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RURAL MIGRANTS IN CENTRAL BRAZIL

A Study of Itumbiara, Goiás

By

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and João Bosco Guedes Pinto

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

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Ideas and suggestions for the study were given at various stages by José Pastore, University of São Paulo, Fernando Rocha, Rural University at Viçosa, and Helcio Ulhoa-Saraiva, Federal University at Belo Horizonte, who were all graduate students in the Department of Rural Sociology.

I. INTRODUCTION

Migration has been important to Brazil for many decades. The unstable rainfall in the Northeast has resulted in migration to more hospitable areas. Employment opportunities in the industrial centers of São Paulo and Rio de Janeiro have attracted people from both rural and urban areas of the North and East. The coffee crop, and to a lesser extent the rice fields and the sugar plantations, have attracted seasonal workers from other areas, some of whom stayed to become permanent residents. In areas of small holdings in the South, overcrowding due to population increase has caused many to move to the interior to seek a livelihood.

The large expanse of sparsely-settled land in the interior of Brazil has attracted explorers, miners, cattle raisers, and speculators for over two centuries. More recently, especially since the development of railroads and highways from the coastal cities, the population movement into the interior has increased rapidly, with farmers and farm workers forming a large share of the migrants.

Objectives

The present study was undertaken to investigate the migration into and the settlement of rural areas in Central Brazil. The study deals with a) the process of migration, b) characteristics of the immigrants, and c) the process of integration of the migrants at the new locale.

Little is known of the origin of the migrants who settle in the areas made accessible by the paved roads into the interior. To what extent do they come directly or indirectly from areas of population concentration, and to what extent are they a part of the gradual movement from nearby settled areas to sparsely settled areas where land is relatively cheap and not intensively cultivated?

The second set of questions pertains to tenure, agricultural, family, and other characteristics of the migrants as compared with the natives. Finally, we are concerned with the extent to which economic status and length of residence relate to the social integration of the migrants in the newly settled area.

In keeping with these objectives the Introduction includes a general description of the region and of the locality chosen for the research site. The design of the study and the procedures followed are presented in Appendix A. Part II contains a description of the migration patterns and of the characteristics of the migrants. Included are data on the origin of the migrants, reasons for moving and for coming to present residence, frequency of moves and measures of the relative satisfaction with social and economic conditions at the destination as compared with place of origin.

Part III deals with the effect of length of residence at the destination upon various social and economic characteristics of the migrants. Part IV shows how integration into the social structure is affected by the tenure status of the respondents. Finally, some implications of the findings of the study will be presented in Part V.

Geographical Setting

Criteria for Site Selection

Since our main purpose was to examine aspects of the migration and settlement process in a rural area, certain conditions guided the selection of the site studied. We looked for a rural area with a substantial proportion of the population made up of migrants. At the same time, the area had to include migrants who had lived there long enough for the processes of adjustment and change to have occurred.

The area selected also had to have potential for economic development with regard to soil quality, access to markets, and the availability of land for more intensive use. An area with severe physical and economic limitations would make it more difficult to study the social aspects of migration and settlement. Hence, such areas as Northern Goiás and Maranhão, where transportation and markets are not well developed, were eliminated from consideration for the research site.

It was decided that the southeastern part of Brazil's Central Plateau (Planalto Central) met the needs for the study most adequately. This section of the Central Plateau is crossed by asphalt highways connecting it to Brasília, São Paulo, Belo Horizonte and Rio de Janeiro, all major urban centers. For the last twenty years, the area has received migrants from the surrounding areas of Minas Gerais, São Paulo and Paraná, and more recently from Northeast Brazil.

The Southeastern Region of the Central Plateau¹

The southeastern area includes part of the states of Goiás and Minas Gerais--from the latter only the so-called Triângulo Mineiro. Within the southeastern region, two vegetation areas meet and interlock: the humid tropical forest and the savannah-like campos cerrados. Population density is greater in the forest areas than in the campos cerrados. Agricultural activities are associated with the forest areas and cattle-raising with the campos cerrados.

¹The description draws heavily from Faissol, Speridião, O Problema do Desenvolvimento Agrícola do Sudeste do Planalto Central do Brasil, Rio de Janeiro: Instituto Brasileiro de Geografia e Estatística, 1957.

Fig. 1 BRAZIL



Agricultural methods are primitive, as in any other forest zone of Brazil. Faissol describes the traditional pattern:

This method was learned from the aborigines and has been used since with no great changes during four centuries of Luso-Brazilian agriculture. It consists of derrubada, that is, in cutting down the forest with ax and sickle. After that the forest is left to dry for a few days and then a fire is started, which not only burns the trees but also part of the organic matter of the soil, destroying this way part of the original wealth of the soil....After the fire there is a very superficial cleaning and as soon as the first rain comes the seeds are thrown in shallow ditches opened in the ash covered soil. The only tool used is the hoe--sometimes a hand cultivator--and usually rice is planted in one part and corn together with beans in another. There is a primitive system of crop rotation with rice grown in the first two years, corn in the third and fourth years, and cassava in the fifth, before grass is seeded for cattle grazing. The area under cultivation varies from three to five hectares....During four or five--sometimes eight or ten--years the peasant cultivates the same piece of land, with no fertilization, no protection against rapid soil erosion, even on the steeper slopes, until one day returns become insufficient to maintain the same production per hectare he is used to. He then grows grass and starts the same procedure somewhere else....In this way the Brazilian farmer has executed the much acclaimed march towards the West, which is nothing but a retreat leaving behind what Professor Preston James used to call 'the hollow frontier.'²

Even in the forest areas it is difficult for the farmer or sharecropper to earn enough for a comfortable living for himself and his family. With the hoe as the main tool for weeding, he can cultivate only three to five hectares.

The campos cerrados is cultivated only in certain areas since the forest areas are more productive under the present methods of cultivation. The soils of the campos cerrados are deficient in several mineral elements, particularly phosphorus and potassium. At present the price of fertilizers is too high to make their use economical. Until a more advanced technology can be applied, the campos cerrados will be used primarily for extensive cattle raising, interspersed with the shifting production of rice, corn and other crops on the more productive mountain slopes and in the lowlands.

² Faissol, op. cit.

The southeastern Central Plateau area has a gently rolling topography; the highest elevations reach no more than 3,500 feet.³ At the highest altitudes one finds the chapadas; their soil is poor, sandy, and highly permeable, absorbing practically all water. Due to their level topography and great absorptive power they have very little erosion.

Below the level of the chapadas there are four types of relief. At the intermediate levels one often finds small streams and steep sloping dales. At lower levels than these dales, there is a zone of rolling relief with red soils that are quite rich. Most forest zones are found on these levels. Still lower one finds dry plateaus whose altitude varies from 600 to 1,000 feet. In these areas most gold mines and diamonds were found in the 18th century. The last type of relief consists of relatively level zones which are found in the valleys of the region. These areas have the best soils in the region, the so-called terra roxa soils; soils of a rich red color, very favorable to agriculture and already intensively cultivated. The study area includes some of the terra roxa soils but most are the less fertile soils of the slopes and plateaus.

The climate of this southeastern Central Plateau area is characterized by very hot and humid summers, and relatively cool and dry winters. Temperatures vary during summer from 70° to 80° F., and are about 10 degrees below that during winter. Altitude differences introduce variations from 3° to 7° F.

Of the total precipitation of 69 to 79 inches yearly, 90 percent falls during the period from October to March. The remaining months, April to September, constitute the "dry summer" with scarcely 10 percent of the total precipitation. This dry season limits the type of crops which can be grown without irrigation.

Settlement in the Southeastern Central Plateau

The Central Plateau is not an area of recent settlement. The settlement of the area took place in three successive periods: the period of gold and diamond discovery; the period of cattle ranching; the period of more recent agricultural development.

Beginning with the gold rush in 1726, but mainly after the demise of the gold mining, the immense area of natural pastures that constitute the campos cerrados was occupied and divided into cattle ranches. Many former prospectors turned to cattle ranching as soon as the gold vanished. At the end of the 18th century, Arraial do Couro--today called Formosa, situated northeast of Brasília--became a huge center for cattle and associated industries; hence, its name "The Village of Leather."

³See Faissol, op. cit., for a detailed description.

With the construction of two railroads, one that reaches Barretos in the State of São Paulo, on the boundaries of the area and the other going as far as Anápolis, the agricultural development of the area was made possible. Since 1935 both the population and agricultural production have shown substantial growth.

The population of the area doubled in 10 years (1940-1950), and today the sub-area of the Central Plateau called Mato Grosso de Goiás, with eight percent of the area of the State of Goiás, produces about half the agricultural products of the entire state.

The great increase in agricultural output of the area has been obtained through tremendous sacrifices of forested areas. This often results in the deterioration of tillable land, making future cultivation impractical. Such land reverts to pasture or to campos cerrados with the scrub brush typical of poorer upland soils.

Selection of the Locality of the Research

Since access to markets is so overwhelmingly important for the economic development of rural areas, it was decided to limit the study to an area close to BR-14, the road connecting São Paulo to Brasília. This road, completed in 1962, is the main axis which allows the agricultural production to flow out of the area to urban centers: Brasília, São Paulo, and on to Rio de Janeiro.

The five physio-geographic areas considered, Triângulo Mineiro, Rio Verde, Meia Ponte, Ipameri and Planalto, contain in total 84 municípios (counties). Three municípios in this group most closely approximated the site selection criteria of immigration over a substantial period of time and agriculture potential: Centralina and Ituiutaba in Minas Gerais, and Itumbiara in Goiás.

Itumbiara had a 143% increase in population between 1950 and 1960; 26% of its land was in cultivation and 74% of its population was rural. The choice of Itumbiara was also supported by the favorable recommendations of state officials and the cooperative attitude among authorities and public officials of the município.

The Município of Itumbiara⁴

The município of Itumbiara is located in the center of the South-eastern Central Plateau. The município is approximately 70 miles from east to west and 20 miles from north to south. It has an area of 1,461

⁴Much of the information for this section was provided by the local agency of the Instituto Brasileiro de Geografia e Estatística, and complemented by personal observations of the fieldworkers.

square miles, and its borders are the Paranaíba River and the State of Minas Gerais on the south; the Município of Quirinópolis on the west; the Municípios of Goiatuba and Panamá on the north; and Buriti Alegre on the east.

The total population of the município according to the 1960 census was 48,979, of whom almost one-fourth lived in the county seat. Table 1 shows the population growth of the município and provides comparative data for the State of Goiás and Brazil.

Table 1. Population Changes from 1940 to 1960 for Brazil, Goiás and Itumbiara

		Brazil	Goiás	Itumbiara
Total population	1940	41,236,315	826,414	22,637 ^a
	1950	51,944,397	1,214,921	24,068
	1960	70,967,185	1,954,862	48,979
% growth of population in 10 yr. period	1940-1950	25.96	47.01	12.64
	1950-1960	36.62	60.90	103.50
% of population classified as rural	1940	68.76	82.80	--- ^b
	1950	63.84	79.78	81.31
	1960	54.92	69.34	74.33

^aReported as Santa Rita de Paranaíba

^bNot ascertained

Sources: columns 1 and 2: Sergio Hasselmann, "Alguns aspectos do censo brasileiro de 1960," América Latina, Vol. 6, 1963, pp. 89-106. Column 3: IBGE--Serviço Nacional de Recenseamento, VII Recenseamento Geral do Brasil--1960, Estado de Goiás, Sinopse Preliminar do Censo Demográfico, 1961; IBGE--Serviço Nacional de Recenseamento, VI Recenseamento Geral do Brasil, Censo Demográfico, Estado de Goiás, Seleção dos Principais Dados, 1952; IBGE--Serviço Nacional de Recenseamento, Análise de Resultados do Censo Demográfico, Vol. 1, No. 8, "População recenseada e população estimada do Estado de Goiás," 1944.

Most of the municipio's soil is the red type and was once covered either by forests or by cerradão (vegetation intermediate between forest and campos cerrados). The municipio has more forest and less of its area in campos cerrados than is common for the whole Central Plateau.

There are two important federal roads in the municipio. The most important is the BR-14, a first class asphalt highway which connects São Paulo with Brasília. The second one is the BR-59, a gravel and mud road that cuts east-west across the southern part of the State of Goiás. Another asphalt road, recently built, connects the city of Itumbiara to Cachoeira Dourada on the Paranaíba River, where a hydro-electric plant is being constructed by the federal government. Cachoeira Dourada is the seat of a Distrito sub-unit of the municipio and the second largest urban center of the municipio. In addition, there are many state and municipal roads. Most of them are dirt and receive little maintenance; during the rainy season they are often impassable.

The city of Itumbiara, formerly called Porto de Santa Rita, became a city in 1915 and in 1943 changed its name to Itumbiara, an Indian name which means "road to the waterfall." The city is 207 km. from the capital of the State of Goiás and 432 km. from Brasília, the capital of Brazil.

Although located on the southern border of the municipio, the city is the vital center of the municipio where all services are concentrated. The city has 9 banking agencies, including one of the Banco do Brasil, the main federal bank; 5 hotels; 3 hospitals; 12 pharmacies; 10 medical doctors; 17 dentists; 7 lawyers; 3 movie-theaters; 9 churches; 5 recreational clubs; an agricultural cooperative; 7 bus companies; and 3 high schools. In or near the city are 25 commercial firms with more than five employees and 38 with less than five employees.

Close to the city is a new plant that processes vegetable oil. Built with the assistance of funds from the Alliance for Progress, it was designed to provide an outlet for sesame and other oil seed producing plants which the secretary of agriculture of Goiás has been promoting in this part of the state.

About six large rice processing firms constitute the most important industry in the city. These firms buy rice from the farmers, hull the grain and haul it to city markets.

According to the 1960 census,⁵ there are 1,766 farms in the municipio. More than half (58 percent) of those farms have less than

⁵ IBGE--Serviço Nacional de Recenseamento, VII Recenseamento Geral do Brasil--1960; Estado de Goiás, Sinopse Preliminar do Censo Agrícola.

100 hectares, but they account for less than 13 percent of the total area in properties. Thirty-nine percent of the farms have between 100 and 1,000 hectares and represent 58 percent of the area owned, and 3 percent have more than 1,000 hectares and represent 29 percent of the total area.

The main agricultural product of the area is dry rice, practically all of which is grown under a sharecropping arrangement. The rice crop is sold primarily to local merchants and buyers from other cities at harvest time.

Corn, beans, and sesame are other major agricultural products of the municipio. Bananas are also an important commercial crop. In 1965, 850,000 bunches were harvested from an area of 160,000 hectares. Banana growing is becoming increasingly important to the economy of the municipio, with some of the larger farmers abandoning the uncertainties of commercial rice production for this more predictable but not less profitable crop.

Because of lower risks compared to rice growing and exhausted soils, there has been an increase in cattle raising in the municipio. From 58,000 head in 1960, the municipio had in 1966 more than 80,000 head of beef cattle.

Agricultural methods such as fertilization, soil conservation, and farm management are very much determined by the long standing traditions of clearing the land, preparing the soil, and harvesting. In 1960 the number of tractors in the municipio was 335, but at the time of the field research it was estimated to be substantially larger. Yet tractors are available almost exclusively to the farmers with large acreage. It is possible to rent tractors for clearing the land, but the price per hour is high.

Social and Economic Setting

Data Gathering⁶

The data of the present study were gathered through personal interviews with 291 heads of households living in the rural areas of the municipio. An interview schedule was used in the data gathering procedure. The interviewing took place during April and May of 1966.

Additional interviews with 50 large land holders and 108 sharecroppers were obtained in the fall of 1966; information from these interviews will be referred to occasionally in the remainder of the paper.

⁶ A detailed account of data gathering procedures is given in Appendix A.

Selecting heads of households as respondents resulted in a sample of all but seven males. Only twenty-one respondents lived in households without other family members.

Agricultural Enterprise

Almost all respondents (94.8 percent) are employed in agriculture. Over two-thirds of the respondents held only one job and only six percent had a second job outside agriculture. This is partly a consequence of the sampling universe which was limited to the non-urban areas of the county. It nevertheless indicates the paucity of non-agricultural skills represented in the rural areas, and it is a reflection of the low level of services and lack of alternative employment available to the respondents in their immediate vicinity.

Given the generally poor transportation system and the fact that only 21 respondents own a motorized vehicle of some kind, those interested in off-farm employment will probably be forced to move to town in order to find employment. Lack of opportunity is probably the reason why only 11 wives of the respondents (4.2 percent of all wives) have taken jobs to supplement family income.

Table 2. Percentage Distribution of Farm Area in Crops by Amount of Farm Land Owned

Percent of Land in Crops	Farm Size (Hectares)					
	1 - 111		112-239		240 and over	
	N	%	N	%	N	%
0	4	9.5	1	5.6	1	6.3
1 - 25	14	33.3	9	50.0	10	62.5
26 - 50	11	26.2	5	27.8	--	
51 - 75	4	9.5	1	5.6	5	31.3
76 -100	9	21.4	2	11.1	--	
Total	42	100.0	18	100.0	16	100.0

Table 3. Percentage Distribution of Farm Area in Crops and in Improved Pasture, by Amount of Farm Land Owned

Percent of Land in Crops and Improved Pasture	Farm Size (Hectares)					
	1 - 111		112-239		240 and over	
	N	%	N	%	N	%
0	4	9.5	--		--	
1 - 25	4	9.5	2	11.1	4	25.0
26 - 50	12	28.6	5	27.8	7	43.8
51 - 75	7	16.7	8	44.4	3	18.8
76 -100	15	35.0	3	16.7	2	12.5
Total	42	100.0	18	100.0	16	100.0

Among the respondents 76 (26.1 percent) reported owning land. Most property is obtained by purchase, with 60 (76.9 percent) of the owners acquiring their lands by this means. The remainder of the owners acquired property either completely or partly through inheritance. Property documentation is not a major problem in this area: 85.9 percent of the owner respondents reported having proper documentation of their ownership.

Agriculture is of a very extensive nature. Table 2 and Table 3 give the percentage of the total acreage in crops and in crops plus improved pasture respectively. The data are broken down by farm size⁷ to indicate the less intensive use of the larger farms. This is especially true on the largest farms where only one-third of the respondents report more than half of the acreage in improved land. However, almost 50 percent of the smaller owners have less than half of their land in crops or improved pasture. This may be due partly to the lack of capital needed to finance cattle raising, but it is also due to the lack of technology for more intensive use of land.

Mechanization is not widespread in agriculture. Machinery of various kinds requires a considerable investment in money which only a small number of the respondents can and are willing to make. Only 7.1 percent owned a tractor and only slightly over half had a cultivator (see Table 4).

The use of recommended practices ranged from 92.1 percent in the control of ants to 0.8 percent in the use of chemical fertilizers (Table 4). The reported use of practices does not always mean that they are applied adequately. Field observation left the impression that practices are often applied in a very haphazard fashion.

The Sharecropping System

Under the existing farming arrangements, sharecroppers form an integral part of the agricultural sector, especially in the cultivation of rice and corn.

A special investigation was undertaken to study sharecropping conditions. From the 168 respondents reporting sharecropping activities, a random sample of 108 was selected for a special interview. The following paragraphs summarize some of the findings.⁸

⁷The breaking points coincided with 25 and 50 alqueires, the local measurement units.

⁸These data were gathered in the fall of 1966, during the planting season.

Table 4. Number and Percent of Respondents Owning Mechanization Items and Applying Recommended Practices^a

	N	%
<u>Mechanization</u>		
Cultivator	135	53.6
Horse-drawn planter	80	31.7
Harrow	28	11.1
Plow	27	10.7
Cart	19	7.5
Tractor	18	7.1
Tractor-drawn planter	12	4.8
Truck, pick-up, jeep	11	4.4
Corn sheller	7	2.8
Motor or hydraulic pump	4	1.6
Rice thresher	4	1.6
Harvester	1	.4
<u>Practices</u>		
Control for ants	232	92.1
Used Aldrin last year	159	63.1
Control for corn beetles	143	56.7
Planted hybrid corn last year	125	49.6
Buys selected rice seeds or uses self-selection	37	14.7
Keep cost-profit records	17	6.7
Used chemical fertilizer	2	.8
Vaccinate cattle for carbuncle	46	18.2
Vaccinate cattle for hoof and mouth disease	26	10.3

^aThe percentages in this table are computed on the basis of applicability of the item to the respondent's farm enterprise. The last two items apply to 64 respondents; all other items apply to 252 respondents.

The sharecropping arrangement is generally based on the principle that the owner provides the land and the tenant the labor, while the product is divided equally between them. The contracts vary in the degree of responsibility for preparing the land, providing the seed, and applying disease control measures.

If the land is presently forested, the tenant generally has the obligation to burn and clear it. This land is considered more fertile so the tenant can expect a larger harvest. If the land is already cleared the owner will often contract the preparation to a tractor operator or prepare the land himself if he owns a tractor. The tenant's responsibility almost always involves planting and caring for the crop up to harvest time.

The division of responsibility shows up clearly in the decision-making area. Few tenants have ever made decisions regarding mechanization, even though it includes such relatively small machines as an animal drawn one-row planter. Mechanization is used mainly in preparing the land and harvesting, which are not usually in the decision-making domain of the tenants. However, the disease control practices which are applied between planting and harvest are the responsibility of the tenants.

The 108 sharecroppers were asked to what extent they felt they could leave within a two-week period if they wanted to, and only 28 percent indicated they could do so. On the other hand, almost all said that they could leave after next harvest. The sharecropping arrangement is an effective means of ensuring labor after the farming cycle has been initiated, but after the harvest the sharecropper is free to move on to other opportunities.

The sharecroppers were also asked if they would have the money to pay for a move after next harvest. Of the 93 tenants who said they could move if they wanted, 53 (54.1 percent) said that the availability of finances would depend on the outcome of next harvest. Another 12.9 percent responded that they would not be able to finance a move. Of those respondents who had moved to Itumbiara at an earlier date, almost 40 percent had depended upon others to pay for the move. The precarious economic position of the tenants is shown in Table 5. Most tenants actually do not have sufficient reserves to survive until harvest time without incurring debts. Only 18.5 percent of the sample indicated that it did not have to pay any debts at harvest time. Of those who had to pay debts, 78.7 percent were able to pay them. Thus tenants live very much from one harvest time to another without reserves to carry them through any crisis period.

Table 5. Number and Percent of Sharecroppers Who Had to Pay Debts at the End of Last Year's Harvest

Sources of Debts	N	%
Advance from owner	63	58.3
household supplies	37	34.3
farm supplies	16	14.8
medical care	12	11.1
Other	23	21.3

Table 6. Number and Percent of Sharecroppers who Received Assistance from Land Owner During Previous Year

Items Received	N	%
House	76	70.4
Land for own use	33	30.6
Money advancement	49	45.4
Foodstuffs	33	30.6
Tools loaned	29	26.9
Animals loaned	25	23.1

Table 6 illustrates that the land owner provides many of the material needs of the sharecropper in addition to the land to be worked under the sharecropping agreement.

The overall picture that arises from these data is that the opportunities of the sharecropper to improve his lot are severely limited. His precarious economic position and employment in a type of agriculture with very low control of external conditions places him in a position of continuous dependency on the land owner. Although this dependence is not permanent, it tends to be cyclical, re-establishing itself during each agricultural year. After the harvest the sharecropper is free to leave, but lack of economic resources and alternative employment limits the opportunity to change. He can shift to another land owner in his sharecropping arrangement, but it is unlikely that the terms will be different. The likelihood of accumulating savings for the purchase of equipment, work animals or land is not very high.

Level of Living

Table 7 gives an indication of the living conditions prevalent in the rural areas. The incidence of home improvement items is generally quite low. It does not take much imagination to picture generally very poor housing conditions from these figures. The housing of the sharecroppers and laborers is often not much more than a temporary dwelling since it is abandoned whenever the need for new land forces the inhabitants to move. The housing of many owners and renters is also very poor compared to living conditions in the city of Itumbiara.

Table 7. Number and Percent of Respondents Owning or Using Level of Living Items

Items	N	%
Tile roof	226	77.7
Well	171	58.8
Sewing machine	170	58.4
Radio	134	46.0
Brick construction	109	37.5
Tile floor	73	25.1
Indoor plumbing	18	6.2
Electricity	16	5.5
Refrigerator	13	4.5
Gas stove	10	3.4

Table 8 indicates the prevalence of various foods in the diets of the respondents. Rice and beans are the staple foods eaten daily. Eggs, milk, and chicken also figure regularly in the menu for more than half of the respondents. The items reported here are frequently supplemented with natural fruits, but there is evidence of vitamin C deficiency among both the rural and urban population.

Table 8. Number and Percent of Respondents Eating Selected Foods at Least Once a Week

Foods	N	%
Rice	289	99.3
Beans	285	97.9
Eggs	214	73.5
Milk	164	56.4
Chicken	158	54.3
Pork	93	32.0
Bread	86	29.6
Beef	70	24.1
Butter	33	11.3

The educational level among the respondents is very low. Table 9 shows that 58.8 percent of the respondents had never attended school. Another 17.5 percent had received less than two years of formal schooling. Only two respondents had had more than six years of education. Among the wives, the educational level is equally low. Literacy is obviously limited among people with so little formal education. Respondents were asked if they could read a newspaper, write a letter, if they could add, subtract, multiply, and divide. More than half (54.3 percent) of the respondents reported inability to do any of those tasks. Just over one-fifth reported themselves able to read, write, and perform simple arithmetic.

Table 9. Years of Education of Respondents and Wives

Years of Education	Respondents		Wives	
	N	%	N	%
No formal education	171	59.4	143	56.3
Less than 1 year	16	5.6	16	6.3
One but less than 2 years	35	12.2	30	11.8
Two but less than 3 years	25	8.7	27	10.6
Three but less than 4 years	25	8.7	24	9.4
Four but less than 5 years	11	3.8	11	4.3
Five but less than 6 years	3	1.0	2	.8
Six years or more	2	.7	1	.4
No answer, doesn't apply	(3)		(37)	
Total ^a	288	100.0	254	100.0

^aTotal does not include no answer or not applicable.

II. GEOGRAPHICAL MOBILITY

The high geographical mobility of the rural population has been observed by many social analysts of the Brazilian scene.⁹ They have studied the efforts to settle people in colonies, the influx of rural population in urban centers, and more generally, the demographic aspects of population movements. Aggregate data are often used to infer the determinants of the direction of the migration streams, as well as the consequences of the migration for the areas of outmigration and immigration. In this tradition, researchers have studied the characteristics of migratory streams and the factors affecting migration, including the intervening opportunities between points of origin and points of destination.¹⁰ But the study of the aggregate aspects of migration streams has given only limited information about the total significance of migration in a changing society. Our understanding of the migration process is incomplete until we know the characteristics of the migrants, why they move, where they move from and what induces them to move to one area rather than to another. For example, in rural to urban migration, migrants move from low to higher income areas. It is concluded that migrants are in search of better economic opportunities.

⁹See, for example, Carlos de Medina, "A estrutura agrária brasileira: características e tendências," América Latina, Vol. 7, 1964, pp. 71-91; Benno Galjart, "Turnover of Farmers in a Land Settlement Scheme in Brazil," América Latina, Vol. 8, 1965, pp. 49-65; Souza Barros, Exodo e Fixação, Estudos Brasileiros, No. 5, Ministério da Agricultura, S.I.A., Rio de Janeiro, 1953; J.F. Camargo, Exodo Rural no Brasil, Coleção Temas Brasileiros, Vol. 1, Brasília: Ed. Conquista, 1960; T. Pompeu Accioly Borges, Migrações Internas no Brasil, Rio de Janeiro: Comissão Nacional de Política Agrária, 1955; T. Lynn Smith, Brazil: People and Institutions, Baton Rouge: Louisiana State University Press, 1963; Bertram Hutchinson, "The Migrant Population of Urban Brazil," América Latina, Vol. 6, 1963, pp. 41-71.

¹⁰The most famous of these studies are: E. G. Ravenstein, "The Laws of Migration," Journal of the Royal Statistical Society, Vol. 48, 1885, pp. 167-214, and E. G. Ravenstein, "The Laws of Migration: Second Paper," Journal of the Royal Statistical Society, Vol. 52, 1889, pp. 241-289; Dorothy S. Thomas, Research Memorandum on Migration Differentials, New York: Social Science Research Council, 1938; Samuel A. Stouffer, "Intervening Opportunities: A Theory Relating Mobility and Distance," American Sociological Review, Vol. 5, 1940, pp. 845-867. In Brazil the work of Camargo, op. cit., is in this tradition.

Although this is a valid conclusion as far as the aggregate characteristics of migration movement is concerned, it is incomplete if not qualified by the statement that the better educated and more prosperous of the rural population have been the first ones to leave.¹¹ It is precisely at this analytical level, where the subject of investigation is the individual, that the present study intends to make a contribution.¹²

The individual migration process can be viewed in terms of an individual at point of departure perceiving unsatisfactory conditions, becoming aware of opportunities to improve his condition at some other location, and deciding to move to this new location (destination).¹³ In formulating individual migration this way, one ought to realize that at the point of departure not only unsatisfactory conditions (push factors) operate, but that restraining forces of various types (family ties, property ownership) are also operating. Awareness of favorable alternatives (pull factors) depends on communication about these alternatives. Finally, neither the evaluation of conditions at point of departure nor the perception of alternatives should be interpreted only in economic terms. The pursuit of economic betterment is undoubtedly the most common reason for migratory movements, but seldom the only one.

¹¹H. Ter Heide, Binnenlandse Migratie in Nederland, The Hague, Netherlands: Rijksdienst voor het Nationale Plan, Publicatie Nr. 16, 1965, lists around twenty studies done in Europe and the United States, confirming this finding. Only occasionally has it been found that migration was not selective for education. (Ter Heide, op. cit., pp. 116-117). Some of the pitfalls of moving from aggregate data to individual phenomena are ably explained in W. S. Robinson, "Ecological Correlations and the Behavior of Individuals," American Sociological Review, Vol. 15, 1950, pp. 351-357; the need for studies of individual migrants is also stressed by Louis Y. Ducoff, "Components of Population Change in Latin America," The Milbank Memorial Fund Quarterly, Vol. 43, Part 2, October 1965.

¹²Borges, op. cit., also has investigated individual mobility in Brazil.

¹³In this, as in the rest of this chapter, we draw heavily from Ter Heide, op. cit. Other relevant and accessible publications are: J. E. Ellemers, "The Determinants of Emigration: An Analysis of Dutch Studies on Migration," Sociologia Neerlandica, Vol. 2, Nr. 1, 1964, pp. 41-59; S. N. Eisenstadt, The Absorption of Immigrants: A Comparative Study Based Mainly on the Jewish Community in Palestine and the State of Israel, London: Routledge and Paul, 1954; A. Richardson, "Some Psycho-Social Aspects of British Emigration to Australia," British Journal of Sociology, Vol. 10, 1959, pp. 327-337.

According to this concept of migration to the interior of Brazil, we obtained the following information: 1) locale of origin, 2) reasons for leaving, 3) main source of information, 4) reason for selecting Itumbiara as destination, 5) amount of geographical movement engaged in before reaching the present residence, 6) a number of personal characteristics of the migrant and 7) a measure of perceived benefits resulting from the move.

It should be kept in mind, however, that this information was obtained ex post facto from the migrants after they reached their destination. In order to obtain a complete account of the migration process, information would be needed on non-migrants at point of departure, migrants to other destinations, and migrants who arrived in Itumbiara and subsequently left.

Characteristics of the Migrants

Geographical Origin

Out of the total sample of 291 respondents, 34 or 11.7 percent were born in Itumbiara, and remained there all their lives. Another 25 or 8.6 percent arrived as young children in Itumbiara with their relatives and grew up in the county. This leaves 232 respondents who moved alone or with their families to Itumbiara and who in this study are considered migrants. Three of the migrants were born in Itumbiara, moved away at an early age, and returned after reaching adulthood.

Of the 232 migrants, the large majority were born in the surrounding areas: 157 in Minas Gerais and 15 in other counties in Goiás, together accounting for 74.2 percent of the migrants. The Northeast was the second largest source of migrants: Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe, and Bahia were the places of origin of 22.0 percent of the migrants. All other states together accounted for 3.8 percent of the migrants.

Just before coming to Itumbiara, 85.7 percent of the respondents lived in either Minas Gerais or one of the surrounding municípios in Goiás. About one-tenth of the migrants came directly from the Northeast, while 4.8 percent came from all remaining states. Thus about half of the Northeasterners had lived at other locations outside the Northeast before coming to Itumbiara.

Residential Movement

On the average, the migrants reported having lived in 4.34 residences since leaving home. Those who had lived in six or more residences made up 44.0 percent of the total.

Including the move to Itumbiara, the average number of moves¹⁴ between counties was 2.47 and between states 1.37. Those who had moved between counties five or more times made up 11.2 percent of the migrants, and 1.4 percent had moved five times or more between states. The pattern that emerges from these data is clear: the migrants move frequently but not over long distances. They change residence often but they usually do not move far; they do not often cross county lines, and they cross state lines very seldom.

Frequently geographical mobility varies by age. It is conceivable that the migrants display very mobile behavior at an early age, after which they settle down because they have acquired a number of assets or liabilities, such as property, children, etc., which make further movement undesirable. Table 10 shows mobility between counties by age group. The discussion will be limited to inter-county moves, because the data are considered more reliable. However, the phenomenon also seemed to exist for moves within counties.

Table 10. Number of Moves Between Municipios by Age Categories

Number of Moves	Total		Age							
	N	%	Under 30		30-39		40-49		50 and Older	
			N	%	N	%	N	%	N	%
1	81	36.7	19	48.7	25	32.1	20	33.3	17	31.5
2	60	27.1	13	33.3	25	32.1	14	23.3	8	14.8
3	33	14.9	4	10.3	17	21.8	10	16.7	12	22.2
4	21	9.5	1	2.6	9	11.5	4	6.7	7	13.0
5	26	11.8	2	5.1	2	2.6	12	20.0	10	18.5
No information	11	5.0								
Total	221	100.0	39	100.0	78	100.0	60	100.0	54	100.0

As expected, those under 30 years of age have moved less than the migrants over 30 years old. Among those over 30 years of age, two groups can be distinguished: those who have moved only once, and those who moved more frequently. Those who have moved only once, i.e.,

¹⁴ A move between counties or states was counted only if at least one year of residence was associated with a location.

those that have moved directly to Itumbiara, comprise about one-third of the migrants over 30 years old. This proportion does not decrease by age. In other words, among those older than 50 years, the proportion having moved only once is still 31.5 percent. The two-thirds of the population over 30 years old who have moved more than once accumulate more moves as they grow older. This may indicate that two groups should be distinguished among the migrants: those moving frequently, living in a subculture in which moving has become a norm, and those who make only one major move in their lifetime.

Demographic Characteristics

At the time of their move to Itumbiara, 32.8 percent of the respondents were 26 years or younger,¹⁵ 34.9 percent were between 26 and 38 years old, and 32.3 percent were 38 years old or older when they arrived in the county. With 67.7 percent of the adult migrants under 38 years of age at the time of moving, there can be no doubt that youth participates heavily in the migration process. This is a frequent phenomenon.¹⁶

When arriving in Itumbiara for the first time, 73.7 percent of the respondents reported bringing the dependent members of their family, while 25.9 percent came alone. Thus, although families form the majority of the migration, many present heads of families married after arriving in Itumbiara.

The majority of the migrants have had no urban experience. Almost two-thirds had never lived in a town or city. It should be pointed out that urban residence may have been an unplanned interlude between two jobs or just a temporary step in the migratory movement. Nevertheless, one-third of those currently living in the rural areas resided at one time in an urban environment. Thus rural migration cannot be explained simply by lack of urban contact and experience in urban areas.

¹⁵Migrants were defined such that respondents arriving in Itumbiara before age 17 and with relatives are not considered migrants; only those who made the decision to move are considered migrants and are under discussion here.

¹⁶In Brazil, this phenomenon has been reported by Hutchinson, op. cit.

Occupational Experience

The main occupations of the migrants were classified in nine categories: 1) without employment, 2) unskilled laborers, 3) sharecroppers and caretakers of farms, 4) skilled laborers, 5) small storekeepers, 6) clerical employees, 7) teachers, civil servants, military, 8) landowners and renters, 9) professionals and large businessmen.

Among the migrants there was no one in either the clerical employees, teachers, civil servants, or military categories. The unemployed, small storekeepers, and professional categories together made up only 2.2 percent of the migrants.¹⁷ The occupations in categories one through five account for 70.3 percent of the migrants' occupations, while renters, owners, and professionals account for 28.9 percent of the employment of the migrants at the time of the survey. As expected, occupational experience and occupational mobility are very limited for the respondents. At the time of the fieldwork a majority of 161 respondents (69.4 percent) held the same type job as they had held throughout their whole work history.¹⁸

Reasons for Migrating

Table II shows the types of reasons reported by the respondents for leaving the previous location and the reasons for coming to Itumbiara. Before analyzing these data, we should explain the large numbers found in the 'no reason, no answer' category. Efforts to record both push and pull factors from each respondent were often not successful, since the respondents did not conceptualize the migration process in terms of push and pull factors operating at point of departure or destination, respectively.

Economic problems account for 63.3 percent of those respondents who expressed a reason for leaving. Conflicts with other persons, including disagreements with landlords; family related events such as death; and dissatisfaction with living conditions account for 29.0 percent of the responses among main reported reasons for leaving.

Purely economic opportunities were the main reason for coming to Itumbiara for 54.4 percent of the respondents. Conflicts obviously did not act as an attracting force, but non-economic factors related to family life, especially the desire to join relatives, and opportunities to improve living conditions were named by 41.0 percent of the

¹⁷ These categories made up 3.1 percent of the total sample.

¹⁸ A change of employer, location of employment, or from one job to another within one category were not considered changes in type of job. Thus a small degree of changes between types of jobs does not indicate employment stability. Employment stability is quite low. Most respondents have held several jobs, but they always perform the same kind of work.

respondents.¹⁹ Thus while economic opportunity is the predominant motive for leaving a location, the selection of a place to move to-- in this case Itumbiara--often depends on other than economic factors. This should not be interpreted to mean that the migrants disregard economic motives in the selection of a location to move to, but rather to mean that, among possible locations in which they perceive similar economic opportunities, the migrants select the destination which takes them closer to relatives or friends or provides other non-economic advantages.

Table 11. Reasons for Leaving Previous Location, and Reasons for Coming to Itumbiara

Items Reported	Reasons for Leaving		Reasons for Coming	
	N	%	N	%
Agriculture	66	42.6	84	43.1
Other economic	32	20.6	24	12.3
Conflicts	23	14.8		
Family, living conditions	22	14.2	80	41.0
Other	12	7.7	7	3.6
No reason, no answer	(77)		(37)	
Total	155	100.0m	195	100.0

We also tried to ascertain why these migrants moved from one rural area to another, rather than to an urban area. The migrants were asked: 1) if they thought they could obtain jobs outside agriculture if they wanted to, and 2) if they planned to leave agriculture. Of those responding, 47.2 percent felt they could not get a non-agricultural job, and another 17.9 percent expressed grave doubts as to their ability to obtain a non-agricultural job. The migrants showed little inclination to leave agriculture, as 78.5 percent indicated they did not plan to. For many of them this is undoubtedly because they did not perceive an opportunity to find non-agricultural employment.²⁰

¹⁹It is worth noting that 30.6 percent of the migrants said that relatives moved to Itumbiara after they moved.

²⁰In terms of aspirations for their children, most migrants would like to see their sons take non-agricultural jobs.

Perceived Benefits of Migration

The migrant's motivation to move is based in part on dissatisfaction with his condition at the location of departure, and in part on awareness of more attractive alternatives elsewhere. However, every attempt on the migrant's part to improve his conditions by moving also implies that he will have to take certain losses. He may gain in income but lose in terms of the type of work he is forced to do in his new environment; or the migrant may gain in terms of living conditions but experience a loss resulting from the absence of relatives. One would expect that the migrants who remained in Itumbiara have generally found their present location an improvement over their previous residence.

Since economic reasons were most important for moving we expected that benefits would be perceived in income and working conditions. Dissatisfaction was expected in terms of loss of contacts with friends. Since non-economic factors played a prominent positive role in selecting Itumbiara as destination, one would expect perceived benefits in non-economic gains. Educational and health facilities were chosen to represent the evaluation of non-economic aspects of Itumbiara.

Table 12 gives the results of our measures of the respondents' perception of benefits in their present residence as compared to their previous residence outside Itumbiara. Focussing on reported improvements--which is presumably what the migrants looked for--it can be seen that working conditions, income, and health facilities have most often resulted in perceived improvements.

Table 12. Percent of Respondents Perceiving Benefits from Migration: Comparisons of Aspects of Itumbiara with Last Location Before Migration

Benefits	Worse		Equal		Better	
	N	%	N	%	N	%
Working conditions	61	26.4	54	23.4	116	50.2
Income	65	28.1	73	31.6	93	40.3
Educational facilities	91	41.4	48	21.8	81	36.8
Health facilities	99	43.0	37	16.1	94	40.9
Number of friends	53	23.0	110	47.8	67	29.1
Overall evaluation	37	16.3	69	30.4	121	53.3

Interestingly, health facilities, together with educational facilities, were also often reported as being worse. Obviously, evaluations are always comparative and what is an improvement for one can be a deterioration of conditions for another respondent.

In general, over half the respondents report living conditions in Itumbiara better than at the previous location, while only 16.3 percent report conditions as worse. It should be noted, though, that for none of the items does a majority feel that Itumbiara is better than previous location. This indicates that while many migrants do not feel that the move to Itumbiara has been accompanied by improvements in specific conditions, they feel that the move has been generally advantageous.

Migrants from the Northeast

It is clear from previous discussion that migrants do not form a homogeneous group but can be divided into subgroups on the basis of certain variables. Now we will discuss how place of birth (for which we will compare Northeasterners with those born in other states), time of the move, and occupational status at the time of the survey relate to reasons for migration, personal characteristics, and perceived benefits from moving.

That the Northeast has contributed very significantly to the internal migration in Brazil is widely known and well-documented.²¹ The socio-cultural heritage and the structural conditions of the Northeast are rather widely held to indicate that the Northeasterner is disadvantaged when he enters the migration stream and competes in the labor market in other areas of Brazil.

The Northeasterners among the migrants of the present study have generally arrived in Itumbiara somewhat later than the other migrants; while 17 percent of the Northeasterners had lived in Itumbiara more than ten years, 29 percent of the other migrants arrived in Itumbiara before 1956. This pattern of time arrival is not different for those arriving directly from the Northeast and those Northeasterners who had lived in other locations outside the Northeast before coming to Itumbiara.

The Northeasterners do not differ from others in amount of residential movement or movement across county lines. However, the Northeasterners have resided in more states than the other migrants. If we consider movement across state lines as an indication of distance traveled, we can say that while the Northeasterners do not move more frequently than the remainder of the migrants, they tend to move longer distances.

²¹ Camargo, op. cit., pp. 128-129; T. Lynn Smith, op. cit., chapter 9.

It was expected that Northeasterners would leave their origin for economic and climatic reasons to a greater extent than those from other areas.²² However, these expectations are not fulfilled. Although the Northeasterners gave agricultural and economic reasons for leaving somewhat more often, and conflicts and living conditions less often, the differences are small and based on very small numbers. No differences between Northeasterners and others are found in reasons for coming to Itumbiara nor in the type of knowledge about Itumbiara. Also, no differences were found between Northeasterners and migrants from other areas in the desire to leave agriculture or in opportunities perceived for obtaining employment outside agriculture.

These somewhat surprising findings might be attributed to the fact that most of the Northeasterners did not move directly from the Northeast to Itumbiara but joined the migration stream at an earlier time. Apparently, after joining the migrant stream the Northeasterners lost any distinguishing characteristics of motivation or benefit perception.

The fact that many Northeasterners left the Northeast some time before coming to Itumbiara should not affect their level of education and the rate of literacy among them, both of which are generally described as quite low.²³ One expects, furthermore, that the longer migration distance will lead to a higher incidence of urban residence among the Northeasterners as well as more diversified occupational experience. The data indicate that the Northeasterners have less education; 76.5 percent of the Northeasterners had no formal education, versus 55.0 percent of the other migrants. Literacy of the Northeasterners also lagged much behind the other migrants. Only 17.7 percent of the Northeasterners claimed to be able to read and write, while for the migrants from other states, this percentage is 43.1 percent.²⁴ However, the Northeasterners are not different from the other migrants in urban residence and occupational experience.

We found that 14 percent of the Northeasterners were either renters, owners or professionals, while 33 percent of the other migrants belong to these categories.²⁵ Thus, relative to other migrants

²²Camargo, *op. cit.*, pp. 134-135, discusses a number of studies indicating mainly economics (low salaries, lack of work), agricultural (latifundio, poor quality of land), and climatological (drought), factors operating in the process of migration from the Northeast.

²³See, for example, T. Lynn Smith, *op. cit.*, pp. 492.

²⁴The chi squared computations of the relationship between place of birth and education and literacy result in statistically significant relationships for both education ($\chi^2 = 7.6169$, DF = 1, $p < .01$), and literacy ($\chi^2 = 10.9930$, DF = 1, $p < .01$).

²⁵The chi squared computations of the relationship between place of birth and present occupation results in a statistically significant relationship ($\chi^2 = 7.0847$, DF = 1, $p < .01$).

the Northeasterners have not been as successful occupationally, probably because of disadvantages in education and the fewer material resources brought to Itumbiara.²⁶

In order to compare present perception of benefits with those at their previous location, we decided to combine the 'worse' and the 'same' responses and compare with the 'better' responses.²⁷ The Northeasterners did not perceive more benefits than the remainder of the sample in work conditions, income, and contacts with friends. They perceived benefits in existing education facilities slightly more often than did other migrants, and they perceived better health facilities considerably more often. (Of the Northeasterners, 54.9 percent thought health facilities to be better, while only 36.9 percent of the other migrants judged health facilities to be more adequate in Itumbiara than in their previous locale of residence.) With respect to overall conditions, the Northeasterners more often evaluated their own position as improved (62.8 percent); just half (50.6 percent) of the other migrants perceived their own situation as better now than before coming to Itumbiara.²⁸

In summary, it appears that the Northeasterners differ mainly in those characteristics which directly affect their economic performance: their education and their control of resources. A very small number of them are currently of the owner class. The actual migration movement, although generally over a longer distance, appears not to be different for the Northeasterners, nor are their reported reasons for moving, or their occupational experience and urban residence. The Northeasterner is more likely to perceive non-economic benefits from moving but is no more likely to perceive economic improvement than are other migrants.

²⁶ Attempts to measure material resources brought to Itumbiara were not successful mainly because reports on money brought appeared unreliable. Converting material possessions into their monetary equivalents also failed because of lack of standards. One indicator, material goods (either tools or animals) brought to Itumbiara, did show clearly that the Northeasterners brought less when they arrived ($\chi^2 = 12.0265$, $DF = 2$, $p < .01$). Hypothetically however, this may mean that the Northeasterners sold all they had before moving, and brought only money. Seven Northeasterners claimed they left material goods behind, but at least some of those are either unsettled inheritance claims, or outrightly abandoned farms to which the owner has no intention of ever returning.

²⁷ The chi squared computations of relationship between place of birth and perceived benefits, considering all three categories ('better, equal, worse'), results in a significant relationship for health facilities ($\chi^2 = 5.9928$, $DF = 2$, $p < .05$), and overall evaluation ($\chi^2 = 5.0592$, $DF = 2$, $p < .10$). Other relationships were found to be at lower levels of statistical significance.

²⁸ It should be noted that the Northeasterners were asked to compare Itumbiara with previous residence, which for them was not necessarily the Northeast.

Time of Arrival

Time of arrival has two effects in the present study. One effect is to introduce a selective factor of unknown qualities in the research design; only those people who arrived in Itumbiara at a certain time, and neither died nor left again for some place else, had a chance to appear in the sample. A second effect relates to opportunities available at different times. In a rapidly changing social system, such as Itumbiara in the last decade, time of entrance into the community is relevant to the nature of economic opportunities available. Thus it is useful to determine to what extent early migrants had different reasons for coming to Itumbiara, had different personal characteristics, and perceived the benefits of their move differently than later migrants.

For this purpose the migrants were divided into three categories: those arriving before 1956 (N = 62), those arriving from 1956 through 1960 (N = 75), and those arriving since 1960 (N = 95).

No differences are found among the various length of residence categories regarding reasons for leaving previous locale, reasons for coming to Itumbiara, knowledge of Itumbiara, or perception of occupational opportunity.

With respect to personal characteristics, the migrants who arrived before 1956 differ from the others on a number of variables. The early migrants were younger when they arrived, and fewer of them were married at time of arrival.²⁹ More of the early migrants were better educated and more of them could read and write, but these differences are small. The early migrants are also more often found in the owner class than the other migrants.³⁰ Occupational experiences and urban residence did not differ for early migrants and later migrants.

It is clear that the earlier migrants as a group are different and economically better off than the later migrants. Inspection of the data indicates that this is not a result of attainments of the earlier migrants over time; almost all of them began their life in Itumbiara as members of the owner class. (Those arriving before 1956 but with less favorable socio-economic characteristics and achievements may have been more mobile and have left the area. While this is probably partly true, a check of the relationship between occupational category and amount of movement indicates that no significant relationship between these two variables exists for all respondents.)

²⁹The chi squared computations of the relationships between time of arrival and age upon arrival and marital state upon arrival result in statistically significant relationships for both age ($X^2 = 22.0427$, $DF = 4$, $p < .001$), and marital status ($X^2 = 18.6481$; $DF = 2$, $p < .0001$).

³⁰The chi squared computation of the relationship between time of arrival and present occupation results in a statistically significant relationship ($X^2 = 8.3358$, $DF = 2$, $p < .05$).

Table 13 indicates that the proportion of owners declines and the proportion of tenants increases from the oldest migrant groups to the most recent migrants. Thus it appears safe to assume that those who belong to the tenant class were attracted to the county at a later period in time than those belonging to the owner class.

Table 13. Number and Percent of Migrants in Occupational Categories by Time of Arrival

Occupational Categories	Time of Arrival					
	Since 1961		Between 1956 and 1960		Before 1956	
	N	%	N	%	N	%
Owner, renter, professional	19	20.4	22	29.3	26	41.9
Laborer, sharecropper, etc.	74	79.6	53	70.7	36	58.1
Total	93	100.0	75	100.0	62	100.0

For a number of reasons it was anticipated that long time residents would perceive more benefits resulting from their moves than would more recent arrivals. First of all, there is selectivity: those who felt the move was very much to their disadvantage are more likely to be ones who left again.³¹ A second reason to expect a relationship between time of arrival and perceived benefits stems from the fact that the respondents were asked to compare certain phenomena in Itumbiara with the situation in their previous location. For the earlier migrants this comparison involves the difference between Itumbiara in 1966 and their previous residence outside Itumbiara before 1956. Hence, their responses are affected by the changes that

³¹ In order to see how very recent migrants (who had not had a chance to leave yet) affected the findings, relationships between length of residence and benefits were considered, breaking length of residence down into periods of two years or less; from two to five years; six and seven years; etc.

If the presence of recent (dissatisfied) migrants, who had not yet left again, affected the relationship, one would expect to find very low levels of perceived benefits among the group of most recent migrants. This was not the case. Migrants who had arrived within the last two years were either lower but very close in perceived benefits to the residents who had lived in the county three to five years, or they perceived more benefits from the move. Thus the selective migration hypothesis, although not disproven, at least could not be supported in this manner.

have taken place in Brazil in that ten-year period, as well as by differences in the former and present residences. The most plausible reason is that the early migrants have actually received the greatest benefits. This is most likely the case for economic opportunities, since health and educational facilities are approximately equal for all respondents.³²

Figure 2 shows that the proportion of people perceiving benefits in terms of overall evaluation, working conditions, income, and number of friends, was highest for those with the longest residence.³³ For health facilities no relationship is found between length of residence and perceived improvement. The earlier migrants are generally more satisfied with conditions at Itumbiara and thus are more likely to feel a sense of commitment to the community. Rather than being "the first ones to arrive, the first ones to leave," they may turn out to be the ones least likely to leave.³⁴

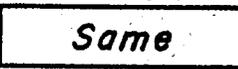
In conclusion, the early migrants in the sample are different in personal characteristics from the later migrants. The early migrants were younger when they arrived and were somewhat better educated and more of them belong to the owner class, which almost all of them joined immediately upon arrival in Itumbiara. Length of residence in itself did not lead to movement from tenant class to owner class. The earlier migrants also perceived more benefits from living in Itumbiara, at least in working conditions, income, and number of friends. Later migrants did not perceive benefits in these areas, nor in their overall evaluation, as frequently as the earlier migrants. Neither reasons for moving nor perception of occupational opportunity were found to be different for early and later migrants.

³²The chi squared computations of relationship between length of residence and perceived benefits, considering all three categories ('better, equal, worse') results in a significant relationship for: number of friends ($\chi^2 = 29.8531$, $DF = 4$, $p < .001$), overall evaluation ($\chi^2 = 14.7928$, $DF = 4$, $p < .01$), income ($\chi^2 = 11.1073$, $DF = 4$, $p < .05$), and working conditions ($\chi^2 = 7.9744$, $DF = 4$, $p < .10$). Other relationships were found to be at lower levels of statistical significance.

³³For educational facilities the positive relationship between length of residence and percent perceiving improvement can also be observed, but this pattern--unlike the ones just reported--becomes a completely erratic one when length of residence is broken down into more than three categories.

³⁴A check of the relationship between length of residence and intention to move in the future, indicates indeed that early migrants express somewhat less often an intention to move than do later migrants ($\chi^2 = 8.3147$, $DF = 4$, $p < .10$).

Fig. 2 PERCEIVED BENEFITS FROM MIGRATION BY TIME OF ARRIVAL

KEY:  Better  Same  Worse Percentages of respondents given

Time of Arrival

Type of Benefit

WORKING CONDITIONS

Before 1956	62.9%	19.4%	17.7%
1956-1960	52.0	21.3	26.7
1961 or later	40.4	27.7	31.9

INCOME

Before 1956	50.0	33.9	16.1
1956-1960	45.3	24.0	30.7
1961 or later	29.8	36.2	34.0

EDUCATIONAL FACILITIES

Before 1956	41.7	18.3	40.0
1956-1960	41.2	19.1	39.7
1961 or later	30.4	26.1	43.5

HEALTH FACILITIES

Before 1956	46.8	9.7	43.6
1956-1960	38.0	21.3	42.8
1961 or later	40.9	16.1	43.0

NUMBER OF FRIENDS

Before 1956	30.7	50.0	11.3
1956-1960	38.7	49.3	12.0
1961 or later	15.0	45.2	39.8

OVERALL EVALUATION

Before 1956	65.6	29.5	4.9
1956-1960	58.9	26.0	15.1
1961 or later	40.9	34.4	24.7

Occupational Status

One would expect that members of the owner class might have had a migration experience different from that of the remainder of the sample. It has already been pointed out that Northeasterners are underrepresented in the owner class and that the owner class is found disproportionately often among the early migrants. It was also shown that the owner group did move slightly less often, but the relationship between occupational category and the three measures of geographical mobility are very weak.³⁵

There are no differences between the occupational groups with respect to reason for leaving previous locale, reason for coming to Itumbiara, or importance of economic motivation. Also, there was no difference for the two occupational groups according to perception of occupational opportunity, intention to leave agriculture, or perceived ability to find jobs outside agriculture.

There are no differences between the two occupational groups with respect to age at time of move, marital status at time of move, or urban residence. Education and literacy are related to occupational status. The differences are quite marked in both cases; 42.2 percent of the owner class never attended school, while among the remaining respondents 67.1 percent never attended. The percentage that can read and write in the two classes is 58.2 and 29.3 respectively.³⁶ Those who have achieved more obviously entered the migration process with more educational skills. Note, however, that even among the owner class, the educational level is still quite low.

While 70.4 percent of the low occupational category had always worked at the same type of job, only 51.5 percent of the owner category had always held the same type of job, indicating the wider occupational experience enjoyed by the owner class.³⁷

³⁵The chi squared values of the occupational categories with the three measures are: number of residences ($X^2 = 4.4990$, $DF = 2$, $p < .20$), changes between counties ($X^2 = 5.2644$, $DF = 2$, $p < .10$), number of changes between states ($X^2 = 5.3468$, $DF = 2$, $p < .10$). Other relationships were found to be at lower levels of statistical significance.

³⁶The chi squared computations resulted in statistically significant values for occupational class with education ($X^2 = 11.9136$, $DF = 1$, $p < .001$), and with literacy ($X^2 = 16.9694$, $DF = 1$, $p < .001$).

³⁷The chi squared computation of the relationship between occupational status and occupational experience results in a statistically significant relationship ($X^2 = 7.3320$, $DF = 1$, $p < .01$).

Table 14 shows that migrants perceived the benefits of their move differently according to their occupational status. Owners were more likely to see economic benefits, tenants more likely to see non-economic benefits. Both classes were equally low in evaluation of gains with respect to number of friends; only about 30 percent of each perceived improvement.

Table 14. Percent of Migrants Perceiving Benefits by Occupational Category³⁸

Benefits	Occupational Category	
	Owner	Tenant
Working conditions	68.7	42.6
Income	53.7	35.2
Educational facilities	31.3	39.0
Health facilities	30.3	44.4
Overall evaluation	59.1	50.0

In summary, the owner and tenant classes do not differ in reasons for moving, or perception of occupational opportunity. While the owner class is better educated and has had a more diversified occupational experience than the tenant class, the owners do not differ in other characteristics, i.e., age, marital state at time of move, or urban residence. The owner class, compared to the tenant class, is more likely to perceive benefits from the move in terms of income and working conditions and less likely to see benefits in health and educational facilities.

³⁸The chi squared computation between occupational category and perceived benefits, considering all three categories ('better, equal, worse'), results in a significant relationship for: Work conditions ($\chi^2 = 15.6718$, $DF = 2$, $p < .001$), Income ($\chi^2 = 7.7147$, $DF = 2$, $p < .05$), Overall Evaluation ($\chi^2 = 5.3468$, $DF = 2$, $p < .10$). Other relationships were found to be at lower levels of statistical significance.

III. MIGRATION AND INTEGRATION: EFFECTS OF LENGTH OF RESIDENCE

Introduction

Migration is for most people a disruptive experience. The migrant leaves a location where he is part of a network of social relationships which provide emotional and material support. Whenever a migrant locates in a new area he must re-establish both informal and formal relationships which will serve his needs and interests.

Participation in locally based interpersonal networks determines in large part the level of integration of the migrant. The present part will investigate how length of residence affects the formal and informal relationships which integrate the migrant. It is expected that the longer the migrant is a resident of his new community, the more he will have established contacts with kin and others who provide him with emotional and material support and the more he will participate in both expressive and instrumental local activities. Expressive activities include religious, recreational, and social, while the instrumental include exchanges of goods and services and political activities.

In order to determine the effects of length of residence, three groups of migrants will be compared on the basis of time of arrival: those having arrived within the five years preceding the research (1961-1966), those who arrived between 1956 and 1960, and those having arrived before 1956.

The migrant groups will also be compared with those respondents who were born in Itumbiara. It is expected that those born in Itumbiara will be more integrated. They will display a higher degree of contacts with kin and friends. Natives are also expected to participate more frequently in expressive and instrumental local activities than migrants.³⁹

Participation by the respondents was measured in a variety of ways, which provided a broad interpretation of the integration concept. Although one may wish to argue with a specific indicator, it is our contention that the replicative nature of the analysis provides

³⁹See, for example, Basil G. Zimmer, "Participation in Urban Structures," American Sociological Review, Vol. 20, 1955, pp. 218-224.

assurance that various aspects of integration are considered.⁴⁰

Migrants and Natives

Before analyzing the degree of integration for migrants and for natives, a brief comparison will be made between them with respect to characteristics that affect integration.

The early migrants, those having arrived in Itumbiara before 1956, tend to be slightly older than more recent migrants and than those respondents born in Itumbiara. The early migrants are also prone to have more children. However, the differences in age and in family size are small. The level of living⁴¹ of the natives is intermediate between that of the most recent migrants and of the early migrants⁴² (see Table 15).

Table 15. Distribution of Level of Living Scores by Migrant Status

Level of Living Score	Migrants						Natives	
	Time of Arrival							
	After 1961		Between 1956 and 1960		Before 1956		N	%
	N	%	N	%	N	%	N	%
Low (2 or less)	45	47.7	26	34.7	18	29.0	18	20.5
Medium (from 3 to 5)	39	41.1	29	38.7	19	30.7	19	32.2
High (from 6 to 12)	11	11.6	20	26.7	25	40.3	22	37.3
Total	95	100.0	75	100.0	62	100.0	59	100.0

⁴⁰This procedure agrees with traditional research on social participation. Teele states that those measures used most frequently include: "number of neighbors known; number of friends one has; number of voluntary associations in which membership is held; frequency of attendance at meetings of voluntary organizations; frequency of visits to extended relatives; number of children one has; frequency of seeing friends (includes visits to and visits from friends); frequency of seeing one's children; frequency of visits from extended family relatives; whether or not one played with peers or siblings in adolescence;" see James E. Teele, "An Appraisal of Research on Social Participation," Sociological Quarterly, Vol. 6, 1965, pp. 257-267.

⁴¹Measured with an index composed of items reported in part I.

⁴²The chi squared value for the relationship between level of living and length of residence is statistically significant ($\chi^2 = 21.0130$, DF = 6, $p < .01$).

An important difference occurs in land ownership. The proportion of landowners increases directly with length of residence and is highest for the group of respondents born in Itumbiara. Among the most recent migrants 20.4 percent are owners and among the natives 52.5 percent are owners.⁴³ Therefore we maintain that on variables which would likely confound the following analysis, the native group, except for ownership, does not exhibit characteristics which sharply differentiate it from the migrants.

Family Networks

Visiting Contacts with Relatives

Contact with relatives is highly dependent on their proximity. Visits to and from parents, brothers and sisters, and in-laws are all more likely to occur if the kin members live in Itumbiara than outside Itumbiara (see Table 16). Distance is thus an important determinant of kin interaction, which is indirect evidence for the potentially disruptive nature of migration.

Table 16. Number and Percent of Respondents Visiting with Relatives According to the Presence of Relatives in the Municipio.

Type of Relatives	Relatives Living in Itumbiara		Relatives Not Living in Itumbiara	
	N	%	N	%
Exchanges visits with parents	73	97.3	37	45.7
Exchanges visits with parents-in-law	82	94.3	61	68.5
Exchanges visits with brothers or sisters	144	83.7	40	38.1
Exchanges visits with brothers or sisters-in-law	138	85.7	44	48.9

⁴³The chi squared value for the relationship between occupational status and length of residence is statistically significant ($\chi^2 = 19.1627$, DF = 3, $p < .001$).

Presence of kin members in Itumbiara is given in Table 17 and the data on exchange of visits with kin are given in Table 18.⁴⁴ As expected, the natives have more kin members living in close proximity, and are more likely to exchange visits with them.

Among the migrants the patterns of association with kin are more complex than anticipated. In the first place, a substantial difference was found in contacts with husband's kin and contacts with wife's kin. During the initial years following the migration the migrants are clearly more likely to maintain contacts with the relatives of their wives than with their own immediate kin.

One explanation for this phenomenon could be the classification procedures followed; respondents were classified according to the migratory status of the husband. The males may have migrated and subsequently married local girls. This explanation is rejected for two reasons. Table 17 shows that there are no great differences in residence patterns between husband's kin and wife's kin. Furthermore, proximity does not have the same effect for contacts with parents, and contacts with parents-in-law. Just over two-thirds of the respondents whose parents-in-law did not live in Itumbiara visited them or were visited by them, while less than half of the respondents whose parents do not live in Itumbiara maintained visiting contacts with them.

For recent migrants, despite similar residence patterns, contacts with wife's brothers and sisters also are more frequent than contacts with husband's brothers and sisters.

A second difference in contacts with own kin and wife's kin is found among the migrants. While longer-time residents are more likely to have contacts with husband's kin than more recent arrivals, contacts with the respondent's in-laws remain approximately at the same level irrespective of length of residence.

Hence, wife's relatives play an important role in the migration process. Although migrants often break the ties with the members of their own kin immediately after moving and re-establish these ties only after time has elapsed, the migrants less often break ties with the wife's relatives.

⁴⁴In terms of exchange of visits we have elected to divide the responses according to the absence or presence of visits, ignoring the frequency of visits. It is believed that the important difference is found in the absence or the existence of visits, rather than in the frequency of visits.

About half of the respondents also had other relatives living in Itumbiara. The proportion of respondents without relatives in Itumbiara decreases with length of residence, and was lowest for those who have always lived in Itumbiara. While not presented in Table 18, contacts with other relatives increases with length of residence in the area.

Table 17. Number and Percent of Natives and Migrants Reporting No Relatives Living in Itumbiara

Type of Relatives	Migrants Time of Arrival						Natives	
	After 1960		1956-1960		Before 1956		N	%
	N	%	N	%	N	%		
Parents	34	70.8	28	62.2	15	51.7	5	13.5
Parents-in-law	40	69.0	25	49.0	18	51.4	13	32.5
Brothers and sisters	51	53.7	35	46.8	26	41.9	7	11.9
Brothers- and sisters- in-law	46	51.1	28	41.6	23	39.7	6	12.5
Other relatives	59	62.1	40	53.3	25	40.3	14	23.7
Godchildren	48	50.5	23	31.3	5	8.3	5	8.5

Table 18. Number and Percent of Natives and Migrants Reporting No Exchange of Visits with Members of Immediate Kin

Type of Kin	Migrants Time of Arrival						Natives	
	After 1960		1956-1960		Before 1956		N	%
	N	%	N	%	N	%		
Parents	18	39.1	20	44.4	5	17.9	3	8.1
Parents-in-law	13	22.4	8	16.6	8	23.5	4	11.1
Brothers and sisters	38	42.2	32	44.4	17	29.3	6	10.5
Brothers- and sisters- in-law	30	33.7	21	31.3	17	30.4	7	15.6

The proportion of people who do not have godchildren living in the county also decreases with length of residence but is the same for the long term residents as for those who have always lived in Itumbiara. Although godchildren do not provide much support for the individual, their presence is a good indication of the extent to which the respondent participates in the interpersonal networks of the municipio because of the prestige of being a godfather.

Data on the exchange of visits with non-relatives are not available. However, it is doubtful that the contacts with non-relatives would depend to the same degree on length of residence. Non-relatives are always present and contacts with them would replace contact with relatives whenever the latter ones are not accessible.

Mutual Aid

Most help commonly comes from relatives rather than from other sources. The respondents are more likely to have received help from or have given help to parents whenever the physical well-being of the family is involved, such as shelter and illness. Help in farming is exchanged about equally among parents, relatives, and friends, while lending tools and money takes place between relatives and friends, rather than between parents and children (see Table 19).

Table 19. Number and Percent of Respondents Exchanging Mutual Aid with Parents, Relatives, and Friends

Type of Aid	Source or Recipient of Aid					
	Parents		Relatives		Friends	
	N	%	N	%	N	%
Lived with	163	57.2	85	30.2	n.a.	
Care of illness	179	62.8	127	45.0	87	30.0
Construction of house	90	31.7	69	24.5	30	10.3
Farming	125	44.4	113	39.9	115	39.7
Lend money	101	35.4	131	46.3	123	42.4
Lend tools	82	28.8	118	41.8	150	51.7

Given the disruptive nature of the migration process, one would expect that the migrants would receive aid less often from parents, relatives, and friends than those born in Itumbiara do. We would also expect to find that mutual aid increases by length of residence, given that integration will increase with length of residence.

The data do not indicate that mutual aid increases with length of residence. In addition, as Table 20 indicates, there is little evidence supporting the conclusion that the migrants received less help than the natives.

Table 20. Number and Percent of Migrants and Natives Exchanging Mutual Aid with Parents, Relatives, and Friends

Type of Aid	Source or Recipient of Aid											
	Parents				Relatives				Friends			
	Migrants		Natives		Migrants		Natives		Migrants		Natives	
	N	%	N	%	N	%	N	%	N	%	N	%
Lived with	129	56.3	35	62.5	71	31.6	14	25.0	n.a.		n.a.	
Care of illness	142	62.0	37	66.1	104	45.8	23	41.8	66	28.6	21	25.6
Construction of house	76	33.3	14	25.0	63	27.9	6	10.7	27	11.7	3	5.1
Agriculture	97	42.5	29	51.8	96	42.3	17	30.4	94	40.7	21	35.6
Tools	66	28.8	16	28.6	98	43.4	20	35.7	125	54.1	25	42.4
Money	82	35.8	19	33.9	109	48.0	22	39.3	99	42.9	24	40.7

The respondents born and reared in Itumbiara reported somewhat more often having received help from parents. The migrants, on the other hand, reported, with only one exception, receiving aid from relatives and friends more frequently than did the natives. Apparently, migration provides the need for more mutual aid among relatives as well as among friends. And while the measurements of mutual aid are not refined, the results indicate that migrants turn to other relatives and to friends when their contacts with parents are disrupted by the migration process.

Social Participation

Besides contacts with kin, participation in other activities allows the migrant to become a member of interpersonal networks, thus becoming integrated into the new setting. It is again presumed that the migration process disrupts the respondents' participation behavior, and that it takes time to reestablish participation patterns. In other words, it is expected that natives will have the highest participation scores, followed by the migrants with the longest residence, with the most recent migrants having the lowest participation.

The findings do not agree with these expectations. Table 21 shows that those born in Itumbiara have higher levels of participation in formal organizations and politics than recent migrants but participate less than the migrants who have been in Itumbiara for a longer period of time. Among the migrants the relationship between length of residence and participation in formal organizations, and in the political system, is as expected: participation increases with length of residence.

Table 21. Number and Percent of Natives and Migrants Participating in Various Social Activities

Type of Participation	Migrants Time of Arrival						Natives	
	After 1961		1956-1960		Before 1956		N	%
	N	%	N	%	N	%		
No church attendance	15	15.8	11	14.7	12	19.4	15	25.4
Low participation in recreation	27	28.4	14	18.7	21	33.9	17	28.8
Low participation in formal organizations	42	44.2	21	28.0	10	16.1	14	23.7
Low knowledge of public officials	35	36.8	17	22.7	11	17.7	15	25.4
Low contact with public officials	64	67.7	29	38.7	19	30.7	24	40.7
Did not vote in last municipal election	63	66.3	49	65.3	25	40.3	27	45.8
Did not vote in last national election	59	62.1	47	62.7	25	40.3	29	49.2

The church may be the most accessible source of personal and social integration in a strange community. Church-going appears to be more frequent for the recent migrants than for older migrants and natives. This probably reflects the special efforts made by some of the religious leaders to reach the migrants. Recreational activities do not appear to relate to migrant status or to length of residence.

The most remarkable finding is undoubtedly the "poor" performance of the respondents who were born and reared in Itumbiara. We can only speculate about the reasons for their lower participation than the migrants who have lived in Itumbiara for more than 10 years. Perhaps those respondents born in Itumbiara, among whom are a large number of owners still living in the rural area, are the ones that have not really succeeded. We also suspect that the more successful natives are no longer living in the rural areas but have moved to Itumbiara or larger cities.

Summary

Length of residence generally relates to the degree of integration among the migrants. However, this effect does not operate when contacts with wife's relatives are considered. Contact with wife's relatives appear to be more generally maintained than those with husband's kin, especially during the initial years after the migration, indicating that wife's relatives perform many of the functions normally performed by the respondent's own kin. People born in Itumbiara consistently maintain more contacts with all relatives than do the migrants. Migrants appear to rely more heavily on relatives and friends, rather than on parents. This also indicates a substitution of assistance from others as the ties with parents are broken.

The degree of participation in various organizational networks increases with length of residence as expected, but contrary to expectations, the natives did not show the highest participation. The early migrants exceeded the natives in degree of participation. Although no reason for this finding can be established with certainty, it probably indicates that successful natives do not live in the rural areas but in the urban centers. There is some evidence that participation in expressive types of activities such as religious and recreational is as frequent or more frequent for the recent migrants as participation is for older migrants or natives.

IV. SOCIAL STRUCTURE AND INTEGRATION:

EFFECTS OF FARM OWNERSHIP

In the previous chapter we discussed the relationship between length of residence and integration, as indicated by participation in organizations and by relationships with kin. Participation in these networks of social relationships was shown to provide mutual support and social and emotional integration. The present part will show how social class as indicated by farm ownership and farm size relates to participation.

Research on social participation, most of which was performed in the United States, has clearly indicated that participation is related to the position of the individual in the social structure. In one study the research is summarized as follows:

A wealth of studies shows that people of lower socio-economic status, the more poorly educated, and those in lower status occupations have lower levels of social involvement than people of higher socio-economic status....They are less likely to be involved in formal and informal associations, and less likely to be politically active...⁴⁵

Studies of Latin America,⁴⁶ usually of urban areas, also support the contention that social participation relates positively to social class position.

For the study of the relationship between social participation and social class position, certain categories were eliminated from the random sample and one category was expanded. The respondents were classified first according to ownership of farm property. Of those not owning property, those who were not working in agriculture, as

⁴⁵ Scott Greer and Peter Orleans, "Political Sociology," in Robert E. L. Faris (ed.), Handbook of Modern Sociology, Chicago: Rand McNally, 1964, pp. 808-851. The quotation is taken from p. 815. Similar statements can be found in Teele, op. cit., Leonard Reisman, "Class, Leisure, and Social Participation," American Sociological Review, Vol. 19, 1954, pp. 75-84.

⁴⁶ Especially Floyd Dotson, "A Note on Participation in Voluntary Associations in a Mexican City," American Sociological Review, Vol. 21, 1956, pp. 380-386.

well as renters, were excluded from further analysis.⁴⁷ Then, owners of farm property were subdivided into small owners (less than 240 hectares⁴⁸), and large owners (240 hectares or more). Since only sixteen respondents belonged to the large owner category, an additional fifty landowners were selected randomly from a list of large properties, and added to the group of large landowners making a total of 66.

Introduction of these larger farmers, which were sampled in a different manner, prevents the application of the usual statistical techniques in determining the difference between categories. It also may have introduced at least two biases into the data. The domicile of the large farmers was not used as a criterion for the sampling frame, as was done in the selection of the first sample. It is common for the large farmers to maintain two residences, one urban and one rural, and to spend a certain amount of time at both, making it difficult to designate them as either rural or urban. A second potential bias is that an election took place during the time the additional landowners were interviewed. Political knowledge and contacts may have increased in the time period that elapsed between the two interviewing periods. However, it is doubtful that the time difference has had a substantial effect on other aspects of participation.⁴⁹

Class position is here defined on the basis of control over land. The non-owners, who are actually share-croppers, make up one class and the owners are divided into two classes according to the amount of land owned. This classification is based upon the assumption that the more resources that are under the farmers' control, the more likely the owner will be able to accumulate wealth.

Looking at personal characteristics one finds that the non-owners have the largest proportion of young people with almost one-fourth of them being under 30 years of age. The large owners as a group are oldest, have larger families, and are more likely to have children living away from home.

⁴⁷In total, 35 respondents were eliminated in this procedure. Renters were not classified with the non-owners because they represented a very heterogeneous group. Some of the renters on larger farms are probably more adequately defined as farm managers. The elimination of those not employed in agriculture may have resulted in a certain amount of polarization of the findings, because those not working in agriculture may be expected to occupy somewhat intermediate positions between owners and non-owners.

⁴⁸Less than 50 alquerias according to the locally used measure of land area.

⁴⁹An analysis analogous to the one of part III, but performed with the present sample, shows high agreement in the findings of the two samples, giving some confidence that the addition of fifty respondents may not have introduced any extraneous factors in the data.

More than half of the large farmers were born in Itumbiara, and have lived there all their lives. Only 13.4 percent of the non-owners were born in Itumbiara, while the small owners take an intermediate position. Just over one-third of them were born in the county. Among those who came as migrants, the relationship between time of migration and ownership is strong. Non-owners have a high proportion of recent migrants (39.7 percent) arriving within five years prior to the research, while the large owners have only a small proportion of their number (7.9 percent) arriving within the last five years.⁵⁰

As expected, social class relates strongly to education and literacy. While just over one-third of the non-owners had received some formal education, this percentage increased to over two-thirds for the large owners. However, it should be noted that, even among the large owners, a large percentage report no formal education at all. The literacy figures show the same trend; only 14.5 percent of the non-owners reported being able to read, write and perform simple arithmetic. This figure increased to almost 60 percent for the large land-owners. Both in schooling and reported literacy, the small farmers tend to be intermediate between non-owners and large owners.

Finally, the classes as defined here differ greatly in level of living, with the large owners, most of whom have a house in town, having a much higher level of housing and living conveniences.

Contacts with Relatives

Non-owners have less contact with relatives than do owners (see Tables 22 and 23). Not only do the non-owners have fewer relatives living near them in Itumbiara, but they are much less likely to overcome the obstacles involved in visiting distant relatives. Although the owners frequently have no relatives living in the county (see Table 22), they appear to maintain contacts with relatives wherever they are (see Table 23).

While there are no consistent differences in presence of kin between large and small owners, the large owners are more successful in exchanging visits with all types of kin than are the small owners. The most reasonable explanation is that large owners are more likely to have the means for visiting with relatives living further away. In this context it is interesting to note that while non-owners are more likely to visit in-laws, the large owners are more likely to visit their own kin.

⁵⁰The findings on ownership and migration status tend to lend support to our previous inference that the owners arrived in Itumbiara before the non-owners did. The disproportionately large number of large owners who were born in Itumbiara certainly points in that direction.

Table 22. Number and Percent of Respondents Reporting No Relatives in Itumbiara by Farm Ownership and Size

Type of Kin	Non-Owners		Owners			
	N	%	Less than 240 Ha.		240 Ha. or More	
			N	%	N	%
Parents	59	57.8	7	24.1	18	40.0
Parents-in-law	63	53.8	18	50.0	25	50.0
Brothers and sisters	87	48.6	14	23.3	12	18.2
Brothers- and sisters-in-law	70	42.2	15	28.3	15	23.1
Other relatives	101	56.4	19	31.7	11	16.7
Godchildren	64	35.8	6	10.2	8	12.5

Table 23. Number and Percent of Respondents Reporting No Exchange of Visits with Relatives, by Farm Ownership and Size

Type of Kin	Non-Owners		Owners			
	N	%	Less than 240 Ha.		240 Ha. or More	
			N	%	N	%
Parents	38	37.6	2	6.9	1	2.1
Parents-in-law	26	23.0	3	9.1	2	4.1
Brothers and sisters	66	39.1	13	22.8	2	3.0
Brothers- and sisters-in-law	52	32.7	9	17.0	7	11.1

Although these differences are small, it is most likely a result of the fact that in-laws are more accessible than own kin, thus posing fewer obstacles to the exchange of visits. Thus, for non-owners, visits to in-laws may not be so much a result of preference, but more that visits to own kin are hindered by economic circumstances.

Measures were obtained of the exchange of help between the respondents and their parents, relatives, and friends. Two alternative hypotheses can be developed with regard to the frequency of exchanging help by social class. On the one hand, it can be expected that non-owners have less access to formalized sources of assistance and thus resort more frequently to friendly individuals for aid, while owners, having easy access to formalized sources of assistance, would rely less on these informal sources to obtain aid.

On the other hand, it could be hypothesized that since higher social and economic classes have more means, they are more capable and possibly more willing to aid relatives and friends. In this case, one would expect large owners to report the most exchange of aid with kin and friends and non-owners to report the least.

Although data do not fully support either hypothesis, they lend most support for the second. Exchange of aid with parents for all six types of aid and exchange with relatives and friends for three types of aid increase by type of ownership, with the large owners exchanging most aid. In those cases where the relationship is not linear, as in the case of living together, construction of house, and farming, for relatives, and construction of house, and farming, for friends, the small owners report having received the least help, although in some cases the differences between categories are insignificant (see Figure 3). This suggests that exchange of aid among relatives and friends is affected by migration, which is highest for the non-owner class.

Expressive Recreational and Religious Activities⁵¹

Participation in a number of recreational activities was also found to relate to farm ownership. But, as Figure 4 shows, the relationship is not a constant one. Recreational participation varies by social class. Membership in social clubs, which restrict membership, and movie-going are more dominant among owners, while hunting and fishing are more popular pastimes among the non-owners. Participating in dances⁵² and sports appears to be about equal for all groups.

⁵¹The classification of networks as instrumental and expressive has been patterned after Babchuck and Edwards' classification of voluntary association. See Nicholas Babchuck and John M. Edwards, "Voluntary Associations and the Integration Hypothesis," Sociological Inquiry, Vol. 35, 1965, pp. 149-162.

⁵²From personal observation we believe the type of dances to be stratified by social class.

Fig. 3A MUTUAL AID EXCHANGED WITH PARENTS, FOR TYPE OF FARM OWNERSHIP

KEY:  *Non-owners*
 *Owners - less than 240 ha.*
 *Owners - 240 ha. or more*

Type of Aid:

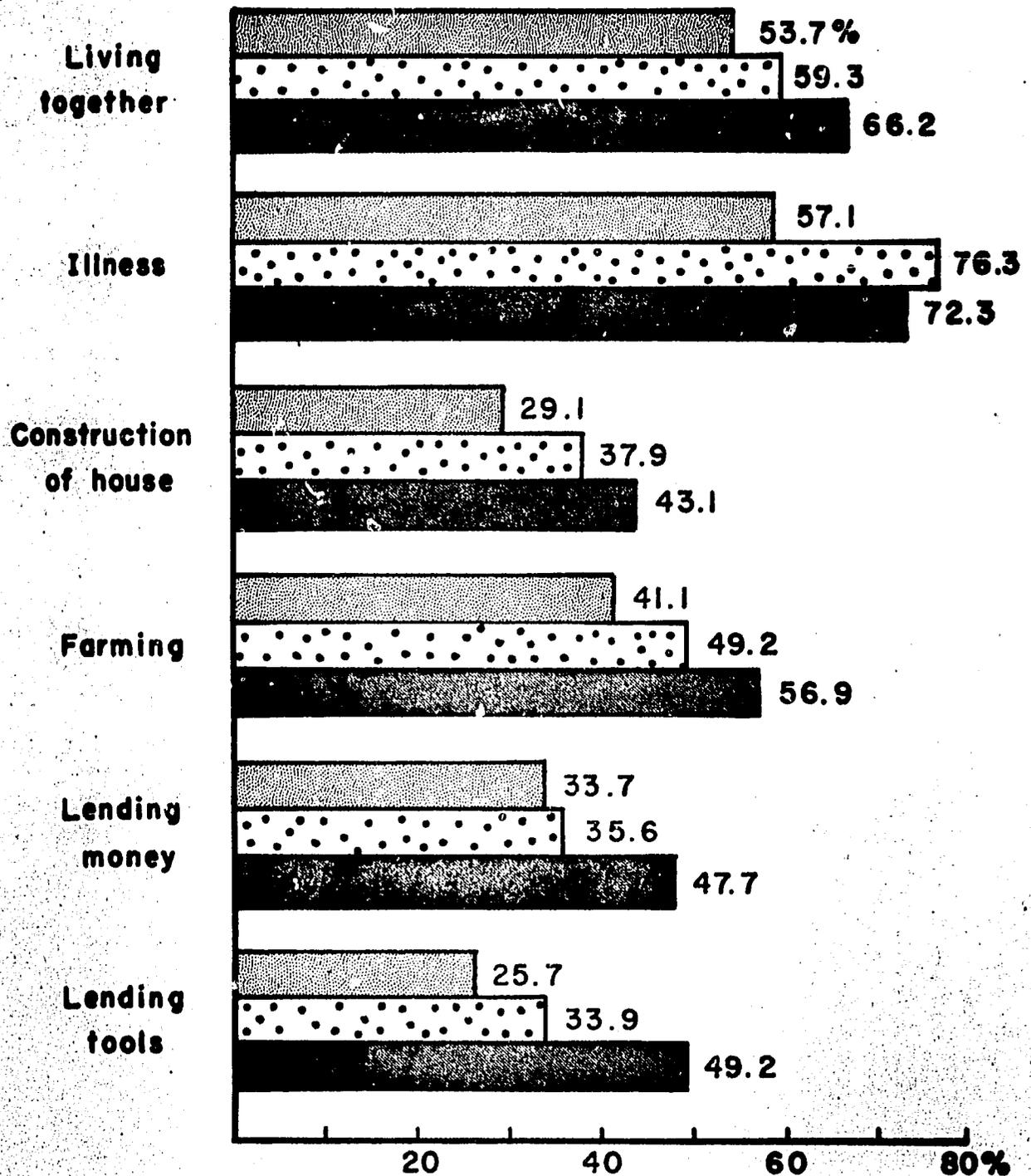


Fig. 3B MUTUAL AID EXCHANGED WITH RELATIVES, FOR TYPE OF FARM OWNERSHIP

KEY:  *Non-owners*
 *Owners — less than 240 ha.*
 *Owners — 240 ha. or more*

Type of Aid:

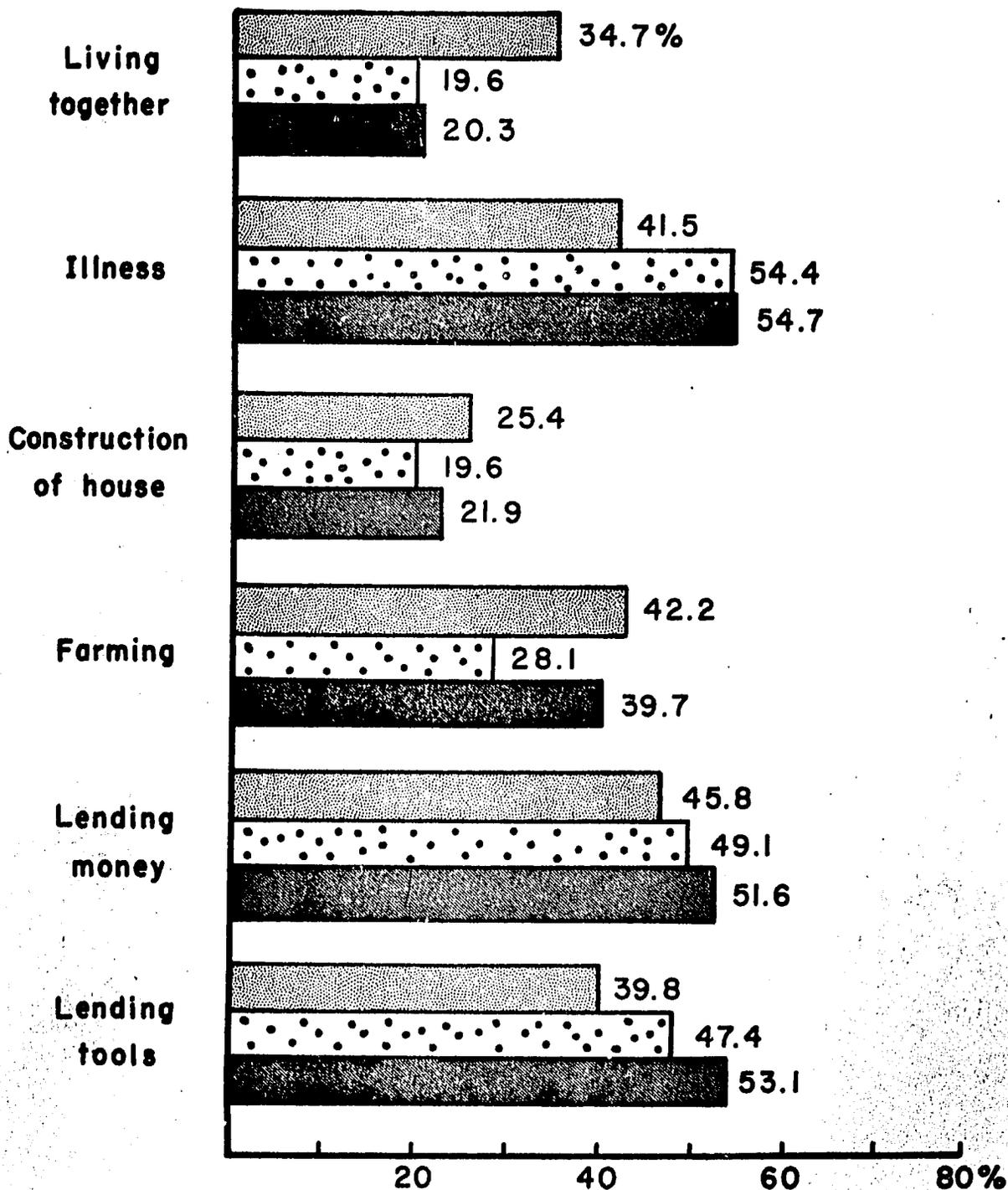
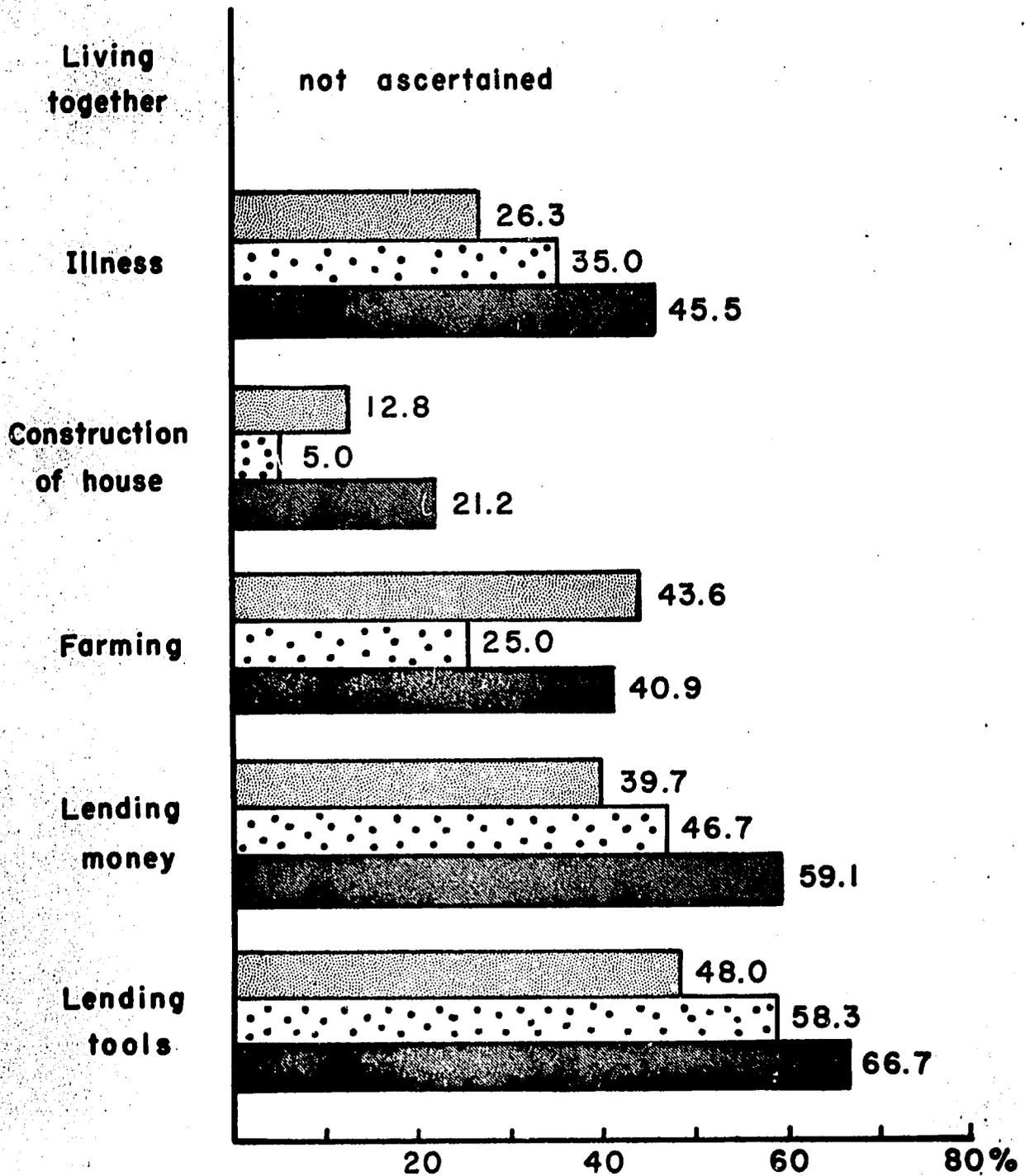


Fig. 3C MUTUAL AID EXCHANGED WITH FRIENDS, FOR TYPE OF FARM OWNERSHIP

KEY:  *Non-owners*
 *Owners — less than 240 ha.*
 *Owners — 240 ha. or more*

Type of Aid:



A second type of behavior which may be considered mainly expressive in character is participation in religious activities. As Table 24 shows, participation in religious services as well as acquaintance with the religious functionary vary greatly by social class. However, expressive religious behavior in general cannot be said to be class related. Participation in the occasional religious festivities (festas religiosas) is equally widespread among all three social class categories.

Table 24. Number and Percent of Respondents Participating in Religious Activities, by Farm Ownership and Size

Type of Activity	<u>Non-Owners</u>		<u>Owners</u>			
	N	%	<u>Less than 240 Ha.</u>		<u>240 Ha. or More</u>	
			N	%	N	%
Church attendance at least once a month	52	29.1	23	38.3	31	47.0
Knows religious functionary	86	48.3	36	60.0	53	81.5
Participates in religious festivities	135	75.4	45	75.0	55	83.3

Thus, although the types of expressive participation are different by social class, participation in expressive activities in general is obviously not limited to any particular social class.

Participation in Farm Improvement Programs

Instrumental networks exist "to maintain the status quo or to bring about social change in the social order; they are not designed to provide immediate gratification to the individual."⁵³ In the present study we have information on the participation in two types of instrumental networks: one relates to the economic performance of the farm enterprise, and the second one is the formal political system.

⁵³Babchuck and Edwards, op. cit. In its original usage the terminology was applied to voluntary associations and not interpersonal networks in general.

Contacts with various programs of the state-based extension service (Acar) clearly differed between owners and non-owners. The latter group had the lowest level of participation, even when such "low involvement level" measures are used as listening to radio programs or having heard of the youth organization (see Table 25).

Two other organizations, the Rural Association and the Agricultural Cooperative, established to serve directly the need of the large farmers, show a sharp increase in membership by social class; from a negligible percentage of the non-owners to close to one-fourth and one-half of the large owners in the respective organizations (see Table 25).

Table 25. Number and Percent of Respondents Reporting Contact with Extension Service (Acar) and other Agricultural Organizations, by Farm Ownership and Size

Type of Contact	Non-Owners		Owners			
	N	%	Less than 240 Ha.		240 Ha. or More	
			N	%	N	%
Listened to Acar radio program	28	15.6	21	35.0	24	36.4
Heard about 4-S (Acar youth program)	34	19.0	19	31.7	28	42.2
Had contact with Acar agent	21	11.7	23	38.3	31	47.0
Membership in Rural Association	1	0.6	5	8.5	16	24.2
Membership in Agricultural Cooperative	4	2.2	6	10.0	31	47.0

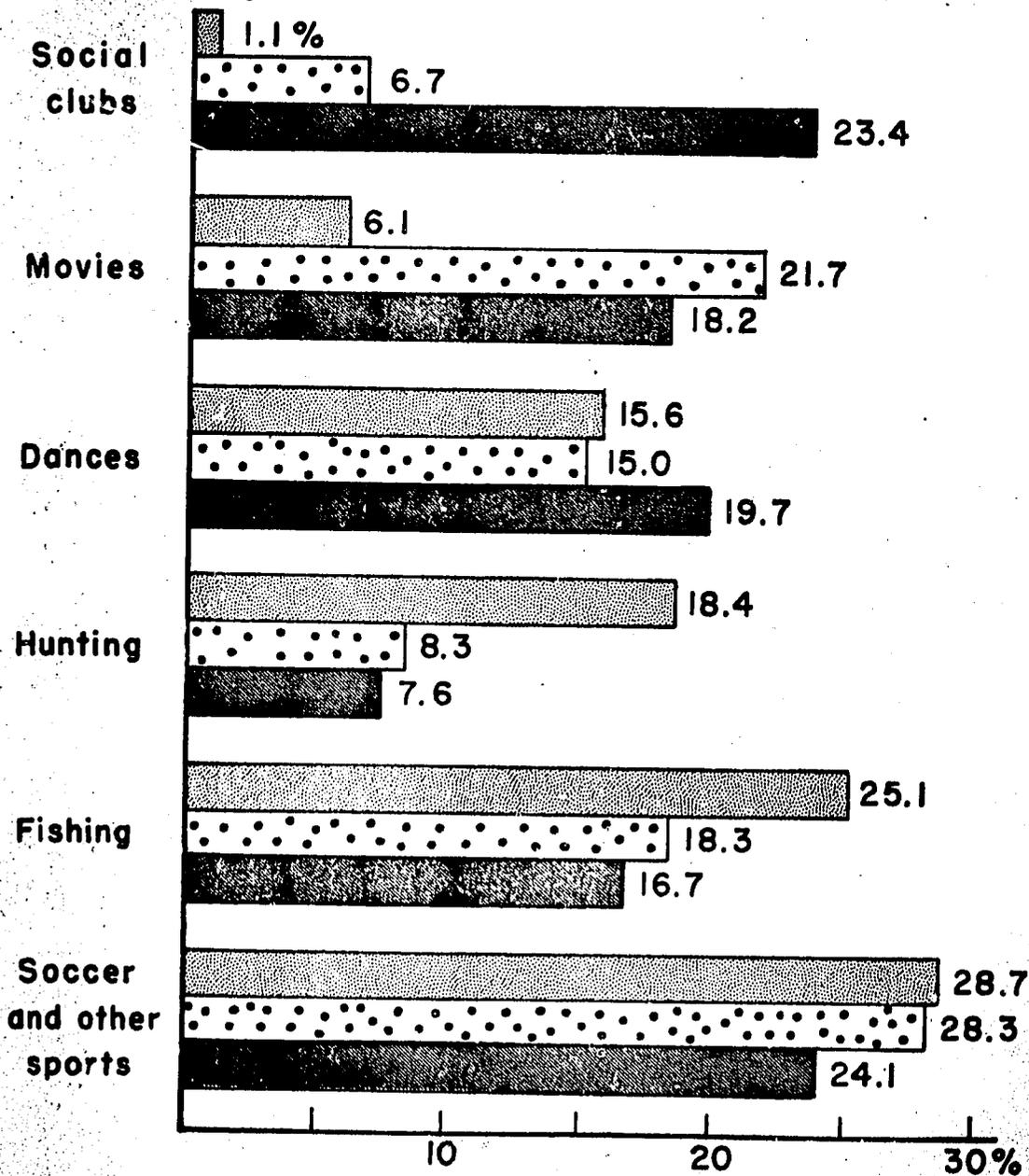
Political Participation

The data on knowledge of and participation in the formal political system also clearly show differences by ownership and size of farm,

Fig.4 PARTICIPATION IN RECREATIONAL ACTIVITIES FOR TYPE OF FARM OWNERSHIP

KEY:  Non-owners
 Owners - less than 240 ha.
 Owners - 240 ha. or more

Type of Activity:



as shown in Table 26.⁵⁴ Non-owners display by far the smallest amount of knowledge of and contact with political office-holders. While a high proportion of the non-owners know the local mayor and one-third have had contact with him, very few knew their federal representative, and only one percent had contact with him. Two-thirds of the large owners know their federal representative, and two-fifths had personal contact with him.

For non-locally based politicians (president, federal deputy, and governor) the differences in proportions knowing these functionaries is larger than the corresponding differences between non-owners and owners in proportion having had contacts with them. In other words the advantage of the owners over non-owners in knowledge is not equaled by a relative advantage in contacts. For locally based functionaries (state deputy, mayor, and councilman) on the other hand, the fact that more owners know them is actually paralleled or even exceeded by the relative advantage the owners have in contacts with these local functionaries.

In summary, class differences exist in political knowledge and participation but the advantage of the owners as a group is more pronounced in locally based politics than in state and national politics.⁵⁵

Urban Influence

Until now we have analyzed participation in networks that were essentially locally based. In this last section we intend to investigate briefly how the various social classes participate in a larger social system, specifically the urban based Brazilian national culture.

Itumbiara is not an isolated community but exists in a dependent relationship with the larger Brazilian society. Although little is known about the effects of non-community based participation, it may be assumed that the larger system may act both as a complement and to some extent a substitute for locally based participation.

⁵⁴We must reiterate our previous warning concerning the data of Table 26. The information in this table for the large owners was collected while a political election was taking place. However, even disregarding the large owners, the differences in political knowledge and contacts between the non-owners and owner group are large and consistent.

⁵⁵This statement refers to classes, not individuals. Clearly, those few owners who do maintain contacts with non-locally based politicians will be able to enhance their position greatly.

Table 26. Number and Percent of Respondents Reporting Knowing Political Representatives and Having Had Contacts with Political Representatives, for Type of Farm Ownership

Type of Political Functionary	Knowing						Contact					
	Non-Owners		Owners				Non-Owners		Owners			
	N	%	Less than 240 Ha.		240 Ha. or More		N	%	Less than 240 Ha.		240 Ha. or More	
			N	%	N	%			N	%	N	%
President	104	58.1	52	86.7	58	87.9	0	0.0	0	0.0	3	4.5
Federal representative	12	6.7	18	30.0	44	66.7	2	1.1	7	11.7	26	39.4
Governor	70	42.2	40	70.2	55	85.9	4	2.4	5	8.8	12	18.8
State representative	54	30.2	36	60.0	55	83.3	33	18.4	28	46.7	46	69.7
Mayor	149	83.2	57	95.0	66	100.0	61	34.1	41	68.3	61	92.4
Local councilman	34	19.0	29	48.3	54	81.8	26	14.5	27	45.0	50	75.8

Channels of urban influences are shown in Table 27. Both for the mass media and for visits to urban centers (including the town of Itumbiara), the population is again differentiated by social class. Non-owners display the lowest amount of contacts and large owners display most contacts. However, the relatively high proportion without links to the larger society for all classes is remarkable. Even the large owners have high non-participation rates: about one-third never visits Uberlandia, and about two-thirds have no contact with the printed mass media.

Although these figures by no means cover the wide spectrum of possible contacts with the society at large, they probably represent the limited extent to which most of the respondents participate in non-local activities. For that reason, participation in local networks takes on added importance. The fact that this participation is highly influenced by social class has important implications for the opportunities of those in the lower classes.

Table 27. Number and Percent of Respondents Reporting Lack of Contacts with Various Manifestations of Urban Influence, by Farm Ownership and Size

Type of Contacts	Non-Owners		Owners			
	N	%	Less than 240 Ha.		240 Ha. or More	
			N	%	N	%
Never listens to radio	64	36.0	15	25.0	12	18.2
Doesn't read magazine	161	89.9	47	78.3	41	62.1
Doesn't read newspaper	166	92.7	48	80.0	41	62.1
Visits town of Itumbiara less than once a month	104	58.1	15	25.0	7	10.6
Never visits Uberlandia	138	77.1	34	56.7	23	34.8
Never visits Goiania	167	93.3	47	78.3	35	53.0

V. DISCUSSION

Up to this point we have reported on the various aspects of the migration to and settlement in Itumbiara, a município in Southern Goiás. In this section we will highlight some of the most important findings and discuss their implications for efforts to develop a stable agriculture and improved social and economic conditions in the area. We trust that the data reported will gain added relevance from this discussion.

The two most important factors for understanding the migration and settlement process in Itumbiara are the existing system of land tenure and the level of agricultural technology used in the area. Itumbiara is located in the westward-moving Brazilian frontier where uncontrolled exploitation of the land crop leads to rapid destruction of soil fertility. The main commercial crop, rice, is often grown under a sharecropping arrangement with the owner providing the land which after a number of years is no longer suitable for crop production. The sharecropper, on the other hand, provides labor as long as he receives a satisfactory return from the land. He then moves on. Neither owner nor sharecropper has an interest in preserving or in improving the fertility of the land. Given this system of farming, the continuous migration and temporary settlement of many people will persist. Landowners committed to producing a commercial crop, such as rice, will proceed to new areas and attract a following of sharecroppers to work their land.

To achieve stability will require drastic changes in farming technology and in the tenure arrangements. With the unavoidable decline in the productivity of the land for rice and corn, there may be a return to cattle grazing or there may be a shift to other crops such as sesame, soybeans and other oil producing crops which are less demanding on the soil. Whatever the changes in agricultural production taking place, they will come about only if certain conditions are met. New crops and technology must be developed and tested for local use. Credit is needed on longer terms than one year and at reasonable rates of interest, and marketing facilities must be established. Finally, given the generally low levels of education and present limited means of communication, a successful conversion of farm enterprises from rice to other crops requires an enormous educational effort going much beyond the capability of locally established extension services.

The sharecropper, as an integral part of the existing (exploitive) agricultural system, will also be affected by changes in crops and technology. The existing role of sharecroppers is incompatible with technologically advanced and stable agriculture. At present the sharecropper provides his labor without the skills useful in technologically advanced agriculture and with very little managerial experience. Hence, sharecroppers cannot be expected to play a significant role in a rapidly changing agricultural enterprise.

In the transformation from commercial crop production to cattle ranching the sharecropper has generally been pushed out and has been forced to migrate to other areas with employment opportunities. Lacking local ties and economic and political power, the sharecroppers are not likely to be able to protect their interests during this process of agricultural change. Although the sharecroppers may be of little importance economically, it would be socially and politically irresponsible not to anticipate the effects of their dislocation. Any process of improving agriculture should be combined with programs which will integrate the sharecroppers into the new system. The type of action to be taken will depend both on the nature of the agricultural transformation taking place and upon the social and economic goals of the policy makers.

The local community can not provide improved technology, credit, and tenure reform, which are needed to achieve a transformation of the existing rice agriculture. Thus, the local community must depend largely on outside assistance and action. Changes in the local migration and settlement process will depend more on development at the national and regional levels than on what takes place in Itumbiara or similar localities. However, this does not mean that the local community is not in position to create some conditions which will influence the movement of the rural population. Such measures may help to alleviate immediate problems rather than establish the necessary conditions for the continuing social and economic welfare of the area. It is with these qualifications in mind that we suggest in the subsequent paragraphs some specific interpretations of our findings for Itumbiara.

The early migrants more often came from nearby areas while the recent migrants are from more distant areas, brought less with them and are of lower social and economic status. Some of the recent migrants are a part of the migration stream from the Northeast to the South in search of land and employment. They have had the greatest problems of adjustment because they lack resources and educational skills, as well as having cultural differences. In contrast, many of the earlier migrants came from the State of Minas Gerais or São Paulo and are landowners. They have higher levels of living, are generally more satisfied with their present location, and less often intend to move again than do the more recent migrants.

It is apparent that the native owners, followed by those who moved in from the adjoining states in the early period of settlement, have benefited most from the rice-growing phase. Many of these landowners have become middlemen for the smaller growers, buying their rice, hulling it and trucking it to the urban markets. However, some of these landowners feel that they will need to move to new locations in the future to prevent a decline of their income.

The main reasons given by most migrants for leaving their previous places of residence were declining crop yields or difficulties in obtaining good land. They came to Itumbiara with the hopes of improving their economic situation. Other migrants were attracted to Itumbiara because of relatives or friends living there. Early migrants to an area apparently are attracted by the economic opportunities, while many of those who follow come to be near relatives and friends, frequently causing areas to grow beyond the capability of their resources. The settlement of areas of the interior apparently depends in part upon the "seeding effect" of the first settlers of the area. Later waves of settlers follow the channels established by the first migrants.

The discovery that some families make a single move between municipalities during their lifetime while others continue to move has important practical implications. The one-third of the migrants who make only one move between municipios might be called the "successful" migrants. They made a move from one area to another and have chosen to remain because of favorable economic or social conditions. Others continue to move and may be called "drifters" since they never seem to remain in any place for very long. It is apparent that moving has become the expected pattern for many. Not having accumulated property and not having established strong community ties, they seek other opportunities as soon as they encounter the adversity of low crop yields or differences with the landlord.

Providing information about new opportunities will help to direct migrants to the best areas and the amount of movement. The development of tenure arrangements which will protect the interests of both the owner and the sharecropper would also help to reduce moves now undertaken when the tenant remains on the same farm more than two or three years and the fear of making commitments arises in both owner and tenant.

Moves are made primarily for economic reasons but the state of medical, educational, religious, and other facilities is an important additional reason for remaining in a location or moving to another one. The isolation of the rural areas from these facilities contributes to dissatisfaction. For example, many respondents thought that health and educational facilities in Itumbiara were worse than in the place from which they moved. Improved roads making the facilities of the town more accessible might help alleviate dissatisfaction with health and educational facilities. The lack of roads, schools, and other facilities help to perpetuate the system of exploitation of the land by temporary settlers who put up with poor conditions for a while and then move, thinking that they have little to lose.

It is worth noting that fewer of the owners than of the tenants feel that educational and health facilities are better in Itumbiara than in the place from which they moved, while the reverse is true for working conditions and income. This suggests that those of higher socio-economic status expect better institutional facilities than do those of lower status. If these are not available those of higher status are also likely to move from the area for these non-economic reasons.

Education is an important means for the sons and daughters of the tenant class to improve their status within the existing structure. Improved schools in the rural areas contribute the skills necessary to prepare people for alternative employment or continued work in agriculture.

Migration is disruptive to social contact and participation in the political process. Local contact and participation are essential to the social well-being of the migrant as well as to the effective functioning of the political process. Friends and relatives are important in providing information and mutual aid to migrants. The strength of family ties is indicated by the fact that even among the most recent migrants three-fifths had visited the husband's parents, four-fifths had visited the wife's parents and three-fifths had visited brothers and sisters of both husband and wife at least once during the last year. The opportunity for visiting relatives, particularly those of the wife, is important to migrant families. The process of adjustment might be shortened by providing opportunities for social contact in newly settled areas. Facilities for recreation, religious worship, and trading in the rural areas would provide opportunities for social interaction. Such interaction is likely to lead to mutual assistance as well as to the feeling of social acceptance. Transportation and roads would also provide opportunities for social contact in the town.

At present social clubs are available only to the large farm owners and only a small proportion of all classes participates in dances, soccer games, and other sports. The more rapid assimilation of migrants into an area might be fostered by sports in which members of all classes can participate. That more of those who had lived in Itumbiara five to nine years than of any other group took part in soccer or other sports suggests that sports may be a means of gaining acceptance in the area.

The special efforts of the priest in the town and of other religious leaders to reach the newly arrived migrants through religious and welfare programs is reflected by the fact that church attendance is somewhat more frequent among the recent migrants than among the older migrants and natives. Participation in all other formal activities was less for the recent migrants. The Catholic priest made a special appeal to the migrants, he helped to mediate arguments and

differences among the migrants and the local residents, and he also aided women and children abandoned by migrant males. An active Spiritualist group served the function of integration for migrants and natives of the small middle-class group of teachers, white-collar workers, and businessmen most of whom live in the town rather than in the rural area.

In Itumbiara, the family and the church helped to provide the personal contact and support for the migrants. The church is in a unique position to combine the integrative experiences of religion with welfare activities directed to those who need them. However, other public and private agencies must supplement these activities for the orientation and support of the new migrant. Reception centers for newly arrived migrants for obtaining information about employment opportunities and temporary residence may be necessary when large numbers of migrants arrive at one time. Assistance in contacting relatives and friends and in obtaining emergency medical treatment are minimum services for aiding the migrants to adjust. To become sharecroppers some migrants need tools, seeds, and insecticides. If these are provided by the landlord the recipient becomes more indebted to him. Small loans and assistance in obtaining the use of tools would aid the new migrant in becoming established more quickly in the new area. Credit cannot be obtained until the person is established and has personal references in the community.

Perhaps the sharecroppers can be helped by working through the landowners. Credit might be made available to landowners who provide for specific needs of newly arrived migrants. The provision of credit would be part of a plan for the improvement of the farm as well as for the settlement of newly arrived migrants. This type of assistance would be in keeping with what a few progressive landlords are already doing in the area, though it, of course, has the danger of "freezing" existing structural relationships between landowners and sharecroppers.

Measures for assisting the sharecroppers should be based upon the view that their contribution to the community and to the nation requires the best available opportunities and living and working conditions. . It will take a major effort on the part of local, state and national governments in conjunction with private interests to provide these opportunities and conditions.

APPENDIX A
DATA COLLECTION

Time Table

From the inception of the study, it was planned to execute the field research in two phases. It was felt that this research strategy would improve substantially the type and amount of information collected. The first phase of data gathering was to include a random sample of the rural population. After completing a preliminary analysis of these data, the second phase of the field work was undertaken to obtain information from an additional sample of large owners and from a sample of sharecroppers.

The first field work took place during the initial six months of 1966, at which time the site was selected and the first set of 291 interviews completed. In July and August of 1966 this information was coded and a preliminary analysis was made. Then, from September to December 1966 the second period of field work was completed.

In the following section the field work of the first half year of 1966 will be described first, followed by a brief description of the field work undertaken during the latter months of 1966.

Sampling Procedure

In the first phase of the research, a sample was designed to approximate the actual population of the rural area of the município, including both migrants and non-migrants. Since a random sample seemed to be most appropriate, we attempted to obtain from existing air photos a complete listing of all household units in the area. However, the scale used--1:60,000--was too small to show the shacks of tenants and sharecroppers. It was then decided to use a two-stage area sample.

A basic map provided by the Prefeitura (County Hall) was corrected with the help of the air photos. The município was then divided into 100 blocks of approximately the same size with some allowance made for estimated population density. In delineating the blocks, roads, rivers, and similar topographical features were employed. Twenty blocks were then selected at random. Using the air photos again, rough maps of these areas were prepared. The maps included all identifiable roads, rivers, hills, and major farms. A complete census of each area was then taken in the field by locating each dwelling on the maps and making a list of the names of the heads of households. A total of 633 houses

was listed in 18 blocks. Two of the twenty randomly selected areas --Areas A and C--were not covered. These two areas were located farthest from the city and limitations of time and expenses made it impractical to include them. Furthermore, air photos were not available for these areas and their population seemed to be very scattered.

A systematic sample was selected within each designated area. Beginning alternately with the odd and even numbered houses, every other house was designated for interviewing. Of the total of 633 houses listed, 291 were interviewed. Twenty-five houses were omitted: two cases were refusals, nineteen were vacant houses, and four were not interviewed because the head of the household could not be found after three attempts were made to reach him.

The Interviewers

One of the greatest problems in research in rural areas of Brazil is to find qualified interviewers for the job. Since they were not available locally, and it was not possible to bring them from urban centers, it was decided to train a group of high school students of both sexes, 18 years of age or older. From 30 candidates, nine were selected by careful screening by means of interviews, a few short tests of knowledge, and judgment of the fitness for the work they would be doing. Two weeks of intensive training were given covering principles of interviewing, scientific methods, sociology, and survey research. After an additional week of practice, first in class, then under supervision in the field during the pretest a group of five interviewers and two supervisors was selected and hired on a monthly basis. Their work was continuously supervised throughout the period of the field work.

Interview Schedule

A mimeographed 31-page interview schedule was the instrument used for data collection. It contained both pre-coded and open-ended questions. Due to differences between migrants and non-migrants, and to differences in land tenure, not all respondents were asked all questions. Some questions were only asked of migrants, others only of sharecroppers, and still others of renters or owners. The schedule was pretested in one of the areas of the municipio.

Field Operations

In order to legitimize the research, visits were made to all authorities in the seat of the municipio, such as the mayor (Prefeito), the parish priest, and aldermen (Vereadores). The team worked in close

contact with the extension agent (Acar-Goiás). Other people involved in agricultural activities such as the President of the Cooperative Association were also interviewed and the purposes of the research explained to them. Other local leaders, including doctors, teachers and businessmen were contacted. The research had the full support of the Secretary of Agriculture of the State of Goiás at that time, who is a native of Itumbiara and had considerable political and personal influence in the area.⁵⁶

The respondents were interviewed in their houses or in the field wherever they could be contacted. The interviewing time varied considerably with an average of one hour and a half.

Special Samples

During the period of September to December of 1966, interviews were conducted with two segments of the rural population.

A random sample of 115 respondents was drawn from all those who in the first phase had indicated to be working as sharecroppers. Of the 115 respondents, 108 could be located and were re-interviewed. The interview schedule consisted of a condensed version of the schedule applied in the first phase, plus additional questions on the sharecropping arrangements, and more detailed information on migration.

In addition to the sharecroppers, a random sample of farmers owning more than 240 hectares was interviewed during the fall of 1966. This group of farm owners, although numerically small, is very significant to the economic and social life of the município. The sampling procedure followed in the first phase of the fieldwork had not yielded a sufficiently large number of interviews in this category to allow a meaningful analysis of their role in the município. A list of all farms larger than 240 hectares was obtained from the municipal authorities. This list contained 135 names of owners. From this list, 55 names were randomly selected. Of those selected three refused to be interviewed, and one could not be located. One interview was discarded so that 50 useful interviews remained. The interviewing of the large farmers was done with a slightly modified version of the schedule used in the first phase of the fieldwork.

⁵⁶ A problem encountered, especially on the part of the farm owners, was that just before the research team went to the research site, I.B.R.A. (Brazilian Institute of Agrarian Reform) had made a compulsory cadastral survey of farm properties, which was very complicated to answer and was poorly received by the farm owners. Farmers tended to associate the work of the research team with the cadastral survey of I.B.R.A. Interviewers were made aware of this and after explanations of the objectives of the study were made and its distinctions from the I.B.R.A. survey were indicated, usually respondents were quite willing to answer and discuss the questions with interest.

In the present monograph most of the material presented is derived from the fieldwork completed before July 1966. However, data gathered from the subsamples is reported to complement the information of the first phase.