

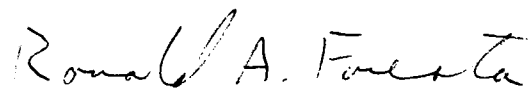
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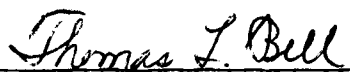
I am submitting herewith a thesis written by David Kelly Williams entitled "Rural Residential Subdivisions in Loudon County, Tennessee." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Geography.



Charles S. Aiken, Major Professor

We have read this thesis and
recommend its acceptance:





Accepted for the Council:



Vice Chancellor
Graduate Studies and Research

RURAL RESIDENTIAL SUBDIVISIONS IN LOUDON COUNTY, TENNESSEE

A Thesis

Presented for the

Master of Science

Degree

The University of Tennessee, Knoxville

David Kelly Williams

December 1982

3065199

ACKNOWLEDGMENTS

I wish to thank fellow graduate students John Morgan and Carolyn Jenks for their encouragement and helpfulness during the preparation of the thesis. Appreciation is also expressed to Property Assessors Emmett Carter and Doyle Arp for their assistance at the Loudon County Courthouse. I would also like to acknowledge my thesis advisor, Dr. Charles S. Aiken, for his helpful suggestions and guidance, and Drs. Thomas Bell, Ronald Foresta, and Theodore Schmudde for their constructive criticism of the thesis. Finally, I wish to extend special thanks to my parents, Mr. and Mrs. Raymond H. Williams, my sister Kathy, and to Julie Martin for their support and encouragement of my graduate education.

ABSTRACT

Rural residential subdivisions are important features of the rural landscape in Loudon County, Tennessee. The objectives of this study are to trace the development of rural subdivisions, to classify them, and to determine the types of residents that they attracted. Loudon County was chosen as the study area because it is a rural county and is adjacent to the Knoxville Standard Metropolitan Statistical Area.

Loudon County contains 112 rural subdivisions. The first one was begun in 1923, but large-scale development of subdivisions did not commence until the 1950's. The 1960's was the decade when most subdivisions were started, and development of them continued through the 1970's. Because of the time-lag between sale of lots and construction of dwellings, most of the houses in the rural subdivisions were built in the 1970's. Much of Loudon County's recent population growth and redistribution is associated with rural subdivisions.

Lot sizes, numbers of lots, house values, and build-out rates are examined in tracing the development of rural subdivisions. Five types of subdivisions are identified. Developments on the shore of a lake are "lakeside" and those with large lots are "farm partitions." The remaining subdivisions are classified by road pattern into "existing-road," "single-road," and "complex-road." Generally, the early developments—existing road, single-road, and farm partitions—contain low quality dwellings and small numbers of lots and have low rates of build-out. The lakeside and complex-road subdivisions are more recent and

sophisticated and have greater numbers of lots, better quality houses, and higher rates of build-out.

Characteristics of residents are assessed for each of the subdivision types. The characteristics include: average family income, average age of head of household, location of previous residence, location of place of employment, and the year in which the family moved into the subdivision. Interviews were conducted with 148 residents in 24 subdivisions. Average family income, average age of head of household, and percent of residents who work in Knox County have high correlations with the percent of residents who moved to the rural subdivisions from Knox County. Existing-road, single-road, and complex-road subdivisions have high percentages of residents who moved into the developments from other parts of Loudon County. They also contain high percentages of young residents who work in the county. Lakeside subdivisions contain high percentages of affluent, older residents who came from Knox County. Farm partitions exhibit great variations in the characteristics of the residents.

This study demonstrates that in Loudon County, Tennessee, rural subdivisions have aided in the redistribution of the local population. The rural subdivisions are not exurbs because they primarily attracted local residents and because most residents are not tied to Knoxville by employment. This study should be of value to geographers, planners, and others interested in rural population redistribution and the provision of public services in rural areas. Additional studies in other areas are needed to better understand rural residential subdivision development and its impact on rural America.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION	1
Objectives of the Study	4
Loudon County, Tennessee	6
Plan of the Study	11
II. CHARACTERISTICS OF RURAL RESIDENTIAL SUBDIVISIONS	12
The Growth of Rural Subdivisions	12
Distribution of Rural Subdivisions	20
Sizes of Rural Subdivisions	24
Sizes of Lots	25
Rates of Build-Out	29
House Values	32
III. TYPES OF RURAL RESIDENTIAL SUBDIVISIONS	37
Lakeside Subdivisions	38
Farm Partitions	47
Existing-Road Subdivisions	52
Single-Road Subdivisions	56
Complex-Road Subdivisions	61
IV. CHARACTERISTICS OF INHABITANTS OF RURAL RESIDENTIAL SUBDIVISIONS	69
Origins of the Residents	69
Characteristics of the Residents	74
Characteristics of the Residents by Subdivision Type . .	77
Existing-road subdivisions	77
Single-road subdivisions	81
Complex-road subdivisions	84
Lakeside subdivisions	86
Farm partitions	87
V. CONCLUSIONS	89
BIBLIOGRAPHY	93

PAGE

APPENDICES	97
Appendix A	98
Appendix B	101
VITA	104

LIST OF TABLES

TABLE	PAGE
I-1. Employed Persons in Loudon County, 1940 and 1970	10
II-1. Changes in Number of Houses in Loudon County, 1950-1980	15
II-2. Population Changes in Loudon County, 1950-1980	15
II-3. Population Changes in Incorporated Places in Loudon County, 1930-1979	18
II-4. Numbers and Percentages of Subdivisions and Lots by Subdivision Size Categories	25
II-5. Number of Rural Residential Subdivisions by Lot Sizes and Number of Lots	28
II-6. Number of Rural Residential Subdivisions Started by Lot Sizes for Selected Time Periods	28
II-7. Number of Rural Subdivisions and Average Year Started for Each House Value Category	35
III-1. Characteristics of Types of Rural Subdivisions, 1981 . . .	44
IV-1. Characteristics of Rural Subdivision Residents	70
IV-2. Origins of Rural Subdivision Residents by Time Periods . .	71
IV-3. Correlations Between Selected Variables for 24 Rural Subdivisions	75
IV-4. Origins of Residents by Subdivision Type	78
IV-5. Origins of Residents by Type of Place for Each Subdivision Type	79
IV-6. Reasons Residents Moved to Rural Subdivisions by Subdivision Type	80
IV-7. Place of Employment for Residents of Rural Subdivisions by Subdivision Type	82

TABLE	PAGE
A-1. Characteristics of Rural Subdivisions, 1981	99
B-1. Rural Subdivision Housing and Land Ownership Characteristics, 1981	102

LIST OF FIGURES

FIGURE	PAGE
I-1. Relative Location of Loudon County, Tennessee	5
I-2. Loudon County, Tennessee	7
II-1. Number of Rural Subdivisions Started in Loudon County, Tennessee, 1920-1980	13
II-2. Distribution of Rural Residential Subdivisions, Loudon County, Tennessee, 1981	21
II-3. Distribution of Rural Subdivisions by Decade Started . .	22
II-4. Relationship Between Size of Lots and Number of Lots in Rural Subdivisions	26
II-5. Distribution of Rural Subdivisions by Lot Size, 1981 . .	30
II-6. Distribution of Rural Subdivisions by Average Assessed House Value, 1981	34
III-1. Distribution of Lakeside Subdivisions	40
III-2. Examples of Lakeside Subdivision Road Types	46
III-3. Examples of Houses in Lakeside Subdivisions	48
III-4. Grubb Farm Partition	50
III-5. Distribution of Farm Partitions	51
III-6. Trigonía Estates, A Typical Existing-Road Subdivision . .	53
III-7. Distribution of Existing-Road Subdivisions	55
III-8. Examples of Houses in Existing-Road Subdivisions	57
III-9. Old Hickory Estates, A Typical Single-Road Subdivision	58
III-10. Distribution of Single-Road Subdivisions	60
III-11. Examples of Houses in Old Hickory Estates, Single-Road Subdivision	62

FIGURE	PAGE
III-12. Blackberry Landing, A Typical Complex-Road Subdivision	63
III-13. Distribution of Complex-Road Subdivisions	66
III-14. Examples of Houses in Martel Estates, Complex-Road Subdivision	68

CHAPTER I

INTRODUCTION

Until recently, rural areas of the United States experienced a continual loss of population to urban places.¹ Since about 1970 there has been a reversal in the growth patterns with many rural areas gaining population more rapidly than urban places. During the 1970's the population of rural and small town America grew at a rate 15.5 percent greater than metropolitan areas.² This growth may be attributed to both an exodus of persons from metropolitan areas and the retention by rural areas of people who in previous decades would have migrated.³ Although the shift in migration patterns has been occurring nationwide, there has been disparity in rural growth patterns among rural areas of the United States. Zelinsky noted that much of the rural population growth has occurred near metropolitan centers, whereas the more remote rural areas have remained static or have suffered a decline.⁴

¹C. Jack Tucker, "Changing Patterns of Migration between Metropolitan and Nonmetropolitan Areas in the United States: Recent Evidence," Demography, Vol. 13, No. 4 (November 1976), p. 435; and John M. Wardwell and C. Jack Gilchrist, "Employment Deconcentration in the Nonmetropolitan Turnaround," Demography, Vol. 17, No. 2 (May 1980), p. 145.

²Tom Morganthau, "America's Small Town Boom," Newsweek, July 6, 1981, p. 26.

³Peter A. Morrison and Judith P. Wheeler, "Rural Renaissance in America? The Revival of Population Growth in Remote Areas," Population Bulletin, Vol. 31, No. 3 (October 1976), p. 3.

⁴Wilbur Zelinsky, "Is Nonmetropolitan America Being Repopulated? The Evidence from Pennsylvania's Minor Civil Divisions," Demography, Vol. 15, No. 1 (February 1978), p. 22.

The growth of the rural population has been especially noticeable in East Tennessee, an area in which nonmetropolitan counties grew by 21.4 percent during the 1970's.⁵ The development of rural residential subdivisions has paralleled recent rural population growth in East Tennessee. Although such subdivisions have become integral elements of the rural landscape in many areas, little geographic research has been devoted to them. This thesis examines the development and characteristics of rural residential subdivisions in Loudon County, located in central East Tennessee.

Traditionally, residential subdivisions have been tied to cities. Prior to 1890 subdivisions were limited to areas near the centers of American cities because of the lack of rapid modes of transportation. With the introduction of the commuter railroads and electric streetcars, suburbs expanded in a "spoke-like" pattern to a distance of more than ten miles from the center of the cities.⁶ The period since World War II has been characterized by the peripheral expansion of subdivisions in all directions. In response to the automobile, the growth of the suburbs is no longer limited by fixed rail routes but extends along new and existing roadways. The period between 1945 and 1980 witnessed the greatest amount of suburbanization in American history and residential

⁵U. S. Department of Commerce, Bureau of the Census, Census of Population and Housing: 1980, Advance Reports, pt. 44, Tennessee, p. 9.

⁶Gary A. Tobin, "Suburbanization and the Development of Motor Transportation: Transportation Technology and the Suburbanization Process, in Barry Schwartz, ed., The Changing Face of the Suburbs (Chicago: University of Chicago Press, 1976), p. 97.

land-use became the most areally extensive type within a metropolitan area.⁷

In rural areas where population pressures have created a demand for rural housing, the lots for additional housing have usually been created by "lot-splitting."⁸ Unless done collectively, lot-splitting is a slow process of adding sites for dwellings. Over the years lot-splitting has encouraged ribbon-like housing development common to many rural areas. The large number of homes built on the rural landscape since 1960, however, is indicative of a new era in rural residential housing. Many of the new homes are in planned developments. Such developments are rural residential subdivisions.

Rural subdivisions are planned developments built well beyond the rural-urban fringe and are unlikely to be engulfed by incorporated places in the foreseeable future. They are significant because they provide housing opportunities which stimulate the growth and redistribution of population in rural areas. The subdivisions differ from rural communities and sporadic residential development in that they are created by a developer, have an overall plan, and are platted at a specific time. Rural communities usually developed around some type of commercial activity because of a strategic location on the landscape,

⁷ Maurice Yeates and Barry Garner, The North American City, 2nd ed. (New York: Harper and Row, 1976), p. 201.

⁸ Lot-splitting is the process of dividing a parcel of land into two smaller parcels. See R. B. Keeler, "Recent California Planning Statutes and Mountain Area Subdivisions—The Need for Regional Land-Use Control," Ecology Law Quarterly, Vol. 3, No. 1 (Winter 1973), p. 108.

while sporadic residential development is decentralized. Another type of rural development, "exurbs," are subdivisions whose residents are tied to a metropolitan center for employment.⁹

Objectives of the Study

The objectives of this study are to trace the development of the rural residential subdivisions in Loudon County, Tennessee, to classify them, and to determine the types of residents that each subdivision type has attracted. Loudon County was chosen as the study area for two reasons. First, preliminary research indicated that the county has an abundance of rural subdivisions which vary in age, distribution, and physical characteristics. Secondly, Loudon is a rural county. Although it is close to Knoxville, it is not a part of the Knoxville Standard Metropolitan Statistical Area (Figure I-1). The proximity to Knoxville, however, should reveal the influence of a medium-sized city on the development of rural subdivisions in an outlying county.

In this study a rural subdivision is defined as a tract of land partitioned into five or more lots for the purpose of residential development. The tract must be located more than one mile by road from the built-up area of an incorporated place. The minimum of five lots was chosen because a tract partitioned into five or more units must be recorded as a "subdivision" with the Register of Deeds Office

⁹Dinker I. Patel, Exurbs: Urban Residential Developments in the Countryside (Washington, D. C.: University Press of America, 1980), p. 7.

RELATIVE LOCATION OF LOUDON COUNTY, TENNESSEE

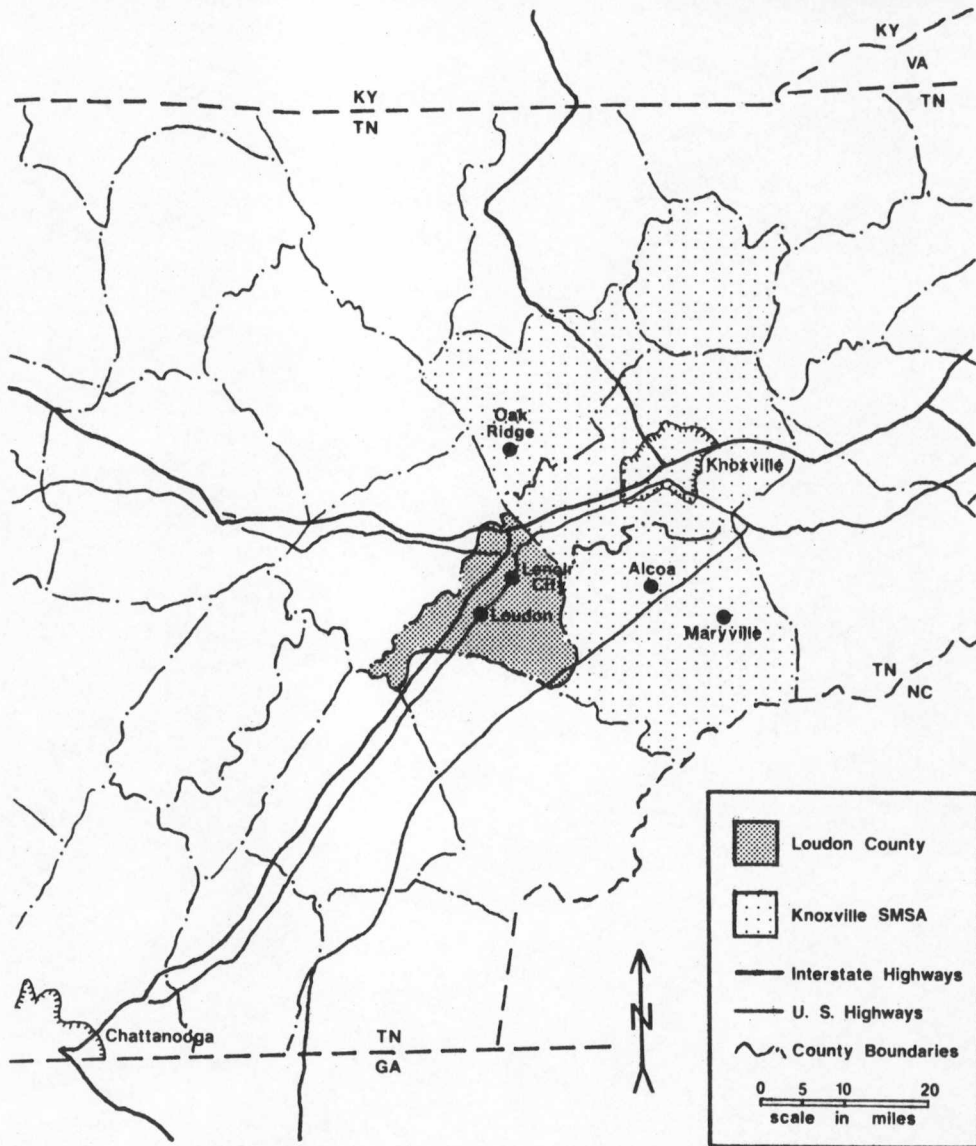


Figure I-1. Relative Location of Loudon County, Tennessee.

at the Loudon County Courthouse. Subdivisions of less than five lots are usually unnamed and difficult to identify in legal records. The one mile limit from the built-up area of an incorporated place was chosen to adjust for the over and underbounding of the towns.

Loudon County, Tennessee

Loudon County is located in the central portion of eastern Tennessee in the Ridge and Valley Province. The region is characterized by alternating ridges and valleys that run northeast to southwest. It is bounded on the east by the Blue Ridge Mountains and on the west by the Cumberland Plateau. The region is relatively well suited for agriculture. In 1974, 60.8 percent of the land area of Loudon County was in 791 farms.¹⁰

Three rivers flow through Loudon County, each of which has been dammed by the Tennessee Valley Authority (Figure I-2). The Tennessee River flows east to west through the center of the county. It has been dammed to form Fort Loudoun Lake in the east and Watts Bar Lake in the west. The Clinch River, which serves as the northern boundary of the county, has been dammed to form Melton Hill Lake. The third major river is the Little Tennessee which has recently been dammed to form Tellico Lake. The lakes are noted for their scenic qualities and for fishing, boating, and other water sports.

¹⁰U. S. Department of Agriculture, Bureau of the Census, U. S. Census of Agriculture: 1974, Vol. 1, State and County Data, pt. 42, Tennessee, p. IV-319.

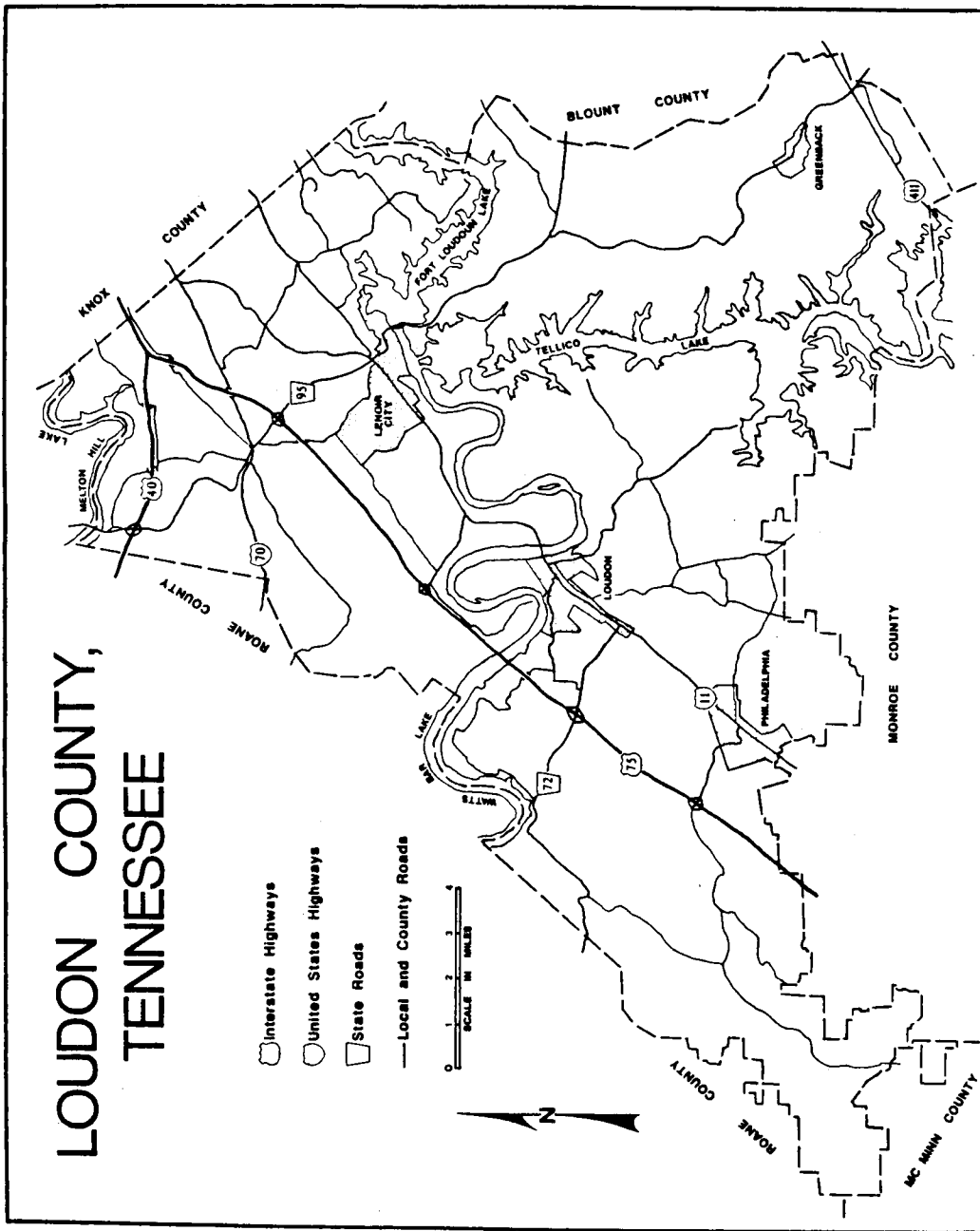


Figure I-2. Loudon County, Tennessee.

Loudon County lies just outside of the Knoxville Standard Metropolitan Statistical Area (Figure I-1, page 5). It is bordered by Roane County on the north, McMinn and Monroe Counties on the south, Blount County on the east, and Knox County on the northeast. Knoxville is about 20 miles from Loudon County, and is the third largest city in Tennessee with a 1980 population of 183,139.¹¹ Chattanooga is 70 miles to the south and Nashville 175 miles to the west. Oak Ridge, part of the Knoxville SMSA, is 10 miles north of the county.

Loudon County is well served by a network of roads that connect it with both local and regional cities (Figure I-2). The Interstate Highway System in the county was completed in 1975 and has greatly increased accessibility. Interstate Highway 75 traverses Loudon from northeast to southwest, providing easy access to Knoxville and Chattanooga. Interstate Highway 40 runs east to west across the northern fringe of the county to Nashville. United States Highways 11 and 70 parallel Interstates 75 and 40. The other two major roads in Loudon County are state highways 95 and 72. Both of these highways run northwest to southeast and roughly divide the county into thirds. There are many local roads which serve the remote sections of the county.

Loudon County contains two urban places. Lenoir City is located in the northeastern part of the county at the junction of U. S. Highway 11 and state highway 95. Lenoir City is the largest city in the county

¹¹U. S. Department of Commerce, Bureau of the Census, Census of Population and Housing: 1980, p. 9.

with a 1980 population of 5,446.¹² It is the commercial center of the county, and more than 800 persons work in factories.¹³ Loudon, the political seat, is the other urban place. Although it contains only 3,940 people, more than 900 persons are employed in manufacturing.¹⁴

Greenback and Philadelphia are the only other incorporated places in Loudon County. Both have populations of less than 600 persons.¹⁵ Philadelphia is located on U. S. Highway 11 in the western part of the county, and Greenback is located in the southeastern part of the county near U. S. Highway 411.

Although agriculture has traditionally been important to the local economy, it has steadily declined in significance during the last forty years. The number of persons employed in agriculture, forestry, and fishing decreased from 1,951 in 1940 to 395 in 1970 (Table I-1). In 1940, 30.2 percent of the employed persons worked in agriculture, forestry, and fishing, but in 1970 only 4.2 percent of the 9,457 employed persons were in this sector. The decline in the number of persons employed in agriculture has been more than compensated for by

¹²Ibid., p. 10.

¹³Loudon County Regional Planning Commission, Loudon Regional Planning Commission, and the Lenoir City Regional Planning Commission, The Population and Economy of Loudon, Lenoir City, and Loudon County, Tennessee (Nashville: Tennessee State Planning Office, December 1973), p. 5.

¹⁴Ibid.

¹⁵U. S. Department of Commerce, Bureau of the Census, Census of Population and Housing: 1980, pp. 9-10.

TABLE I-1
EMPLOYED PERSONS IN LOUDON COUNTY, 1940 AND 1970

Type of Employment	Number of Persons		Percent of Total Work Force		Percent Change in Number of Persons 1940-1970
	1940	1970	1940	1970	
Agriculture, Forestry, and Fishing	1951	395	30.2	4.2	-79.8
Manufacturing	2575	4378	39.9	46.3	70.0
Retail Trade	420	1018	6.5	10.7	142.4
Wholesale Trade	38	143	0.6	1.5	276.3
Services	723	1665	11.2	17.6	130.3
Construction	177	745	2.7	7.9	320.9
Mining	50	17	0.8	0.2	-66.0
Finance, Insurance, and Real Estate	38	244	0.6	2.6	542.1
Transportation, Communication, Sanitation, and Utilities	178	464	2.8	4.9	160.7
Government and Other	301	388	4.7	4.1	28.9
Total Work Force	6451	9457	100.0	100.0	46.6

Source: U. S. Census of Population.

the growth of the number in manufacturing. Manufacturing was the most important type of employment in 1940, having 2,575 employees, and by 1970 the number of persons in manufacturing had increased to 4,378, or 46.3 percent of the employed persons in the county. The number of persons employed in retail trade and services were relatively small in 1940. By 1970, however, the numbers employed in these activities had increased to 1,018 and 1,665.

Plan of the Study

The development of rural subdivisions in Loudon County is traced in Chapter II. The number of homes built in the rural subdivisions indicates their importance in the redistribution and growth of the county's population. Lot sizes, the number of lots in the subdivisions, housing quality, and the rates of built-out are also examined. These characteristics shed light on the variability of the subdivisions and help to ascertain what characteristics are important in their success or failure.

In Chapter III the subdivisions are categorized on the basis of location, lot size, and type of road pattern. Chapter IV examines the idea that a particular type of subdivision attracts a particular type of resident. The types of residents in a subdivision are analyzed by income, age, location of previous residence, and location of place of work. The characteristics of the residents help to explain the variations in rates of success for the subdivisions.

CHAPTER II

CHARACTERISTICS OF RURAL RESIDENTIAL SUBDIVISIONS

The Growth of Rural Subdivisions

Rural subdivisions are a significant type of residential development in Loudon County. A subdivision differs from traditional rural communities in that it is planned by a developer and is platted at a specific time. Rural communities and sporadic rural residential development have evolved with no overall plan. Unlike rural subdivisions, communities usually contain some form of commercial activity because of a strategic location on the landscape.

In 1981, the county had 112 rural residential subdivisions which contained five or more lots, including additions that were platted separately.¹ Rural subdivisions have become increasingly important (Figure II-1). The first one was started in 1923 and the creation of subdivisions has continued to the present. The dates that subdivisions were started are important because they indicate perceived demand for rural housing. Equally important are the numbers of homes built in the rural subdivisions because they indicate the actual demand for rural housing. By comparing the number of homes built in rural subdivisions to the total number of homes built in the county, the actual significance of the subdivisions can be evaluated.

¹One subdivision containing four lots was included in the study because an addition had more than five lots.

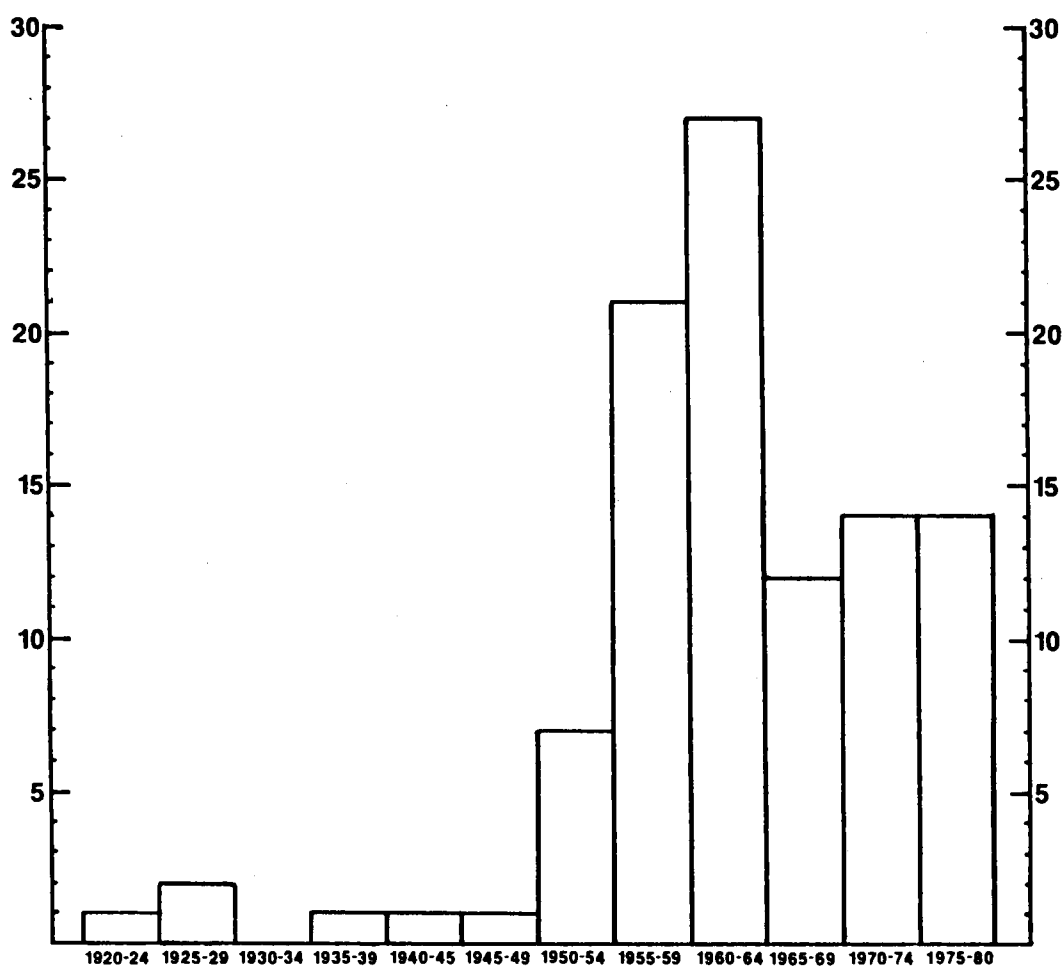


Figure II-1. Number of Rural Subdivisions Started in Loudon County, Tennessee, 1920-1980.

Loudon County experienced large population growth between 1930 and 1950, increasing from 17,805 to 23,182, a rate of 12.4 percent.² Most of the growth occurred outside of Lenoir City and Loudon. The large population increase in rural areas of Loudon County was contrary to patterns throughout most of the United States because many rural areas lost population to metropolitan areas during the period.³ The rural population growth in the county between 1930 and 1950 was not paralleled by the development of rural subdivisions. Only six rural subdivisions existed by 1950 and they contained but 30 of the county's 4,871 housing units (Table II-1).⁴ With an average of 3.60 residents per rural nonfarm home, only 108 of the county's residents lived in rural subdivisions (Table II-2).⁵

²U. S. Department of Commerce, Bureau of the Census, United States Census of Population: 1950, Vol. 2, Characteristics of the Population, pt. 42, Tennessee, p. 42-15.

³Peter A. Morrison and Judith P. Wheeler, "Rural Renaissance in America? The Revival of Population Growth in Remote Areas," p. 3.

⁴The number of homes built in the rural subdivisions was obtained from the "land ownership cards" at the Property Assessor's Office, in the Loudon County Courthouse. The land ownership cards contain information such as: when the house was built, the assessed value of the house and land, the size of the house, the name of the owner, the date that the owner purchased the house, and the size of the lot. The number of houses in the county in 1950 was obtained from: U. S. Department of Commerce, Bureau of the Census, Census of Housing: 1970, Vol. 1, Housing Characteristics for States, Cities, and Counties, pt. 44, Tennessee, p. 44-172.

⁵U. S. Department of Commerce, Bureau of the Census, Census of Housing: 1950, Vol. 1, General Characteristics, pt. 5, North Carolina-Tennessee, p. 42-68.

TABLE II-1

15

CHANGES IN NUMBER OF HOUSES IN
LOUDON COUNTY, 1950-1980

	Loudon County	Rural Subdivisions	Percent in Rural Subdivisions
Total 1950	4871	30	.6
1950-1959	+1543	+131	8.5
1960-1969	+2016	+383	19.0
1970-1979	+2140	+611	28.6
1980	+265	+21	7.9
Total 1980	10,835	1303*	12.0

*Includes 122 undated houses.

Source: U. S. Census of Housing and Loudon County Tax Records.

TABLE II-2

POPULATION CHANGES IN LOUDON COUNTY,
1950-1980

	Incorporated Places	Rural*	Rural Subdivisions	Total
Total 1950	8726	14,456	108	23,182
1950-1959	+65	+510	+485	+575
1960-1969	+294	+215	+1103	+509
1970-1979	+2314	+1973	+1613	+4287
1980	---	---	---	---
Total 1980	11,399	17,154	3440**	28,553

*Includes persons in rural subdivisions.

**Assuming an average 2.64 residents per rural subdivision dwelling in 1980.

Source: U. S. Census of Population and Loudon County Tax Records.

During the 1950's Loudon County had a growth rate of 2.5 percent, with the population increasing to 23,757.⁶ Almost all of the population increase occurred in the rural areas of the county. Lenoir City and Loudon gained only 65 of the 575 new residents.⁷ Much of the rural population growth during the decade can be accounted for by the new subdivisions that were begun (Figure II-1, page 13). Twenty-eight new subdivisions were started and 131 homes were built in the new or existing subdivisions. If each of the new homes contained 3.70 persons, then 485 of the 510 new rural residents can be accounted for.⁸ In addition to the new homes in the rural subdivisions, 1,412 homes were constructed in rural and urban areas of the county.⁹ Many of these were built as replacements for old, dilapidated houses.

The rate of population increase for Loudon County slowed to 2.1 percent during the 1960's as the population grew to 24,266.¹⁰ Lenoir City, which increased by 345 people, had a growth rate of 6.9 percent for the decade. However, the city of Loudon lost 84 persons,

⁶U. S. Department of Commerce, Bureau of the Census, United States Census of Population: 1960, Vol. 1, Characteristics of the Population, pt. 44, Tennessee, p. 44-15.

⁷Ibid.

⁸The average number of residents per house was obtained by dividing the total number of residents in the county by the total number of dwellings.

⁹U. S. Department of Commerce, Bureau of the Census, Census of Housing: 1970, p. 44-172.

¹⁰Ibid., p. 44-140.

a decrease of 2.3 percent (Table II-3).¹¹ All of the population growth in Lenoir City was due to annexation, and without it the population would have actually decreased by 14.4 percent.¹² The other two incorporated places in Loudon County, Greenback and Philadelphia, grew at a combined rate of 11.6 percent.¹³

During the 1960's rural subdivisions increased in number and contributed additional dwellings to the housing market (Figure II-1, page 13, and Table II-1, page 15). Although most of the population increase in Loudon County occurred in the incorporated places in the 1960's, 39 subdivisions were started in rural areas. Of the 2,016 new houses built in the county during the decade, 383, or 19.0 percent, were constructed in new and existing subdivisions (Table II-1, page 15).¹⁴ Because there were only 215 more people living in the rural areas in 1970 than in 1960, many of the older houses were replaced with new ones. With an average of 2.88 residents per home, 1,103 persons moved into the rural subdivisions during the decade, accounting for the redistribution of 888 people from rural areas into rural subdivisions.

During the 1970's Loudon County had a dramatic increase in population. The population jumped from 24,266 in 1970 to 28,553 in 1980,

¹¹U. S. Department of Commerce, Bureau of the Census, United States Census of Population: 1970, Vol. 1, Characteristics of the Population, pt. 44, Tennessee, p. 44-20.

¹²Ibid., p. 44-19.

¹³Ibid., p. 44-15.

¹⁴U. S. Department of Commerce, Bureau of the Census, Census of Housing: 1970, p. 44-172.

TABLE II-3
POPULATION CHANGES IN INCORPORATED PLACES IN
LOUDON COUNTY, 1930-1979

	1930-1939	1940-1949	1950-1959	1960-1969	1970-1979
Lenoir City	-97	+786	-180	+345	+1921
Loudon	+439	+550	+245	-84	+212
Philadelphia	*	*	*	*	-45
Greenback	*	*	*	+33	+228
Total All Places	+342	+1336	+65	+294	+2314

*Information not available.

Source: U. S. Census of Population.

a growth rate of 17.6 percent.¹⁵ A reversal also occurred in the trend of rural areas gaining population at the expense of incorporated places. The composite growth rate for the four incorporated places was 23.3 percent, while the rest of the county grew by 13.8 percent.¹⁶ Because the initial population of the rural areas was greater than that of the incorporated places, 46.0 percent of the county population increase occurred in rural areas.¹⁷

At the same time Loudon County was experiencing large population gains in rural and incorporated areas, the number of rural subdivisions that were created dropped from 39 in the 1960's to 25 in the 1970's. However, 611 new homes were built in the new or existing subdivisions, which was the most in any decade (Table II-1, page 15). The new houses constructed in the rural subdivisions accounted for 28.6 percent of the 2,140 built in the county.¹⁸ If each rural subdivision house contained an average of 2.64 persons, then 1,613 people moved into the subdivisions during the 1970's. However, the total rural population for the decade grew by 1,973 persons, indicating that most of the rural population growth occurred in rural subdivisions (Table II-2, page 15). The small amount of rural population growth outside of the rural

¹⁵ U. S. Department of Commerce, Bureau of the Census, United States Census of Population and Housing: 1980, p. 9.

¹⁶ Ibid., pp. 9-10.

¹⁷ Ibid.

¹⁸ University of Tennessee Center for Business and Economic Research, Tennessee Statistical Abstract 1980 (Knoxville: University of Tennessee Press, 1980), p. 225.

subdivisions is not surprising because the formation of Tellico Lake in 1979 caused the resettlement of a number of families.

By 1980 there were 10,835 houses in Loudon County, and 1,303, 12.0 percent, of these were in rural subdivisions (Table II-1, page 15).¹⁹ The time lag between the creation of the rural subdivisions and their development indicates that the peak decade of importance was not the 1960's when the most subdivisions were started, but the 1970's when the most houses were built in them.

Distribution of Rural Subdivisions

Rural residential subdivisions are located throughout Loudon County. The four incorporated places and areas along Watts Bar and Fort Loudoun Lakes are principal nodes (Figure II-2). Most of the subdivisions are north and east of Lenoir City. The less accessible areas of the county have few developments.

The rural subdivisions have more distinct distribution patterns if they are mapped by the year in which they were begun (Figure II-3). Subdivisions started before 1950 were predominantly located near state road 95 and United States Highways 11 and 70 that offered easy access to Lenoir City. Subdivisions located to the north of Lenoir City on those highways include the P. H. Roberts Partition, the Samuel Smith Partition, and the Gilbert Blankenship subdivision. The J. A. Rogers subdivision was located between Lenoir City and Loudon on United States

¹⁹ An additional 122 homes in rural subdivisions, not dated in the records of the Property Assessor's Office, are included in the total.

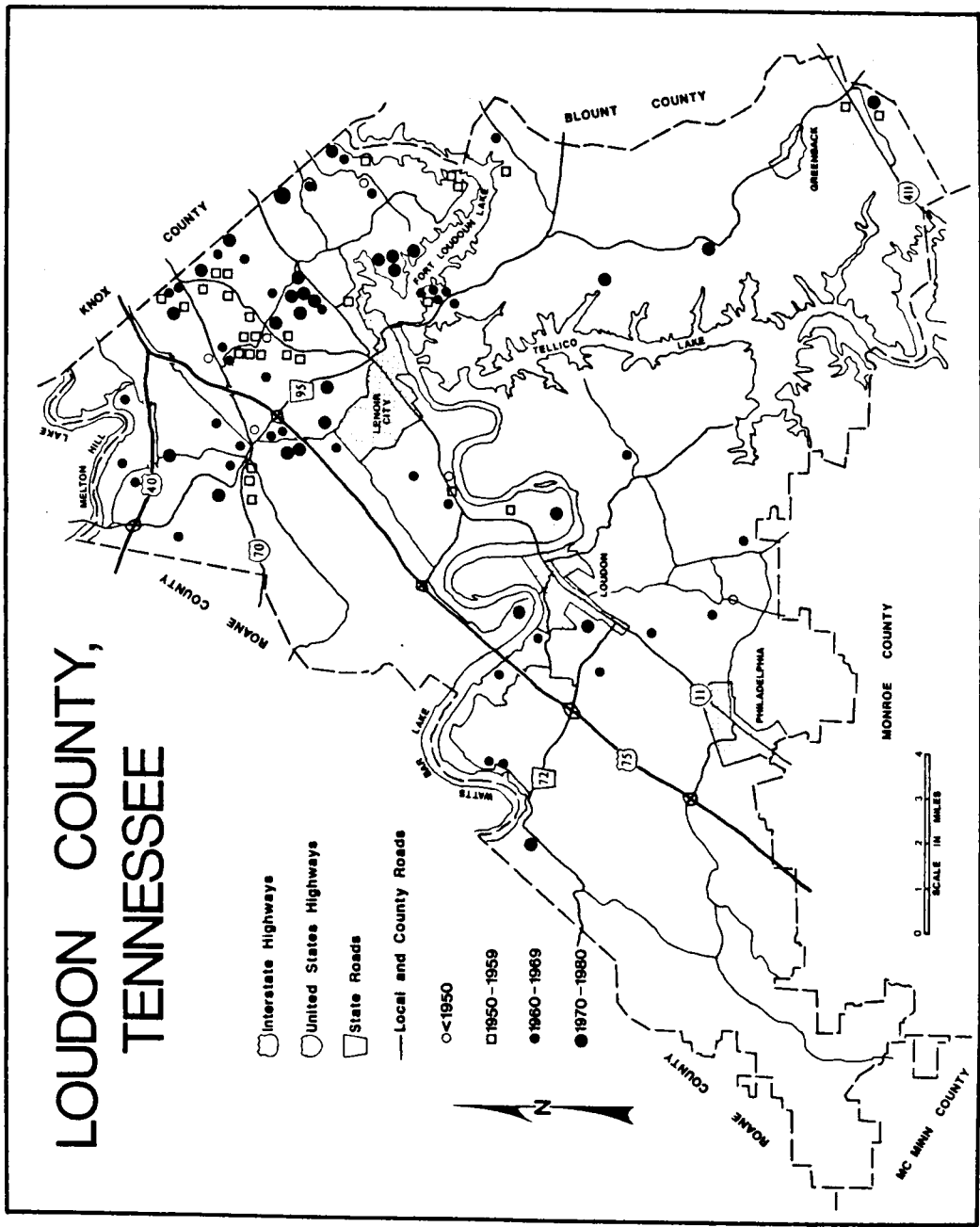


Figure II-3. Distribution of Rural Subdivisions by Decade Started.

Highway 11, and the A. J. Rice and Houston Farm subdivisions were located on county roads in isolated areas (Figure II-2 and Appendix A).

Most of the 28 new subdivisions started during the 1950's were along major highways to the north and east of Lenoir City. United States Highways 11 and 70 provided good access to Lenoir City and Knoxville. In the southern part of the county, the Hutton-Ryan and Pleasant Ridge subdivisions were built near Greenback, close to United States Highway 411. United States Highway 411 provided the residents of those subdivisions with easy access to Maryville and Alcoa. Six subdivisions were started near Fort Loudoun Lake, indicating that the decade witnessed the beginning of amenity developments.

The decade of the 1960's was characterized by decentralization of subdivision activity. Although Lenoir City still served as the focal point for new subdivisions, they were started in many other parts of the county (Figure II-3). Some of the subdivisions were located away from major highways, unlike the patterns of previous decades. Several new subdivisions were started near Fort Loudoun Lake, Watts Bar Lake, and on the outskirts of Loudon.

During the period 1970 through 1980, subdivision activity continued to be dispersed throughout the county. Easy access to the incorporated places was no longer a requisite for the creation of subdivisions. The Griffith Farm and Henry McDonald subdivisions were started along county roads in the east-central part of the county, while the Engbert and Pershing subdivision was formed on state road 72 west of Loudon (Figure II-2 and Appendix A). Fort Loudoun Lake was an important node

for subdivision activity, with five subdivisions having been started on its shores. Lenoir City also was a node for new subdivisions, but during this period new subdivisions tended to be located farther from it than subdivisions started in previous decades.

Sizes of Rural Subdivisions

The number of lots that a subdivision contains is important because it is an indicator of the potential number of houses that can be built. The 112 rural subdivisions in Loudon County range in size from five to 222 lots. Because of the broad range, the subdivisions are classified on the basis of number of lots (Table II-4). Subdivisions which contain fewer than 30 lots are "small" and those that contain 30-59 lots are "medium." "Large" subdivisions contain 60 or more lots. There is an inverse relationship between group size and the number of subdivisions in each group. Small subdivisions are the most numerous, accounting for 58.9 percent of the 112. Medium subdivisions are less than half as numerous as small subdivisions. The county contains only 16 large subdivisions, 14.3 percent of the total number.

The number of subdivisions in each size group is not a good indicator of their potential contribution to the housing market. Small subdivisions account for over half of the subdivisions in the county, but contain only 864 lots, or 23.8 percent of the 3,630 lots in rural subdivisions (Table II-4). Although middle-sized subdivisions are half as numerous as small ones, they contain more lots. The 1,296 lots in the middle-sized subdivisions are 35.7 percent

of the total. The 16 large subdivisions contain the most lots, 1,470, 40.5 percent of the total.

TABLE II-4
NUMBERS AND PERCENTAGES OF SUBDIVISIONS AND LOTS BY
SUBDIVISION SIZE CATEGORIES

	Subdivisions		Lots	
	Number	Percent of Total	Number	Percent of Total
Small Subdivisions (5-29 lots)	66	58.9	864	23.8
Medium Subdivisions (30-59 lots)	30	26.8	1,296	35.7
Large Subdivisions (60 or more lots)	16	14.3	1,470	40.5
Total	112	100.0	3,630	100.0

Source: Loudon County Tax Records.

Sizes of Lots

There is great variation in sizes of lots in the rural subdivisions in Loudon County. Lots range from .15 of an acre to 28.12 acres. The average is 1.30 acres, which is considerably larger than most urban and suburban lots. There is a tendency for the average lot size to be related to the number of lots in a subdivision. The correlation between the two variables is $-.200$, but the relationship appears to be a curved-line function rather than a linear function (Figure II-4).

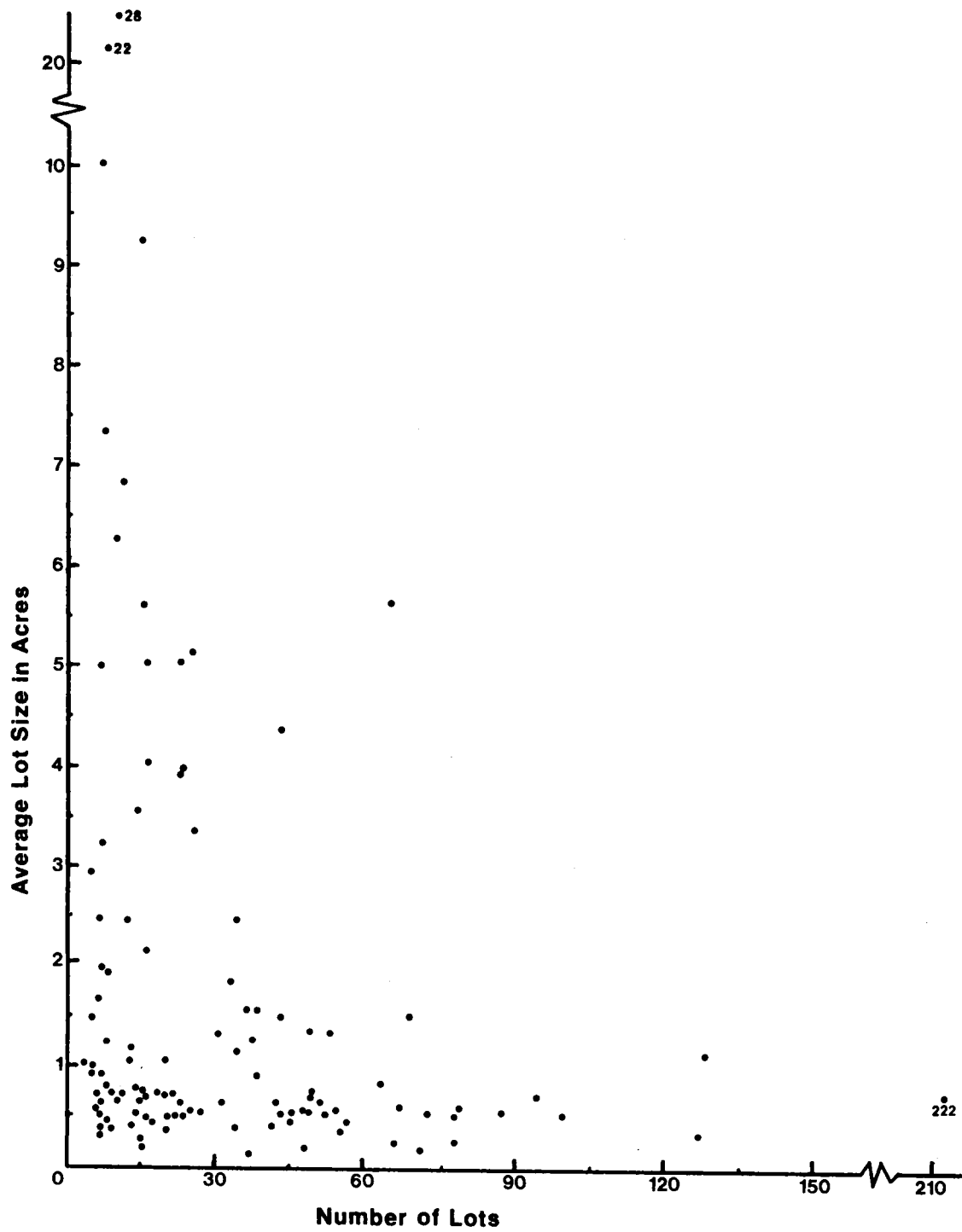


Figure II-4. Relationship Between Size of Lots and Number of Lots in Rural Subdivisions.

The subdivisions were put into categories based on lot size and the number of lots in the subdivision so the relationship can be more easily discerned (Table II-5). Subdivisions with large lots generally contain fewer lots than subdivisions with small lots. Twenty-two of the 25 subdivisions in the large-lot category contain fewer than 30 lots, and only three have more than 30. Subdivisions that contain lots that average from one to two acres have more lots per subdivision than large-lot subdivisions. There are 20 subdivisions in this category.

Subdivisions with lots that average less than one acre in size are heavily represented in each "number-of-lots" category. Of the 67 subdivisions that have small lots, 13 have 60 or more, and 19 have 30 to 60. This indicates that small-lot subdivisions are more likely to contain large numbers than subdivisions with larger lots. There are also 35 subdivisions with fewer than 30 lots. Many subdivisions were started on small tracts of land that were suitable for neither large lots nor large numbers of lots.

Average lot size varies when the subdivisions are compared chronologically. Subdivisions that were started before 1950 are predominantly large- or medium-lot subdivisions (Table II-6). Two of the six subdivisions begun during that period average 9.64 acres and three are between one and two acres. Only one has lots that are smaller than one acre. The 28 subdivisions that were started in the 1950's are primarily in the small-lot category. Only four have lots that are one to two acres. No large-lot subdivisions were built during the fifties.

TABLE II-5

NUMBER OF RURAL RESIDENTIAL SUBDIVISIONS BY
LOT SIZES AND NUMBER OF LOTS

28

	Small Subdivisions (fewer than 30 lots)	Medium Subdivisions (30-59 lots)	Large Subdivisions (60 or more lots)	Total
Small-Lot (less than one acre)	35	19	13	67
Medium-Lot (one to two acres)	9	9	2	20
Large-Lot (two or more acres)	22	2	1	25
Total	66	30	16	112

Source: Loudon County Tax Records.

TABLE II-6

NUMBER OF RURAL RESIDENTIAL SUBDIVISIONS STARTED BY
LOT SIZES FOR SELECTED TIME PERIODS

	Prior to 1950	1950- 1959	1960- 1969	1970- 1980	Undated	Total
Small-Lot (less than one acre)	1	24	26	14	2	67
Medium-Lot (one to two acres)	3	4	4	4	5	20
Large-Lot (two or more acres)	2	0	9	10	4	25
Total	6	28	39	28	11	112

Source: Loudon County Tax Records.

Most of the 39 subdivisions started during the 1960's have small lots. However, nine large-lot subdivisions were platted, the most for any period. The growth of the large-lot subdivisions continued during the 1970's. The ten large-lot subdivisions accounted for over one-third of the 28 new subdivisions started from 1970 through 1980. Fourteen small-lot subdivisions were begun. As in the previous two decades, the medium-sized subdivisions accounted for just four of the subdivisions.

When the subdivisions are mapped by lot size, a relationship between average lot size and location within the county is revealed (Figure II-5). The small-lot subdivisions are located near Lenoir City where population densities are greatest. Several small-lot subdivisions are also near Fort Loudoun Lake, where property values are high and there is a limited amount of developable land. Generally, large-lot subdivisions are located in more remote areas in the southeastern and northern parts of the county. The medium-lot subdivisions are in areas that are fairly accessible to Lenoir City and Loudon, including several near Fort Loudoun Lake.

Rates of Build-Out

The subdivisions of Loudon County have had various degrees of success. Subdivisions such as Lindner Villa and Forest Hills West have become saturated with homes, while the Walter Burkhart and J. M. Palmer subdivisions are examples of those that have had little development (Appendix A). Because the number of homes in a subdivision may be

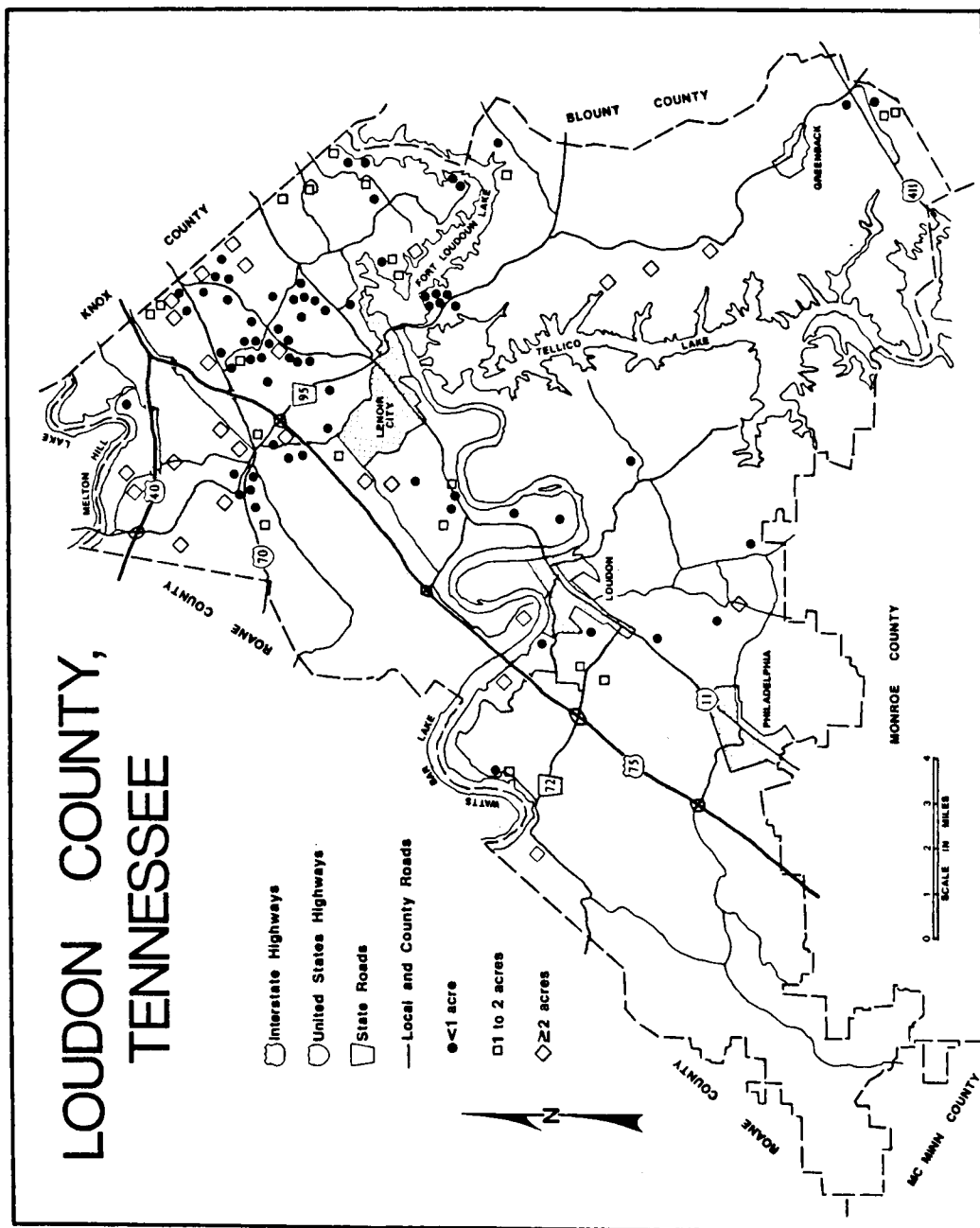


Figure II-5. Distribution of Rural Subdivisions by Lot Size, 1981.

simply related to the date it was begun, it is necessary to have a method by which to evaluate the degrees of success of the developments. The method used to evaluate success is to take the percentage of homes built in a subdivision and divide the percentage by the number of years that the subdivision has been in existence. The resulting number is the average percent of build-out that the subdivision has experienced each year it has been in existence. The values could range from zero in a subdivision that has no homes to 100 in a subdivision that became saturated with houses within one year from the date it was started.

The build-out rates for rural residential subdivisions in Loudon County range from zero to 25.00. The average rate is 2.86, which indicates that the typical subdivision achieved 2.86 percent of its potential build-out each year that it was in existence, and would require 34.97 years to become fully developed. The average build-out rate for the rural subdivisions in Loudon County is obviously lower than the average rate for typical subdivisions in urban areas.

The rate of build-out for the 112 rural subdivisions in Loudon County has a moderate correlation with the year started. The correlation coefficient of .392 indicates that the newer subdivisions are the ones that have been the most successful. This probably can be explained by the fact that the newer subdivisions have been more heavily advertised than the early ones.

The average price of the houses in the individual rural subdivisions is also related to the rate of build-out. Although the correlation between house price and the rate of build-out is a weak one, .255, it

does offer some degree of explanation. None of the other physical characteristics have any degree of correlation with the build-out rate, so there are other reasons for the varying degrees of success.

The distribution of the rural subdivisions in Loudon County by build-out rates does not indicate that there is a center for successful or unsuccessful subdivisions. Subdivisions such as the John McGill and Henry McDonald Farm Partitions, which are located in remote parts of the county, tend to have the lowest rates, but other subdivisions including Gilbert Blankenship and John Bible are not isolated and also have low rates of build-out (Figure II-1, page 13, and Appendix A). Subdivisions that have the highest build-out rates, such as Lindner Villa and Twin Cove Estates subdivisions, are located near Lenoir City, Loudon, and Fort Loudoun Lake. Distance from Lenoir City plays a definite role in the distribution of the subdivisions with high build-out rates.

House Values

The quality of a subdivision is difficult to measure because many variables contribute to quality. Assessed values of houses for tax purposes is one of the best indicators of subdivision quality because it is a quantitative measure. For this reason, assessments of houses in the rural subdivisions are used to evaluate the quality of the subdivisions (Appendix B). The data were obtained from the Loudon County Property Assessor's Office and are in 1968 dollar values.

Average house value varies greatly among rural subdivisions in Loudon County. The most expensive subdivision has an average house

value of \$42,290 and the least expensive an average of \$5,084. The average value for the subdivision homes is \$17,830.

The assessed values of the houses is strongly related to the year in which subdivisions were started. The correlation between these variables is .591. The depreciation of the houses as they age is one reason for the relatively high correlation. Another reason is that newer subdivisions tend to have larger houses than the older ones. Also, the newer subdivisions have stricter regulations regarding the types of dwellings that can be constructed.

Of the 112 rural subdivisions in Loudon County, 14 contain no houses and cannot be evaluated by house value. Sixteen of the subdivisions have average house values that are less than \$10,000. These subdivisions, primarily, are located in the remote areas of the county (Figure II-6). The ones located near Lenoir City, including the Taylor and Neeley subdivisions, are the older ones that were built prior to 1960 (Figure II-1, page 13, and Appendix A). The average date that the subdivisions with house values less than \$10,000 were started is 1949 (Table II-7).

The medium-value subdivisions are those with house values between \$10,000 and \$30,000. This category includes 80 of the 112 rural subdivisions. The house values in this category are representative of typical rural subdivisions, with the house values being related especially to the ages of the houses.

The medium-value subdivisions have an average starting date of 1963 and are considerably newer than subdivisions with house values of

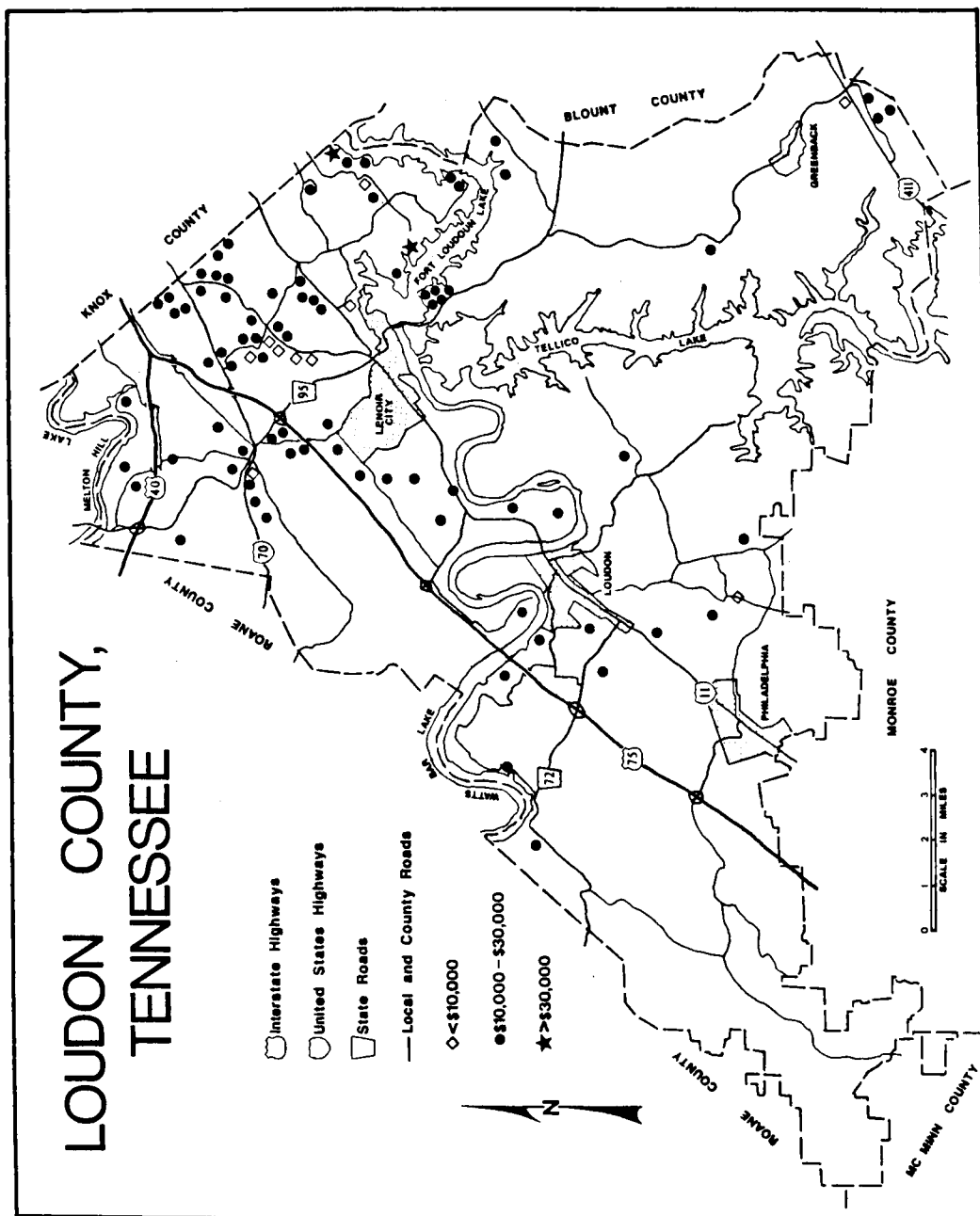


Figure II-6. Distribution of Rural Subdivisions by Average Assessed House Value, 1981.

TABLE II-7
NUMBER OF RURAL SUBDIVISIONS AND AVERAGE YEAR
STARTED FOR EACH HOUSE VALUE CATEGORY

	Number of Subdivisions			Average Year Started
	Dated	Undated	Total	
Low-Value (less than \$10,000)	12	4	16	1949
Medium-Value (\$10,000 to \$30,000)	75	5	80	1963
High-Value (\$30,000 or more)	2	0	2	1972
Total*	89	9	98	1963**

*Total does not include the 14 subdivisions that contain no houses.

**Includes all 101 dated subdivisions.

Source: Loudon County Tax Records.

less than \$10,000. They are located throughout the county, with several near Lenoir City, Loudon, and Fort Loudoun Lake (Figure II-6). Fort Loudon Estates, Northview Estates, and Martel Estates are examples of medium-value subdivisions (Figure II-1, page 13, and Appendix A).

There are two subdivisions that have average house values of more than \$30,000. One was started in 1970 and has an average house value of \$42,290. The other was begun in 1973 and its average house is worth \$33,621. Both of the subdivisions are located on Fort Loudoun Lake.

CHAPTER III

TYPES OF RURAL RESIDENTIAL SUBDIVISIONS

It has been shown that rural residential subdivisions in Loudon County vary greatly in their characteristics. Although lot sizes, subdivision sizes, build-out rates, house values, and subdivision ages and locations are important qualities, these characteristics are generally unrelated to each other and often do not reveal the total character of the subdivisions. Empirical evidence suggests that the character of a subdivision is also a product of attributes such as site, situation, and internal layout. These are readily discerned by consumers and are important in the success of a subdivision.

It is likely that people choose to live in rural subdivisions of Loudon County because they have qualities that are different from urban and suburban subdivisions. Lake access and large lots are two characteristics not normally found in suburban or urban environments. "Lakeside" subdivisions are situated on the shore of a lake and offer water access and a scenic view. They are highly attractive to many consumers. "Farm Partitions" are subdivisions whose site characteristics include very large lots which cannot be found in densely populated areas.

The other rural subdivisions in the county do not have qualities which make them significantly different from most city suburbs except for being situated in rural areas. Because of the lack of unique characteristics, they are classified by their internal structure. Their internal structure is primarily determined by the road pattern.

Subdivisions built along county and state roads that predated the developments are "existing-road" subdivisions. The creation of existing-road subdivisions involves little expense by the developer or landowner. The developer simply has the land platted and sells the lots. Another type, "single-road" subdivisions, requires the construction of one road by the developer. The road dead-ends, connects two preexisting roads, or is a semicircle. The developer invests more capital than in an existing-road subdivision, but access is usually provided to a greater number of lots.

"Complex-road" subdivisions are the fifth type. They have two or more roads that do not predate the subdivision and usually contain a combination of curves, cul-de-sacs, and dead-end streets. The complex-road pattern provides access to a large number of lots and has aesthetic appeal. This type of subdivision is usually created by professional developers because great expense is required to build the large number of roads.

Lakeside Subdivisions

The lakeside subdivisions in Loudon County were developed for recreational and amenity purposes. In each of the lakeside subdivisions the developer sought to create an image consistent with the type of customer he chose to attract. The subdivisions have names such as Lakeside Camp, Riverview Farms, Hope Creek Colony, Point Harbor, and Fort Loudon Estates, which assist in attracting prosperous, amenity-oriented customers. The scarcity of developable lakeside property

made the land expensive to acquire and resulted in high-priced lots and the need to attract prosperous customers.

Loudon County contains four lakes, but most of the lakeside subdivisions are located on one. Of the 19 lakeside subdivisions in the county, 14 are on Fort Loudoun. Most of the development has occurred on Fort Loudoun Lake because of its location. Major routes such as Martel Road and United States Highway 11 provide access to Knoxville and West Knox County, while state highway 95 provides access to Lenoir City (Figure III-1). The completion of I-75 as far west as state highway 95 occurred in 1964 but did not significantly improve travel times to Knoxville from Fort Loudoun Lake.¹ Travel times from Fort Loudoun Lake to Knoxville are between 40 and 45 minutes regardless of which routes are used. Fort Loudoun Lake has also attracted the most subdivisions because it is relatively old and much of its adjacent land is privately owned. Fort Loudoun Lake was formed in 1943 during the period when the Tennessee Valley Authority purchased only the land that was to be flooded.²

Watts Bar Lake in west-central Loudon County was formed in 1942. Although it is adjacent to the city of Loudon, only four subdivisions have been created on its shores. The lack of subdivision activity is

¹Most of the lakeside subdivisions are located several miles from entrance ramps to the Interstate Highways, thus negating the benefits of high-speed travel.

²John Sharp Fox, "Tennessee Valley Authority Land Policies: The Case of Meigs County, Tennessee" (unpublished M.S. thesis, University of Tennessee, 1977), p. 19.

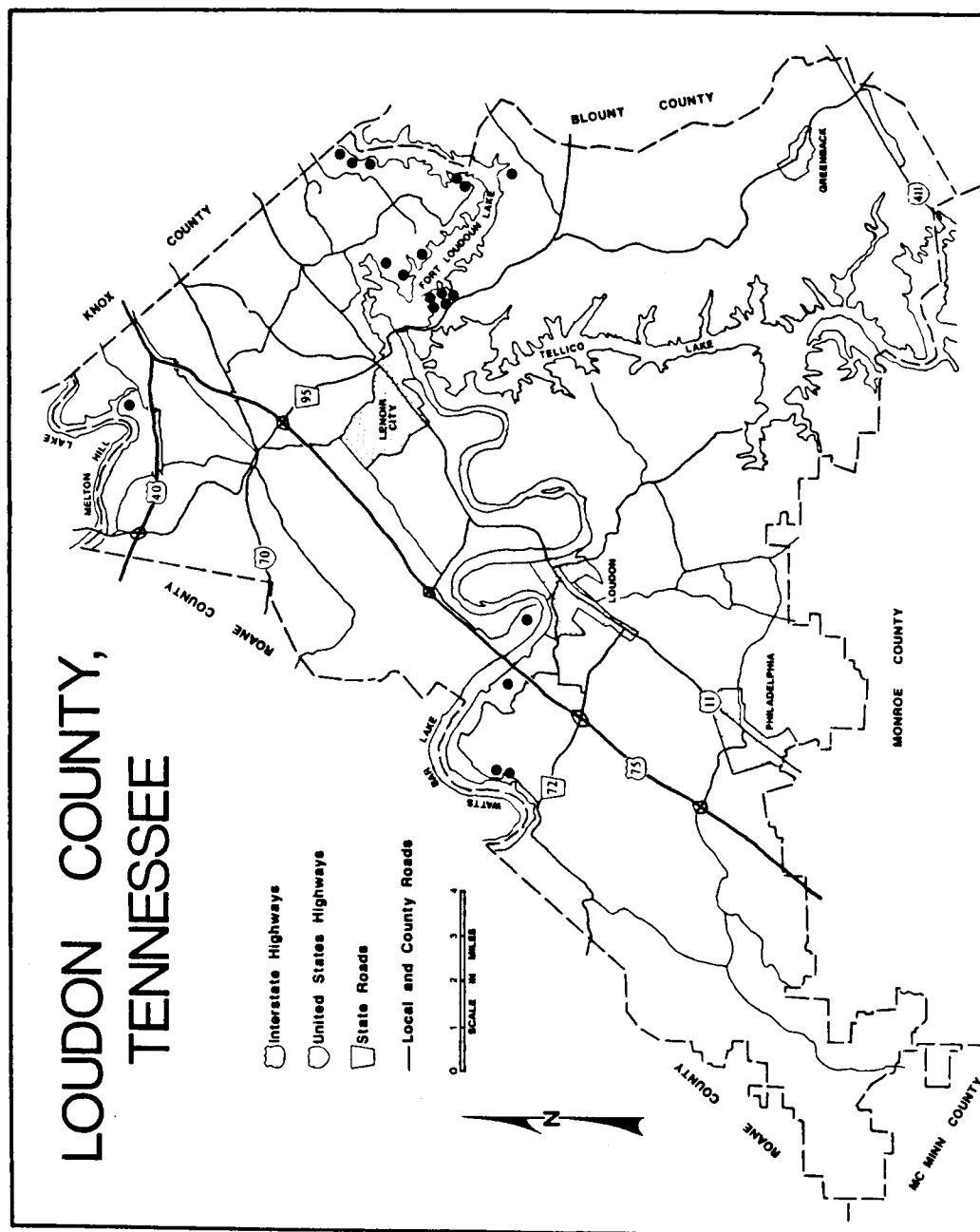


Figure III-1. Distribution of Lakeside Subdivisions.

due to three reasons. First, most of Watts Bar Lake is fairly remote and is accessible only by dirt or semi-improved roads. Watts Bar Lake lies about 30 miles from Knoxville, and the dirt and semi-improved roads ensure that travel times are at least 40 minutes in spite of the Interstate Highways. Prior to the completion of Interstate Highways 40 and 75 through Loudon County travel times were about ten minutes longer than at present. The distances to the more populated areas of Knoxville and West Knox County hinder the growth of subdivisions on Watts Bar Lake. Fort Loudoun Lake is an intervening opportunity for persons who work in Knox County and desire lakeside residences.

The second reason there are few subdivisions on Watts Bar Lake is that the city of Loudon is small and has had a slow growth rate. There has been little population pressure to stimulate the creation of rural subdivisions. The third reason is that much of the land is not privately owned and is unavailable for development. Watts Bar Lake was created during a period when the Tennessee Valley Authority purchased about one-third more land than was necessary for the reservoir.³

Melton Hill Lake is in the extreme northern part of Loudon County and has the shortest shoreline of the four lakes. Melton Hill Lake is very accessible to Knoxville and Oak Ridge and is only about 25 minutes

³Ibid., p. 16.

from downtown Knoxville by way of I-75.⁴ The Interstate Highways were completed through this portion of the county in 1964, just one year after the lake was formed.⁵ In spite of having good access to Knoxville, Melton Hill Lake has only one rural subdivision in Loudon County. Not only is the shoreline in Loudon County short, but much of the shoreline is owned by the Tennessee Valley Authority. Melton Hill Lake also was formed at a period when TVA purchased much more land than was needed for the reservoir, thus restricting the amount of property that could be privately developed.⁶

Tellico, the fourth lake, has the most shoreline of the lakes in Loudon County. It also is the most recent, having been formed in 1979. Tellico has no rural subdivisions, and it is unlikely that it will have any in the near future. In addition to the land needed for the reservoir, TVA owns much of the watershed of Tellico Lake. Land along the shore will not be sold for private development unless TVA can make a substantial profit, which may make the land prohibitively expensive for residential land-use.⁷

⁴ Average travel times between Knoxville and the rural subdivisions in Loudon County were attained by driving between downtown Knoxville and several points in the county. By traveling both state and Interstate Highways, travel times were estimated for pre-Interstate, partial-Interstate, and post-Interstate periods.

⁵ Interview with George Russell, Tennessee Department of Transportation, Knoxville, Tennessee, February 19, 1979; and Marguerite Owen, The Tennessee Valley Authority (N. Y.: Praeger Publishing Co., 1973), p. 127.

⁶ John Sharp Fox, "Tennessee Valley Authority Land Policies: The Case of Meigs County, Tennessee," p. 20.

⁷ Ibid., pp. 20-21.

The first of the 19 lakeside subdivisions was started in 1950, with development continuing through 1979. The history of lakeside developments in Loudon County has generally paralleled that of rural subdivisions. The average starting date of the lakeside subdivisions is 1965, which is slightly more recent than the average of 1963 for all rural subdivisions. The lakeside subdivisions account for 18.8 percent of the rural subdivisions. The principal decade for their development was the 1960's when they comprised 23.1 percent of all rural subdivisions started.

The earliest subdivisions were on Fort Loudoun Lake. Those on Watts Bar Lake are more recent with development occurring only during the late 1960's and 1970's. The single subdivision on Melton Hill Lake was begun in 1964.

The lots in lakeside subdivisions are larger than those in other types of subdivisions except farm partitions (Table III-1). The lakeside subdivisions have an average lot size of 1.53 acres, compared to 1.30 acres for all rural subdivisions. Lakeside is the only type in which the size of the lots is related to the year the subdivisions were started.

The number of lots is also an important characteristic of the lakeside subdivisions. They have an average of 31.9 lots, which is very close to the average of 32.4 for all rural subdivisions in Loudon County. The lakeside subdivisions differ from the other types in that there is a positive correlation between the number of lots in a subdivision and the size of the lots. The correlation coefficient of .302 indicates that

TABLE III-1

CHARACTERISTICS OF TYPES OF RURAL SUBDIVISIONS, 1981

Subdivision Type	Number of Subs*	Average Year Started**	Average House Age	Average House Value	Average Number of Houses	Average Number of Lots	Average Lot Size	Average Build-Out Rate
Existing-Road	21	1957	1962	\$10,921	5.2	12.6	1.47	2.80
Single-Road	30	1962	1968	\$16,215	7.5	22.3	.89	3.04
Complex-Road	31	1967	1970	\$18,205	23.7	62.8	.80	3.36
Lakeside	19	1965	1970	\$22,695	8.6	31.9	1.53	2.23
Farm Partition	10	1961	1967	\$15,802	5.1	13.0	8.88	2.03
Average***	--	1963	1970	\$17,830	11.5	32.4	1.30	2.86

Source: Compiled from Tax Records in the Property Assessor's Office, Loudon County, Tennessee.

*One subdivision was not classified.

**Includes 101 dated subdivisions.

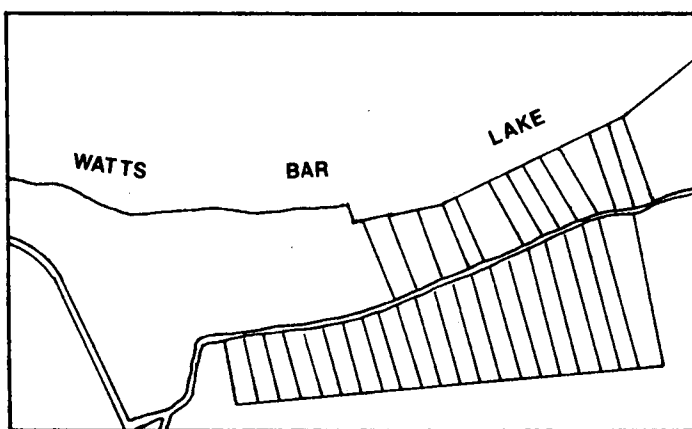
***Includes all 112 subdivisions.

developers of the larger lakeside subdivisions have tried to provide large lots to attract amenity-oriented customers.

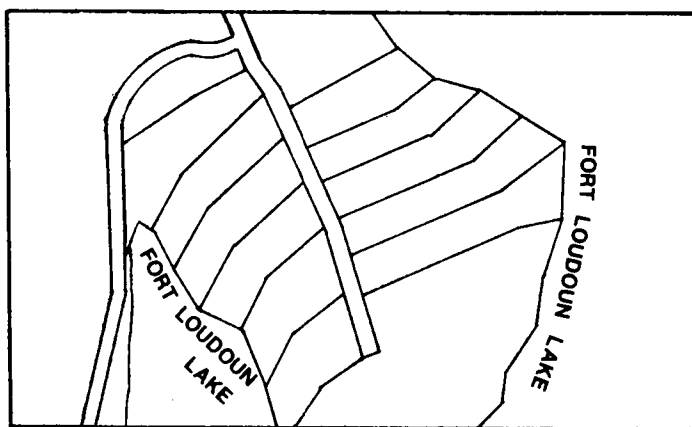
The lakeside subdivisions have a wide variety of road patterns. Roads that predate the subdivisions are common in areas where the developments are close to the lakes (Figure III-2). In cases where the parcel of land developed was wide and deep, as in the Twin Cove Estates subdivision, a complex road pattern was normally used. In cases where the waterfront property was not wide but too deep to use the existing road, a single dead-end road was often used. The Lake Point subdivision is a good example (Figure III-2). Modified versions of these road-types were often used, depending on the size and dimensions of the subdivision property. Many of the lakeside subdivisions have dirt or semi-improved roads because paved roads were not required by the county until recently.⁸

The lakeside subdivisions have a low build-out rate compared to the other subdivision types in the county (Table III-1). Only 27.1 percent of the 606 lots in the lakeside subdivisions contain homes, while 35.5 percent is the average for all rural subdivisions. The small percentage of houses is likely due to each household owning an average of 1.83 lots and to many lots being owned by persons who plan to build houses upon retirement. (Appendix B).

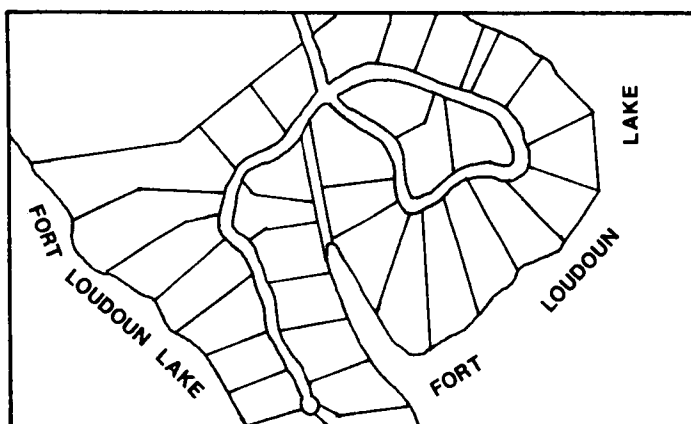
⁸The first comprehensive plan for Loudon County was not completed until 1971. The Loudon County Regional Planning Commission, The Zoning Resolution of Loudon County, Tennessee (Nashville: Tennessee State Planning Office, 1971).



A. Lake Shore Subdivision.



B. Lake Point Subdivision.



C. Twin Cove Estates Subdivision.

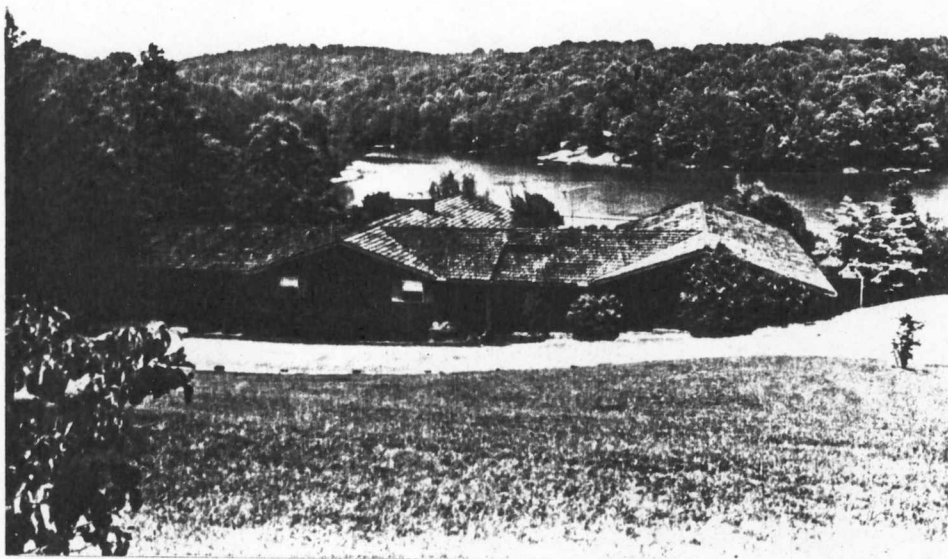
Figure III-2. Examples of Lakeside Subdivision Road Types.

Although the lakeside developments do not have high build-out rates, they contain the most expensive houses of the subdivision types (Table III-1, page 44, and Figure III-3). The houses range in assessed value from a high of \$42,290 in Twin Cove Estates, to a low of \$10,190 in the Lakeshore subdivision (Figure III-1, page 40, and Appendix B). The age of the lakeside subdivisions and the age of the houses in them are strongly related, with a correlation of .525. However, the correlation is lower than for the other subdivision types. The newer homes tend to be larger and have not depreciated in value as much as the older ones.

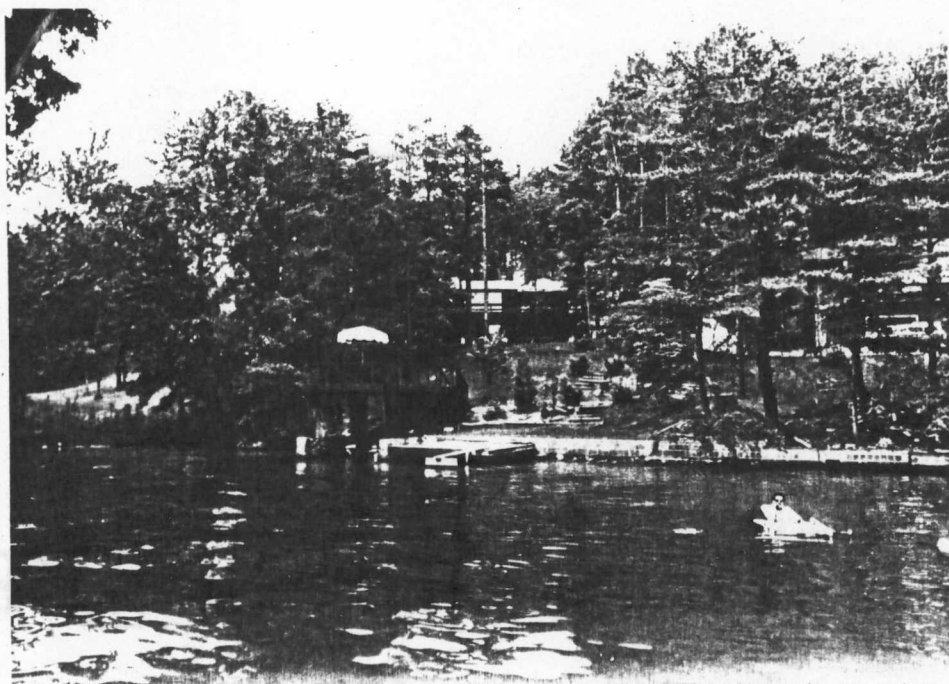
Farm Partitions

Loudon County contains ten large-lot subdivisions that are termed "farm partitions" in the records of the Loudon County Courthouse. The units are called farm partitions because they are expected to remain in agriculture. In reality, they are used primarily for residential purposes. Some farm partition residents do raise hay or vegetables to sell commercially, but, generally, the large lots are used primarily for personal gardens. The lots of the farm partitions range in size from 2.94 to 28.12 acres. The average lot contains 8.88 acres (Table III-1, page 44). Given the large lots, it is not surprising that farm partitions contain an average of only 13.0 lots per subdivision.

All ten farm partition subdivisions were built along preexisting roads. They were not designed by developers attempting to maximize profits by offering a large number of small lots for sale. Contrary to the notion that "mini-farms" are a recent phenomenon, the farm partitions are the second oldest type of subdivision in Loudon County, with an



A. Coulter Shoals Subdivision.



B. Lake Point Subdivision.

Figure III-3. Examples of Houses in Lakeside Subdivisions.

average starting date of 1961 (Table III-1, page 44). Farm partitions were a relatively important type of subdivision before 1950, accounting for two of the six subdivisions started before that date (Appendix A). No farm partitions were begun in the 1950's, and just three of the 39 subdivisions started in the 1960's were farm partitions. They became somewhat more important in the 1970's, with four being started between 1970 and 1973. The older farm partitions may have been the most practical type of subdivision at the time they were developed. They predate large demand for rural, nonfarm housing. The more recent ones were designed to attract customers who prefer a highly rural atmosphere that usually is lacking in the other types of subdivisions (Figure III-4).

Farm partitions are a less intensive use of rural land than other types of subdivisions, and most are found in the more isolated parts of the county (Figure III-5). Those in the more heavily populated areas near Lenoir City, such as the Samuel Smith and P. H. Roberts farm partitions, predate the other types of subdivisions (Figure III-5 and Appendix A). A cluster of three farm partitions is in the extreme northern portion of the county.

Farm partitions have the lowest rate of build-out of any subdivision type (Table III-1, page 44). In spite of the low build-out rate, the farm partitions have the second highest percent of lots containing houses (Appendix B). The high percentage of houses is due in part to the age of the subdivisions. The average value for a farm partition house is \$15,802, the second lowest for the subdivision

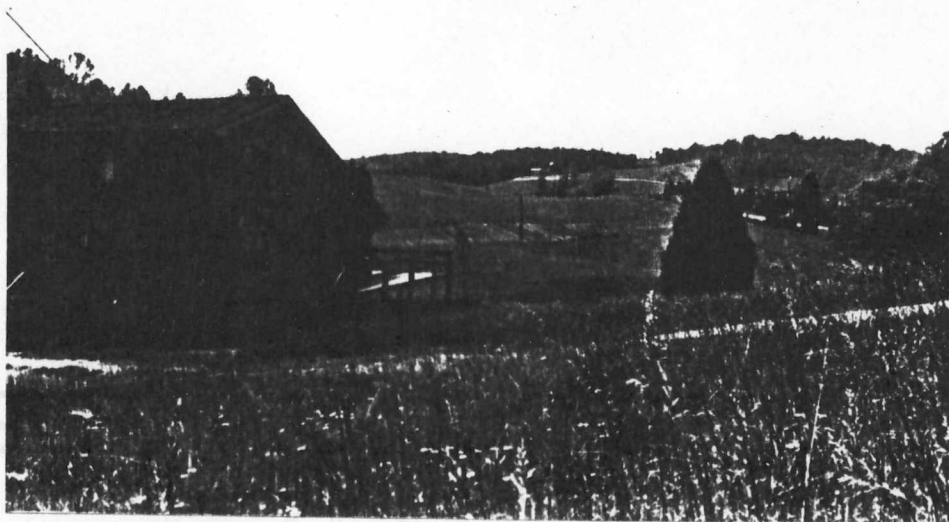
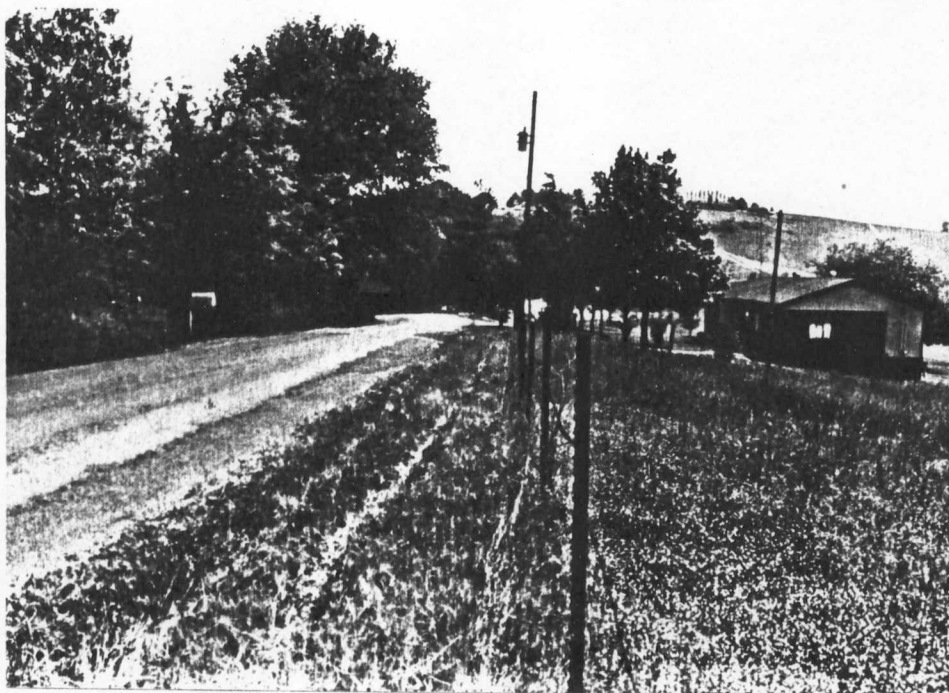


Figure III-4. Grubb Farm Partition. An Example of the Rural Character of Most Farm Partitions.

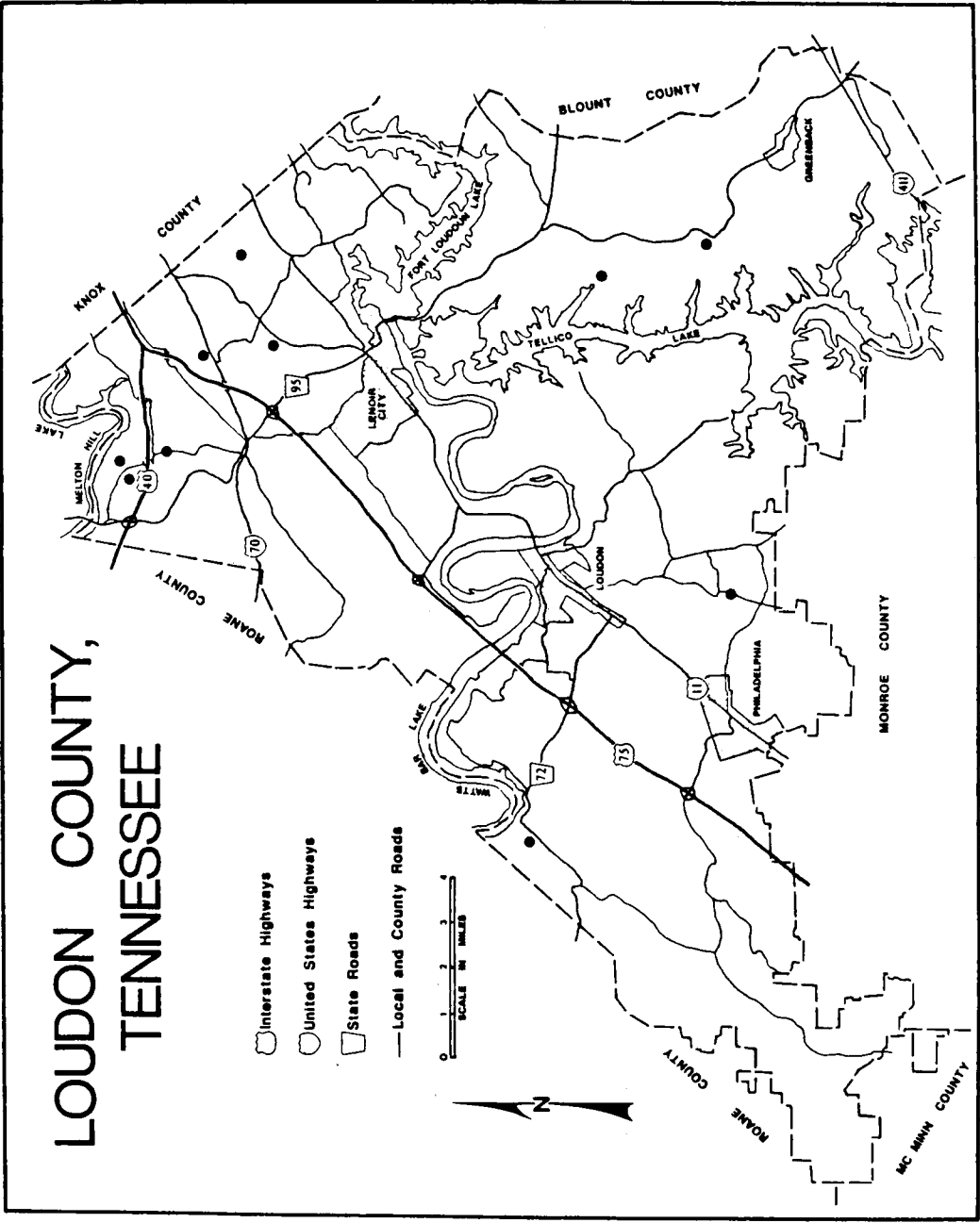


Figure III-5. Distribution of Farm Partitions.

types (Table III-1, page 44). The low house value is due primarily to the age of many of the subdivision dwellings. The value of the houses is directly related to the age of the houses as indicated by the correlation coefficient of .961. Also, expensive houses usually are not built in farm partitions. Even the new houses are of moderate value with assessed values averaging less than \$20,000 (Figure III-4).

Existing-Road Subdivisions

Existing-road subdivisions are those that are platted in such a way that each lot has access to a county or state road (Figure III-6). They are similar to "ribbon" or "string" developments that are common in many rural areas.⁹

The 21 existing-road subdivisions comprise 18.8 percent of the total rural residential subdivisions in the county (Table III-1, page 44). They are the first type of rural residential subdivision in the county, and have an average starting date of 1957 (Table III-1, page 44, and Appendix A). Three of the six rural subdivisions started prior to 1950 were existing-road. They reached their peak of importance in the 1950's when they comprised seven of the 28 new subdivisions. During the 1960's existing-road developments declined in importance, being just four of the 39 subdivisions begun during the decade. Further decline occurred in the 1970's when only three were started. Although existing-road subdivisions are found in other parts of Loudon County, most are

⁹ John Fraser Hart, "Migration to the Blacktop: Population Redistribution in the South," Landscape, Vol. 25, No. 3 (1981), p. 15.

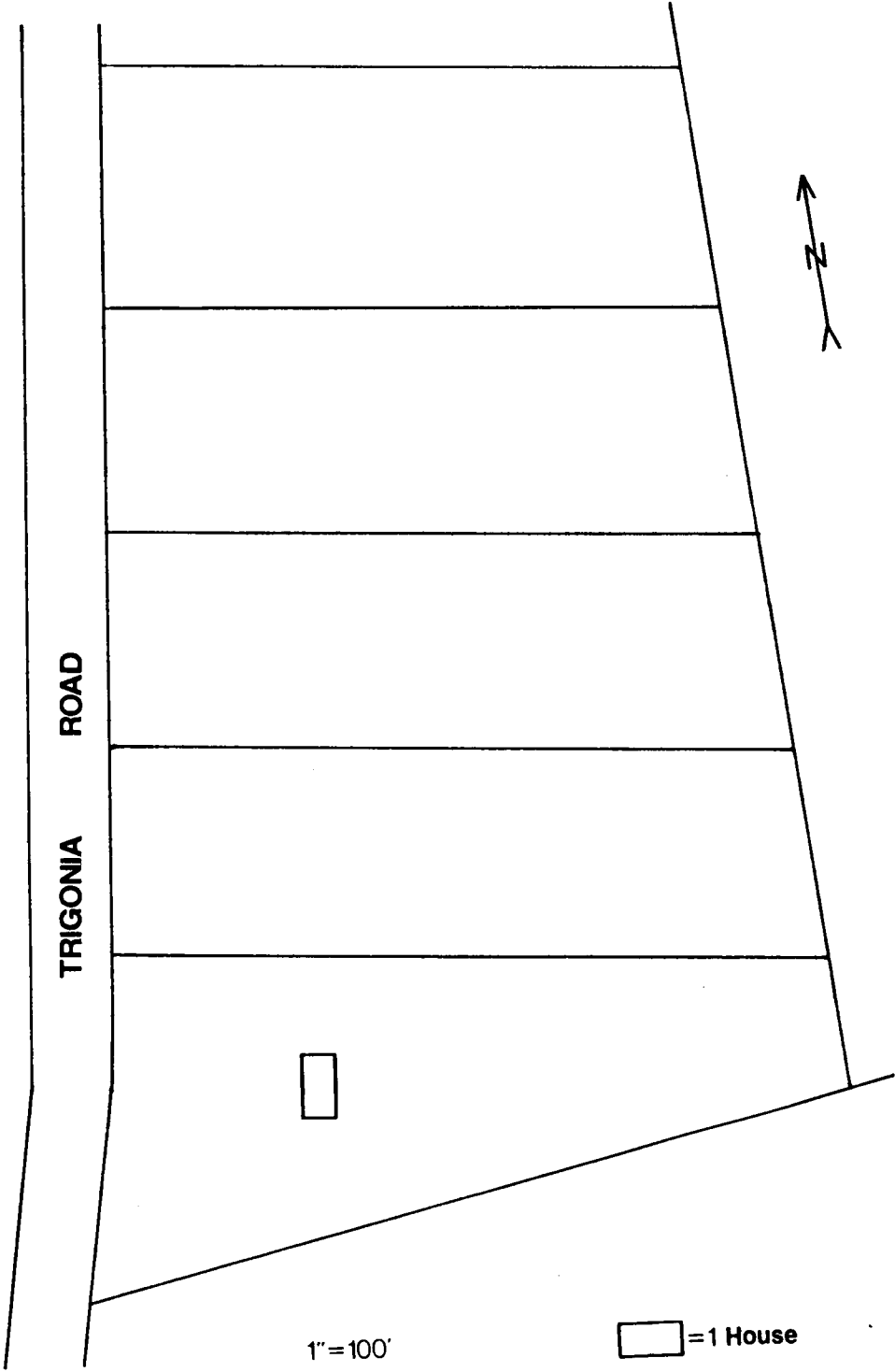


Figure III-6. Trigonía Estates, A Typical Existing-Road Subdivision.

located near Loudon and Lenoir City (Figure III-7). Because they were one of the first types to be started in the county, most were platted when there was little competition for land near the towns.

Existing-road subdivisions are similar to farm partitions, except the lots are much smaller. The average lot size of existing-road subdivisions, 1.47 acres, is much less than the 8.88 acre average for farm partitions (Table III-1, page 44). Because of the smaller lots, the average acreage of an existing-road subdivision is just 18.5 acres, while the average for a farm partition is 115.5 acres. The small amounts of land that existing-road subdivisions are platted on results in a small number of lots. With an average of just 12.6 lots, existing-road subdivisions contain the fewest of the subdivision types. Like farm partitions, existing-road developments are not efficient in maximizing the number of lots on a given parcel of land. They also require minimal investment by developers.

The existing-road subdivisions have a build-out rate of 2.80, which is slightly lower than the average for all rural subdivisions (Table III-1, page 44). Although they do not have a high build-out rate, the early dates that most of them were started have contributed to their being the most successful subdivision type on the basis of the percentage of lots with houses. In 1981, 41.6 percent of the lots contained dwellings (Appendix B). There is a time-lag of almost five years from the date that the average existing-road development was platted to the date that the average home was built.

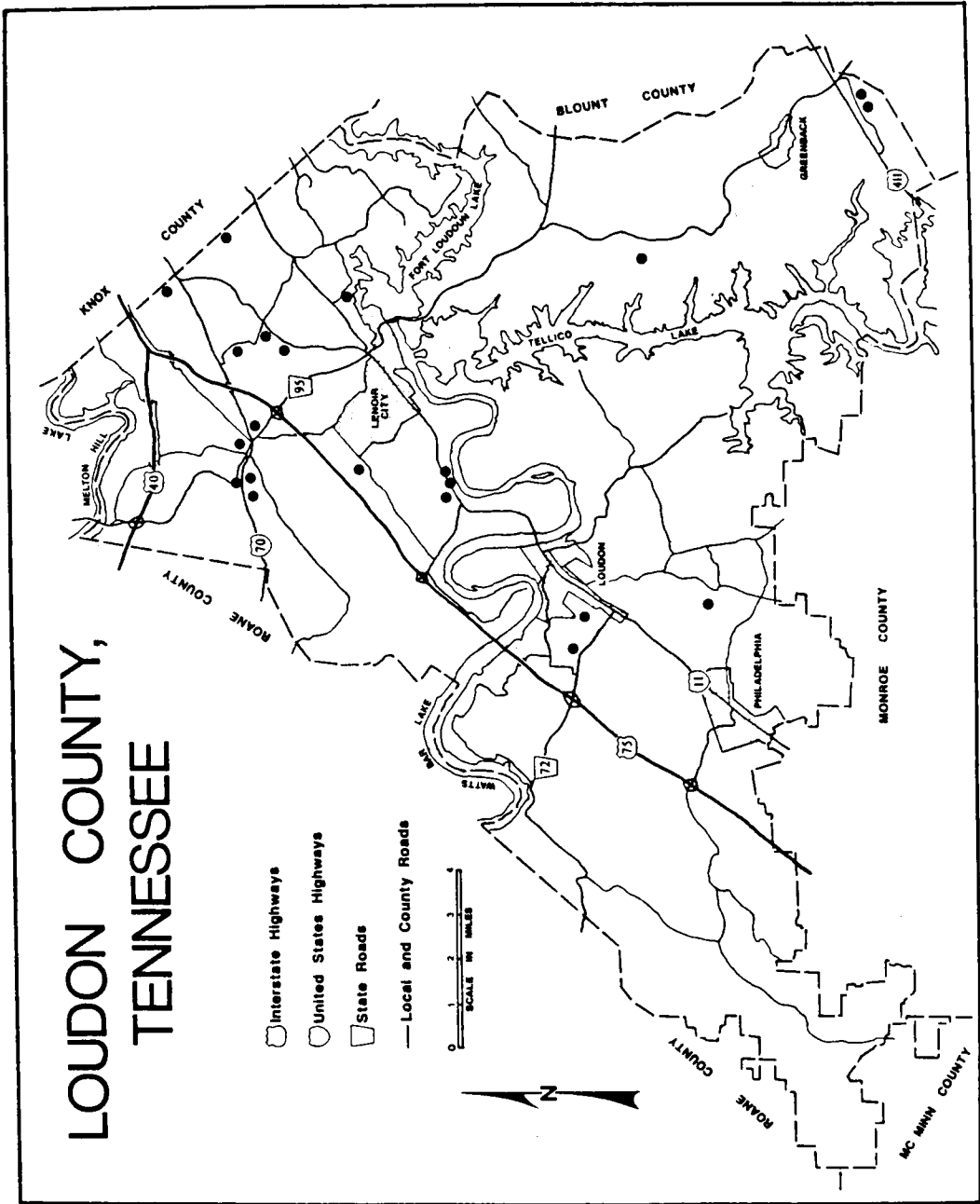


Figure III-7. Distribution of Existing-Road Subdivisions.

Existing-road subdivisions have the lowest quality houses (Table III-1, page 44). The average assessed value is only \$10,921, much lower than the average of \$17,830 for all rural subdivision homes. In large measure, the low values of houses in existing-road subdivisions can be attributed to the age of the homes, as revealed by the correlation of .634 between the two variables. But low average house value for this subdivision type can also be attributed to their lower quality (Figure III-8). Many are small, cheaply constructed prefabricated houses. Even the dwellings built in the 1970's average less than \$20,000 in assessed value.

Single-Road Subdivisions

Single-road subdivisions have a road other than one that predated the development. The developer went to the expense of providing a road to increase the number of lots (Figure III-9). The single-road subdivisions contain an average of 19.1 acres and have an average of 22.3 lots (Table III-1, page 44). Although the amount of land in the typical single-road subdivision is only slightly greater than the amount in a typical existing-road subdivision, a single-road subdivision contains an average of ten more lots. The average lot size in single-road subdivisions is .89 of an acre. Without the additional road, the lots would have been very long and much larger.

The 30 single-road developments comprise 26.8 percent of the rural subdivisions in Loudon County (Table III-1, page 44). They have an average starting date of 1962, which is slightly earlier than the



A. Bob Wilson Subdivision.



B. P. H. Roberts Partition.

Figure III-8. Examples of Houses in Existing-Road Subdivisions.

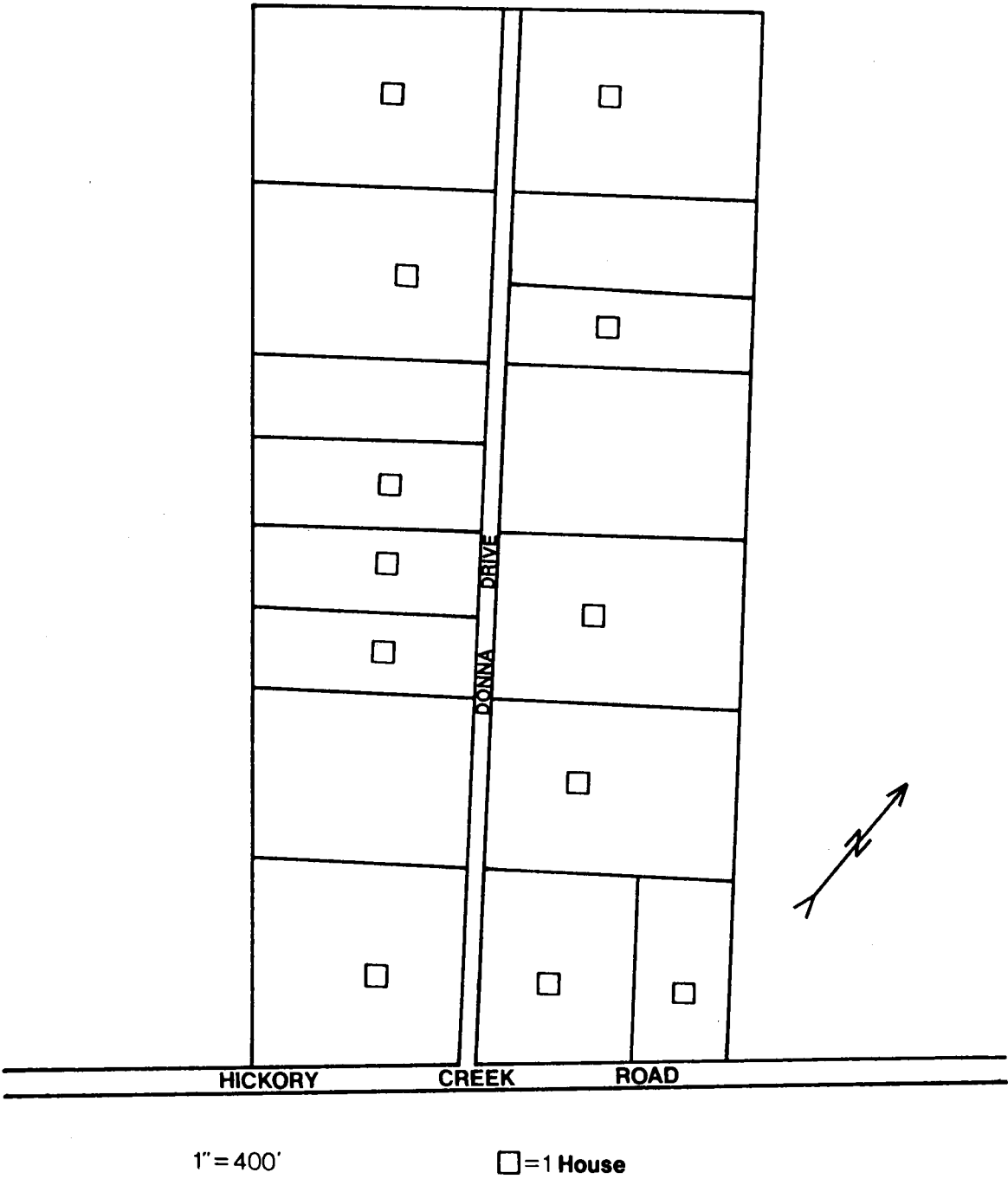


Figure III-9. Old Hickory Estates, A Typical Single-Road Subdivision.

average for all of the rural subdivisions. The typical single-road subdivision is about five years newer than the typical existing-road development, and single-road subdivisions reached their peak of importance when the number of starts of existing-road developments was on the decline. Because they required less road frontage and were able to be squeezed onto small parcels of land, single-road subdivisions were created after most of the available land with good road access was used for existing-road subdivisions. During the late 1950's and early 1960's the single-road subdivisions were the most important type. Nineteen single-road subdivisions were started between 1955 and 1965, 63.3 percent of the total for the period. They became less important in the 1970's when only five were begun.

The distribution of the single-road subdivisions is similar to that of existing-road (Figure III-10). They are generally located near Lenoir City and Loudon, areas of small farms and high rural population densities. There are, however, a few in the more remote areas of the county.

Single-road subdivisions tend to cluster, forming what appears to be one development. The implementation of one or two subdivisions seems to trigger other activity in the same area. An example of such a cluster is northeast of Lenoir City. The more recent single-road subdivisions, however, are more decentralized than the earlier ones. Two near Watts Bar Lake and four near Fort Loudoun Lake were started in the 1960's and 1970's.

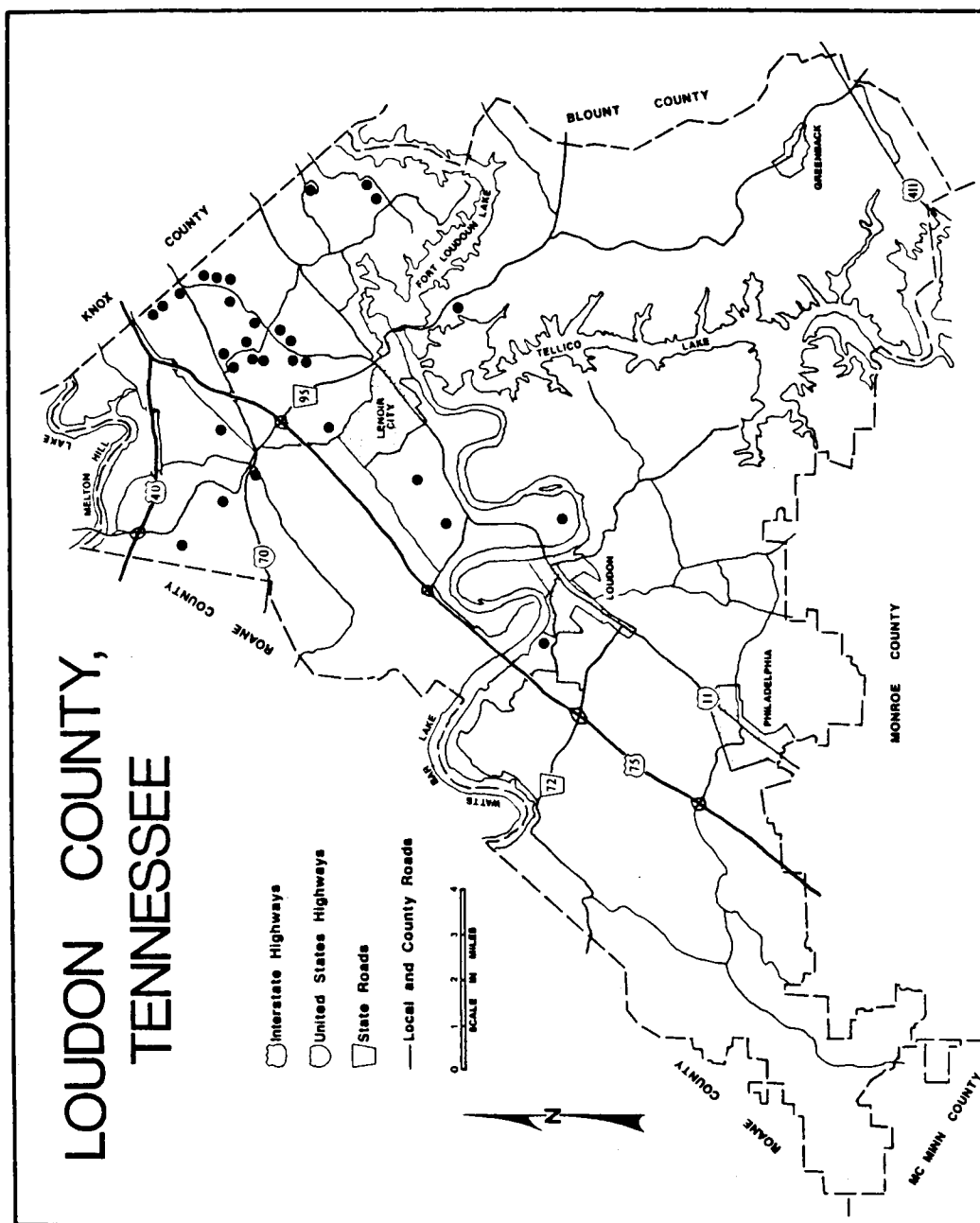


Figure III-10. Distribution of Single-Road Subdivisions.

With a build-out rate of 3.04, single-road subdivisions are the second most successful type in Loudon County (Table III-1, page 44). The average date that houses in the developments were started is 1968, which is about six years later than the average date the subdivisions were begun. The high build-out rate and the long time-lag between the starts of the subdivisions and the dates houses were built indicate that the single-road subdivisions have developed slowly but steadily.

The houses in the single-road subdivisions tend to be of moderate quality, with an average assessed value of \$16,215 (Table III-1, page 44). The value of the houses is not due to age but results from the subdivisions attracting dwellings of moderate quality. There is a strong correlation of .821 between the dates the houses were built and the assessed values. The correlation indicates that the low values of the early houses is due to depreciation, and that the dwellings were of moderate quality when they were built (Figure III-11).

Complex-Road Subdivisions

Complex-road subdivisions have at least one curved or winding road or a combination of straight and winding roads, cul-de-sacs, and dead-ends (Figure III-12). The purposes of the complex road pattern are to maximize the number of lots on a parcel of land and to create an aesthetically pleasing residential atmosphere. Because most complex-road subdivisions are not located in exceptional amenity areas, the atmosphere that the developer creates is an important component. The great expense in providing roads and utilities indicates that complex-road subdivisions are created only by serious developers.

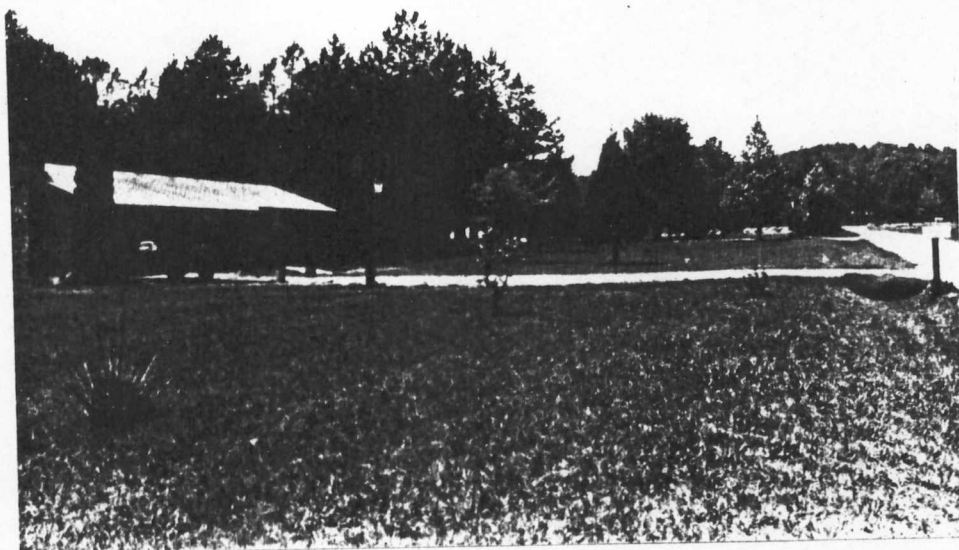


Figure III-11. Examples of Houses in Old Hickory Estates, Single-Road Subdivision.

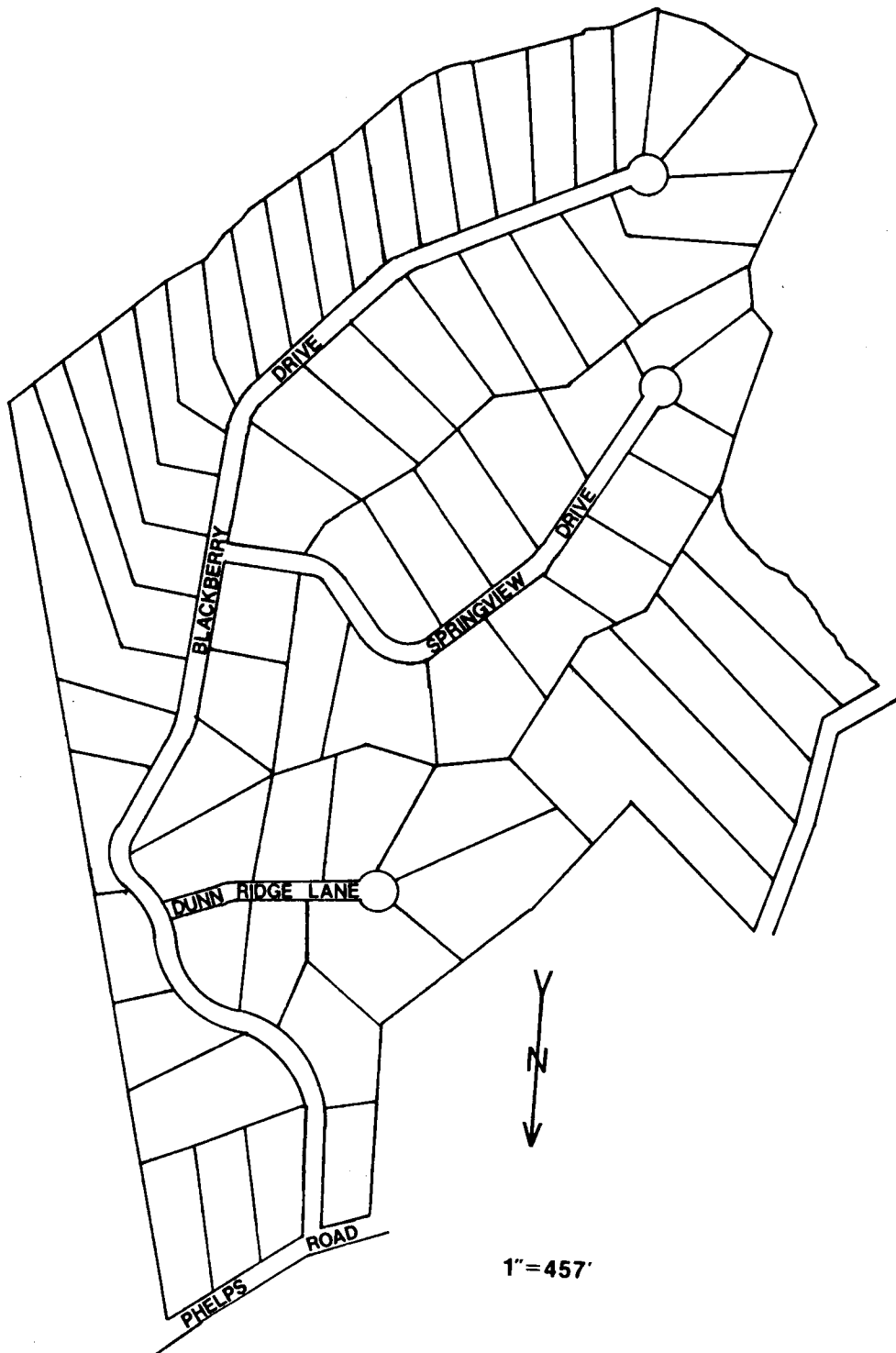


Figure III-12. Blackberry Landing, A Typical Complex-Road Subdivision.

Complex-road subdivisions contain more lots than any other subdivision type. They average 62.8 lots per development, which is about three times as many lots as in the average rural subdivision. They are platted on tracts of land that average 50.4 acres. Only farm partitions are on larger tracts. Complex-road developments contain the smallest lots of any of the subdivision types (Table III-1, page 44). The average lot is only .80 of an acre. Because they are the most intensive type of residential land-use in rural Loudon County, they resemble suburban exclaves surrounded by open countryside. The complex-road subdivisions often lack the rural atmosphere that most persons seek. Some of the residents have attempted to overcome crowding by purchasing adjacent lots. The average resident of a complex-road development owns 1.61 lots (Appendix B).

The complex-road subdivisions are the most recent type in Loudon County (Table III-1, page 44). The average date that the 31 were started is 1967, which is about five years later than the average date for all of the rural subdivisions. Complex-road developments replaced the earlier existing- and single-road subdivisions as the competition for rural land increased. Several complex-road subdivisions were started in conjunction with existing-road and single-road developments. Only five complex-road subdivisions were started in the 1950's, 17.9 percent of those begun during the decade. During the 1960's there was an increase in the number of developments. The 13 subdivisions represented 33.3 percent of the rural subdivisions that were started. From 1970 through 1980 the complex-road subdivisions

continued to increase in relative importance. The eleven subdivisions started were 39.3 percent of the total number begun.

Most of the complex-road subdivisions are located north and east of Lenoir City, as are the single-road and existing-road subdivisions. Five complex-road subdivisions are located on the outskirts of Loudon. Although complex-road subdivisions are located near Lenoir City and Loudon, they are farther from the towns than the existing-road and single-road developments (Figure III-13). This is due to the large tracts of land that they require as well as their late arrival on the rural landscape. They also tend to cluster, forming what appears to be a very large subdivision. A cluster usually consists of one primary subdivision and several additions.

The complex-road developments are the largest contributors to rural housing of the subdivision types. They contain 734 dwellings, 56.9 percent of those in the rural subdivisions. The principal reason for the large number of houses is the large number of lots. They contain 53.6 percent of the lots in the rural subdivisions. More than 37 percent of the lots in complex-road developments have houses, the second highest percentage for the subdivision types (Appendix B). The percent of the lots containing houses is especially high when it is remembered that the complex-road is the newest subdivision type in Loudon County and that many of the residents own more than one lot. The build-out rate, 3.36, is the highest for the five subdivision types, indicating that the complex-road is the most successful of the subdivision types.

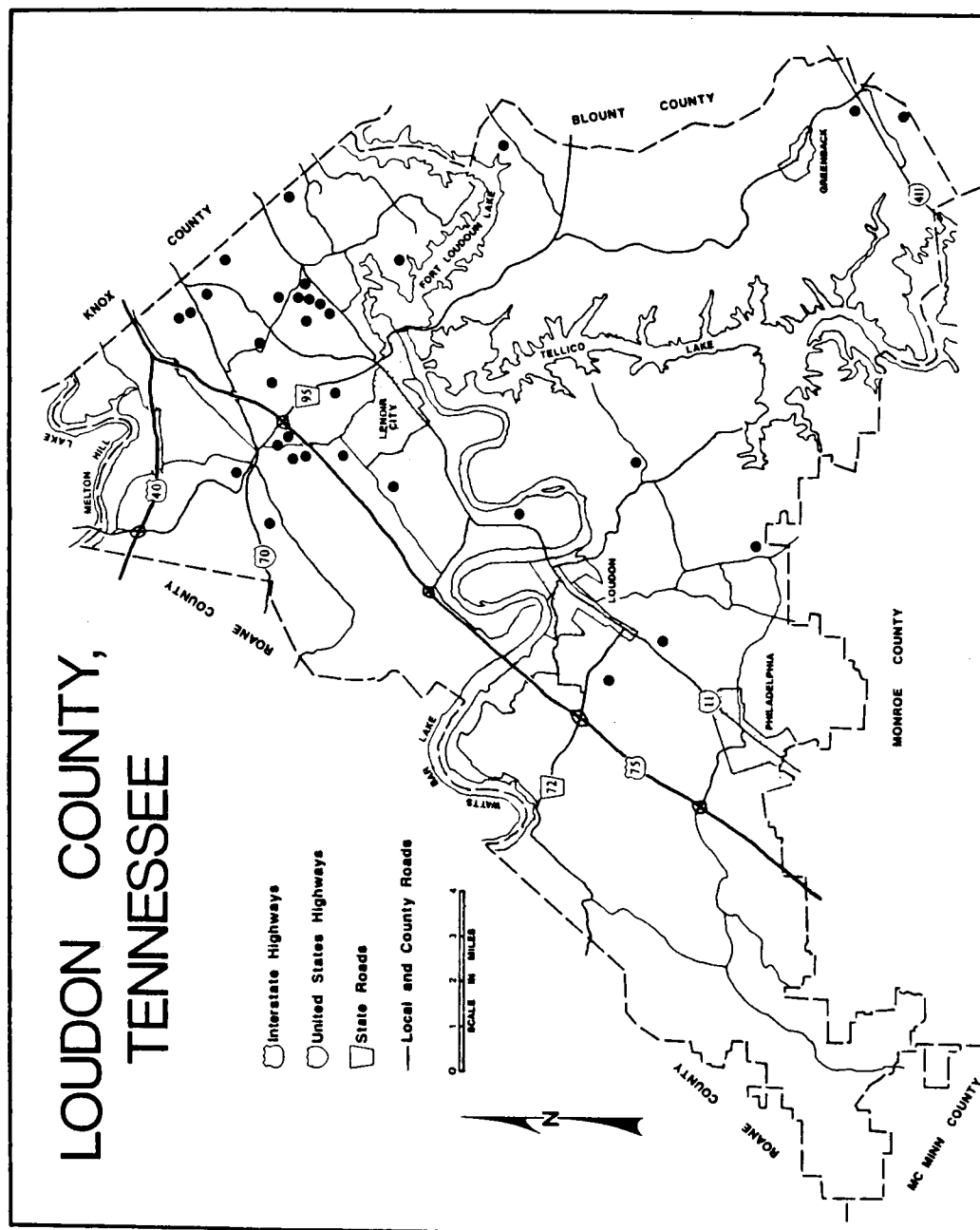


Figure III-13. Distribution of Complex-Road Subdivisions.

With the exception of lakeside subdivisions, complex-road developments contain the most expensive homes (Figure III-14). The dwellings in the complex-road subdivisions have an average assessed value of \$18,205 (Table III-1, page 44). The average house was built in 1970, making it the newest among those in the rural subdivisions. The houses in the complex-road subdivisions are of higher quality than those in existing-road or single-road subdivisions, even when adjustments are made for the ages of the houses. The newer complex-road subdivisions are likely to have building restrictions that prevent the construction of cheap, low quality dwellings.

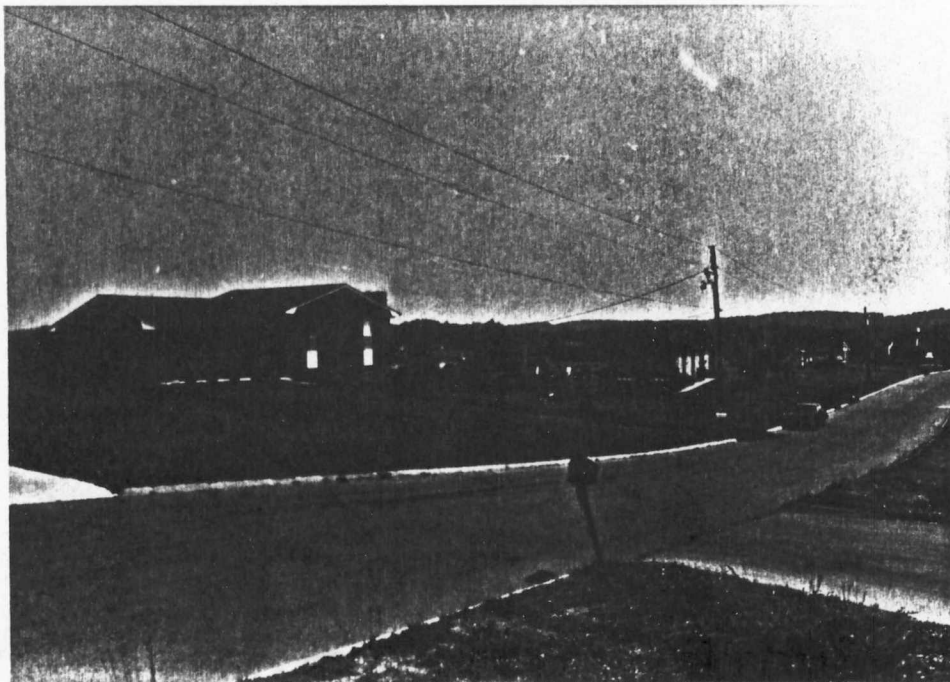
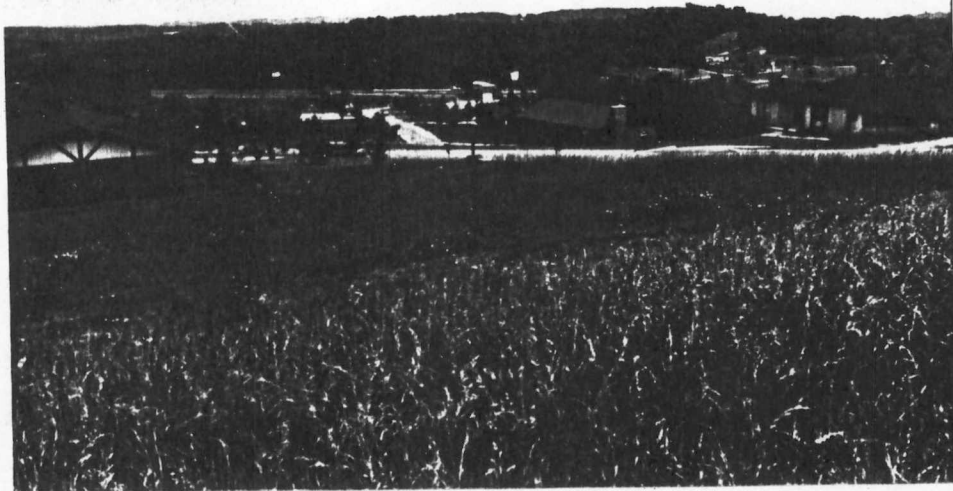


Figure III-14. Examples of Houses in Martel Estates, Complex-Road Subdivision.

CHAPTER IV

CHARACTERISTICS OF INHABITANTS OF RURAL RESIDENTIAL SUBDIVISIONS

In the preceding chapters the rural residential subdivisions were classified according to characteristics of the developments. It was shown that house values, lot sizes, numbers of lots, build-out rates, and the ages and locations of the subdivisions vary. In this chapter it is hypothesized that certain types of persons and families are attracted to particular types of subdivisions. The residents that each type of subdivision contains are categorized in two ways. First, the origins of the inhabitants are assessed. Secondly, significant characteristics of the inhabitants including income, age, and occupation are examined to demonstrate variations in types of residents attracted to each type of subdivision.

To obtain data for the analysis, 148 interviews were conducted in four farm partitions and in five subdivisions from each of the other four types (Table IV-1). A standardized questionnaire was employed. At least 40 percent of the residents of a subdivision were interviewed. Both the subdivisions and the residents interviewed were selected randomly.

Origins of the Residents

The largest group of residents in the rural subdivisions is composed of persons who came from other places within Loudon County (Table IV-2).

TABLE IV-1
CHARACTERISTICS OF RURAL SUBDIVISION RESIDENTS (N=148)

	Number of Residents Interviewed	Average Family Income	Average Age of Head of Household (1981)	Average Date Family Moved to Subdivision
<u>Existing Road (N=24)</u>				
Hutton-Ryan	4	\$20,833	35.8	1972
Bob Wilson	3	\$17,500	45.0	1968
P. H. Roberts	5	\$15,833	40.0	1969
Forest Hills West	7	\$22,500	27.5	1980
John T. Bible	5	\$13,700	55.5	1966
Average	-	\$18,300	41.5	1971
<u>Single-Road (N=31)</u>				
Lane	6	\$24,600	34.2	1970
Glenn Johnson	5	\$17,625	47.5	1974
Northview Estates	7	\$30,357	46.4	1978
Old Hickory Estates	8	\$17,688	45.6	1969
Blair Bend	5	\$25,600	45.5	1979
Average	-	\$23,293	45.9	1974
<u>Complex-Road (N=43)</u>				
Strange	9	\$28,056	44.2	1975
Pleasant Ridge	6	\$23,000	45.0	1967
Circle Drive	5	\$22,600	49.5	1972
Green Acres	15	\$21,533	49.2	1973
Little Mountain Estates	8	\$26,071	48.8	1978
Average	-	\$24,024	47.8	1974
<u>Lakeside (N=27)</u>				
Twin Cove Estates	7	\$41,786	48.2	1976
Coulter Shoals	7	\$31,786	51.2	1976
Hope Creek Colony	3	\$41,875	60.0	1970
Lakeside Camp	5	\$30,000	54.5	1967
Lake Point	5	\$32,000	49.5	1977
Average	-	\$35,446	52.5	1975
<u>Farm Partitions (N=23)</u>				
Tom Houston Farm				
Partition	4	\$15,250	50.0	1956
Lindsey Partition	7	\$28,750	41.7	1979
Samual Smith				
Partition	7	\$27,571	51.8	1970
Grubb Farm Partition	5	\$31,000	48.8	1979
Average	-	\$26,432	47.9	1974
Average All Residents (N=148)	-	\$25,706	47.3	1973

Source: Compiled from interviews.

TABLE IV-2

ORIGINS OF RURAL SUBDIVISION RESIDENTS BY TIME PERIODS (N=148)

Place	Prior to 1960		1960-64		1965-69		1970-74		1975-81		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Loudon County	7	87.5	9	69.2	9	52.9	12	54.5	32	36.4	69	46.6
Lenoir City	2	25.0	2	15.4	2	11.8	2	9.1	8	9.1	16	10.8
Loudon	-	-	-	-	3	17.6	3	13.6	5	5.7	11	7.4
Greenback and Philadelphia	-	-	-	-	-	-	-	-	4	4.5	4	2.7
Rural Areas of Loudon County	5	62.5	7	53.8	4	23.5	7	31.8	15	17.0	38	25.7
Knox County	-	-	1	7.7	4	23.5	7	31.8	25	28.4	37	25.0
Knoxville	-	-	-	-	2	11.8	4	18.2	11	12.5	17	11.5
Other Areas of Knox County	-	-	1	7.7	2	11.8	3	13.6	14	15.9	20	13.5
Other Neighboring Counties	1	12.5	1	7.7	1	5.9	-	-	6	6.8	9	6.1
Nonlocal Areas of Tennessee and Other States	-	-	2*	15.4	3*	17.6	3	13.6	25*	28.4	33*	22.3
Total	8	100.0	13	100.0	17	100.0	22	99.9	88	99.9	148	100.0

*Includes residents who were in Armed Forces.

Source: Compiled from interviews.

Approximately 47 percent of the subdivision population is native. The second largest source of residents is Knox County, which is the origin of 25.0 percent of the inhabitants of the subdivisions. Only 6.1 percent of the subdivision residents came from other counties that border Loudon. The remaining 22.3 percent of the subdivision residents came from other areas of Tennessee and from other states, including ones as far away as California.

Although Loudon County has been the source of the majority of the subdivision residents, its relative importance as a source region has decreased in recent years (Table IV-2). There has also been a reversal in the trend of most of the subdivision residents coming from rural areas. Of the eight persons interviewed who moved into the subdivisions prior to 1960, seven came from Loudon County, and five of the seven previously lived in a rural area of the county. The three residents that did not come from rural areas came from small towns in either Loudon or a neighboring county. The period before 1960, therefore, was characterized by local people moving to rural subdivisions and rural people seeking to remain in rural areas.

Loudon County continued to provide a large portion of the rural subdivision residents between 1960 and 1965 (Table IV-2). Nine of the 13 interviewed residents who moved into subdivisions during the early 1960's came from Loudon County, with seven of them coming from rural parts of the county, including one from another rural subdivision. The other two residents from Loudon County came from Lenoir City. Three of the residents migrated from outside the county and one came from Knox County.

The period 1965-1969 was characterized by an increase in the number of residents who came from Knox County and nonlocal areas, and a corresponding decrease in the proportion of residents from Loudon County. Five of the nine interviewed residents from Loudon County were migrants from Lenoir City and Loudon, the other four came from rural areas in the county. Knox County provided four of the residents, two from Knoxville and two from other rural subdivisions. The remaining four interviewed residents migrated from outside the county.

The proportion of rural subdivision residents who migrated from Knox County continued to increase during the early 1970's. Seven of the 22 residents interviewed left Knox County between 1970 and 1975 (Table IV-2). Loudon County continued to provide most of the residents during the period, with seven having come from rural areas including one from another rural subdivision, and five others from Lenoir City and Loudon.

Most of the residents moved into the rural subdivisions during the period from 1975 through 1981. Loudon County continued to provide the greatest share of the residents, but the percentage dropped from over 50 percent in the previous two periods to 36.4 percent in 1975-1981. There was an increase in the percentage of people who came from rural areas in Loudon County, but eight of the 15 former rural residents came from other rural subdivisions. The number of persons from Knox County increased to 25, with 11 from Knoxville and 14 from rural Knox County. Ten of the 14 from rural Knox County moved from rural subdivisions. The largest increase, however, occurred in the number of persons who

migrated from other areas of Tennessee and from other states. Twenty-five, or 28.4 percent of the 88 persons who moved into the rural subdivisions between 1975 and 1981 were not from the local area. Much of the increase resulted from people being transferred to the area or moving to Loudon County upon retirement.

Characteristics of the Residents

Certain characteristics of the residents of the rural residential subdivisions vary with the time the persons moved into the developments and the places from which they moved. As indicated above, early residents of rural subdivisions generally came from rural areas while later ones tended to come from urban places. When the percent of people from the rural areas in each of the 24 subdivisions sampled is correlated with the average year the families moved into the subdivisions, the correlation is $-.588$. The corresponding correlation for the urban migrants and the date they arrived is $.546$ (Table IV-3). The migrants from rural areas also had a tendency to come from Loudon County, as shown by the correlation of $.470$ between the percent of residents from Loudon County and from rural areas for each of the 24 subdivisions.

Income of the inhabitants of rural subdivisions varies with the origin of the residents. The incomes of residents who came from Knox County is generally much higher than that of those who came from Loudon County. The average income for a family that migrated from Knox County is \$33,000, whereas the average for those native to Loudon County is \$20,525. The income differences are further

TABLE IV-3
CORRELATIONS BETWEEN SELECTED VARIABLES FOR 24 RURAL SUBDIVISIONS

	% Residents from Loudon County	% Residents from Knox County	% Residents from Rural Areas	% Residents from Urban Places	Average Family Income	Average Age of Head of Household	Average Year Family Moved to Subdivision	% of Heads of Household Who Work in Loudon Co.	% of Heads of Households Who Work in Knox Co.
Percent of Residents from Loudon County	-----	-.730	.470	-.311	-.884	-.250	-.519	.631	-.630
Percent of Residents from Knox County	-.730	-----	-.223	.250	.788	.434	.155	-.560	.780
Percent of Residents from Rural Areas	.470	-.223	-----	-.902	-.384	.013	-.588	.066	-.060
Percent of Residents from Urban Places	-.311	.250	-.902	-----	.389	.143	.546	-.053	.107
Average Family Income	-.884	.788	-.384	.389	-----	.302	.473	-.517	.701
Average Age of Head of Household	-.250	.434	.013	.143	.302	-----	-.262	-.316	.320
Average Year Family Moved to Subdivision	-.519	.155	-.588	.546	.473	-.262	-----	-.155	.137
Percent of Heads of Households Who Work in Loudon County	.631	-.560	.066	-.053	-.517	-.316	-.155	-----	-.595
Percent of Heads of Households Who Work in Knox County	-.630	.780	-.060	.107	.701	.320	.137	-.595	-----

Source: Compiled from interviews.

substantiated by the correlation of .788 between average family income and the percent of residents from Knox County for each of the 24 subdivisions, and the correlation of -.884 for average family income and percent of residents from Loudon County (Table IV-3). The recent migrants to the rural subdivisions tend to have higher incomes than the earlier migrants, as indicated by the correlation of .473 between average family income and the average year the family moved into the subdivision. This is to be expected since the more recent residents generally came from Knox County.

The rural subdivision residents that came from Loudon County generally work in Loudon County. The correlation between the percent of heads of households who work in the county and the percent of residents from Loudon County is .631 (Table IV-3). A correlation of -.517 indicates a strong relationship between the average family income of the residents and the percent of heads of households who work in Loudon County. Because most residents of the rural subdivisions who came from Loudon County work in the county, it is not surprising that the subdivisions with the highest percentage of residents who migrated from places in Loudon County tend to have the lowest incomes. Conversely, the subdivisions with high percentages of residents who came from Knox County generally have a high percentage of their residents working in Knox County, as shown by a correlation of .780 between the two variables. Rural subdivisions with large percentages of their residents working in Knox County usually have high average incomes. There is a correlation of .701 between average income and the percent of residents who work in Knox County.

Characteristics of the Residents by
Subdivision Type

Existing-road subdivisions. Because existing-road subdivisions are the oldest of the subdivision types, they predominantly attracted people who came from Loudon County. Of the 24 residents interviewed in existing-road subdivisions, 16, or 66.7 percent, came from Loudon County (Table IV-4). In spite of the closeness and the large population of Knoxville, only two of the 24 persons were from Knox County. The existing-road subdivisions also attracted a large percentage of their residents from rural areas. Eleven, 45.8 percent, of the 24 interviewed residents came from rural areas, the highest percentage for any subdivision type (Table IV-5). Only three residents came from urban places, with two migrating from Knoxville. The low percentage of residents who came from urban places is probably related to the low quality housing of the existing-road subdivisions. Because existing-road developments are the oldest and least expensive of the types, it seems unlikely that they would attract many residents from urban places or from other rural subdivisions.

Residents of existing-road subdivisions moved to them for several reasons (Table IV-6). The major reason is that the subdivisions have rural qualities. Most existing-road residents are from rural areas and wanted to remain in a similar atmosphere. The residents also mentioned location with respect to workplace and other family members as being important. The facts that the home was affordable and available were also major reasons for moving to the subdivision.

TABLE IV-4

ORIGINS OF RESIDENTS BY SUBDIVISION TYPE (N=148)

Place	Existing-Road		Single-Road		Complex-Road		Lakeside		Farm Partition		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Loudon County	16	66.7	15	48.4	27	62.8	2	7.4	9	39.1	59	39.9
Lenoir City	2	8.3	8	25.8	3	7.0	2	7.4	2	8.7	17	11.5
Loudon	2	8.3	1	3.2	7	16.3	-	-	-	-	10	6.8
Greenback and Philadelphia	1	4.2	-	-	3	7.0	-	-	-	-	4	2.7
Rural Areas of Loudon County	11	45.8	6	19.4	14	32.6	-	-	7	30.4	38	25.7
Knox County	2	8.3	7	22.6	3	7.0	20	74.1	5	21.7	37	25.0
Knoxville	2	8.3	1	3.2	2	4.7	9	33.3	3	13.0	17	11.5
Other Areas of Knox County	-	-	6	19.4	1	2.3	11	40.7	2	8.7	20	13.5
Other Neighboring Counties	2	8.3	-	-	3	7.0	1	3.7	3	13.0	9	6.1
Nonlocal Areas of Tennessee and Other States	4*	16.7	9	29.0	10*	23.3	4	14.8	6	26.1	33	22.3
Total	24	99.9	31	100.0	43	100.2	27	99.9	23	99.9	148	100.1

*Includes residents who were in Armed Forces.

Source: Compiled from interviews.

TABLE IV-5
ORIGINS OF RESIDENTS BY TYPE OF PLACE FOR EACH
SUBDIVISION TYPE (N=148)

Type of Place	Existing-Road		Single-Road		Complex-Road		Lakeside		Farm Partition		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Rural Areas	11	45.8	10	32.3	11	25.6	-	-	7	30.4	39	26.4
Rural Subdivisions	2	8.3	5	16.1	9	20.9	12	44.4	6	26.1	34	23.0
Urban and Suburban Places	3	12.5	5	16.1	8	18.6	11	40.7	6	26.1	33	22.3
Small Towns	5	20.8	11	35.5	14	32.6	4	14.8	4	17.4	38	25.7
Armed Forces	3	12.5	-	-	1	2.3	-	-	-	-	4	2.7
Total	24	99.9	31	100.0	43	100.0	27	99.9	23	100.0	148	100.1

Source: Compiled from interviews.

TABLE IV-6
REASONS RESIDENTS MOVED TO RURAL SUBDIVISIONS BY
SUBDIVISION TYPE (N=148)

Primary Reason	Existing-Road	Single-Road	Complex-Road	Lakeside	Farm Partition	Total
Available/Affordable	6	7	7	-	1	21
Rural Qualities	8	11	16	1	11	47
Location	5	5	11	1	10	32
House or Lot Characteristics	2	8	6	-	-	16
Lake	-	-	-	25	-	25
Other	3	-	3	-	1	7
Total	24	31	43	27	23	148

Source: Compiled from interviews.

Although existing-road developments attracted the earliest migrants to rural subdivisions, the residents are the youngest among the subdivision types. The average age of heads of families is 41.5 years (Table IV-1, page 70). The average income of all subdivision families is \$25,706, but those who live in existing-road subdivisions have an average of \$18,300. The low income can partially be attributed to the high percentage of employment in local establishments (Table IV-7). Existing-road developments have the highest percentage of residents, 45.8 percent, working in Loudon County. Only 12.5 percent are employed in Knox County. Job opportunities in Loudon County are mainly in low-wage manufacturing and in retail trade. The low average income of the existing-road residents can also be attributed to the high percentage of young residents.

Single-road subdivisions. Single-road subdivisions have attracted persons predominantly from Loudon County. Forty-eight percent of the residents are from the county (Table IV-4, page 78). However, 22.6 percent of the migrants are from Knox County, a significantly higher percentage than that for existing-road subdivisions. Also, single-road developments have the highest percentage of residents from nonlocal areas. Many people in single-road subdivisions are from rural areas (Table IV-5, page 79). Although the percent of residents who came from an urban environment is higher than it is for the existing-road subdivisions, it is far below the average of 22.3 for all rural subdivisions. The single-road development is the most popular type of

TABLE IV-7

PLACE OF EMPLOYMENT FOR RESIDENTS OF RURAL SUBDIVISIONS BY
SUBDIVISION TYPE (N=148)

Place	Existing-Road		Single-Road		Complex-Road		Lakeside		Farm Partition		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Loudon County</u>	11	45.8	11	35.5	16	37.2	2	7.4	7	30.4	47	31.8
Lenoir City	4	16.7	4	12.9	4	9.3	1	3.7	1	4.3	14	9.5
Loudon	3	12.5	4	12.9	8	18.6	1	3.7	4	17.4	20	13.5
Other Areas of Loudon County	4	16.7	3	9.7	4	9.3	-	-	2	8.7	13	8.8
<u>Knox County</u>	3	12.5	5	16.1	5	11.6	13	48.1	4	17.4	30	20.3
Knoxville	3	12.5	3	9.7	3	7.0	8	29.6	3	13.0	20	13.5
Other Areas of Knox County	-	-	2	6.5	2	4.7	5	18.5	1	4.3	10	6.8
Maryville/Alcoa	1	4.2	-	-	2	4.7	-	-	-	-	3	2.0
Oak Ridge	3	12.5	6	19.4	8	18.6	4	14.8	6	26.1	27	18.2
Retired/Disabled	4	16.7	4	12.9	7	16.3	7	25.9	3	13.0	25	16.9
Other	2	8.3	5	16.1	5	11.6	1	3.7	3	13.0	16	10.8
Total	24	100.1	31	100.1	43	100.1	27	99.9	23	99.8	148	100.0

Source: Compiled from interviews.

subdivision for persons who came from small towns. Persons who came from small towns account for 35.5 percent of the total residents, which is the highest for the five subdivision types.

Residents of single-road developments generally moved to them because they liked the rural qualities of the subdivision (Table IV-6). The characteristics of the house and lot were important, with many residents liking the layout of the house or the size of the lot. The location of the subdivision was also important to the residents, with five residents indicating a preference for living in a rural area yet remaining close to Lenoir City or Loudon. The people who came from small towns or rural areas preferred to live in a rural area, but did not want to be far from their places of employment in Lenoir City and Loudon.

The residents of the single-road developments have the second lowest average income of the five subdivision types. The average income is \$23,293, which is approximately \$5,000 greater than that for existing-road subdivisions but about \$2,500 lower than the average for all rural subdivisions (Table IV-1, page 70). Part of the reason for the low relative income is that the residents of the single-road developments are the second youngest group, with an average age of 45.9 years. Another reason is that people with higher incomes would likely choose to live in a higher quality subdivision.

The incomes of the single-road residents are related to place of employment. Single-road subdivisions have a greater proportion of residents working in Knox County and a smaller percentage working in

Loudon County than do existing-road subdivisions (Table IV-7). People who work in Loudon County comprise 35.5 percent of the subdivision residents, slightly higher than the average of 31.8 percent for all rural subdivisions. The percent of the residents who work in Knox County is 16.1 percent, and is somewhat higher than that of the existing-road subdivisions. There are also several residents who work at the Oak Ridge National Laboratory, which also contributes to the higher income because union wages are paid at the facility.

Complex-road subdivisions. Complex-road subdivisions are similar to suburban developments found near cities. These islands have the second highest quality homes in the county and have attracted many prosperous residents. The average family income is \$24,024, which is slightly lower than the average for all rural subdivisions (Table IV-1, page 70). Only residents of the lakeside subdivisions have significantly higher incomes.

The complex-road subdivisions have attracted mainly local persons. The 27 residents who came from Loudon County account for 62.8 percent of the complex-road subdivision residents, making this the second most popular subdivision type for local residents (Table IV-4, page 78). Only three, 7.0 percent, of the residents interviewed came from Knox County, the lowest proportion for any subdivision type. The complex-road subdivisions also have attracted many rural persons, with 46.5 percent of the residents in the sample having come from the countryside (Table IV-5, page 79). The proportion of residents who

moved from another rural subdivision is high, 20.9 percent of the total. Many of the complex-road subdivision residents have also come from small towns. With a percentage of 32.6, complex-road developments are second among the subdivision types in attracting small town residents.

The residents who moved to the complex-road developments generally moved because of the rural qualities of the subdivisions (Table IV-6, page 80). Eleven residents mentioned that the location of the subdivision in relation to place of work or family was the most important reason. Residents who moved to the complex-road developments from other rural subdivisions cited the location of the subdivision and the quality of the house and lot as important. Residents from small towns were generally attracted to the subdivision because it is in a rural setting.

The complex-road subdivisions probably attracted few residents from Knox County because the developments are similar to those in the urban fringe of Knoxville. The same type of environment is found near the city in a more convenient location. The complex-road subdivisions primarily have attracted the more affluent local residents who work in the county. The subdivision type has the second highest percent of its residents working in the county (Table IV-7, page 82). Residents of the complex-road subdivisions also tend to be older than those in existing-road and single-road developments. The average age of heads of households is 47.8 years. The average resident moved into the complex-road subdivisions in 1974 and has a higher income than residents of existing-road and single-road subdivisions (Table IV-1, page 70).

The age structure of the heads of families partially explains the higher income.

Lakeside subdivisions. Lakeside subdivisions are the most distinctive rural residential developments in Loudon County. Although they are not located nearer to Knoxville than the other subdivision types, they have an extremely high proportion of residents who came from Knox County (Table IV-4, page 78). Twenty of the 27 interviewed residents, 74.1 percent, came from Knoxville or Knox County. Only two persons, 7.4 percent, came from Loudon County.

Rural areas have supplied the lakeside subdivisions with a large portion of their residents, 44.4 percent, with all having come from other rural subdivisions (Table IV-5, page 79). The lakeside subdivisions also have the highest proportion of residents, 40.7 percent, from urban places of the subdivision types. Very few of the lakeside migrants, however, came from small towns.

The lakeside subdivisions primarily have attracted relatively affluent amenity-oriented residents. Each resident interviewed cited the lake as the most important reason for moving to the subdivision (Table IV-6, page 80). The location of a subdivision relative to place of work was not considered important. Almost half, 48.1 percent, of the residents are employed in Knox County, indicating that they are willing to travel far to work in order to have lakeside amenities (Table IV-7, page 82). Most of the lakeside subdivisions are located several miles from the Interstate Highways, and county and state roads provide the best access to Knoxville.

The average income of heads of households in lakeside subdivisions is \$35,446, or about \$9,000 more than the average for the next most expensive type of development (Table IV-1, page 70). The high incomes of the residents is related to the high percentages of professional people and affluent retirees. At 25.9 percent, lakeside subdivisions have the highest percentage of retirees of any subdivision type. The high incomes may also be related to the average age of the lakeside residents, which at 52.5 years is the highest average of the subdivision types (Table IV-1, page 70).

Farm partitions. Farm partitions have attracted a diverse group of residents, with the early residents coming primarily from Loudon County and the later ones migrating from a variety of places (Table IV-4, page 78). Farm partitions have the second lowest percentage of residents from Loudon County. Most of the subdivisions that attracted local persons were the early ones. Farm partitions contain a moderate number of persons, 21.7 percent of those interviewed, from Knox County. Persons who migrated from other areas of Tennessee and from other states comprise a significant portion of the population. Farm partitions have the highest proportion of residents, 56.5 percent, from rural areas of any of the subdivision types (Table IV-5, page 79). However, they also have a high percentage of residents from other rural subdivisions and urban places. Just 17.4 percent of the residents came from small towns.

The residents of the farm partitions were very consistent in their reasons for moving to the developments (Table IV-6, page 80). The major

reason they chose the subdivision was its rural qualities, and another important reason was location relative to place of work. None of the residents mentioned the large lots as important, although they certainly were a contributing factor because they add to the rurality of the subdivision. One farm partition differs from the others because all of the residents are related. Each resident interviewed mentioned that being close to other family members was the most important reason for moving to the subdivision.

The farm partition residents have an average income of \$26,432 (Table IV-1, page 70). Generally, the early migrants have lower incomes than the later ones because most of the later migrants are employed in Knoxville and Oak Ridge, whereas the majority of the early arrivals work in Loudon County. Other than the lakeside subdivisions, the farm partitions have the lowest percentage of residents working in Loudon County (Table IV-7, page 82). Just 17.4 percent of the residents work in Knox County, but 26.1 percent of the people work in Oak Ridge, which is the highest percentage of the subdivision types.

The average age of farm partition residents is 47.9 years, a figure close to the average for all rural subdivision residents (Table IV-1, page 70). The average date that the residents moved into the farm partitions has been increasing recently, especially among people from other rural and from suburban subdivisions. It is likely that their popularity will continue to increase because, like the lakeside developments, they offer amenities that cannot be found in other types of subdivisions.

CHAPTER V

CONCLUSIONS

Rural residential subdivisions are important elements of the rural landscape in Loudon County, Tennessee. Unlike many rural areas of the United States that began to experience rural population growth about 1970, Loudon County has had continual rural growth since 1950. Much of this growth is associated with the development of rural subdivisions. Subdivisions helped to increase the rural population by attracting residents from nonlocal areas. They also have contributed to the redistribution of the local rural population by providing new housing opportunities.

Hart indicates that some of the rural population redistribution in the South is due to the increase in the number of new houses built along county and state roads.¹ Although "lot-splitting" is a common process of creating "string development," Hart fails to recognize that many of the new houses may be in planned rural subdivisions. String settlements may not appear to be formal subdivisions, but in Loudon County many are existing-road and farm partition developments.

Another author, Patel, studied exurban developments in a seven county area surrounding Lexington, Kentucky.² His study considered only

¹ John Fraser Hart, "Migration to the Blacktop: Population Redistribution in the South," Landscape, Vol. 25, No. 3 (1981), pp. 15-19.

² Dinker I. Patel, Exurbs: Urban Residential Developments in the Countryside (Washington, D. C.: University Press of America, 1980), p. 7.

developments with an internal road structure, ignoring developments built along county and state roads. By omitting such developments, Patel overlooked a large number of developments which represent an important step in the evolution of rural subdivisions.

Rural subdivisions in Loudon County form a sequential continuum of subdivision types, with each type having a period of dominance. The subdivision types, however, tend to form two basic periods of subdivision development which coincide with rural population growth and redistribution in the county. The first period, the creation of existing-road and farm partition developments, occurred before people began migrating to rural areas. Both subdivision types allowed local rural residents to remain in rural areas by providing them with housing opportunities.

The existing-road and farm partition developments differ from exurban developments in both appearance and the type of residents they attracted. The lack of an internal road structure required little financial input by developers, allowing most existing-road and farm partition developments to be created by landowners rather than professional developers. Because they were built at a time when there was little demand for rural residences, it was not necessary to create as many lots as possible in internal road subdivisions. Unlike exurbs, residents of these subdivisions came predominantly from rural parts of the county and were tied to the local area for employment.

The second period of subdivision development in Loudon County occurred with the formation of single-road, complex-road, and lakeside subdivisions. This period is characterized by rural population

redistribution and increased rural population growth. The three subdivision types were sophisticated developments created by professional developers. Many of the developments were built by land companies, real estate firms, and prosperous individuals who were able to finance roads and utilities for the subdivisions. The developments were similar to exurbs in their physical characteristics, but, with the exception of lakeside subdivisions, differed from them in the type of residents that they attracted. Most residents of the single- and complex-road developments worked in the small towns in Loudon County while the lakeside subdivision residents were employed in Knoxville.

There are two major findings of this study. First, it has shown the importance of rural subdivisions in a nonmetropolitan county. Planners should be aware of the importance of subdivisions in order to provide the services needed for the developments. Restrictions on the location and size of such developments could serve to control the placement of sewer systems, water systems, and roads.

The second major finding of this thesis is that different types of subdivisions attract different types of residents. The ability to create a subdivision and accurately predict the origins, incomes, ages, and places of employment of residents it attracts is important to developers. In creating a certain type of subdivision a developer should know where to advertise it and the types of housing restrictions to impose. Such information should also be helpful to planners who wish to control rural population growth.

Although the study area consisted of just one rural county in East Tennessee, it may be indicative of processes that are occurring in other rural areas. It is likely that other rural areas have gone through similar stages of rural population redistribution. Additional studies in other rural areas are needed to better understand patterns of subdivision development and their impact on rural America.

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APPENDICES

APPENDIX A

TABLE A-1
CHARACTERISTICS OF RURAL SUBDIVISIONS, 1981

Subdivision Name	Map Identification Number	Year Started	Number of Lots	Number of Houses	Number of House Trailers	Number of Vacancies	Average Lot Size in Acres
Lakeside							
Coulter Shoals	1	1956	38	12	0	25	.90
Fort Loudon Estates	2	1959	45	18	0	27	.46
Fort Loudon Estates I	3	1961	34	21	0	13	.40
Fort Loudon Estates II	4	1962	51	23	0	28	.66
Fort Loudon Estates III	5	1962	13	10	0	3	.40
Hope Creek Colony	6	1964	63	6	0	57	.86
Lake Point	7	1973	13	9	0	4	1.20
Lakeside Camp	8	1950	10	5	0	5	.64
Lakeside Camp I	9	1953	5	3	0	2	.93
Lake Shore	10	1965	36	4	2	30	1.59
Lake Shore Addition	11	1966	41	0	0	41	.42
Lakeview	12	1958	12	3	0	8	1.01
Newberry	13	1967	43	12	0	31	.51
Point Harbour	14	1976	49	3	0	46	1.38
Riverchase	15	1979	20	0	0	20	.67
Riverview Farms	16	1978	23	3	0	20	3.92
Shiloh Acres	17	1960	11	4	0	7	.72
Twin Cove Estates	18	1970	34	16	0	18	2.48
Watts Bar Estates	19	1967	65	12	2	50	5.64
Average (N=19)	--	1965	31.9	8.6	0.2	22.9	1.53*
Farm Partition							
Engbert and Pershing	20	1970	10	3	0	7	28.12
Clayton Farm, Herbert	21	1963	11	2	1	8	6.85
Gound, Jennie	22	1967	5	2	2	1	2.94
Griffith Farm	23	1973	16	3	0	13	5.17
Grubb Farm	24	1962	23	7	0	16	5.17
Houston Farm, Tom	25	1929	7	6	0	1	10.06
Lindsey Partition	26	1971	25	9	3	15	5.11
McDonald Part., Henry	27	1970	8	1	0	7	22.86
Rather Farm	28	----	10	4	0	4	6.27
Smith Part., Samuel	29	1944	15	14	0	1	9.22
Average (N=10)	--	1961	13.0	5.1	0.6	7.3	8.88*
Existing-Road							
Bible, John T.	30	1960	23	8	2	13	3.89
Blankenship, Gilbert	31	1938	15	11	2	3	.64
Burkhart	32	1956	15	1	0	14	.19
Chestnut Ridge	33	----	16	3	1	12	2.19
Dixie Lee Village	34	1968	7	3	1	3	3.25
Forest Hills West	35	1972	17	16	0	1	.44
Greystone Heights	36	1972	7	3	0	4	5.00
Grimes, Frank	37	1962	6	1	1	4	.53
Hamilton and Dearmond	38	1960	14	0	0	14	.78
Hubbard, Willis T.	39	1959	15	8	1	6	.74
Hutton-Ryan	40	1955	20	13	3	3	1.06
McGill, John	41	----	7	1	0	6	2.48
McDaniel	42	1953	7	1	1	5	1.98
Palmer, J. M.	43	1954	13	1	0	12	.26
Roberts Part., P. H.	44	1927	8	6	0	2	1.90
Rogers, J. A.	45	1923	33	22	6	5	1.86
Stooksbury, Sherman	46	----	5	0	2	3	1.48
Trigonia Estates	47	1980	5	1	0	4	.98
Webb	48	1958	15	4	0	11	.65
Wilson, Bob	49	1958	9	3	0	6	.37
Matlock, Paul	50	----	7	4	1	2	.37
Average (N=21)	--	1957	12.6	5.2	1.0	6.3	1.47*
Single-Road							
Allen, Raymond	51	1955	37	4	0	33	.22
Blair Bend	52	1975	27	10	0	17	.54
Butler	53	1966	48	14	0	33	.55
Clinchview Estates	54	1963	26	17	0	9	3.36
Cockrell, C. H.	55	1961	71	7	0	64	.15
Cranfill, A. W.	56	1963	6	3	0	3	.70
Cusick, Cecil	57	1955	8	6	0	2	.81
Davis	58	1957	55	7	0	48	.37
Dewitt	59	1955	42	17	0	25	.63
Fort Loudon Estates IV	60	1964	8	0	0	8	.44
Gentry Estates	61	1958	31	12	4	13	.66
Goode	62	1956	7	2	0	5	.92
Hidden Valley	63	1959	9	7	0	2	.71

TABLE A-1 (Continued)

Subdivision Name	Map Identification Number	Year Started	Number of Lots	Number of Houses	Number of House Trailers	Number of Vacancies	Average Lot Size in Acres
Single-Road (Continued)							
Huffman Brothers	64	1962	34	2	2	30	1.19
Johnson, Glen	65	1961	18	12	0	6	.72
Lakeland Hills	66	1964	20	11	0	9	.37
Lane	67	1957	20	11	0	9	.49
Lindner Villa	68	1977	7	7	0	0	.64
Matlock	69	1958	7	4	0	3	.31
McCulley, Arther	70	1961	6	0	0	5	.52
Neeley	71	----	14	6	1	7	.52
Northview Estates	72	1973	22	10	0	12	.50
Old Hickory Estates	73	1962	16	12	0	4	4.04
Rice, A. J.	74	1946	8	4	1	2	1.24
Snoderly and Burkhart	75	----	43	12	0	31	1.50
Taylor	76	1950	48	17	0	31	.19
Waller Ferry Farms	77	1979	8	0	0	8	7.39
Wheeler	78	----	4	0	0	4	1.00
Wheeler Addition	79	1957	6	4	0	2	1.68
Woodland Estates	80	1974	12	6	0	6	2.49
Average (N=30)	--	1962	22.3	7.5	0.2	14.4	.89*
Complex-Road							
A Valley	81	1967	79	10	6	62	.60
Blackberry Landing	82	1978	69	0	0	69	1.54
Brandywine	83	1972	43	19	0	23	4.38
Carter, Wayne	84	1964	53	14	0	39	1.35
Cedar Hills	85	1971	56	37	0	19	.48
Circle Drive	86	1967	25	11	0	14	.54
Eaton Forest	87	----	38	25	0	12	1.56
Eatonwood	88	1968	95	23	0	71	.74
Ford	89	1954	52	46	0	6	.52
Forest Heights	90	1964	73	45	0	28	.55
Forest Hills	91	1965	48	20	5	22	.55
Green Acres	92	1962	100	41	0	59	.52
Grubb Estates	93	1964	14	5	0	9	3.52
Hamilton, James	94	1962	127	10	30	87	.33
Harrison Hills	95	1962	129	85	0	44	1.14
Husky-Wheeler	96	1959	49	27	0	22	.71
Little Mtn. Estates 1	97	1977	21	6	0	15	.72
Little Mtn. Estates 2	98	1978	23	8	0	15	.61
Lynwood	99	----	30	14	0	16	1.34
Martel Estates	100	1965	78	49	0	29	.52
Martel Estates East	101	1972	67	43	0	24	.61
Martel Estates East First Addition	102	1974	88	63	0	25	.55
North Forty Estates Unit 1	103	1979	16	0	0	16	.48
Norty Forty Estates Unit 2	104	1980	49	0	0	49	.76
Pleasant Hill	105	1960	54	34	0	20	.58
Pleasant Ridge	106	1954	66	10	0	56	.24
Port Madison	107	1956	222	33	10	179	.74
Sharp Estates	108	1978	45	11	0	34	.52
Stewart	109	1962	23	20	0	3	.50
Strange	110	1956	78	25	0	53	.28
Tanglewood	111	1979	37	0	0	37	1.27
Average (N=31)	---	1967	62.8	23.7	1.6	37.3	.80*
Not Classified							
Milligan Estates	112	----	15	7	1	7	5.61

Source: Loudon County Tax Records.

*Average is the sum of all cases divided by the number of cases, and is not the average of the subdivision averages.

APPENDIX B

TABLE B-1
RURAL SUBDIVISION HOUSING AND LAND OWNERSHIP CHARACTERISTICS, 1981

Subdivision Name	Average Year House Was Built	Average House Value	Percent of Lots Containing Houses	Average Number of Lots Owned Per Landowner*	Build-Out Rate
Lakeside					
Coulter Shoals	1968	\$15,884	35	1.52	1.40
Fort Loudon Estates	1963	\$18,530	40	1.50	1.82
Fort Loudon Estates I	1967	\$19,732	62	1.48	3.10
Fort Loudon Estates II	1973	\$21,631	45	3.00	2.37
Fort Loudon Estates III	1970	\$20,309	77	1.30	4.05
Hope Creek Colony	1973	\$24,679	10	1.00	.59
Lake Point	1976	\$33,621	69	1.00	8.63
Lakeside Camp	1959	\$13,558	50	1.67	1.62
Lakeside Camp I	1954	\$14,860	60	1.67	2.14
Lake Shore	1970	\$10,190	11	1.71	.69
Lake Shore Addition	----	-----	0	4.10	0.00
Lakeview	1968	\$11,136	25	3.00	1.09
Newberry	1974	\$29,212	28	1.59	2.00
Point Harbour	1976	\$27,693	6	1.44	1.20
Riverchase	----	-----	0	5.00	0.00
Riverview Farms	1980	\$25,272	13	1.25	4.33
Shiloh Acres	1972	\$13,873	36	2.20	1.71
Twin Cove Estates	1974	\$42,290	47	2.56	4.27
Watts Bar Estates	1974	\$13,147	18	2.03	1.29
Average	1970**	\$22,695**	27.1**	1.83**	2.23
Farm Partition					
Engbert and Pershing	1979	\$19,509	30	1.11	2.73
Clayton Farm, Herbert	1978	\$18,220	18	1.00	1.00
Gound, Jennie	----	-----	40	1.00	2.86
Griffith Farm	1976	\$19,973	19	1.45	2.38
Grubb Farm	1975	\$21,594	30	1.44	1.58
Houston Farm, Tom	1955	\$9,747	86	1.40	1.65
Lindsey Partition	1977	\$21,478	36	1.39	3.60
McDonald Part., Henry	----	-----	13	1.60	0.00
Rather Farm	1954	\$8,135	40	1.00	----
Smith Part., Samuel	1956	\$10,637	93	1.07	2.51
Average	1967**	\$15,802**	39.2**	1.25**	2.03
Existing-Road					
Bible, John T.	1964	\$13,635	35	1.77	1.67
Blankenship, Gilbert	1951	\$7,912	73	1.07	1.70
Burkhart	1959	\$11,280	7	2.25	.28
Chestnut Ridge	1973	\$27,533	19	1.07	----
Dixie Lee Village	1973	\$16,070	43	1.00	3.31
Forest Hills West	1977	\$13,278	94	1.00	10.44
Greystone Heights	1976	\$20,701	43	1.40	4.78
Grimes, Frank	1975	\$12,000	17	1.50	.89
Hamilton and Dearmond	----	-----	0	14.00	0.00
Hubbard, Willis T.	1979	\$11,010	53	1.07	2.41
Hutton-Ryan	1965	\$10,385	65	1.25	2.50
McGill, John	----	-----	14	1.00	0.00
McDaniel	----	-----	14	1.17	0.00
Palmer, J. M.	----	-----	8	6.50	0.00
Roberts Part., P. H.	----	\$13,400	75	1.60	1.39
Rogers, J. A.	1946	\$5,084	67	1.43	1.16
Stooksbury, Sherman	----	-----	0	1.25	0.00
Trigonia Estates	1980	\$13,840	20	2.50	20.00
Webb	1968	\$12,647	27	1.67	1.17
Wilson, Bob	1947	\$7,870	33	2.25	1.43
Matlock, Paul	1955	\$7,756	57	1.40	----
Average	1962**	\$10,921	41.6**	2.06**	2.80
Single-Road					
Allen, Raymond	1974	\$20,861	11	4.63	.42
Blair Bend	1979	\$19,206	37	1.93	6.17
Butler	1972	\$24,806	29	1.92	1.93
Clinchview Estates	1970	\$16,801	65	1.24	3.61
Cockrell, C. H.	1968	\$18,845	10	8.00	.50
Cranfill, A. W.	1973	\$24,821	50	2.00	2.78
Cusick, Cecil	1957	\$12,388	75	1.14	2.88
Davis	1966	\$13,026	13	3.93	.54
Dewitt	1964	\$14,096	40	1.83	1.54
Fort Loudon Estates IV	----	-----	0	8.00	0.00
Gentry Estates	1965	\$8,845	39	1.48	1.70
Goode	1959	\$12,330	29	1.75	1.16
Hidden Valley	1960	\$10,972	78	1.29	3.55

TABLE B-1 (Continued)

Subdivision Name	Average Year House Was Built	Average House Value	Percent of Lots Containing Houses	Average Number of Lots Owned Per Landowner*	Build-Out Rate
Single-Road (Continued)					
Huffman Brothers	1962	\$12,560	6	4.86	.32
Johnson, Glen	1974	\$17,065	67	1.20	3.35
Lakeland Hills	1972	\$13,753	55	1.54	3.24
Lane	1970	\$16,023	55	1.54	2.29
Lindner Villa	1977	\$16,220	100	1.00	25.00
Matlock	1959	\$9,415	57	1.75	2.17
McCulley, Arther	----	-----	0	6.00	0.00
Neeley	1958	\$7,680	43	2.00	----
Northview Estates	1977	\$25,104	45	1.89	5.63
Old Hickory Estates	1964	\$12,099	75	1.07	3.95
Rice, A. J.	1953	\$6,906	50	1.33	1.43
Snoderly and Burkhart	1969	\$13,593	28	1.66	----
Taylor	1951	\$7,070	35	2.53	1.13
Waller Ferry Farms	----	-----	0	2.67	0.00
Wheeler	----	-----	0	1.00	0.00
Wheeler Addition	1960	\$14,890	67	1.50	2.79
Woodland Estates	1978	\$28,287	50	2.00	7.14
Average	1968**	\$16,215**	33.5**	2.06**	3.04
Complex-Road					
A Valley	1972	\$16,516	13	2.93	.93
Blackberry Landing	----	-----	0	1.44	0.00
Brandywine	1977	\$28,977	44	1.20	4.89
Carter, Wayne	1971	\$20,778	26	2.30	1.53
Cedar Hills	1974	\$21,826	66	----	6.60
Circle Drive	1970	\$18,637	44	2.27	3.14
Eaton Forest	1966	\$17,115	66	1.23	----
Eatonwood	1973	\$20,887	24	1.54	1.85
Ford	1960	\$12,052	88	1.02	3.26
Forest Heights	1971	\$17,100	62	1.33	3.65
Forest Hills	1974	\$15,854	42	1.60	2.63
Green Acres	1970	\$17,033	41	1.92	2.16
Grubb Estates	1972	\$21,910	36	1.56	2.12
Hamilton, James	----	-----	8	----	.42
Harrison Hills	1969	\$19,049	66	1.23	3.47
Huskey-Wheeler	1970	\$17,314	55	1.40	2.50
Little Mountain Estates 1	1978	\$22,011	29	1.50	7.25
Little Mountain Estates 2	1980	\$24,211	35	1.07	11.67
Lynwood	1975	\$17,459	47	1.20	----
Martel Estates	1969	\$19,358	63	1.28	3.94
Martel Estates East	1976	\$23,051	64	1.26	7.11
Martel Estates East First Addition	1976	\$23,535	72	1.24	10.29
North Forty Estates Unit 1	----	-----	0	----	0.00
North Forty Estates Unit 2	----	-----	0	1.00	0.00
Pleasant Hill	1969	\$11,181	63	1.26	3.00
Pleasant Ridge	1960	\$9,052	15	4.40	.56
Port Madison	1968	\$11,691	15	3.00	.60
Sharp Estates	1979	\$17,338	24	1.25	8.00
Stewart	1965	\$14,506	87	1.10	4.58
Strange	1963	\$15,876	32	2.28	1.28
Tanglewood	----	-----	0	1.00	0.00
Average	1970**	\$18,205**	37.7**	1.61**	3.36
Not Classified					
Milligan Estates	1973	\$15,802	47	1.07	----
Average 112 Subdivisions	1970**	\$17,830**	35.5**	1.68**	2.86

Source: Loudon County Tax Records.

*Excludes developers, real estate firms, and others who own several lots for investment purposes.

**Average is the sum of all cases divided by the number of cases, and is not the average of the subdivision averages.

VITA

David Kelly Williams was born in Detroit, Michigan, in 1953. Raised in Minnetonka, Minnesota, he graduated from Minnetonka High School in June 1971. The following September he enrolled at Normandale State Community College, Bloomington, Minnesota, and received an Associate in Arts degree in May 1973. In May 1975, after two years of study at St. Cloud State University, St. Cloud, Minnesota, a B.A. degree with a major in geography was awarded.

Following three years of various work experiences in Tampa, Florida, and Knoxville, Tennessee, he became a graduate student in the Department of Geography at The University of Tennessee at Knoxville. The M.S. degree with a major in geography was awarded to him in December 1982.