenal branch plant to the southeast. The populations living on the fringes of Chilhowie and Dublin nearly equaled that for the towns.

Fringe housing growth (mainly mobile homes) near Saltville took place in the community of Allison Gap in Poor Valley. Pleasant Heights, made up of multiple subdivisions,

developed off state Route 107 at the southern boundary edge of the town of Saltville.

Smyth County as a Case Study of The Geography of New Housing and Rural Settlement Change

Smyth County served as the field laboratory in which to look in greater detail at the geographic patterns manifested by new housing and explanatory factors behind these overall changes. Better data, a more stable population situation, and more indepth field work are reasons for selecting Smyth County for a more in-depth examination.

Block group⁷ level data for housing (conventional and mobile homes) built between 1960 and 1980 in Smyth County were mapped in order to ascertain the geographic pattern of new housing (Figure 22). Building permit counts were then used to point out where the greatest changes were taking place. The geographic pattern of new housing clearly shows that the areas impacted most significantly were (1) the southwestern part of the county adjacent to, and south of the town of Chilhowie, (2) the community of Allison Gap north of Saltville, and Pleasant Heights southeast of the town, (3) the I-81-11-E corridor, including the communities of Atkins, Seven Mile Ford, and the fringe of Marion, and

⁷Block groups are census geographic subdivisions consisting of 1,000 people. In 1980, Virginia elected to use the block group division rather than enumeration districts, although the two mean essentially the same in terms of census geography (Bureau of Census 1980e).

Figure 22. Age-Structure of Housing, 1960-1980, Smyth County. Red color categories indicate areas experiencing highest new housing growth. Triangle symbols represent areas where at least 100 building permits were issued (If viewed as a copy, black and dark gray are the high-growth areas). Source of Data: Bureau of Census, Census of Population and Housing: 1980, Summary Tape File 3-A, Smyth County Data (Washington, D.C.: U.S. Government Printing Office, 1985). Microfiche. Map Prepared by Tom Nolan and Lisa Roberts.

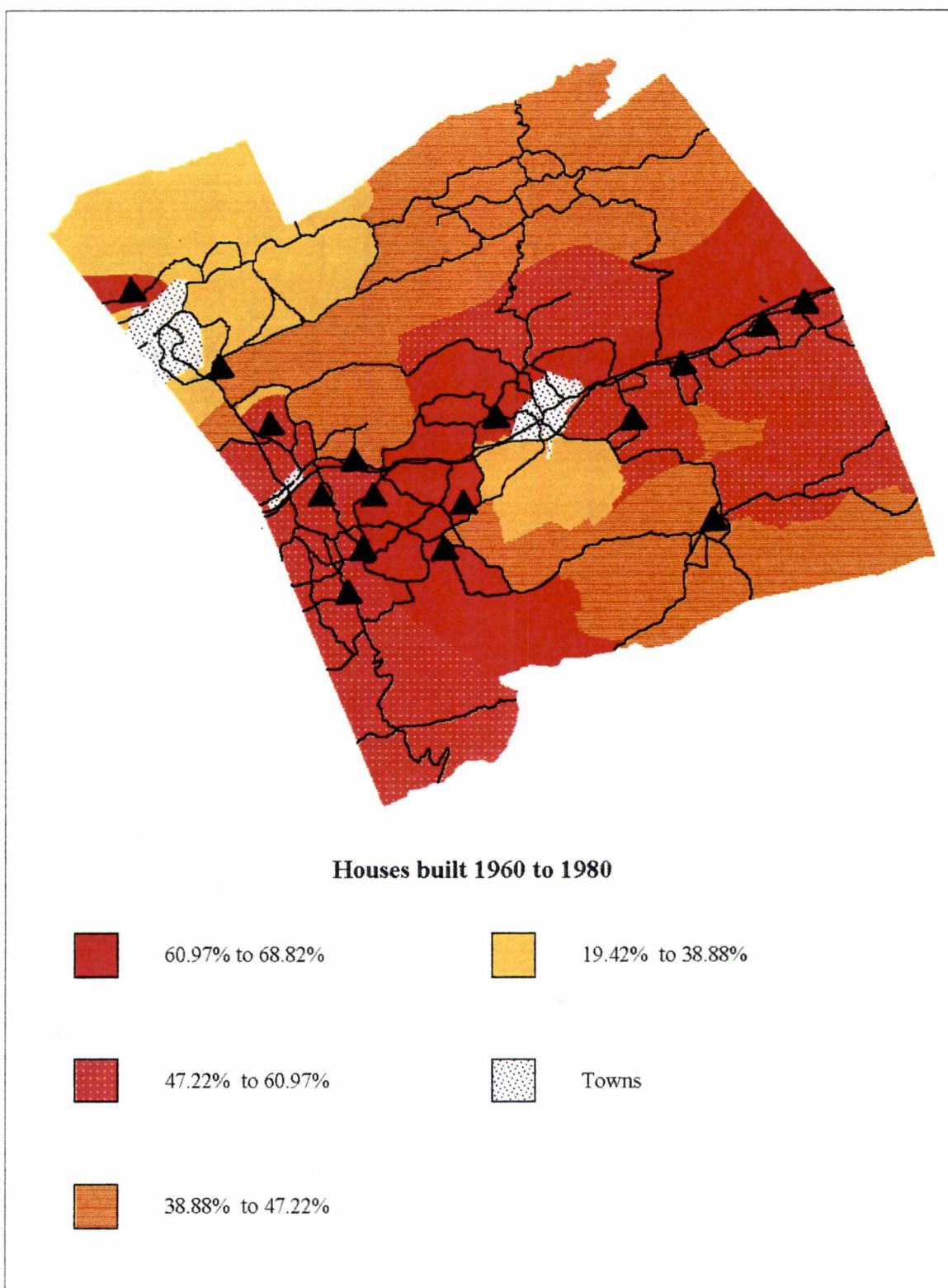


Figure 22

(4) Adwolf. The community of Sugar Grove shows up as having growth of some magnitude as well, although it is secondary to the main areas impacted. A myriad of forms of new settlement in the rural areas evolved as population redistribution took place. Many opted to live dispersed, at low densities, in rural areas, but, by and large, a trend toward a more nucleated settlement form is evident. This includes rural subdivisions and subdivision complexes (two or more subdivisions in the same vicinity which are indistinguishable to the observer), mobile home parks, road frontage lot subdivision, and land partitions for family members. A combination of these settlement forms led to the development of sizeable concentrations of people-- in several cases more than 1,000-- living at relatively high densities in the countryside.

Smyth County adopted a subdivision ordinance in early 1969 as required by the state for all counties "to assure the orderly subdivision of land and its development," and to serve as a "guide for the change that occurs when land and acreages become urban in character as a result of development for residential, business, or industrial purposes" (Smyth County Planning Commission 1983, 1). By definition, a subdivision consisted of "the division of a parcel of land into four or more lots for purposes of transfer of ownership" (Smyth County Planning Commission 1983, 10-11). Divisions of farms for building sites for immediate family

members was excluded from the subdivision ordinance. The initial subdivision ordinance of 1969 was amended in 1977 and 1983 to require that the subdivision roads be brought up to standards that meet Virginia Department of Transportation specifications (S. Spencer 1990). Between 1969 and 1983, close to 50 subdivisions were platted, approved, and recorded. Not surprisingly, their locations were tied closely to the main transportation corridor, or on the fringes of towns (Figure 23).

The availability of land for homesites is key to understanding the spatial pattern of where people ultimately moved in Smyth County during the 1960s and 1970s. As fewer people relied on farming as their main source of livelihood in the post-World War II era, the inherent value of land lay in its value for residential purposes.

Prior to 1960, rural land transfers appear to have been within families. Partitions among heirs (who may have elected to sell their share) were most common. Rural land owners appear to have been reluctant to relinquish land unless a family member was involved. The land tenure system appears to have been a closed one.

By the 1960s, however, rural land tenure changes were apparent. As heirs to farms moved away, moved into town, and in general became disengaged from full-time farming, more rural land became available (Neal 1966). Additionally, many rural landowners may have found it difficult to pay

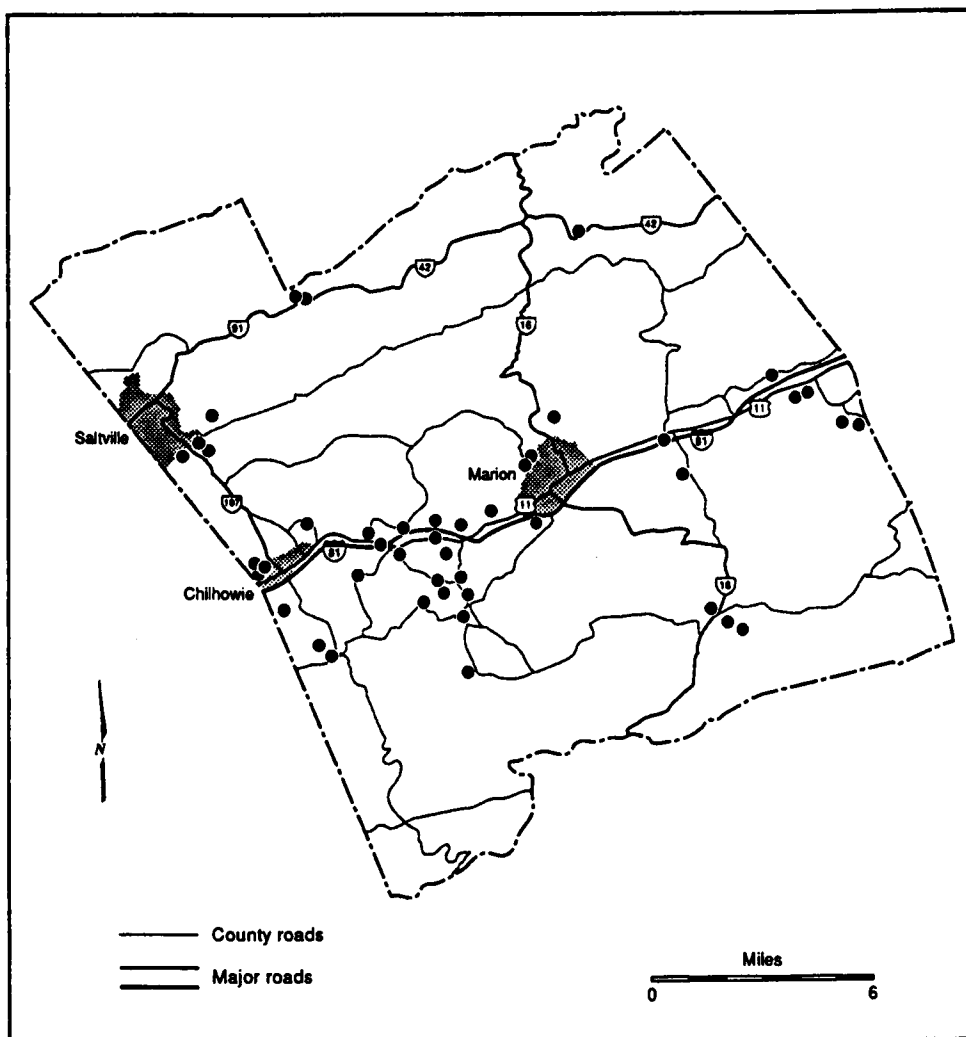


Figure 23. Subdivision Development, Smyth County, 1969-1983. Source of Data: Smyth County Building Inspection Records. Map Prepared by Lisa Castle, U.T. Cartographic Services.

property taxes which induced them to sell at least part of their acreages. During the 1970s, rural land prices soared to an all time high, providing many with an incentive to sell. Finally, the availability of water via community systems appears to have played a decisive role in land becoming available for residential uses.

Adwolf as a Case Study: The New Rural Community

The community of Adwolf was studied in greater detail in order to examine the degree to which new rural communities in Smyth County had developed by 1980.

Aerial photographs of Adwolf and the areas in close geographic proximity were studied to establish the character of the community before 1960. Air photo coverage for 1948 shows cropland and pastureland as the principal land uses. The mosaic of field cropping patterns is telling of the degree to which full-time farming was viable at this time. Farmsteads were the typical settlement form. Most were located away from the main roads, but connected to them by dirt lanes (Tennessee Valley Authority 1948).

Aerial photography coverage for the Adwolf area ten years later, in 1958, reveals evidence of change for the community. Most notable among the changes over the ten year period are: (1) a decrease in the amount of land devoted to crops and a transition to pastureland or land laying idle,

and (2) the initial evidence for new house construction along Route 660 (Tennessee Valley Authority 1958).

One informant who had been a realtor and involved in the initial development of Adwolf in the early 1960s confirms that larger farms, including land that had been in commercial apple production, were being divided into tracts of approximately ten acres which were then further subdivided and sold for residential purposes. Apparently, at the time of the initial development of the Adwolf area, land to build houses on was in short supply in the county in general (Rouse 1989). Prior to that time, the deeply entrenched value placed on land ownership, particularly land that had been held in families for generations, served as a barrier to land exchanging ownership.

Another informant, whose family owned a large farm in Adwolf, related that his father recognized the rural farm to nonfarm transition taking place. It was clear that the land owners adjoining their farm were elderly with no heirs to take up farming since their children had moved away. In the 1960s, recognizing that land was more valuable for residential purposes, the informant bought additional acreages of land as they came up for sale and subdivided some of his own farm (Richardson 1990). Other informants confirmed the conversion of farms to land for residential purposes as a process that has taken place throughout Smyth County over the past decades. The land use conversion was described as

"ongoing and significant", and that "people cannot afford not to " (T. Spencer and Buchanan 1989, Counts 1990). Typically the process takes place as the land owner needs money, and the land subdivision is usually accomplished on a scale to avoid compliance with the county subdivision ordinance. This means that no more than four lots would be subdivided at any one time.

In 1968, the Thomas Bridge Water Corporation (TBWC) began operation as a private water company for the communities of Adwolf, Thomas Bridge, and St. Clair Bottom. The previous year, the community had been granted funding to set up the water system from the Farmers Home Administration (FmHA) through their rural demonstration water programs. The Thomas Bridge Water Corporation may have been the first water system funded by FmHA for rural areas in Virginia. The source for the water system was two springs located not in the community, but in Jefferson National Forest. The water was piped to the 400 households that inititally joined on via eight inch and smaller lines.

The Thomas Bridge Water Corporation began operation with close to 450 connections in 1968, and increased its number of customers as the community developed (Figure 24). In less than ten years, the number of connections had doubled. This reflects housing growth taking place in the late 1960s and 1970s, which is a time period coincident with housing growth throughout the study area. By the late

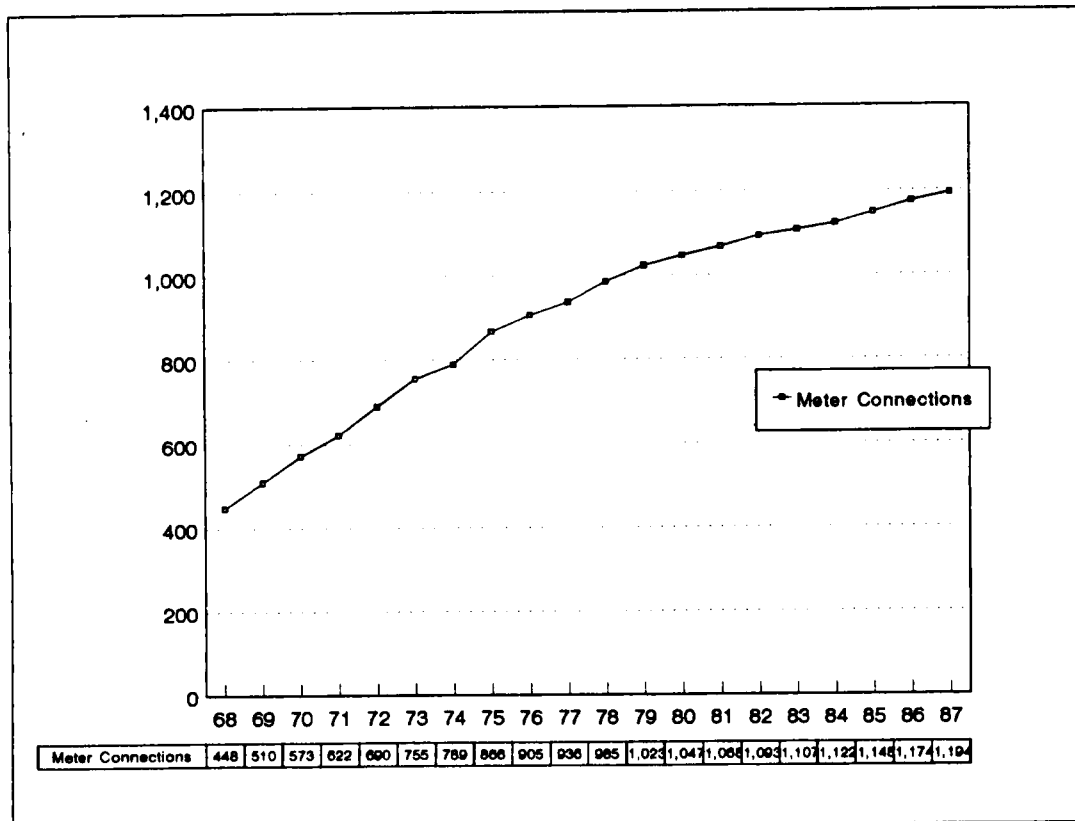


Figure 24. Meter Connections, 1968-1987, Thomas Bridge Water Corporation. Source of Data: Annual Reports of the Water Companies to the Virginia State Corporation Commission, Thomas Bridge Water Corporation, Adwolf-Thomas Bridge Communities. On File.

1980s, the Thomas Bridge System was serving nearly 1,200 rural customers, including about a dozen businesses, a school, numerous churches, and the Adwolf Fire Department.

The presence of the water system appears to have impacted residential growth and development. According to one community resident involved in the inception of the water system and general development of the community in the 1960s and early 1970s, landowners were induced to sell land because of the availability of the community water system. Many saw the water system as a bonus of sorts that ultimately induced them to sell land. At the same time, many areas of the county were experiencing water problems, either in the form of availability or potability (Richardson 1990).

In a 1986 study, a sample of residents of the Thomas Bridge Water Corporation service area were queried as to the importance of the community water system in their decision to move to the Adwolf area. Two-thirds of the respondents of the survey had moved to the area after the water system had begun operating, and the overwhelming majority (79 percent) had moved from elsewhere in Smyth County. Most respondents did not make an overt connection with the existence of the community water system and their move. The exceptions were those who moved to Adwolf from Marion, Chilhowie, or Saltville, who indicated a greater concern over the water supply (35 percent) (Roberts and Morgan

1988).

The degree to which residential development had taken place between 1969 and 1978 in the Adwolf area is clear from U.S.G.S. 1:24,000 maps revised in the late 1970s (Figure 25). The new rural community was defined by six subdivisions (Rolling Hills, Colonial Heights, Highlands, Van Hoy, South Fork Estates, Thomas Heights), and frontage lot subdivisions associated with county routes 660 and 657.⁸

Bureau of the Census 1980 Summary Tape File data for small geographic areas were used to make socioeconomic comparisons between Adwolf and the towns in Smyth County. Adwolf's population was of 1,187 was comparable with that of the town of Chilhowie (population 1,265). Adwolf exhibited a slightly larger household size than the Smyth County municipalities, which may be accounted for by the fact that the towns were characterized by an older age-structure of their populations (9.5 percent for Adwolf

⁸To some degree, traffic counts show the population shifts into the vicinity of Adwolf. Figures for the half-mile segment from State Route 11 (at Interstate 81) to the intersection of secondary road 749 (at Rolling Hills Subdivision) reflect partial traffic flows into and out of the community. The daily traffic count in 1967 was 1,890. By 1979, the figure had increased to 3,807 (Commonwealth of Virginia, Department of Transportation 1967 and 1979). It is acknowledged that some of the increase may reflect households who became two car owners during the period. The presence of the interstate highway at this intersection explains none of the increase in traffic flows because there is no access.

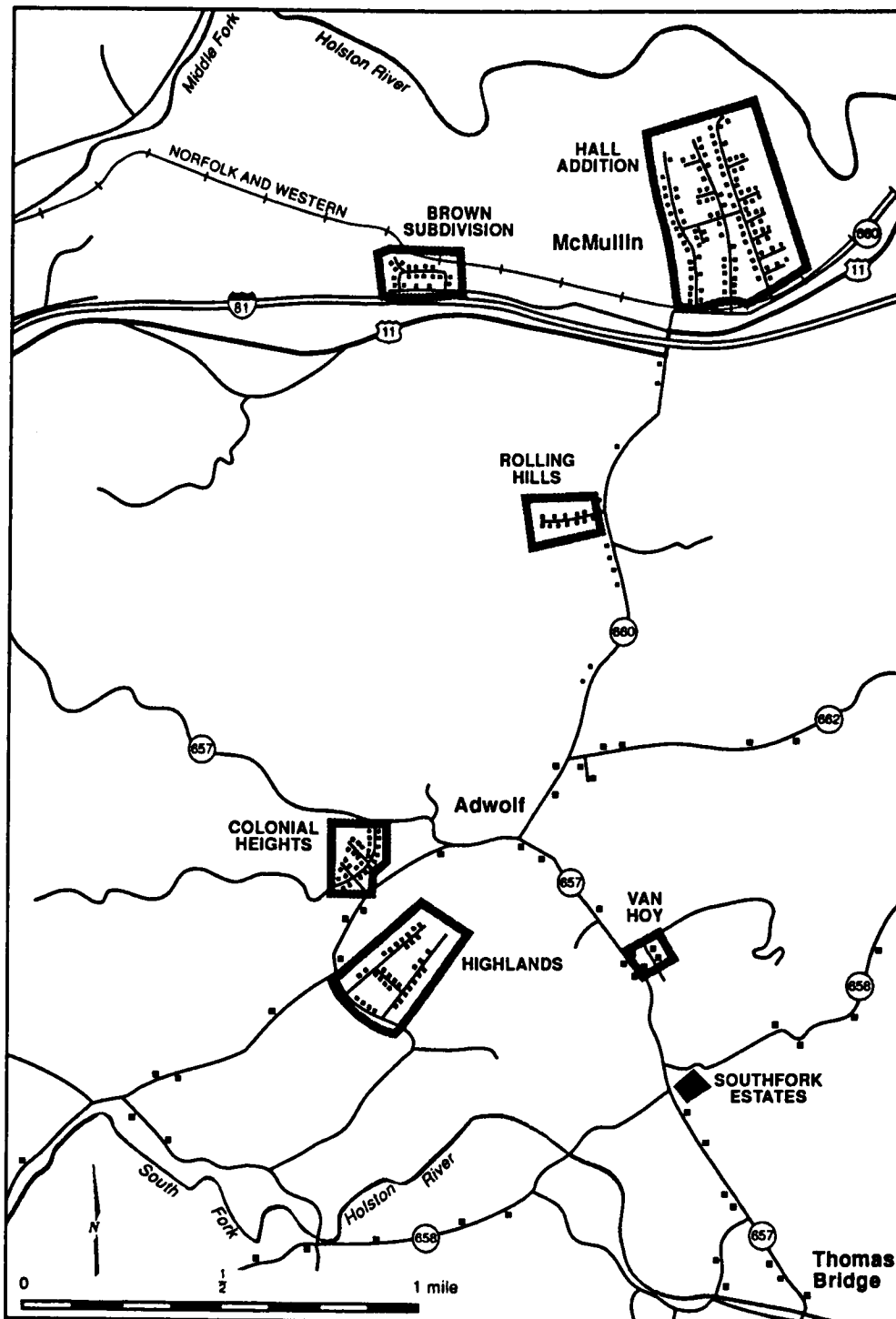


Figure 25. Adwolf and Vicinity: Development by 1980.
 Source: U.S.G.S., 1:24,000 Series, Marion.
 Map Prepared by Lisa Castle, U.T. Carto-
 graphic Services.

versuses over 15.0 percent for Chilhowie, Marion, and Saltville) (Census of Population 1980d).

The community of Adwolf also compared favorably with respect to persons served by water systems and having complete plumbing facilities. In addition, the mean value of owner-occupied housing for Adwolf (\$34,100) was comparable with Marion (\$34,100), and Chilhowie (\$35,500), and higher than for Saltville (\$22,900). Median household income (1979) was greater in Adwolf than for the towns. Lastly, there is no appreciable difference in average commuting times to work when comparing Adwolf, Chilhowie, and Saltville (Census of Population 1980d).

Summary

Changes in housing and the spatial changes of housing patterns are tangible evidence for local population redistribution and settlement reorganization. Changes to the household structure in combination with a sizeable amount of new housing (including mobile homes), and abandonment and the eventual disappearance of a proportion of the older housing stock are the principal housing changes experienced in the study area. These trends mirror national trends to a large degree.

The new pattern of housing that resulted reflects a propensity toward nucleation. The geographic fringes of

small towns, areas near small towns, and the main transportation corridor are the locations where the greatest new housing growth took place. A myriad of settlement forms are represented including rural subdivisions and subdivision complexes, road frontage lot subdivision, and low density, dispersed housing.

Smyth County served as a case study to examine changing spatial arrangements of housing. Adwolf was used as a prototype of the new rural community that had developed by the 1980s. Comparisons of selected socioeconomic variables suggest slight differences between Adwolf and the Smyth County's incorporated municipalities.

In the following chapter, Smyth County again serves as the case study for looking at the mobility behavior of those who were part of the population redistribution taking place.

CHAPTER V

THE ROLE OF THE LOCAL POPULATION IN RURAL SETTLEMENT DYNAMICS

Introduction

The purpose of this chapter is to examine reasons behind local settlement changes. Two principal aspects of the mobility behavior of local residents¹ are examined: (1) their rural backgrounds and the values they seem to hold about residential preferences, and (2) factors that appear to partially explain the selection of particular locations for building a house or locating a mobile home.

Information on the mobility behavior of local residents was collected from a survey conducted among selected informants in Smyth County. Smyth County was selected as the case study for its representative character as a subset of the study area. Smyth County exhibits the most stable population. Overall growth rates have been extremely slow,

¹Local residents are individuals who have not participated in long-distance, long-term outmigration from the study area, and who have lived in the same county for the majority of their lives, that is they are considered to be natives of the area.

and net-migration in the 1965-70, and 1975-80 periods were low. Furthermore, data on change in place of residence between 1975-1980 indicate that to most people who moved stayed in the county (see Figure 15, Chapter III). In addition, the county exhibited high rates of new house construction and mobile home placements, especially in rural areas in the county.

Finally, to sample the population of residents who moved was made easier in this county because of the ready availability of building inspection records.

Survey Methodology

A sample of the population who built houses or placed mobile homes in the study area at some time in the fifteen year period between 1974-1988 was selected. A survey questionnaire was then administered to this sample. Interviews with sampled informants were conducted by telephone in the fall-winter of 1989-1990 using a standardized set of questions (Appendix A-7).

The Survey Questionnaire

The survey questionnaire consists of a series of 23 questions designed to obtain information about the informant's background, movement history, reasons for moving from most recent residence, reasons for building a house or

placing a mobile home at the present location, and about satisfaction with their locational choice (Appendix A-7). The questionnaire design consisted of both open-ended and closed-ended questions. The open-ended format has its drawbacks (Sheskin 1985); however, this type of question is gaining favor in geographic research. Schoenberger argues that "the open-ended interview can capture many of the subtle complexities underlying particular decision-making processes frequently missed by large scale, standardized statistical analysis" (Herod 1993, 305-306).

The Sample Population

Records of the Smyth County Building Inspection Office were used to select the sample population. In late 1973, Smyth County's Building Inspection Office opened with primary responsibility for issuing construction permits and inspecting properties to insure that minimum building and electrical code standards were met prior to occupancy of the dwelling. In addition to issuing permits for houses and mobile homes, the Building Inspection Office also issues permits for business and industry, and remodeling, soil erosion, and building demolition (S. Spencer 1989). The opening of the Building Inspection Office may have been a bureaucratic response to rapid growth in housing, especially in rural areas of the county, and reflects a desire by state government to monitor growth and development through the

mechanism of government institutions.

Between 1974 and 1988 permits were issued for 1,586 site-built houses and 3,343 mobile homes for a total of 4,929 residential permits.² The relatively high number of mobile home permits may include duplicate reporting because if a mobile home is moved, a new permit is required. In addition, there is no way of knowing the number of households who first obtained a permit for a mobile home, but then later built a house.

By comparing the numbers of permits issued for houses and mobile homes, three distinct phases of housing growth emerge: (1) 1974-1978, a period of high permit activity, (2) 1979-1983, a downturn phase largely associated with the national recession during that period, and (3) an upturn and fairly steady increase in permit activity beginning in 1983, although at overall growth rates lower than the mid 1970s. (Figure 26).

The Geographic Grid System

Each residential permit is recorded in three ways (1) by permit number, (2) by the applicant's name, and (3) by the geographic location of the house or mobile home. The geographic location file served as the source from which the

² Of the permits issued, 403 were for homes and 731 were for mobile homes in the three towns in the county.

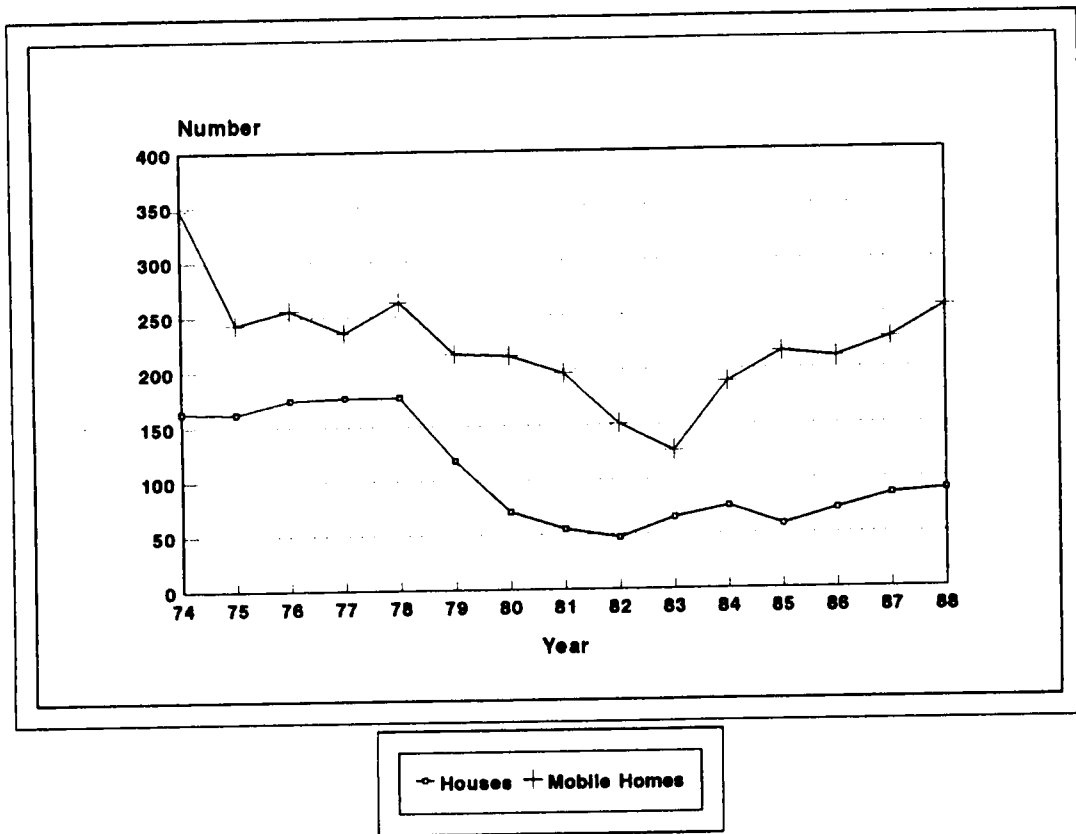


Figure 26. Building Permits Issued for Site-Built (Conventional) Houses and Mobile Homes, 1974-1988. Source of Data: Records of the Smyth County Building Inspection Office, Smyth County Courthouse, Marion, Virginia.

sample population was determined.³

The geographic location grid system is keyed to the Virginia Department of Transportation highway map for Smyth County. The map is subdivided into 95 grids that are approximately one square mile in area. Each grid corresponds to a letter on the horizontal axis, and a number on the vertical axis, which together specify the designation for each grid. The geographic location system used by the Building Inspection Office follows a similar reference system used by the Commissioner of Revenue for organizing and indexing property maps. The geographic grid system apparently originated in the Virginia Department of Taxation as an indexing system for mapping land ownership.

Recording permits by geographic grid location designation means that a rather fine geographical account of new housing locations can be made. In addition to documenting the number of new house construction and mobile home placements, each permit issued details the specific location of

³Use of the geographic grid file in order to select the sample population entailed working with all permits (remodeling, electrical, business and industry, soil erosion) issued for the county between 1974 and 1988. Organization of the permits geographically permitted selection of an areally stratified random sample. To ascertain the total number of residential permits issued for different areas of the county entailed sorting through over 10,000 permits issued in the time period under consideration. The utility of the Smyth County Building Inspection Geographic Grid File notwithstanding, the amount of time involved in extracting the residential permits made the inclusion of Wythe and Pulaski Counties impossible.

the house or mobile home within each grid. This latter designation exists for the convenience of the building inspector when locating the property to make an inspection.

The numbers and types of residential permits issued for each grid were tabulated. Grids were excluded from the tabulation if: (1) no permits were issued (24 grids); this occurred largely in the sections of the county traversed by Brushy Mountain and Big Walker Mountains in the northern section of the county, and mountainous areas included in Jefferson National Forest in the south, (2) the grids that included the boundaries of incorporated places (6 grids), (3) grids that included recreational housing (3 grids) associated with Hungry Mother State Park, and two recreational subdivisions, and (4) grids that had fewer than five total permits issued (10 grids).

Selection of the Sample Population

An (areally) stratified sample of 100 permits were selected at random. The sample population for each grid was weighted to reflect the total number of permits issued for that particular grid. Sample permits were selected using a random numbers table. In addition to the selection of the desired number of permits from each grid, an alternate pool of informants was selected in case the original permit-holder could not be located.

Each household selected to participate in the study was

notified by mail about the survey ahead of time to enhance the individual's understanding of the nature of the survey (Appendix A-8). Prior notification also worked to minimize refusal to participate.⁴ Some persons whose names had been selected from the permit files could not be matched with a telephone listings, thus an alternative householder was substituted.

Analysis of Survey Results

Three groups of residents were identified from the survey (1) local residents, (2) return migrants, and (3) metropolitan-to-nonmetropolitan immigrants (Table 11).

TABLE 11

INFORMANT CLASSIFICATION

Informant Classification	Number (N=100)
Local	79
Return Migrants	15
Metro to Nonmetro Migrants	6

Source: Compiled by author from survey, 1989-1990

⁴Nine households refused participation in the survey. An additional seven households were contacted but deemed unsuitable for inclusion because they were not the same person for whom the original permit was issued (people with same names), or the permit was obtained for a rental situation.

Return Migrants

Return migrants are individuals who were born and raised in Smyth County, but who participated in long-distance outmigration from the area for an extended period of time. These outmigrants "return" at some later point in life to the area in which they grew up. Fifteen informants were classified as return migrants who participated in long-distance migration and relocation for an extended period of time (at least five years). The return migrants interviewed had lived away from Smyth County for an average of 26 years, with a range between 5 and 60 years. In practically all cases, the outmigration of the return migrants was motivated by the search for better employment opportunities. The exception to this is two return migrants who were career military personnel before retiring. The return to Smyth County of these informants was based largely on a desire to be closer to family, or because the return migrant owned property in the county. Both situations, plus attachment to the place in which they grew-up, or as it was often phrased "the desire to come home," served as enticement to return to Smyth County. Two-thirds of the return migrants were not of retirement age and had come back for other reasons.

Metropolitan-to-Nonmetropolitan Migrants

Metropolitan-to-nonmetropolitan migrants are former residents of metropolitan areas who moved to Smyth County. Metropolitan-to-nonmetropolitan migrants may or may not have had previous contact with the area to which they relocated. Five of the metropolitan to nonmetropolitan immigrants moved to the area because of a high value placed on raising children in a rural environment. Another metropolitan-to-nometropolitan immigrant grew up in Rich Valley, moved to Virginia Beach 24 years ago where he practiced small animal veterinary medicine. For the past five years, as he has approached retirement age, he and his wife (a Tazewell County native) have commuted from Virginia Beach monthly for a one week stay on the farm where he grew-up and where his mother lives, and where he built a home. Another example involved a retired couple who moved from suburban Chicago to the Konnarock community where their son and daughter-in-law operate the local medical clinic. In the late 1930s, these particular informants had served as missionaries to the Lutheran church in Konnarock. A similar case is a person who moved from the Minneapolis-St. Paul area to Smyth County to be near her daughter and to help take care of her grandchildren.

Local Residents

Local residents were born, raised, and lived most of their lives in Smyth County, or a county in contiguous to Smyth County. Local residents may have lived briefly (one year or less) outside the immediate area. Seventy-nine of the 100 participants are native to the study area, thus strongly confirming the hypothesis that local residents play an active role in creating new settlement arrangements. Of those classified as local residents, 55 are life-long natives who lived their entire lives in Smyth County. The remaining 24 interviewees were born and raised in a nearby county and moved to Smyth County upon marriage, or because of a family connection. On the average, female informants have lived in Smyth County for 30 years, while male informants had lived in the county on the average of 38 years.⁵

Movement Histories

Informants were asked where they lived before moving to their present residence. The geographic locales of the previous and present residences were compared to establish

⁵For the indigenous residents born and raised in a nearby county: Washington (5), Wythe (4), Roanoke (2), Danville (1), Grayson (1), Tazewell (1), Carroll (1), Bristol (1), Russell (1), Dickenson (1). Other, more distant places of birth were West Virginia (2), Kentucky (1), Fairfax, Va. (2).

movement histories for the sample population.

Three different types of moves were made (1) moves that involved a different dwelling but on the same landholding, (2) moves within the same community, and (3) moves into a new community.

Moves to a Different Dwelling On the Same Landholding

Nineteen of the indigenous informants had made moves that involved moving into a different dwelling on the same landholding. Of the informants whose move involved remaining on the same landholding, two situations exist: (1) the informant chose to build a house or place a mobile home on family land which they had been given or bought, or (2) the informant moved from an older to a mobile home/newer house, or from a mobile home to a newly built house, again on property that had been held in the family.

Moves Within the Same Community

Twenty local residents had moved within the same community. Moves within the same community involved short distance relocations, generally of two miles or less. Often the move involved the relocation from a mobile home park into a house, relocation into a rural subdivision, or placing a mobile home or building a house elsewhere in the same local community in which they were living. Again at least half of local informants moving within the same

community were influenced by family ties.

Local Residents Who Move to a New Community in Smyth County

Forty-eight percent of those interviewed were involved in moves that relocated them to new communities in Smyth County. One-third of those moving into a different community had previously resided in a town (primarily Marion) before moving to their present residence. At least forty percent of those relocating longer distances to different communities stated that a family connection existed in the community, and that this connection had influenced their decision to build their current house or place their mobile home.

The Decision to Move

Informants were asked why they moved from their previous residence. Local residents, whether living in mobile homes or in houses, cited four considerations when making the decision to move (1) lifecycle, (2) finances, (3) employment, (4) the desire for improved housing, or for a perceived improvement in the informants living situation (Table 12).

Lifecycle Considerations

Lifecycle considerations-- marriage, divorce, death of a spouse, an expanding family-- were important determinants when deciding to move. For about one-fourth of local residents, a lifecycle stage became the primary impetus to seek different housing. Marriage as a rite of passage

TABLE 12

REASONS GIVEN FOR MOVING TO MOST RECENT RESIDENCE

REASON	INFORMANT LIVING IN	
	HOUSE (N=48)	MOBILE HOME (N=31)
Lifecycle Considerations	11	10
Financial Considerations	5	4
Employment Considerations	9	5
Improved Living Situation	23	12

Source: Compiled by author from survey, 1989-1990.

is defined by the formation of a new and separate household for most, and divorce usually mandates dissolution of an established household, and the search for a different place of residence for at least one, perhaps both, of the people involved. Likewise, the death of a spouse often means making an alternative housing arrangement, often for financial reasons, or to realize symbolically the beginning of one's life as a widow or widower in a new place. Lastly,

the addition of children prompt a need for additional space leading informants to seek a larger dwelling in which to live.

Financial Considerations

A relatively small proportion of those interviewed-- 12 percent-- expressed financial considerations for moving from their previous residences. Financial considerations as a rationale for moving differed for mobile home and house dwellers. As a rule, mobile home dwellers opted for mobile home living as a strategy involving changing from paying rent to home ownership. For house dwellers, financial considerations as the reason for moving were explained also in terms of the decision to switch from renting to the financial (among other) benefits of owning a home. In addition, a relatively minor proportion of informants interviewed stated that the opportunity to take advantage of housing financing through the Farmers Home Administration played a role in their decision to move from their previous residence. In one case, a former resident of Marion moved out into the county to escape Virginia's double taxation policy, whereby residents of towns pay both county and town real estate and personal property taxes.

Employment Considerations

Approximately one-fifth of the indigenous informants

cited the desire to be close to their (or their spouse's) place of work as the reason they moved. The relative weakness of employment in explaining the decision to move may reflect the propensity and mind-set of the area's residents to participate in long-distance commuting, especially when they do not perceive themselves as being disadvantaged economically by doing so. In addition, proximity to work may be minimized by the fact that the Interstate 81/Highway 11 corridor-- the site of the vast majority of employment opportunities in the county and in surrounding counties-- bisects Smyth County. Thus no matter where one lives in the general area, commuting distance and time are minimized.

Improved Housing

The most often cited response to the question of why an informant had moved from his or her previous residence related to the desire for improved housing, or an improved living situation. Close to sixty percent of all informants explained their reason for moving in terms of the desire to acquire what was perceived as better housing. For many, better housing meant the transition from living in a mobile home to a building a house. For others, moving from an older home to a modern one (be it a mobile home or a site-built house) was, for the informant, an improved living situation. For several mobile home dwellers, moving from a

trailer park with its perceived disamenities, constituted a better living environment.

A sizeable group expressed their desire for moving from their previous residence simply in terms of having built a house elsewhere. For this group, one can surmise that homeownership was a social and economic priority. For this group, the "pull" factors to the new location overrode any "push" factors from the previous residence.

The Move to the Most Recent Residence

Informants were asked two questions pertaining to the reason they had moved to their present residence. The first was an open-ended question as to why the informant had chosen the location of the present residence; the second asked the informant to indicate the importance of a specified list of factors considered to be potentially influential in the residential decision-making process.

The Land Factor

Upon being questioned about reasons for moving to the location of their present residence, local residents, as a rule, largely viewed their decision in terms of land availability, or related to the attributes of land or location. Mobile home and site-built house dwellers tended to view their choice of location in terms of land being available to build a house or upon which to place a mobile

home, or the location of the land having some inherent quality that they valued personally. Despite mobile home and site-built house dwellers declaring the significance of land in their decision, a fundamental difference exists between the search for land on which to build a house, and on which to place a mobile home. One difference lies in land being selectively unavailable for mobile homes. Adverse attitudes toward mobile homes often extends to the mobile home dweller per se. Often property owners who have land for sale will not sell to individuals planning to place a mobile home on the land. The reason for denying land sales to mobile home dwellers include beliefs that adjoining residential property thereby depreciates in value, or is in bound-up in negative stereotypes associated with mobile homes and their residents.

Sixty-three percent of informants who had built houses (30 of 48), attributed their present location directly to land availability. Another nineteen percent (9 of 48) specified that some attribute of the land-- peace and quite of the location, farm environment, space for a garden, existence of an orchard, privacy, the view-- contributed significantly to their decision to locate where they did. For informants who saw their situation in terms of land availability, two groups emerge (1) individuals who found land that met their locational criteria, and (2) individuals whose decision related to locating on family land.

Over one-half of informants living in mobile homes, and close to half of the informants residing in houses, stated that the choice of their present home was related to the availability of family land. Some informants had been given land outright by a parent or grandparent. Other informants had purchased the land from a family member. Analysis of informants responses to a list of factors considered influential in the residential location decision are discussed below and further corroborate the significance of land in the residential decision-making process.

Factors Having a Bearing on the Decision to Move to a Present Residence

Informants were asked which of eight pre-determined factors had any influence on their decision to move to the location of their present residence (Table 13).

TABLE 13

POTENTIAL FACTORS INFLUENCING THE RESIDENTIAL
LOCATION DECISION

Factor	
(1)	Availability of Public Water
(2)	Availability of Public Sewer
(3)	Access to Place of Work
(4)	Importance of Living in the Country
(5)	Financing Options Through Government Programs
(6)	Importance of Living Near Relatives
(7)	Location is Considered a Nice Neighborhood
(8)	Land Availability

The eight factors were selected to be tested for an array of reasons. An extensive literature exists on the employment factor as a determinant in where individuals will choose to reside. A growing literature focusing on public infrastructural provision--water and sewer-- also suggests that individuals take the availability of utility services into account in making the decision where to live (see Fisher 1979; Joseph and Smit 1985). Likewise, the literature suggests that government housing financing programs influence the residential location decision. The "living in the country" factor reflects a potentially high value placed on the amenity of rural environments which one would expect from rural dwellers. Living in close geographic proximity to one's relatives was tested because of the value rural people have traditionally placed on family. The neighborhood factor was included to gauge the extent that rural community influenced the residential location decision. Land availability as a factor was considered influential because it becomes the basic prerequisite for building a house or placing a mobile home.

Informants were asked to indicate whether or not each factor was influential in their residential location decision. Four factors emerge as being most significant to informants (Table 14).

TABLE 14

RANKING OF FACTORS HAVING A BEARING ON THE
RESIDENTIAL LOCATION DECISION

FACTOR	PERCENT INDICATING INFLUENCIAL
Location is Considered a Nice Neighborhood	93.0
Importance of Living in the Country	89.0
Land Availability	88.0
Importance of Living Close to Relatives	66.0
Availability of Public Water	28.0
Access to Work	25.0
Financing Options Through Government Programs	12.0
Availability of Public Sewer	4.0

Source: Compiled by author from survey, 1989-1990.

The following section discusses the relative importance of the factors:

The Neighborhood Factor

Informants overwhelmingly perceived the location of their residence as being a nice neighborhood. The rural neighborhood is the most basic unit of geographical and social organization. Positive perception of one's neighborhood undoubtedly is linked with a broader concept of rural community--"a group . . . composed of people in communication and together geographically with common interests or ties. A community is simply one kind of group in which membership is based on locality" (Rogers and Burdge 1972 quoted in Gilig 1985, 80).

The Importance of Living in the Country

Ranking second overall among the factors considered influential is the importance of living in the country. Informants placed a high value on the importance of living in the country, and considering the predominantly rural backgrounds of the informants, the importance they attach to living in the county is not surprising. Informants exhibit a strong attachment to the rural area in which they had chosen to live.

Land Availability

Land availability proved again to be of significance when informants made their decisions regarding where to reside. Especially evident was a strong sentimental attachment to land, especially land that had been passed through a family through the generations

"Land may be an important expression and to an extent, the creation of these close family bonds, individuals expressing their affinity for a particular family by seeking to own land and live in a community and by the same token, family members exhibiting their close ties to them by making land . . . available" (Bryant 1981, 78).

In addition, living on family land that has been passed through the generations suggests family residential continuity (Bryant 1981).

The Importance of Living Near Relatives

The importance of living in geographic proximity to relatives-- particularly parents, grandparents, siblings, or children-- was indicated as significant to two-thirds of the informants. Undeniably, an association exists between living on family land and living in close geographic proximity to relatives. The importance informants attached to living near relatives suggests the continuance of a high value placed on the family in rural areas.

Ranking of Factors Considered Influential

Informants were asked to rank the two factors that were most important in his or her residential location decision. The factors that were ranked as being most important were (1) land availability, (2) living in the country, and (3) living close to relatives. The neighborhood factor was rarely mentioned by informants as ranking among the two most important factors having a bearing on the locational decision, despite the overwhelming majority of informants indicating that it was important for them to live in a neighborhood that was perceived as being nice. On the other hand, land availability, living in the country, and living close to relatives were frequently ranked as being the most important factors influencing the residential decision.

Factors That Were Rather Unimportant To Informants

One-fourth or fewer of those questioned considered public water, public sewer, government financing, or accessibility to employment important. These four factors were consistently ranked as being least important to informants when making their decisions of where to reside.

What Residents Like About Living Where They Do

When questioned about what they like about living where they do, a number of common responses were given. Among the most frequently mentioned likes were a high value placed on open space and privacy, peace and quiet of rural living, good neighbors, and natural amenities such as the mountain view, clean air, and perceived attractiveness of the landholding. When asked their degree of satisfaction with their location, residents overwhelmingly expressed a high degree of satisfaction. Eighty-four informants indicated that they were very satisfied with their residential location, and another fifteen responded that they were somewhat satisfied with their choices. The sole informant who expressed dissatisfaction was a return migrant who had moved back to Smyth County upon retirement after a forty year hiatus, who did not find the sense of community he knew before moving away, but who had inherited property from his parents and did not want to see anyone else have it.

What Residents Dislike About Living Where They Do

The overwhelming majority of residents were not able to express things that they disliked about living where they do. Most informants had no dislikes and the few who expressed some dissatisfaction couched it in terms of one of the following: constant traffic, distance to work and to buy groceries, water problems, difficulty of getting out in winter if the weather is bad, wind, topography too steep, mobile home crowding.

Summary

Telephone interviews with a sample population that represented individuals who built houses or sited mobile homes in Smyth County provided information on behavioral aspects of mobility behavior of rural residents in the 1970s and 1980s. The survey results confirm the importance of local residents in the intracounty population redistribution process. The principal reasons underlying decisions to leave a residence are largely related to lifecycle considerations and a desire for improved housing. Selection of new residence appears to have been most related to land availability, a value placed on life in the country, and a desire to live in close geographic proximity to relatives. The overwhelming majority of residents expressed a high-degree of satisfaction with their choice of residence. The principal difference between mobile home and conventional-built house informant's mobility

behavior reflected land availability for their new dwelling.

CHAPTER VI

CONCLUSIONS

The principal focus of this study has been an examination of the relationship between population redistribution and restructuring of rural settlement using an Appalachian Ridge and Valley case study. The purpose was to assess the degree to which local populations in nonmetropolitan settings undergo redistribution within the framework of demographic, economic, and social trends at national, regional, and local geographic scales. The emphasis in this research on local scale redistribution of population and related structural changes in rural settlement and housing is a significant contrast to most previous geographic research on nonmetropolitan population change. Such previous research has generally emphasized interregional migration and focused on the descriptive analysis of net-migration changes.

The structure of rural settlement for the study area remained essentially unchanged from the nineteenth century until the 1950s. As agricultural restructuring took place and employment opportunities outside of agriculture pre-

sented themselves, residents living in the study area reassessed where they wanted to live. In a relatively short period of thirty years, the Southwest Virginia Ridge and Valley experienced rapid changes to its landscape and character.

The Southwest Virginia Ridge and Valley has been transformed from a rural economy and lifestyle that stressed small-scale, general farming and a quasi-subsistence way-of-life to one that emphasizes off-farm employment in manufacturing and services, and part-time farming, and rural nonfarm lifestyles. The decade of the 1940s is considered to be a watershed, although the most precipitous changes took place after 1950.

In the 1940s and 1950s, the study area began to experience outmigration paralleling similar trends for much of the Southern Appalachian Region. But, as this study shows, perhaps the most important aspect of population redistribution at this time relates to rural-to-urban moves taking place within the counties, and within the Ridge and Valley region itself. County seat towns were principal beneficiaries of these intracounty and intraregional population movements. The consequences of this localized population redistribution trend was farm family depopulation, less emphasis on full-time farming as a livelihood and, and a general economic decline as manifested by abandonment of small rural service centers, farm

structures, and housing, and land use shifts from cropping to less intensive land uses.

From about 1960 to 1980, a new structure of settlement emerged. At the national scale, the trend of population redistribution was one of metropolitan-to-nonmetropolitan shifts with a general propensity for deconcentration of settlement. At the local scale, as represented by the Southwest Virginia Ridge and Valley study area, the redistribution trend likewise was one of deconcentration of settlement. For the most part, small towns with less than 2,500 residents and the rural countryside showed the greatest gains in population growth. For the study area, some of the growth represents local urban-to-rural population shifts, but much of this trend reflects a decreasing propensity for rural residents to leave their rural environs as commuting to work became more common. Part-time farming also became commonplace. Although explicit connections between part-time farming and residential mobility were not assessed in this study, it is my strong impression that land use shifted to grazing of beef cattle, or raising tobacco which supplemented nonfarm incomes or permitted a familiar way-of-life to continue but requiring much less time, either daily or seasonally.

Accompanying the population shifts taking place between 1960 and 1980 were elements of change to the character of rural areas in the Southwest Virginia Ridge and Valley that

seem to reflect the changed social and economic milieu. The key manifestation of local population redistribution was a rapid increase in new house construction and mobile home sitings. New rural residential infrastructure created a rural housing boom. These local rural population shifts led to changing spatial patterns of new housing and a concomitant reorganization of rural settlement within the study area. Fringe housing developments at the edges of towns, rural subdivisions, and lots subdivided off state and county roads lent an aura of urbanization to the appearance of the rural landscape.

By 1980, the geographic character of rural areas and small towns was in direct contrast to dispersed settlement and rural milieu of forty years earlier. In a relatively short time, the rural landscape of Southwest Virginia had undergone the most significant restructuring since it was initially settled.

Smyth County served as the focus to examine explanatory factors that account for residential changes. One of the most significant overt determinants for residential change was tied to land availability. One impact of rural decline in the immediate aftermath of World War II was changing rural land tenure. Ideas about the inherent value placed on rural land for its productive capabilities in the small-scale, general farm milieu changed as fewer and fewer people pursued farming as the sole source of their livelihood.

Prior to 1960, the common trend was for rural land to be partitioned among family heirs, and subdivision of farms into smaller parcels. All indications were that rural land was kept in families, many of whom traced their ownership to the early settlement period. Along with rural depopulation and decline in the immediate post World War II era, and the demand for land for house sites that accompanied population growth for rural areas in the post 1960 period, the market value of rural land shifted from its agricultural productive value to its value for residential purposes.

The geographic areas with the most active land sales conversions for residential purposes tended to be areas where community water systems existed in the county. This is particularly true of areas (1) on the periphery of towns whereby municipalities extended services to the surrounding hinterland, (2) along the interstate corridor, and (3) along roads where rural water lines were extended. This correlation of new housing and public or private water systems served as an inducement to make rural land available for residential purposes in Smyth County.

The national trend toward high land prices, particularly during the 1970s, no doubt was a significant factor motivating land owners to make farm land available for residential purposes. As a result, some of the land most suitable moved out of farm uses.

The attitudes and perceptions of the people involved in local population redistribution underscores land availability and ready access to paved rural roads as key factors to where they moved. The availability of land or some attribute of the land's location were cited as important considerations in the decision where to build a conventional house or place a mobile home. For mobile home dwellers, land was often selectively unavailable because of prejudices against mobile homes. For those building houses, the availability of land, or a perceived attribute of its location, such as peace and quite, the rural environment, open space (especially for gardening and orchards) were reported as important factors.

For both conventional and mobile home dwellers, the availability of family-owned land was a frequently cited as a reason for their choice of a new residence. Some land was given outright to family members for house sites, while mobile home dwellers often had user rights. Despite what appears to be an overt connection between rural areas where development was greatest and the existence of public or private water, informants did not rationalize their residential choice in water availability. This is borne out by a 1986 survey of residents who were living in the Adwolf community.

Further noteworthy discoveries with respect to residential mobility involved living in a country setting, having a sense of rural neighborhood, and a high value placed on living near relatives. Concerning the latter factor, the author recognizes that family land availability by definition means living in close geographic proximity to other family members. Nevertheless, the informants clearly projected a strong sense of kinship ties. The connection between family ties and residential choice is consistent with, and elaborates on, the importance that has been made in other studies about the Appalachian Region. At the same time, the value placed on family, on living in the country, and a sense of rural community all seem to reflect inherent cherished values which have persisted in the face of geographic changes for rural areas.

Though this study confirms the numerous accounts in the published literature that document a surge of population growth for rural areas and small towns in the 1970s-- the so-called rural revival-- it establishes that the movements of local residents to be a primary catalyst behind the changes taking place. Within context of the Southern Appalachian Region, this means that people who stayed behind and did not leave the region in search of perceived opportunities elsewhere had a central role in rural settlement redistribution. This was their response to assimilation into mainstream culture.

The local rural nonfarm population studied herein basically represents the same cohort of people (or their children) who were once deeply engaged in rural farm life. The transition they experienced reflects the spread of mass culture into nonurban settings, and the modernization of rural life. Rural areas, and specifically those in the Appalachian Region, benefited from road improvements, federal and state grants for hospitals, community colleges, water projects, and industrial parks, cable television and telephones. The pervasiveness of the automobile overcame geographic isolation for rural people. The relative isolation of rural areas as settlement sites was greatly reduced while at this time urban America was seeing its reputation being soured.

The Potential for Population Redistribution and Settlement Restructuring in the Future

In all likelihood, rural settlement restructuring as it occurred in the decades after 1960 was a once in a lifetime experience for the study area. The synergistic effect of the ingredients that produced the changes will not be duplicated in all probability. At least three reasons can be offered to support this conclusion.

First and foremost, redistribution of the local population of the study area is rooted in economic restructuring that took place in the post-World War II era.

As fewer people were tied to the farm as their main source of livelihood, and as employment options became available in nonmetropolitan manufacturing, land use change took place. Part-time farming kept agriculture functioning, but others rural landowners opted to sell all or part of their holdings. In that the fundamental shift from small-scale, general farming to an emphasis on manufacturing and part-time farming is fait accompli, so too is the impetus to relocate based on the changes taking place.

The second set of circumstances that are unlikely to be repeated in one time period involve national trends that related to housing financing, land prices, and government expenditures for public infrastructure. The favorable financial climate for homebuilding of the 1960s and 1970s in conjunction with rapidly rising land prices created a situation whereby the value of rural land lay in its use for residential purposes. At the same time, generous government expenditures for the construction and extension of public water systems in rural areas, and on the fringe of small towns served as incentive to sell land. Lastly, government expenditures to improve federal, state, and county roads help to upgrade the rural infrastructure and served as an inducement to live in the country.

The third and final reason settlement restructuring will unlikely to be repeated on the scale of the 1960-1970s, and with the same rapidity, is tied to the demography of the

study area's population. Today, the Southwest Virginia Ridge and Valley study area counties are among those in the Southern Appalachian Region that have an older age-structure, with high percentages of the population over 65 years of age. In addition, present trends show renewed outmigration of the younger population. As far as the local population goes then, there are fewer people who might engage in local settlement redistribution.

I have argued that the local population shifts have had a significant impact on changes that have come to rural areas. Additional research is needed to ascertain the degree to which local populations have brought about rural settlement restructuring in other geographic settings where general farming underwent a transition to part-time farming and off-farm employment. In the final analysis, the impacts of local residents on the changing geographic character of rural areas may be far more pervasive than documented herein.

BIBLIOGRAPHY

BIBLIOGRAPHY

I. Bureau of the Census Publications

U.S. Department of Commerce. Bureau of the Census. Census of Agriculture. 1940. Volume 1, Statistics for Counties. Part 3, South-Atlantic U.S.. Washington, D.C.: U.S. Government Printing Office, 1942.

_____. 1945. Volume 1, Statistics for Counties. Part 15 Virginia and West Virginia. Washington, D.C.: U.S. Government Printing Office, 1946.

_____. 1954. Volume 1, Counties and State Economic Areas. Part 15, Virginia and West Virginia. Washington, D.C.: U.S. Government Printing Office, 1956.

_____. 1964. Volume 1, State and County Statistics, Part 24, Virginia. Washington, D.C.: U.S. Government Printing Office, 1967.

_____. 1974. Volume 1, State and County Data. Part 46, Virginia. Washington, D.C.: U.S. Government Printing Office, 1977.

_____. 1982. Volume 1, Geographic Area Series: State and County Data. Part 46, Virginia. Washington, D.C.: U.S. Government Printing Office, 1984.

_____. 1987. Volume 1, Geographic Area Series: State and County Data. Part 46, Virginia. Washington, D.C.: U.S. Government Printing Office, 1989.

U.S. Department of Commerce. Bureau of the Census. Census of Housing. 1960a. Volume 1, States and Small Areas. Part 1, U.S. Summary. Washington, D.C.: U.S. Government Printing Office, 1963.

_____. 1960b. Volume 1, States and Small Geographic Areas. Part 8, Texas-Wyoming. Washington, D.C.: U.S. Government Printing Office, 1963.

_____. 1970a. Detailed Housing Characteristics, U.S. Summary. Washington, D.C.: U.S. Government Printing Office, 1972.

- _____. 1970b. Detailed Housing Characteristics. Part 48 Virginia. Washington, D.C.: U.S. Government Printing Office, 1972.
- _____. 1980a. Volume 1, Characteristics of Housing Units. Chapter B, Detailed Housing Characteristics. Part 1, U.S. Summary. Washington, D.C.: U.S. Government Printing Office, 1983.
- _____. 1980b. Volume 1, Characteristics of Housing Units. Chapter B, Detailed Housing Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1983.
- _____. 1990a. Volume 1, Detailed Housing Characteristics. Part 1, United States. Washington, D.C.: U.S. Government Printing Office, 1991.
- _____. 1990b. Volume 1, Detailed Housing Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1991.
- U.S. Department of Commerce. Bureau of the Census. Census of Manufacturing. 1954. Volume 3, Area Statistics, United States. Washington, D.C.: U.S. Government Printing Office, 1958.
- _____. 1987. Geographic Area Series. Virginia. Washington, D.C. 1990.
- U.S. Department of Commerce. Bureau of the Census. Census of Population. 1940. Volume 2, Characteristics of the Population. Parts 2 (Florida-Iowa), 3 (Kansas-Michigan), 5 (New York-Oregon), 6 (Pennsylvania-Texas), 7 (Utah-Wyoming). Washington, D.C.: U.S. Government Printing Office, 1943.
- _____. 1950. Volume 2, Characteristics of the Population. Parts 2 (Alabama), 12 (Georgia), 17 (Kentucky), 33 (North Carolina), 42 (Tennessee), 46 (Virginia-West Virginia). Washington, D.C.: U.S. Government Printing Office, 1952.
- _____. 1960. Volume 1, Characteristics of the Population. Parts 2 (Alabama), 12 (Georgia), 19 (Kentucky), 35 (North Carolina), 44 (Tennessee), 48 (Virginia), and 50 (West Virginia). Washington, D.C.: U.S. Government Printing Office, 1963.
- _____. 1970a. Volume 1, Characteristics of the Population. Part A, Number of Inhabitants. Section 1

(U.S., Alabama-Mississippi), Section 2 (Missouri-Wyoming and Outlying Areas). Washington, D.C.: U.S. Government Printing Office, 1972.

_____. 1970b. Volume 1, Characteristics of the Population. Part B, General Population Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1973.

_____. 1970c. Volume 1. Characteristics of the Population. Chapter C, General Social and Economic Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1973.

_____. 1980a. Volume 1, Characteristics of the Population. Chapter A, Number of Inhabitants. Parts 2 (Alabama), 12 (Georgia), 19 (Kentucky), 35 (North Carolina), 44 (Tennessee), 48 (Virginia), and 50 (West Virginia). Washington, D.C.: U.S. Government Printing Office, 1982.

_____. 1980b. Volume 1, Characteristics of the Population. Chapter B, General Population Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1982.

_____. 1980c. Volume 1, Characteristics of the Population. Chapter C, General Social and Economic Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1983.

_____. 1980d. Census of Population and Housing. Summary Tape File 3-A. Virginia. Washington, D.C.: U.S. Government Printing Office, 1985. Microfiche.

_____. 1980e. Census of Population and Housing. User's Guide. Part B, Glossary. Washington, D.C.: U.S. Government Printing Office. 1982.

U.S. Department of Commerce, Bureau of Census. 1981. Statistical Abstract of the United States. 102nd edition. Washington, D.C.: U.S. Government Printing Office.

_____. 1988. County and City Data Book. Washington, D.C.: U.S. Government Printing Office.

_____. 1990a. Volume 1, Summary Population and Housing Characteristics. Part 48, Virginia. Washington, D.C.: U.S. Government Printing Office, 1993.

_____. 1990b. Volume 1, Social and Economic Characteristics. Part 48, Virginia. 2 Sections. Washington, D.C.: U.S. Government Printing Office, 1993.

_____. 1991. Statistical Abstract of the United States. 111th edition. Washington, D.C.: U.S. Government Printing Office.

Bureau of the Census Reports

U.S. Department of Commerce. Bureau of the Census. Census of Population. 1960. Subject Reports. Migration Between State Economic Areas: Residence in 1960 by Residence in 1955 for State Economic Areas and Economic Subregions. Final Report PC(2)-2E. Washington: D.C.: U.S. Government Printing Office, 1967.

_____. Current Population Reports. Gross Migration By County: 1965-1970. Series P-25, Number 701. Washington, D.C.: U.S. Government Printing Office, 1977.

_____. 1966-1986. Housing Units Authorized by Building Permits for States, Metropolitan Statistical Areas, Individual Places. Construction Reports. Washington, D.C.: U.S. Government Printing Office, 1967-1987.

_____. Census of Population. 1980. Supplementary Report. Gross Migration for Counties: 1975 to 1980. PC80-S1-17. Washington, D.C.: U.S. Government Printing Office, 1984.

_____. 1989a. Current Population Reports. Special Studies. Changes in American Family Life. Series P-23, No. 163. Washington, D.C.: U.S. Government Printing Office.

_____. 1989b. Current Housing Reports. American Housing Survey for the U.S. Washington, D.C.: U.S. Government Printing Office, 1991.

II. State and Local Government Documents

- Center for Public Service. 1986. Virginia Statistical Abstract. Charlottesville: University of Virginia, 1988.
- Center for State and Local Government. 1989-1990. "Chronology of Municipal Boundary Change Actions in Virginia Since 1964." Draft Copy. Richmond, Virginia: Center for State and Local Government.
- Commonwealth of Virginia. Department of Transportation. Secondary Roads Division. 1967 and 1979. "Secondary Traffic Tabulation for Smyth County." On File. Mount Rogers Planning District Commission, Marion. Richmond: Department of Transportation.
- Mount Rogers Planning District Commission. 1973. Toward A Balanced Future: Land Use Projections and Policies for the Mount Rogers Planning District. Marion, Virginia: Mount Rogers Planning District.
- Smyth County Planning Commission. 1983. "Subdivision Ordinance, Smyth County, Virginia." Supervisor Order Book Number 13. Office of the Clerk, Smyth County Courthouse.
- Tayloe Murphy Institute. 1970-1979. Housing Units Authorized for Planning Districts, Counties and Cities in Virginia: 1970-1974, 1975, 1976, 1977, 1978, 1979. Charlottesville: University of Virginia, 1975-1979.
- Thomas Bridge Water Corporation. 1988. Annual Tax Reports of Water Companies to the Virginia State Corporation Commission. On File. Thomas Bridge Water Corporation. Adwolf-Thomas Bridge, Virginia.
- Smyth County Office of Building Inspection. 1974-1989. Building Permits. On File. Smyth County Courthouse. Marion, Virginia.
- Virginia Center for Health Statistics. 1991. Vital Statistics. Richmond: Virginia Department of Health.

III. Maps and Aerial Photographs

- Boyd, Charles R., and John D. Barns. 1899. Historical Land Use Map of Smyth County. Copy. Mount Rogers Planning District Commission, Marion, Virginia.
- Tennessee Valley Authority. Maps and Surveys Department. 1948. Aerial Photograph of Adwolf Community and Vicinity. Number 21296. Scale 1:3,000. March.
- _____. 1958. Aerial Photograph of Adwolf Community and Vicinity. Number 28712. Scale 1:3,000. April.
- United States Geological Survey (U.S.G.S.) 1982a. 1:100,000 Series Radford, Virginia-West Virginia. Washington, D.C.: U.S.G.S.
- _____. 1982b. 1:50,000 Series. Smyth County, Virginia. Washington, D.C.: U.S.G.S.
- _____. 1982c. 1:50,000 Series. Wythe County, Virginia. Washington, D.C.: U.S.G.S.
- United States Geological Survey. 1:24,000 Series. 1938. Glade Springs. Photorevised 1969. Washington, D.C.: U.S.G.S.
- _____. 1958. Atkins. Photorevised 1969. Washington, D.C.: U.S.G.S.
- _____. 1958. Broadford. Photorevised 1978. Washington, D.C.: U.S.G.S.
- _____. 1958. Chatham Hill. Washington, D.C.: U.S.G.S.
- _____. 1958. Chilhowie. Photorevisions 1969 and 1977. Washington, D.C.: U.S.G.S.
- _____. 1958. Marion. Photorevised 1969 and 1977. Washington, D.C.: U.S.G.S.
- _____. 1958. Saltville. Photorevised 1969 and 1978. Washington, D.C.: U.S.G.S.
- _____. 1959. Cedar Springs. Photorevised 1978. Washington, D.C.: U.S.G.S.
- _____. 1959. Konnarock. Photorevised 1978. Washington, D.C.: U.S.G.S.

- _____. 1959. Nebo. Photorevised 1972. Washington, D.C.: U.S.G.S.
- _____. 1959. Rural Retreat. Photorevised 1972. Washington, D.C.: U.S.G.S.
- _____. 1959. Troutdale. Photorevised 1978. Washington, D.C.: U.S.G.S.
- _____. 1959. Whitetop. Photorevised 1978. Washington, D.C.: U.S.G.S.
- _____. 1965. Austinville. Photorevised 1979. Washington, D.C.: U.S.G.S.
- _____. 1965. Dublin. Photorevised 1984. Washington, D.C.: U.S.G.S.
- _____. 1965. Fosters Falls. Photorevised 1977. Washington, D.C.: U.S.G.S.
- _____. 1965. Max Meadows. Photorevised 1985. Washington, D.C.: U.S.G.S.
- _____. 1965. Pulaski. Photorevised 1984. Washington, D.C.: U.S.G.S.
- _____. 1965. Radford North. Photorevised 1984. Washington, D.C.: U.S.G.S.
- _____. 1965. Radford South. Photorevised 1985. Washington, D.C.: U.S.G.S.
- _____. 1965. Staffordville. Photorevised 1972 and 1977. Washington, D.C.: U.S.G.S.
- _____. 1965. Sylvatus. Photorevised 1983. Washington, D.C.: U.S.G.S.
- _____. 1968. Big Bend. Photorevised 1977. Washington, D.C.: U.S.G.S.
- _____. 1968. Bland. Photorevised 1977. Washington, D.C.: U.S.G.S.
- _____. 1968. Crockett. Washington, D.C.: U.S.G.S.
- _____. 1968. Cripple Creek. Washington, D.C.: U.S.G.S.

_____. 1968. Speedwell. Photorevised 1979. Washington, D.C.: U.S.G.S.

_____. 1968. Wytheville. Photorevised 1977. Washington, D.C.: U.S.G.S.

IV. Personal Interviews

Buchanan, R.M. 1989. Farmer, Rich Valley, Smyth County. Telephone Interview. November 4.

Counts, David. 1990. Realtor, Counts Auction Company. Abingdon, Virginia. April 4.

Flemming, Harry. 1989. Agent, Farmers Home Administration, Smyth County. November 1.

Richardson, Lawrence. 1990. Resident of Adwolf, and former member Smyth County Planning Commission. Marion, Virginia. 8 March.

Rouse, Elmer. 1989. Realtor and Postmaster (Retired). Telephone Interview. November 1.

Spencer, Shirley. 1989-1990. Administrative Assistant, Smyth County Building Inspection Office. Multiple Dates.

Spencer, Thurman, and David Buchanan. 1989. Small Farm Technicians, Smyth County Extension Service. Marion, Virginia. December 12.

V. Secondary Sources

Appalachian Regional Commission. 1979. A Report to Congress on Migration. Washington, D.C.: Appalachian Regional Commission.

_____. 1981. "Settlement Patterns Study Identifies Fringe Population in Region." Appalachia 14(May-April): 22-23.

_____. 1982. Appalachian Settlement Patterns Study: Final Report. Washington, D.C.:

Appalachian Regional Commission.

- Bain, Nancy R., and John N. Stitzler. 1978. Residential Choice and Their Impact in a Developing Coal Resource Area. Bulletin 1107. Ohio Agricultural Research and Development Center. Columbus: Ohio State University.
- Ballard, Patricia L., and Glenn Fuguitt. 1985. "The Changing Small Town Settlement Structure in the United States, 1900-1980." Rural Sociology 50(1): 99-113.
- Beale, Calvin. 1975. The Revivial of Population Growth in Nonmetropolitan America. Economic Development Division, ERS-605. Washington, D.C.: United States Department of Agriculture.
- _____. 1990. "Nonfarm America." In A Taste of the Country, ed. Peter A. Morrison, 76-91. University Park: The Pennsylvania State University Press.
- Beaver, Patricia D. 1986. Rural Community in the Appalachian South. Lexington: University Press of Kentucky.
- Belcher, John C. 1962. "Population Growth and Characteristics." In The Southern Appalachian Region: A Survey, ed. Thomas R. Ford, pp. 37-53. Lexington: University of Kentucky Press.
- Berry, Brian J. L., and Lester P. Silverman, eds. 1980. Population Redistribution and Public Policy. Washington, D.C.: National Academy of Sciences.
- Bohland, James. 1970. "The Influence of Kinship Ties on the Settlement Patterns of Northeast Georgia." Professional Geographer 22(5): 267-269.
- Bowles, Gladys. 1957. "Migration Patterns of the Rural Farm Population." Rural Sociology 22(1): 1-11.
- Boyd, C.R. 1881. Resources of South-West Virginia. New York: John Wiley and Sons, Inc.
- Brown, David L., and Calvin L. Beale. 1981. "Diversity in Post-1970 Population Trends." In Nonmetropolitan America in Transition, ed. Amos Hawley and Sara M. Mazie, 27-71. Chapel Hill: University of North Carolina Press.

- Brown, David L., and John M. Wardwell, eds. 1980. New Directions in Urban-Rural Migration: The Population Turnaround in Rural America. New York: Academic Press.
- Brown, James S. 1970. "Population and Migration Changes in Appalachia." In Change in Rural Appalachia, eds. John D. Photiadis and Harry K. Schwarzweller, 23-49. Philadelphia: University of Pennsylvania Press.
- Brown, James S., and George A. Hillery, Jr. 1962. "The Great Migration, 1940-1960." In The Southern Appalachian Region: A Survey, ed. Thomas R. Ford, 54-78. Lexington: University of Kentucky Press.
- Brown, James S., Harry K. Schwarzweller, and J. Mangalam. 1963. "Kentucky Mountain Migration and the Stem Family: An American Variation of a Theme by Le Play." Rural Sociology 28(1): 48-69.
- Brown, Ralph. 1937. "A Sketch of the Early History of Southwestern Virginia." William and Mary Quarterly 17(4): 501-513.
- Brown, Robert H. 1967. "The Upsala, Minnesota Community: A Case Study in Rural Dynamics." Annals of the Association of American Geographers 57:267-300.
- Brunner, Edward. 1948. "Internal Migration in the United States, 1935-1940." Rural Sociology 13(1): 9-22.
- Bryant, F. Carlene. 1981. We're All Kin: A Cultural Study of a Mountain Neighborhood. Knoxville: University of Tennessee Press.
- Campbell, Rex R., and Lorraine E. Garkovich. 1984. "Turn-around Migration as an Episode of Collective Behavior." Rural Sociology 49(1): 89-105.
- Carpenter, Edwin H. 1977. "The Potential for Population Dispersal: A Closer Look at Residential Locational Preference." Rural Sociology 42(3): 352-370.
- Christensen, David E. 1956. Rural Occupance in Transition: Lee and Sumter Counties Georgia. Department of Geography Research Paper Number 43. Chicago: The University of Chicago Press.
- Cloke, Paul. 1985. "Whither Rural Studies?" Journal of Rural Studies 1:1-9.

- Clout, Hugh D. 1972. Rural Geography: An Introductory Survey. Oxford: Pergamon Press.
- _____. 1977. "Rural Settlements." Progress in Human Geography 1(3): 475-480.
- Cook, A.V. 1987. "Nonmetropolitan Migration: The Influence of Neglected Variables." Rural Sociology 52(3): 409-418.
- Cromartie, John. 1993. "Population." Rural Conditions and Trends (Special Census Issue). Economic Research Service, U.S.D.A. 4(Fall): 12-15.
- Dahmann, Donald C. 1988. Migration and Residential Mobility in the United States. Census Monograph Series. New York: Russell Sage Foundation.
- DeJong, Gordon F., and Robert W. Gardner, eds. 1981. Migration Decision-Making. New York: Pergamon Press.
- DeJong, Gordon F., and Ralph Sell. 1977. "Population Redistribution, Migration, and Residential Preferences." Annals of the American Academy of Political and Social Science 429(Jan.): 130-144.
- Deutschman, H.D. 1972. "The Residential Location Decision: Study of Residential Mobility." Socio-Economics Planning Sciences 6(4): 349-364.
- Dillman, Don A. 1978. Mail and Telephone Surveys: The Total Design. New York: John Wiley.
- Dillman, Don A., and Daryl J. Hobbs. 1982. Rural Society in the U.S.: Issues for the 1980s. Boulder: Westview Press.
- Doherty, J.C. 1984. Growth Management in Countrified Cities: Change and Response. Volume 1. Alexandria, Virginia: Vert Milon Press.
- _____. 1985a. Growth Mangement in Countrified Cities: Change and Response. Volume 2. Alexandria, Virginia: Vert Milon Press.
- _____. 1985b. "The Urbanizing Countryside." American Land Forum Magazine 5(Spring): 49-53.
- Eller, Ronald D. 1982. Miners, Millhands, and Mountaineers: Industrialization of the Appa-

lachian South, 1880-1930. Knoxville: University of Tennessee Press.

- Fernandez, Richard R., and Donald A. Dillman. 1979. "The Influence of Community Attachment on Geographic Mobility." Rural Sociology 44(2): 345-360.
- Fielding, A.J. 1985. "Counterurbanization." In Population Geography: Progress and Prospect, ed. Michael Pacione, 224-256. London: Croom Helm.
- Fisher, James S., and Ronald Mitchelson. 1981. "Forces of Change in the American Settlement Pattern." Geographical Review 71(3): 298-310.
- Fisher, Peter S. 1979. The Impact of Rural Non-Farm Residential Development on the Provision of Local Public Services. Des Moines: The Institute of Urban and Regional Research, University of Iowa.
- Ford, Thomas R., ed. 1978. Rural U.S.A.: Persistence and Change. Ames: Iowa State University Press.
- Fuguitt, Glenn. 1985. "The Nonmetropolitan Turnaround." In Annual Review of Sociology, Volume 11, ed. Ralph Turner and James F. Short, 259-304. Palo Alto: Annual Reviews, Inc.
- Fuguitt, Glenn, and James J. Zuiches. 1975. "Residential Preference and Population Redistribution." Demography 12(3): 491-504.
- Fuguitt, Glenn, David Brown, and Calvin Beale. 1989. Rural and Small Town America. New York: Russell Sage Foundation.
- Fuguitt, Glenn, Paul R. Voss, and J.C. Doherty. 1979. Growth and Change in Rural America. Washington, D.C.: Urban Land Institute.
- Gardner, Richard. 1983. "New Communities for the Rural Renaissance." American Land Forum Magazine. 4(1): 19-26.
- Garkovich, Lorraine. 1982. "Kinship and Return Migration in Eastern Kentucky." Appalachian Journal 10(1): 62-0
- _____. 1989. Population and Community in Rural America. Rural Sociological Society, Contributions in Sociology, Series ed. James J. Zuiches. New York: Greenwood Press.

- Gilford, Dorothy M, Glenn Nelson, and Linda Ingram, eds. 1981. Rural America in Passage: Statistics for Policy. Washington, D.C.: National Academy Press.
- Gilg, Andrew W. 1985. An Introduction to Rural Geography. London: Edward Arnold.
- Gottman, Jean. 1969. Virginia In Our Century. Charlottesville: The University Press of Virginia.
- Gray, Wayne T. 1945. "Population Movements in the Kentucky Mountains." Rural Sociology 10(4): 504-513.
- Hagood, Margaret. 1950. "Dynamics of Rural Population." In Rural Life in the United States, ed. Carl C. Taylor, 233-244. New York: Alfred A. Knopf, Inc.
- Hart, John Fraser. 1981. "Migration to the Blacktop: Population Redistribution in the South." Landscape 25(3): 15-19.
- _____. 1984. "Population Change in the Upper Lake States." Annals of the Association of American Geographers 74(2): 221-243.
- _____. 1988. "Small Towns and Manufacturing." Geographical Review 78(3): 272-287.
- _____. 1991. The Land That Feeds Us. New York: W.W. Norton and Company.
- Hart, John F., and Ennis Chestang. 1978. "Rural Revolution in East Carolina." Geographical Review 68(4): 435-458.
- Hassinger, Luther C. 1967. The Lumber Industry of Southwest Virginia. Series II, Number 4. Abingdon, Virginia: The Historical Society of Washington County.
- Hawley, Amos H., and Sara Mills Mazie, eds. 1981. Nonmetropolitan America in Transition. Chapel Hill: University of North Carolina Press.
- Healy, Robert G. 1985. "The Landscape of Human Settlement." Chapt. 5 in Competition for Land in the American South. Washington, D.C.: The Conservation Foundation.

- Healy, Robert, and James L. Short. 1981. The Market for Rural Land: Trends, Issues, Policies. Washington, D.C.: The Conservation Foundation.
- Herbers, John. 1980. "Urban Centers' Population Drift Creating a Countryside Harvest." New York Times, March 23. 1 and 50.
- _____. 1986a. The New Heartland. New York: Times Books.
- _____. 1986b. "America's Profile Shifts." New York Times Magazine, September 28,
- Herod, Andrew. 1993. "Gender Issues in the Use of Interviewing as a Research Method." Professional Geographer 45(3): 305-317.
- Higbee, Edward. 1958. "Land Use in the East-Central Appalachians." Chapt. 23 in American Agriculture: Geography, Resources, Conservation. Chapter 23, pp. 298-311. New York: John Wiley and Sons, Inc.
- Hillery, George A., James S. Brown, and Gordon DeJong. 1965. "Migration Systems of the Southern Appalachians: Some Demographic Observations." Rural Sociology 30(1): 33-48.
- Hornby, William F., and Jones Melvyn. 1980. An Introduction to Population Geography. Cambridge: Cambridge University Press.
- Jackson, J.B. 1990. "The House in the Vernacular Landscape." In The Making of the American Landscape ed. Michael P. Conzen, 355-369. Boston: Unwin Hyman.
- Johansen, Harley, and Glenn Fuguitt. 1984. The Changing Rural Village in America: Demographic and Economic Trends Since 1950. Cambridge: Ballinger.
- Johnson, Kenneth M. 1989. "Recent Population Redistribution Trends in Nonmetropolitan America." Rural Sociology 54(3): 301-326.
- Jordan, Terry. 1966. "On the Nature of Settlement Geography." Professional Geographer 18(1): 26-28.
- Joseph, Alun E., and Barry Smit. 1985. "Rural Residential Development and Municipal Service Provision: A Canadian Case Study." Journal of

Rural Studies 1(4): 321-337.

- Jurney, R.C., and M.G. Cline. 1948. Soil Survey of Smyth County, Virginia. Series 1938, No. 16. Washington, D.C.: United States Department of Agriculture.
- Kegley, Frederick B. 1938. Kegley's Virginia Frontier. Roanoke: Southwest Virginia Historical Society.
- Kegley, Mary B. 1989. Wythe County, Virginia: A Bicentennial History. Marceline, Missouri: Walsworth Publishing, Inc.
- Kirby, Jack Temple. 1987. Rural Worlds Lost: The American South, 1920-1960. Baton Rouge: LSU Press.
- Koebel, C. Theodore, Deborah A. Engelen-Eigles, and Marilyn Cavell. 1991. Rural Housing Trends in Virginia: A Profile for the Eighties. Blacksburg: Center for Housing Research, VPI and SU.
- Kollmorgan, Walter, and George Jenks. 1951-52. "A Geographic Study of Population and Settlement in Sherman County, Kansas." Transactions Kansas Academy of Science 54(4): 449-494, 55(1): 1-37.
- Lamb, Richard. 1975. Metropolitan Impacts on Rural America Volume 162. Department of Geography Research Paper. Chicago: University of Chicago.
- _____. 1983. "The Extent and Form of Exurban Sprawl." Growth and Change 14(1): 40-47.
- Leithauser, Gail, and Andrew P. Levien. 1980. "New Growth Patterns Affect Billions of Investments." Appalachia 13(July-August): 5-12.
- Lewis, G.J., and D.J. Maund. 1976. "The Urbanization of the Countryside: A Framework for Analysis." Geografiska Annaler 58B(1): 17-27.
- Lewis, G.S. 1979. Rural Communities. London: David and Charles.
- Lewis, Peirce F. 1983. "The Galactic Metropolis." In Beyond the Urban Fringe, eds. Rutherford Platt and George Macinko, 23-50. Minneapolis: University of Minnesota Press.

- _____. 1990. "The Northeast and the Making of American Geographical Habits." In The Making of the American Landscape, ed. Michael Conzen, 80-103. Boston: Unwin Hyman.
- Lichter, Daniel T., and Glenn Fuguitt. 1985. "Components of Nonmetropolitan Population Change: The Contribution of Rural Areas." Rural Sociology 50(1): 88-98.
- Lichter, Daniel T., Glenn Fuguitt, and Tim B. Heaton. 1985. "Components of Nonmetropolitan Population Change: The Contribution of Rural Areas." Rural Sociology 50(1): 88-98.
- Lively, C.E., and Conrad Taeuber. 1939. Rural Migration in the United States. Works Project Administration, Research Monograph XIX. Washington, D.C.: Works Progress Administration.
- Long, Larry. 1988. Migration and Residential Mobility in the United States. Census Monograph Series. New York. Russell Sage Foundation.
- Long, Larry, and Diane DeAre. 1980. Migration to Non-Metropolitan Areas: Appraising the Trend and Reasons for Moving. Bureau of Census, Special Demographic Analysis. Washington, D.C.: U.S. Government Printing Office.
- _____. 1982. "Repopulating the Countryside: A 1980 Census Trend." Science 217(17): 1111-1116.
- McCarthy, Kevin F., and Peter A. Morrison. 1979. The Changing Demographic and Economic Structure of Non-metropolitan Areas in the United States. Report P-6062. Santa Monica: Rand Corporation.
- McGranahan, David A. 1983. "Changes in the Social and Spatial Structure of the Rural Community." In Technology and Social Change in Rural Areas, ed. Gene F. Summers, pp. 163-178. Boulder: Westview Press.
- Manahan, John E. 1961. "Analysis of Virginia Place-Names As to Origin." Virginia Place Name Society Occasional Papers, 3(December): 1-8.
- Mangus, A.R. 1940. Rural Regions of the United States. Works Project Administration. Washington, D.C.: United States Government Printing Office.

- Manny, T.B. 1935. "Population Distribution and Changes." In Economic and Social Problems and Conditions of the Southern Appalachians, pp. 120-125. Miscellaneous Publication 205. Washington, D.C.: U.S. Department of Agriculture.
- Marschner, Francis J. 1940. Rural Population Density in the Southern Appalachians. Miscellaneous Publication 367. Washington, D.C.: U.S. Department of Agriculture.
- Mitchelson, Ronald L., and James S. Fisher. 1983. "Spatial Perspectives of Population Dynamics in Georgia, 1960-1980." Southeastern Geographer 23(1): 35-50.
- Morrison, Peter, and Judith Wheeler. 1978. "Rural Renaissance in America? The Revival of Population Growth in Remote Areas." Population Bulletin 31(Oct.): 2-26.
- Morrison, Peter, ed. 1990. A Taste of the Country. University Park: The Pennsylvania State University Press.
- Neal, J. Allen. 1966. The Evolution of Land Ownership in Southwest Virginia: The Case of Tazewell County. Series II, Number 3. Abingdon, Virginia: The Historical Society of Washington County, Virginia.
- Newcombe, Jack. 1971. "End of the Company Town." Life. 26 March, 37-45.
- Noble, W.A. 1973. "Trends in Mobile and Modular Homes." Geographical Review 63(3): 292-293.
- Pacione, Michael. 1984. Rural Geography. London: Harper and Row.
- Patel, Dinker I. 1980. Urban Residential Developments in the Countryside. Washington, D.C.: University Press of America.
- Pickard, Jerome. 1981a. "A Decade of Change for Appalachia, 1970-1980." Appalachia 14(July-Aug.): 1-9.
- _____. 1981b. "Appalachia's Decade of Change-- A Decade of Immigration." Appalachia 15(Sept.-Oct.): 24.

- Platt, Rutherford, and George Macinko, eds. 1983. Beyond the Urban Fringe. Minneapolis: University of Minnesota Press.
- Proctor, Roy E., and T. Kelley White. 1962. "Agriculture: A Reassessment." In The Southern Appalachian Region: A Survey, ed. Thomas R. Ford, pp. 87-101. Lexington: University of Kentucky Press.
- Pyle, Elizabeth A. 1986. "Sellers and Nonsellers of Land for New Rural Housing." Professional Geographer 38(4): 343-349.
- Raitz, Karl B., Richard Ulack, and Thomas Leinbach. 1984. Appalachia: A Regional Geography. Boulder: Westview Press.
- Richter, Kerry. 1985. "Nonmetropolitan Growth in the Late 1970s: The End of the Turnaround." Demography 22(2): 245-263.
- Roberts, Lisa S. 1993. "The Contribution of Mobile Homes to Modern Rural Settlement in the U.S.: An Appalachian Case Study." In Geographic Perspectives on the Social and Economic Restructuring of Rural Areas: Proceedings of the International Geographical Union Commission on Changing Rural Systems, Manhattan, Kansas, July 31-August 4, 1993. Manhattan: Kansas State University, 192-197.
- Roberts, Lisa S., and Sally Morgan. 1988. "Rural Water Systems in Southwestern Virginia: Case Studies of Their Evolution and Impacts." In Proceedings of the Fourth Conference on Appalachian Geography: Pipestem, West Virginia, October 13-15, 1988. Athens, West Virginia: Concord College, 38-45.
- Rogers, E.M., and R.J. Burdge. 1972. Social Change in Rural Societies. Englewood Cliffs: Prentice Hall.
- Roseman, Curtis. 1977. Changing Migration Patterns Within The United States. Resource Papers for College Geography No. 77-2. Washington, D.C.: Association of American Geographers.
- Sheskin, Ira M. 1985. Survey Research for Geographers. Resource Publications in Geography. Washington, D.C.: Association of American Geographers.

- Shover, John L. 1976 First Majority-Last Minority: The Transforming of Rural Life in America. DeKalb: Northern Illinois University Press.
- Shryock, Henry S., and Jacob S. Siegel. 1976. The Methods and Materials of Demography. New York: Academic Press.
- Smith, Everett S. 1967. "An Urban Interpretation of Oregon Settlement." Yearbook of the Association of Pacific Coast Geographers 29(2): 43-52.
- Sofranko, Andrew J., and Frederick Fliegel. 1983. "Rural to Rural Migrants: The Neglected Component of Rural Population Growth." Growth and Change 14(2):42-49.
- Sofranko, Andrew J, and James D. Williams, eds., 1980. Rebirth of Rural America. Ames, Iowa: North Central Regional Center for Rural Development.
- Taylor, Lee, and Arthur Jones, Jr. 1964. Rural Life and Urbanized Society. New York: Oxford University Press.
- Trewartha, Glenn T. 1943. "The Unincorporated Hamlet." Annals of the Association of American Geographers. 33(1): 32-81.
- Vance, Rupert. 1982. "The Changing Density of Virginia's Population." In Regionalism and the South: Select Papers of Rupert Vance, eds. John Shelton Reed and David Singal, pp. 233-249. Chapel Hill: University of North Carolina Press. Originally Published in 1965.
- White, Stephen. 1983. "Return Migration to Appalachian Kentucky: An Atypical Case of Nonmetropolitan Migration Reversal." Rural Sociology 48(3):471-491.
- _____. 1989. "America's Soweto: Population Redistribution in Appalachian Kentucky, 1940-1986." Appalachian Journal 16(4): 350-360.
- White, Stephen, Lawrence Brown, William A.V. Clark, Patricia Gober, Richard Jones, and Kevin McHugh. 1989. "Population Geography." In Geography in America, eds. Gary L. Gaile and Cort J. Wilmott, pp. 258-289. Columbus: Merrill Publishing, Co.
- Wilson, Charles Reagan, and William Ferris, eds. 1989a. Encyclopedia of Southern Culture. Chapel Hill:

University of North Carolina Press. S.v. "Migration Patterns," by Curtis Roseman.

Wilson, Goodridge. 1932. Smyth County History and Traditions. Reprinted 1967 by Frank Detweiler. Radford, Virginia: Commonwealth Press.

Zelinsky, Wilbur. 1962. "Changes in the Geographic Patterns of Rural Population in the United States, 1790-1960." Geographical Review 54(2): 492-524.

_____. 1978. "Is Nonmetropolitan America Being Repopulated? The Evidence from Pennsylvania's Minor Civil Divisions." Demography 15(1): 13-39.

Zuiches, James J. 1970. "In-Migration and Growth of Non-Metropolitan Urban Places." Rural Sociology 35(3): 410-420.

_____. 1980. "Residential Preference in Migration Theory." In New Directions in Urban-Rural Migration: The Population Turnaround in Rural America, eds. David L. Brown, and John M. Wardwell, pp. 163-188. Washington, D.C.: Academic Press.

_____. 1981. "Residential Preferences in the United States." In Nonmetropolitan America in Transition, eds. Amos H. Hawley, and Sara M. Mazie, pp. 75-115. Chapel Hill: University of North Carolina Press.

Unpublished Documents

Hwang, Manik. 1982. "Geographical and Structural Change of the Mobile Home Industry in the U.S., 1960-1980." Unpublished Ph.D. Dissertation, University of Tennessee.

Icenogle, David W. 1970. Rural Nonfarm Population and Settlement in Upper East Tennessee." Unpublished Ph.D. Dissertation, Louisiana State University.

Johnson, Peter C. 1985. "Urban Dispersal and Patterns of Rural Residential Development in Douglas County, Oregon." Unpublished Ph.D. Dissertation, University of Oregon.

- Roberts, Lisa S. 1982. "Burkes Garden, Virginia: Land Use Changes in an Isolated Appalachian Community." Unpublished M.A. Thesis, Louisiana State University.
- Ross, Toby A. 1978. "Rural Residential Development in Sonoma County, California." Unpublished Ph.D. Dissertation, University of California, Berkeley.
- Sharma, Jitenda. 1973. "Geographical Change in Rural Settlement Between 1939 and 1971 In a Sample Strip Across Southeastern Tennessee and Southwestern North Carolina." Unpublished Ph.D. Dissertation, University of Georgia.
- Smith, Thaddeus. 1987. "Where There Are No Mountains: Appalachian Culture and Migration to Baltimore." Unpublished Ph.D. Dissertation, Brown University.
- Walker, Wilma J. 1979. "Geographical Analysis of Return Migration: An Eastern Kentucky Case Study." Unpublished Ph.D. Dissertation, University of Kentucky.
- Williams, David K. 1982. "Rural Subdivisions in Loudon County, Tennessee." Unpublished M.S. Thesis, University of Tennessee, Knoxville.

APPENDICES

APPENDIX A-1

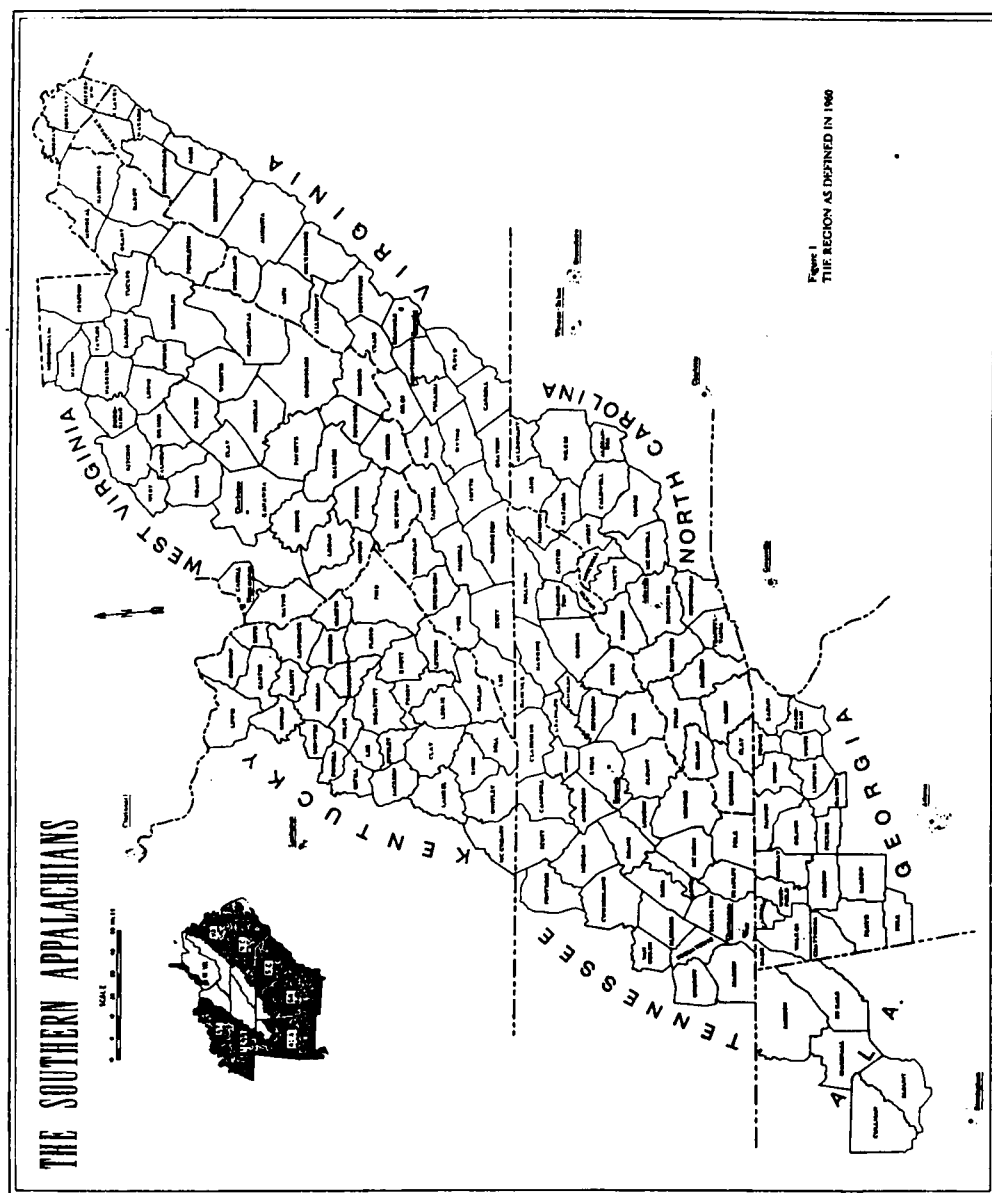
AGRICULTURE AND LAND USE, 1940 AND 1987 SOUTHWEST VIRGINIA RIDGE AND VALLEY

	PULASKI		SMYTH		WYTHE	
	1940	1987	1940	1987	1940	1987
Number of Farms	1,191	360	2,086	873	1,862	746
Average Size (acres)	107	211	84	141	112	192
Land in Farms (percent)	60	39	62	42	70	48
LAND USE (acres)						
Cropland	26,399	19,262	38,415	20,732	45,994	33,544
Harvested						
Pasture	72,440	47,417	96,075	78,184	121,043	89,764
Woodland	27,383	13,758	46,292	34,172	56,822	27,068
LIVESTOCK						
Beef Cattle	738	8,192	1,122	10,704	1,263	13,781
Dairy	3,391	2,381	4,585	2,960	5,700	6,198
Sheep	10,004	4,101	9,809	1,886	18,505	6,095
Hogs	4,526	347	38,282	2,085	8,744	D*
Horses	1,550	376	2,546	1,249	2,869	1,357
CROPS (acres)						
Corn	8,977	738	13,289	474	15,676	1,554
Wheat	4,954	82	6,495	D	9,716	215
Tobacco	76	D	361	761	2	7
Hay	5,373	15,597	12,031	15,443	12,666	23,950
OTHER						
Tractors	63	376	27	819	67	659

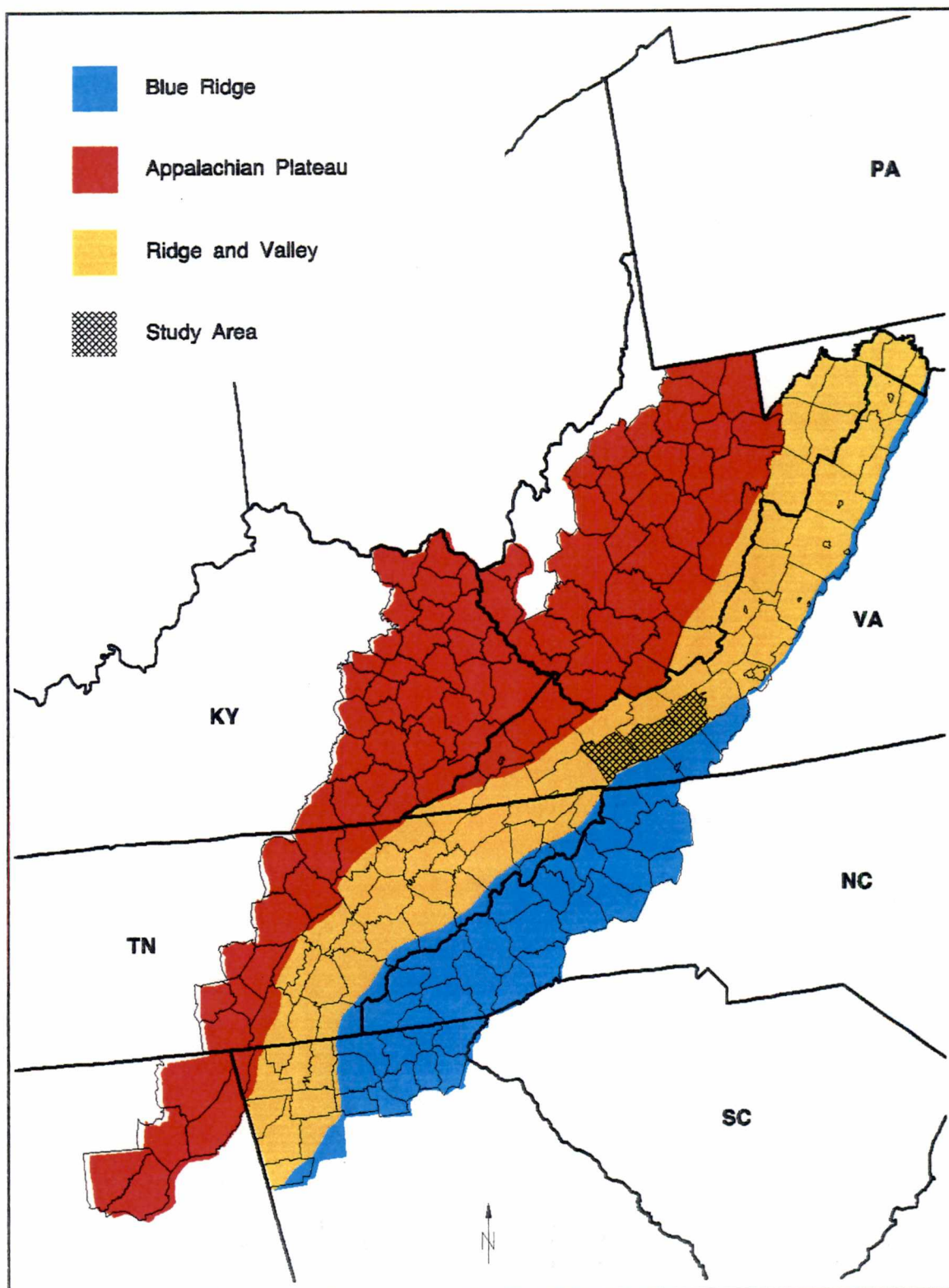
Sources: Bureau of the Census, Census of Agriculture, 1940, Vol. 1, Part 3 (South Atlantic), and Census of Agriculture, 1987, Vol. 1, Part 46 (Washington, D.C.: United States Government Printing Office, 1942 and 1989).

*D represents data not disclosed to protect privacy of producer (s).

APPENDIX A-2



APPENDIX A-3



APPENDIX A-4

HOUSEHOLD NUMBERS, COMPOSITION, AND SIZE, 1960-1990

Geographic Area	1960	1970	1980	1990	Percent Change		
					60-70	70-80	80-90
U.S. Total (1,000s)	52,799	63,401	86,789	92,830	21.0	27.4	7.0
Family	44,905	51,456	59,550	65,837	32.6	15.7	10.6
Nonfamily	7,895	11,945	21,226	26,994	51.2	77.7	27.2
Average Size	3.33	3.14	2.76	2.62			
Pulaski County							
Total	7,378	9,027	12,380	13,349	22.4	37.1	7.8
Family	6,685	7,963	9,950	9,903	19.1	25.0	-0.5
Nonfamily	693	1,064	2,430	3,446	53.5	128.4	41.8
Average Size	3.62	3.23	2.82	2.51			
Smyth County							
Total	7,821	9,006	11,423	12,234	15.2	26.8	7.1
Family	7,211	7,929	9,348	9,422	10.0	17.9	0.8
Nonfamily	610	1,077	2,075	2,812	76.6	92.7	35.5
Average Size	3.74	3.28	3.22	2.55			
Wythe County							
Total	5,900	6,764	9,005	9,852	14.6	33.1	9.4
Family	5,312	5,832	7,197	7,380	9.8	22.2	2.5
Nonfamily	588	932	1,808	2,472	58.5	94.0	36.7
Average Size	3.69	3.25	2.81	2.55			

Sources: Bureau of Census, Census of Population: 1960, Vol. 1, General Population Characteristics, Part 48, 28-29; Census of Population: 1970, Vol. 1, General Population Characteristics, Part 48, 44-45; Census of Population: 1980, Vol. 1, General Population Characteristics, Part 48, 11; Census of Population: 1990, Vol. 1, Summary Population and Housing Characteristics, Part 48, 55-57; Statistical Abstract of the U.S.: 1991, 45 (Washington, D.C.: U.S. Government Printing Office, 1963, 1973, 1982, 1991).

APPENDIX A-5

BUILDING PERMITS FOR SINGLE-FAMILY UNITS AND MOBILE HOMES, PULASKI, SMYTH, AND WYTHE COUNTIES, 1974-1988

YEAR	PULASKI		SMYTH		WYTHE	
	Houses	Mobile Homes	Houses	Mobile Homes	Houses	Mobile Homes
1974	207	105	185	348	93	NA*
1975	155	96	162	243	155	NA
1976	170	192	171	246	132	NA
1977	252	157	196	235	211	148
1978	218	199	173	257	193	210
1979	159	169	119	214	141	197
1980	184	175	71	213	112	168
1981	85	176	56	197	86	160
1982	114	131	47	122	63	150
1983	81	143	65	168	99	160
1984	88	200	74	188	64	181
1985	83	171	58	215	80	205
1986	102	148	73	209	94	185
1987	96	NA	84	227	88	225
1988	109	NA	89	256	105	207

Sources: Tayloe Murphy Institute, Housing Units Authorized in Virginia's Planning Districts, Counties, and Cities, 1974-1979, and Virginia Statistical Abstract, 1986 (Charlottesville: University of Virginia, 1975-1979, 1988).

*NA indicates data not available.

APPENDIX A-6

U.S.G.S. Topographic Maps 1:24,000 Series, Southwest Virginia Ridge and Valley

<u>Quadrangle Name</u>	<u>Publication Date</u>	<u>Photorevision</u>
1. Atkins	1958	1969
2. Austinville	1965	1979
3. Big Bend	1968	1977
4. Bland	1968	1977
5. Broadford	1958	1978
6. Cedar Springs	1959	1978
7. Chatham Hill	1958	None
8. Chilhowie	1958	1969 and 1977
9. Crockett	1968	None
10. Cripple Creek	1968	None
11. Dublin	1965	1984
12. Fosters Falls	1965	1977
13. Glade Springs	1938	1969
14. Konnarock	1959	1978
15. Marion	1958	1969 and 1978
16. Max Meadows	1965	1985
17. Nebo	1959	1972
18. Pulaski	1965	1984
19. Radford North	1965	1984
20. Radford South	1965	1985
21. Rural Retreat	1959	1972
22. Saltville	1958	1969 and 1978
23. Speedwell	1968	1979
24. Staffordville	1965	1972 and 1977
25. Sylvatus	1965	1983
26. Troutdale	1959	1978
27. Whitetop	1959	1978
28. Wytheville	1968	1977

APPENDIX A-7

SURVEY QUESTIONNAIRE

SURVEY # _____ DATE _____ Begin Time _____
End Time _____

Smyth Co. Bldg. Permit Grid Locale _____ # _____
7.5' Topographic Map _____
Location Description _____

PERSON (S) INTERVIEWED:

- 1a. () male head of household
- b. () female head of household
- c. () male and female heads of household
- d. () other

RESIDENCE IS

- 2a. () house
- b. () mobile home

3a. _____ WHAT YEAR WAS YOUR HOUSE BUILT/MOBILE HOME
PLACED?

- b. () uncertain
- c. () don't know Building Permit Date _____

THE NEXT QUESTIONS PERTAIN TO YOUR BACKGROUND AND OTHER
PLACES YOU HAVE LIVED BEFORE MOVING TO YOUR PRESENT
RESIDENCE:

4. How many years have you lived in Smyth County?

- | | Years | Months |
|-----------|-------|--------|
| a. male | _____ | _____ |
| b. female | _____ | _____ |
| c. other | _____ | _____ |

5. Have you lived most of your life in town, or in
the country?

- | | M | F | O |
|---------------------------------|-------|-------|-------|
| a. () Farm | _____ | _____ | _____ |
| b. () Nonfar | _____ | _____ | _____ |
| c. () Rural
Town | _____ | _____ | _____ |
| d. () Town
2,500-10,000 | _____ | _____ | _____ |
| e. () Sm City
10,000-50,000 | _____ | _____ | _____ |
| f. () Other | _____ | _____ | _____ |

6. Where did you live before moving to your present
residence?

- a. male and female if moved at same time _____
- b. male head of household _____
- c. female head of household _____
- d. other _____

7. How many years did you live at your previous residence?
 a. male and female ____yrs. ____months
 b. male head ____
 c. female head ____
 d. other ____
8. Why did you move from your previous residence?

9. Prior to moving to your present residence, did you consider moving to other locations?
 () yes () no
10. If yes, where _____.
11. Why didn't you move to the other place considered?

THE NEXT GROUP OF QUESTIONS RELATE TO YOUR PRESENT RESIDENCE:

12. Why did you choose to move to the location where you now live?

13. I am going to read a list of factors that may or may not have had any bearing on your decision to move to your present residence, and I want you to indicate whether or not any of these played a role in your decision to move:
- | | Yes | No | Uncertain |
|--|-----|-----|-----------|
| a. Public Water Was Available | () | () | () |
| b. Public Sewer Was Available | () | () | () |
| c. This Location is More Accessible to Work Than Where You Lived Before | () | () | () |
| d. It was Important for You to Live in the Country | () | () | () |
| e. Housing Financing was Available through the Farmers Home Administration or Veteran's Administration | () | () | () |
| f. It was important to be nearby to relatives | () | () | () |
| g. Land was Available to Build Your Home/Place a Mobile Home | () | () | () |
| h. The Location of Your House is Considered a Nice Neighborhood | () | () | () |

14. I am going to read the list of factors that may or may not have had any bearing on your decision to move to your present residence, and I want you to tell me which two were most important to you when deciding to move to your present residence:
(READ FROM LIST # 13)
- _____
- _____

15. Which two of the factors were least important to you when deciding to move to your present residence?
- _____
- _____

16. On the whole how satisfied are you with living at this location? Are you a. () very satisfied, b. () somewhat satisfied, c. () dissatisfied, d. () or very dissatisfied

17. What things do you especially like living at this location?_____.

18. What things do you dislike about living at this location?_____.

19. (For site-built houses) Have you ever lived in a mobile home? ____yes ____no

20. (For mobile homes) Do you own the land your mobile home sits on? ____yes ____no

21. How many people are in your household?_____.

22. How old are you?_____ informant _____ spouse.

23. Occupation (s): a. informant _____.
- b. spouse _____.

APPENDIX A-8

SURVEY NOTIFICATION CARD INFORMATION

Dear _____:

Within the next few weeks, you will receive a phone call from Lisa Roberts who is working on her doctoral degree in the Department of Geography at the University of Tennessee, Knoxville. Lisa Roberts is interviewing residents of Smyth County asking why they choose to reside where they do. This survey of Smyth County residents is part of a study looking at changing residential patterns in rural areas in southwest Virginia.

Using a scientific, random selection process, your household was selected to receive a call. Your participation in the study will be greatly appreciated. You can be assured of complete confidentiality of the information you provide.

If you have any questions, please call or write me at (703) 628-7508, Route 3, Box 762, Abingdon, Virginia 24210. Thank you.

Lisa Roberts

VITA

Lisa S. Roberts was born in Abingdon, Virginia on 20 June 1957. She grew up on a farm in the Greendale community and attended public schools in Washington County, Virginia. Ms. Roberts matriculated at Mary Washington College, Fredericksburg, Virginia in 1975 and graduated in 1979 with a major in geography. Subsequently, she earned a Master of Arts degree from the Department of Geography and Anthropology, Louisiana State University, in 1982. After a two-year teaching appointment at McNeese State University, Lake Charles, Louisiana, Ms. Roberts enrolled in the Ph.D. program in geography at the University of Tennessee in the autumn of 1984. During the 1988-89 academic year, she taught geography at Concord College, Athens, West Virginia. From 1992 to 1994, Lisa Roberts taught at Middle Tennessee State University, Murfreesboro, Tennessee.

She is presently employed in the Department of Social Sciences at McNeese State University.