

TENURE PROCESSES IN A COMMUNITY  
IN MINAS GERAIS, BRAZIL

BY

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All views, interpretations, recommendations and conclusions expressed in this paper are those of the author and not necessarily those of the supporting organizations.

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## TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS . . . . .	iii
LIST OF TABLES . . . . .	viii
LIST OF FIGURES . . . . .	xv
LIST OF MAPS . . . . .	xv
GLOSSARY OF TERMS . . . . .	xvi

### Chapter

I. INTRODUCTION . . . . .	1
II. DESCRIPTION OF THE STUDY AREA . . . . .	10
Physical Environment . . . . .	10
Settlement of the Area . . . . .	15
The People . . . . .	19
Agriculture . . . . .	29
Level of Technology . . . . .	29
Organizations Serving Agriculture . . . . .	31
Transportation, Communication and Marketing . . . . .	33
Land Use . . . . .	36
Crop and Livestock Production . . . . .	38
Size of Holdings . . . . .	41
Tenure Categories . . . . .	43
III. THE GROUP STUDIED . . . . .	47
Multiplicity of Tenure Positions . . . . .	47
Tenure-Labor Arrangements Used by Owners . . . . .	54
Sharecropping Arrangements . . . . .	58
Land Use . . . . .	74
Crop Production . . . . .	77
Livestock Production . . . . .	83
Agricultural Equipment . . . . .	87
Level of Living . . . . .	87

Chapter	Page
IV. ACQUISITION OF TENURE STATUS . . . . .	96
Age and Present Occupational- Tenure Category . . . . .	97
Occupational-Tenure Status and Skin Color . . . . .	98
Education and Occupational- Tenure Status . . . . .	99
Time of Leaving Home and Father's Ownership . . . . .	100
Occupational-Tenure Status at Marriage or Age 30 . . . . .	103
Working at Home Before Acquiring Ownership Occupational-Tenure Status at Specified Ages . . . . .	106
Comparison of Paths Followed by Younger and Older Groups . . . . .	108
Ownership by Fathers and Fathers-in-law . . . . .	118
Age of First Acquisition . . . . .	123
Age and Size of Holding in the Preceding Generation . . . . .	125
126	126
V. INHERITANCE PROCEDURES . . . . .	129
Legal Framework . . . . .	130
Ownership of Property by Husband and Wife . . . . .	130
Inheritance . . . . .	131
Partilha em Vida . . . . .	136
Gifts . . . . .	137
Case I . . . . .	138
Case II . . . . .	155
VI. ACQUISITION OF LAND OWNERSHIP . . . . .	158
Source of First Acquisition . . . . .	159
Number of Parcels Acquired . . . . .	159
Relative Importance of Inheritance and Purchase . . . . .	162
Size of Acquisition Inherited and Purchased . . . . .	165
Inheritance . . . . .	167
Purchase . . . . .	170
Use of Credit . . . . .	172
Source of Credit . . . . .	175
Source of Payment for Land Purchases . . . . .	178

Chapter	Page
Source of Repayment of Loans . . . . .	181
Length of Time to Repay . . . . .	182
VII. SUMMARY AND CONCLUSIONS . . . . .	185
BIBLIOGRAPHY . . . . .	195

## LIST OF TABLES

Table	Page
1. Rural and Urban Population in the Município of Viçosa in 1940 and in the Equivalent Area in 1950 and 1960, Viçosa, Minas Gerais, Brazil . . . . .	21
2. Annual Rates of Growth of Rural and Urban Population in Percent for Viçosa, for the State of Minas Gerais, and for Brazil, Between 1940 and 1950, and Between 1950 and 1960. . . . .	22
3. Number and Percent of Those Five Years of Age and over who Could Read and Write, Município of Viçosa, Minas Gerais, Brazil, 1950 . . . . .	25
4. School Attendance in the State of Minas Gerais by Those Between 6 and 14 Years of Age, 1964 . . . . .	26
5. Color of Population of the Município of Viçosa, the State of Minas Gerais, and Brazil, in Percent, 1950 . . . . .	28
6. Use of Land on 1,047 Establishments in 1950 in the Município of Viçosa, Minas Gerais, Brazil . . . . .	37
7. Value of Major Items of Agricultural Production, Viçosa, Minas Gerais, 1965-1966 Crop Year . . . . .	40
8. Agricultural Holdings in the Município of Viçosa, Minas Gerais, Brazil in 1949 and 1961 . . . . .	42
9. Establishments and Hectares Operated by Owners, Renters, Occupants, and Administrators in Viçosa, Minas Gerais, Brazil in 1950 . . . . .	44
10. Operators, Permanent Agricultural Workers, Temporary Agricultural Workers, and Sharecroppers on Establishments on July 1, 1950, Viçosa, Minas Gerais, Brazil . . .	46

Table	Page
11. Kind of Work and Order of Importance by Present Principal Occupational-Tenure Categories of 61 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	48
12. Number of Sharecroppers, Permanent Agricultural Workers, and Man-Days of Additional Temporary Agricultural Labor by Two Sizes of Farms, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	55
13. Cultivated Land and Labor Force in Man-Years for Three Types of Farms, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	57
14. Combinations of Crops Grown on the Shares by Principal Occupational-Tenure Category of 31 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	59
15. Provision of Seed and Share of Production by Landowner and Sharecropper in the Production of Beans, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	62
16. Number of Respondents Growing Corn on Half Share who Received Plowed Land or Oxen and Plows by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	67
17. Provision of Seed Corn, Fertilizer, and Insecticide by the Landowner in 28 Sharecropping Arrangements by Principal Occupational-Tenure Categories of the Sharecroppers, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	68
18. Number of Those who Cultivated on the Shares who Received Selected Items from the Landowners Whose Land They Cultivated, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	71
19. Number of Respondents and Median Number of Days Which They Worked for Landlord and for Others by Principal Occupational-Tenure Categories, 23 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	73

Table	Page
20. Use of Owned Land by Size of Holding by 30 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	75
21. Average Number of Hectares and Proportion of Cultivated Land Which is Tilled by Owners and by Sharecroppers by Size of Holding of 30 Respondents Whose Principal Source of Income was from Owned Land, Viçosa, Minas Gerais, Brazil, 1966 . .	76
22. Average Hectares and Percent of Own, Cultivated Land in Specified Crops by Two Sizes of Holdings, 30 Respondents, Viçosa Minas Gerais, Brazil, 1966 . . . . .	78
23. Percentage of Subsistence Crops Grown by the Owners and Their Sharecroppers on the Land Owned by 30 Respondents Whose Principal Source of Income was Owned Land, Viçosa, Minas Gerais, Brazil, 1966 . .	80
24. Average Number of Hectares and Percentage of Subsistence and Cash Crops Grown on the Shares by 31 Respondents by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	81
25. Average Numbers of Livestock and Poultry by Occupational-Tenure Status of 61 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	84
26. Number and Percentage of Respondents Having Selected Livestock and Poultry Enterprises by Occupational-Tenure Status, Viçosa, Minas Gerais, Brazil, 1966 . .	86
27. Numbers of Selected Items of Equipment Owned by 61 Respondents by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	88
28. Principal Construction Material of Houses of 58 Respondents by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	90

Table	Page
29. Flooring Material of 58 Respondents by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . .	91
30. Average Number of Rooms per House for 58 Respondents by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	92
31. Number of Chairs by Principal Occupational-Tenure Categories of 58 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . .	94
32. Number of Respondents Possessing Selected Items by Principal Occupational-Tenure Categories, 58 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	95
33. The Mean and Median Ages of the 61 Respondents by Principal Occupational-Tenure Categories, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	97
34. Present Occupational-Tenure Status by Skin Color of 61 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	98
35. Principal Occupational-Tenure Status by Number of Years of Education of 61 Respondents or Their Wives, Whichever was Larger, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	100
36. Principal Occupational-Tenure Status of Father and Time of Leaving Home of 51 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	101
37. Mean and Median Ages of Leaving Home by Fathers' Principal Occupational-Tenure Status of 51 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	103
38. Present Ownership Status of 57 Respondents by Average Size of Holdings in the Preceding Generation and Respondents' Principal Occupational-Tenure Status at Marriage or Age 30, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	105

Table	Page
39. Pre-Ownership Work Experience of 30 Present Owners, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	107
40. Principal Occupational-Tenure Status at Ages Indicated by Ownership Status of the Preceding Generation, 61 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . .	109
41. All Occupational-Tenure Positions Held at Ages Indicated by Ownership Status of the Preceding Generation, 61 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . .	113
42. Principal Occupational-Tenure Status at Age Indicated by Ownership Status of the Preceding Generation, 23 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . .	117
43. Ownership by Father and Father-In-Law and Principal Occupational-Tenure Status of 61 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	124
44. Mean and Median Sizes of Ownership of Fathers and Fathers-In-Law and of 60 Respondents by two Age Groups, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	127
45. Disposition and Present Ownership of Land Within Case I Farm, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	148
46. Fragmentation and Recombination of Property in Case II Farm, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	157
47. Source of First Acquisition of Land by Maximum Size of Holding of 40 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	160
48. Number of Acquisitions by Maximum Size of Holding of 40 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	161
49. Means of Acquisitions by Maximum Size of Holding of 40 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	163

Table	Page
50. Inheritance and Purchase in Terms of Number of Acquisitions by Maximum Size of Holding of 40 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	164
51. Inheritance and Purchase of Land in Terms of Hectares by Maximum Size of Holding of 40 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	164
52. Mean and Median Sizes and Source of 144 Acquisitions, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	166
53. Number of Acquisitions and Hectares Acquired Through Intestate Inheritance, and Partilha em Vida and Gift by Maximum Size of Holding Attained by 37 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	168
54. Sources of Inheritance and Maximum Size of Holding of 37 Respondents in Viçosa, Minas Gerais, Brazil, 1966 . . . . .	169
55. Source of Purchased Land in Terms of Number of Acquisitions and Hectares by Maximum Size of Holding Attained by 23 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	171
56. Credit and Cash Transactions by Maximum Size of Holding for 81 Transactions, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	173
57. Credit and Cash Purchase in Terms of Hectares by Maximum Size of Holding and Number of Acquisition for 23 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	173
58. Mean and Median Sizes of Credit and Cash Purchases by Maximum Size of Holding for 23 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	174
59. Source of Credit for Land Purchase by Maximum Size of Holding for 43 Acquisitions Made with Credit, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	176

Table	Page
60. Source of Credit for Land Purchase by Maximum Size of Holding for 591.8 Hectares Purchased with Credit, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	177
61. Source of Payment for Land Purchase with Credit and Cash in Terms of Number of Acquisitions and Hectares Purchased by Maximum Size of Holding, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	179
62. Mean and Median Time Required to Repay 43 Loans for Purchase of Land by Maximum Size of Holding, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	183
63. Time Required to Repay 43 Loans for Purchase of Land by Maximum Size of Holding, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	184

## LIST OF FIGURES

Figure	Page
1. Principal Occupational-Tenure Status at Three Stages of Life for Two Age Groups, 57 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . . . . .	119
2. Principal Occupational-Tenure Status at Two Stages of Life, 57 Respondents, Viçosa, Minas Gerais, Brazil, 1966 . .	122

## LIST OF MAPS

Map	Page
1. The State of Minas Gerais . . . . .	11
2. Division of Farm Between Father and Children Immediately Following Death of Mother .	144
3. Ownership of Land in Case Farm in 1966 .	152

## GLOSSARY OF TERMS

1. Alqueire -- A measurement of land equal to 3.0976 hectares in the município of Viçosa.
2. Cachaça -- Rum.
3. Candiando boi -- Guiding or leading the oxen. It is usually the work of a small boy.
4. Charette -- A light, two-wheeled vehicle drawn by a single horse.
5. Engenho -- A sugar mill. In this area it refers to the cane crusher and facilities for making crude brown sugar called rapadura.
6. Feijão das águas -- Beans which are planted at the same time as corn, at the beginning of the rainy season (October-November) and harvested in January and February.
7. Feijão do tempo -- Beans which are planted in February and March and harvested at the same time as the corn (May and June).
8. Hectare -- 2.47 acres.
9. Município -- A município is the only administrative unit below the state level. Both the rural and the urban areas of the município are under the same administration.
10. Parceiro -- Sharecropper.
11. Pardo -- Indians and mixtures of white, Indian, or Negro.
12. Partilha em vida -- Literally "division in life" and could be described as division of property prior to death with the owner specifying the parts which will go to each recipient.
13. Patrimônio -- A gift of a small section of an estate to the church to establish a village.
14. Rapadura -- Crude brown sugar.
15. Zona da Mata -- The Forested Zone.

All translations from Portuguese to English have been made by the author unless otherwise noted. A Portuguese word is underlined only upon its first use in the text.

CHAPTER I  
INTRODUCTION

In recent years there has been an increasing concern with the improvement of land tenure conditions in agriculture. Some evidence of this is the enactment of legislation in many countries to try to bring about changes in the way land is held and used, several world and regional conferences to discuss the problems of land tenure and agrarian reform, numerous publications which have addressed the problems of tenure, and the establishment of the Land Tenure Center at the University of Wisconsin to study problems of land tenure and economic development in Latin America.

This increasing concern, according to Professor Parsons, "is based upon the insights and the belief that present tenure arrangements are stifling the economic development of agriculture in many countries."<sup>1</sup> In addition to the right to the use of and income from the land, landownership often carries with it the control of

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<sup>1</sup>Kenneth H. Parsons, "Land Reform and Agricultural Development," Land Tenure edited by Parsons, Penn and Raup, the University of Wisconsin Press, Madison, p. 3.

the government and, therefore, of those functions which are normally carried out by it.<sup>2</sup>

This concern has also been present in Brazil since the latter part of the nineteenth century. However, the interest has been much more intense during the past 20 years and has resulted in the introduction of numerous agrarian reform bills in the national congress.<sup>3</sup> In November 1964, a national agrarian reform law was passed whose purpose is to carry out "measures that seek to promote a better distribution of land, through modifications in the pattern of its possession and use, in the interests of social justice and increased productivity."<sup>4</sup>

A considerable amount of information is available from census data and other research concerning the distribution of the rural population in the various tenure categories and landownership patterns. One of the ways,

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<sup>2</sup> Raymond J. Penn, "Public Interest in Private Property (Land)," Land Economics, Vol. XXXVII, No. 2, p. 100.

<sup>3</sup> Price states that since 1946 ". . . there have been hundreds of bills of agrarian reform introduced into the Congress." Robert Price, The Brazilian Land Reform Statute, The Land Tenure Center, University of Wisconsin, Madison, 1965, Mimeographed, p. 1. See also International Cooperation Administration (ICA), Latin American USOM's Seminar on Agrarian Reform, Report of ICA Seminar held in Santiago, Chile, February 21 to 24, 1961, ICA, Washington, D. C., p. 91.

<sup>4</sup> Law No. 4,504, November 30, 1964, Estatuto da Terra, Article 1, Paragraph 1.

in which tenure has been studied in the United States, has been through the examination of tenure processes. However, it appears that no studies of this type have been conducted in Brazil.<sup>5</sup>

The primary purpose of this study is to examine the tenure processes which exist in one area of Brazil. The tenure situation which prevails can be thought of as the result of several processes which will be discussed briefly below. There is a process of inter-generational transfer whereby the older generation is replaced by the younger one. This can be viewed in terms of stages. For the older generation there is declining physical ability, retirement, and finally death. If property is accumulated there will be transfer of both management and ownership at some point in time. These need not occur simultaneously. The transfer of the management may take place gradually while the transfer of ownership may be

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<sup>5</sup>The only research encountered which has some bearing on this problem was a study by Machado. He found that 40 percent of the properties in the município of Viçosa were acquired by inheritance alone and that the proportion was higher for those in the smaller size categories. He also found a tendency to increase the size of farm through purchases but concluded that this did not offset the fragmentation brought about through inheritance. See Renato Rodrigues Machado, A Sucessão da Propriedade Rural e o Minifúndio no Município de Viçosa, Minas Gerais, Instituto de Economia Rural, Série Técnica, Boletim 1, Universidade Rural do Estado de Minas Gerais (UREMG), Viçosa, Minas Gerais, 34 pp.

through gift, purchase, inheritance, etc. The younger generation passes through stages of increasing physical ability, marriage, growth in the family, and accumulation of wealth (or lack thereof).

However, all families and all individuals are not equally successful in accumulating wealth. Their success may be affected by size of family, health, frugality, diligence, managerial ability, and other chance factors commonly referred to as "good or bad luck." In any case, some individuals will be able to get ahead while others will slide back.

In addition there may be differential opportunities available to individuals. Within each class the roles of individuals change with their ages. However, those in one class may play quite different roles from those in another class at the same relative point in time. For example, those in one class may move through a set of non-ownership roles during their lifetimes while those in another class may move through a different set of non-ownership roles and on into land ownership.

The above processes, which for any one farmer occur over his lifetime, create the tenure situation which exists at a point in time. That is, they generate the number and sizes of farms and the proportion of farmers in each tenure category. These processes can continue to bring about the same tenure situation, or under the impact of changing conditions they can lead to tenure changes.

Such changes may be brought about by population growth, differential growth of the local economy and outside areas, or changes in the type of farming and in agricultural technology employed.

Population growth can be thought of as a "push" factor. Growth in the rural population of an area will result in either subdivision of holdings or an increase in the number of individuals in the non-owning tenure categories, or some combination of the two.

If other regions or other segments of the economy are growing faster than the local community or the agricultural segment of the local economy, population will tend to be drawn out. This "pull" factor would counteract the effects of population growth mentioned above.

Changes in the type of farming and in the technology employed will also affect the tenure situation and tenure processes. A shift to more extensive types of agricultural enterprises (e.g., from crops to livestock) and the adoption of labor-saving technology would reduce the opportunities for those in both the non-owner and owner tenure categories through reduced labor requirements and an increase in the optimum size of holding. A shift to more intensive types of agriculture and to yield increasing technology would increase the opportunities for both work in the non-owner categories and for acquisition of ownership.

All these processes mentioned above affect the data which has been collected in this study. The data can be used primarily to describe the successive tenure stages which were used by those in the whole sample and by different groups of respondents within the sample. Information was collected about the tenure status of the respondents in the sample at different points in the past. Those interviewed were also subdivided into three groups by the tenure status of their fathers and fathers-in-law (classifying the fathers and fathers-in-law as larger owners, smaller owners, and non-owners) in an attempt to distinguish among those who differed in access to opportunities to farm and to acquire ownership of farm land. A difference in tenure stages used by each of these three groups would indicate differences in tenure processes among classes of farm people. In the absence of other similar studies in the past it is difficult to document changes due to long-run secular changes such as population growth, economic development, and technological change.

The following are the principal questions to which it is hoped this study will provide answers:

1. What are the principal occupational-tenure categories in the area and what are the differences in type of farming and level of living among them?
2. What factors are related to the present occupational-tenure position of the respondents?

3. What is the legal framework within which property is transferred between generations?
4. How was landownership acquired including the number of parcels acquired, sources--inheritance or purchase from relatives or non-relatives, and sources of credit and capital for repayment in the case of purchases?

It is hoped that the answers to these questions will be useful to those concerned with agrarian reform programs. Knowing more about the processes can provide an indication as to whether the tenure categories observed at a point in time are permanent or if they are merely stages through which individuals pass. For example, are those who are in the sharecropper category at any particular point in time merely using it as a route to ownership or are they likely to remain in this tenure category? If the non-ownership tenure categories are stable then a program of land redistribution to these individuals would aid in reducing the number of people in them. However, if they are merely stages in the process of acquisition of ownership then, redistribution alone would not eliminate these non-ownership tenure categories. Without credit or some other institutions to aid in early acquisition of ownership, the same (or similar) non-owner tenure categories would reappear. These non-owner categories would reappear as the older and younger generations work out arrangements for inter-generational transfer.

The primary source of data for the study was from detailed interviews with owners, sharecroppers and rural

workers concerning their family backgrounds, occupational-tenure histories, land acquisitions, present tenure arrangements, and types of farming being carried out.

The study was conducted in the município of Viçosa, Minas Gerais, Brazil. There were two principal reasons for selecting this area: (1) It is an area of older settlement and it was thought that the patterns of land transfer and movement between tenure categories would be well established. (2) The state agricultural university (UREMG) is located there and cooperation with the staff seemed desirable.

To facilitate getting acquainted with the area and the people in it, a portion of the município about 3-3/4 by 4-3/4 miles in size was selected. This was done after consulting with people from the extension agency (the Associação de Crédito e Assistência Rural--ACAR), and others who knew the region well. It was considered to be fairly representative of the region in terms of settlement, type of agriculture, technology used, access to roads and markets, and tenure patterns.

Because a reliable list of the owners in the area selected was not available, a list of all the owners and their size of holdings was made with the assistance of local residents. From this list a stratified random sample was drawn, using three size groupings (0 to 8 hectares, 8.1 to 37 hectares, and 37.1 hectares and over). This was done because it was anticipated that the process

of acquisition of ownership might be different for farms of differing sizes. These size groupings were chosen because it was thought that, respectively, these would represent holdings that were too small to provide full-time employment, those operated with only family labor, and those which were larger than family farms.

After considerable study of the non-owning tenure groups in the area, it was decided that they could be divided into three principal categories--sharecroppers (parceiros), permanent agricultural workers, and temporary agricultural workers. To obtain a list of the people in these three groups the owners interviewed were asked for the names of their sharecroppers and permanent agricultural workers, and the last three temporary agricultural workers they had hired.

It was decided to do all the interviewing personally with the assistance of a local farmer (who lived in and knew the area well) to help locate the people to be interviewed, to introduce the author to the interviewees, and to explain the purpose of the study. Although this was more time consuming than hiring others to do the interviewing it is believed that the additional information and understanding of the agriculture and tenure situation of the area made it worthwhile. A total of 61 usable interview schedules were obtained, 11 in the sharecropper category and 10 in each of the others.

## CHAPTER II

### DESCRIPTION OF THE STUDY AREA

The purpose of this chapter is to provide a better understanding of the município of Viçosa where the data for this study were collected. It is included here because of the belief that a tenure system cannot be considered in a vacuum but must be considered in relation to the environment in which it functions.

#### Physical Environment

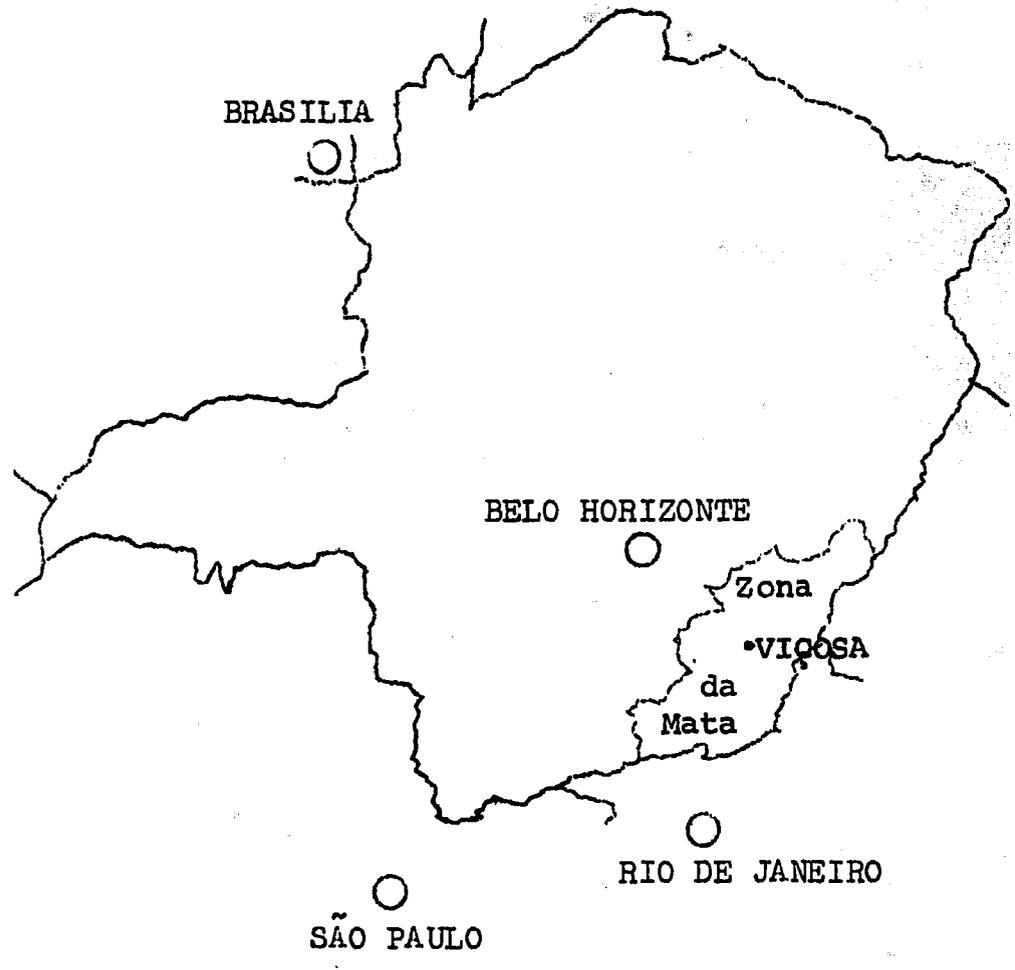
The município of Viçosa is in the Zona da Mata<sup>1</sup> in state of Minas Gerais and is located about 250 miles north of Rio de Janeiro, the former federal capital of Brazil, and 180 miles southeast of Belo Horizonte, the capital of the state of Minas Gerais.<sup>2</sup> (See Map 1.) The elevation in the município varies from approximately 1,840 to 3,150

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<sup>1</sup>The Forested Zone.

<sup>2</sup>However, to one who has not been in that part of Brazil, these distances may be deceptive as a basis for judging the relative isolation of the município. The number of hours to reach these two cities by express bus may be a better indication. The bus requires about 10 hours to reach Rio de Janeiro and about six hours for the trip to Belo Horizonte. The straight line distance between Viçosa and Rio de Janeiro and Belo Horizonte are 145 and 90 miles respectively.

MAP I. THE STATE OF MINAS GERAIS.



feet, being 2,130 feet in the city of Viçosa, the seat of the município.<sup>3</sup> The average annual rainfall is about 55 inches<sup>4</sup> with the major part falling from October through March. Valverde describes the climate in Viçosa as high, tropical with cool, rainy summers.<sup>5</sup> The average annual temperature for Viçosa is 65.3°F with the mean of the minimums in the coldest month (July) being 46.8°F and that of the maximums in the hottest month (February) being 84.4°F.<sup>6</sup>

The topography of the region can best be described as quite hilly with very little of the land being suitable for mechanization. According to Gonçalves, 70 percent of the município of Viçosa has a slope of 20 percent or more

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<sup>3</sup> Renato Rodrigues Machado, op. cit., p. 9.

<sup>4</sup> Orlando Valverde, "Estudo Regional da Zona da Mata, de Minas Gerais," Revista Brasileira de Geografia, Ano XX, No. 1, Janeiro-Março de 1958, p. 20. See also Ruth Lopes da Cruz Magnanini, "Condições Climáticas da Região das Cafezeiras do Brasil," Revista Brasileira de Geografia, Ano XVIII, No. 3, Julho-Setembro de 1956, pp. 422-438.

<sup>5</sup> Orlando Valverde, op. cit., p. 19.

<sup>6</sup> Ibid.

and one-third is steeper than 40 percent.<sup>7</sup> ACAR estimated that less than 20 percent of the land in the município had a slope of 0-10 percent. However, conservation practices are practically non-existent.<sup>8</sup> The lack of concern for erosion control likely is a result of the history of plentiful virgin land as well as a lack of knowledge about erosion control practices.

The soils on the slopes are predominantly latosols ranging in color from yellow to red and having a pH from five to six.<sup>9</sup> On some of the slopes an intergrade having some of the characteristics of both a latosolic and a podzolic soil is found. These intergrades are shallower and less permeable than the latosols. The principal uses of these soils have been coffee, sugar cane, corn, beans, pasture and forests.

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<sup>7</sup>Arlindo P. Gonçalves, Estudo da Questão Florestal no Município de Viçosa, Professorial Thesis, UREMG, 1959, cited in Douglas Knudson, Potential of Rural Land Use in Minas Gerais, Brazil, Fall 1964, Mimeographed, 14 pp.

<sup>8</sup>ACAR, Escritório Local de Viçosa: Programa de Extensão para o Ano Agrícola 1965-1966, Viçosa, Minas Gerais, Brazil, pp. 1-2.

<sup>9</sup>Information concerning the soils of the area is from discussions with Joseph Yahner, Professor of Agronomy, Purdue Brazil Project, UREMG; see also Thiago Ferreira da Cunha, "Observações Gerais Acerca da Morfologia dos Solos da Zona da Mata," Revista Brasileira de Geografia, Ano XX, No. 2, Abril-Junho de 1958, pp. 225-229; and Orlando Valverde, op. cit., pp. 3-82.

The low-lands which are heavier and contain more organic matter can be divided into two groups: those formed by the erosion from the hillsides, and those along the streams which are subject to periodic overflow. The former, if well drained, are suitable for most crops, but if poorly drained are only used for pasture. The areas subject to overflow are used principally for growing rice.

With respect to the productivity of the soils in the município, Gonçalves classified 48 percent as "dry" or "poor," 43 percent as "worn out," and 9 percent as "good" for crop production.<sup>10</sup>

The method of cultivating coffee seems to have been a contributing factor to the "worn out" soils referred to by Gonçalves.<sup>11</sup> Traditionally when coffee is planted, the land is cleared of trees and brush. Then the coffee is planted in vertical rows on the slopes. Coffee is harvested from May through July, but before it is picked all the vegetation, leaves, trash, etc. are cleaned from under the trees. The principal reason for doing this is to facilitate picking up the berries which fall to the ground during the process of picking.<sup>12</sup>

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<sup>10</sup> Arlindo P. Gonçalves, op. cit.

<sup>11</sup> From personal observation and discussion with various people including Prof. José Ribeiro Filho, Agronomy Department, UREMG, August 13, 1965. Also see Preston James, Latin America, Odyssey Press, New York, 3rd ed., p. 460; and Orlando Valverde, op. cit., p. 44.

<sup>12</sup> Usually all the berries are stripped from the branches at one time rather than picking them individually.

### Settlement of the Area

Probably the first white men to pass through the area which is now the município of Viçosa were explorers who were in search of gold and precious stones. Antonio Rodrigues Arzão, who, according to many, was the first to find gold in the region, is reported to have been in what is now the município of Viçosa in 1693.<sup>13</sup>

With the discovery of gold, the search in the central region of Minas Gerais intensified. From all parts of the colony people came in search of gold. There was little, if any, agriculture in the mining area because gold, and later, diamonds employed all available workers.<sup>14</sup> In addition the land in the mining area was not well suited to agriculture. Consequently there was a great scarcity

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<sup>13</sup> Alexander de Alencar, Fatos e Vultos de Viçosa: Da Primeira Bandeira ao Ano de 1892, Estabelecimentos Gráficos Santa Maria, S. A., Belo Horizonte, Minas Gerais, p. 13.

<sup>14</sup> Pedro Calmon, História da Civilização Brasileira, 2nd ed., Biblioteca Pedagógica Brasileira, Série V, Companhia Editora Nacional, São Paulo, 1935, p. 93; and Fritz Teixeira de Sales, Vila Rica do Pilar, Editora Itatiaia Limitada, Belo Horizonte, 1965, p. 24.

of food, prices rose rapidly,<sup>15</sup> and even rats and dogs were eaten.<sup>16</sup>

Later some returned to cultivate land in areas which they had seen in going to Vila Rica (the present city of Ouro Preto and the center of the gold mining activity).<sup>17</sup> This movement was accelerated as the gold was depleted. Thus, the first villages in the Zona da Mata were established, among them a small settlement on the Rio Turvo which today is the city of Viçosa.

In 1800 a chapel was dedicated in this place and called Capela de Santa Rita. Later the name of the river was added and the village (settlement) was known as Santa Rita do Turvo. In 1805 a patrimônio<sup>18</sup> (including a house

<sup>15</sup> André João Antonil, Cultura e Opulência do Brasil por Sua Drogas e Minas, com anotações de Orlando Valverde, Conselho Nacional de Geografia, Rio de Janeiro, 1963 (originally published in 1711), pp. 74-75. Gold was used as the medium of exchange. Some examples of prices in 1703 given by Antonil, in eighths of ounces of gold, were as follows: 60 ears of corn--30, an eight pounds ham--16, a chicken--3 to 4, a strong, valiant Negro slave--300, and a pack horse--100.

<sup>16</sup> Fritz Teixeira de Sales, op. cit.

<sup>17</sup> Alexander de Alencar, op. cit., p. 26.

<sup>18</sup> Preston James explains patrimônio as follows: "It is a custom of long standing for the large landowners to make gifts of small sections of their estates to the church. The express purpose of such a gift is to establish a town, dedicated generally to a saint and administered under the direction of the church. While there is a certain religious prestige to be gained by such a grant, it is obvious that economic profit will also accrue, if only because of the supply (cont.)

land, logs, and sawed wood) was given to the chapel by Capitão Manoel Cardoso Machado and his wife.

A contemporary of Capitão Cardoso who also owned a sizable amount of land in the area was Bento Lopes.<sup>19</sup> The latter is being mentioned here because the land he owned was mostly within the study area. Bento Lopes, a distant relative of the governor of the capitania (province), had committed a crime in the mining area and was advised by the governor to flee to the Mata in the early 1800's.<sup>20</sup> He is said to have received a grant of

<sup>18</sup> (Cont.) of workers gathered together in the neighborhood. When crops are to be cultivated . . . . or when other jobs need to be done, here is a reserve of laborers ready to be called on. When one landowner has established a patrimônio, as such grants are called, it frequently follows that other landowners, not to be outdone, set up other patrimônios not far away. Many of the rural workers of Minas are now grouped in these small scattered villages." Preston James, op. cit., p. 446.

<sup>19</sup> Information concerning Bento Lopes was obtained from interviews with several of his descendents.

<sup>20</sup> In a study of the people of São José do Triunfo, Pinto refers to a José Lopes who, around 1650, gave about 2.5 alqueires of land to the chapel, São José, to form the patrimônio. His children and descendents later confirmed this in a public act. See João Bosco Pinto, São José do Triunfo: Um Povoado Mineiro entre Outros, Experientiae, Vol. 3, No. 2, UREMG, Viçosa, 1963, p. 18. This appears to be the same person as the Bento Lopes referred to here. If it is, the date of 1650 seems to be too early. Through various approximations, sometime in the early 1800's seems more likely. The following were among the methods used in arriving at this date: (1) Two of the sons of Bento Lopes fought in the war with Paraguay (1864-1870) with the group from Viçosa. If they were between 20 and 40 years of age when they (cont.)

land of about 300 alqueires (930 hectares). He brought six men slaves and two women slaves (who were the mothers of his children).

Before his death, Bento Lopes advised his children to each give a half alqueire to the church to form the patrimônio of São José do Triunfo. Thus, they gave a total of 2-1/2 alqueires (7.75 hectares) to the church for this purpose.

Bento Lopes had five children, two of which had fought in the war with Paraguay and had remained in Mato Grosso after the war. The settlement of the estate took place in 1913 but this must have been at least 30 years after his death because those who had stayed in Mato Grosso had lost their rights to the land.<sup>21</sup> At the time

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<sup>20</sup>(Cont.) left for the war they would have been born between 1824 and 1844. (2) One of the daughters of Bento Lopes and one of the nephews of Capitão Cardoso had a son who was born in 1871. (The data of birth was furnished by a respondent, the son of the person born in 1871.) If the daughter of Bento Lopes had been 20 to 30 years of age at that time she would have been born between 1841 and 1851. (3) The great grandson of Bento Lopes, a respondent in this study was born in 1896. His father (the grandson of Bento Lopes) was born in 1865. Reducing this by another 30 years would have meant that one of the sons of Bento Lopes had been born in 1835.

<sup>21</sup>The heirs who had been using the land had acquired title by prescription, which, at that time, required uncontested use for 30 years.

the land was divided among the heirs there were only about 15 alqueires (46.5 hectares) or five alqueires (15.5 hectares) each for the three who received land. Thus, during a period of about 100 years the property of 300 alqueires (930 hectares) was reduced to 46.5 hectares. According to one of the descendants this had largely been the result of allowing others to settle on the unused land. They were welcomed as neighbors to aid in the defense against Indians and wild animals.

### The People

During the nineteenth century the small settlement of Santa Rita do Turvo continued to grow. In this section some aspects of this growth, along with some of the other characteristics of the present population will be considered.

#### Growth of Population

Although in 1830 there were only 22 families living in the village, the surrounding rural population, including landowners, free Negroes, African slaves and part Indians, was much greater.<sup>22</sup> In 1871 Viçosa became an independent município. The population in the area has continued to grow but an examination of this growth is complicated by the dismemberment of the existing

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<sup>22</sup> Alexander de Alencar, op. cit., p. 31.

município to create new ones. Between 1920 and 1966 the size of the município of Viçosa decreased from 213,900 hectares to 29,900 hectares.<sup>23</sup> For the earlier years it is difficult to determine whether existing municípios comprise the exact area of the former município of Viçosa. However, it is possible to compare the population in the município in 1940 to that in its equivalent area in 1960.<sup>24</sup> Between 1940 and 1950 the proportion of the population which was rural remained constant. However, between 1950 and 1960 the proportion of the rural population declined from 73 percent to 67 percent. (See Table 1.)

Between 1940 and 1950 the rural and urban population in the município grew at about the same annual rate (between 0.8 and 0.9 percent). (See Table 2.) During

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<sup>23</sup>See Brasil, Directoria Geral de Estatística, Agricultura, III, Recenseamento do Brasil 1920, p. 101; and ACAR, op. cit. Cann concludes that states have been encouraged to create new municípios because of the income tax transfer from the federal government which is divided equally among all municípios. See Kenneth T. Cann, Inter-Governmental Revenue Transfers in Brazilian Municipal Finance, Ph. D. Thesis, Indiana University, 1967, pp. 134-138.

<sup>24</sup>During this period two new municípios were formed, Coimbra between 1940 and 1950, and São Miguel do Anta between 1950 and 1960.

TABLE 1. RURAL AND URBAN POPULATION IN THE MUNICÍPIO OF VIÇOSA IN 1940 AND IN THE EQUIVALENT AREA IN 1950 AND 1960, VIÇOSA, MINAS GERAIS, BRAZIL.

Year	U r b a n		R u r a l		T o t a l	
	Number	Percent	Number	Percent	Number	Percent
1940	10,367	26.6	28,664	73.4	39,031	100.0
1950	11,314	26.6	31,128	73.4	42,442	100.0
1960	14,907	32.8	30,516	67.2	45,423	100.0

Source: Brasil, IBGE, Censo Demográfico, População e Habitação, Estado de Minas Gerais, XIII Recenseamento Geral do Brasil 1940, p. 603; Censo Demográfico, Estado de Minas Gerais, XXI Recenseamento Geral do Brasil 1950, pp. 167 and 172; and Sinopse Preliminar do Censo Demográfico, Estado de Minas Gerais, VII Recenseamento Geral do Brasil 1960, pp. 15, 23 and 24.

TABLE 2. ANNUAL RATES OF GROWTH OF RURAL AND URBAN POPULATION IN PERCENT FOR VIÇOSA, FOR THE STATE OF MINAS GERAIS, AND FOR BRAZIL, BETWEEN 1940 AND 1950, AND BETWEEN 1950 AND 1960.

	Urban	Rural	Total
<b>Viçosa<sup>a</sup></b>			
1940 - 1950	0.87	0.83	0.84
1950 - 1960	2.80	-0.20	0.68
<b>Minas Gerais</b>			
1940 - 1950	3.3	0.7	1.4
1950 - 1960	5.3	0.8	2.2
<b>Brazil</b>			
1940 - 1950	3.9	1.6	2.4
1950 - 1960	5.4	1.6	3.0

Source: Percentages for the município of Viçosa were computed from data in Brasil, IBGE, Censo Demográfico, População e Habitação, Estado de Minas Gerais, XIII Recenseamento Geral do Brasil 1940, p. 603; Censo Demográfico, Estado de Minas Gerais, XXI Recenseamento Geral do Brasil 1950, pp. 167 and 172; and Sinopse Preliminar do Censo Demográfico, Estado de Minas Gerais, VII Recenseamento Geral do Brasil 1960, pp. 15, 23, and 24. Percentages for the state of Minas Gerais and Brasil, from Brasil, IBGE, Brasil, Sinopse Preliminar do Censo Demográfico, VII Recenseamento Geral do Brasil 1960, p. 7.

<sup>a</sup>To compare the population changes, the município of Viçosa in 1940 was compared to the equivalent area in 1950 and in 1960, since two districts of the município of Viçosa became autonomous between 1940 and 1960.

this period the rural population of the município grew slightly faster than the rural population for the state of Minas Gerais but only half as fast as for the entire country. The urban population in the município grew at only about one-fourth the rate of the state and of the country.

In the 1950's the rural population of the state of Minas Gerais and of the entire country continued to grow at about the same rates as in the 1940's. However, in the município of Viçosa there was a small decline in the rural population (0.2 percent per year) in the 1950's.

As was the case for the state and the country, the urban population in the município of Viçosa increased at a faster rate during the 1950's than in the 1940's. However, the rate of increase per year in the urban population was slower in the município than in the state or the country.

In the 1950's the total population in the município increased at a rate of only 0.68 percent per year compared to 2.2 percent for the state and 3.0 percent for the country. This would seem indicate a higher than average rate of out migration from the município, assuming that birth and death rates there are comparable to those of the state and the nation.

### Level of Education

The 1950 census classified 56.5 percent of the population over five years of age in the município of Viçosa as illiterate.<sup>25</sup> (See Table 3.) The percentage of illiterates was higher in the rural than in the urban sector of the município (63.4 percent compared to 37.2 percent).

For the state of Minas Gerais in 1964 about 65 percent of those between the ages of 7 and 14 were attending school. A lower proportion of those living in the rural area (54 percent) were attending school. (See Table 4.)

Concerning education in the rural areas in the município of Viçosa, Vasconcelos mentioned the following problems: poorly prepared teachers; instruction only through the third year, making it necessary for students who wish to continue their education to complete the fourth (last) year of primary school in the city of Viçosa; lack of teaching materials; schools located too far from the students; single room school houses with inadequate lighting, floors, desks, and ventilation; and poor attendance in times of rain and during the

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<sup>25</sup>If one considers the population eight years of age and over rather than five years of age and over, 52.2 percent were illiterate. However, it was not possible to classify by residence when classifying by eight years of age and over. See Brasil, IBGE, Censo Demográfico, Estado de Minas Gerais, XXI, Tomo 1, Recenseamento Geral do Brasil 1950, pp. 148-149.

TABLE 3. NUMBER AND PERCENT OF THOSE FIVE YEARS OF AGE AND OVER WHO COULD READ AND WRITE, MUNICÍPIO OF VIÇOSA, MINAS GERAIS, BRAZIL, 1950.<sup>a</sup>

	Can Read and Write		Cannot Read or Write		T o t a l	
	Number	Percent	Number	Percent	Number	Percent
Urban	5,033	62.8	2,984	37.2	8,017	100.0
Rural	8,231	36.6	14,271	63.4	22,502	100.0
Total	13,264	43.5	17,255	56.5	30,519	100.0

<sup>a</sup>Computed from data in Brasil, IBGE, Censo Demográfico, Estado de Minas Gerais, XXI, Tomo 1, Recenseamento Geral do Brasil 1950, Rio de Janeiro, p. 210.

TABLE 4. SCHOOL ATTENDANCE IN THE STATE OF MINAS GERAIS BY THOSE BETWEEN 6 AND 14 YEARS OF AGE, 1964.<sup>a</sup>

	Attending School		Not Attending School		T o t a l	
	Number	Percent	Number	Percent	Number	Percent
Rural	592,257	53.8	509,365	46.2	1,101,622	100.0
Urban	749,069	78.9	200,535	21.1	949,604	100.0
Total	1,341,326	65.4	709,900	34.6	2,051,226	100.0

<sup>a</sup> Computed from data in Brasil, IBGE, Anuário Estatístico do Brasil 1965, Conselho Nacional de Estatística, Rio de Janeiro, 1965, p. 400.

planting, cultivating, and harvesting season.<sup>26</sup>

### Skin Color

The 1950 census classified 61 percent of the population in the município of Viçosa as white, 27 percent as black, and 11 percent as pardo (white-Indian, white-Negro, and Indians). The principal difference between the color of the population of Viçosa and that of the state of Minas Gerais and of Brazil as a whole is in the black and pardo categories. In Viçosa over one-fourth were classified as black and 11 percent as pardo while for the entire country over one-fourth were pardo and 11 percent black. (See Table 5.)

### Age

Brazil has a relatively young population. According to the 1960 census 43 percent were under 15 years of age and only 5 percent were over 60 years of age.<sup>27</sup> The most recent data available for the município of Viçosa is from the 1950 census and is very similar to that for the country as a whole in 1960 with 43.8 percent being under 15 years of age.<sup>28</sup>

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<sup>26</sup>Edgard de Vasconcelos Barros, O Problema de Liderança, Estudos No. 3, Serviço Social Rural, Rio de Janeiro, pp. 120-121.

<sup>27</sup>Journal do Brasil, December 30, 1965, Section 1, p.12.

<sup>28</sup>Computed from data in Censo Demográfico, Estado de Minas Gerais, XXI, Tomo 1, Recenseamento Geral do Brasil 1950, pp. 148 and 283. Data for the percentage over 60 years of age in the município in 1950 was not tabulated in the source above.

TABLE 5. COLOR OF POPULATION OF THE MUNICÍPIO OF VIÇOSA, THE STATE OF MINAS GERAIS, AND BRAZIL, IN PERCENT, 1950.

	White	Black	Pardo (Mixed and Indian)	Yellow	No Decla- ration of Color	Total
Viçosa <sup>a</sup>	61.4	27.2	11.2	0.1	0.1	100.0
Minas Gerais <sup>b</sup>	58.4	14.6	26.8	0.0	0.2	100.0
Brazil <sup>c</sup>	61.7	11.0	26.5	0.6	--	100.0

<sup>a</sup> Computed from data in Censo Demográfico, Estado de Minas Gerais, XXI, Tomo 1, Recenseamento Geral do Brasil 1950, p. 74.

<sup>b</sup> Ibid., p. 1.

<sup>c</sup> T. Lynn Smith, Brazil: People and Institutions, 3rd ed., p. 70.

## Agriculture

Although the município of Viçosa is less rural than much of the surrounding area, over half of its population live in the rural area and are employed in agriculture. In the following section some of the general aspects of agriculture in the município of Viçosa will be considered.

### Level of Technology

The level of technology employed in agriculture in the município of Viçosa is relatively low. The basic agricultural implements are the hoe, sickle and walking plow. Plowing with oxen is the most common way of preparing the land and mechanical planters or cultivators are rarely used.<sup>29</sup> Both these operations are usually performed by hand, using only a hoe. Harvesting is done by hand with the oxcart being the usual way of carrying the crop to the farmstead.

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<sup>29</sup> In 1950 there were only three tractors in the município of Viçosa. The 1960 census recorded 19 in the equivalent area with two of these being in the município of São Miguel do Anta which was created between 1950 and 1960. Between 1950 and 1960 the number of plows increased from 601 to 713. See Brasil, IBGE, Sinopse Preliminar do Censo Agrícola, Estado de Minas Gerais, VII, Recenseamento Geral do Brasil 1960, p. 70. (None of the respondents interviewed had a tractor.)

Except for hybrid corn (which ACAR estimated was being used by 75 percent of the farmers) improved varieties of seeds are infrequently used. The use of fertilizer is increasing but its use is still at a low level. The local ACAR agent reported that those who use fertilizer do so only on their poorest land and in insufficient quantities. A study concerning fertilizer production in Brazil gives some idea of the low level of present use in the country.<sup>30</sup>

As an average for the period 1956-1958, Brazil used only 8.5 kilograms of commercial fertilizer per hectare of arable land, compared to 30.9 kilograms for the United States and approximately 450 kilograms for Holland and New Zealand. . . . More than 95 percent of the Brazilian producers do not use commercial fertilizer. The quantities of fertilizer used are sufficient to fertilize adequately only 8 percent of the area cultivated in Brazil. Of the mineral elements taken from the soil by crops, not more than 12 percent are returned. Furthermore, no fertilizer is applied to the immense areas in pasture. . . .

In a large part of Brazil the use of chemical fertilizers is even lower than the above would indicate because of the concentration of use in the state of São Paulo where about 75 percent of the total is used.<sup>31</sup>

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<sup>30</sup>United States Agency for International Development Contract, IA152, Estudo Técnico-Econômico Sobre a Exequibilidade de Aumento na Fabricação e Uso de Fertilizantes, Calcário e Sais Minerais no Brasil: Relatório Apresentado ao Ministério de Agricultura e Desenvolvimento Rural USAID/Brasil, pp. 33-35.

<sup>31</sup>Ibid.

The technology used with respect to livestock production, in general, is also low. Very little use is made of improved breeding stock. However, a few farmers in the município were using Holstein bulls in an attempt to increase the milk production of their herds and still maintain the disease and insect resistance of the native stock. However, neither disease and insect control measures nor protein and mineral supplements are commonly used. Usually only salt is used and this is given only during the dry weather.<sup>32</sup>

#### Organizations Serving Agriculture

ACAR, the extension agency of the state of Minas Gerais, has a local office in the city of Viçosa. The organization works with farmers as well as wives and young people through 4-S clubs.<sup>33</sup> There has been a policy to concentrate efforts on the medium sized farms rather than the very large or the very small ones. As the name implies, credit (supervised) is one of the functions of the organization. In 1965-1966, ACAR had 82 loans outstanding for a total of Cr\$38,408,000 (US\$17,458) with the average size of loan being US\$212.90.<sup>34</sup> This

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<sup>32</sup>Discussions with Maurice de Sousa, local ACAR agent, February 10, 1966. See also ACAR, op. cit.

<sup>33</sup>Very similar in nature and purpose to 4-H clubs in the United States.

<sup>34</sup>ACAR, op. cit.

credit is available for both agricultural enterprises and improvements in family living.

Other sources of credit include banks located in the city of Viçosa.<sup>35</sup> Private banks charged a total of 18 percent per year (made up of 12 percent interest and six percent charges) which was the legal maximum. They require the borrower to present a plan regarding the use of the money and the title to his land. The private banks limited agricultural loans to Cr\$2,000,000 (US\$1,081.00). They also placed a limit on the amount which they would loan per hectare for specified crops. For corn this was Cr\$25,000 (US\$13.50).

The Banco do Brasil operated somewhat differently. Getting a loan was more difficult than from a private bank but the interest was lower. In the case of the Banco do Brasil the maximum amount which could be borrowed depended upon the enterprises for which the money was to be used and the interest rate was eight percent per year. The procedure was complicated and time-consuming. One farmer who received such a loan to produce hybrid seed corn reported that it took three months for him to obtain a loan the previous year.<sup>36</sup>

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<sup>35</sup> During the 1965-1966 agricultural year all bank credit was very difficult to obtain because of government anti-inflation policies.

<sup>36</sup> Interview with Tarcisio de Andrade Araújo, August 1965.

Other agricultural organizations functioning in the município of Viçosa include a supply and marketing cooperative (Cooperativa Agropecuária Mista de Viçosa, Ltda.) and an agricultural development agency of the Ministry of Agriculture (Fomento Agrícola do Ministerio de Agricultura). The latter supplies technical assistance, sells seed and fertilizer, and rents out agricultural machinery. In addition CAMIG (Companhia Agrícola de Minas Gerais), a company in which the state of Minas Gerais owns 51 percent of the stock, operates in Viçosa. The company provides inputs and technical assistance on a commercial basis. However, in Viçosa they only have a sales outlet.

#### Transportation, Communication, and Marketing

The only paved roads in the município of Viçosa were in the city of Viçosa.<sup>37</sup> The remainder of the roads were dirt or "graveled," sometimes very thinly. Reaching either Rio de Janeiro or Belo Horizonte required traveling over about 60 kilometers of graveled road, which, during periods of heavy rain was sometimes impassable except for 4-wheel drive vehicles. However, within the município of

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<sup>37</sup> Sixty kilometers of asphalt road is under construction, which will connect Viçosa with Belo Horizonte by paved road.

Viçosa, Prof. Erly Brandão estimated that about 70 percent of the rural properties could be reached by jeep in both wet and dry weather.<sup>38</sup>

There are two local newspapers, A Cidade and A Folha de Viçosa, both of which are published fortnightly. However, there are no rural mail deliveries. The city of Viçosa has telephone service but this does not extend to the rural areas or to any of the villages of the município. In addition, there is a local radio station and television broadcasts from Rio de Janeiro and Belo Horizonte are received.<sup>39</sup>

Most of the agricultural production is sold in the city of Viçosa to local wholesalers. It is then sold locally through numerous small stores, a daily municipal market or, to buyers in the larger centers. In some cases (particularly in times of short supply) these local buyers go to the rural areas to buy the products. Otherwise the producers bring the products to the city to be sold.

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<sup>38</sup> Erly Dias Brandão, Pesquisa em Economia Rural, 32, Diretoria de Publicidade Agrícola, São Paulo, 1954, cited in Edgard de Vasconcelos Barros, O Problema da Liderança, op. cit., p. 112.

<sup>39</sup> Only two of those interviewed had television sets and both of these were living in the city of Viçosa.

The oxcart is the form of transportation used most frequently to bring the farm produce to town. From the município the farm products are transported by truck or railroad. However, in general, rail transportation seems less satisfactory than truck transportation because of old equipment and poor service. Brandão states that it is very common for trains to be "made up of antiquated cars, which rarely run on time. These freight cars are rarely in a suitable state for the preservation of the produce they carry."<sup>40</sup>

Many small producers (small owners and sharecroppers) on the other hand, have only small quantities to sell. If the amount is very small it is difficult to arrange for transportation and it may be sold to a larger landowner or to the owner whose land is being cultivated on the shares especially when money is owed to the landowner

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<sup>40</sup> Erly Dias Brandão, "Marketing of Agricultural Products and Agricultural Development," Report of Second Latin American Seminar on the Marketing, Storage and Processing of Agricultural Products, May 27-June 9, 1962, Rio de Janeiro and São Paulo, Brazil, sponsored by the Government of Brazil and the Agency for International Development of the United States of America, pp. 41-44.

### Land Use

A good estimate of the way in which the land was used in the município of Viçosa at the time of the survey was not available. However, according to the 1950 census, 34.6 percent of the land in establishments was cropland, 38.5 percent was in pasture, 9.2 percent in forest, 12.7 percent uncultivated but usable for pasture or crops, and 5.1 percent unproductive.<sup>41</sup> (See Table 6.)

The only information available concerning land use from the preliminary census data for 1960 is for the total amount of land in establishments and for the amount of cropland.<sup>42</sup> According to the 1960 census, 28.2 percent of

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<sup>41</sup>An establishment is not necessarily an ownership unit. It is a contiguous area under one administration which is producing for more than domestic consumption. An establishment may be constituted of owned or rented land (including cultivation on the shares) or a combination of the two. For the complete census definition of an establishment, see Brasil, IBGE, Censo Agrícola, Estado de Minas Gerais, XXI, Tomo 2, Recenseamento Geral do Brasil 1950, p. xv.

<sup>42</sup>Brasil, IBGE, Sinopse Preliminar do Censo Agrícola, Estado de Minas Gerais, VII, Recenseamento Geral do Brasil 1960, p. 6.

TABLE 6. USE OF LAND ON 1,047 ESTABLISHMENTS IN 1950 IN  
THE MUNICÍPIO OF VIÇOSA, MINAS GERAIS, BRAZIL.

Use of Land		Hectares	Percent
Cultivated:	Permanent	3,831	8.6
	Temporary	11,591	26.0
Pasture:	Natural	15,699	35.3
	Improved	1,427	3.2
Forests:	Natural	3,451	7.8
	Reforested	632	1.4
Uncultivated <sup>a</sup>		5,640	12.7
Unproductive <sup>b</sup>		2,252	5.1
Total		44,523	100.0 <sup>c</sup>

Source: Brasil, IBGE, Censo Agrícola, Estado de Minas Gerais, XXI, Tomo 2, Recenseamento Geral do Brasil 1950, p. 124.

<sup>a</sup>Land not used at the time of the census but which could be used for the cultivation of crops or pasture.

<sup>b</sup>Land unsuitable for cultivation of crops or pasture and that covered by roads, buildings, dams, etc.

<sup>c</sup>Percentages do not total 100.0 due to rounding.

the land in establishments in the area equivalent to the município of Viçosa in 1950 was in cropland.<sup>43</sup> However, the number of hectares in establishments which was in cropland increased slightly (15,422 to 15,715 hectares). The reason for the decrease of 6.4 percent in the area in crops was due to an increase in the total amount of land in establishments between 1950 and 1960 (44,523 to 55,810 hectares). Over this 10 year period there was a reported increase of about 20 percent in cattle numbers.<sup>44</sup> Therefore, it seems probable that a considerable porportion of this additional land in establishments is being used for pasture.

#### Crop and Livestock Production

The agriculture of the município of Viçosa is fairly diversified. Corn and swine top the list in value of production with 24.2 and 23.1 percent of the total

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<sup>43</sup>Between 1950 and 1960 a new município, São Miguel do Anta split off from Viçosa. The data for the two municípios were combined to calculate the area equivalent to the município of Viçosa in 1950. In 1960 a higher percentage of the land in establishments was in crops in São Miguel do Anta (33.8 percent) than in Viçosa (23.6 percent).

<sup>44</sup>Brasil, IBGE, Sinopse Preliminar do Censo Agrícola, Estado de Minas Gerais, VII, Recenseamento Geral do Brasil 1960, p. 86; and Censo Agrícola, Estado de Minas Gerais, XXI, Tomo 2, Recenseamento Geral do Brasil 1950, p. 204.

respectively. (See Table 7.) This is followed by coffee (16.6 percent) and milk and milk products (14.4 percent).<sup>45</sup>

Changes in agricultural production are difficult to trace over time. The first agricultural census was in 1920 but it was not possible to determine precisely what municípios were in the comparable area in 1940 and there was a shift in the definition of a rural establishment between the two censuses. Between 1940 and 1950 there was another shift in the census definition of an establishment. The definition of an establishment was the same in 1950 and 1960 but the agricultural production data is not yet available for 1960.

However, it seems clear that one of the important changes was a quite rapid increase in coffee production in the area during the 1800's. The construction of the railroads contributed significantly to the settlement and to the expansion of coffee production in the Zona da Mata.<sup>46</sup> This was, no doubt, the case for Viçosa also

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<sup>45</sup> These estimates are only for principal items of production. The data for all agricultural production were not available. Therefore, these percentages for the individual items are too high. However, the relative positions of the items would remain unchanged with the inclusion of the minor items of production.

<sup>46</sup> Orlando Valverde, op. cit., pp. 31-32.

TABLE 7. VALUE OF MAJOR ITEMS OF AGRICULTURAL PRODUCTION,  
VIÇOSA, MINAS GERAIS, BRAZIL, 1965-1966 CROP YEAR.<sup>a</sup>

Agricultural Items	Value (Millions of Cruzeiros) <sup>b</sup>	Percent
Corn	756.00	24.2
Coffee	518.40	16.6
Beans	222.48	7.1
Rice	110.50	3.5
Oranges	7.68	0.2
Rum (Cachaça)	7.50	0.2
Swine	720.00	23.1
Milk and Milk Products (Butter and Cheese)	448.00	14.4
Beef Cattle and Calves	160.00	5.1
Poultry and Eggs	170.00	5.4
<b>Total</b>	<b>3,120.56</b>	<b>100.0<sup>c</sup></b>

<sup>a</sup> ACAR, Escritório Local de Viçosa: Programa de Extensão para o Ano Agrícola 1965-1966, pp. 6-8.

<sup>b</sup> From June 1965 to June 1966 the exchange rate went from Cr\$1850 to Cr\$2200/US\$1.00

<sup>c</sup> Percentages do not total 100.0 due to rounding.

when the Leopoldina Railway reached there in 1884.<sup>47</sup> However, in recent years there has been a gradual decline in coffee production as the better land was used up and as the production declined on the older coffee plantings.

#### Size of Holding

According to tax record data, the average size of holding in the município of Viçosa in 1949 was 18.4 hectares while in 1961 it was 15.1 hectares or a decline in the average size of 3.3 hectares over a period of 12 years.<sup>48</sup> In Table 8 the number and percentage of holdings are shown by three size categories.

In 12 years the number of ownership units increased by 307. The major portion of this increase was in the smaller size group (250 properties). The 20 to 50 hectare size group increased by 52 properties while only five were added to the large size group (more than 50 hectares).

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<sup>47</sup>Alexander de Alencar, op. cit., pp. 108-109.

<sup>48</sup>Renato Rodrigues Machado, op. cit., pp. 2-3. It should be noted that the tax record data is for ownership units and not establishments as used by the census. See footnote 41 in this chapter for the definition of an establishment.

TABLE 8. AGRICULTURAL HOLDINGS IN THE MUNICÍPIO OF VIÇOSA, MINAS GERAIS, BRAZIL  
IN 1949 AND 1961.<sup>a</sup>

Year	S i z e (H e c t a r e s)							
	Less than 20		20 to 50		More than 50		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1949 <sup>b</sup>	1,105	79.1	170	12.2	122	8.7	1,397	100.0
1961	1,355	79.5	222	13.1	127	7.4	1,704	100.0
Change	+250		+52		+5		+307	

<sup>a</sup>Adapted from Renato Rodrigues Machado, op. cit., pp. 2-3. The original source is tax record data collected by Brandão in 1949 (See Erly Dias Brandão, "A Sucessão da Propriedade Rural," op. cit., pp. 374-394) and by Machado in 1961.

<sup>b</sup>The ownership units reported here are those which were in the area equivalent to the município of Viçosa in 1961.

The degree of fragmentation which existed in 1961 is indicated more clearly by the fact that 30 percent (515 properties) were less than two hectares in size.<sup>49</sup>

### Tenure Categories

In the 1950 census the rural establishments were classified according to the tenure of the operator: owner, renter, occupant, or administrator.<sup>50</sup> In Table 9 the tenure of the operator and the amount of land in the establishments are shown.<sup>51</sup> Most of the establishments (94 percent) were operated by owners. The establishments operated by owners were smaller than average in size while those operated by renters, occupants, and administrators were larger than average in size.

The 1950 agricultural census also contains information concerning those who were working on the establishments on July 1, 1950. These were classified as operators

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<sup>49</sup> Calculated from data given by Machado. However, it was not possible to calculate the number in this size group in 1949. See Renato Rodrigues Machado, op. cit., pp. 3 and 10.

<sup>50</sup> The 1960 Sinopse Preliminar do Censo Agrícola, Estado de Minas Gerais does not contain this information.

<sup>51</sup> Those having the right of usufruct of the land were classified as owners. Renters included those temporarily renting land and sharecroppers (parceiros). Occupants were the ones who were using the property of another with or without the consent of the owner.

TABLE 9. ESTABLISHMENTS AND HECTARES OPERATED BY OWNERS, RENTERS, OCCUPANTS, AND ADMINISTRATORS IN VIÇOSA, MINAS GERAIS, BRAZIL IN 1950.

	Owners	Renters	Occupants	Administrators	Total
Establishments	984	7	2	54	1,047
Percent	94.0	0.7	0.2	5.2	100.0 <sup>a</sup>
Hectares	39,184	895	198	4,246	44,523
Percent	88.0	2.0	0.4	9.5	100.0 <sup>a</sup>

Source: Brasil, IBGE, Censo Agrícola, Estado de Minas Gerais, XXI, Tomo 2, Recenseamento Geral do Brasil 1950, p. 36.

<sup>a</sup> Percentages do not total 100.0 due to rounding.

and unpaid family labor, permanent agricultural workers, temporary agricultural workers, and sharecroppers.<sup>52</sup> The sharecroppers were also classified according to whether or not they lived on the farm. The family members of the workers and sharecroppers who were actually participating in the work were also placed in the respective categories. (See Table 10.) The largest category was that of temporary workers (41.9 percent) followed by operators (28.3 percent). Sharecroppers accounted for 18.6 percent with the majority living on the farm. Permanent agricultural workers made up 11.2 percent of the total. Except for the exclusion of those owners whose holdings were not classified in establishments, this gives some idea of the tenure categories of the rural people in the município in 1950. Some of these small owners, of course, were included in one of the worker or sharecropper categories. However, there is no way of estimating how many were included.

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<sup>52</sup> Permanent agricultural workers were those who had worked for more than one year while temporary agricultural workers were those hired for jobs of short duration. See Censo Agrícola, Estado de Minas Gerais, Recenseamento Geral do Brasil 1950, p. xix.

TABLE 10. OPERATORS, PERMANENT AGRICULTURAL WORKERS, TEMPORARY AGRICULTURAL WORKERS, AND SHARECROPPERS ON ESTABLISHMENTS ON JULY 1, 1950, VIÇOSA, MINAS GERAIS, BRAZIL.

	Operators and Unpaid Family Members	Workers Perm.	Workers Temp.	Sharecroppers Living on farm	Sharecroppers Living of farm	Total
No.	3,499	1,384	5,179	1,914	384	12,358
%	28.3	11.2	41.9	15.5	3.1	100.0

Source: Brasil, IBGE, Censo Agrícola, Estado de Minas Gerais, Recenseamento Geral do Brasil 1950, pp. 134-135.

## CHAPTER III

### THE GROUP STUDIED

The purpose of this chapter is to provide a better understanding of the individuals studied in terms of the labor-tenure arrangements used by them, their farming operations, and their level of living. The following will be examined: multiplicity of tenure positions, labor-tenure arrangements used by owners, sharecropping arrangements, land use, crop production, livestock production, possession of machinery and equipment, and level of living.

#### Multiplicity of Tenure Positions

Most of the individuals interviewed actually fell into more than one occupational-tenure category. To facilitate the analysis they were placed into the category which contributed most to their livelihood. In Table 11 the relationship between the principal occupational-tenure status and all occupational-tenure positions which the respondents held is shown.

TABLE 11. KIND OF WORK AND ORDER OF IMPORTANCE<sup>a</sup> BY PRESENT PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES OF 61 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966

Principal Occupational-Tenure Status	Owner Operator	Landlord	Helping at Home			Sharecropper of			Renter	Permanent Agricultural Worker	Temporary Agricultural Worker	Non-Farm Work
			Father Owner	Father Non-Owner	Using Father's Land	Father	Father-In-Law	Other Relative				
Large Owner 37.1 ha. & over		NNNNNNNN	3								3	
Medium Owner 8.1 - 37.0 ha.		NNN	3 2			2					2 3 3	

<sup>a</sup>The numbers within the table (1, 2, 3, or 4) indicate the relative importance of the specified activity.





All of the larger owners were either owner-operators or owner-operators and landlords.<sup>1</sup> The only source of income for two of the respondents from this category was from land which they owned and operated themselves. One used only family labor and the other hired additional permanent and temporary labor. The second most important source of income for the remaining eight was the share of the crop received from sharecroppers. Only two engaged in any other activity--one was still helping his father at home and the other bought and sold livestock. Although this latter is related to agriculture it was classified as non-farm.

Of the 10 medium sized owners, two were only owner-operators, and three were owner-operators and landlords. One of these was an unmarried woman and the major portion of her cultivated land was tilled by two sharecroppers. It is of interest to note that one of these three was also a sharecropper. Two reported that their second most important source of income was obtained from land which they cultivated on the shares. One of these was a sharecropper of another relative and was also working as a temporary agricultural worker.

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<sup>1</sup> Landlord is used here to indicate that sharecroppers were being used to cultivate part or all of the land.

Of the 10 small sized owners, only one used a sharecropper to cultivate his land and he was doing so because he had taken a non-farm job. All the others were owner-operators. Of these remaining nine, the second and third most important activities of three were cultivating land on the shares and temporary agricultural work respectively. For four others, temporary agricultural work came in second place.

Nine of the 11 sharecroppers obtained their land from non-relatives, one was cultivating his father-in-law's land, and the other was cultivating land belonging to another relative. The second most important source of income for seven of the 11 sharecroppers was temporary agricultural work and for two it was permanent agricultural work.<sup>2</sup> The second source for one was cultivating on the shares with his father.<sup>3</sup> Three sharecroppers also owned small pieces of land which were third in importance as source of incomes for two and fourth for the other. The latter's land is only good for pasture for which he

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<sup>2</sup>In this case these were sharecroppers whose first obligation was to take care of the crops being cultivated on the shares. When they had additional time to work they had an obligation to work for the landowner.

<sup>3</sup>The only source of income for one was cultivating on the shares.

received a small amount of rent. Two worked part-time in non-farm activities, and one rented some land on which he grew vegetables.<sup>4</sup>

The work arrangements of the permanent agricultural workers were the least complicated of the group. Four of the 10 were only permanent agricultural workers while six also cultivated some land on the shares with the land-owners for whom they were working.

Two of the 10 temporary agricultural workers had no other source of income. The work which was second in importance for a majority of the temporary agricultural workers was sharecropping. Seven of the remaining eight were in this category. Only one of the temporary agricultural workers owned agricultural land and in this case it was only a small piece which was not being used at the time of the interview.

Among the non-owner groups there is a clustering of first and second kind of work in the sharecropping and temporary agricultural work, and sharecropping and permanent agricultural work categories. Of the 31 respondents in the non-owning groups, the first and second work of 14 was sharecropping and temporary agricultural work, and of eight it was sharecropping and permanent agricultural work.

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<sup>4</sup> Cash renting was rare in this community. In this instance the cash rent was based on the estimate of the value of one-half the corn crop which the land could have produced.

Neither sharecropping nor temporary agricultural work were common as the exclusive kinds of work. One respondent was only a sharecropper and two were only temporary agricultural workers. Also, a majority of the small owners engaged in other kinds of work (sharecropping and temporary agricultural work).

#### Tenure-Labor Arrangements Used by Owners

The 30 respondents, whose principal source of income came from owner-operated land, had a total of 26 sharecroppers and 11 permanent agricultural workers and hired an additional 4,052 man-days of temporary agricultural labor. (See Table 12.) In Table 12, the 30 respondents were divided into two size groups of 15 each. The use of sharecroppers, permanent agricultural workers, and additional temporary agricultural labor was positively related to size of holding. However, not all of the larger farms (15.1 hectares and over) had sharecroppers or permanent agricultural workers. Eleven of the 15 larger owners had one or more sharecroppers and five of the 15 had one or more permanent agricultural workers.<sup>5</sup>

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<sup>5</sup>Of the 15 owners in the large sized group, two had neither sharecroppers nor permanent agricultural workers, eight had only sharecroppers, two had only permanent agricultural workers, and three had both sharecroppers and permanent agricultural workers. Of the 15 respondents in the smaller sized group, only two had sharecroppers and none had permanent agricultural workers. One of these was a female owner with two sharecroppers and the other owner had one sharecropper but had a full-time non-farm job.

TABLE 12. NUMBER OF SHARECROPPERS, PERMANENT AGRICULTURAL WORKERS, AND MAN-DAYS OF ADDITIONAL TEMPORARY AGRICULTURAL LABOR BY TWO SIZES OF FARMS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Size of Farms	Number of Farms	Number of Farms with Share-croppers	Number of Farms with Permanent Agricultural Workers	Number of Share-croppers	Number of Permanent Agricultural Workers	Additional Temporary Labor Employed (Man-Days)
Larger 15.1 ha. and over	15	11	5	23	11	3,807
Smaller 0.1-15.0 hectares	15	2	0	3 <sup>a</sup>	0	245
Total	30	13	5	26	11	4,052

<sup>a</sup>Two of the three were sharecroppers of a female owner, and the other was a sharecropper of an owner who has a full-time non-farm job.

To examine further the use of labor, the farms were divided into three types--large, family, and inadequate. Respectively, these farms were those which used sharecroppers and permanent agricultural workers, those that depended primarily upon family labor, and those whose owners engaged in other work and on which neither sharecroppers nor permanent agricultural workers were used.<sup>6</sup> (See Table 13.)

Among those studied most of the farms were either too small to provide full-time employment or they used sharecroppers and/or permanent agricultural workers. Only four of the 27 farms could be classified as family farms. These four were quite heterogeneous, ranging in size from seven hectares owned and cultivated by a young farmer to 104 hectares owned by an older farmer and being farmed with his six sons and sons-in-law.

The cultivated hectares per man-year of labor does not seem to be too different for the different types of farms. On both the large and the inadequate types about three hectares per man-year of labor were cultivated. The hectares per man-year were higher for the family farms but

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<sup>6</sup> All the large farms in this table were over 15 hectares in size. Two of the family farms were over 15 hectares and two were under 15 hectares in size. All the inadequate farms were under 15 hectares in size.

TABLE 13. CULTIVATED LAND AND LABOR FORCE IN MAN-YEARS FOR THREE TYPES OF FARMS,<sup>a</sup>  
VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Type of Farm	No.	Average Cultivated (Hectares)			Labor Force per Farm (Man-Years)					Cultivated Hectares per Man-Year
		Own	Held as Share-cropper	Total	Family			Hired Labor	Total Labor	
					Opera-tor	Other Family Labor	Total Family Labor			
Large	12	12.5	0.2	12.7	0.92	1.31	2.23	2.06	4.29	3.0
Family	4	10.2	--	10.2	1.00	1.50	2.50	0.05	2.55	4.0
Inadequate	11	1.8	1.2	2.9	0.50	0.41	0.91	0.05	0.96	3.1
Total	27	7.8	0.56	8.37	0.76	0.97	1.73	0.94	2.67	3.2

<sup>a</sup>Large farms were defined as those who used sharecroppers and/or permanent agricultural workers. Family farms were those that did not use sharecroppers or permanent agricultural workers. Inadequate farms were those whose owners engaged in sharecropping, temporary agricultural work, or non-farm work and on which neither sharecroppers nor permanent agricultural workers were being used. Three respondents were excluded. One was engaged in full-time non-farm work, one was retired, and one was an unmarried female. In all three cases all or a major part of the cultivated land was tilled by sharecroppers.

there were only four in this group.<sup>7</sup>

The inadequate farms used an average of only 0.5 and 0.4 man-years of operator and other family labor respectively. This is another indication that those in this group are engaging in temporary agricultural work and in non-farm work and is consistent with the evidence in Table 11.

### Sharecropping Arrangements

A total of 31 of the 61 respondents cultivated some land on the shares. Of these 31 respondents the principal source of income for 11 was from sharecropping, for seven owned land, for six permanent agricultural work, and for seven temporary agricultural work.

Corn (with beans interplanted) was the crop most frequently cultivated on the shares with 14 of the 31 respondents planting only this combination. (See Table 14.) This combination was also the one most frequently planted on the shares by those whose principal tenure categories were owner, sharecropper, and temporary

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<sup>7</sup>The family labor used is based upon only a rough estimate. It was calculated in the following manner: Full-time work was considered to be 300 days per year. All male family members over 14 years of age were counted for the proportion of the time the respondent indicated they worked at home unless they were still in school. Those over 14 who were in school were counted as 1/4 man-year. Those under 14 years of age were not counted. This may tend to underestimate the family labor on the inadequate farms where boys may start working at a younger age and where girls and women may do more farm work.

TABLE 14. COMBINATIONS OF CROPS GROWN ON THE SHARES BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORY OF 31 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Crops Grown on Shares	Principal Occupational-Tenure Category				Total
	Owners	Share-croppers (Number of Respondents)	Workers Perm. Temp.		
Corn	1		1		2
Corn-Beans	4	6	1	3	14
Corn-Beans, Rice	1	2	2	2	7
Corn-Beans, Rice, Coffee		3			3
Corn-Beans, Coffee, Sugar cane			1		1
Corn-Beans, Rice, Sugar cane				1	1
Rice				1	1
Coffee			1		1
Coffee, Sugar cane	1				1
Total Number of Respondents	7	11	6	7	31

agricultural worker. The permanent agricultural workers had the greatest diversity of combinations of crops cultivated on the shares. The second most frequent combination of crops grown on the shares by the 31 respondents was corn (with beans) and rice (seven of the 31 respondents).

The division of the crop between the landowner and the sharecropper varied somewhat by crop and by the inputs provided by each party but the most frequent share was 50-50. In the case of corn the usual share was 50-50 except where the landowner furnished only the land and in these cases the sharecropper received two-thirds of the crop and the landowner one-third.<sup>8</sup> Three of the 28 respondents who cultivated corn on the shares had two sharecropping arrangements each.<sup>9</sup> One of the share arrangements of each of these three was 2/3-1/3. The remaining 28 were all half share arrangements.

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<sup>8</sup> There were only two cases where sharecroppers furnished all the seed and received only half the corn. One of these, whose principal source of income was from temporary agricultural work received a house (probably somewhat better than the average) and about one-fourth hectares of land for his own use. This may have accounted for receiving a smaller than customary share of the production. The other was a small owner who was cultivating on the shares with a distant relative. No reason is apparent for him receiving the smaller than customary share.

<sup>9</sup> One had two different share arrangements with the same owner and the other two each had an additional share arrangements with other landowners.

In the case of cultivation of beans on the shares the arrangement most frequently encountered was for the landowner to supply all the seed with the production being divided equally between the landowner and the sharecropper. This was the share arrangement used in 17 of the 26 cases of the first crop of beans (feijão das águas) and 21 out of 26 cases of the second crop of beans (feijão do tempo).<sup>10</sup> (See Table 15.)

However, some landowners allow the sharecroppers to plant beans entirely for themselves and in such cases the sharecroppers provide all the seed.<sup>11</sup> This arrangement was more common in the case of feijão das águas (six out of 26) than feijão do tempo (two out of 26).

There were 12 who cultivated rice on the shares. In nine of these cases the land owner provided all the seed with the sharecropper receiving half the crop in six of

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<sup>10</sup> Usually two crops of beans are planted in each crop of corn. The first is planted at the same time as the corn at the beginning of the rainy season (October-November) and is called feijão das águas. After harvesting the first crop of beans the second crop called feijão do tempo is planted (February-March). The second crop is harvested at the same time as the corn, in May and June.

<sup>11</sup> One respondent said that formerly it was customary for landowners to permit sharecroppers to plant the first crop of beans for themselves. However, he indicated that in recent years this had become less common because production had declined.

TABLE 15 . PROVISION OF SEED AND SHARE OF PRODUCTION BY LANDOWNER AND SHARECROPPER IN THE PRODUCTION OF BEANS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Proportion of Seed Supplied by Share-cropper (Percent)	Share of Crop Received by Share-cropper (Percent)	Feijão das Aguas (Number of Share Arrangements)	Feijão do Tempo	Total
0	50	17	21	38
100	50	1	2	3
100	67	2	1	3
100	100	6	2	8
Total Number of Share Arrangements		26 <sup>a</sup>	26 <sup>a</sup>	52

<sup>a</sup>There were 26 respondents who cultivated beans on the shares. Two did not produce feijão das águas and two did not produce feijão do tempo. However, two respondents grew each kind of beans under two separate share arrangements, making a total of 26 share arrangements.

the cases and two-thirds of the crop in three cases. In the remaining three cases the sharecroppers provided all the seed and received two-thirds of the crop. These differences probably were due to differences in productivity and difficulty of cultivation of the land on which rice was being grown.

Six of the 31 respondents who cultivated on the shares were sharecroppers of coffee. The principal source of income for one of these was owner-operated land, for three it was cultivating on the shares, and for two it was permanent agricultural work. None of the respondents whose principal source of income was temporary agricultural work was cultivating coffee on the shares.

The customary procedure for starting a field of coffee is as follows: The sharecropper usually receives land that is in forest and brush.<sup>12</sup> The first year he cuts the trees. During this time the landowner will supply him with food and other necessities. The second year the sharecropper plants corn and beans for himself with his own seed and after the harvest he begins to pull out the stumps. The third year he plants the coffee, makes a shade for the coffee trees (to protect the young trees,

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In this region only virgin land is considered suitable for growing coffee. Once coffee has been grown on a piece of land and has died out it is not considered worthwhile to replant the area to coffee, even with fertilization.

but not to provide a permanent shade for them), etc. For the next four years (until the coffee trees start to produce) he can plant corn and beans between the rows of coffee trees. By this time the coffee trees have created such a canopy that intercultivation must be greatly reduced or discontinued altogether. Later, when the coffee gets older and some of it dies out planting between the rows of trees may be resumed.

When the coffee begins to produce the sharecropper picks the coffee beans and divides the production equally with the landowner. It is at this point that the sharecropper may leave, either because his agreement with the landowner was only to get the coffee started or because the landowner has decided that he wants to take over the coffee for himself (or for a son or son-in-law). If the sharecropper is a good one and the landowner wants to keep him on the farm, he may let him continue cultivating part or all the coffee on the shares or he may give him other land to cultivate on the shares. None of the six were in the process of getting coffee started. However, two of the six were continuing to care for plantings which they had started.

A landowner may also give a coffee planting out to a sharecropper to care for after it has been started. This is more likely to occur if the coffee is old and/or if he has had difficulty in obtaining

sufficient labor to take care of the coffee. Two of the six were caring for older plantings which had been started by someone else.

In addition to the two examples mentioned above a sharecropper may have only a few coffee trees, near his house either planted by him or by some previous sharecropper. In such a case the production from these trees is usually shared equally between the landowner and the sharecropper. One of the six who had coffee on the shares was such a case, having only 30 coffee trees near the house.

Only three out of the 31 respondents who cultivated on the shares did so with sugar cane. There was one each in the owner, permanent agricultural worker, and temporary agricultural worker groups. When sugar cane is cultivated on the shares it is customary for the owner to plow the land and provide the cane for planting. Corn may be planted with the sugar cane the first year, usually with the landowner providing the seed corn and with the production being divided equally between the sharecropper and the landowner. The first cutting of sugar cane comes one and one-half to two years after planting and it is cut annually thereafter for four to 10 years. The sharecropper is responsible for tilling and cutting the sugar cane and he receives one-half the production. However, the customary share for grinding the cane and making rapadura (crude brown sugar) or cachaça (rum) is one-third. Therefore, if this is done by the landowner the sharecropper receives one-third of the final product.

In addition to seed, which was discussed above, the landowners may provide other inputs. In the group studied this was only encountered in the case of cultivation of corn under 50-50 share arrangements.<sup>13</sup> The principal other inputs provided were preparation of land, fertilizer, and insecticide (only ant killer was provided).

If the land requires plowing (under the 50-50 share arrangement) the landowner usually plows it (or has it done) or loans the sharecropper oxen and a plow. Plowed land or oxen and a plow were not received in only three out of the 28 half - share arrangements. (See Table 16.) Two of these were owners who had their own oxen and equipment. One of them who had insufficient pasture for his oxen received free pasture from the landowner with whom he cultivated. The other was cultivating on the shares with a relative. The principal source of income of the third was temporary agricultural work and he was cultivating on the shares with a relative.

Of the 28 respondents who cultivated corn under half-share arrangements, all the seed corn was provided in all but three cases.<sup>14</sup> (See Table 17.) Hybrid seed was

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<sup>13</sup> Under the 2/3-1/3 share arrangement the landowner provides only land.

<sup>14</sup> In two of these three cases the sharecropper provided all the seed. The third was a father-son arrangement with the father providing half the seed.

TABLE 16 . NUMBER OF RESPONDENTS GROWING CORN ON HALF SHARE WHO RECEIVED PLOWED LAND OR OXEN AND PLOWS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, VIÇOSA, MINAS GERAIS, BRAZIL, 1966 .

Principal Occupational-Tenure Category	Number Growing Corn on Half Share	Number Receiving Plowed Land	Number Receiving Oxen and Plows	Number Receiving Neither
Owner	6	3	1	2
Sharecropper	11 <sup>a</sup>	9	2	0
Permanent Worker	5	3	2	0
Temporary Worker	6	2	3	1
All	28	17	8	3

<sup>a</sup>One respondent who was cultivating on his father's land paid half the cost of plowing with a tractor.

TABLE 17. PROVISION OF SEED CORN, FERTILIZER, AND INSECTICIDE BY THE LANDOWNER IN 28 SHARECROPPING ARRANGEMENTS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES OF THE SHARECROPPERS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	Number Cultivated Corn on Half Share	Seed Corn			Fertilizer			Insecticide
		None	Ordinary	Hybrid	None	Half	All	
Owner	6	1 <sup>a</sup>	2	3	1	4	1	2
Sharecropper	11	1/2 <sup>b</sup>	4	6-1/2 <sup>b</sup>	5	4	2	5
Permanent Worker	5	0	0	5	2	1	2 <sup>c</sup>	1
Temporary Worker	6	1 <sup>d</sup>	4-1/2	1/2	3	2	1	1
Total	28	2-1/2	10-1/2	15 <sup>b</sup>	11	11	6	9

<sup>a</sup> Hybrid seed corn was used, although not provided by the landowner.

<sup>b</sup> One cultivator with father only received half of the seed corn. Hybrid seed was used on the entire area.

<sup>c</sup> Landowner supplied manure only.

<sup>d</sup> Part hybrid seed used.

furnished by the landowners in over half the cases. All those whose principal source of income was permanent agricultural work (five respondents) received hybrid seed corn while it was supplied for only half the area planted by one of the six respondents whose principal source of income was temporary agricultural work.

About one-third (nine out of 28 respondents) received insecticide (only ant killer). However, it was provided for a somewhat higher proportion of those whose principal source of income was sharecropping.

Part or all of the fertilizer was provided by the landowners in 17 out of the 28 cases. The proportion receiving fertilizer was highest in the owner group (five out of six cases). It was about the same for the other three occupational-tenure groups with about half receiving fertilizer in each group. In six out of the 28 cases all the fertilizer was supplied. No fertilizer was used by the sharecroppers in the cases where none was supplied by the landowner.

Landowners often provide the sharecroppers with other things in addition to the production items mentioned above. Out of 30 respondents who were cultivating on the shares,<sup>15</sup> 13 received a house, 11 a garden plot, 12

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<sup>15</sup> One who was living at home and was cultivating on the shares with his uncle and his father was excluded.

all or a major part of their firewood, and 14 credit during the past year. (See Table 18.) Except for credit, the proportion receiving these items was highest for those principal source of income was permanent agricultural work. Six of the 10 respondents in the sharecropper group had borrowed money from the landowner during the past year. The average amount borrowed by those who borrowed was highest for the sharecropper group (US\$10.70) and lowest for the owner group (US\$4.40).<sup>16</sup>

Additional things which were received by some of the 30 respondents who cultivated on the shares included: pasture for livestock (four cases), milk (three cases), rapadura (four cases), use of the grist mill (six cases), and medical assistance (five cases). It should be mentioned that whether or not some of these items were received depended upon the need by the sharecropper (e.g., credit and medical assistance), and whether or not the landowner had them (e.g., use of grist mill, milk, rapadura, wood, pasture, and house).

Some of the sharecropping arrangements carry with them an obligation to work for the landowner when he needs

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The exchange rate, at the time of the interview, of Cr\$2,200/US\$1.00 was used to convert from cruzeiros to dollars. Although the amounts borrowed appear small they represent 23.5 and 9.75 days of work for the largest and smallest amounts respectively at the prevailing daily wage rate (without meals) of Cr\$1,000 (US\$.45) per day.

TABLE 18. NUMBER OF THOSE WHO CULTIVATED ON THE SHARES WHO RECEIVED SELECTED ITEMS FROM THE LANDOWNERS WHOSE LAND THEY CULTIVATED, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	Number	Items Received from Landowners			Average Amount Borrowed by Those Borrowing	
		House and Garden Plot	Fire Wood	Credit Last Year	(Cr\$)	(US\$)
Owners	7	1	1	2	9,750	4.40
Share-croppers <sup>a</sup>	10	5 <sup>b</sup>	5	6	23,500	10.70
Permanent Workers	6	6	5	3	14,000	6.35
Temporary Workers	7	1	1	3	15,500	7.05
Total	30	13	12	14	17,875	8.35

<sup>a</sup>One who was cultivating on shares with both his uncle and his father and who was still living at home was excluded.

<sup>b</sup>Two of the five did not receive a garden plot.

extra help. Those who were also permanent agricultural workers obviously had an obligation to work for the landowner.

None of those whose principal source of income was owner-operated land (seven respondents) or temporary agricultural work (seven respondents) reported they had any obligation to work for owners of the land which they were cultivating on the shares. Two of the 11 respondents whose principal source of income came from sharecropping indicated that they had some obligation to work for the landowner whose land they were cultivating. In both of these cases the respondents were looking after property of owners who lived in town. However, they both indicated that they could work for others also, and one of them had done so for one week during the previous year. One of those whose principal source of income was permanent agricultural work also reported that he could work for others if his employer had no work for him (however, during the previous year he had not done so).

Even though there was no formal obligation to work for the owner whose land was being cultivated on the shares it appears that there is some feeling of obligation to do so when he needs help.<sup>17</sup> In Table 19,

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<sup>17</sup>When talking to one of the respondents about this, his wife (who was somewhat more outspoken than some) added that it was difficult to say no when the landlord asked them to help, even though the salary he offered was below that which others were paying.

TABLE 19. NUMBER OF RESPONDENTS AND MEDIAN NUMBER OF DAYS WHICH THEY WORKED FOR LANDLORD AND FOR OTHERS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, 23 RESPONDENTS,<sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	No. of Resp.	Worked More for		Median Number of Days Worked for	
		Landlord	Others	Landlord	Others
Owners	6	2	4	24	50
Sharecroppers	10	5	5	75	75
Temporary Agricultural Workers	7	1	6	10	225

<sup>a</sup>Two were excluded, one from the owner category who did not work for either and one from the sharecropper category who worked an equal amount for both.

the number working more for others along with the median number of days worked for each is shown by the principal occupational-tenure category of the respondents. Two of the six owners who also cultivated on the shares worked more for the landlord than for others while an equal number (five out of 10) of the sharecroppers worked for the landlord and for others. In the case of those whose principal source of income was temporary agricultural work, only one out of six worked more for the landlord. The median number of days worked for the landlord and for others shows a similar relationship.

#### Land Use

Land use of owned land has been divided into three categories: cultivated, pasture, and forest. The way in which land was used by the 30 respondents whose principal source of income was from owned land is shown in Table 20. The percentage of total land cultivated is negatively related to size of holding with one-fourth of the land of large owners and 47 percent of that of the small owners being cultivated. This may be because the small owners, having less land, are forced to use it more intensively, thus cultivating some land which is less suitable for crops than the large owners.

In Table 21, the average amount of cultivated land per farm, and the proportion which was tilled by the owner

TABLE 20. USE OF OWNED LAND<sup>a</sup> BY SIZE OF HOLDING BY 30 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Size of Holding	Cultivated		Pasture		Forest		Total	
	Ha.	%	Ha.	%	Ha.	%	Ha.	%
Large Owners 37.1 ha. and over	227.2	24.7	584.8	63.6	107.3	11.7	919.3	100.0
Medium Owners 8.1-37.0 ha.	44.8	26.8	109.8	65.6	12.8	7.6	167.4	100.0
Small Owners 0.1-8.0 ha.	21.5	46.9	20.9	45.5	3.5	7.6	45.9	100.0
Total	293.5	25.9	715.5	63.2	123.6	10.9	1132.6	100.0

<sup>a</sup>This does not include 9.3 hectares of land owned by a medium sized owner, but being used by his father. This land was received as a gift by the respondent but has never been used by him. However, it includes 4.8 hectares of land which a small sized owner is purchasing from his sister.

TABLE 21. AVERAGE NUMBER OF HECTARES AND PROPORTION OF CULTIVATED LAND WHICH IS TILLED BY OWNERS AND BY SHARECROPPERS BY SIZE OF HOLDING OF 30 RESPONDENTS WHOSE PRINCIPAL SOURCE OF INCOME WAS FROM OWNED LAND, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Size of Holding	Number of Resp.	Cultivated by				Total	
		Owners		Sharecroppers		Average (Ha.)	Percent
		Average (Ha.)	Percent	Average (Ha.)	Percent	Average (Ha.)	Percent
Large Owners 37.1 ha. and over	10	16.14	71.0	6.58	28.9	22.70	100.0 <sup>a</sup>
Medium Owners 8.1-37.0 ha.	10	3.08	68.7	1.40	31.3	4.48	100.0
Small Owners 0.1-8.0 ha.	10	1.80	83.8	0.35	16.2	2.15	100.0
All Owners	30	7.01	71.6	2.78	28.3	9.78	100.0 <sup>a</sup>

<sup>a</sup> Total not 100.0 due to rounding.

and by sharecroppers, are shown. The average amount cultivated per farm by both owners and sharecroppers is positively related to size of holding. The percentage cultivated by the owners is highest for the small size group (84 percent). The owners in large and medium size groups cultivated similar percentages of their total land themselves (71 and 69 percent respectively).

### Crop Production

In Table 22, the average hectares and the percent of cultivated land in specified crops by two sizes of holdings are shown. Corn (and beans) was the predominant crop grown by both size groups with the larger owners growing it on almost 65 percent of their cultivated land and the smaller owners growing it on three-fourths of their cultivated land. Those in the larger size group planted more hectares, on the average, of all crops than did those in the smaller size group. As a percentage of cultivated land the smaller owners had more corn (and beans) and "other" crops (garden, orchard, manioc, potatoes, and peanuts) than did those in the larger size group. Only in percent of cultivated land in coffee, sugar cane, and rice did the larger size group exceed the smaller group and in the case of the latter the difference was very small (only 0.6 percent). The larger and smaller owners planted about the same percentage (11.0 and 10.7

TABLE 22. AVERAGE HECTARES AND PERCENT OF OWN, CULTIVATED LAND IN SPECIFIED CROPS BY TWO SIZES OF HOLDINGS, 30 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Size of Holding	No. Resp.		Corn	Beans <sup>a</sup>		Rice	Sugar Cane	Coffee	Other <sup>b</sup>	Total
				First Crop	Second Crop					
Larger Owner 15.1 ha. & over	15	Ha.	11.11	( 1.22)	( 3.65)	1.73	2.02	2.01	0.33	17.20
		%	64.6	(11.0 )	(32.9 )	10.1	11.7	11.7	1.9	100.0
Smaller Owner 0.1-15.0 hectares	15	Ha.	1.78	( 0.19)	( 0.81)	0.22	0.19	0.07	0.10	2.37
		%	75.0	(10.7 )	(45.6 )	9.4	8.2	3.0	4.4	100.0
All Owners	30	Ha.	6.44	( 0.70)	( 2.23)	0.98	1.10	1.04	0.22	9.78
		%	65.8	(10.9 )	(34.6 )	10.0	11.3	10.6	2.2	100.0

<sup>a</sup>All the beans were interplanted with the corn. The percentages are of the land planted to corn, not of total cultivated land and, therefore are not included in the row totals.

<sup>b</sup>Other includes garden, orchard, manioc, peanuts and potatoes.

percent respectively) of their land in corn to the first crop of beans. However, the smaller owners planted more of their corn land to the second crop of beans than did the larger owners (45.6 and 32.9 percent respectively).<sup>18</sup>

This seems to be consistent with what one would expect. Those in the smaller size group are planting a higher proportion of their land to traditional food crops (corn, beans, rice and "other") while the larger owners have a higher proportion of their land planted to cash crops (coffee and sugar cane).<sup>19</sup>

In Table 23 this same division of crops was used to examine the difference between the kinds of crop grown on that land being tilled by the owners themselves and that being let out to be cultivated on the shares. A higher proportion of subsistence crops were grown on that land cultivated by sharecroppers than on that tilled by the owners themselves.

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<sup>18</sup> One reason that the first crop of beans is planted on a much lower proportion of the land in corn is that this crop of beans is more likely to be lost in the field due to molding. The second crop of beans usually does not produce as much but what is produced can be harvested in good condition.

<sup>19</sup> This classification is not perfect. It can be argued that some farmers probably produce corn, rice, vegetable, fruit, etc. principally for sale and that some only produce enough coffee and sugar cane for their own use. However, it was thought that in a general sense this classification could be used to examine the difference, if any, between the kinds of crops being grown.

TABLE 23. PERCENTAGE OF SUBSISTENCE CROPS GROWN BY THE OWNERS AND THEIR SHARECROPPERS ON THE LAND OWNED BY 30 RESPONDENTS WHOSE PRINCIPAL SOURCE OF INCOME WAS OWNED LAND, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Size of Holding	No. Resp.	Tilled by		Total
		Owner	Sharecropper	
Larger Owners 15.1 ha. & over	15	74.2	82.7	76.6
Smaller Owners 0.1-15.0 hectares	15	84.3	100.0	88.8
All Owners	30	75.4	84.8	78.1

In Table 24 the average amount of land cultivated on the shares and the percentage of subsistence and cash crops grown are shown according to the principal occupational-tenure categories of the 31 respondents who were cultivating on the shares.<sup>20</sup> The average amount cultivated

<sup>20</sup>These are not necessarily the same individuals who were sharecropping the land of the owners in Table 21 and 23. In Tables 21 and 23 the data pertain to landowners who were interviewed, some of whom used sharecroppers to cultivate some of their land. In Table 23 the data is from the respondents who cultivated some land on the shares.

TABLE 24. AVERAGE NUMBER OF HECTARES AND PERCENTAGE OF SUBSISTENCE AND CASH CROPS GROWN ON THE SHARES BY 31 RESPONDENTS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	No. of Resp.	Average Hectares Cultivated on Shares	C r o p s G r o w n		
			Subsistent (Percent)	Cash (Percent)	Total (Percent)
Owners	7	2.14	84.0	16.0	100.0
Sharecroppers	11	3.37	89.2	10.8	100.0
Permanent Agricultural Workers	6	3.25	87.0	13.0	100.0
Temporary Agricultural Workers	7	1.42	99.2	0.8	100.0
Total	31	2.63	88.9	11.1	100.0

on the shares by this group was 2.6 hectares.<sup>21</sup> The largest amounts cultivated on the shares were by those whose principal occupational-tenure categories were those of sharecropper and permanent agricultural worker (3.37 and 3.25 hectares respectively). Owners cultivated an average of 2.14 hectares each while temporary agricultural workers cultivated the smallest average amount (1.42 hectares).<sup>22</sup>

The owners cultivated the lowest proportion of subsistence crops (84 percent) while the temporary agricultural workers cultivated the highest proportion (99.2 percent). One might conclude that there was some tendency for the owners to use sharecropping as a means

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<sup>21</sup>This is somewhat lower than the average amount cultivated per sharecropper on the land of the owners interviewed. Those sharecroppers cultivated an average of 3.2 hectares each.

<sup>22</sup>In addition to this land being cultivated on the shares, these seven owners cultivated an average of 1.4 hectares (80.6 percent of which was in subsistence crops) on their own land. Although they were cultivating more total hectares on the shares than on their own land their total return from their own land was, no doubt, higher because they were receiving the entire production from it. Four others (two who were principally sharecroppers and two who were principally temporary agricultural workers) also cultivated very small amounts (average 0.1 hectare each) on their own land.

of growing more cash crops while the temporary agricultural workers use it as a means to supplement their wages with some subsistence crops. However, this conclusion probably is not warranted because only seven of the 31 respondents who cultivated on the shares cultivated any cash crops and for two of these the amounts were very small. In addition, only one of the owners who cultivated on the shares cultivated any cash crops.

#### Livestock Production

In Table 25 the average numbers of livestock and poultry by occupational-tenure categories are shown. For the three owner groups the average numbers of livestock and poultry were positively related to the size of holding except in the boar and sow, and sheep and goat categories. The small and medium sized owners had, on the average, about the same number of sows and boars, and sheep and goats. The average number of sheep and goats owned by these two groups was higher than for the large sized owners.

The sharecroppers had an average of 22.7 birds each which was greater than either the small or medium sized owners. However, they had fewer head of livestock. Within the non-owner group the average number of livestock and poultry was generally highest for the sharecroppers and lowest for the temporary agricultural

TABLE 25. AVERAGE NUMBERS OF LIVESTOCK AND POULTRY BY OCCUPATIONAL-TENURE STATUS OF 61 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational Tenure Status	No. of Resp.	Horses and Burros	Oxen	Cows and Bulls	Yearlings	Calves	Boars and Sows	Barrows and Gilts	Pigs	Sheep and Goats	Poultry
Large Owners 37.1 ha. and over	10	3.2	9.0	11.0	6.3	5.9	2.2	9.2	5.4	0.1	49.1
Medium Owners 8.1-37.0 hectares	10	1.0	2.2	2.6	0.5	1.6	0.7	1.9	4.1	1.7	16.7
Small Owners 0.1-8.0 hectares	10	0.9	0.6	0.8	0.1	0.2	0.8	1.2	1.5	1.6	12.7
Sharecroppers	11	0.1					0.6	0.8	2.4		22.7
Permanent Workers	10	0.1					0.5	0.7	0.7		8.7
Temporary Workers	10						0.2	0.1	0.3	0.2	4.0
Total	61	0.9	1.9	2.4	1.3	1.1	0.8	2.3	2.4	0.6	19.0

workers. Sheep and goats were an exception to this with the temporary agricultural workers having an average of 0.2 head and sharecroppers and permanent agricultural workers having none. It is also of interest to note that none of the sharecroppers, permanent agricultural workers, or temporary agricultural workers had any oxen or cattle. This is probably because of lack of sufficient work to utilize a team of oxen and lack of pasture for oxen and cattle as well as not being able to afford such an investment.

In Table 26 the number and percentage of respondents having the selected classes of livestock and poultry (regardless of the number which they had) is shown by occupational-tenure category. The proportion of respondents having any oxen, horses, or cattle decreases when moving from large owners to temporary agricultural workers (except in the case of ownership of horses by medium and small sized owners). The proportion having swine and poultry decreases in a similar manner except that in both cases a higher proportion of sharecroppers (90.9 percent) than small sized owners (70 percent) have these two enterprises. Goats and sheep show the opposite trend with the proportion of farms having them increasing with a decrease in size of holding. None of the sharecroppers or permanent agricultural workers had sheep or goats but two (20.0 percent) of the temporary agricultural workers had goats (on the shares in one of the cases).

TABLE 26. NUMBER AND PERCENTAGE OF RESPONDENTS HAVING SELECTED LIVESTOCK AND POULTRY ENTERPRISES BY OCCUPATIONAL-TENURE STATUS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Livestock Occu- pational Tenure Status	No. of Resp.		Horses	Oxen	Cattle	Swine	Sheep and Goat	Poultry
Large Owners 37.1 ha. & over	10	No. %	10 100.0	10 100.0	9 90.0	10 100.0	1 10.0	10 100.0
Medium Owners 8.1-37.0 ha.	10	No. %	6 60.0	5 50.0	5 50.0	8 80.0	3 30.0	10 100.0
Small Owners 0.1-8.0 ha.	10	No. %	7 70.0	1 10.0	2 20.0	7 70.0	4 40.0	7 70.0
Sharecroppers	11	No. %	1 9.1			10 <sup>a</sup> 90.9		10 90.9
Permanent Workers	10	No. %	1 10.0			4 <sup>a</sup> 40.0		6 60.0
Temporary Workers	10	No. %				4 <sup>a</sup> 40.0	2 <sup>a</sup> 20.0	7 70.0

<sup>a</sup>One only on shares.

### Agricultural Equipment

In Table 27 the principal items of equipment<sup>23</sup> have been shown by the principal occupational-tenure categories of the respondents. The respondents in the non-owner tenure categories owned very few of the items (only bicycles and hand carts). Among the owner categories the number of respondents owning the specified items was positively related to the size of holding in nearly all cases. One exception was sugar cane crushers. Only owners had animal or engine-powered cane crushers with large owners having four and medium and small sized owners having one each. However, four small owners, two sharecroppers, and one temporary agricultural worker had hand cane crushers. The other exception was push carts. However, only two sharecroppers and one respondent in each of the other occupational-tenure categories reported having push carts.

### Level of Living

Most of the houses, in which the group studied were living, were constructed of locally baked bricks with the better ones being plastered over the bricks. The poorer houses were of wattle and daub construction.<sup>24</sup> In

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<sup>23</sup>Bicycles were also included in this group.

<sup>24</sup>Mud plastered over sticks, usually bamboo.

TABLE 27. NUMBERS OF SELECTED ITEMS OF EQUIPMENT OWNED BY 61 RESPONDENTS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	Number of Respondents	Grist Mill	Corn Crusher			Still	Corn Sheller		Plow	Disk	Corn Planter	Fertilizer Spreader	Cultivator	Jeep	Pick-up	Charette <sup>a</sup>	Bicycle	Oxcart	Push Cart	Average per Respondent
			Hand	Animal	Motor		Small	Medium												
Large Owners 37.1 ha. and over	10	8	2	2	2		10	19	4	2 <sup>b</sup>	1	8	1	2	4	8	13	1	8.6	
Medium Owners 8.1-37.0 ha.	10	4	1			3	5	7				4			1	5	4	1	3.5	
Small Owners 0.1-8.0 ha.	10	3	4	1		3	1	3				1				2	2	1	2.1	
Sharecroppers	11		2													2		2	.5	
Permanent Workers	10																	1	.1	
Temporary Workers	10		1			1												1	.3	
Total	61	15	7	4	2	2	7	16	29	4	2	1	13	1	2	5	17	19	7	2.5

<sup>a</sup>A charette is a light two-wheeled vehicle drawn by a single horse.

<sup>b</sup>One of these owned half interest in a corn planter.

addition, a combination of bricks, wood, and wattle and daub were used in the construction of some of the houses. The principal material used in the construction of the houses in which the respondents were living has been shown, in Table 28, by the principal occupational-tenure categories of the respondents. The principal construction material of the houses of all of the large owners was plastered brick. This material was also used in a majority of the houses of the respondents in all the other owner categories. Half the houses of the sharecroppers and permanent agricultural workers were built of plastered bricks. In the case of temporary agricultural workers, half of the 10 respondents had houses built of unplastered bricks and the other half were constructed of wattle and daub. It should be mentioned that two of the permanent agricultural workers were living with landowners in the latters' homes and were excluded. A third permanent agricultural worker who was living in the old farm house in which the owner had lived before moving to town was included. All three of these houses were built of plastered bricks. There was considerable variation in both size and quality of the houses that is not shown by construction material alone.

The floors of the houses were brick, wood, concrete, and earthen. In Table 29, principal flooring material is shown by principal occupational-tenure category. All the owners had brick, wood, or concrete floors while

TABLE 28. PRINCIPAL CONSTRUCTION MATERIAL OF HOUSES OF 58 RESPONDENTS<sup>a</sup> BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	No. of Resp.	Construction Material		
		Plastered Brick	Unplastered Brick	Wattle and Daub
Large Owners 37.1 ha. and over	10	10 <sup>b</sup>	0	0
Medium Owners 8.1 - 37.0 hectares	10	7 <sup>c</sup>	2	1
Small Owners 0.1 - 8.0 hectares	10	7	2	1
Sharecroppers	10	5 <sup>b</sup>	3	2
Permanent Agricultural Workers	8	4 <sup>d</sup>	3	1
Temporary Agricultural Workers	10	0	5	5
Total	58	34	15	10

<sup>a</sup>One sharecropper whose father was a medium sized owner and who was living at home, and two permanent agricultural workers living in the homes of the landowners for whom they were working were excluded.

<sup>b</sup>Two of these had small portion wattle and daub.

<sup>c</sup>One of these had small portion wattle and daub.

<sup>d</sup>One was living in the old farm house in which the owner had lived before moving to town.

TABLE 29. FLOORING MATERIAL OF 58 RESPONDENTS<sup>a</sup> BY  
PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, VIÇOSA,  
MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	No. of Resp.	Flooring Material	
		Brick, Wood or Concrete	Earth
Larger Owners 37.1 ha. and over	10	10	0
Medium Owners 8.1 - 37.0 hectares	10	10 <sup>b</sup>	0
Small Owners 0.1 - 8.0 hectares	10	10	0
Sharecroppers	10	5 <sup>b</sup>	5
Permanent Agricultural Workers	8	5 <sup>c</sup>	3
Temporary Agricultural Workers	10	4	6
<b>TOTAL</b>	<b>58</b>	<b>44</b>	<b>14</b>

<sup>a</sup>One sharecropper whose father was a medium sized owner and who was living at home, and two permanent workers living in the homes of the landowners for whom they were working were excluded.

<sup>b</sup>Includes one with small part earthen.

<sup>c</sup>One was living in the old farm house in which the owner had lived before moving to town.

about half of those in the non-ownership tenure categories had earthen floors.

The size of house, as measured by average number of rooms, was positively related to size of holding. The small owners had an average of 6.6 rooms each while large owners had an average of 10.8 rooms. Temporary agricultural workers had the smallest average number of rooms (4.6) followed by permanent agricultural workers with an average of 5.6 rooms and sharecroppers with an average of 6.2 rooms.<sup>25</sup> (See Table 30.)

TABLE 30. AVERAGE NUMBER OF ROOMS PER HOUSE FOR 58 RESPONDENTS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	Average Number of Rooms per House
Large Owners 37.1 ha. and over	10.8
Medium Owners 8.1 - 37.0 ha.	6.9
Small Owners 0.1 - 8.0 ha.	6.6
Sharecroppers	6.2
Permanent Workers	5.6
Temporary Workers	4.6

<sup>25</sup> The sharecropper whose father was a medium sized owner and who was living at home, and two permanent agricultural workers who were living with their employers were excluded.

It was thought that number of chairs which a family had would be one indicator of how well off an individual or his family was. All the large owners had chairs with the average number for the group being 9.4 while none of the temporary agricultural workers had chairs. Both the number of respondents having chairs and the average number of chairs were positively related to size of holding. An equal number of sharecroppers and permanent agricultural workers had chairs (three in each case) and the average number which they had was essentially the same. (See Table 31.)

In an attempt to further distinguish among the six occupational-tenure groups Table 32 was constructed. It indicates the number of respondents having various household items. There is a positive relationship between the average number of items possessed and size of holding with the large owners having an average of eight and the small owners an average of 2.4 of the items. However, the difference between the average numbers owned by the small and medium sized owners is not great. Among the non-owner groups the sharecroppers had the highest average number (1.7) followed by permanent agricultural workers (0.9) and temporary agricultural workers (0.5).

Considering the individual items, there were some minor exceptions to the overall averages: (a) none of the medium sized owners had running water while one small owner, two sharecroppers, and one permanent agricultural

TABLE 31. NUMBER OF CHAIRS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES OF 58 RESPONDENTS,<sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	No. of Resp.	Number of Chairs	Number Resp. Having Chairs	Av. No. of Chairs	
				Those Having	All Resp. in Group
Large Owners 37.1 ha. & over	10	94	10	9.4	9.4
Medium Owners 8.1-37.0 ha.	10	26	5	5.2	2.6
Small Owners 0.1-8.0 ha.	10	21	5	4.2	2.1
Sharecroppers	10	14	3	4.7	1.4
Permanent Workers	8	13	3	4.3	1.3
Temporary Workers	10	0	0	0	0

<sup>a</sup>One sharecropper whose father was a medium sized owner and who was still living at home, and two permanent agricultural workers who were living with their employers were excluded.

worker had it;<sup>26</sup> (b) only three medium sized owners had toilets (inside or outside) while five small sized owners and four sharecroppers had them;<sup>27</sup> (c) one respondent, whose principal occupational-tenure category was temporary agricultural work, had a radio; and (d) the same number of small and medium sized owners had water filters (two respondents) and sewing machines (six respondents).

<sup>26</sup>Both sharecroppers owned their own houses and lived in the village. The permanent agricultural worker was living in the old farm house in which the owner had lived before moving to town.

<sup>27</sup>All the sharecroppers who had toilets lived in the village.

TABLE 32. NUMBER OF RESPONDENTS POSSESSING SELECTED ITEMS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORIES, 58 RESPONDENTS,<sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational Tenure Category	No. of Resp.	Sewing Machine	Watch or Clock	Toilet (In-side or Out)	Radio	Meat Grinder	Water Filter	Running Water	Electricity	Bath Tub or Shower	Gas Stove	Refrigerator	Average No. of Items per Respondents
Large Owners 37.1 ha. & over	10	9	10	9	9	10	7	9	8	5	3	1	8.0
Medium Owners 8.1-37.0 ha.	10	6	8	3	4	4	2	0	2	0	0	0	2.9
Small Owners 0.1-8.0 ha.	10	6	4	5	3	3	2	1	0	0	0	0	2.4
Sharecroppers	10	5	3	4	2	0	1	2	0	0	0	0	1.7
Permanent Workers	8	3	1	1	0	0	1	1	0	0	0	0	0.9
Temporary Workers	10	3	1	0	1	0	0	0	0	0	0	0	0.5
Total	58	32	27	22	19	17	13	13	10	5	3	1	2.8

<sup>a</sup>One sharecropper was excluded who was cultivating on the shares with his uncle and his father (a medium sized owner) and who was still living at home. He or his family had all the items except electricity, a gas stove, and a refrigerator. Two permanent agricultural workers were also excluded who were living with their employers. Neither had any of the items themselves, but the landowners for whom they worked had some of them.

CHAPTER IV  
ACQUISITION OF TENURE STATUS

This chapter will examine some of the characteristics of the respondents in different occupational-tenure categories--age, skin color, and education. This will be followed by an analysis of the data concerning the successive tenure stages used by those in the sample. The ownership status in the preceding generation (of the fathers and fathers-in-law) will be used to distinguish those who came from more affluent backgrounds from those who came from poorer families. Then, the tenure status of the respondents will be examined at marriage or age 30 (whichever was earlier) and at different age levels. The respondents will be divided into two age groups to see if the older and younger groups have been following similar paths. Finally the size of holding attained by those of different ages and different family backgrounds will be compared.

### Age and Present Occupational-Tenure Category

Table 33 shows the mean and median ages of the respondents by principal occupational-tenure category. Large sized owners were the oldest with a median age of 61 years followed by small sized owners, temporary agricultural workers, medium sized owners, sharecroppers, and permanent agricultural workers. It was somewhat surprising to find that the medium sized owners were younger than the small sized owners. This seems to indicate that age alone cannot be used to explain the present occupational-tenure positions of the respondents.

TABLE 33. THE MEAN AND MEDIAN AGES OF THE 61 RESPONDENTS BY PRINCIPAL OCCUPATIONAL-TENURE CATEGORY, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Category	Median Age	Mean Age
Large Owners 37.1 ha. and over	61.0	57.6
Medium Owners 8.1-37.0 ha.	45.5	48.0
Small Owners 0.1-8.0 ha.	57.0	53.3
Sharecroppers	45.0	47.5
Permanent Agricultural Workers	36.5	35.6
Temporary Agricultural Workers	49.0	47.7
All	48.0	48.3

## Occupational-Tenure Status and Skin Color

White skin color is associated with higher tenure status. All the large owners in this study were white.<sup>1</sup> (See Table 34.) As one moves from large owner to what

TABLE 34. PRESENT OCCUPATIONAL-TENURE STATUS BY SKIN COLOR OF 61 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Present Occupational Tenure Status	S k i n C o l o r		
	White	Mulatto and Negro	Total
Large Owners 37.1 ha. and over	10	0	10
Medium Owners 8.1-37.0 ha.	9	1	10
Small Owners 0.1-8.0 ha.	7	3	10
Sharecroppers	5	6	11
Permanent Agricultural Workers	2	8	10
Temporary Agricultural Workers	1	9	10
Total	34	27	61

<sup>1</sup>The respondents were classified according to skin color by the author at the time of the interview and this was noted in the margin of the questionnaire. It can be argued that this method of measuring color leaves something to be desired but it is probably better than asking the respondents as has been done in the case of the census.

are assumed to be lower occupational-tenure positions the proportion of white individuals decreases and that of Negro and mulatto increases. The chi-square value for this table was significant at the .001 level, indicating that occupational-tenure position and skin color are not independent.

#### Education and Occupational-Tenure Status

To examine the relationship between education and occupational-tenure status, the respondents were classified according to their principal occupational-tenure position and by two levels of education--one year or less, and two or more years, using the larger of the husband's or wife's years of education.<sup>2</sup> (See Table 35.) A higher proportion of the large and medium sized owners had two or more years of education (eight of 10 and nine of 10 respectively). The respondents in the other occupational-tenure categories were essentially equally divided between the two levels of education. The chi-square value is significant at the .05 level.

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<sup>2</sup>Each respondent was asked how many years of education he had completed. In addition, where one year or less had been completed, he was asked if he could read and write. If the respondent was unable to do more than sign his name, education was counted as zero regardless of the number of years completed. If the respondent indicated that he could read and write, either one or the number of years of schooling which he had completed was recorded depending on which was greater. This same information was also collected for respondent's wife.

TABLE 35. PRINCIPAL OCCUPATIONAL-TENURE STATUS BY NUMBER OF YEARS OF EDUCATION OF 61 RESPONDENTS OR THEIR WIVES, WHICHEVER WAS LARGER, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Status	Years of Education		Total
	0 - 1	2 or More	
Large Owners 37.1 ha. and over	2	8	10
Medium Owners 8.1-37.0 ha.	1	9	10
Small Owners 0.1-8.0 ha.	4	6	10
Sharecroppers	6	5	11
Permanent Agricultural Workers	5	5	10
Temporary Agricultural Workers	6	4	10
<b>Total</b>	<b>24</b>	<b>37</b>	<b>61</b>

#### Time of Leaving Home and Father's Ownership

Table 36 shows the relationship between principal occupational-tenure status of the fathers and the time which the sons left home (before marriage, at marriage, and after marriage). The sons of owners left home at a later period in their lives than the sons of non-owners. Half of the sons of owners stayed at home for one or more years after marriage (including three who were still at home when the parents died and who took over the

TABLE 36. PRINCIPAL OCCUPATIONAL-TENURE STATUS OF FATHER AND TIME OF LEAVING HOME OF 51 RESPONDENTS,<sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Status of Father	Time of Leaving Home							
	Before Marriage		At Marriage		After Marriage		Total	
	No.	%	No.	%	No.	%	No.	%
Owners	2	7.7	11	42.3	13	50.0	26	100.0
Non-Owners <sup>b</sup>	9	36.0	15	60.0	1	4.0	25	100.0
Total	11	21.6	26	51.0	14	27.4	51	100.0

<sup>a</sup> Four were excluded who were still single and were living at home, one of which was the son of an owner. Six were excluded who were still single and were living at home at the time of death of their parents. Four of these were sons of owners.

<sup>b</sup> Three owned small amount of land but this was not their principal source of income.

farmsteads). Leaving at the time of marriage was second in importance accounting for 42.3 percent of the sons of owners. Only 7.7 percent of the sons of those whose principal source of income was owned land left home before marriage.

In the case of those whose fathers' principal source of income was not from owned land only one of the 25 respondents left home after marriage. The majority (60 percent) left home at the time of marriage. This was followed by 36 percent who left home before marriage.

The sons of owners were older when they left home than the sons of non-owners. (See Table 37.) The median age of leaving home was 28.5 years for the 26 respondents whose fathers' principal source of income was owned land. The corresponding age of leaving home for those whose fathers' principal source of income was not from owned land was 21 years. The differences between the means and medians for the two groups were found to be significant at the .001 level.

TABLE 37. MEAN AND MEDIAN AGES OF LEAVING HOME BY FATHERS' PRINCIPAL OCCUPATIONAL-TENURE STATUS OF 51 RESPONDENTS, <sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

	Fathers' Principal Occupational-Tenure Status	
	Owner	Non-Owner
Number	26	25
Mean	28.5	21.1
Median	28.5	21.0

<sup>a</sup> Four were excluded who were still single and living at home at the time of interview. Six were excluded who were still single and living at home at the time of death of their parents.

#### Tenure Status at Marriage or Age 30

The relationship between the ownership status in the preceding generation,<sup>3</sup> the tenure status at marriage or age 30, and present ownership by the respondents will be examined in this section. The time of marriage was

<sup>3</sup>Ownership status in the preceding generation is the average of the father's and father-in-law's size of holding. In the case of unmarried respondents the father's size of holding alone was used. Three categories of ownership in the preceding generation have been used-- non-owners (neither father nor father-in-law were owners), smaller (0.1-27.0 hectares), and larger (27.1 hectares and over). This size division was the one which divides the group with ownership in the preceding generation into as nearly equal groups as possible.

selected as a point to examine tenure status because this is when individuals establish independent households, and start out in their careers. Age 30 was included merely as a cut-off point to eliminate the problem of those who never marry or marry very late.<sup>4</sup> (See Table 38.)

Most of the respondents in the category where size of holding was larger in the preceding generation were either working for their fathers or fathers-in-law,<sup>5</sup> or were already owners (22 out of 24 respondents). Of these 22 respondents only two were not owners at the time of the interview and both of these had owned land but had sold it. The respondent who was engaged in non-farm work at the time of marriage was the son of a non-owner. He acquired ownership through inheritance from his father-in-law, not from non-farm work.

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<sup>4</sup>To simplify the description, in the remainder of the discussion this point will be referred to only as marriage. The average age of marriage was 25.6 years. Four respondents were unmarried and over 30 at the time of the interview (ages 40, 47, 48, and 68). Seven respondents married after 30 years of age. The range in age of marriage for the seven was from 31 to 45.

<sup>5</sup>Working for father or father-in-law includes working with or without pay, and cultivating land of father or father-in-law regardless of the way the crop was divided.

TABLE 38. PRESENT OWNERSHIP STATUS OF 57 RESPONDENTS<sup>a</sup> BY AVERAGE SIZE OF HOLDINGS IN THE PRECEDING GENERATION AND RESPONDENTS' PRINCIPAL OCCUPATIONAL-TENURE STATUS AT MARRIAGE OR AGE 30, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Average Size of Holding in Preceding Generation	Occupational-Tenure Status of Respondents			
	At Marriage or Age 30		Present (No.)	
	Status	No.	Non-Owner	Owner
Larger Owners 27.1 ha. and over	Owners	4	0	4
	Working for Fathers	12	2	10
	Working for In-Laws	6	0	6
	Working for Other Relatives	1	1	0
	Working for Non-Relatives	0	0	0
	Non-Farm	1	0	1
	TOTAL	(24)	(3)	(21)
Smaller Owners 0.1-27.0 hectares	Owners	1	0	1
	Working for Fathers	4	0	4
	Working for In-Laws	0	0	0
	Working for Other Relatives	3	3	0
	Working for Non-Relatives	12	10	2
	Non-Farm	2	1	1
TOTAL	(22)	(14)	(8)	
Non-Owners	Owners	0	0	0
	Working for Fathers	0	0	0
	Working for In-Laws	0	0	0
	Working for Other Relatives	1	1	0
	Working for Non-Relatives	8	8	0
	Non-Farm	2	1	1
TOTAL	(11)	(10)	(1)	
All	Owners	5	0	5
	Working for Fathers	16	2	14
	Working for In-Laws	6	0	6
	Working for Other Relatives	5	5	0
	Working for Non-Relatives	20	18	2
	Non-Farm	5	2	3
TOTAL	(57)	(27)	(30)	

<sup>a</sup>Four were excluded who were unmarried and under 30 years of age at time of interview.

The group where size of holding was smaller in the preceding generation were engaged in a wider variety of activities at time of marriage. A lower proportion of this group was working for their fathers or fathers-in-law, or were already owners at marriage (five out of 22 respondents). However, all of these were owners at the time of interview. Of the 17 respondents who were in other occupational-tenure categories at the time of marriage, only three are now owners. All three inherited some land and two purchased additional land later.

Of the 11 respondents with no ownership in the preceding generation, all were working for other relatives or non-relatives, or were engaged in non-farm work at the time of marriage. Only one of these is now an owner. Ownership was acquired with savings from a village store.

#### Working at Home Before Acquiring Ownership

In the preceding section it was shown that a high proportion of those who were in the owner categories at the time of the interview were sons and sons-in-law of owners. Table 39 shows the number of respondents who had worked only at home<sup>6</sup> before acquiring ownership.

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<sup>6</sup>Working at home includes working for or cultivating the land of members of the immediate family regardless of the pay received or the way the crop was divided. It is equivalent to the F<sub>1</sub> tenure category which will be defined in the following section.

Nine of the 10 large owners had worked only at home before acquiring ownership while half of both the medium and small owners were in this category. The one large owner, who had had other work experience, worked for his father's employer.<sup>7</sup>

TABLE 39. PRE-OWNERSHIP WORK EXPERIENCE OF 30 PRESENT OWNERS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Present Occupational-Tenure Category	No. of Resp.	Pre-Ownership Work Experience	
		Worked only at Home	Other Non-Ownership Tenure Status
Large Owners 37.1 ha. and over	10	9	1
Medium Owners 8.1-37.0 ha.	10	5	5
Small Owners 0.1-8.0 ha.	10	5	5
<b>Total</b>	<b>30</b>	<b>19</b>	<b>11</b>

<sup>7</sup> This respondent married into a landowning family (to which he was related) and acquired ownership through inheritance and purchase.

## Occupational-Tenure Status at Specified Ages

In the preceding section ownership and non-ownership by the respondents was found to be related to both the principal occupational-tenure status of the father and that of the respondents at marriage (or age 30). However, the tenure status attained is also a function of age.

This will be examined in Table 40 which shows the principal occupational-tenure status of the respondents at 10 year intervals (age 10 through age 60) by the size of holding in the preceding generation. In this table the following symbols have been used:

- O -- Owner
  - F<sub>1</sub> -- Helping at home, working for, or cultivating land (with or without giving a share of the crops as rent) of parents, grandparents, brother, sister, father-in-law, mother-in-law, brother-in-law, or sister-in-law.
  - F<sub>2</sub> -- The same as F<sub>1</sub> except for uncles, aunts, cousins, and other relatives.
  - S -- Sharecropper.
  - Wp -- Permanent agricultural worker.
  - Wt -- Temporary agricultural worker.
  - N -- Non-farm worker.
- ] for Non-relatives.

Without regard for the size of holding in the preceding generation (all fathers) the dominant feature is the positive relationship between age and ownership, and the negative relationship between age and F<sub>1</sub> tenure.

TABLE 40. PRINCIPAL OCCUPATIONAL-TENURE STATUS AT AGES INDICATED BY OWNERSHIP STATUS OF THE PRECEDING GENERATION, 61 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Ownership in Preceding Generation		Age	Occupational-Tenure of Respondents at Stated Ages							Total	
			O %	F <sub>1</sub> %	F <sub>2</sub> %	S %	Wp %	Wt %	N %	% <sup>a</sup>	No.
Mean Size of Father's and Father-In-Law's Holding	27.1 ha. & over	10		91.6			4.2	4.2		100.0	24
		20	12.5	79.2				8.3		100.0	24
		30	45.8	50.0					4.2	100.0	24
		40	73.9	26.1						100.0	23
		50	90.0	9.1						100.0	11
		60	(7)								7
	0.1-27.0 ha.	10		47.8	4.3		34.8	13.0		100.0	23
		20		34.8	8.7	4.3	39.1	13.0		100.0	23
		30	19.0	9.5	19.0	4.8	19.0	23.8	4.8	100.0	21
		40	29.4	5.9	11.8	5.9	17.6	23.5	5.9	100.0	17
		50	41.6	8.3		16.7	8.3	25.0		100.0	12
		60	(3)			(1)		(1)			5
	Non-Owner	10		14.3			35.7	50.0		100.0	14
		20		16.7			41.7	33.3	8.3	100.0	12
		30			10.0	20.0	30.0	10.0	30.0	100.0	10
		40				30.0	30.0	30.0	10.0	100.0	10
		50				(1)	(1)	(1)	(1)		4
		60	(1)				(1)	(1)			3
A l l	10		57.4	1.6		23.0	18.0		100.0	61	
	20	5.1	49.2	3.4	1.7	23.7	15.2	1.7	100.0	59	
	30	27.3	25.4	9.1	5.5	12.7	10.9	9.1	100.0	55	
	40	44.0	14.0	4.0	8.0	12.0	14.0	4.0	100.0	50	
	50	55.6	7.4		11.1	7.4	14.8	3.7	100.0	27	
	60	73.4			6.7	6.7	13.3		100.0	15	

<sup>a</sup> Some not 100 percent due to rounding.

Ownership increased from 5.1 percent at 20 years of age to 73.4 percent at 60 years of age while  $F_1$  tenure status decreased from 57.4 percent at 10 years of age to 7.4 percent at 50 years of age, with no respondents being in this category at 60 years of age. This is as one would expect since the older the respondent the more likely he will have inherited from his father or father-in-law and thus will either be an owner or will have sold his inheritance and will be in the non-owner category. Both permanent and temporary agricultural work are negatively related to age. However, the decline in temporary agricultural work with age is small. Sharecropping is positively related to age from age 20 (1.7 percent) to age 50 (11.1 percent) and then declines at age 60 to 6.7 percent. Both  $F_2$  tenure and non-farm work are positively related to age up to 30 years and then decrease.<sup>8</sup>

Within the larger father and father-in-law size category, most of the respondents were in the owner or  $F_1$  tenure category at all ages.<sup>9</sup> Ownership is positively

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<sup>8</sup>None of the respondents were principally engaged in non-farm work at the time of the interview. What appears in this table are individuals who were engaged in non-farm work at the specified ages, but who were working in agriculture at the time of the interview.

<sup>9</sup>The exceptions to this only involved two respondents both of whom were sons of non-owners and who acquired ownership later through inheritance from their fathers-in-law.

related to age, and the  $F_1$  tenure status is negatively related to age. For this group there appears to be a very consistent movement from the  $F_1$  status to ownership.

For the respondents whose fathers and fathers-in-law were smaller owners, ownership, sharecropping and temporary agricultural work were positively related to age.  $F_2$  tenure status also was positively related to age up to 30 years and then declined.  $F_1$  tenure was negatively related to age as was permanent agricultural work after 20 years of age.

For the group with no ownership in the preceding generation, permanent and temporary agricultural work were the dominant tenure categories up to age 20, after which sharecropping became important. At age 30 non-farm work was also important.

The negative relationship between age and permanent agricultural work is consistent with the lower mean and median ages of this group at the time of the interview (noted earlier in this chapter) and with the general pattern observed in the area.<sup>10</sup>

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<sup>10</sup> For example, a boy or young man (a son of a small owner or non-owner) may start out working as a permanent agricultural worker for a landowner. A very common job for a young boy is candiando boi (literally, leading the oxen). Later he moves up to other jobs. At the time of marriage the permanent agricultural worker usually thinks he needs more income than just the salary he is receiving and asks for a house and a plot of land to cultivate on the shares. Up to this point, he may have been living with his parents or with the landowner. If the (cont.)

Table 41 shows all occupational-tenure positions held by the respondents by age and by size of holding in the preceding generation. In each age group at least some of the respondents were occupying more than one occupational-tenure position (the total percentages are all over 100).

For the group where ownership was larger in the preceding generation the dominant relationship (as in Table 40) is the movement from F<sub>1</sub> tenure status to ownership as age increases. However, Table 41 indicates that there was a small increase in the proportion of those in this group who were also engaged in non-farm work, temporary agricultural work, and sharecropping. This would seem to indicate that a few in this group have farms that are too small to provide full-time employment, particularly at younger ages.

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10 (Cont.) permanent agricultural worker has been a good one and the landowner wants to keep him he will give him some land to cultivate on the shares. In some cases, if the work he is doing is particularly important, the owner may even send some other workers to take care of planting, cultivating, harvesting, etc. of the crop. In other cases the permanent agricultural worker may shift over to being a sharecropper. On the other hand, if no land to cultivate is received the permanent agricultural worker is likely to look elsewhere for land to cultivate on the shares and/or for temporary agricultural work. If the young man is the son of a small owner or marries into a landowning family, he will usually inherit some land at some point in time. Then if it is of sufficient size (or he is able to purchase additional land) and he is able to retain it he will, of course, move into the owner category.

TABLE 41. ALL OCCUPATIONAL-TENURE POSITIONS HELD AT AGES INDICATED BY OWNERSHIP STATUS OF THE PRECEDING GENERATION, 61 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Ownership in Preceding Generation		Occupational-Tenure of Respondent at Stated Ages										
		Age	O %	F <sub>1</sub> %	F <sub>2</sub> %	S %	Wp %	Wt %	N %	Total %	No.	
Mean Size of Father's and Father-In-Law's Holding	27.1 ha. & Over	10		95.8				8.3	8.3		112.4	24
		20	12.5	95.8				4.2	16.6	4.2	133.3	24
		30	45.8	70.8		4.2			16.6	12.5	149.9	24
		40	73.9	43.5	4.4	4.4			21.8	8.7	156.7	23
		50	90.9	9.1		9.1			9.1	9.1	127.3	11
		60	(7)						(1)			7
	0.1-27.0 ha.	10		52.2	4.3			34.8	21.8	4.3	117.4	23
		20	4.3	39.1	8.7	26.1	43.5	17.4	4.3		143.4	23
		30	28.6	33.3	23.8	28.6	28.6	38.1	14.3		195.3	21
		40	52.9	23.5	17.6	41.2	23.5	64.8	11.8		235.3	17
		50	66.7	16.6	16.6	50.0	8.3	83.3	8.3		249.7	12
		60	(4)			(4)	(1)	(3)	(1)			5
	Non-Owner	10		28.6				42.8	50.0		121.4	14
		20		33.3		25.0	50.0	33.3	8.3		149.9	12
		30		10.0	10.0	40.0	40.0	20.0	30.0		150.0	10
		40		10.0	10.0	70.0	50.0	40.0	10.0		190.0	10
		50				(3)	(2)	(1)	(1)			4
		60	(1)			(2)	(1)	(1)				3
	A l l	10		64.0	1.6			26.2	22.9	1.6	116.3	61
		20	6.8	61.0	3.4	15.3	28.8	20.4	5.1		140.8	59
		30	30.9	45.4	10.9	20.0	18.2	25.4	16.4		167.2	55
		40	52.0	30.0	10.0	30.0	18.0	40.0	10.0		190.0	50
		50	66.7	11.1	7.4	37.0	11.1	44.4	11.1		188.8	27
		60	80.0			40.0	13.3	33.3	6.7		173.3	15

For the group where size of holding was smaller in the preceding generation, the principal changes in all kinds of work with an increase in age are the decreases in the  $F_1$  and permanent agricultural work categories and increases in ownership, temporary agricultural work, and sharecropping. Before 30 years of age,  $F_1$  and permanent agricultural work are the dominant tenure categories for this group. After age 30, temporary agricultural work, ownership, and sharecropping became the dominant activities.

The group with no ownership in the preceding generation began working as temporary and permanent agricultural workers, and helping their fathers (who were non-owners). As age increases the dominant change in tenure status for this group is the increase in the proportion who are sharecroppers.

To summarize, more of the sons and sons-in-law of owners than of non-owners acquired ownership. Where size of ownership was larger in the preceding generation more of the respondents attained ownership and they attained it at an earlier age than where the size of holding in the preceding generation was smaller. Respondents from families with no ownership in the preceding generation (with one exception) did not attain ownership, but worked in the non-owner tenure categories.

The data indicate that there are different paths or ladders which are being followed by the individuals

in the three groups. The more advantaged group (larger size of ownership in the preceding generation) moves up a tenure ladder that has two principal rungs. Individuals in this group start out working at home and for their fathers-in-law, and move into ownership as they get older. Some of those where size of holding was smaller in the preceding generation follow a similar path. However, for many in this group the first rung is permanent agricultural work. More of this group work as temporary agricultural workers and sharecroppers, and a lower proportion attain ownership. The ladder for those with no ownership in the preceding generation rarely leads to landownership. The only achievement for this group is a movement from permanent and temporary agricultural work to cultivating on the shares.

The work experience of the sons and sons-in-law of larger farmers suggests that the path to ownership starts with working for father or father-in-law on the latter's land.

This suggested pursuing two questions about the steps toward ownership among those whose fathers and fathers-in-law were smaller owners.

1. Do those who start working with father and father-in-law attain ownership and those who start out as young people with employment away from home fail to do so?
2. Does the sequence of working at home (with father or father-in-law) and moving on to ownership occur principally when father and father-in-law have more land?

To examine these questions the group where ownership was smaller in the preceding generation was subclassified into two groups--those where the size of holding in the preceding generation was "medium" (12 to 27 hectares) and those where it was "small" (six hectares and less).<sup>11</sup> (See Table 42.)

The numbers are small, but they do seem to give some support to answering the questions above in the affirmative. However, the movement from working at home (F<sub>1</sub>) is not as uniform among those whose fathers and fathers-in-law had medium sized holdings as it was by those where ownership was large in the preceding generation. Among those with medium size of ownership in the preceding generation there was more participation in sharecropping, and permanent and temporary agricultural work than by those with large ownership in the preceding generation.

Among those whose fathers and fathers-in-law were small owners, there was still more participation in the sharecropper and worker tenure categories. However, there were still some in this group who achieved ownership despite not working with father or father-in-law at an early age.

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<sup>11</sup> There were no cases where the average size of father and father-in-law was between six and 12 hectares.

TABLE 42. PRINCIPAL OCCUPATIONAL-TENURE STATUS AT AGE INDICATED BY OWNERSHIP STATUS OF THE PRECEDING GENERATION, 23 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Ownership in Preceding Generation	Occupational-Tenure of Respondent at Stated Ages										
	Age	O %	F <sub>1</sub> %	F <sub>2</sub> %	S %	W <sub>p</sub> %	W <sub>t</sub> %	N %	Total % <sup>a</sup>	No.	
Mean Size of Father's and Father-In-Law's Holding	12.1-27.0 hectares	10	85.7			14.3			100.0	7	
		20	57.1		14.3	28.6			100.0	7	
		30	33.3	16.7	16.7		33.3		100.0	6	
		40	60.0		20.0		20.0		100.0	5	
		50	66.7			33.3			100.0	3	
		60	(2)							2	
Mean Size of Father's and Father-In-Law's Holding	6.0 hectares & under <sup>b</sup>	10	31.2	6.2		43.8	18.8		100.0	16	
		20	25.0	12.5		43.8	18.8		100.0	16	
		30	13.3	6.7	20.0	6.7	13.3	33.3	6.7	100.0	15
		40	16.7	8.3	8.3	8.3	16.7	33.3	8.3	100.0	12
		50	33.3	11.1		11.1	11.1	33.3		100.0	9
		60	33.3			33.3		33.3		100.0	3
		70	(1)					(1)		2	

<sup>a</sup>Some do not total 100 percent due to rounding.

<sup>b</sup>There were no cases where the average size of father and father-in-law was between six and 12 hectares.

### Comparison of Paths Followed by Younger and Older Groups

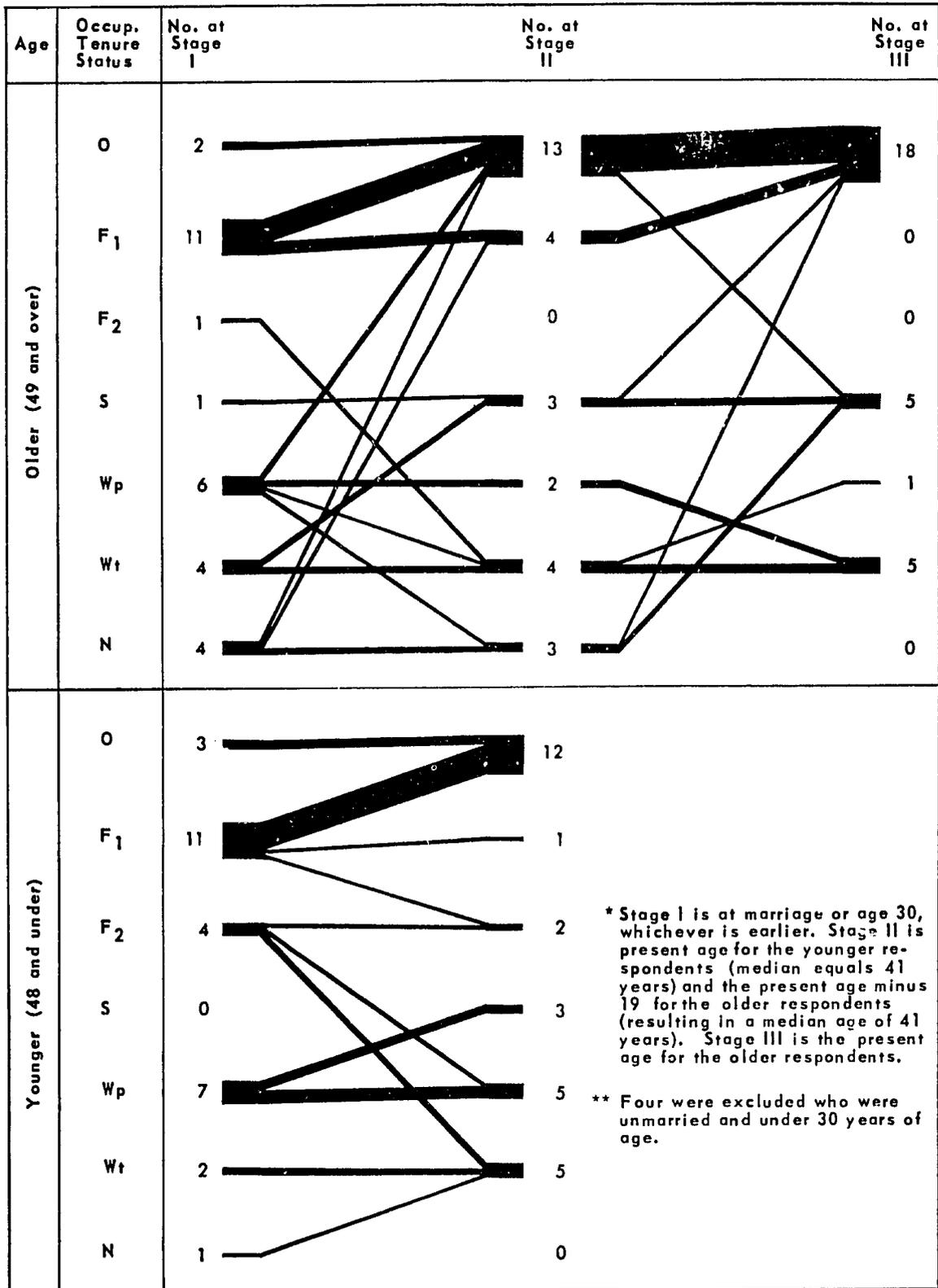
In the previous discussion the respondents of all ages were considered as a group. However, a longer record of tenure stages is available for the older respondents who started their careers at an earlier period of time than for the younger respondents who started later. Are the younger respondents following paths similar to the ones followed by those in the older group when in an earlier period?

To examine this question the respondents were divided into two age groups, as nearly equal as possible. The median age of the younger group was 41 years while that of the older group was 60 years or a difference of 19 years. This difference of 19 years was subtracted from the age of each of the older respondents. The occupational-tenure position at that age has been used to compare to the occupational-tenure position of the younger group at the time of the interview.

For purposes of discussion, marriage or age 30 will be referred to as State I, the occupational-tenure status at the time of the interview for the younger group and 19 years earlier for the older group will be called Stage II, with Stage III being the occupational-tenure status at the time of the interview for the older group.

The number of owners increased between Stage I and Stage II. (See Figure 1.) The dominant feature is the

FIGURE 1. PRINCIPAL OCCUPATIONAL-TENURE STATUS AT THREE STAGES OF LIFE \* FOR TWO AGE GROUPS, 57 RESPONDENTS, \*\* VIÇOSA, MINAS GERAIS, BRAZIL, 1966.



movement from the F<sub>1</sub> category to ownership. There were 11 respondents in the F<sub>1</sub> category in Stage I in both age groups. Nine of the younger and eight of the older respondents had achieved ownership by the time they had reached Stage II. In the younger group the only respondents to attain ownership by the time they reached Stage II were already owners or were in the F<sub>1</sub> category in Stage I. In the older group only three moved into ownership from other categories--two were permanent agricultural workers and one was a non-farm worker. In the case of the permanent agricultural workers, the father of one and the father-in-law of the other were small owners (3.1 and 2.2 hectares respectively). Both the respondents acquired ownership through inheritance. It is difficult to say whether or not the younger and older respondents have followed similar paths but it would appear, at least, that the paths have not been too different.

Figure 1 also shows the paths followed by the older group between Stages II and III. The largest movement was to the ownership category. Of the 13 respondents who were owners in Stage II, 12 continued as owners.<sup>12</sup> All

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<sup>12</sup>The one who went from the owner to the sharecropper category had moved from the permanent worker to owner category between Stage I and Stage II. This respondent sold his inheritance and purchased a smaller plot of land which did not provide his principal source of income at the time of the interview.

those (four respondents) who were in the  $F_1$  category in Stage II moved up to ownership. In addition, one sharecropper and one in non-farm work in Stage II became owners in Stage III.<sup>13</sup> There was a continued decrease in the permanent agricultural worker category with no respondent staying in it throughout the three stages. The sharecropper category increased in size from Stage I to Stage III with most of the increase coming from below (permanent or temporary agricultural worker or non-farm categories).

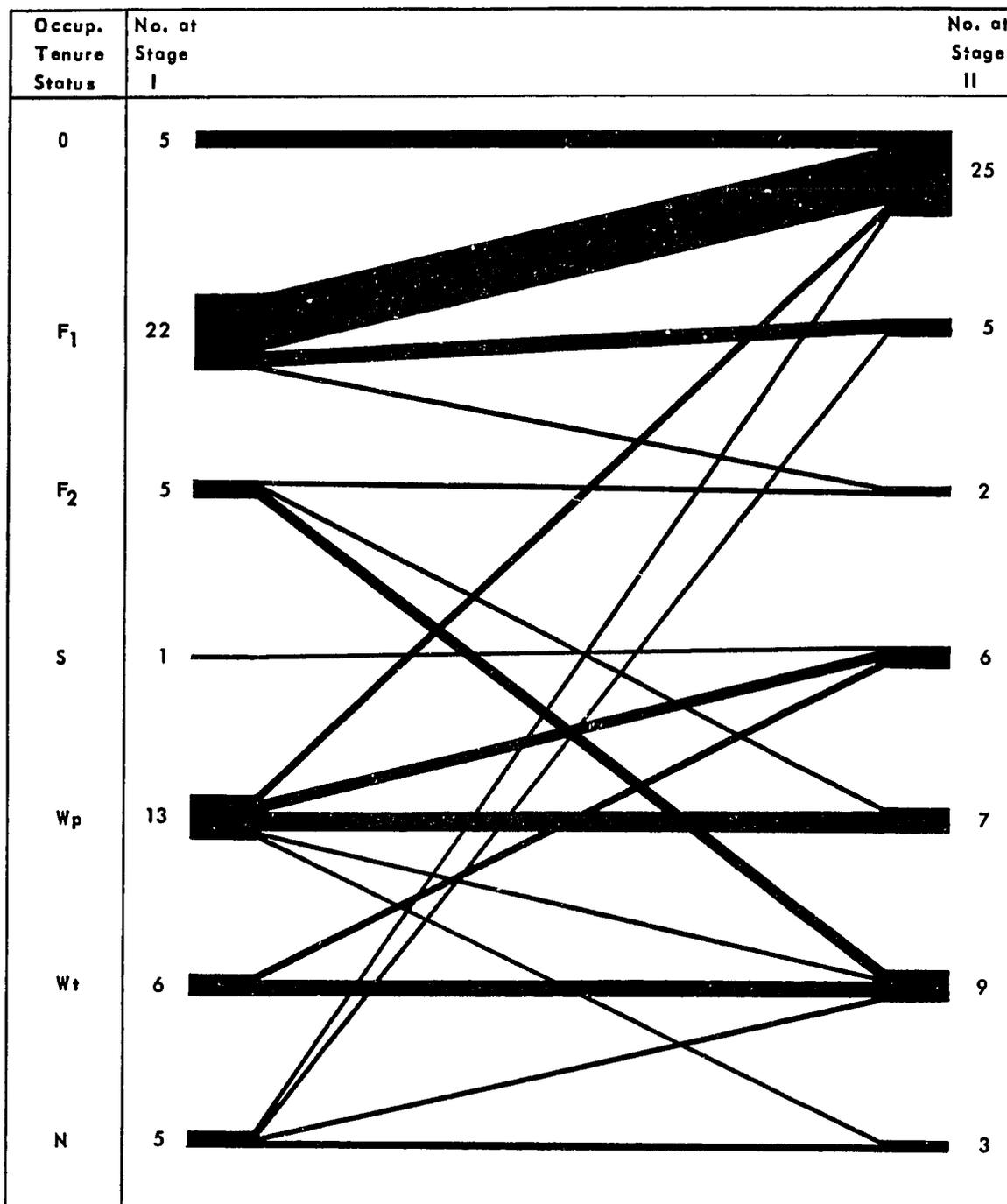
In Figure 2, the younger and older groups have been combined to show the changes between Stages I and II. The categories which increased in size are owners (five to 25), sharecroppers (one to six), and temporary agricultural workers (six to nine). The numbers in all other categories decreased.

The major portion of the increase in owners (17 out of 20) came from the  $F_1$  category with only three coming from other non-ownership categories. Of the increase of five in the sharecropper category, three came from the

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<sup>13</sup> One of these acquired a small plot of land when he married (his wife had already received her inheritance) and later purchased some additional land, in part with savings from working in Rio de Janeiro during the slack season. The other bought land with savings from the operation of a village store.

FIGURE 2. PRINCIPAL OCCUPATIONAL-TENURE STATUS AT TWO STAGES OF LIFE\*, 57 RESPONDENTS\*\*, VIÇOSA, MINAS GERAIS, BRASIL, 1966.



\* Stage I is at marriage or age 30, whichever is earlier. Stage II is present age for the younger respondents (median equals 41 years) and the present age minus 19 for the older respondents (resulting in a median age of 41 years).

\*\* Four were excluded who were unmarried and under 30 years of age.

permanent agricultural worker category and two from the temporary agricultural worker category. The temporary agricultural worker category in Stage II was made up of three from the F<sub>2</sub> category, one from the permanent agricultural worker category, four from the temporary agricultural worker category, and one from the non-farm category.

#### Ownership by Fathers and Fathers-in-Law

Land was owned by either the father or father-in-law of all but one of the 30 respondents whose principal source of income was owned land.<sup>14</sup> (See Table 43.) Both the fathers and fathers-in-law of nine of the 10 large owners, of five of the 10 medium owners, and of six of the 10 small owners were landowners. In no case were both the father and father-in-law of a permanent agricultural worker landowners. Both father and father-in-law were landowners in the case of one of the 10 temporary agricultural worker and four of the 11 sharecroppers.

In addition, the amount of land owned by the preceding generation is also related to the tenure status of the respondent. Table 43 shows the median size of

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<sup>14</sup>This one acquired ownership through purchase with savings from a village store.

TABLE 43. OWNERSHIP BY FATHER AND FATHER-IN-LAW AND PRINCIPAL OCCUPATIONAL-TENURE STATUS OF 61 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Principal Occupational-Tenure Status of Respondents	Number of Respondents	Father Owned	Father-In-Law Owned	Both Father & Father-In-Law Owned	Median Size of Holding in Preceding Generation <sup>a</sup>	Median Size of Holding of Respondents
Large Owners 37.1 ha. & over	10	9	10	9	124.0	98.9
Medium Owners 8.1-37.0 ha.	10	7	7	5	37.2	14.9
Small Owners 0.1-8.0 ha.	10	8	8	6	9.3	4.0
Sharecroppers	11	6	5	4	3.1	0
Permanent Agricultural Workers	10	2	2	0	0	0
Temporary Agricultural Workers	10	5	3	1	0	0
Total	61	37	35	25	5.0	1.5

<sup>a</sup>The size of holding in the preceding generation is the average of the land owned by father and father-in-law. For the unmarried respondents, father's size of holding was used.

holding of the fathers and fathers-in-law by the principal occupational-tenure category of the respondents.<sup>15</sup> The median size of holding in the preceding generation is positively related to present size of respondents' holdings. The median size of holdings of the fathers and fathers-in-law were lowest for the temporary and permanent agricultural workers (zero in both cases) followed by sharecroppers (3.1 hectares).

#### Age of First Acquisition

Landownership was acquired at an earlier age by those whose fathers and fathers-in-law were larger owners. The median age of first acquisition was 29 years for the group with larger size of ownership in the preceding generation. For the group whose fathers and fathers-in-law were smaller owners the median age of first acquisition was 35 years.

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<sup>15</sup> The difference in the medians is significant at the .001 level.

### Age and Size of Holding in the Preceding Generation

Table 44 shows the relationship between age of the respondents, size of holding in the preceding generation, and present size of respondents' holdings. More of the sons in the older age group (49 years and over) acquired land and they owned more hectares of land than those in the younger age group. Ownership was attained by 72.5 percent of the older and by only 38.7 percent of the younger respondents. Among those who owned land the median size of farm was 15.4 hectares for the older group and 9.4 hectares for the younger ones.

The sons and sons-in-law of larger owners had a higher percentage of ownership and owned more land than the sons of smaller owners. Among the older respondents, all the sons and sons-in-law of the larger owners had attained ownership while two-thirds of those where ownership was smaller in the preceding generation were owners. Of the five respondents with no ownership in the preceding generation, only one had attained ownership. The median hectares owned were 74.4 and 2.3 hectares respectively for the sons and sons-in-law of the larger and smaller owners.

The younger respondents showed a similar relationship when classified by size of ownership of their fathers and fathers-in-law. In this case, however, the percentages attaining ownership and the sizes of farms attained, were

TABLE 44. MEAN AND MEDIAN SIZES OF OWNERSHIP OF FATHERS AND FATHERS-IN-LAW AND OF 60 RESPONDENTS<sup>a</sup> BY TWO AGE GROUPS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Age of Respondents	Father and Father-in-Law		Respondents								
	Ownership Status	Hectares Owned		Total No.	Those who Own		Hectares Owned by Resp.				
		Mean	Median		No.	No.	%	All Resp.		Those who Own	
								Mean	Median	Mean	Median
48 Years & Under	Larger <sup>c</sup>	85.9	59.6	12	9	75.0	22.9	9.4	30.5	14.4	
	Smaller <sup>d</sup>	8.2	3.4	10	3	30.0	0.5	0	1.8	2.4	
	Non-Owner	0	0	9	0	0	0	0	0	0	
	All	35.9	13.9	31	12	38.7	9.0	0	23.3	9.4	
49 Years & Over	Larger <sup>c</sup>	126.6	86.8	12	12	100.0	66.7	74.4	66.7	74.4	
	Smaller <sup>d</sup>	7.6	4.6	12	8	66.7	3.1	1.0	4.6	2.3	
	Non-Owner	0	0	5	1 <sup>b</sup>	20.0	3.1	0	15.4	15.4	
	All	55.5	12.0	29	21	72.5	29.3	4.8	40.5	15.4	
All Ages	Larger <sup>c</sup>	106.2	86.0	24	21	87.5	44.7	29.2	51.1	37.0	
	Smaller <sup>d</sup>	7.9	4.6	22	11	50.0	1.9	0.1	3.8	2.4	
	Non-Owner	0	0	14	1	7.1	1.1	0	15.4	15.4	
	All	45.4	13.0	60	33	55.0	18.8	1.0	34.3	9.6	

<sup>a</sup>One excluded who was a son of medium owner and who was raised by a large owner.

<sup>b</sup>Operated a village store with brothers. They purchased land with savings from store.

<sup>c</sup>27.1 hectares and over.

<sup>d</sup>0.1-27.0 hectares.

smaller than the corresponding categories of older farmers.

The data can also be used to compare the amount of land owned by the present and the previous generation. For this purpose the older age group should be used because age and size of holding are related. Even using the older group of respondents the present and preceding generations are not completely comparable since the data for the present generation is for a younger group of respondents who still may acquire more land.

The average size of holding of all the older respondents was 29.3 hectares while their fathers and fathers-in-law owned an average of 55.5 hectares. Thus, owners of the present generation held farms which are about half of the size of the farms of their fathers and fathers-in-law, indicating a substantial amount of subdivision of land.

## CHAPTER V

### INHERITANCE PROCEDURES

The first part of this chapter will be devoted to a brief review of the legal framework in Brazil as it pertains to ownership of property by husband and wife, inheritance, partilha em vida,<sup>1</sup> and gifts. In the remainder of the chapter, two cases of property division will be considered.

The first is an example of how a large farm was fragmented through inheritance and how some of the heirs were able to partially reconstruct it. This was the farm of the parents of one of the respondents in this study. Considerable detail was available concerning this case because, at the time of the death of his mother, the property was divided judicially. Information concerning the division of the remainder of the property upon the death of his father was provided by the respondent. He also provided the information concerning the dispositions and acquisitions made by the other heirs as well as their occupational-tenure histories.

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<sup>1</sup>Partilha em vida is literally "division in life" and could be described as division of property prior to death with the owner specifying the parts which will go to each recipient.

The second case is one in which one of the heirs (also a respondent in this study) acquired the shares of most of the other heirs to his father-in-law's small farm which had been extremely fragmented by inheritance. This case is described in much less detail because no documents were available concerning it.

### Legal Framework

#### Ownership of Property by Husband and Wife

Immovable property, in general, is held in common between husband and wife in Brazil.<sup>2</sup> The remainder of the consideration of inheritance will proceed on the assumption of community property since no cases were found of separate or partial community property among those interviewed.

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<sup>2</sup>This is the case unless they are married with separation of property (separação de bens). There are three possible ways to be married: (a) with community property, (b) with partial community property, or (c) with separate property. See Código Civil do Brasil, Art. 256-314. The system of community property is the one most commonly used and implies the pooling of all present and future property and liabilities except those specifically mentioned in Art. 263 of the Código Civil do Brasil. In the case of partial community property, property is excluded which is owned at the time of marriage, property which is received after marriage through gift or inheritance, and property acquired with assets belonging exclusively to one of the spouses to subrogate for other property he held. In general, all other property acquired after marriage is considered common property. See Art. 269-275 of the Código Civil do Brasil for a complete description of that which is separate and that which is held in common. In the case of separate property, each party retains the rights over their property. Any marriage may (cont.)

## Inheritance

One of the important ways in which land is acquired in Brazil is through inheritance. Therefore, some of the principal aspects of Brazilian law related to inheritance will be outlined below.<sup>3</sup>

Transfer by Will. In Brazil the estate may be transferred to both legal and testamentary heirs through a will. However, if there are legal heirs, no more than one-half of the estate, after deducting debts and funeral expenses, may be disposed of by will. Those guilty of certain crimes against the one whose estate is concerned may not inherit.<sup>4</sup> Heirs may be disinherited, but only if

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<sup>2</sup>(Cont.) be with separation of property but some must be. See Art. 258 of the Código Civil do Brasil concerning this. They include the following cases: when the man is over 60 and the woman is over 50 years of age or if either person is a minor.

<sup>3</sup>See Código Civil do Brasil, Art. 1572-1805; and Código de Processo Civil e Legislação Complementar do Brasil, Art. 465-551.

<sup>4</sup>A Statement of the Laws of Brazil, revised and enlarged by Dr. José T. Nabuco and Dr. Isidoro Zanotti, Pan American Union, Washington, D. C., 1961, p. 261. "The following are excluded from succession: the heirs or beneficiaries who have been guilty as principals or accessories of the crime of wilful homicide or attempted homicide against the person whose estate is concerned; who have been guilty of making slanderous statements concerning him or have taken part in a crime against his honor; who by violence or fraud have prevented him from making a free disposition of his property, by will or codicile, or have hindered the execution of his last will and (cont.)

the reason for so doing is given in the will.<sup>5</sup>

The will is rarely used for the transfer of estates by farmers in Viçosa. In the sample taken in this study, no cases were found in which a will was used. Lawyers in Viçosa indicated that the use of wills was restricted almost exclusively to cases in which a parent desires to disinherit a child or wants to pass the legal share of the son or daughter on to the grandchildren. This might be done in a case where it is feared that the child would squander the inheritance.

Transfer without a Will. In the absence of a will the estate passes to the legal heirs according to the inheritance laws. When property is held in common the surviving

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<sup>4</sup> (Cont.) testament. The exclusion of the heir or beneficiary in any of these cases will be declared by sentence of court, in an ordinary action initiated by the person having an interest in the succession." See also Código Civil do Brasil, Art. 1595-1602.

<sup>5</sup> A Statement of the Laws of Brazil, op. cit., p. 262, "Besides the reasons already mentioned, ascendants may disinherit their descendants for the following causes: physical offenses; serious injury; indecent behavior on the part of a daughter living in her parents' house; illicit relations with a stepmother or stepfather; failure to care for the ascendant in case of mental aberration or grave illness." See also Código Civil do Brasil, Art. 1741-1745 concerning disinheritance.

spouse receives half and the remainder is divided according to the following order of succession: (a) to descendants, (b) to ascendants, (c) to the surviving spouse, (d) to collateral relatives, (e) to the state, the federal district, or the federal government.<sup>6</sup>

The Inventory. Within one month of the opening of the succession, the inventory and partition of the estate must be initiated, and it must be completed within three months. However, this length of time may be extended by the court for just cause after the property has been described. The description must be complete and clear and must include all property in the estate and its value including immovable and movable property, livestock and equipment, money, production since the opening of the succession, and all debts. In addition, an indication must be made as to whether or not there was a will, the system of property ownership between husband and wife, and the names and residences of all heirs.<sup>7</sup>

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<sup>6</sup>Código Civil do Brasil, Art. 160

<sup>7</sup>Código Civil do Brasil, Art. 465-480.

In the inventory the appraisal of the property is obligatory and is ordered by the judge.<sup>8</sup> The appraiser takes into consideration the tax assessment for the three preceding years in placing a value on the property.<sup>9</sup>

In the partition of the estate the following rules are to be observed:<sup>10</sup> (a) The utmost equality with respect to the value as well as the nature and quality of the property. (b) The prevention of future litigation. (c) The most convenience for the heirs. If possible, in the partition the location of the parts of each heir and a description of the rights to roads, water, etc. should be made. However, if this is not possible each heir receives a part in common.

Division of Property. If all heirs are of age and none want to divide the property it may remain in common. If all are of age and they wish to divide the land they may divide it amicably among themselves (partilha

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<sup>8</sup> Where the total estimated value of the estate is Cr\$200,000 (or US\$90.90 at the exchange rate of Cr\$2200/US\$1.00) or less and this value is accepted by interested parties and the representative of the Fazenda Publica (the state tax collector), the process is simplified and is called arrolamento. See Código de Processo Civil do Brasil, Art. 517-523.

<sup>9</sup> Código de Processo Civil do Brasil, Art. 481-487.

<sup>10</sup> Ibid., Art. 505.

amigável).<sup>11</sup> To do this they could request one or more people in which they all have confidence to divide it for them or they may do it themselves. After the division is made a title is prepared by a notary in which the property is described, including the boundaries, buildings, and improvements; and access to roads and water. After being signed by the owner and two witnesses, the title is registered.

However, if any of the heirs are minors, or if they cannot agree on the division and one of them requests it, the division must be judicial.<sup>12</sup> In such a case the judge designates a surveyor to measure the land, make a map, and divide the land equally in terms of quantity, quality, and access to roads and water. The meeting of these criteria for division often results in odd shaped and inconveniently located parcels of land.

In the case of property which cannot be physically divided such as a building, one of the heirs may purchase it if a price can be agreed upon. If not, one of the heirs can request that it be sold in a public sale and the proceeds divided among them.<sup>13</sup>

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<sup>11</sup> Ibid., Art. 1773.

<sup>12</sup> Ibid., Art. 1774.

<sup>13</sup> Ibid., Art. 1777.

If all the heirs are of age they usually prefer to divide the land among themselves rather than have it divided judicially because of the cost involved. A lawyer in Viçosa estimated that it would cost Cr\$300,000 (US\$136) to divide 15 hectares judicially and that it would cost only Cr\$10,000 (US\$4.50) if it were done by the heirs themselves with the aid of someone in which they all had confidence.<sup>14</sup> This same person also indicated that even if there were minors among the heirs, it was possible to delay the inventory well beyond the three months limit, if no heir objected, so that by the time of its completion all heirs would be of age.<sup>15</sup>

#### Partilha em Vida

Partilha em vida is similar to intestate inheritance except that the property is passed on to the heirs before death. As in intestate inheritance all the parts are equal. The owner divides the land, and specifies the proportion

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<sup>14</sup> Estimated by Edgard de Vasconcelos Barros, April 1966.

<sup>15</sup> He gave the example of notification of a creditor in another judicial district to come and collect. In this process the lawyer can "misplace" the letter of notification (in his briefcase, for example) and thus delay the completion of the inventory. He stated that inventories had been paralyzed for as long as 20 years with such delaying tactics.

which each heir shall receive. Each heir becomes a full owner of his portion with complete property rights. The donor may reserve some part of the property for himself or he may establish certain obligations which the recipients must meet. These may involve the payment of a sum of money, or a quantity of food or produce each year, or an agreement to care for the donor in time of sickness. If the recipients fail to meet these obligations the partilha may be revoked for all or for the ones who fail to meet their obligations. It has the advantage of allowing children to become owners at an earlier age and still providing security for the parents. It also avoids the possibility of judicial division of the property after the father's death because of disagreement among the children concerning the way the property should be divided or because of some heirs being minors.

### Gifts

Gifts may be made with or without some particular reservations or conditions. If the conditions are not met the gift may be nullified. An example of a type of restriction that is used with land is the reservation of the usufruct during the lifetime of the donor.

There are certain legal restrictions regarding gifts. The donor must retain a sufficient amount of property and/or money to maintain himself. In addition, he may not give more than he could dispose of by will (one half of

his property) with the remainder being the legitimate right of his heirs. A gift by a father to a son is considered as inheritance in advance and would be discounted from the part he would normally receive when the inheritance is divided unless a will were left.<sup>16</sup>

In the remainder of this chapter two cases of property division through inheritance will be considered. Both are cases of intestate inheritance. However, in the first case there was disagreement among the heirs and the property was divided judicially.

#### Case I

According to the Autos do Inventario e Partilha, the official documents concerning the division of this property, the proceedings were started on January 9, 1937, upon petition for the division of the property by the husband of the deceased.<sup>17</sup> The documents indicate that they had been married with community property, that they had been living together, and that she had died without leaving a will. It was further indicated that the

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<sup>16</sup> Código Civil do Brasil, Art. 1165-1187.

<sup>17</sup> The exact date of death is not available but it was probably sometime in December of 1936.

approximate value of the property was Rs.65:000\$000 (65 Contos de Reis).<sup>18</sup>

On February 16, 1937 the appraisers submitted their appraisal of the property. This included a total of about 130 alqueires (402.7 hectares)<sup>19</sup> of land, buildings, improvements, an oxcart, and three teams of oxen. The estimated value was Rs.102:950\$000 (102 Contos 950 Milreis).<sup>20</sup> This was substantially more than the original estimates of Rs .65:000\$000. Since the property was held in common, one-half of this amount was to remain with the husband of the deceased and one-half was to be divided among the children. In this case there was property valued at Rs.51:475\$000 to divide among 15 children or Rs.3:431\$666 for each.

The father was to receive the grist mill, cart, oxen, engenho,<sup>21</sup> buildings, etc. (with the exception of a small

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<sup>18</sup> Autos do Inventario e Partilha do Propriedade de Fulano e Fulana de Tal (not actual names), 18 Janeiro, 1937, on file in the office of the notary, Geraldo Faria, Viçosa, Minas Gerais, Brazil, p. 2.

<sup>19</sup> One alqueire equals 3.0976 hectares in the município of Viçosa.

<sup>20</sup> Autos do Inventario e Partilha, pp. 12-13.

<sup>21</sup> An engenho is a sugar mill and in this case includes the cane crusher and facilities for making crude sugar called rapadura.

house which was to go to a daughter and her husband) valued at Rs.11:750\$000. He was also to receive 56.75 alqueires (175.8 hectares) valued at Rs.39:750\$000 (700\$000 per alqueire).<sup>22</sup>

Mention was made of two pieces of land adjoining, but in two different districts of the município: one of 50 alqueires or 154.9 hectares in the place known as Grama (in the district of the city) and another of 80 alqueires or 247.8 hectares in the place known as Agua Limpa (in the district of São Miguel). The father was to receive the 50 alqueires plus 6.75 alqueires out of the 80 alqueires or a total of 175.8 hectares, with the children receiving the remainder. The improvements mentioned above were located on the 6.75 alqueires. These were two distinct pieces within the same farm.<sup>23</sup> The result of this would have been to keep most (all but the 6.75 alqueires) of the father's land as a contiguous unit. However, it is not clear if the reason the partilha was stated in this way was to benefit the father, if it was merely to place most

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<sup>22</sup> Autos do Inventario e Partilha, pp. 23-35.

<sup>23</sup> However, the description of the other property with which these pieces border is identical for the two and the old district boundary was not available. Therefore, the exact boundaries of the two pieces of land could not be placed on Map 2.

of his land in the same district, or if it were for some other reason.

The children were each to receive property valued at Rs.3:431\$666. This was calculated as a right to 4.9 alqueires or 15.19 hectares (valued at 700\$000 per alqueire) each for all but the one who was to receive the house. This latter was to receive 4.66 alqueires (14.43 hectares) of land valued at Rs.3:231\$666 and a small house valued at Rs.200\$000. This was a total of 73.25 alqueires (226.9 hectares) of land plus the small house having a total value of Rs.51:475\$000 that were to go to the 15 children.

It should be mentioned again that the inventory and partilha do not involve division of land but only the evaluation of the property and the specification of the value and amount of land and other property to go to each heir. It seems that the one who was to receive a house and a somewhat smaller amount of land was already occupying this house and had requested it.

However, it appears that the heirs could not agree among themselves concerning the division of the property. On December 2, 1937, the lawyer for the father and one of the sons presented the following petition to the judge: "They do not agree to continue in the present state of common ownership and desire a division and demarcation of their parts in a complementary act to the partilha to be carried out with practical appraisers only . . . ." <sup>24</sup>

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<sup>24</sup> Autos do Inventario e Partilha, p. 40

In the same petition it was requested that two of the heirs and one person who was purchasing from one of these heirs be notified and requested to appear before the judge to consider this matter. In addition, the mental incapacity of one of the heirs was noted and the judge was requested to appoint a curator to look after her interests.<sup>25</sup>

On December 14, 1937 the parties (the heirs and the purchaser and their lawyers--there were three of the latter) met and brought their petition before the judge. The father and 13 of the children requested that a summary process be accepted and that the land be divided by a surveyor and arbitrators or only by the latter if the summary form were approved. The purchaser approved the summary form but insisted on a surveyor and this was agreed to by the two remaining heirs (one of whom was the seller). Then from a number of suggestions a surveyor and arbitrators were agreed upon by the parties concerned and were appointed by the judge.<sup>26</sup>

The property was surveyed and a map was made of it. Then the arbitrators, along with the interested parties decided how it should be divided. The property was finally divided on January 21, 1938. This was approximately 13 months after the death of the wife.

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<sup>25</sup> Ibid., p. 41.

<sup>26</sup> Ibid., pp. 45-47.

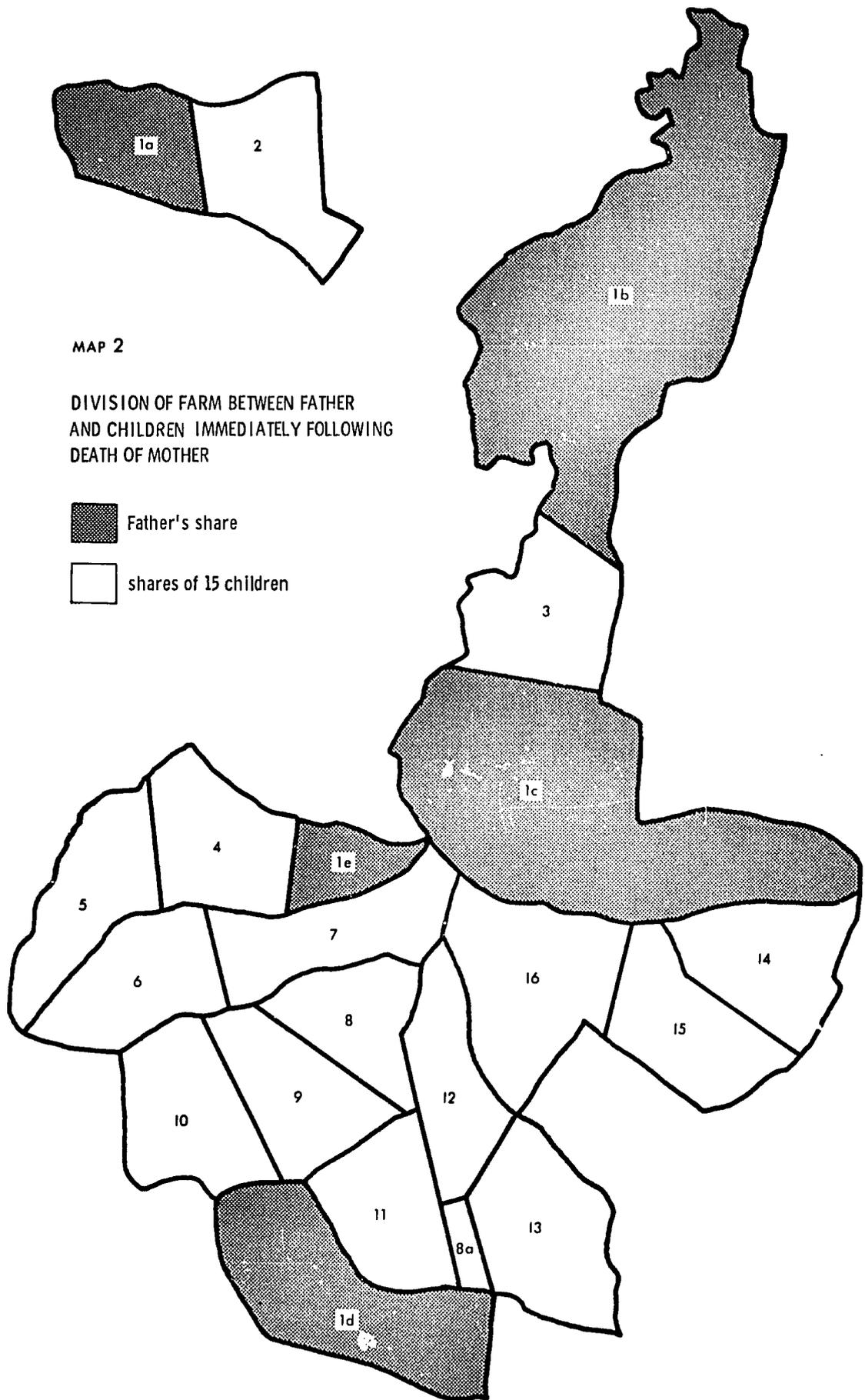
In the division, the part of each individual was described in terms of natural boundaries, the other properties which it joined, direction and degrees of straight lines not following natural boundaries, the improvements which were included, and access to roads, water, etc.

In the final division of the property the total amount of land in the farm was calculated as 413.58 hectares with a total value of Rs.105:138\$400 (Rs.93:388\$400 for the land and one house and Rs.11:750\$000 for buildings, engenho, grist mills, oxcart and oxen, etc.).<sup>27</sup> The only change in total property was an increase in the total amount of land of 10.89 hectares.

The shares which were to go to each of the heirs are shown on Map 2. In the division the father received property equal to half the total value--180.55 hectares of land valued at Rs.40:769\$400 and Rs.11:750\$000 in other property. The parts going to the father are labeled 1-a to 1-e. However, the 180.55 hectares does not include part 1-e, an amount of 4.65 hectares, which was sold by the father to a non-relative (NR-2) at the time of the division because there was somewhat more land than could be easily

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<sup>27</sup> The value apparently was determined by converting hectares to alqueires using 3.1 (rather than 3.0976) hectares per alqueire and the same value per alqueire of 700\$000 as was used in the initial appraisal.



divided evenly. Half the proceeds from this sale was divided among the 15 children and half was retained by the father. It also does not include 15.59 hectares which the father purchased from a non-farming son (Number 16) at the time of the division and which was sold immediately to another son (Number 15).

The shares of the children are numbered from 2 to 16 on Map 2. On one of the shares there was a house, a grist mill, and an area planted to coffee which belonged to an heir other than the one who inherited the land. The former heir had quit farming. The latter was required to reimburse the owner for the coffee and the improvements. Another part received by an unmarried daughter was planted to coffee which belonged to her father.<sup>28</sup> With one exception all the children received shares of equal size (15.59 hectares). The exception (Number 13) received somewhat

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<sup>28</sup> The reason for a daughter receiving land on which the father retained the right to the coffee trees is unclear. The implication is that these coffee trees belonged to the father alone and were not part of the property held jointly by him and his wife. One possibility is that these coffee trees were planted after the wife's death on land which he thought he would receive but which the daughter received in the final division. Another possibility is that, although all the land was appraised at an equal value per alqueire, it was not in fact equal with the father receiving land of a lower value. Therefore, to adjust for such inequalities, the father received the right to the use of the coffee trees. However, in one case a house and a smaller amount of land was received as the share of the inheritance. There would appear to be no reason why the coffee trees could not have been handled in the same manner as the house unless this would have created severe problems for physical division of the land.

less land (14.81 hectares) and a house which together had a value equal to that of the other shares (Rs.3:519\$600).

Before the division was completed, heir 13 sold his entire share to NR-1 and heir 8 sold part 8-a (3.1 hectares) to the same non-relative.<sup>29</sup> Immediately after the division, heir 8 sold the remainder of his share and four other heirs sold their entire shares, making a total of six of the children who sold their first inheritance immediately. Four of the six had been engaged in non-farm work since the time of marriage. The other two had cultivated land on this farm immediately after marriage but never farmed the land after they inherited it. Either they had

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<sup>29</sup> In the division of the property the purchaser's name and not that of the latter heir appears. It is indicated that he purchased 14.8142 hectares from one heir and one alqueire (3.0976 hectares) from another heir and would receive 17.9118 hectares in total having a value of Rs.4:046\$600. There is a discrepancy in the value placed on the property purchased by NR-1 (Rs.4:046\$600) and that of one full share plus the amount by which the value of the share of number 8 was reduced (Rs.3:519\$600 plus 700\$000 equals Rs.4:219\$600). The amount of Rs.4:046\$600 is, in fact, just slightly greater (2\$000) than the value of 17.9118 hectares (5.778 alqueires) at 700\$000 per alqueire. The most likely explanation for this would seem to be that the house, although apparently included in the sale since a house is mentioned in the description of the property, was not added to the value of the land. Another reason for believing that the house was also sold is that the registration of the sale indicated that a house was included and gave the sale price as Rs.3:500\$000. This problem did not become apparent until after leaving Brazil and so it has not been possible to check further into the reason for this discrepancy.

already stopped farming by the time they received the first inheritance or quit farming at that time. Three sold their first inheritance later (between 1938 and 1961). Two of these had been engaged in non-farm work since 1938 while the other had been farming the land and sold it to pay debts. (See Table 45.)

To summarize, nine of the 14 children<sup>30</sup> sold their first inheritance with six of these selling immediately. Only one of the nine was farming the land himself at the time it was sold while the principal activity of the remaining eight was non-farm work.

The father acquired and sold some additional land during his lifetime. The daughter who was insane died and her share of 15.59 hectares (Number 6 on Map 2) went to her father (since she was unmarried) and he sold it to a son (Number 15).

Upon his death in 1954 there should have been 154.15 hectares to divide among 14 heirs or 11.01 hectares each. However, according to the respondent, the shares, when the father's land was divided, were only three alqueires (or 9.27 hectares) in size. The most likely explanation for this would seem to be that the actual size of the shares was 11.01 hectares and that the respondent was merely

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<sup>30</sup>The insane daughter was excluded.

TABLE 45. DISPOSITION AND PRESENT OWNERSHIP OF LAND WITHIN CASE I FARM, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Father and Children <sup>a</sup>	Sex	Year of Marriage	Principal Work (Son & Son-in-law)		Inherited from		Sales						Total Owned Ha.	
			at Marriage	Present	Mother in 1938	Father in 1954	To Heirs			To Non-Heirs				
							ID	Yr.	Ha.	ID	Yr.	Ha.		
R-1 (Father)	M				185.2 <sup>b</sup>			R-15 38 15.6			NR-2 38 4.6			
								R-15 51 15.6			NR-8 <sup>c</sup> ? 10.8			
											NR-7 <sup>c</sup> ? 15.6			
R-2	M	Before 1938	Z	N	15.6	11.0								26.6
R-3	M	1938	O	O	15.6	11.0								58.7
R-4	F	After 1938	O	N	15.6	11.0					NR-4 54 11.0			15.6
R-5	F	After 1938	N	N	15.6	11.0					NR-2 <sup>c</sup> 38 15.6			
											NR-5 54 11.0			
R-6	F				15.6			R-1 51 15.6 <sup>d</sup>						
R-7	F	Before 1938	A	O	15.6	11.0		R-3 46 15.6						11.0
R-8	F	Before 1938	A	N	15.6	11.0					NR-1 38 3.1			
											NR-9 <sup>c</sup> 38 12.5			
											NR-3 54 11.0			

TABLE 45. (Cont.)

Father and Children	Sex	Year of Marriage	Principal Work Son & Son-in-law		Inherited from		Sales						Total Owned Ha.
			at Marriage	Pre-sent	Mother in 1938	Father in 1954	To Heirs			To Non-Heirs			
							ID	Yr.	Ha.	ID	Yr.	Ha.	
R-9	F	Before 1938	N	N	15.6	11.0	R-3	58	11.0	NR-6 <sup>C</sup>	38	15.6	
R-10	F	Before 1938	A	N	15.6	11.0				NR-6 <sup>C</sup>	38	15.6	
										NR-5	54	11.0	
R-11	M	Before 1938	N	N	15.6	11.0				NR-6	60	15.6	
										NR-3	54	11.0	
R-12	F	Before 1938	N	N	15.6	11.0				NR-6	61	15.6	
										NR-4	54	11.0	
R-13	F	Before 1938	N	N	14.8 <sup>e</sup>	11.0	R-14	54	11.0	NR-1	38	14.8	
R-14	M	After 1938	O	O	15.6	11.0							37.6
R-15	M	Before 1938	Z	O	15.6	11.0	R-3	61	5.5				52.3
R-16	M	Before 1938	N	N	15.6	11.0	R-1	38	15.6	NR-3	54	11.0	

TABLE 45. (Cont.)

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<sup>a</sup>Number R-1 is father and R-2 through R-16 are the children.

<sup>b</sup>Includes 4.6 hectares which were sold to facilitate the division.

<sup>c</sup>This is the present owner. The land was not sold directly to him.

<sup>d</sup>Inherited by father from an unmarried daughter who died before he did.

<sup>e</sup>This share was smaller because a house was included with it.

Symbols used in this table:

A -- Using father-in-law's land without giving a share of the crop.

Z -- Using father's land without giving a share of the crop.

N -- Non-farm work.

O -- Owner-operator.

R -- Relative.

NR - Non-relative.

speaking in "round figures" when he gave the amount as three alqueires.<sup>31</sup> The larger amount of 11.01 hectares has been used here as the correct amount.

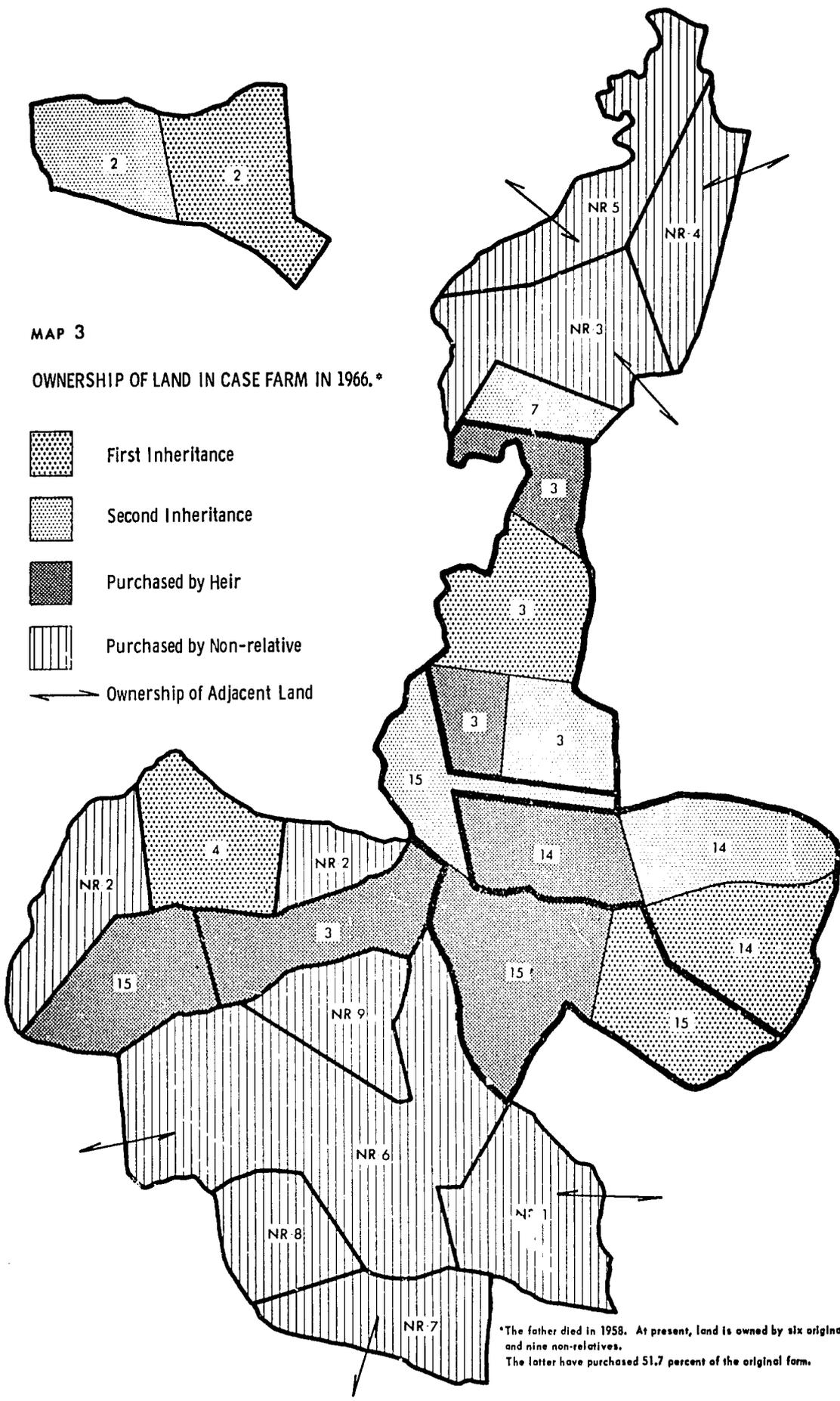
Of the 14 children who received a second inheritance in 1954, eight sold immediately and one sold in 1958. Except for one heir these were the same nine that sold their first inheritance. The one who sold his first inheritance to pay debts (Number 7) did not sell his second inheritance while one (Number 4) went into non-farm work, selling his second inheritance but still retaining the first.<sup>32</sup> (See Table 45.)

At the present time the land which once made up this farm is owned by 15 individuals--six of them are heirs and nine are neither heirs nor relatives. (See Map 3.) The six heirs own a total of 201.8 hectares. Three of the six have purchased from coheirs and now own 58.7, 52.3, and 37.6 hectares respectively. One of the heirs owns both the inheritance from his mother and father and has 26.6 hectares. The remaining two have each sold one of the inheritances. The nine non-relatives hold 216.4 hectares of the original farm. The heirs only own land which was part of

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<sup>31</sup>Other possible explanations are: (a) the survey at the time of the mother's death was in error or (b) it was correct but was not referred to when the land was divided among themselves and the smaller size was used to obtain a lower tax assessment.

<sup>32</sup>In addition, heir 15 sold a part (about half) of his second inheritance to heir 3 to help the latter link up his property.



MAP 3  
OWNERSHIP OF LAND IN CASE FARM IN 1966. \*

-  First Inheritance
-  Second Inheritance
-  Purchased by Heir
-  Purchased by Non-relative
-  Ownership of Adjacent Land

\*The father died in 1958. At present, land is owned by six original heirs and nine non-relatives. The latter have purchased 51.7 percent of the original farm.

the original farm (and those heirs who sold their shares do not own agricultural property elsewhere). However, seven of the nine non-relatives own additional agricultural land. Six of the seven own adjoining property and the other (NR-8) owns property which is nearby.

One of the heirs (Number 3) was interviewed in this study and therefore more complete occupational-tenure information is available for him. His occupational-tenure history will be briefly described below.

The respondent worked for his family on the home farm until he married in 1938 at the age of 33. He received land through inheritance in January of 1938 and thus he began his married life as the owner of 15.6 hectares. On this land he cultivated about 7.5 hectares of coffee, three hectares of corn (with beans), and 1.5 hectares of sugar cane. For 13 years (until 1951) he also carted for others, using his own oxen and cart. In that year he installed an engenho and stopped carting because he had more land and no longer had time for such outside activity.

At the present time he cultivates about 6.2 hectares of sugar cane, 3.1 hectares of coffee, 3.1 hectares of corn (with beans), 2.3 hectares of rice, one hectare of manioc, and a half hectare of orchard and garden.

In 1946, he purchased 15.6 hectares from his sister and brother-in-law. This land was an inheritance from her mother, and was sold because they needed the money.

He paid for the land in cash obtained from the sale of coffee.

In 1950, the respondent purchased 9.3 hectares from a non-relative. This was the entire amount owned by the seller and was sold because it was good only for pasture and his neighbors were "using" it. The respondent purchased it to use for pasture although it was four kilometers from the farmstead. He bought it with cash from the sale of coffee and rapadura. In 1961, he sold it to a non-relative so that he could purchase land closer to the farmstead.

In 1952, he inherited 4.6 hectares when his father-in-law died. This was sold to another heir because it was small and too far from the rest of the farm (seven kilometers).

In 1958, he inherited 11 hectares from his father. This land adjoined his other land. At the same time he purchased the share of a sister and brother-in-law (11 hectares) who sold because they were not working in agriculture. Two-thirds of the total amount of money required to make the purchase was borrowed from a neighbor for a period of one year. Repayment of the loan was made from the sale of coffee and rapadura.

In 1961, the respondent purchased 5.5 hectares from a brother. This land was purchased to link up the existing holdings. Payment was made in cash from the proceeds of the sale of other land. He now owns a total of 58.7 hectares.

## Case II

This is a case of a man whose father had no land. (The father inherited 10.8 hectares of land but sold it to pay off debts and became a sharecropper.) As a boy this respondent worked for four years candiando boi.<sup>33</sup> This was followed by 11 years of temporary agricultural work, interrupted by one year of military service in Rio de Janeiro. The respondent married at the age of 25 and worked as a carpenter for seven years. During this time he saved enough money to buy a small general store which he operated for 16 years, and at the same time he cultivated 5.4 hectares of coffee and 2.3 hectares of corn (with beans) on the shares on land belonging to two different individuals. Because he thought he could not continue both, and because agriculture seemed to be returning more, he decided to quit operating the store. Two years prior to this the respondent inherited 1.25 hectares from his father-in-law.

In this case the land was in a very confused state of ownership. The land had been held in common by the

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<sup>33</sup> Guiding or leading the oxen.

respondent's father-in-law and the father-in-law's brothers and sisters after the death of their mother in 1932. No attempt was made to divide the land in 1938 when the respondent's mother-in-law died because of the complicated state of affairs.

There was a total of 25.25 hectares for the father-in-law and his four brothers and sisters, or 5.05 hectares each. However, one sister and her husband had both died leaving nine heirs who each had a share of  $5.05/9$  or 0.56 hectare. In addition, the respondent's father-in-law had purchased the share of one of his brothers and the father-in-law's part of 10.1 hectares was to be divided among eight heirs or a share of 1.26 hectares each.

In Table 46 the land held in common by the father-in-law and his brothers and sisters and its disposition when the father-in-law died in 1942 is shown.

The respondent stated that he really did not want to buy the land because he did not think he could afford it. However, he finally decided that it was the only way to straighten up the situation since the land was all in common ownership. Since he was able to borrow the money from a neighbor to purchase the land and pay the expenses of the division he decided to buy it.

TABLE 46. FRAGMENTATION AND RECOMBINATION OF PROPERTY  
IN CASE II FARM, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Heir	Share (Ha.)	Disposition
1	10.1 for eight heirs	Respondent inherited 1/8 through wife and purchased shares of three others.
2	5.05	Sold to respondents.
3	5.05	Retained.
4	5.05 for nine heirs	All nine sold to respondent.
5	5.05	Sold to heir No. 1 earlier

This is an example of fairly severe fragmentation of a piece of property through inheritance. Through purchase of the shares of some of the heirs, the respondent was able to partially recombine the property to maintain an economic unit. He recombined three-fifths of the property while the remaining two-fifths was retained by five heirs (one-fifth was retained by one heir and one-fifth by four heirs).

CHAPTER VI  
ACQUISITION OF LAND OWNERSHIP

Land may be acquired in several ways or combinations of ways--inheritance, partilha em vida<sup>1</sup>, gift, or purchase. The inheritance may be with or without a will and may come from parents, in-laws, or other relatives.<sup>2</sup> The partilha em vida and the gift may carry with them certain restrictions or obligations on the part of the recipient. The purchase, of course, may be from a relative or non-relative, may be with cash or credit, and the credit may or may not be supplied by the seller.

Partilha em vida and gifts were classified as inheritance. Partilha em vida was placed in the inheritance category because it is inheritance in advance of death. Gifts were included as inheritance because in the sample all the gifts were to heirs and seemed to be very similar to inheritance in advance. Purchase was subdivided into

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<sup>1</sup>Partilha em vida is literally "division in life" and could be described as division of property prior to death with the owner specifying the parts which will go to each recipient.

<sup>2</sup>Only intestate inheritance from parents of the respondents and their wives was encountered in the sample.

three groups according to the type of seller--coheir, other relative, and non-relative. The coheir category consists of brothers, sisters, brothers-in-law, and sisters-in-law.<sup>3</sup>

#### Source of First Acquisition

The first acquisition of more than half the respondents who attained large or medium size of ownership was through purchase, gift, or partilha em vida and thus was the result of some conscious action on the part of the respondent, his father, or his father-in-law. (See Table 47.) The first acquisition of most (15 out of 18) of the small owners was from intestate inheritance.

#### Number of Parcels Acquired

A total of 144 acquisitions were made by the 40 respondents who acquired land. The number of acquisitions was positively related to the size of holding attained. Two-thirds of the respondents in the small size group

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<sup>3</sup>None of the respondents had purchased from their own or their wives' parents. There was one case in which a father purchased a small piece of land from his daughter. This was land she had inherited when her mother died and was classified as a purchase from a coheir.

TABLE 47. SOURCE OF FIRST ACQUISITION OF LAND BY  
 MAXIMUM SIZE OF HOLDING OF 40 RESPONDENTS,  
 VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding of the Respondents	Source of First Acquisition		
	Intestate Inheritance	Gift, Partilha em Vida and Purchase	Total
Large Owners 37.1 ha. and over	5	6	11
Medium Owners 8.1-37.0 hectares	4	7	11
Small Owners 0.1-8.0 hectares	15	3	18
All	24	16	40

made only one acquisition and the remainder made only two or three. Over half (54.5 percent) of those in the middle size group made two or three acquisitions. In the large size group, 81 percent made six or more acquisitions.<sup>4</sup> (See Table 48.)

<sup>4</sup>The chi-square value is significant at the .001 level.

TABLE 48. NUMBER OF ACQUISITIONS BY MAXIMUM SIZE OF HOLDING OF 40 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size Attained by Respondents	Number of Acquisitions							
	1		1 - 3 <sup>e</sup>		6 or More		Total	
	No.	%	No.	%	No.	%	No.	%
Large Owners 37.1 ha. and over	1 <sup>a</sup>	9.1	1	9.1	9	81.8	11	100.0
Medium Owners 8.1-37.0 ha.	3 <sup>b</sup>	27.3	6	54.5	2	18.2	11	100.0
Small Owners 0.1-8.0 ha.	12 <sup>c</sup>	66.7	6 <sup>d</sup>	33.3	0	0	18	100.0
Total	16	40.0	13	32.5	11	27.5	40	100.0

<sup>a</sup>No longer an owner.

<sup>b</sup>One of the three is no longer an owner.

<sup>c</sup>Six of the 12 do not depend upon owned land as the principal source of their income. Four of the six are no longer owners.

<sup>d</sup>Two of the six do not depend upon owned land as the principal source of their income. Both sold and bought smaller plots.

<sup>e</sup>There were no cases with four or five acquisitions.

### Relative Importance of Inheritance and Purchase

Of the 40 respondents who acquired landownership, 17 inherited only (including gift and partilhas em vida), three purchased only and 20 inherited and purchased. Acquisition through inheritance only is negatively related to size of holding with only 9.1 percent of the large owners acquiring in this way compared to 72.3 percent of the small owners. (See Table 49.) Both inheritance and purchase were used by 90.9 percent of the large owners compared to only 22.2 percent of the small owners.

With respect to the number of parcels acquired, inheritance, including partilha em vida and gifts, accounted for less than half (43.1 percent) of the total. However, a lower proportion of the acquisitions of the respondents in the medium and large size groups were obtained through inheritance. (See Table 50.) About one-third of the acquisitions of both these two groups were acquired through inheritance while two-thirds were acquired through purchase. However, the small size group (0.1-8.0 hectares) acquired over three-fourths of its acquisitions through inheritance and only one-fourth through purchase. The chi-square value is significant at the .001 level.

TABLE 49. MEANS OF ACQUISITIONS BY MAXIMUM SIZE OF HOLDING OF 40 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding of the Res- pondent	Means of Acquisition							
	Inheritance		Purchase		Both Inheritance and Purchase		Total	
	No.	%	No.	%	No.	%	No.	%
Large Owners 37.1 and over	1	9.1	0	0	10	90.9	11	100.0
Medium Owners 8.1-37.0 hectares	3	27.3	2	18.2	6	54.5	11	100.0
Small Owners 0.1-8.0 hectares	13	72.3	1	5.5	4	22.2	18	100.0
All	17	42.5	3	7.5	20	50.0	40	100.0

Table 51 shows inheritance and purchases of land in terms of hectares by present size of holding. As present size of holding decreases, the percentage of hectares acquired through inheritance increases from 30.4 percent for the large owners to 78.2 percent for the small owners. From the point of view of area of land acquired rather than number of transactions, the similarity between the large and medium owners disappears. In terms of hectares

TABLE 50. INHERITANCE AND PURCHASE IN TERMS OF NUMBER OF ACQUISITIONS BY MAXIMUM SIZE OF HOLDING OF 40 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	Inheritance		Purchase		Total	
	No.	%	No.	%	No.	%
Large Owners 37.1 ha. & over	26	35.6	47	64.4	73	100.0
Medium Owners 8.1-37.0 ha.	15	34.9	28	65.1	43	100.0
Small Owners 0.1-8.0 ha.	21	75.0	7	25.0	28	100.0
All	62	43.1	82	56.9	144	100.0

TABLE 51. INHERITANCE AND PURCHASE OF LAND IN TERMS OF HECTARES BY MAXIMUM SIZE OF HOLDING OF 40 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	Inheritance		Purchase		Total	
	Ha.	%	Ha.	%	Ha.	%
Large Owners 37.1 ha. and over	433.6	30.4	992.8	69.6	1426.4	100.0
Medium Owners 8.1-37.0 ha.	111.0	52.9	99.0	47.1	210.0	100.0
Small Owners 0.1-8.0 ha.	43.7	78.2	12.2	21.8	55.9	100.0
All	588.3	34.8	1104.0	65.2	1692.3	100.0

acquired the medium owners acquired about the same amount through inheritance and purchase (52.9 and 47.1 percent respectively).

#### Size of Acquisition Inherited and Purchased

Table 52 shows the mean and median sizes of acquisition by source for the respondents in the sample. The range in size of acquisition was very wide (0.1 hectare to 55.6 hectares) and, except in the case of partilha em vida and gifts, the mean was above the median size, indicating a higher proportion of smaller acquisitions in these cases. The median values for acquisition through gift and inheritance were highest, followed by purchase from non-relatives, purchase from other relatives, purchase from coheirs, and intestate inheritance. It should be noted that the cases of acquisition through gift and partilha em vida were small in number--six and seven respectively. However, these results seem reasonable. It is more likely that the fathers and fathers-in-law who were larger owners had the ability in terms of knowledge and experience and were economically able to give up all or part of their land through partilha em vida and gift before their death. The size of the gifts and partilhas is likely to be larger merely because the father or father-in-law had more land.

TABLE 52. MEAN AND MEDIAN SIZES AND SOURCES OF 144 ACQUISITIONS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Source of Acquisition Mean and Median Size	I n h e r i t a n c e									P u r c h a s e			TOTAL		
	Intestate			Partilha			Gift			Total	Coheir	Other Relative		Non-Relative	
	Father	Father-In-Law	Both	Father	Father-In-Law	Both	Father	Father-In-Law	Both						
Number	23	26	49	5	2	7	3	3	6	62	39	9	34	82	144
Mean (Ha.)	5.6	8.3	7.0	18.3	11.7	16.4	34.0	9.2	21.6	9.5	5.6	15.9	21.8	13.5	11.8
Median (Ha.)	3.7	4.6	4.6	24.7	11.7	16.4	36.4	12.4	13.0	4.7	2.8	10.8	12.4	6.8	6.2

Both the mean and median sizes of all purchase were above those of all inheritance (including intestate, gifts, and partilha em vida. (See Table 52.) This is the case because of the relatively small number of the larger gifts and partilhas em vida. The difference between the means of the inheritances and purchases was significant between the .05 and .10 level.

### Inheritance

In this section the sources of land acquired through inheritance will be considered further. In Table 53, the father and father-in-law categories have been combined as well as the partilha em vida and gift categories. In terms of total acquisitions through inheritance, 79 percent were through intestate inheritance and 21 percent through gifts and partilha em vida. In terms of hectares acquired, the percentages were 58 and 42 respectively, indicating that the average size of the gifts and partilhas was larger than that of the acquisitions through intestate inheritance.

The percentage of acquisitions through intestate inheritance increased from 69 percent in the large size group to 80 percent for the medium size group and to 90 percent for the small size group. However, the chi-square value is not significant at the .10 level. In terms of the total hectares acquired through inheritance,

TABLE 53. NUMBER OF ACQUISITIONS AND HECTARES ACQUIRED THROUGH INTESTATE INHERITANCE, AND PARTILHA EM VIDA AND GIFT BY MAXIMUM SIZE OF HOLDING ATTAINED BY 37 RESPONDENTS,<sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	Intestate		Partilha em Vida & Gift		Total		Total Resp. No.
	No.	%	No.	%	No.	% <sup>b</sup>	
Large Owners 37.1 ha. and over	No.	18 69.3	8 30.8		26 100.0		11
	Ha.	242.2 55.9	191.4 44.1		433.6 100.0		
Medium Owners 8.1- 37.0 ha.	No.	12 80.0	3 20.0		15 100.0		9
	Ha.	60.4 54.4	50.6 45.6		111.0 100.0		
Small Owners 0.1- 8.0 ha.	No.	19 90.5	2 9.6		21 100.0		17
	Ha.	41.0 94.0	2.6 6.0		43.6 100.0		
All	No.	49 79.0	13 21.0		62 100.0		37
	Ha.	343.6 58.4	244.6 41.6		588.2 100.0		

<sup>a</sup> Three of the 40 respondents purchased only.

<sup>b</sup> Some do not total 100.0 due to rounding.

the large and the medium size groups were very similar, acquiring 56 and 54 percent respectively through intestate inheritance. The small size group, however, acquired 94 percent of the inherited land in this manner and only six percent through gifts and partilha em vida.

The number of acquisitions was equally divided between fathers and fathers-in-law. (See Table 54.) However, slightly over half (55 percent) of the land was acquired from fathers. This relationship was approximately constant regardless of the respondents' size of holding.

TABLE 54. SOURCES OF INHERITANCE<sup>a</sup> AND MAXIMUM SIZE OF HOLDING OF 37 RESPONDENTS IN VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	Sources of Inheritance						Total Resp.	
	Father		Father-In-Law		Total			
	No.	%	No.	%	No.	%	No.	
Large Owners 37.1 ha. & over	No.	14	53.8	12	46.2	26	100.0	11
	Ha.	230.0	53.0	203.6	47.0	433.6	100.0	
Medium Owners 8.1-37.0 hectares	No.	7	46.7	8	53.3	15	100.0	9
	Ha.	66.7	60.0	44.4	40.0	111.1	100.0	
Small Owners 0.1-8.0 hectares	No.	10	47.6	11	52.4	21	100.0	17
	Ha.	24.9	57.2	18.7	42.8	43.6	100.0	
Total	No.	31	50.0	31	50.0	62	100.0	37
	Ha.	321.6	54.7	266.7	45.3	588.3	100.0	

<sup>a</sup>Includes intestate inheritance, gifts and partilha em vida.

### Purchase

As previously noted, purchase accounted for 57 percent of the acquisitions and 65 percent of the land acquired by the 40 respondents who had owned land. Of these, slightly over half (23 respondents) had acquired part or all of their land through purchase. However, only three had acquired through purchase alone, with 20 reporting both inheritance and purchase.

Of the total purchases, nearly half (47.6 percent) were from coheirs, 41.5 percent were from non-relatives, and 11 percent were from other relatives. (See Table 55.) However, about two-thirds of the land was purchased from non-relatives, 20 percent from coheir, and 13 percent from other relatives indicating that the purchases from coheirs were considerably smaller than those from non-relatives.

The small size group (0.1-8.0 hectares) made only seven purchases for a total of 12.2 hectares. Therefore this group was combined with the medium size group (8.1-37.0 hectares) in Table 55. In this table a difference with respect to the relative importance of different sources of land can be seen for the two size groups. The larger size group made over half of its purchases (55.3 percent) accounting for over two-thirds (69.6 percent) of its purchased land from non-relatives. The smaller size group acquired nearly two-thirds (65.7 percent) of its acquisitions from coheirs. However, this only accounted

TABLE 55. SOURCE OF PURCHASED LAND IN TERMS OF NUMBER OF ACQUISITIONS AND HECTARES BY MAXIMUM SIZE OF HOLDING ATTAINED BY 23 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.	Trans. & Ha.	Source of Purchase							
			Coheir		Other Relative		Non- Relative		Total	
			No.	%	No.	%	No.	%	No.	% <sup>a</sup>
Larger Owners 37.1 ha. and over	10	No.	16	34.0	5	10.6	26	55.3	47	100.0
		Ha.	181.7	18.3	120.5	12.1	690.6	69.6	992.8	100.0
Smaller Owners 0.1-37.0 hectares	13	No.	23	65.7	4	11.4	8	22.8	35	100.0
		Ha.	37.3	33.5	22.4	20.1	51.6	46.4	111.3	100.0
Total	23	No.	39	47.6	9	11.0	34	41.5	82	100.0
		Ha.	219.0	19.8	142.9	13.0	742.2	67.2	1104.1	100.0

<sup>a</sup> Some do not total 100.0 percent due to rounding.

for about one-third (33.5 percent) of the land purchased by the smaller group. For both the larger and smaller size groups the purchases from coheirs were smaller than average in size while those from other relatives and from non-relatives were larger than average.

#### Use of Credit

Slightly over half of the total transactions were made with credit (53.1 percent). (See Table 56.) However, the larger owners made a lower proportion of credit transactions than did the smaller owners--39.1 percent as compared to 71.4 percent. The chi-square value is significant at the .01 level. In terms of hectares, credit was used for 52.7 percent of the land purchased by the larger owners and for 68.6 percent of that purchased by the smaller owners. (See Table 57.) Thus, it may be concluded that for the large holders, credit transactions involved larger land parcels than did cash transactions while for the smaller owners credit and cash transactions approximately equal in size.

This difference is demonstrated more clearly in Table 58 where the mean and median sizes of cash and credit purchases are shown for the two sizes of owners. For the large owners the mean size of credit and cash purchases was 28.6 hectares and 16.5 hectares respectively. The difference was significant at between the .05 and .10 level. For the 0.1-37.0 hectare group the mean size of cash

TABLE 56. CREDIT AND CASH TRANSACTIONS BY MAXIMUM SIZE OF HOLDING FOR 81 TRANSACTIONS,<sup>a</sup> VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.	Type of Transactions					
		Credit		Cash		Total	
		No.	%	No.	%	No.	%
Larger Owners 37.1 ha. and over	10	18	39.1	28	60.9	46	100.0
Smaller Owners 0.1-37.0 ha.	13	25	71.4	10	28.6	35	100.0
Total	23	43	53.1	38	46.9	81	100.0

<sup>a</sup>Information about the manner of payment for one purchase was not available.

TABLE 57. CREDIT AND CASH PURCHASE IN TERMS OF HECTARES BY MAXIMUM SIZE OF HOLDING AND NUMBER OF ACQUISITION FOR 23 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.	Type of Purchase					
		Credit		Cash		Total	
		Ha.	%	Ha.	%	Ha.	%
Larger Owners 37.1 ha. & over	10	514.3	52.7	462.0	47.3	976.3	100.0
Smaller Owners 0.1-37.0 ha.	13	77.4	68.6	33.9	31.4	111.3	100.0
Total	23	591.7	54.4	495.9	45.6	1087.6	100.0

purchase was somewhat larger than the mean size of credit purchase, 3.4 hectares and 3.1 hectares respectively, but much smaller than that of the larger owners. The difference between the mean sizes of credit and cash purchases of the smaller group was not significant at the .10 level. The differences in the mean sizes of credit and cash purchases between the smaller and larger size groups were both found to be significant at the .001 level.

TABLE 58. MEAN AND MEDIAN SIZES OF CREDIT AND CASH PURCHASES BY MAXIMUM SIZE OF HOLDING FOR 23 RESPONDENTS, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.		Type of Purchase	
			Credit	Cash
Larger Owners 37.1 ha. & over	10	Mean	28.6	16.5
		Median	17.0	11.6
Smaller Owners 0.1-37.0 hectares	13	Mean	3.1	3.4
		Median	1.3	2.3

### Source of Credit

All of the credit used was from personal sources, friends, relatives, etc. No cases of use of any kind of bank or mortgage credit for purchases of land were found among those interviewed.

Table 59 shows the source of credit for land purchases by maximum size of holding for the 43 acquisitions where credit was used. Since there were only three purchases in the small size category these were included with the medium size group. For both size categories, the credit for about two-thirds of the transactions came from non-relatives and one-third from relatives. The non-seller group provided the largest proportion of the total for both groups.

Table 60 shows the source of credit for land purchases by maximum size of holding in terms of hectares purchased. A different picture is presented in terms of the importance of various sources of credit than one got when considering the transactions. The source of credit in terms of hectares purchased was about equally divided between relatives and non-relatives. (49 and 51 percent respectively).

When the two size groups are compared, it can be seen that relatives are a considerably more important source of credit for the smaller size group than for the larger group, accounting respectively for the credit for 71.4 and 45.6 percent of the land purchased. One of the

TABLE 59. SOURCE OF CREDIT FOR LAND PURCHASE BY MAXIMUM SIZE OF HOLDING FOR 43 ACQUISITIONS MADE WITH CREDIT, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.		Source of Credit								
			Relative					Non-Relative			Total
			Father	Father-In-Law	Other Relative	Seller	Total	Seller	Other	Total	
(Non-Seller) <sup>a</sup>											
Larger Owners 37.1 ha. and over	9	No.	1	1	2	2	6	4	8	12	18
		%	5.5	5.5	11.1	11.1	33.3	22.2	44.4	66.7	100.0
Smaller Owners 0.1-37.0 hectares	9	No.	1	0	2	5	8	1	16	17	25
		%	4.0	0	8.0	20.0	32.0	4.0	64.0	68.0	100.0
Total	18	No.	2	1	4	7	14	5	24	29	43
		%	4.6	2.3	9.3	16.3	32.6	11.6	55.8	67.4	100.0

<sup>a</sup> None of the respondents purchased land from their fathers or fathers-in-law.

TABLE 60. SOURCE OF CREDIT FOR LAND PURCHASE BY MAXIMUM SIZE OF HOLDING FOR 591.8 HECTARES PURCHASED WITH CREDIT, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.	Source of Credit									
		Relative					Non-Relative			Total	
		Father	Father-In-Law	Relative	Other Seller	Total	Seller	Other	Total		
		(Non-Seller) <sup>a</sup>									
Larger Owners 37.1 ha. and over	9	Ha.	55.6	6.3	157.6	14.7	234.7	122.1	157.6	279.7	514.4
		%	10.8	1.3	30.6	2.9	45.6	23.7	30.7	54.4	100.0
Smaller Owner 0.1-37.0 hectares	9	Ha.	15.4	0	16.7	23.2	55.3	0.8	21.3	22.1	77.4
		%	19.9	0	21.6	29.9	71.4	1.0	27.6	28.6	100.0
Total	18	Ha.	71.0	6.8	174.3	37.9	290.0	122.9	178.9	301.8	591.8
		%	12.0	1.1	29.5	6.4	49.0	20.8	30.2	51.0	100.0

<sup>a</sup> None of the respondents purchased land from their fathers or fathers-in-law.

principal differences between the two size groups is in the credit provided by the related and unrelated sellers. Related sellers provided credit for 2.9 and 29.9 percent the land purchased by the larger and smaller size groups respectively. Unrelated sellers provided credit for 23.7 and 1.0 percent of the land purchased by the larger and smaller size groups respectively.

#### Source of Payment for Land Purchases

Source of payment for purchased land was classified into four categories depending upon how the respondent indicated the funds had been obtained. The following categories were used: (a) agriculture--including sale of livestock and agricultural products and agricultural wages, (b) land--the sale of other land, (c) land and agriculture--a combination of (a) and (b), and (d) non-agriculture--wages, salary, or other income from non-agricultural work.

The most important source of funds for cash purchases was the sale of agricultural products. This source accounted for the payment for 73.7 percent of the purchases and 63.8 percent of the land. (See Table 61.) However, in the case of cash purchases, sale of other land was also important, with payment for 18 percent of the purchases and 20 percent of the land being attributed to this source. The sale of land and agricultural products provided funds for five percent of the purchases

TABLE 61. SOURCE OF PAYMENT FOR LAND PURCHASE WITH CREDIT AND CASH IN TERMS OF NUMBER OF ACQUISITIONS AND HECTARES PURCHASED BY MAXIMUM SIZE OF HOLDING, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Purchase	Maximum Size of Holding	No. of Resp.	Source of Repayment											
			Agri-culture		Land		Land and Agri-culture		All Agri-culture and Land		Non-Agri-culture		TOTAL	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Cash	Larger <sup>a</sup> Owners	10	No. 21 Ha. 298.2	75.0 64.6	6 98.9	21.4 21.4	1 64.9	3.6 14.0	28 462.0	100.0 100.0	0	0	28 462.0	100.0 100.0
	Smaller <sup>b</sup> Owners	8	No. 7 Ha. 18.0	70.0 53.0	1 0.2	10.0 0.5	1 0.3	10.0 0.9	9 18.5	90.0 54.4	1 15.5	10.0 45.6	10 34.0	100.0 100.0
	Total	18	No. 28 Ha. 316.2	73.7 63.8	7 99.1	18.4 20.0	2 65.2	5.3 13.1	37 480.5	97.4 96.9	1 15.5	2.6 3.1	38 496.0	100.0 100.0
Credit	Larger <sup>a</sup> Owners	9	No. 15 Ha. 301.1	83.3 58.5	0 0	0 0	3 213.2	16.7 41.5	18 514.3	100.0 100.0	0	0	18 514.3	100.0 100.0
	Smaller <sup>b</sup> Owners	9	No. 23 Ha. 72.0	92.0 93.0	0 0	0 0	0 0	0 0	23 72.0	92.0 93.0	2 5.4	8.0 7.0	25 77.4	100.0 100.0
	Total	18	No. 38 Ha. 373.1	88.4 63.1	0 0	0 0	3 213.2	7.0 36.1	41 586.3	95.4 99.2	2 5.4	4.6 0.8	43 591.7	100.0 100.0

TABLE 61. (Cont.)

Purchase	Maximum Size of Holding	No. of Resp.	Source of Repayment											
			Agri-culture		Land		Land and Agri-culture		All Agri-culture and Land		Non-Agri-culture		TOTAL	
			No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
All purchases	Larger <sup>a</sup> Owners	19	No. 36	78.3	6	13.0	4	8.7	46	100.0	0	0	46	100.0
			Ha. 599.3	61.4	98.9	10.1	278.1	28.5	976.3	100.0			976.3	100.0
	Smaller <sup>b</sup> Owners	17	No. 30	85.7	1	2.9	1	2.9	32	91.5	3	8.5	35	100.0
			Ha. 90.0	80.6	0.2	0.2	0.3	0.3	90.5	81.1	20.9	18.8	111.4	100.0
	Total	36	No. 66	81.5	7	8.6	5	6.2	78	96.3	3	3.7	81	100.0
			Ha. 689.3	63.4	99.1	9.1	278.4	25.6	1066.8	98.1	20.9	1.9	1087.7	100.0

<sup>a</sup>37.1 hectares and over.

<sup>b</sup>0.1-37.0 hectares.

and 13 percent of the land. Non-farm income accounted for one purchase (2.6 percent) of 15.5 hectares or about three percent of the land purchased.

All of the purchases by the 37.1 hectares and over group were paid for with earnings from agriculture, the sale of land, or a combination of the two. The payment for 90 percent of the cash purchases of the smaller size group came from a combination of sale of agricultural products and land. However, this only accounted for a little over half of the hectares purchased (54.4 percent) indicating that these purchases were much smaller than the average. One purchase of 15.5 hectares, which was paid for with non-farm earnings, accounted for 45.6 percent of the land purchased by the smaller size group. This single purchase (made with earnings from a village store) probably tends to overemphasize the importance of non-farm earnings in the purchase of land.

#### Source of Repayment of Loans

The primary source of repayments of the loans was also earnings from agriculture. In terms of number of loans this source alone accounted for 88.4 percent of the repayments, but in terms of hectares purchased it accounted for only 63 percent. (See Table 61.) There were no cases of sale of other land as the sole source of funds for the repayment of loans. However, the sale of land and agricultural products accounted for 36 percent of the repayment

in terms of hectares of land. These were large purchases (only three purchases) which accounted for only seven percent of the transactions. Only two loans (5.4 percent of the loans and 0.8 percent of the land) were paid with non-agricultural earnings. In one case the money was won in the lottery and in the other it was earned by working as a hod carrier in Rio de Janeiro during the slack season.

The repayment of all the loans by the larger group (37.1 hectares and over) were made from income from agricultural production and the sale of land. The 0.1-37.0 hectare group paid for 92 percent of the loans and 93 percent of the land from the sale of agricultural products alone and the remainder from non-agricultural income.

#### Length of Time to Repay

The time required to repay the money borrowed to make land purchases was quite short. The average length of time was 1.9 years with the shortest being one month and the longest four years.

Table 62 shows the total number of loans, the mean and median years taken to repay, and the range by present size of holding. The mean and median number of years to repay also differed between the two groups. The larger group repaid their loans in an average of 1.5 years while the smaller group required an average of 2.2 years to

repay their loans. The average time to repay was found to be significantly different for the two groups at between the .10 and .05 level.

TABLE 62. MEAN AND MEDIAN TIME REQUIRED TO REPAY 43 LOANS FOR PURCHASE OF LAND BY SIZE OF HOLDING, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Time Required to Repay	Maximum Size of Holding		
	Larger Owners 37.1 ha. & over	Smaller Owners 0.1-37.0 hectares	Total
No. of Respondents	9	9	18
Number of Loans	18	25	43
Mean (Years)	1.5	2.2	1.9
Median (Years)	1.5	3.0	2.0
Range (Years)	1/12 - 4	1/3 - 3	1/12 - 4

Of the 43 loans, 15 or 34.9 percent were paid off within one year. (See Table 63.) Among those who were larger owners, 50 percent of the loans were paid off in one year or less as compared to only 24 percent of the loans of the 0.1-37.0 hectare group. The chi-square value is significant at the .10 level.

TABLE 63. TIME REQUIRED TO REPAY 43 LOANS FOR PURCHASE OF LAND BY MAXIMUM SIZE OF HOLDING, VIÇOSA, MINAS GERAIS, BRAZIL, 1966.

Maximum Size of Holding	No. of Resp.	Time Required to Repay					
		One Year or Less		Over One Year		Total	
		No.	%	No.	%	No.	%
Larger Owners 37.1 ha. and over	9	9	50.0	9	50.0	18	100.0
Smaller Owners 0.1-37.0 hectares	9	6	24.0	19	76.0	25	100.0
<b>Total</b>	<b>18</b>	<b>15</b>	<b>34.9</b>	<b>28</b>	<b>65.1</b>	<b>43</b>	<b>100.0</b>

However, 13 purchases (from coheirs) were made by one respondent at the time of settlement of his father-in-law's estate. Counting these as a single transaction eliminates the difference between the two groups in number of years to repay and number repaying in one year or less.

CHAPTER VII  
SUMMARY AND CONCLUSIONS

The data for this study was collected in the município of Viçosa, Minas Gerais, Brazil. A total of 61 respondents were interviewed, 11 sharecroppers and 10 in each of the following tenure categories: large owners (37.1 hectares and over), medium owners (8.1-37.0 hectares) and small owners (0.1-8.0 hectares), temporary agricultural workers, and permanent agricultural workers.

Most of the individuals interviewed actually fell into more than one occupational-tenure category. Among the 31 non-owners, 14 respondents combined sharecropping and temporary agricultural work and eight were engaged in sharecropping and permanent hired work.

Neither sharecropping nor temporary agricultural work were common as the sole kind of work. One respondent was only a sharecropper and two were only temporary workers. Also, a majority of the small owners engaged in other kinds of work (sharecropping and temporary agricultural work).

None of the farms in this study were very big, even those in the strata of the large farms. An average of 12.7 hectares was cultivated on the 12 farms which used sharecroppers and/or permanent agricultural workers. The estimated average labor use on these farms was about four

man-years with about half of it being family labor. The farmer with the largest number of sharecroppers and permanent agricultural workers (three of each) owned 130 hectares. This was also the largest size of farm in the sample. Of this amount, 43 hectares were cultivated, 26.4 by the owner with family and hired labor and 16.6 by sharecroppers.

The primary purpose of the study was to find out if there were distinctive tenure stages which people go through over their lifetimes and if the stages were different for those in different classes. The data does show that the respondents moved through different tenure categories over their lifetimes and that the pattern of stages was different among those who came from more affluent backgrounds and those who came from poorer backgrounds.

The respondents were divided into three groups on the basis of the average amount of land owned in the preceding generation. For 24 of the respondents the average size of holding of father and father-in-law was over 27 hectares, for 23 respondents it was between 0.1 and 27 hectares, and in the case of 14 respondents, neither father nor father-in-law owned any land. This distinction between sons and sons-in-law of larger owners, smaller owners, and non-owners was used as a measure of difference in opportunity to acquire landownership.

The parental background did indeed affect acquisition of landownership by the respondents. Only one (7.1 percent) of the 14 sons and sons-in-law of non-owners acquired ownership while 52.2 percent of the sons and sons-in-law of smaller owners were owners, and 87.5 percent of those whose fathers and fathers-in-law were larger owners acquired ownership.

Within each of the three groups there was a progression of tenure stages over time. The tenure status of the respondents at 10 year intervals (from age 10 to age 60) was used to trace this progression. Almost all the respondents whose fathers and fathers-in-law were larger owners (over 27 hectares) began by working at home (working for or cultivating land of father or father-in-law regardless of pay or share of crop). They moved from that status to ownership with very little use of other tenure arrangements.

Some of those where size of holding was smaller in the preceding generation followed a similar path. About half as many in this group started out working at home at age 10 and in each age group somewhat less than half as many had acquired ownership as had done so in the group with larger size of holding in the preceding generation. For many in this group (34 percent) the first tenure stage was permanent agricultural work. There was a movement to cultivating on the shares and to temporary agricultural work with an increase in age.

The group with no ownership in the preceding generation began working as temporary and permanent agricultural workers, and helping their fathers (who were non-owners). As age increased the dominant change in tenure status for this group was the increase in the proportion who were sharecroppers.

Thus, for each of the groups, there was a progression of tenure stages which was very different. The group with smaller size of ownership in the preceding generation differed from that with larger size of ownership in that they engaged in temporary and permanent agricultural work and sharecropping at each age much more often than the sons and sons-in-law of larger owners. Even at age 50 only 42 percent of those with smaller parental holdings had attained ownership compared to 91 percent of those where holdings were larger in the preceding generation. Respondents with no ownership in the preceding generation attained ownership very rarely. The major achievement for this group was the acquisition of sharecropper status.

In terms of all occupational-tenure position of all the respondents (regardless of size of holding in the preceding generation) the most frequent tenure categories at a young age were working at home, permanent agricultural worker, and temporary agricultural worker. The proportion of those working at home and in permanent agricultural work declined as age increased while ownership,

sharecropping, and temporary agricultural work increased in importance. Temporary agricultural work tended to occur in combination with cultivating on the shares and on own land (when owned land was small).

There were 40 respondents who had attained land-ownership. However, six of these were no longer owners at the time of the interview and for four respondents owned land was not the primary source of income.

The number of acquisitions made was related to size of holding. Two-thirds of the small owners (0.1-8.0 hectares) made only one acquisition while 82 percent of the large owners (37.1 hectares and over) made six or more acquisitions. Of the 40 respondents who acquired landownership, 17 inherited only (including gift and partilha em vida), three purchased only and 20 inherited and purchased. Acquisition through inheritance only was negatively related to size of holding with nine percent of the large owners acquiring in this way compared to 72 percent of the small owners. Acquisitions through both inheritance and purchase were made by 91 percent of the large owners compared to only 22 percent of the small owners.

The smaller owners obtained most of their land through inheritance. The larger owners purchased more land than they inherited. The small owners inherited 78 percent and the medium owners inherited 53 percent of the land they acquired. The small and medium groups combined inherited

58 percent and purchased 42 percent of the land they acquired. Of the land purchased, about one-third (34 percent) was acquired from coheirs, 22 percent from other relatives, and 46 percent from non-relatives. The larger owners inherited only 30 percent and purchased 70 percent of the land they acquired. Of the purchased land 18 percent came from coheirs, 12 percent from other relatives and 70 percent from non-relatives.

The above indicates that the respondents inherit portion of the land owned by their fathers and fathers-in-law and that some succeed in adding to that with purchases from coheirs, other relatives, and buying on the general land market (purchasing from non-relatives).

The case study in Chapter V illustrates this point. In Case I six out of 15 children still owned land at the time of the survey. Only three of those who owned had acquired more than their original inheritance and this had been by purchase from five coheirs. About half the land owned by the parents had been purchased by non-relatives. The heir who owned the largest amount had 59 hectares compared to 418 hectares which the father and mother had owned. Of the 59 hectares, 27 were acquired through inheritance from parents and the remainder was purchased from coheirs.

An attempt was made to measure the amount of subdivision of property over time by comparing the average size of farms owned by the older half of the respondents

with those owned by their fathers and fathers-in-law. The older group (49 years and over) are more likely to have the maximum amount of land that they will ever own than the younger respondents, and thus their land holdings are more comparable to those of their fathers and fathers-in-law.

The average size of holding of all the older respondents was 29.3 hectares while their fathers and fathers-in-law owned an average of 55.5 hectares. Thus, owners of the present generation hold farms which are about half of the size of the farms of their fathers and fathers-in-law, indicating a substantial amount of subdivision of land.

In appraising the tenure system described in this thesis it is important to keep in mind that there are no very large farms in the study area. This means that the land reform issues of subdivision of farms is not very relevant for that area. In other areas of Brazil tenure questions may center around the desirability of subdividing large latifundia with hundreds of workers; treatment of large, well-managed farms; or, in colonization areas, about the appropriate size of units to settle.

In this area no farms are very large and fragmentation through inheritance is dividing them. As the farms in the lower part of the size range get subdivided supplementary activities become more important. In the upper part of the range subdivision probably reduces the

employment opportunities for sharecroppers, permanent agricultural workers, and day laborers as farms get smaller.

While relatively little production data was collected from these farms, only minimal differences were found in the proportion of different kinds of crops grown. All farms grew primarily subsistence crops with corn and beans being the principal ones grown. The large farms grew a somewhat higher proportion of market orientated crops (mainly coffee and sugar cane).

Access to ownership is very unequal between those who come from landowning backgrounds and those who do not. However, large farms are already in the process of being subdivided and they are not large enough to provide many opportunities for those who are now without land. Over time these seem destined to become smaller farms, in many cases family farms, because of subdivision or because of mechanization and/or a shift to livestock farming. This will decrease labor requirements to levels at which family labor will suffice on the land which these farms have now or will have after further subdivision. It might be better to leave some farms on which technological changes such as mechanization or a shift to livestock can occur if such shifts become economical.

A slowing down of fragmentation is primarily a function of the development of sufficient alternative opportunities outside of agriculture or in other agricultural regions. As long as alternative opportunities are not sufficient, subdivision and multiplicity of kinds of work will continue. Legal prohibitions will not prevent coheirs from living and farming portions of inherited land even if legal partitions cannot be made. This is already occurring. On the other hand, the data show that recombinations of land occur when opportunities are available. If sufficient outside opportunities were available, and more people were drawn off the land, evidence seems to indicate that farm size would probably either stabilize or increase.

Use is now made of credit in purchasing from coheirs and in buying other land. Credit was used for 54 percent of the land purchased. All this credit was obtained from informal sources and was paid off rapidly. The median length of time to repay was two years. There was no indication in the data collected that lack of credit prevented purchasing out coheirs, or buying from others, although no special attempt was made to consider this question. No study was made of credit needs and uses for purposes other than land purchase. The principal point is not that credit is adequate, but that the main factor is the lack of opportunity for land purchase (from

coheirs or others) because outside opportunities have not been sufficient to attract enough people out of farming in the area and thus to increase the amount of land on the market.

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