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INFLUENCE OF SOME PERSONAL AND FAMILY FACTORS ON PEASANT MIGRATION IN THREE COLOMBIAN COMMUNITIES.

The Ohio State University, Ph.D., 1976
Sociology, demography

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Gabriel Ojeda
1976
INFLUENCE OF SOME PERSONAL AND FAMILY
FACTORS ON PEASANT MIGRATION IN
THREE COLOMBIAN COMMUNITIES

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
Gabriel Ojeda, D.V.M., M.S.

* * * * *

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VITA

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I. BACKGROUND AND STATEMENT OF THE PROBLEM

INTRODUCTION

Few topics in the field of social sciences have captured more popular interest or have been the major focus of more social research than those related to the subject of population. Migration specifically, is a phenomenon which has been studied extensively in the last years by the researchers of the Social Sciences. The reasons for this wide appeal are manifold. First, a large-scale movement of people is usually indicative of a major social change or major social problem. A second reason for widespread interest in migration phenomena is that the study of migration is an important factor for a variety of other studies. Studies of fertility, mortality, population composition, economic growth, and many other subjects must frequently take account of migration as a factor before they can study the effect of other factors. A third reason for the popular interest in migration study is the intimate connection between changes of residence and personal adjustment.

This study treats rural migration in three Colombian communities in relation to some personal characteristics, the availability of some selected variables and change of these variables over time. It considers migration as a part of the overall social process in which the migrant changes cultures and community affiliation. In
any attempt to understand the changes taking place in Colombia, or in other countries, it is necessary to review the nature of the socioeconomic processes which led to the present situation. For this reason, the first chapter attempts to describe briefly the conditions that specify the context within which the phenomenon of rural migration occurs in Colombia. On the other hand, this researcher describes these conditions to help the reader place the location of this study.

Geography

Colombia is located on the northeast corner of South America. It is bordered in the north by the Atlantic Ocean and the Isthmus of Panama; in the east by Venezuela; in the south by Brazil, Peru, and Ecuador; and in the west by the Pacific Ocean. The country has an area of 1,136,000 square kilometers. The Andean Cordillera, on entering Colombia separates into the Western, Central, and Eastern Ranges. These three basic axes form four large watersheds: the Atlantic, the Pacific, the Orinoquia, and the Amazon.

The temperature varies with altitude rather than with latitude or season. Four great thermal zones (hot, temperate, cold, and frigid "paramo"), are defined within a margin of some 200 meters of latitude.

The hot zone, up to about 1,000 meters above sea level, with a mean temperature above 24° C., embraces the inter-Andean Valleys, The Caribbean and Pacific Coasta, the Eastern Plains, the Orinoquia
and the Amazon; it comprises 83 percent of the area of Colombia and 40 percent of the population.

The temperate zone ranges from 1,000 to 2,000 meters, with a mean temperature of 17 to 24° C. It comprises most of the high rainfall mountains and hillsides, and includes the so called coffee belt. With only 9 percent of the total land area, this zone has more than one third of the population.

The cold zone lies between 2,000 and 3,000 meters with a mean temperature of 12 to 16° C., it contains 6 percent of the total area and over 20 percent of all Colombians. The frigid zone is located over 3,000 meters, with a mean temperature less than 12° centigrades.

The prevailing types of agriculture and crops are determined by the combined influence of altitude and rainfall patterns. Human settlement is best analyzed in accordance with the four great geo-economic regions: the Pacific Coast, the Andean mountain and Valley region, the Caribbean plains, and the Eastern plains.

The Andean region is located between the western and eastern cordilleras. In less than one-fourth of the national territory, the region today holds 80 percent of the Colombian population and encompasses the main industrial-urban complexes of Bogotá, Medellín, and Cali. The Andean valleys, plateaus, and hillsides contain most of Colombia's best agricultural land. The fertile valleys of the Cauca and Magdalena rivers are in the hot region. Although partly subject to flooding, they are suitable for growing virtually all
types of crops. They are largely apt for mechanized farming and with irrigation they can produce two or even three crops per year. Along with some pasture, it is here that the bulk of Colombia's mechanizable field crops—sugar cane, cotton, and rice—are grown. The temperate mountain slopes produce coffee, cocoa, fruit, and subsistence crops. Potatoes, small grains, and milk are typical products of the "cold" plateaus—especially the Sabana of Bogotá and Nariño. Maize is grown in all three climatic regions.

The hot Caribbean region comprises the plains between the Caribbean Sea and the last spurs of the Andean Cordillera, including the lower valleys of Colombia's principal rivers. It has 10 percent of the area of the country and 17 percent of the population and three of Colombia's four important ports. The great majority of this region is devoted to extensive ranching; crops are mostly for subsistence, but most of Colombia's cotton is also grown here.

The Andean and Caribbean regions have been traditionally preferred for settlement. It was on the high plateaus and plains where the aboriginal people developed a hierarchical social organization and prosperous agriculture. During the Conquest the population of the cold zone of the Andean region provided the Spaniards with the best conditions for the establishment of a feudal system. The plains and valleys, with their sparse and more primitive indigenous population, favored the establishment of large cattle ranches.

The Pacific coast, between the Western Cordillera and the Pacific Ocean, covers 5 percent of the National area, its population
predominately black and Indian, represents three percent of the total. This is an extremely humid and hot region. The rural population (approximately 80 percent of the total) lives near the river bank, their activity being limited to hunting, fishing, gathering of forest products, and subsistence agriculture. The immense plains of the Orinoco and the Amazon east of the Eastern Cordillera, include almost two-thirds of the national territory. Yet, only about two percent of the population lives there, including some extremely primitive indigenous tribes.

Economic Growth

As a result of several factors operating in the internal economy and its international relations, Colombia has achieved in recent years rates of growth in real income considerably above the historical average. The Gross Domestic Product rose by 6.1 percent in 1968; 6.5 percent in 1969, and approximately 7.0 percent in 1970, compared to less than 5 percent per annum during 1957-1960.\(^1\)

In 1968, the Gross National Product was $96,387,7 million Colombian pesos.\(^2\) In 1969, the Annual Per Capita Income was $300\(^3\) and the

\(^{1}\)World Bank, Economic Growth of Colombia; Problems and Prospects, the John Hopkins University Press, Page 1.


\(^{3}\)Colombia Today, Volume 5, Number 2, November 1970.
economically active population in 1970 totalled approximately 6,019,000. Of this total, 2.8 million were living in the rural sector.  

Agriculture and livestock remain the major contributor to the G.D.P., in spite of their decline in comparative importance. They accounted for 28.8 percent of the total output in 1970, 75 percent of the exports and 95 percent of the domestic food supply. Coffee accounts for a third of Colombian agricultural production, a tenth of Gross Domestic Product, a tenth of Central government revenue, and 60 to 65 percent of merchandise exports.

In the last ten years, there has been a significant expansion of nontraditional exports. In the three years, 1966-1969, they were doubled. Non traditional exports consists of a large variety of items, both agricultural commodities and manufacturers. Among the former, the most important are cotton, bananas, sugar, tobacco, and livestock; among the latter textiles, leather, glass, wood products, cement and paper. Lately, machinery, chemical products, and pharmaceuticals have been exported.

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4Department Nacional de Estadística, Dane, Encuestas de Hogares, 1970 Análisis de Desempleo, Tabla No. 5.


7Ibid., Page 3.
About one-half of Colombian manufacturing still consists of non-durable consumer goods, and another one-third of industrial output consists of intermediate goods.\textsuperscript{8}

\textbf{Education}

The Colombian educational system is based on several articles of the National Constitution. The main provisions may be summarized as follows: Freedom of teaching is guaranteed, but the state shall have supreme authority to inspect and supervise public and private centers of learning. Elementary education shall be compulsory and shall be free in government schools.

The academic structure of the Colombian educational system begins with five years of elementary education, continues on to secondary education, divided into one basic and one supplementary cycle, and concludes with higher education.

The statutory obligatory primary education has not been enforced, especially since the public authorities have been unable to provide five year schooling opportunities throughout the country.

In Colombia, only 59.1 percent of the children between seven and eleven years of age were enrolled in the country's elementary schools in 1960. By 1970, this figure had risen to 69.9 percent.\textsuperscript{9}

\textsuperscript{8}Ibid., Page 14.

\textsuperscript{9}Low-Maus Rodolfo, Compendium of the Colombian Educational System, Bogota, 1971, Page 38.
The overall rate of illiteracy has been reduced, but it has remained three times higher in the rural areas (41 percent) than in the urban (15 percent); the average length of schooling in the former is 1.7 years as compared with 5.1 years for the urban dwellers.10

Rural primary education is very deficient in Colombia. Over three-quarters of the rural schools offer only two years of education, and only 15 percent of those enrolling in the rural first grades can expect to enter the third grade in a rural area; merely a trickle of those enter the third grade in urban schools. Only 3 percent of those entering rural primary education later register in the fifth and final grade of primary school in rural areas.

The quality of schooling is also restricted by the lack of qualified teachers in rural areas, in 1964, more than one in five of the rural teachers had less than six years of formal education. Only one in three had completed some type of secondary education. Alternated schools further reduce the amount of formal training which rural youth receive. These alternated schools offer one day for boys and one day for girls, or half-day for each. About half of the rural students attended these type of schools and then only for two years. The lack of teaching aids, poor salaries, and a multitude of holidays further reduce the amount of effective education.11

10 World Bank, op.cit., Pages 19-20

11 Adams Dale, Leadership, Education and Agricultural Development Programs; in Internal Colonialism and Structural Change in Colombia, Praeger Publishers, New York 1970, p. 188.
The public sector involves approximately 81 percent of students at the primary educational level and accounts for 79 percent of all institutions.\textsuperscript{12}

The ratio between the number of students enrolled at all institutions of secondary education in the country and the total number of inhabitants within the 12-18 age group gives an approximate measure of the educational penetration at this level. This method of calculating the penetration is not absolutely exact as not all students begin secondary education at the age of 12 nor complete it at age 18. However, any deviation from the exact figure is not very great because the maximum enrollment density corresponds to these ages. The percentage calculated in this way was only 18.5 percent in 1968.\textsuperscript{13}

One important consideration is that the public sector is seen to have covered 46.5 percent of all secondary education, while the private sector attended 53.5 in 1968. In the same year, 64.2 percent of all secondary education institutions corresponded to the private sector.\textsuperscript{14}

There is very little secondary education available in rural areas, since most of the secondary schools are situated in large urban centers. In 1968 only 127 of the 2,258 private institutions of

\textsuperscript{12}Low-Maus, op.cit., Page 41.

\textsuperscript{13}Ministerio de Educación Nacional, La Educación en Colombia, 1960-1968, Anexo Estadístico, Page 81.

\textsuperscript{14}Low-Maus, op.cit., Page 63.
secondary education, only 256 or 7.26 percent were in rural areas.  

Over 30 percent of the country's high schools are located in the capital city of Bogotá, and another 50 percent in other departmental capitals.

In summary, it may be safely stated that education in Colombia is seriously lacking, especially in the rural areas. Given the fact that most of the schools are located in urban areas and a high percentage of them belong to the private sector, the probabilities of upward social mobility through education clearly discriminate against people from rural areas and low-income people.

Population

The Colombia's demographic situation is very similar to that of many countries in the process of development; a fast growth in size of population a high fertility rate, a declining morality rate, a concentration of population in childhood and young adult years, great movements in the spatial distribution of the population, a rapid growth of the urban nucleus and the incipient formation of a middle class.

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15 Ibid., page 64.
17 World Bank, op.cit., Page 431.
According to the census taken in 1964, Colombia's population was 17,484,508. The estimated population for 1970 was 21,200,000.

This makes Colombia sixth in America and fourth in Latin America after Brazil, Mexico, and Argentina. In 1964; 98.7 percent lived in the Departments (states) making up 53.6 percent of the National Territory. Population density of these Departments was about 73 inhabitants per square mile. The remaining 1.3 percent of the population occupied 46.4 percent of the territory included in the Llanos Orientales. The population density of that area is about one inhabitant per square mile.

In 1956, the country had 4.4 million inhabitants; 33 years later, in 1938, the population had doubled (8.7 million); 26 years later (1964) the phenomenon was repeated (17.5 million) and it is possible that it will double again in 22 years. This period of duplication is in contrast with that of some other countries, such as Italy (117 years), Portugal (100 years), Spain (88 years), and Uruguay (59 years).20

According to the census taken in 1964, the Rate Population Growth averaged 3.2 percent between 1951 and 1964, compared with average

18Dane XIII, Censo Nacional de Población, Bogotá.
rates of about 2.1 percent for two previous intercensal periods —
1918-1938 and 1938-1951. 21

Demographers represent the basic structure of a population by means
of the "population pyramid", a graphic technique which allows us to see
at a glance the total sex and age distribution of a given population.
In countries such as Colombia, the base is wide because of high
fertility, and the pyramid narrows quickly because of high morality.
The most noticeable characteristic of Colombia's population is its
extreme youth: about 46 percent of its total population is composed
of children under 14 years of age, while only about 14 percent are
over 60. The figure shows the Colombia's population age groups,
according to the census of 1938-51-64.

Because the registration of births in Colombia is wofully in-
complete, the exact birth rate cannot be computed, however, according
to the Departamento Nacional de Planeación, 22 the crude birth rate in
Colombia is .43 meaning that 43 live children are born for each 1,000
inhabitants.

As with fertility, the registration of deaths is very deficient in
Colombia: thus, it is very difficult for demographers to determine the
death rate, life expectancy, infant mortality, and many other

21Departamento Nacional de Planeación, Las Cuatro Estrategias,
Bogotá 1972, Page 185.
22Ibid, Page 186.
Source: República de Colombia, Ministerio de Salud, Política de Población, Bogotá, Julio de 1972
related measurements of phenomena affecting population. The Departamento Nacional de Planeación makes an estimated of 15 deaths per 1,000 population. Life expectancy at birth estimated is 57.4 years for men and 61.1 years for women. 23

In Colombia the infant mortality (deaths under one year per thousand live births during the same year) is reported to have declined from 114.4 to 88.5 between 1951 and 1964. A reduction of almost 23 percent. 24

The Agricultural Sector

Agriculture is Colombia's economic mainstay. As mentioned before, it accounts for about 28 percent of the Gross National Product, 70 percent of its exports and 95 percent of the domestic food supply.

About half of the country's economically active population is engaged in agricultural pursuits. In addition, a large proportion of the nation's industry textiles, construction, chemicals, and wood, is based upon processing agriculturally raw materials.

23Ibid, Page 186.
25Colombia Today, Volume 7, Number 5, 1972, Colombian Information Service.
The annual rate of agricultural growth in Colombia has increased from approximately 3 percent over many years to an average of 5.2 percent since 1966. Despite its importance, the Colombian agricultural sector faces many problems. The problems of distribution of wealth in agriculture are serious because of the large number of very small holders.

Land Tenure

27

According to Barraclogh, "over 750,000 peasant families in 1960 were trying to make a living on parcels of land averaging less than 2 hectares, most of which, even with the application of greatly improved techniques, could not possible provide gainful employment to the family labor and a family income of the equivalent of U.S. $500.00. Another 175,000 neither owned nor operated any land. Together, these families represented about 70 percent of the agricultural population and 40 percent of the total population. Nearly 30 percent of the operators of "sub-family" units and 17 percent of the family sized farms were renters or share-cropers. The bulk of the minifundios as well as most of the family-sized farms which constitute only about one-fourth of the total farm units are located on the hillsides of the three mountain ranges.


According to the 1960 census data, 45 percent of the agricultural land was controlled by a mere 15,000 operators, representing only one percent of the total number of farm units in the country. As regards land ownership the extent of whose concentration is understated by the conventional cadastral data based on individual parcels rather than owners - it appears that approximately 46 percent of the land declared on tax rolls was the property of about 18,000 landlords or large owners operators, while at the other end of the scale, more than one million parcels of less than 5 hectares together cover a bare 6 percent of the farm land."

Closely associated with the problem of land tenure is the prevalence of absentee landownership in Colombia. Adams states that "the 1959-60 Census of Agriculture showed that over one-third of Colombia's land in farms was operated through a farm manager. Thousands of other landowners "manage" their farms through weekend visits. In several regions of Colombia it is common for land owners (patronés) to delegate authority to a farm manager (encargado or administrator), who in turn assigns land-use rights to a number of share-renters to furnish labor and small amounts of capital...

Absence landownership is especially common among the professional

---

class. Doctors, lawyers, bankers, politicians, merchants, and even priests often own a finca in the country.

An interview study of an area near Bogotá, for example, showed that two-thirds of all the rural lands in the area was owned by people living in Bogotá. It is not uncommon for wealthy individuals to own land in different parts of the country and they may visit these holdings only every three or four months. Most of these absentee owners have multiple sources of income within the cities and only a small portion of their time is spent in making decisions about farm production.

The Colombian Congress approved at the end of 1961 an "Act for Agrarian Social Reform" (Law 135 of 1961). But, passage of this law by no means was a response to effective popular pressure; rather, it was a compromise between the Colombian Government and the Alliance for Progress, and between the traditional and vested interests on the one hand, and moderate reformers on the other, both sides represented by various factions in the traditional political parties.

A specially agency, INCORA (Instituto Colombiano de la Reforma Agraria) was created by the law, with powers to engage in virtually all aspects of Agrarian reform and rural development and with an assured budget considerably greater than that of any other public agency in the sector. But its land redistribution functions were seriously limited by the provisions of the law with respect to
priorities of land selection, appraisal and landlord appeals procedures in the traditional courts, as well as by certain executive interpretations.

Between 1961 and 1969; 88.200 parcels of land were titled, adding 2.8 million hectares to the registered land area. But most of this land came from the public domain and does not represent expropriated or redistribute land. Barraclough states that "the law obliges Incora to give priority to the distribution of public lands in any given area; even within those private lands which it does intend to acquire, precedence must be given to "uncultivated" and "inadequately cultivated land." Expropriation has also been limited because the Colombia law does not proceed at personam, i.e., according to the total holdings of a given landowner even within the limits each municipality, but rather ad rem or on the basis of cadastral parcels. Thus for instance, a landlord may own five parcels of 200 hectares or less (the maximum permissible retention) and thus not be subject to any expropriation whatsoever.


30Barraclough Solon, op.cit., Page 189.
As regards compensation, the law is purposely vague in its definition of the yardstick for appraising privately owned land for acquisition of expropriation."

In relation to the supervised farm credit program, up to December, 1967 a total of 20,157 loans had been granted to 11,169 families. This number of families is about equal to the number of new farm families formed each month in Colombia.

Evidency from the Colombian agrarian reform program is that it has not changed either the skewed distribution of land ownership or the trend toward greater subdivision of already tiny farm holdings in the minifundio areas. The law was never designed to solve the Colombian land tenure problem. The law is permissive rather than mandatory and its implementation is a function of the political power structure and atmosphere at any given time.

Income Distribution:

The distribution of income has many effects on the economic, social, and political aspects of society. It affects the level of employment through its effect on the pattern of consumption. A high equal distribution of income would contribute to generating a higher level of employment and industrial development. An unequal distribution of income has its effects on savings, political equality and social services.

In Colombia, as well as land tenure, income distribution is a severe problem.

There are different estimations with regard to the total income and the rural and urban income.

In Table I, we can observe the total distribution of income according to three different sources. The distribution of personal income in agriculture according to income categories is shown in Table 2, and the income distribution in agriculture according to size of farms is shown in Table 3. Whichever estimate is taken, the poorest 50 percent obtain about one-fifth of all income, while the 5 percent of the people with the largest income receives between one-third and somewhat more than two-fifths of the total income. The degree of inequality that characterizes the distribution of income in Colombia is apparently not much modified by the tax system.

One of the factors that generates the unequal distribution of income which prevails in Colombia is the extremely unequal distribution of property. It is marked enough in all sectors of the economy but is especially so in the case of agriculture, as was shown in the description of the land tenure system.

Another factor strongly influencing the inequality of income distribution is the highly uneven access to the higher levels of education and to employment in the modern sector.
Given the fact, on the one hand, that demand is a function of the income of potential buyers and their habits and, on the other, that in the Colombian case the income is concentrated in a very reduced number of people, the function of demand is very low, and directly influences the total economic development.
## TABLE 1

DISTRIBUTION OF PERSONAL INCOME ESTIMATED FROM THREE DIFFERENT SOURCES IN COLOMBIA, 1962 and 1964

(Cumulative Percentages of People and Income)

<table>
<thead>
<tr>
<th>People</th>
<th>Taylor*</th>
<th>ECLA 1962*</th>
<th>Musgrave 1964*</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>18</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>60</td>
<td>23</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>70</td>
<td>30</td>
<td>34</td>
<td>26</td>
</tr>
<tr>
<td>80</td>
<td>40</td>
<td>43</td>
<td>35</td>
</tr>
<tr>
<td>90</td>
<td>58</td>
<td>57</td>
<td>50</td>
</tr>
<tr>
<td>95</td>
<td>72</td>
<td>70</td>
<td>60</td>
</tr>
<tr>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Percentage of Income.

TABLE 2

ESTIMATES OF THE DISTRIBUTION OF PERSONAL INCOME IN AGRICULTURE BY CATEGORY OF INCOMES, 1960

<table>
<thead>
<tr>
<th>Income in Thousands of Pesos, 1960</th>
<th>Percentages of People in Each Category</th>
<th>Percentages of Total Income</th>
<th>Cumulative Percentages of People</th>
<th>Cumulative Percentage of Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1</td>
<td>8.79</td>
<td>1.94</td>
<td>8.79</td>
<td>1.93</td>
</tr>
<tr>
<td>1-1.5</td>
<td>32.72</td>
<td>10.83</td>
<td>41.50</td>
<td>12.76</td>
</tr>
<tr>
<td>1.5-2.0</td>
<td>22.35</td>
<td>10.02</td>
<td>63.86</td>
<td>22.78</td>
</tr>
<tr>
<td>2.0-3.0</td>
<td>11.90</td>
<td>7.54</td>
<td>75.76</td>
<td>30.32</td>
</tr>
<tr>
<td>3.0-5.0</td>
<td>10.12</td>
<td>10.25</td>
<td>85.89</td>
<td>40.57</td>
</tr>
<tr>
<td>5.0-10.0</td>
<td>8.92</td>
<td>10.09</td>
<td>94.81</td>
<td>56.66</td>
</tr>
<tr>
<td>10.0-20.0</td>
<td>3.36</td>
<td>11.82</td>
<td>98.16</td>
<td>68.48</td>
</tr>
<tr>
<td>20.0-100.0</td>
<td>1.55</td>
<td>15.22</td>
<td>99.71</td>
<td>84.30</td>
</tr>
<tr>
<td>100.00-200.0</td>
<td>0.22</td>
<td>8.60</td>
<td>99.93</td>
<td>92.90</td>
</tr>
<tr>
<td>200.0 and above</td>
<td>0.07</td>
<td>7.10</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

### Table 3

**Average Income in Agriculture by Size of Farm in Pesos, 1960**

<table>
<thead>
<tr>
<th>Size of Farm (Hectares)</th>
<th>Average Income</th>
<th>Number of Farmers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2</td>
<td>1,160</td>
<td>191,350</td>
</tr>
<tr>
<td>2-3</td>
<td>1,840</td>
<td>117,000</td>
</tr>
<tr>
<td>3-4</td>
<td>2,340</td>
<td>92,000</td>
</tr>
<tr>
<td>4-5</td>
<td>2,660</td>
<td>58,200</td>
</tr>
<tr>
<td>5-10</td>
<td>3,710</td>
<td>169,150</td>
</tr>
<tr>
<td>10-20</td>
<td>5,860</td>
<td>114,200</td>
</tr>
<tr>
<td>20-30</td>
<td>7,140</td>
<td>44,050</td>
</tr>
<tr>
<td>30-40</td>
<td>8,840</td>
<td>26,500</td>
</tr>
<tr>
<td>40-50</td>
<td>10,780</td>
<td>16,240</td>
</tr>
<tr>
<td>50-100</td>
<td>13,490</td>
<td>40,000</td>
</tr>
<tr>
<td>100-200</td>
<td>24,750</td>
<td>22,300</td>
</tr>
<tr>
<td>200-500</td>
<td>42,540</td>
<td>17,700</td>
</tr>
<tr>
<td>500-1000</td>
<td>105,700</td>
<td>4,140</td>
</tr>
<tr>
<td>1000-2000</td>
<td>192,700</td>
<td>1,975</td>
</tr>
<tr>
<td>2000 and above</td>
<td>553,200</td>
<td>790</td>
</tr>
</tbody>
</table>

The real supply, then, corresponds to the level of real income and to the type of consumption habits of buyers. In Colombia the people who have significant buying power are located in the upper and middle upper strata of society. Their consumption habits stimulate the demand for luxury items that are generally imported or that call for imported technology from developed countries, which obviously implies a high use of machinery and a low use of labor.

This constitutes a setback for the development of industry and manufacturing in the nation, stimulates the import of capital and foreign investment with all its consequences, and aggravates the problem of national unemployment.

Credit:

The Colombian agricultural credit system consists of several entities. The following are the major public and private:

(1) Private banks are required by law to maintain credit funding for agriculture in an amount no less than 15 percent of their demand deposits.

(2) Caja Agraria, is a mixed agency with funding from both government and private sources. Caja Agraria has more than 700 agencies and 450 stores for provisioning agriculture. It has a dominant position in the agricultural sector.
(3) Livestock Bank, is likewise a mixed agency with funding from the government, external donor, and private capital.

(4) Incora, as mentioned before, is a governmental agency authorized to provide credit to farmers included in agrarian reform activities.

(5) Cofiagro, is part of the Agricultural Ministry and is funded from governmental sources. It's principal functions are to provide credit and financing for agricultural processing, marketing, and exports.

In Colombia, credit may provide an example of the policy which tends to favor large producers and almost excludes the low income clientele.

In 1964, 49 percent of the borrowers (usually small producers) received only 14 percent of the total, while 28 percent received 25.4 percent. In Caja Agraria, 74 percent of the borrowers obtained 22 percent of the total credit, while the rest 26 percent received 78 percent.

Schwiden and Feaster say that "in Colombia, over the past decade total credit of the agricultural sector has increased but its distribution continues to favor larger commercial enterprises".

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Technology

After World War II, when the United States began its expansion in Latin America, the Rockefeller Foundation signed an agricultural research contract with the Colombian Ministry of Agriculture, and since that year, there has been a growing tendency to reproduce a technology which is not in keeping with the economic and social problems of the country. Instead, it is shaped by the characteristics of agricultural development in the United States.

A massive importation of agricultural machinery also began in 1950, increasing the displacement of rural manpower and the concentration of rural income in the hands of a minority. As mentioned by Havens and Flinn, given the fact that in Colombia large landowners have been able to legislate control over the resources, we find that they received almost all the institutional credit. They are also the principle beneficiaries of other public investments that serve agriculture, including those in technical assistance, roads, irrigation, and electrification...

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34 OSSA, Carlos E. La Mecanización de la Agricultura en el Valle del Cauca, Sede 1970, Bogotá, Pages 130-133.

They also conclude that "while the introduction of new agricultural techniques is occurring in Columbia it is occurring under the aegis of a particular social structure of Colombia, rather the social structure of Colombia is conditioning the results of this introduction of technology. We do not deny that agricultural productivity has increased as a result of new technology being applied to the farm enterprise. Productivity has increased, but this increase is usually recorded on those units that are producing for an export market. If there is any relationship at all between the introduction of new agricultural technology and social misery, it is that under the present structural arrangements as more technology is introduced social misery increases proportionally".

Unemployment

As in most developing countries, unemployment is a serious social illness in Colombia. A recent study by the international Labor Organization has estimated open urban unemployment at 14 percent of the labor force in 1967. This is an average of sample surveys in eight cities including the largest four.

In addition, there is underemployment and "disguised" unemployment—persons without work who would probably seek it if open unemployment were lower. The International Labor Organization estimates these groups at 12 percent of the urban labor force on a full-time equivalent basis, again in 1967. There are fewer and poorer statistics available on the employment problem in rural areas.
However, it is possible to make three broad generalizations: (a) the rural situation varies sharply from area to area; (b) rural employment varies considerably while agriculture's natural cycle from planting to harvesting creates peaks of labor demands, at which time any additional labor (large hours or more people) can add to the yield, much less labor is needed during the slack season; and (c) the nature of rural life often makes nonsense of over-precise urban concepts such as "active labor force" or even unemployment.

According to World Bank "urban unemployment results in part from massive migration of the rural population. A massive exodus from agriculture in the face of insufficient employment opportunities in urban centers is explained by poor living conditions for much of the rural population".

**Internal Migration in Colombia**

Colombia, like any other low-income country, has had to contend in the postwar period with an increasing rate of population growth

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due to the abrupt decline in death rates. According to Nelson, 38
Schultz, and Slighton the most prominent manifestation of Col-
ombia's population explosion has been massive rural-urban mig-
ration. In the past twenty-five years, the percentage of Col-
ombia's population living in urban communities has increased from
30 to 52 percent.

Although the natural rates of increase of the rural and urban
communities may be similar, the growth of each population and the
distribution of the population within each category have been altered
drastically by internal migration. As shown in Table 4, between
1951 and 1964 the rural population grew at about 1 percent per
year, while the urban population increased 5 percent annually.
The major cities of Colombia increased even more rapidly, as may
be seen from Table 5, with Bogotá growing between the last two
census at the rate of 6.8 percent per year. The total labor force
grew at 2.2 percent per year between 1951 and 1963, the rural and
urban forces growing at 0.4 percent and 4.4 percent per year res-
pectively.

Change in a Developing Economy, Princeton University Press, Princeton,
### TABLE 4
GROWTH OF POPULATION AND LABOR FORCE IN COLOMBIA

<table>
<thead>
<tr>
<th></th>
<th>1938 Census (thousands)</th>
<th>1938-1951 Annual Rate of growth (percent)</th>
<th>1951 Census (thousands)</th>
<th>1964 Annual Rate of growth (percent)</th>
<th>1964-1974 Annual Est. Rate of Growth (percent)</th>
<th>1974 Est. of Labor Force (thousands)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adjusted pop. totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>4,395</td>
<td>2.1</td>
<td>5,759</td>
<td>3.2</td>
<td>8,657</td>
<td>a</td>
</tr>
<tr>
<td>Women</td>
<td>4,465</td>
<td>2.1</td>
<td>5,829</td>
<td>3.3</td>
<td>8,910</td>
<td>a</td>
</tr>
<tr>
<td>Both sexes</td>
<td>8,860</td>
<td>2.1</td>
<td>11,589</td>
<td>3.3</td>
<td>17,567</td>
<td>a</td>
</tr>
<tr>
<td>Urban (cabeceras)</td>
<td>2,610</td>
<td>4.2</td>
<td>4,482</td>
<td>5.6</td>
<td>9,094</td>
<td>b</td>
</tr>
<tr>
<td>Rural (other regions)</td>
<td>6,240</td>
<td>0.9</td>
<td>7,106</td>
<td>1.2</td>
<td>8,361</td>
<td>b</td>
</tr>
<tr>
<td>Labor Force totals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men</td>
<td>c</td>
<td>c</td>
<td>3,150</td>
<td>2.1</td>
<td>4,102</td>
<td>3.4</td>
</tr>
<tr>
<td>Women</td>
<td>c</td>
<td>c</td>
<td>724</td>
<td>2.8</td>
<td>1,032</td>
<td>3.3</td>
</tr>
<tr>
<td>Both sexes</td>
<td>c</td>
<td>c</td>
<td>3,874</td>
<td>2.2</td>
<td>5,134</td>
<td>3.4</td>
</tr>
</tbody>
</table>

**NOTES:**

- a. Dependent on future level of birth rates.
- b. Dependent on future developments of Colombia rural and urban sectors.
- c. Incomparable data on labor force from 1938 Census.
- d. Assumed that age-and sex-specific activity rates will be the same in 1974 as in 1964, and that survival rates comparable to the mortality level of 14 of the West life tables would prevail in the decade 1964-1974. For detailed discussion of these labor force projections, see source below.

**SOURCE:**
### Table 5

**Population Growth in the Major Cities of Colombia Between Censuses 1938-1964**

<table>
<thead>
<tr>
<th>City by Size</th>
<th>Census Population Total (thousands)</th>
<th>Annual Average Rate of Growth (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bogota, D.E.</td>
<td>356</td>
<td>715</td>
</tr>
<tr>
<td>Medellin</td>
<td>168</td>
<td>358</td>
</tr>
<tr>
<td>Cali</td>
<td>102</td>
<td>284</td>
</tr>
<tr>
<td>Barranquilla</td>
<td>152</td>
<td>280</td>
</tr>
<tr>
<td>Cartagena</td>
<td>85</td>
<td>129</td>
</tr>
<tr>
<td>Bucaramanga</td>
<td>51</td>
<td>112</td>
</tr>
<tr>
<td>Manizales</td>
<td>86</td>
<td>126</td>
</tr>
<tr>
<td>Pereira</td>
<td>60</td>
<td>115</td>
</tr>
<tr>
<td>Cucuta</td>
<td>57</td>
<td>95</td>
</tr>
<tr>
<td>Ibagué</td>
<td>61</td>
<td>99</td>
</tr>
<tr>
<td>Palmira</td>
<td>41</td>
<td>81</td>
</tr>
<tr>
<td>Armenia</td>
<td>51</td>
<td>78</td>
</tr>
<tr>
<td>Montería</td>
<td>64</td>
<td>77</td>
</tr>
<tr>
<td>Cienaga</td>
<td>47</td>
<td>57</td>
</tr>
<tr>
<td>Pasto</td>
<td>50</td>
<td>81</td>
</tr>
<tr>
<td>Santa Marta</td>
<td>83</td>
<td>47</td>
</tr>
</tbody>
</table>

**Total Population** 8,850 11,589 17,567 2.1 3.3

**SOURCE:** Boletín Mensual de Estadística, DANE, Bogota, No. 176, Nov. 1964, Page 7.
TABLE 6

PERCENT OF PERMANENT POPULATION IN BOGOTA
METROPOLITAN AREA IN 1964 WHO MIGRATED TO CITY,
BY SEX, AGE, AND DURATION OF RESIDENCE IN BOGOTA

<table>
<thead>
<tr>
<th>Sex and Age</th>
<th>Total Migrants</th>
<th>Duration of Residence in Bogota (years)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>0-5</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-14</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>15-59</td>
<td>73</td>
<td>30</td>
</tr>
<tr>
<td>60 or more</td>
<td>81</td>
<td>18</td>
</tr>
<tr>
<td>All ages</td>
<td>51</td>
<td>24</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-14</td>
<td>26</td>
<td>20</td>
</tr>
<tr>
<td>15-59</td>
<td>75</td>
<td>30</td>
</tr>
<tr>
<td>60 or more</td>
<td>84</td>
<td>20</td>
</tr>
<tr>
<td>All Ages</td>
<td>56</td>
<td>25</td>
</tr>
<tr>
<td>Both sexes all ages</td>
<td>54</td>
<td>25</td>
</tr>
</tbody>
</table>

To take an extreme case of the impact of internal migration, Table 6 shows that the majority of the residents of rapidly growing Bogotá in 1964 were immigrants to that city; among the economically active ages (15-59) three-fourths were born outside of the city, and almost half had migrated into the city within the past eleven years. Colombia has 17 cities that have more than 100,000 inhabitants and they represent 35.7 percent of the total population of the country. A total of 2.7 million people moved from rural areas into urban between 1951 and 1964. According to the Banco Interamericano de Desarrollo, four Colombian cities will have more than one million people in 1980: Bogota 5,208,000; Cali 1,965,000; Medellin 1,829,000 and Barranquilla 1,012,000.

Statement of the Problem

The fast growth of the large cities around the world has been the object of extensive studies of social scientists, economists, policy makers, planners, politicians, and so on.

Many observers consider rapid urbanization not only a phenomenon to be tolerated, but one which should be favorably regarded and

39 Adams, Dale W., Rural Migration and Agricultural Development in Colombia, In Economic Development and Cultural Change; Vol. 17, No. 4, July, 1969; Pages 527-539.

40 Banco Interamericano de Desarrollo BID Desarrollo Urbano en America Latina, condensado por Roslyn G. Taylor, 1968.
possibly even encouraged. They note that it is the only means by which the type of social change required for modernization in less developed countries, and for rapidly advancing technology in industrial nations can be accomplished with any degree of speed.

As economic development and hence urbanization occur, agriculture tends to become more efficient. Capital equipment, science, and better organization replace manpower. Less labor is required per unit of land to produce the same or even higher agricultural output. The growing cities, in addition to furnishing a market for commercial crops and supplying manufactured goods and services for improving the per-man productivity of agriculture, absorb people from the countryside. As a consequence, the farming population may diminish not only as a proportion of the total population but also in absolute terms. The oft-condemned "depopulation" of rural areas is therefore a sign of economic modernization, the growth of cities a boon to progress. As long as people remain in their traditional environments, they will be loath to sever ties with long established habits and patterns of behaviour.

Education and training or retraining will be difficult, lengthy, and expensive. In the city the migrant comes face to face with new trends and even if he is not fully converted, his children will tend to be less resistant. These students of urbanization feel that large cities are more efficient from a social and economic point of view in the long run, and that short-range problems are
merely growing pains.

However, in many countries, the problems created by the flow of those seeking to fulfill their hopes in an urban environment are approaching crisis proportions in terms of overcrowding, slums, unemployment, and a breakdown of services, and are presenting seemingly insuperable challenges to politicians, bureaucrats, and experts trained in a great variety of disciplines.

In Colombia specifically Schultz reports that urbanization has occurred more rapidly than industrialization and assimilation of migrants into the urban economy is not always progressing satisfactorily; urban unemployment has risen, and the proportion of urban workers employed in low-productivity and low-wage sectors of the economy has tended to rise. Law-Maus points out that migration from the fields to the cities in Colombia has resulted in the formation of marginal human conglomerates in the leading cities. These masses do not participate in the country's economic life and live in great poverty, usually lacking power, water and sewerage, with no access to jobs, health care and education.


On the other hand, it is likely that migration is affecting also the rural area in Colombia. Adams reports that "although difficult to quantity it is likely that migration is drawing out the individuals with characteristics most appropriate for agricultural development programs. The individuals with potential ability to manage farm units, organize cooperatives, and provide leadership for community development programs and rural pressure groups are flowing into the cities".

Given the circumstances mentioned above, many researchers have focused their attention upon factors related to the processes of migration.

Aristizabal points out that these studies are mainly concerned with:

(1) The problem of assimilation of the migrants into the host society
(2) Migrant-native distinctions
(3) The characteristics of the migrants in a specific area.

But Mangalan states that "in spite of the large number of existing workers dealing with migration, only a very few of them ventured any theoretical statements, and most of them did not suggest any theoretical import for their empirical findings".

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45 Aristizabal, Gilberto, The Economic Structure of the cities & The Selectivity of Migrants; the Case of Medellin and Popayan in Colombia. MS Thesis, Univ. of Wisconsin, Madison, Wisconsin, 1971
The same author argues that the major reasons for the absence of a general sociological theory of migration can be summarized under four headings:

(1) Conception of the nature of migration. Four elements have been called misconceptions of the study of migration.
   a. Assumption of randomness. This assumption states that migration is a random phenomenon because there is little or no predictability of the selectivity of the migrants.
   b. Tendency to be reductionistic. An attempt to explain and predict direction and volume of migration by physical and biological variables such as distance, age, sex, and so on. Others have likened migration to the fundamental laws of descriptive mechanics, gravitation, or electrostatics.
   c. Emphasis on the individual, many of the psychological and socio-psychological studies of migration give evidence of a mis-conception of migration as only an individual or social behavior. This approach tends to leave out the human interactional element from migration and to concentrate on individual characteristics. Most of the better known studies of migration fall into this category. The objection to this approach is not that it is wrong, but that it is a too truncated view of migration.
d. Ascription of uniqueness to each case. Tendency to threat each study of migration as if it were a unique case.

2) Nature of the data used in migration studies. In relation to this aspect Mangalan states that traditionally migration studies have depended heavily on: official statistics such as government censuses, secondary source as medical records, telephone directories, port statistics, and so on.

3) Disciplinary Orientation of the scholars. A majority of those who have used the information mentioned above for the study of migration happen to be basically demographers, with or without training in theory of social organization. Another important class of students of migration are labor economists, who have dealt with labor and labor movement as abstract qualities and not as part of the complex behavior of the migrants in the interactional sense. The more strictly sociologically oriented students of migration have either dealt with migration from a psychological or sociopsychological point of view...

4) Mangalan states that the last reason for a demonstrated general lack of interest for building theories in the study of migration is the lack of concern by sociological theorists for the phenomenon.
The need for general theory as an aid in migration research has been expressed by many scholars in different ways. For example, Mangalan states that a general theoretical orientation with a multidisciplinary emphasis in the study of migration has been advocated by Wilber, Hanser, and Vence.

Beiyer, Tarver, and others have noted that migration cannot be understood without understanding the dynamic interplay that exists among demographic, economic, and social factors, and any attempt at formulating theoretical statements on migration ought to take this interplay into consideration.

Nelson, Schultz, and Slighton in their study about rural-urban migration in Colombia state that "like the birth rate, the migration rate has widespread economic and social consequences, and although the determinants of migration are thought to be explicable in terms of people's wants, remarkably few studies have sought to analyze internal migration to find out what exactly motivates the migrant." It is obvious that the design of policy measures to cope with the problems associated with migration and urbanization in Colombia requires a broad understanding of why migration takes place.


In view of the considerations mentioned above, this study was designed as a means to provide additional understanding and information in the study of migration. Specifically, following the recommendations given by the authors already mentioned, that migration should be studied in regard to the conditions and characteristics of the social organizations in which the migrants are involved in terms of both their areas of origin and that of their destination; this study examines peasant migration in three different Colombian communities in terms of some variables or characteristics of the individuals, family variables related with the means of production, and change of these variables over time.
THEORETICAL FRAME AND REVIEW OF LITERATURE

The Concept of Migration

Writers have defined migration in the following terms: Eisenstadt\textsuperscript{50} says that "migration is the physical transition of an individual, or a group from one society to another. This transition usually involves abandoning one social setting and entering another different".

Hagerstrand\textsuperscript{51} defines migration as "the change of residence of an individual from one parish or commune to another".

Petersen\textsuperscript{52} states that "a migration means, therefore, not merely a shift of certain number of undifferentiated persons from one place to another, but also a change in the occupational and population structure of both countries or regions".

Mangalan\textsuperscript{53} says that "migration is motivated behavior, not mechanical or involuntary. An act of violation that implies decision--


\textsuperscript{52}Petersen, W., Population, New York MacMillian, 1961, Page 652.

making, based on a hierarchy of values”. For that reason, Mangalan includes in his definition of migration the interactional dimension and decision-making process and a hierarchy of values as the selection criterion to choose from available alternate goals of migrating or not migrating. He defines migration in the following way: "Migration is a relatively permanent moving away of a collectivity, called migrants, from one geographical location to another, preceded by decision-making on the part of the migrants on the basis of a hierarchically ordered set of values or valued ends and resulting in changes in the interactional system of the migrants."

Mangalan points out that the permanent moving away of people rules out such cases as commuters, salesmen, and tourists as migrants. However, the period of time implied by the term permanent cannot be generalized for all instances of migration, but has to be considered individually in each specific case.

Collectivity is the social organizational, especially the sociological, dimension in the definition of migration. This criterion rules out as part of the migration phenomenon isolated and individual cases of movement of people which, though natural come under the heads of unique and random events; however, the author states that events that are seemingly random and unique should not be rejected outright without careful examination.

The criterion of decision-making on the basis of a hierarchically ordered set of values or valued ends according to Mangalan, is highly important if we are to understand the dynamics of the migration process,
the problems that follow the act of migration and their resolution. Migration is not to be treated as a random behaviour of those who migrate, not only because random behaviour like an unique event cannot be scientifically studied, but also because migration in general is not random in the sense that it is an erratic behaviour. It is not to be denied that there are found occasionally individuals who "pick up and go" without any rhyme or reason. But these cases are very few and exceptional. Mangalan states that the decision-making process before migrating has at least the following factors to be considered:

(1) a high degree of relative deprivation in some important values.
(2) perception of inability to meet these deprivations in the place of origin.
(3) perception of better ways of meeting the unmet needs in other places.
(4) the selection of a place from the available ones on the basis of where the social organization most suited to the needs of the collectivity may be found.

A more or less stable and on-going social organization implies a group of people living with a minimum satisfaction of their needs according to their value. When these minimum needs are not met by the existing conditions within a society or a sector of it; certain members entertain the thought of moving out of it and going to another society or to a different sector of the same society where they perceive conditions more adequate to meet satisfactorily their unmet needs or relative deprivations.
Two things need to be noted concerning these relative deprivations. First, they are relative. All people have deprivations of one kind or another. The mere existence of some deprivations does not result in movement from one geographical location to another. One of the devices a given people's social organization develops is a capacity to live with certain deprivations although not with all of them. It is important to ask what specific deprivation at a given time a particular collectivity is willing to endure. It is assumed that the criteria used, whether the members articulate them fully and explicitly or not, are their values, expressed in terms of valued ends. Values are abstract in nature, but they have overt behavioral expressions, such as for example, children's education, greater income, wanting to live close to friends and freedom to worship. These overt expressions are called valued ends. These valued ends might represent such as values as family life, material comfort, friendship, and religious freedom. These values or the corresponding valued ends are ascribed differential importance in the minds of the members of the collectivity which results in a hierarchy.

The deprivations in the more highly valued ends are more important in the study of migrations. Not only are these deprivations in the more highly valued ends significant in the decision to move, but they are also important factors in the adjustmental phase that follows migration. The second factor to be noted concerning high relative deprivations in some areas (e.g., material
comfort) is that a given social organization has more than one way for the realization of its members values. Thus, not even a high degree of deprivations of some valued ends is sufficient condition for migrating. It is necessary that all or almost all satisfactory or desired means or overcoming existing deprivations are closed for the collectivity in question within the place of origin. Thus, among other things, both the existence of a high degree or deprivation of one or more values of a collectivity and the blocking of almost all the satisfactory means normally available to the collectivity to overcome such deprivations are preconditions to a decision to migrate.

The existence of both a high degree of deprivations in the upper hierarchy of values and a lack of means to overcome these deprivations would make a give collectivity readier to migrate. However, this readiness to move will not result in actual migration unless some further conducive conditions are present. Chief among these additional conditions are certain characteristics of the locations which are potential destinations for the collectivity. In societies where individuals are reasonably free to locate and relocate themselves territorially whenever they please, they tend to move to places where they see ways to overcome their felt deprivations, but without given up as far as possible, the satisfactions they were enjoying at the place of their origin. In other words, the collectivity in question tries "to eat its cake and have it too". That may or may not always be possible. Lacking ideal conditions of human existence, the collectivity weigh further the alternative places available for migration.
The fourth category of the definition of migration given by Mangalan, changes in the interactional system of the migrants is included in the range definition of migration in order to emphasize the social system of migration.

The decision-making aspect of the definition discussed above, reflects to a great extent the subjective, interpersonal, or psychological dimension of migration; the value factor involved in the establishing priorities of choices is part of the culture system aspect of social organization. The change in the interactional or normative system on the other hand connotes the on-going social aspect in this attempt to outline the essential foci for the proper study of migration. Actors do not have to change their interactional system in order to meet their unfulfilled needs. It is a matter of common experience that within an on-going social system, the actors can, and actually do, reorganize both needs and resources to match each other. This reorganization or redefinition of needs and resources to fulfill the egoalter orientation process results in an adequate level of social adjustment, and under these circumstances no migration occurs.

However, Mangalan following his explanation says that there is an error committed by some in assuming that often when rural people move from their villages to cities, they basically retain their original social organization. This is the result of a misconception of social organization. The error committed in this assumption can be easily pointed out by saying that these rural
people when they come to the cities, have to earn a living from occupations found in the city, and not by following their earlier rural occupations. Of course, there might be other changes, too, that may be important such as in the educational system, which cannot be avoided in the city altogether because of one's concern for one's children. Recreational activities are still another area in which changes being to occur relatively soon because of a general lack of availability of the types of recreation rural migrants are used to. Without enumerating the areas in which behavioral changes set in, it is sufficient here to point out that rural people moving to urban areas cannot possibly escape some significant changes in their interactional system.

For purposes of this study, the author will adopt the definition given by Mangaln because according to the author's point of view, this is one of the most broad and comprehensive definitions of migration. It includes psychological as well as socio-economic variables.

Migration of the Rural Population

According to Bussey\(^5\) some authors have attempted to classify the motivations of rural-urban migrants under two headings; namely, those that tend to push and those that pull. The former theory

\(^5\)Bussey, Ellen, M; op.cit., pages 5-12.
states that migrants leave the land because of unfavorable conditions prevailing in the countryside, the latter that the city serves as a magnet in its own right because of all the special advantages it offers. The push theory is backed by the fact that for most people engaged in agriculture, incomes have never reached a level of near equality with those in urban areas in spite of considerable efforts in some developed countries, to bring this about. Furthermore, there are the irregular hours and the long work days, the relatively low social status attached to being a farmer, the uncertainties of crops and prices, the frequently poor working and living conditions, the lack of leisure, the hard, dirty work in all kinds of weather, the seasonality of paid employment, and the changes in agriculture technology which make employment prospects uncertain. Those who favor the "pull" theory argue than existing conditions in rural areas are less important that the attractions offered by the city. Included are better medical facilities, better education and training, greater comfort, cultural, artistic, and creative activities and the kind of individual freedom that seems to be part of urban life. Furthermore, in the city there is always the chance of "making it big."

Bussey in an analysis of these theories states that in any given situation it is very difficult to separate the push and pull factors. There are many indications for instance that particularly in developing countries pull is not the logical con-
sequence of existing phenomena in rural vs. urban areas but rather of the image the prospective migrant has of his place of destination, and of other factors. Such as the presence of relatives in a city. His move often results from lack of knowledge, unwarranted hope, and peripheral considerations. Lipton from a cross-section analysis of migration data from several hundred village studies around the world concludes that "the typical high-migration village has relatively unequal distribution of land, a high proportion of landless labourers, and probably a low land/man ratio. . . .

From such a village flow two main migrant streams. The deficit farmers and landless labourers—though seldom the very poorest who cannot afford the initial costs of movement—tend to be pushed out, as they would not if intra-village inequality were less. The sons of bigger farmers seldom the biggest, who must guard their assets and have enough for all their sons to prosper rurally—tend to be pulled out, assisted, in bearing the costs of urban education or urban job search, by the bigger rural surpluses generated by intra-village inequality. Thus 'push' and 'pull' migration are twin children of inequality in similar sorts of village, but they are also sources of new inequality. For the

'push' migration of the poor is, at first, individual rather than family-linked in motivation; takes the migrant short distances, towards doubtful, dwindling and imprecise prospects in the informal urban sector, or (more importantly and increasingly) in the rural sector: involves mostly illiterates; and, because it fails to generate much extra income or skill, eventually tends to drive the whole household to quit the rural community of origin, in what is increasingly becoming a wandering drift across the countryside in search of work. The 'pull' migration of the better-off, on the contrary, aims—often through long distances—at a selected town, either to obtain education or to exploit the higher urban-rural income differentials to which education gives access; is 'linked' to family requirements as articulated by the head of the household; and tends, therefore, to generate income, skills, knowledge or remittances useful to the family as a whole.

To the extent that migration conforms to the above caricature, it plainly increases inequality within and among villages. It does so within village, because 'pull' migration allows the better-off to advance, while 'push' migration weakens the poor and sets some of their potential leaders roaming the countryside without a base; it worsens inequality also among villages because, inasmuch as migration confers net benefits, it is the same villages that reap benefits from migration of different kinds, whereas remote and 'backward' (albeit more equal) villages
never hook onto the 'chain', of successive movements and contacts and pieces of information, through which migratory traditions are transmitted within and among the families of a community. And, since migration is supposed to be a process that cures inefficiency by reducing inequality (by sending migrants, whether doctors or farm labourers, where scarcity makes their incomes unusually high), its failure to achieve the latter suggests a failure to achieve the former.

Lipton supports his arguments with data from more than 15 countries. Based in this theory, this study hypothesizes that individual migrants come from peasant families who are better off. These families are sending out migrants to obtain better education and/or establish business links with the outside world; they can afford and risk enough to seek out remote chances of work or training.

This researcher agrees that the "better off" and "worse off" families may put their toes in the water in different ways. In other words, migration may be chiefly a response to imbalances in the communities of origin: a response to inequalities and rigidities which push out those of the "worse-off" families who can muster a few scanty resources for the move and enable the member of the "better off" families to be pulled out. But, because of time and resources limitations, this investigator focused his attention just to study the relationship between individual
migration and some personal characteristics of the migrants, family variables related to the means of production and change of these variables over time.

Traditionally, much rural migration has been viewed also as a volunteer individual decision in response to personal changes in the status quo, and as a movement which seeks to establish a new and desired equilibrium of labor skills, social stability or cultural and social integration. In effect that theoretical model is "situation oriented". Other models (such as Ravenstein's), equally individualistic, aim at developing an explanation which is either independent of situations or seeks to cover them all with little or no regard for the mode of production or its specific stages. Such attempts try to establish universal empirical generalizations applicable to all migration, in all historical periods. The main criticism of both these types of models is that they do not view migration as a part of the overall socioeconomic process of a specific social formation. Generalizations which may have explanatory validity for U.S. migration streams, when applied to Latin American are not adequate to explain nor clarify why or how migration is occurring.

Linking migration with socioeconomic processes implies that migration will not occur in a similar manner in all nations and

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in all communities, because the specific social, economic, and political conditions and populations vary from place to place. The socioeconomic process is basically a process of social change, and this process itself is a function of earlier conditions, of the impetus and speed of change, and of historical modes of production. "Simple evolutionary schemes, extrapolations from the past experience of modern nations to the future possibilities of non-modern nations are neither analytically justifiable nor theoretically cogent".57

This approach to migration as part of the overall change process does not deny the change of migrations because of natural phenomena, such as life cycle of the family and disaster. Rather, it seeks to point out that certain types of migration, such as individual, family and mass migration, may perhaps be more fully understood within this social framework. One of the few established generalizations in migration literature concerns age (younger adults are more mobile than older persons) but it is a vague concept in that it leaves open three important specifics: 1) level of mobility, 2) specific ages of highest mobility, and 3) the relative magnitude of differences between older and younger mobility rates. "These specifics should vary depending on

the political, economic, and social organizations of societies and the specific types of migration examined. Migration, seen as part and parcel of the overall process of socioeconomic change, shows that much of what appears as a voluntary, free decision in reality may be forced migration. For instances for the peasantry of many rural areas with increased minifundia, declining incomes, poor educational and health services, poor employment opportunities, lack of credit, relatively low social status, uncertainties of crops and prices, poor working and living conditions, lack of leisure and so on, migration is much more accurately described as forced mobility. As Goldscheider states "the selectivity nature of "forced" mobility rests not with the internal characteristics of the movers as in free migration but rather with the comparison of the relocated or migratory subcommunity to the broader society of which it is a part."

An analysis in the system of ownership of the means of production and changes in this system, change in the social organization of labor, and change in the concentration of capital illuminates the growth of social forces and their direction and aids understanding of the main social conflicts and changes.

58 Ibid, page 301
59 Ibid, page 300
60 Galeski, Boguslaw, Basic Concepts of Rural Sociology, Manchester University Press, Manchester, 1972, Chapter 5.
Specifically, in this study, that type of analysis is used to gain an idea of how migration may be selective among classes or subgroups within rural communities in Columbia.

The Peasant Economy

There are many definitions and conceptions of what a peasant is or is not. Wolf\(^{61}\) stated that "peasants are rural cultivators whose surpluses are transferred to a dominant group of rulers that uses the surpluses both to underwrite its own standard of living and to distribute the remainder to groups in society that do not farm, but must be fed in return for their specific goods and services in turn".

Shanin\(^{62}\) delimits the "peasantry as a social entity with four essential and interlinked facts; the family farm as the basic multifunctional part of social organization land husbandry and usually animal rearing as the main means of livelihood, a specific tradition culture closely linked with the way of the life of small communities and multi-directional subjection to powerful outsiders". To these elements Shanin adds a list of seven "analytical marginal groups" such as agricultural laborers whom he sees as sharing some of the characteristics of the peasantry.

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Firth\textsuperscript{63} defines peasants as "a system of small producers, with a simple technology and equipment, often relying primarily for their subsistence on what they themselves produce. "First also makes a case for inclusion of certain other rural groups.

For Foster\textsuperscript{64}, peasants are communities which historically speaking, "have grown up in a symbiotic spatial temporal relationship with the more complex components of the greater society, i.e.; the pre-industrial market and administrative city." As the city becomes an industrial center the dependent peasants begin to disappear slowly, since their potential for change is low because of their culture. According to Foster, a peasant can be a fisherman, craftsman, or farmer. External dependence, not internal economic organization, is the important characteristic.

Redfield\textsuperscript{65} adds another dimension "that the system be consistent, in the main, with those of the city people who constitute, so to speak, its other dimension of existente." Mintz\textsuperscript{66} states that subcategories of peasant society can be developed with the

\textsuperscript{63}Firth, Raymond; Elements of Social Organization, C.A. Wattas, London, 1951, page 84.

\textsuperscript{64}Foster, George H.; What is Peasant in Peasant Society, Little Brown and Company, Boston, 1967, page 7.


\textsuperscript{66}Mintz, Sidney; A note on the definition of Peasantries, Journal of Peasant Studies, Volume 11, October, 1973; pages 91-106.
aid of historical features, such as the internal differentiation of the peasantry; the relationship of the peasantry to other non-peasant rural groups; and the employment of social maneuvers in the conservation or change of cultural patterns by peasant sectors.

The preceding description would appear to be quite precise and sufficient in identifying who is and is not a peasant, but many groups or rural cultivators still do not fit completely that description. Thus, Moore indicates that "it is impossible to define peasantry with absolute precision because distinctions are blurred at the edges in social reality itself". Blurring is understandable because of the dynamics of the situation primitive cultivators become peasants and peasants become either agricultural wage laborers or small farmers.

This study is interested in some aspects of these dynamics and examines individual migration in relation to some variables without excluding those who derive a minor share of their income from agriculture. It is concerned with the families that are 1) owners of small to medium farms, 2) landless agricultural workers who had usufruct rights to land, or wage laborers, and 3) families who neither owned nor worked on the land but were economically active in the rural community. This study refers to all of them as peasants.

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In Colombia, the peasant family farm forms the primary and basic unit of both peasant society and economy. The peasant farm forms most of the time a small production/consumption unit which finds its main livelihood in agriculture and is named chiefly by family labor.

The basic division of labor on the farm is closely related to family structure and runs along the lines of sex and age. Functions are more or less rigidly allotted. The farm's chief supervisor and formal owner is on the whole the father of the family, who has extensive rights over its members.

The productive occupation of a peasant consists of a wide range of interrelated tasks at a relatively low level of specialization. The occupational skills are defined very much in terms of experience transferred directly or formalized in an oral tradition of numerous proverbs and stories. Training for the occupation of peasant is carried out mainly within the family; a young peasant learns his job by following his father and helping him at work.

In relation to the modus operandi of the peasant family farm we may say that there is a general consensus about the basic factors of production; customarily these factors are designed as
land, labor, capital and entrepreneurship or management. 68

A description of these factors in Colombia appear in Chapter I. In Colombia, more than 50 percent of the farm units are very small and have three hectares or less in size. On the other hand, two-thirds of Colombia's farm land is in units of 100 hectares or more. Closely associated with the land-tenure in Colombia, is the prevalence of absentee landownership in large farms.

Peasant wage labor is limited while the use of family labor within the farm is highly extendable. Due to the size of the majority of the farms in Colombia, land generally absorbs only a small portion of the total family's available labor and only a minor part of the family's total consumption is produced on the farm.

Peasant's capital is very limited and the entire property apart of the small amount of land consists only of a small and rustic house, some simple equipment and sometimes a few heads of


livestock. Credit is also limited and is concentrated in the hands of a few large producers. Finally, as it was also mentioned in Chapter I, large landowners have been the beneficiaries of the new agricultural techniques. Investment plays a relatively small role in Colombia's peasant society. This is not to say that the peasants do not like to save or refuse to invest in ventures which are profitable in his eyes. Most of the time when accumulated savings are present, they are not sufficient for any substantial investment in the productive process.

The main focus of this study is to examine individual migration in relation to the availability of the factors of production, and changes in those factors over time in peasant societies. Besides the availability of land, labor, capital and technology some other variables are included. Family size was included because it is related to labor by some authors. Georgescu-Roegen\textsuperscript{69} says that "for long periods during the year labor power and implements find no use. But during some phases of the vegetation cycle one needs all the draft animals one can get hold of and during others all the hands. In particular, harvesting by hand is an operation that requires the mobilization of the whole family, including children for it must be performed by every household within a very short time at the same critical moment for the entire village... In these

circumstances a small family cannot take full advantage of a bumper crop because it cannot provide the required division of labor. The economic loss thus incurred places such a family in a disadvantageous position in comparison with the large family"... Nakajima states that "an increase in number of workers in a farm family is likely to increase the amount of family labor utilized." In relation to food consumption Fisk and Shand state that "one factor limiting the potential supply of labor in a human society is the level of nutrition, which in a subsistence society can be roughly equated to the output of food. Below a certain level, work will be impossible, and the potential supply of labor will be nil"...

Related Research

As has already been mentioned, there has been a propensity to treat migration as an individual process and most of the studies have been oriented toward the study of the personal characteristics of the migrants. Studies in developed as well as in developing countries have indicated that migration is a selective process in terms of the characteristics of the migrants. For instance, Adams


states that several studies in Colombia have shown a relationship
between level of formal education and tendency to leave rural
areas. In seven out migration areas studied by Adams, he found
that the level of education of non-migrants was significantly
lower than for the migrants. In the same study, a subdivision of
the migrants showed a general tendency for those who moved to a
neighboring municipio, a rural-to-rural or rural-to-village move,
to have educational levels as or lower than non-migrants.

In relation to the age and sex of the migrants, Adams reports
that studies of migration in Colombia have indicated that a large
proportion of the rural-to-urban migrants are young when they
move to the cities. The same author, mentions the study developed
by James Converse in which 90 percent of the migrants to one suburb
of Bogotá were less than 30 years of age when they moved to the
city. Adams also mentions the study developed by Flinn and says
that this study reports that 68 percent of the immigrant heads
of households moved to Bogotá were between 20 and 40 years of age.

Shultz base in a study of the currents of internal migration
in Colombia between the censuses of 1951 and 1967 says that "Mig-
ration is age selective". The highest age specific migration
rates for men who were between the ages of 17 and 25 in 1958.

73 Shultz, T.P., Population Growth and Internal Migration in
Colombia Prepared for Agency for International Development, Mem-
Until age 37-41, migration rates for men decrease and thereafter stabilize or perhaps increase slightly. Among women, they reach their peak at a younger age between 12 and 16, decline gradually until 37 to 41 and then rise again. With the relatively high level of mortality in Colombia, a substantial proportion of women are widowed by age 40 and this may contribute to the increase of out migration of women from rural areas after they reach age 40.

Schultz also mentions the fact that migration from established rural regions of Colombia to the frontier agricultural regions is strongly male selective. Whereas migration from the countryside to the cities is slightly female selective.

Based on those findings, this study hypothesizes that migration is higher among younger and more educated individuals in the three Colombian communities.
CHAPTER III

DESIGN AND CONDUCT OF THE STUDY

Selection of Variables

Independent Variables

Three categories of independent variables were considered for this study. These are: (1) characteristics of the migrants; (2) family characteristics related to the means of production in 1964; and (3) change in the family characteristics related to the means of production between 1964 and 1971.

The specific aspects of these variables are outlined below:

Characteristics of the migrants

(a) age
(b) education
(c) sex

These characteristics were included because they are generally found in the literature to be significant in explaining migration.

Family characteristics related to the means of production in 1964.

(a) Total family income
(b) Income of other family members
(c) Amount of land owned
(d) Number of family members employed
(e) Family size
(f) Level of farm technology
(g) Amount of institutional credit
(h) Level of food consumption

It can be seen that these variables are related specifically to the means of production. These variables are not concerned with roles, status, or role sets.

Change in the variables between 1964-1971
(a) Change in total family income
(b) Change in income of other family members
(c) Change in the amount of land owned
(d) Change in the number of family members employed
(e) Change in family size
(f) Change in the level of farm technology
(g) Change in the amount of institutional credit
(h) Change in the level of food consumption

These variables describes changes in the family characteristics related to the means of production between 1964 and 1971. These variables were calculated under the method developed by Bohmstedt.

Briefly, the amount of land, for example, owned in time one was used to predict the amount owned in time two; the actual amount owned in time two was then subtracted from the prediction to give either a negative or positive change.

Change variables are particularly useful and important for determining the effect on migration of changes in those factors. Unlike the other categories of variables, change variables do not reflect a static situation. Although it is difficult to capture in a quantitative variable that qualitative change which is occurring change variables can show the tendency of the movement. Studies of "isolated" and "petrified" variables will not show this movement

Dependent Variables

Individual migration was selected as the dependent variable of this study.

Individual migration was scored as a continuous variable with children being coded "1" if they did not leave the family or community, "2" if they left the family but not the community, and "3" if they left both the family and the community.

This study utilized the children or individuals who migrated out of the community but whose families remained in the community as the unit of analysis.

Children who left the family but not the community, and children or individuals who did not leave the family or community were called Potential Migrants. In other words, potential migrants were defined
as anyone between the ages of 14 and 56 (excluding household heads and spouses) residing in the community in both 1964 and 1971.

Hypotheses

The general hypothesis of this study is that out migration of individuals comes from peasant families who are "better off". Those families are sending out migrants to obtain better education and/or establish business links with the outside world. They can afford and risk enough to seek out remote chances of work or training.

Age, sex, and education are the only set of variables included which relate specifically to the individual characteristics of the migrant. As mentioned before, these characteristics are generally found in the literature to be significant in explaining migration. Regarding these characteristics this study hypothesizes that:

- Out migration of individuals is related to high levels of education
- Out migration of individuals is related to older children
- Out migration of individuals is related to sex in that more females will migrate than males

Regarding family characteristics, the following specific or operational hypotheses were established in relation to individual migration:

- Out migration of individual family members is related to high total family income in 1964
- Out migration of individual family members is related to high amount of land owned by the family in 1964
Out migration of individual family members is related to high number of family members employed in 1964

Out migration of individual family members is related to high level of family size in 1964

Out migration of individual family members is related to high level of farm technology in 1964

Out migration of individual family members is related to high amount of institutional credit in 1964

Out migration of individual family members is related to high level of food consumption in 1964

In relation to change variables the following operational hypotheses were established:

- Out migration of individual family members is related to increasing total family income between 1964 and 1971

- Out migration of individual family members is related to increasing total income of other family members between 1964 and 1971

Out migration of individual family members is related to increasing amount of land between 1964 and 1971

Out migration of individual family members is related to increasing number of family members employed between 1964 and 1971

Out migration of individual family members is related to increasing family size between 1964 and 1971

Out migration of individual family members is related to increasing levels of farm technology between 1964 and 1971

Out migration of individual family members is related to increasing institutional credit between 1964 and 1971
Out migration of individual family members is related to increasing levels of food consumption between 1964 and 1971.

The Three Rural Communities

Of the total land surface in Colombia, only about one-fourth is used for agricultural purposes, while over two-thirds is forests, non-cultivated lands and unproductive land. The rest of the land is in cities, towns, rivers, swamps, and lakes. Virtually all of the land in Colombia that is usable in its present form and is accessible is already settled; and any attempts to make the unsettled regions economically productive would require significant capital investment, effectively ruling out rapid progress in this direction. As mentioned before, in spite of the agrarian reform laws and the attempts by the bourgeoisie to commercialize the agricultural sector, the predominan tendencies in the agrarian structure are basically the same as at the turn of the century; latifundios engaged in extensive agricultural production, subsistencia minifundios using intensive labor, and small commercial coffee farms. The three communities included in this study are typical cases of each of these tendencies. The three communities were selected also because they represent typical agricultural regions in Colombia and are structurally different with regard to the concentration of productive resources and relations in each community, the relation each one has to national and international markets, the types of crops cultivated and type of agriculture practiced.
Cereté

Cereté is a traditional latifundia community of large landholdings primarily dedicated to extensive cattle raising. The Municipio (county) of Cereté is located in the state of Córdoba, in northwestern Colombia's Caribbean coast. It encompasses some 229 square miles and has a population of 29,666 in 1964. About 40 percent (11,849) of the population lived in the county seat of Cereté, the remainder (17,817) inhabiting the rural portions of the county seat and 18,240 in the rural areas of the county.

Of the total county hectares, about 68 percent are plains, 30 percent bottom lands along the Sinú River and its many tributaries, and 2 percent swamp land. The climate is typically tropical, and generally very stable. Maximum monthly temperatures do not vary more than two or three degrees from 90 degrees fahrenheit, and minima are rarely less than 62 degrees fahrenheit.

As is normal for tropical areas, the seasons are differentiated by the amount of rainfall. Cereté, unlike the inland areas of

74 Most of the information on the description of the three rural communities is taken from: a) Lastarria Susana, The Process of Proletarianization in the Agricultural sector of Colombia, Master of Science Theses, University of Wisconsin, Madison, 1974 b) Havens E.A., Flinn W.L., and Lastarria, S. C.Agrarian Reform and the Colombian National Front; A class Analysis, Univ. of Wisconsin, Madison.
Colombia, (such as Contadero and Tamesis) has only one rainy dry cycle per year. The rains last from April or May to October or November; the remainder is dry season.

The study area itself is officially classified as midly hilly tropical savannahs. During the rainy season, moisture is often super-abundant, while the dry periods are often too much so for optical growing conditions. Given the almost total lack of flood control measures, both drought and flooding are obvious banes to agriculture.

Although Córdoba as a whole is a large farm area, the farms considered here are small subsistence units whose average state-wide size was 1.34 hectares in 1963.

Colombia's 1970 Agricultural census indicates that 3.9 percent of the farms in Cerré contain 73 percent of the land, while 83.2 percent of the farms have only 3.5 percent of the land. In the state of Córdoba, as a whole, cattle have been the object of greatest agricultural attention. Maize, Rice, Cotton, Plantain, and Yuca are in descending importance, the crops to which most cultivation is dedicated.

Contadero

Contadero is a typical subsistence minifundio community in southwestern Colombia. Contadero is a 17.3 square mile municipio (county) in the state of Nariño near the Ecuadorian border. In 1964, it had a total population of 4,685 with 914 living in the cabecera (county
seat) and 3,771 living in the rest of the county. By 1973, the total population was 3,996 with 95 living in the county seat and 4,007 living in the rest of the county. Lying in mountainous terrain about 150 miles from Pasto, the state capital and nearest large city (119,339 inhabitants), Contadero ranges in altitude from 6,500 to 9,800 feet with most of the population concentrated at 8,000 feet, where the temperature has a range of 43 to 63 degrees fahrenheit. The land is very hilly, and higher altitudes are used largely as pasture. The lower areas support two crops annually. The normal year is divided into two rainy dry cycles; the rainy seasons cover the periods from late March to the middle of June and from September to early December.

Historically, Contadero was a resguardo until 1941 when the land resulted in an area of minifundios (very small farms).

The average farm produces corn interplanted with beans and squash, wheat and barley, potatoes, vegetables, and livestock mostly for home consumption. Thus, the type of farming is subsistence. In 1963 the average number of plots exploited per family was three with a total number of four hectares. Public services in the community are generally lacking. Until the mid 1950's no more than five years of education were available to residents. Most students dropped out after two or three year of schooling and were functionally illiterate. In 1971, for the first time, a doctor visited the community regularly and he came only weekly.
Tamesis

The municipio (county) of Tamesis sits on the eastern slopes of the western range of the Colombian Andes, approximately forty air miles southwest of Medellin (1,200,000 population), the capital of the department (state) of Antioquia. Tamesis has approximately 106 square miles. In 1964, the total population of the county was 20,484 with 5,247 living in the county seat and 15,237 in the rural portion of the county. By 1973, the total population was 20,225 with the county seat growing to 7,053 and the rural area loosing population to a total of 13,172.

Its average temperature is given as 69 degrees Fahrenheit by the "county" seat. This is apt to be misleading, however, since the municipio lies on a mountain slope and ranges in altitude from 900 meters (2,952 feet) at the Cauca River, its eastern border to 2,500 meters (8,200 feet) at its western extreme. It has been said that the best temperature map of Antioquia is a topographical map, because each altitude contour can be used as a isotherm. The decrease in temperature with altitude approaches 0.6° (1.08 degrees Fahrenheit per 100 meters (328 feet). Applying this formula, the extreme altitudes might average temperatures of 25.4°C (77.8 degrees Fahrenheit) along the Cauca River and 15.8°C (60.4 degrees Fahrenheit) in the highest regions.

Seasonal variations in Tamesis are the same as those described for Contadero. The wide variation in climate and the agricultural
good fortune of a meter of topsoil in some temperate regions (1,000 to 2,000 meters) allow an extensive variety of crops to flourish in this area. Among these the most important are coffee, sugar, cane, cacaobanas, corn, potatoes, beans. Nevertheless, from an agricultural and economic viewpoint, Tamesis can be summed up in one word: Coffee. There are 106 municipios in Antioquia, all but 10 of these produce coffee. Of the 96 coffee producing municipios, 33 account for 70 percent of the total production of Antioquia. Tamesis ranks twelfth and thus is directly tied to the major export market of Colombia. About 80 percent of all coffee marketed in the area is sold directly from the farm or via middlemen to the National Federation of Coffee Growers.

The coffee growing area is characterized as a commercial small farm sector of Colombian agriculture. This is not to imply that large farm units do not produce coffee. They do and they largely control prices and markets. Approximately 72 percent of the farms in Tamesis occupy a little more than 7 percent of the land, while less than 3 percent of the farms account for approximately 50 percent of the land.

Design of the study

The primary purpose of this study was to examine the relationship between individual migration and some personal characteristics, family variables related to the means of production and change of these variables over time. The general format of the research was essentially ex-post facto design. As such, this investigator had no
way of manipulating the independent variables selected for the study. The manifestations of these variables had already existed among the peasants under consideration. So what in a sense this investigator did was to determine the degree to which the individuals possessed the measures of the dependent variable relative to the measures of the independent variables. In other words, the extent to which the dependent and independent variables were closely associated was of particular interest to this study. Obviously, this research is not able to establish causality. Rather it aims at determining if a possible relationship between individual migration and independent variables exists and if that relationship can help more accurately to predict migration in Colombia.

Recognizing the difficulties of making interpretations and inferences from this kind of research design, the researcher has restricted his generalizations and conclusions to the accessible population only.

Data

The data used in this study were collected in a panel study of the three rural communities already described.

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A panel study is defined as a sample taken from a given population which is interviewed repeatedly over an extended period of time.
The data were gathered under the grant "Rural Modernization in Latin America" to the University of Wisconsin by the Ford Foundation, and under USAID contract ods. 2863.

The information was obtained from the respondents through personal interviews. An interview schedule was used as the instrument to get the primary data. The items were developed by the project team and with the help of a number of persons including some staff members at the Universidad Nacional and Pontificia Universidad Bolivariana.

Regarding the personnel for the collection of data. The researchers were assisted by undergraduate students majoring in Sociology at the Universidad Nacional and Pontificia Universidad Bolivariana. The criteria used in the selection of interviewers were reliability, origin, some experience in social research and general background in the behavioral sciences. They were asked to protest the questionnaire to see if there were serious problems with and at the same time give them some interviewing experience. This was done on approximately 40 small farmers. The results were discussed with the interviewers noting some difficulties they had encountered. Some adjustment was made in the instrument and finally the actual field work was started in the first months of 1964. The second interviews were taken in 1971. Campbell and Katoria observe that

there are factors that if not controlled can act as deterrents to the use of panel design. There are two major factors acting as deterrents to the use of the panel design: 1) the mortality which occurs in any population sample over even brief periods of time - if the losses are great this can be a source of internal invalidity; 2) the second serious problem associated with the use of panels is the possibility that the continuing interviewing will also sensitize and change the respondents that they are no longer representatives of the population from which they are drawn.

The mortality was controlled by using only the data gathered on those respondents present in both 1964 and 1971.

The sensitization could be checked by the use of a control sample independent of the panel at the end of the panel period. These data could be compared with the panel data. If the data differed from that of the last panel survey by more than would be expected from errors of the sampling procedures, then there are some reasons to believe that the re-interviewing has introduced bias. Apparently no check for sensitization bias was made for this study. However, given the fact that the communities in Colombia are not frequently exposed to interviews, and the long period of time that has taken place between the two waves of interviews (1964-1971), the sensitization can be assumed to be minimum.

Population and Sample

The types of families included in the sample were (1) owners
of small or medium farms, (2) landless agricultural workers who had usufruct rights to land, and did not work on the land but rather worked in private services or were public employees. In other words, the sample was drawn from all rural families within the community with the only exclusion of large landowners. The actual size of large, medium, and small farms is different for each community since the type of cultivation, type of crop and land characteristics of each community are different. The large landowners were excluded because as mentioned in Chapter I, in Colombia most of them operate their farms through farm managers and live in big cities. Many of them visit their holdings only every three or four months, or even every year.

Maps of each community were used to draw random samples. Two hundred ninety-three families were interviewed in the original sample, however only the 237 families (81 percent of the original sample) reinterviewed in 1971 constitute the present analysis. Of those families who were not reinterviewed in 1971, 29 family units had migrated (10 percent of the sample), 4 percent of family heads died, another 4 percent could not be relocated, and one percent refused to be reinterviewed. The total number of rural families in the three communities in 1964 was 5,513, thus the sample represents 5.3 percent of the total population of the three communities. The number of families included in this analysis was 4.3 percent of the total population. The number of families from each community included in this analysis are distributed as
follows: Cerete - 84 families, Tamesis - 84 families, Contadero - 69 families. The total number of individuals in the three communities was 649.

The unit of analysis of this study were the individuals between the ages of 14 and 56 (excluding the household heads and spouses) who migrated out of the community or did not migrate. The number of individuals in each community in the sample were: Cerete 253, Contadero 187 and Tamesis 218.
CHAPTER IV
PRESENTATION OF DATA

Data collected on selected characteristics of the respondents are briefly described in this section just to sketch the profile of the peasantry upon which the research was focused.

Education

Education was measured in years of formal schooling. In Cerete respondents varied between no formal education, (25.7 percent) and fifteen years of formal education (0.4 percent) of the sample, with an average of 2.27 years, a median of 1.89, and a standard deviation of 2.22 years of schooling.

As it was mentioned in Chapter I, the Colombian educational system begins with five years of elementary education. In Cerete 93 percent of the sample had five years or less of formal education. In Contadero respondents varied between zero years of formal education (8.4 percent) and ten years of schooling (0.6 percent), with an average of 3.84, a median of 4.07, and a standard deviation of 1.79 years of formal education. In the same community 95 percent of the respondents had five years or less of education.
In Tamesis, the range varied from a minimum of zero (10.1 percent) to a maximum of 10 years of schooling (1.4 percent). Tamesis had a mean of 3.11, a median of 2.68, and a standard deviation of 2.16 years of education. Eighty-nine percent of the sample had five years or less of formal education. Information about the distribution of the sample by years of education in the three communities is shown in Table 7.

**TABLE 7**

**DISTRIBUTION OF THE INDIVIDUALS BY YEARS OF FORMAL EDUCATION IN THE THREE COMMUNITIES**

<table>
<thead>
<tr>
<th>YEARS OF EDUCATION</th>
<th>CERITE</th>
<th>CONTADERO</th>
<th>TAMESIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>0</td>
<td>65</td>
<td>25.7</td>
<td>15</td>
</tr>
<tr>
<td>1</td>
<td>41</td>
<td>16.2</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>52</td>
<td>20.6</td>
<td>12</td>
</tr>
<tr>
<td>3</td>
<td>39</td>
<td>15.4</td>
<td>36</td>
</tr>
<tr>
<td>4</td>
<td>14</td>
<td>5.5</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td>24</td>
<td>9.5</td>
<td>62</td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>2.8</td>
<td>4</td>
</tr>
<tr>
<td>7</td>
<td>6</td>
<td>2.4</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>0.4</td>
<td>-</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>0.8</td>
<td>1</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>11</td>
<td>1</td>
<td>0.4</td>
<td>1</td>
</tr>
<tr>
<td>12</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>15</td>
<td>0.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>253</td>
<td>100.1</td>
<td>178</td>
</tr>
</tbody>
</table>

**MEAN** | 2.27 | 3.84 | 3.11  
**MEDIAN** | 1.89 | 4.07 | 2.68  
**STD. DEV** | 2.22 | 1.79 | 2.12  

Absolute Frequency = N  
Relative Frequency = %
Sex

Information about the distribution of the respondents by sex in the three communities is shown in Table 8.

It can be seen that in Cerete approximately 50 percent of the sample were males and 50 percent were females. In Contadero 42.1 percent were males and 57.9 females. In Tamesis 60.1 percent of the respondents were females and just 39.9 were males.

**TABLE 8**
**DISTRIBUTION OF THE INDIVIDUALS BY SEX IN THE THREE COMMUNITIES**

<table>
<thead>
<tr>
<th>Community</th>
<th>Males</th>
<th>%</th>
<th>Females</th>
<th>%</th>
<th>TOTALS</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cerete</td>
<td>126</td>
<td>49.8</td>
<td>127</td>
<td>50.2</td>
<td>253</td>
<td>100.0</td>
</tr>
<tr>
<td>Contadero</td>
<td>75</td>
<td>42.1</td>
<td>103</td>
<td>57.9</td>
<td>178</td>
<td>100.0</td>
</tr>
<tr>
<td>Tamesis</td>
<td>131</td>
<td>60.1</td>
<td>87</td>
<td>39.9</td>
<td>218</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Age

Information about the distribution of the respondents in various age groups is shown in Table 9.
TABLE 9
DISTRIBUTION OF THE INDIVIDUALS BY AGE GROUP
IN THE THREE COMMUNITIES

<table>
<thead>
<tr>
<th>Age Group</th>
<th>CERETE</th>
<th></th>
<th>CONTADERO</th>
<th></th>
<th>TAMESIS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>11-19</td>
<td>89</td>
<td>35.2</td>
<td>63</td>
<td>35.4</td>
<td>76</td>
<td>34.9</td>
</tr>
<tr>
<td>20-24</td>
<td>61</td>
<td>24.1</td>
<td>41</td>
<td>23.0</td>
<td>64</td>
<td>29.4</td>
</tr>
<tr>
<td>25-29</td>
<td>43</td>
<td>17.0</td>
<td>39</td>
<td>21.9</td>
<td>43</td>
<td>19.7</td>
</tr>
<tr>
<td>30-34</td>
<td>31</td>
<td>12.3</td>
<td>16</td>
<td>9.0</td>
<td>24</td>
<td>11.0</td>
</tr>
<tr>
<td>35-39</td>
<td>16</td>
<td>6.3</td>
<td>7</td>
<td>3.9</td>
<td>8</td>
<td>3.7</td>
</tr>
<tr>
<td>40-44</td>
<td>10</td>
<td>4.0</td>
<td>4</td>
<td>2.2</td>
<td>8</td>
<td>0.9</td>
</tr>
<tr>
<td>45-</td>
<td>2</td>
<td>0.8</td>
<td>8</td>
<td>4.5</td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>MISSING</td>
<td>1</td>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>253</td>
<td>100.0</td>
<td>178</td>
<td>100.0</td>
<td>218</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Total Family Income

Total family income was measured in Colombian pesos; in 1964 the peso was valued at U.S. $.10, and in 1971 at U.S. $.048. For the three communities, there was an increase in the mean of the income from 1964 to 1971. Looking at the communities individually Tamesis had the highest mean income at both time periods and Contadero the lowest mean income at also both time periods. In Contadero mean income of the total family increased between 1964 and 1971. However the maximum of $85,610 in 1971 suggests the possibility that it was a very small group of families who greatly increased their income in 1971. It is interesting to note that these were persons in the three communities in 1971 with annyal income of zero. In Table 10 is shown the distribution of the total family income in the three communities at both time periods.
### TABLE 10

**DISTRIBUTION OF THE TOTAL FAMILY INCOME IN THE THREE COMMUNITIES AT BOTH TIME PERIODS**

<table>
<thead>
<tr>
<th></th>
<th>CERETE (233)</th>
<th>CONTADERO (178)</th>
<th>TAMESIS (218)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>5375</td>
<td>14530</td>
<td>2728</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>6653</td>
<td>9602</td>
<td>1974</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>300</td>
<td>000</td>
<td>200</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>36000</td>
<td>39800</td>
<td>9710</td>
</tr>
</tbody>
</table>

a. Income was measured in Colombian pesos

**Income of other family members**

The income of other family members was measured in Colombian pesos and excluding the income of the household head.

For the three communities there was an increase in the mean of the income from 1964 to 1971. Cerete had the highest mean income of other family members in 1964, and Tamesis had the highest in 1971. Contadero had the lowest mean income at both time periods.

In the same community the maximum income increased from $6000 in 1964 to $31,200 in 1971, suggesting also in this case the possibility that it was a very small group of families who greatly increased the income of other family members in the community. The same phenomenon is also true for Tamesis.

The distribution of the income of other family members in the three communities at both periods of time is shown in Table 11.
TABLE 11

DISTRIBUTION OF THE INCOME$^3$ OF OTHER FAMILY MEMBERS
IN THE THREE COMMUNITIES AT BOTH PERIODS OF TIME

<table>
<thead>
<tr>
<th></th>
<th>CERETE(253)</th>
<th>CONTADERO(178)</th>
<th>TAMESIS(218)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1964</td>
<td>1971</td>
<td>1964</td>
</tr>
<tr>
<td>MEAN</td>
<td>3783</td>
<td>7962</td>
<td>1054</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>6420</td>
<td>9601</td>
<td>1620</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>000</td>
<td>178</td>
<td>000</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>36000</td>
<td>39000</td>
<td>6000</td>
</tr>
</tbody>
</table>

a. Measured in Colombian pesos

Amount of land owned

The amount of land that a particular family owned was measured in hectares.

The total area of land owned in the sample in both Cerete and Contadero decreased sharply from 1964 to 1971. In Cerete the amount of land in the sample decreased from 475 hectares in 1964 to 233 in 1971; in Contadero from 274 hectares in 1964 to 126 in 1971. In Cerete the average land owned decreased sharply from 12.02 hectares in 1964 to 5.22 hectares in 1971, in Contadero the average land owned decreased from 4.66 to 2.41 hectares from 1964 to 1971. In Tamesis there was little change in the average land owned between both time periods, it decreased from 4.58 to 4.55 hectares. In Table 12 it can be seen the distribution of land owned in the three communities in both time periods.
TABLE 12

DISTRIBUTION OF LAND OWNED IN THE THREE COMMUNITIES IN BOTH TIME PERIODS

<table>
<thead>
<tr>
<th></th>
<th>CERETE (253)</th>
<th>CONTADERO (178)</th>
<th>TAMESIS (218)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>12.02</td>
<td>5.52</td>
<td>4.66</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>52.92</td>
<td>24.65</td>
<td>5.92</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>000</td>
<td>000</td>
<td>000</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>318.70</td>
<td>148.00</td>
<td>22.00</td>
</tr>
</tbody>
</table>

Number of family members employed

Information about the number of family members employed in 1964 and 1971 is shown in Table 13.

It can be seen that in Cerețe the average number of family members employed changed from 2.20 in 1964 to 2.05 in 1971, in the same community the maximum was 6.0 in 1964 and 5.00 in 1971. Fourth percent of the individuals came from families with just one person employed in 1964, this number changed to 38 percent in 1971. In Contadero the average of family members employed changed from 2.28 in 1964 to 2.73 in 1971. In that community 35.4 percent of the individuals belonged to families with one person employed in 1964 and in 1972 this number decreased to 12.4 percent. In Tamesis, the mean of family members employed varied from 1.93 in 1964 to 3.01 in 1971. Its maximum changed from 5 to 7 between both time periods.
### TABLE 13

**DISTRIBUTION OF FAMILY MEMBERS EMPLOYED IN THE THREE COMMUNITIES IN BOTH TIME PERIODS**

<table>
<thead>
<tr>
<th></th>
<th>CERETE</th>
<th></th>
<th>CONTADERO</th>
<th></th>
<th>TAMESIS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>2.20</td>
<td>2.05</td>
<td>2.28</td>
<td>2.73</td>
<td>1.93</td>
<td>3.01</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>1.39</td>
<td>1.14</td>
<td>1.21</td>
<td>1.20</td>
<td>1.03</td>
<td>1.80</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>0.00</td>
<td>0.00</td>
<td>1.00</td>
<td>0.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>6.00</td>
<td>5.00</td>
<td>5.00</td>
<td>6.00</td>
<td>5.00</td>
<td>7.00</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>1.98</td>
<td>1.89</td>
<td>2.11</td>
<td>2.52</td>
<td>1.67</td>
<td>2.70</td>
</tr>
</tbody>
</table>

**Family Size**

Data in Table 14 show the distribution of the sample by family size in the three communities in 1964 and 1971. In Cere te the size of family ranged from 2 to 19 members in 1964 with an average of 8.28. These members changed in 1971 to a minimum of 1; a maximum of 18 and an average of 7.62. In 1964, sixty percent of the respondents reported to come from families with 8 or more members. In Contadero the size of family ranged from 3 to 10 members in 1964 with an average of 7.07. These numbers did not change very much in 1971. In the same community 50 percent of the respondents reported family composition of seven or more members. Tamesis had a minimum of 9.11 in 1964. Fifty percent of the individuals belonged to families with 9 or more members.
TABLE 14

DISTRIBUTION OF THE SAMPLE BY FAMILY SIZE IN THE THREE COMMUNITIES IN BOTH TIME PERIODS

<table>
<thead>
<tr>
<th></th>
<th>CEREDE</th>
<th>CONTADERO</th>
<th>TAMESIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>8.28</td>
<td>7.62</td>
<td>7.07</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>3.37</td>
<td>3.66</td>
<td>1.89</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>2.00</td>
<td>1.00</td>
<td>3.00</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>19.00</td>
<td>18.00</td>
<td>10.00</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>8.00</td>
<td>7.56</td>
<td>7.50</td>
</tr>
</tbody>
</table>

Technology

The level of farm technology practiced by a family was measured by using a list of technological innovations which had recently been introduced into the area being studied. The list included fertilizers, weed killers, feed concentrates, and improved pastures. The specific items included in the list were necessarily different for each community and each time since the agricultural production and geographical characteristics of each community are different. The question for each item simply asked whether the innovation was being used or not. The item was coded "0" for "no" and "1" for "yes". All items were summed for a total score for each family.

Since the number of technological innovations that could be adopted differed in the two time periods and in the three communities, the number of total innovations adopted for each family was standardized by dividing the number of innovations adopted by the number of possible innovations. Table 15 gives the summary statistics for the adoption of technological innovations for the three communities in the two time periods.
Even though the technology adoption variable was standardized for purposes of comparison, it should be kept in mind the implicit difficulty in comparing non-quantitative items, even though they are assigned a numerical value. Different technological innovations can differ greatly as to their consequences, necessary prior conditions, cost, and labor involved. Some innovations are very expensive, making their adoption almost impossible for someone of low income or credit rating. However, just looking at the number of items adopted, there are important changes not only between the communities, but also between 1964 and 1971 in the same community. In Cerete the mean of the innovations adopted decreased from 0.63 to 0.24 between both time periods. In 1964, 64.8 percent of individuals belonged to families that had not adopted any innovation. This number was increased to 80.2 percent in 1971. In Contadero the mean of the innovations adopted increased slightly from 1.18 in 1964 to 1.21 in 1971. In the same community 30.9 percent of individuals come from families which did not adopt any innovation, this number decreased to 25.3 percent. In Tamesis the mean increased from 0.78 to 0.99 between 1964 and 1971.

Table 16 shows the frequencies and percentages of technology adoption in the three communities in both time periods.
### Table 15

**DISTRIBUTION OF ADOPTION OF TECHNOLOGY IN THE THREE COMMUNITIES AT BOTH TIME PERIODS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>0.63</td>
<td>0.24</td>
<td>1.18</td>
<td>1.21</td>
<td>0.78</td>
<td>0.99</td>
</tr>
<tr>
<td>STD. DEV.</td>
<td>0.98</td>
<td>0.53</td>
<td>0.92</td>
<td>0.88</td>
<td>0.76</td>
<td>0.90</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>4.00</td>
<td>2.00</td>
<td>3.00</td>
<td>4.00</td>
<td>3.00</td>
<td>3.00</td>
</tr>
<tr>
<td>MEDIAN</td>
<td>0.27</td>
<td>0.12</td>
<td>1.28</td>
<td>1.28</td>
<td>0.67</td>
<td>0.91</td>
</tr>
<tr>
<td>------</td>
<td>-----------</td>
<td>------</td>
<td>----------------</td>
<td>------</td>
<td>-------------</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>164</td>
<td>64.8</td>
<td>203</td>
<td>80.2</td>
<td>55</td>
<td>30.9</td>
</tr>
<tr>
<td>1</td>
<td>38</td>
<td>15.0</td>
<td>38</td>
<td>15.0</td>
<td>41</td>
<td>23.0</td>
</tr>
<tr>
<td>2</td>
<td>32</td>
<td>12.6</td>
<td>12</td>
<td>4.7</td>
<td>76</td>
<td>42.7</td>
</tr>
<tr>
<td>3</td>
<td>18</td>
<td>7.1</td>
<td>—</td>
<td>—</td>
<td>6</td>
<td>3.4</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>0.4</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>TOTALS</td>
<td>253</td>
<td>100</td>
<td>253</td>
<td>100</td>
<td>100</td>
<td>178</td>
</tr>
</tbody>
</table>
Amount of institutional credit

The next variable included in the analysis is that of credit: the amount of credit obtained by a given family during the year. Only credit obtained from institutional sources such as the Agricultural Bank (Caja Agraria), other banks, and credit unions was included. Loans obtained on a personal basis from richer neighbors and the town moneylender were not included. The amount of credit was measured in Colombian pesos; as mentioned in the description of the total family income; in 1964 the peso valued at U.S. $.10 and in 1971 at U.S. $0.48.

In the Cerete interviews of 1964, the information on credit was not gathered because at that time there was no institution or agency that offered credit in that community except the traditional moneylenders or small store owners.

The most striking fact when glancing over the credit statistics is the mean credit obtained in Contadero. In fact, for 1971 is almost three times the mean obtained in Cerete, and almost twice the mean credit obtained in Tamesis. It is unusual that a subsistence community such as Contadero should receive so much credit. This statement becomes even more apparent if one compares mean total income and mean credit, in this case, the mean credit is higher than the mean total income. This together with the fact that all the credit accounted was from the Caja Agraria, which is the agency for the agricultural extension service, would suggest the possibility that the loans are more for subsistence rather than for capital investment. In Tamesis the mean credit also increased by more than 50 percent. However, over 50 percent of the sample population
were not receiving credit in 1971.

In 1971, Cerete had an average of $2,076, a minimum of $0.00 and a maximum of $50,000.

Data in Table 17 show the distribution of credit obtained in the three communities in 1964 and 1971.

**TABLE 17**

**DISTRIBUTION OF CREDIT OBTAINED IN THE THREE COMMUNITIES AT BOTH TIME PERIODS**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean</strong></td>
<td>2,076</td>
<td>2,162</td>
<td>5,473</td>
<td>1,474</td>
<td>3,210</td>
<td></td>
</tr>
<tr>
<td><strong>STD. DEV.</strong></td>
<td>8,319</td>
<td>3,349</td>
<td>7,774</td>
<td>3,585</td>
<td>7,624</td>
<td></td>
</tr>
<tr>
<td><strong>Minimum</strong></td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td><strong>Maximum</strong></td>
<td>50,000</td>
<td>14,000</td>
<td>39,000</td>
<td>21,500</td>
<td>55,000</td>
<td></td>
</tr>
</tbody>
</table>

**Food Consumption**

Food consumption was measured in Colombian pesos invested in food in both time periods in the three communities. In Cerete and Tamesis the mean real food expenditure increased almost twice. In Cerete the increment was from $3,482 in 1964 to $7,002 in 1971. In Tamesis the mean expenditure in food increased from $4,536 in 1964 to $8,395 in 1971. In Contadero the mean in food expenditure increased from $3,288 to $4,014 Colombian pesos.

Data in Table 18 show the distribution of food consumption in the three communities in both time periods.
TABLE 18
DISTRIBUTION OF FOOD CONSUMPTION IN THE THREE
COMMUNITIES AT BOTH TIME PERIODS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>MEAN</td>
<td>3,482</td>
<td>7,002</td>
<td>3,288</td>
<td>4,014</td>
<td>4,536</td>
<td>8,395</td>
</tr>
<tr>
<td>STD.DEV.</td>
<td>2,129</td>
<td>4,582</td>
<td>2,091</td>
<td>2,426</td>
<td>2,391</td>
<td>4,184</td>
</tr>
<tr>
<td>MINIMUM</td>
<td>520</td>
<td>000</td>
<td>486</td>
<td>440</td>
<td>520</td>
<td>2,600</td>
</tr>
<tr>
<td>MAXIMUM</td>
<td>13,000</td>
<td>26,000</td>
<td>14,320</td>
<td>20,800</td>
<td>11,440</td>
<td>18,200</td>
</tr>
</tbody>
</table>

Migration

As mentioned before, migration in this study was scored as a continuous variable with children or individuals being coded "1" if they did not leave the family or community, "2" if they left the family but not the community, and "3" if they left both the family and the community.

This study utilized the children who migrated out of the community but whose families remained in the community as the individual migrants.

Children or individuals who left the family but not the community and individuals who did not leave the family or community were called "Potential Migrants". In other words, Potential migrants were defined as anyone between the ages of 14 and 56 (excluding the household heads and spouses) residing in the community in both 1964 and 1971. Migrants and potential migrants were scored by their characteristics in 1971.
Information about the distribution of the sample into migrants and potential migrants is shown in Table 19.

It can be seen that in Cerete 51 individuals (20.1 percent) migrated out of the community.

In Contadero 30 individuals (16.9 percent) left the community and in Tamesis 27 individuals (12.3 percent) migrated out of the community. In other words, Cerete had the highest percentage of migration, 20.1 percent, followed by Contadero 16.9 percent and Tamesis had the lowest percentage 12.3 percent of migration.

TABLE 19

DISTRIBUTION OF THE SAMPLE BY MIGRATION
IN THE THREE COMMUNITIES

<table>
<thead>
<tr>
<th></th>
<th>CERETE</th>
<th></th>
<th></th>
<th>CONTADERO</th>
<th></th>
<th></th>
<th>TAMESIS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Potential</td>
<td>202</td>
<td>79.9</td>
<td>148</td>
<td>83.1</td>
<td>191</td>
<td>87.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrants</td>
<td>51</td>
<td>20.1</td>
<td>30</td>
<td>16.9</td>
<td>27</td>
<td>12.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>253</td>
<td>100.0</td>
<td>178</td>
<td>100.0</td>
<td>218</td>
<td>100.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# TABLE 20

ZERO ORDER CORRELATION COEFFICIENTS—BETWEEN INDIVIDUAL MIGRATION AND SELECTED INDEPENDENT VARIABLES FOR THE THREE COMMUNITIES

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>CERTE</th>
<th>CONTADERO</th>
<th>TAMESIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Sex</td>
<td>-.007</td>
<td>-.048</td>
<td>.045</td>
</tr>
<tr>
<td>2. Age</td>
<td>.200*</td>
<td>.315*</td>
<td>.189*</td>
</tr>
<tr>
<td>3. Education</td>
<td>-.194*</td>
<td>.164*</td>
<td>-.008</td>
</tr>
<tr>
<td><strong>Family characteristics 1964</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Total family income</td>
<td>.042</td>
<td>.080</td>
<td>-.037</td>
</tr>
<tr>
<td>2. Income of other family members</td>
<td>.072</td>
<td>.119</td>
<td>-.030</td>
</tr>
<tr>
<td>3. Amount of land owned</td>
<td>-.019</td>
<td>-.010</td>
<td>.050</td>
</tr>
<tr>
<td>4. Number of family members employed</td>
<td>.187*</td>
<td>.199*</td>
<td>.010</td>
</tr>
<tr>
<td>5. Level of farm technology</td>
<td>.064</td>
<td>.064</td>
<td>.125*</td>
</tr>
<tr>
<td>6. Amount of Institutional credit</td>
<td>---b</td>
<td>-.039</td>
<td>.038</td>
</tr>
<tr>
<td>7. Level of food consumption</td>
<td>.020</td>
<td>-.011</td>
<td>.050</td>
</tr>
<tr>
<td>8. Family size</td>
<td>-.129*</td>
<td>-.137*</td>
<td>1.007</td>
</tr>
<tr>
<td><strong>Change variables 1964-1971</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. change in total family income</td>
<td>-.136*</td>
<td>-.107</td>
<td>-.259*</td>
</tr>
<tr>
<td>2. change in income of other family members</td>
<td>-.040</td>
<td>-.075</td>
<td>-.229*</td>
</tr>
<tr>
<td>3. change in amount of land owned</td>
<td>-.194*</td>
<td>-.135*</td>
<td>-.124*</td>
</tr>
<tr>
<td>4. change in number of family members employed</td>
<td>-.176*</td>
<td>-.247*</td>
<td>-.285*</td>
</tr>
<tr>
<td>5. change in level of farm technology</td>
<td>.075</td>
<td>-.129*</td>
<td>.086</td>
</tr>
<tr>
<td>6. change in amount of institutional credit</td>
<td>.055</td>
<td>-.072</td>
<td>.038</td>
</tr>
<tr>
<td>7. change in food consumption</td>
<td>-.201*</td>
<td>.030</td>
<td>-.213*</td>
</tr>
<tr>
<td>8. change in family size</td>
<td>-.313*</td>
<td>-.353*</td>
<td>-.276*</td>
</tr>
</tbody>
</table>

*aOne tailed test of significance.

bData for 1964 are not available

*Significant at the .05 level
Data Relationships

Table 20 presents zero-order correlation coefficients computed in order to determine the degree of association between individual migration and selected personal characteristics of the units of analysis, some family variables related to the means of production in 1964, and change of these variables or characteristics between 1964 and 1971, in the three Colombian communities. The level of significance used was .05.

An examination of Table 20 indicates that individual migration was unrelated with sex in the three communities, but was positively related with age also in the three communities indicating that older children are leaving the three communities studied.

Individual migration was positively related with education in Contadero, negatively related in Cerete, and not related in Tamesis. These results suggest that there are differences between communities in relation to the kind of people they are sending out of the community in regard to the level of schooling. Cerete tends to send out the individuals with lower levels of education while in Contadero the most educated individuals are leaving the community.

In relation to the family characteristics in 1964, the Table 20 indicates that individual migration was unrelated with: total family income, income of other family members, amount of land owned, amount of institutional credit and level of food consumption in the three communities.

The number of family members employed in the family was found to be positively related with individual migration in two communities namely Cerete and Contadero, meaning that families with
more members employed tend to send more individuals out in the
communities mentioned above. The level of farm technology was
unrelated with individual migration in Cerete and Contadero, but
positively related in Tamesis.

Individual migration was negatively related with family size
in Cerete and Contadero and not related in Tamesis. In other words,
smaller families tend to send more migrants out of the community
than bigger families. In Tamesis there was not any relationship
between family size and the dependent variable.

In relation to change variables between 1964-1971, the Table
20 shows that individual migration was negatively related with change
in total family income in Tamesis and Cerete, and negatively related
also with change in income of other family members in Cerete. It
means that individual out migrants were likely to come from families
which experienced a declining in total family income in Tamesis
and Cerete between 1964 and 1971 and which suffered also a dec­
lining in income of other family members in Tamesis, between both
time periods.

Change in amount of land owned between 1964 and 1971 was neg­
atively related with individual migration in the three communities.
In other words, families which experienced a decline in the total
amount of land owned were likely to send more individuals out
of the community.

Change in the number of family members employed was also
found to be negatively related with individual migration in the
three communities, suggesting the idea that families with a
declining ability to employ family members are sending more migrants out of the community.

Individual migration was unrelated with change in the amount of institutional credit in the three communities, and change in the level of farm technology was also unrelated with the dependent variable in Tamesis and Cerete, but negatively related in Contadero, meaning that individual migrants coming from families where has been a drop in the level of technology are leaving Contadero.

Change in food consumption was negatively related with the dependent variable in Tamesis and Cerete, but unrelated in Contadero. In other words, individuals migrants were likely to come from families which experienced a declining in the total amount of money they spented in food in Tamesis and Cerete.

Individual migration was negatively related with change in family size in the three communities, meaning that families with a falling number of members tend to send more individuals out of the community.

Stepwise multiple regression models were developed to select the most appropriate independent variables to predict the dependent variable. These models disclose the degree to which each independent variables is related to the dependent variable while controlling the effect of all the other independent variables.

It is worthwhile to note that the computer program used in the stepwise regression analysis provided for a listing of the variables in an order of major to minor contribution appointed to the explanation of the variance in the dependent variable by the independent variables; therefore, the multiple regression tables will show the
the cumulative prediction of the dependent variable as one reads down the list of the independent variables. The result of the stepwise regression analysis for each community is shown in Tables 21, 22, and 23.

The data in Table 21 reveals that in Cerete: age, education, change in amount of land owned and change in the number of family members employed; accounted for 12.2 per cent of the variance in the dependent variable accounted for by the independent variables entered into the multiple regression analysis. Beta values of these independent variables were significant at .05 level. The remainder of the independent variables were found to account for only an additional 7.5 per cent of the variance.

According to Table 22 in the community of Contadero, age of the individuals, change in the number of family members employed between 1964 and 1971, the level of education of the individuals and change in the level of farm technology accounted for 17.0 per cent of the variance. Beta values of these variables were significant at .05 level. The remainder of the independent variables contributed just to 3.6 per cent of the explanation of the variance.

Table 23 shows that in Tamesis, change in the number of family members employed, age of the individuals, change in the level of farm technology, the level of food consumption, and the amount of institutional credit contributed for 15.7 per cent of the variance while the remainder of the independent variables accounted just for an additional 2.3 per cent of the variance. Beta values of the variables mentioned above were significant at .05 level.
<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>Multiple R</th>
<th>$R^2$</th>
<th>$R^2\text{ change}$</th>
<th>B</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.276</td>
<td>.076</td>
<td>.035</td>
<td>.01</td>
<td>-.078*</td>
</tr>
<tr>
<td>Education</td>
<td>.303</td>
<td>.092</td>
<td>.016</td>
<td>-.07</td>
<td>.116*</td>
</tr>
<tr>
<td>Change in amount of land owned</td>
<td>.327</td>
<td>.107</td>
<td>.015</td>
<td>-.00</td>
<td>-.196*</td>
</tr>
<tr>
<td>Change in No. of family members employed</td>
<td>.350</td>
<td>.122</td>
<td>.015</td>
<td>-.02</td>
<td>-.280*</td>
</tr>
<tr>
<td>No. of family members employed</td>
<td>.358</td>
<td>.128</td>
<td>.005</td>
<td>-.03</td>
<td>-.038</td>
</tr>
<tr>
<td>Change in the level of farm technology</td>
<td>.362</td>
<td>.131</td>
<td>.003</td>
<td>.04</td>
<td>-.057</td>
</tr>
<tr>
<td>Total family income</td>
<td>.367</td>
<td>.135</td>
<td>.004</td>
<td>.00</td>
<td>-.322</td>
</tr>
<tr>
<td>Income of other family members</td>
<td>.420</td>
<td>.176</td>
<td>.041</td>
<td>.00</td>
<td>-.349</td>
</tr>
<tr>
<td>Change in the amount of inst. credit</td>
<td>.431</td>
<td>.186</td>
<td>.009</td>
<td>.05</td>
<td>-.449</td>
</tr>
<tr>
<td>Level of farm technology</td>
<td>.438</td>
<td>.191</td>
<td>.003</td>
<td>0.08</td>
<td>-.059</td>
</tr>
<tr>
<td>Sex</td>
<td>.440</td>
<td>.194</td>
<td>.002</td>
<td>.00</td>
<td>-.048</td>
</tr>
<tr>
<td>Amount of Land owned</td>
<td>.443</td>
<td>.196</td>
<td>.002</td>
<td>.00</td>
<td>.285</td>
</tr>
<tr>
<td>Level of food consumption</td>
<td>.444</td>
<td>.197</td>
<td>.001</td>
<td>.43</td>
<td>.076</td>
</tr>
</tbody>
</table>

*Significant at .05 level

number of cases: 253.
TABLE 22

STEPWISE REGRESSION OF INDIVIDUAL MIGRATION AND SELECTED INDEPENDENT VARIABLES, CONTADERO 1964-1971

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>Multiple R</th>
<th>$R^2$</th>
<th>$R^2$ change</th>
<th>B</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>.315</td>
<td>.099</td>
<td>.099</td>
<td>.020</td>
<td>.254*</td>
</tr>
<tr>
<td>Change in No. of family members employed</td>
<td>.358</td>
<td>.128</td>
<td>.029</td>
<td>-.103</td>
<td>-.161*</td>
</tr>
<tr>
<td>Education</td>
<td>.396</td>
<td>.157</td>
<td>.028</td>
<td>.068</td>
<td>.159*</td>
</tr>
<tr>
<td>Change in level of farm technology</td>
<td>.412</td>
<td>.170</td>
<td>.013</td>
<td>-.112</td>
<td>-.123*</td>
</tr>
<tr>
<td>No. of family members employed</td>
<td>.422</td>
<td>.178</td>
<td>.008</td>
<td>.136</td>
<td>.216</td>
</tr>
<tr>
<td>Change in level of food consumption</td>
<td>.432</td>
<td>.186</td>
<td>.008</td>
<td>.000</td>
<td>.100</td>
</tr>
<tr>
<td>Amount of institutional credit</td>
<td>.438</td>
<td>.192</td>
<td>.006</td>
<td>-.000</td>
<td>-.162</td>
</tr>
<tr>
<td>Income of other family members</td>
<td>.442</td>
<td>.196</td>
<td>.003</td>
<td>-.000</td>
<td>-.154</td>
</tr>
<tr>
<td>Sex</td>
<td>.445</td>
<td>.199</td>
<td>.002</td>
<td>-.074</td>
<td>-.048</td>
</tr>
<tr>
<td>Level of farm technology</td>
<td>.448</td>
<td>.201</td>
<td>.002</td>
<td>.048</td>
<td>.057</td>
</tr>
<tr>
<td>Change in amount of land owned</td>
<td>.449</td>
<td>.206</td>
<td>.001</td>
<td>-.000</td>
<td>-.074</td>
</tr>
<tr>
<td>Change in amount of inst. credit owned</td>
<td>.452</td>
<td>.205</td>
<td>.003</td>
<td>.000</td>
<td>.067</td>
</tr>
<tr>
<td>Amount of land owned</td>
<td>.454</td>
<td>.206</td>
<td>.001</td>
<td>.000</td>
<td>.062</td>
</tr>
<tr>
<td>Level of food consumption</td>
<td>.454</td>
<td>.206</td>
<td>.000</td>
<td>.000</td>
<td>.009</td>
</tr>
</tbody>
</table>

*Significant at .05 level
Number of cases: 107
### TABLE 23

**STEPWISE REGRESSION OF INDIVIDUAL MIGRATION AND SELECTED INDEPENDENT VARIABLES, TAMESIS 1964-1971**

<table>
<thead>
<tr>
<th>INDEPENDENT VARIABLE</th>
<th>Multiple R</th>
<th>( R^2 )</th>
<th>( R^2 ) change</th>
<th>B</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in No. of family members employed</td>
<td>.285</td>
<td>.081</td>
<td>.081</td>
<td>-.122</td>
<td>-.298*</td>
</tr>
<tr>
<td>Age</td>
<td>.345</td>
<td>.119</td>
<td>.037</td>
<td>.023</td>
<td>.215*</td>
</tr>
<tr>
<td>Change in level of farm technology</td>
<td>.367</td>
<td>.134</td>
<td>.015</td>
<td>.069</td>
<td>.136*</td>
</tr>
<tr>
<td>Level of food consumption</td>
<td>.374</td>
<td>.140</td>
<td>.006</td>
<td>.000</td>
<td>.173*</td>
</tr>
<tr>
<td>Amount of instit. credit</td>
<td>.397</td>
<td>.157</td>
<td>.017</td>
<td>-.000</td>
<td>-.108*</td>
</tr>
<tr>
<td>No. of family members employed</td>
<td>.402</td>
<td>.161</td>
<td>.004</td>
<td>-.085</td>
<td>-.127</td>
</tr>
<tr>
<td>Level of farm technology</td>
<td>.407</td>
<td>.166</td>
<td>.004</td>
<td>.075</td>
<td>.083</td>
</tr>
<tr>
<td>Change in level of food consumption</td>
<td>.412</td>
<td>.170</td>
<td>.004</td>
<td>-.000</td>
<td>-.090</td>
</tr>
<tr>
<td>Change in amount of instit. credit</td>
<td>.421</td>
<td>.177</td>
<td>.003</td>
<td>.000</td>
<td>.108</td>
</tr>
<tr>
<td>Amount of land owned</td>
<td>.422</td>
<td>.179</td>
<td>.001</td>
<td>-.000</td>
<td>-.068</td>
</tr>
<tr>
<td>Education</td>
<td>.424</td>
<td>.180</td>
<td>.000</td>
<td>-.010</td>
<td>-.031</td>
</tr>
<tr>
<td>Change in amount of land owned</td>
<td>.424</td>
<td>.180</td>
<td>.000</td>
<td>-.000</td>
<td>-.042</td>
</tr>
<tr>
<td>Total family income</td>
<td>.425</td>
<td>.180</td>
<td>.000</td>
<td>-.000</td>
<td>-.074</td>
</tr>
<tr>
<td>Income of other family members</td>
<td>.425</td>
<td>.180</td>
<td>.000</td>
<td>.000</td>
<td>.038</td>
</tr>
</tbody>
</table>

*Significant at .05 level

Number of cases: 218
The fast growth of the large cities around the world has been the object of extensive studies by social scientists, economists, policy makers, and politicians.

Many observers consider rapid urbanization not only a phenomenon to be tolerated, but one which should be favorably regarded and possibly even encouraged. They note that it is the only mean by which the type of social change required for modernization in less developed countries, and for rapidly advancing technology in industrial nations can be accomplished with any degree of speed. As economic development and hence urbanization occur, agriculture tends to become more efficient. Capital equipment, science, and better organization replace manpower. Less labor is required per unit of land to produce the same or even higher agricultural output. The growing cities, in addition to furnishing a market for commercial crops and supplying manufactured goods and services for improving the per-man productivity of agriculture, absorb people from the countryside. As a consequence, the farming people may diminish not only as a proportion of the total population but also in absolute terms. The oft-condemned "depopulation" of rural areas is therefore a sign of economic modernization, the growth of cities a boon to progress. As long as people remain in their traditional environments, they will be loath to sever ties with long established habits and
patterns of behavior. Education and training or retraining will be difficult, lengthy, and expensive. In the city the migrant comes face to face with new trends and even if he is not fully converted, his children will tend to be less resistant. These students of urbanization feel that large cities are more efficient from a social and economic point of view in the long run, and that short range problems are merely growing pains.

However, in many countries the problems created by the flow of those seeking to fulfill their hopes in an urban environment are approaching crisis proportion in terms of overcrowding, slums, unemployment, and a breakdown of services, and are presenting seemingly insuperable challenges to politicians, bureaucrats, and experts trained in a great variety of disciplines.

In the last twenty-five years, the percentage of Colombia's population living in urban communities has increased from 30 to 52 percent. Between 1951 and 1964 the rural population grew at about one percent per year, while the urban population increased five percent annually. Bogota, which is the capital and biggest city grew between the last two census at the rate of 6.8 percent per year. Colombia has 17 cities that have more than 100,000 inhabitants and they represent 35.7 percent of the total population of the country. It is estimated that four Colombian cities will

76Bussey, Ellen H., op. cit., pages 1-2.
have more than one million people in 1980: Bogota 5,208,000; Cali 1,965,000; Medellin 1,829,000; and Barranquilla 1,012,000. On the other hand, Schultz reports that urbanization has occurred more rapidly than industrialization and assimilation of migrants into the urban economy is not always progressing satisfactorily; urban unemployment has risen, and the proportion of urban workers employed in low-productivity and low-wage sectors of the economy has tended to rise. Law-Maus points out that migration from the fields to the cities in Colombia has resulted in the formation of marginal human conglomerates in the leading cities. These masses do not participate in the country's economic life and live in great poverty, with no access to jobs, health care and education.

Given the fact that this has been a universal phenomenon, many researchers have focused their attention upon factors related to the process of migration. Traditionally, there has been a propensity to treat migration as an individual process and most of the studies have been oriented toward the study of the personal characteristics of the migrants. This approach tends to leave out the human interactional element. The objection to this approach is not that it is wrong, but that it is a too truncated view of migration.

77 Banco Interamericano de Desarrollo, op. cit.
78 Schultz, T.P., op. cit. page 2.
In the last three years, the need for general theory as an aid in migration research has been expressed by many scholars in different ways. They agree that any attempt at formulating theoretical statements on migration ought to take into consideration the dynamic that exists among social, economic and demographic factors.

Following the recommendations mentioned above, this study was designed as a mean to provide additional understanding an information in the study of migration. Specifically, this study examines peasant migration in three different Colombian rural communities in terms of some variables or characteristics of the individuals, family variables related with the means of production, and change of these variables over time.

Based on Lopton's statement that in a village or community, the sons of bigger farmers...tend to be pulled out, assisted, in bearing the costs of urban education or urban job search, by the bigger rural surpluses generated by intra-village inequality, it is hypothesized that out migration of individuals come from peasant families who are "better off". Those families are sending out migrants to obtain better education and/or establish business links with the outside world.

**Variables**

Three categories of independent variables were considered for this study


   These characteristics were included because are generally

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79Lopton, Michael, op. cit., pages 1-49.
found in the literature to be significant in explaining migration.

2. Family characteristics related to the means of production. Customarily the factors of production are designed as land, labor, capital and entrepreneurship or management, and the availability of these factors is the most important consideration in determining the socio-economic situation of the rural family.

The variables included in this study: total family income, income of other family members excluding the income of the household head, amount of land owned, number of family members employed, family size, level of farm technology, amount of institutional credit, and level of food consumption are variables related to the means of production.

3. Change in these variables between 1964-1971.

These variables describe changes in the family characteristics related to the means of production between 1964 and 1971. Unlike the other categories of variables, change variables do not reflect a static situation. Although it is difficult to capture in a quantitative variable, that qualitative change which is occurring change variables can show the tendency of the movement. They are particularly useful and important for determining the effect on migration of changes in those factors of production.
Hypotheses

The specific or operational hypotheses established in this study state that out migration of individual family members is related to high total family income, high amount of land owned, high number of family members employed, high level of family size, high level of farm technology, high amount of institutional credit, and high level of food consumption.

In relation to the change variables it was further hypothesized that out migration of individual family members is related to the increasing of the variables mentioned above between 1964-1971.

Methodology

The data used in this study were collected in a panel study of three rural communities namely Cereza, Tamesis and Contadero. The three communities represent typical agricultural regions in Colombia and are structurally different with regard to the concentration of productive resources and relations in each community, the relation each one had to national and international markets, the types of crops cultivated, and type of agriculture practiced.

The data were gathered under the grant "Rural Modernization in Latin America" to the University of Wisconsin by the Ford Foundation and under USAID contract ods. 2863.

The information was obtained from the respondents through personal interviews. An interview schedule was used as the instrument to get the primary data.

The types of families included in the sample were (1) owners of small or medium farms, (2) landless agricultural workers who had usufruct rights to land, and did not work on the land but rather
worked in private services or were public employees. In other words, the sample was drawn from all rural families within the community with the only exclusion of large landowners; they were excluded because in Colombia most of the time they operate their farms through farm managers and already live in big cities. Many of them visit their holdings only every three or four months, or even every year. Maps of each community were used to draw random samples. Two hundred ninety-three families were interviewed in the original sample in 1964, however only 237 families (81 percent of the original sample) reinterviewed in 1971 constitute the present analysis. Of those families who were not reinterviewed in 1971, 29 family units had migrated (10 percent of the sample), 4 percent of family heads died, another 4 percent could not be relocated, and one percent refused to be re-interviewed. The total number of rural families in the three communities in 1964 was 5,513, thus the sample represent 5.3 percent of the total population of the three communities. The number of families included in this analysis was 4.3 percent of the total population. The number of families from each community included in this analysis are distributed as follows: Cerete - 84 families, Tamesis - 84 families, Contadero - 69 families.

The specific units of this study are all the individuals between the ages of 14 and 56 (excluding household heads and spouses) who migrated out of the community or did not leave the community between 1964 and 1971. The total number of individuals in the three communities was 649 distributed as follows: Cerete - 253, Contadero - 178, Tamesis - 218.
Data Relationships

Zero order correlation coefficients were computed in order to determine the degree of association between individual migration and the three selected categories of independent variables, the level of significance used was .05.

Migration was positively related with age in the three communities. Education was positively related with individual migration in Contadero, negatively related in Cerete and unrelated in Tamesis.

Few family characteristics related to the means of production in 1964 were related to out migration of individuals. In Cerete and Contadero high level of employment in the family was related to migration. Family size was negatively related with migration in Cerete and Contadero and unrelated in Tamesis, and finally the level of farm technology was positively related with migration in Tamesis but unrelated in the other two communities.

In relation to the change variables, the results indicate that migration was selective among individuals who come from families with worsening situations between 1964 and 1971. This was the reverse from the predicted direction. In other words, in all three communities a decline in land ownership, employment in the family, income and family size was related to out migration.

Very little variance in individual migration (18.0 - 20.6 percent) was explained by the aggregate of independent variables. However, the differences in types of variables between communities is important. In Cerete age, education, change in the amount of land owned, and change in the number of family members employed accounted for 12.2
percent of the variance in the dependent variable; the remainder of the independent variables were found to account for only an additional 7.5 percent.

In Contadero the aggregate of the age of the individuals, change in the number of family members employed between 1964 and 1971, the level of education and change in the level of farm technology accounted for 17.0 percent of the variance while the remainder of the independent variables contributed just to 3.6 percent of the variance. In Tamesis the aggregate of change in the number of family members employed between 1964 and 1971, age of the individuals, change in the level of farm technology, level of food consumption and change in the amount of institutional credit contributed for 15.7 percent of the variance, while the remainder of the independent variables accounted just for an additional 2.3 percent of the variance.

Conclusions

1. It becomes clear that any attempt to explain migration has to consider individual as well as other variables related to the social organizations which surround the individual.

This research was intended to suggest a useful analytical framework based upon the combination of different kinds of variables regarding the conditions and characteristics of the social organizations in which the migrants are involved rather than provide a definite test of migration applicable to all places and all times.

2. Individual characteristics such as age and education were the most important predictors of migration but less important than individual characteristics.
3. In relation to the change variables, the results indicate that migration was selective among individuals who come from families with worsening situations between 1964 and 1971. This fact suggests the idea that for the peasantry of the three communities studied, individual migration is much more accurately described as forced mobility. The declining in land ownership, employment in the family, income, level of food consumption, level of farm technology and so on; force the people to migrate out of the community.

4. The fact that the independent variables worked in different directions in the three communities suggests the idea that exists differences among communities. For this reason, it will be very difficult to try to establish universal empirical generalizations applicable to all types of migration, in all places, and in all historical periods. Migration should be studied as part of the overall socio-economic process of a specific social formation. Generalizations which may have explanatory validity in a given place, when applied to a different place may be not adequate to explain nor clarify why or how migration is occurring.

Linking migration with socio-economic processes implies that migration will not occur in a similar manner in all places, because the specific social, economic, and political conditions and because populations vary from place to place. This study suggests the idea that individual migration is selective among different classes or subgroups within rural communities in Colombia and each type of community may suffer a different kind of migration.
Recommendations

1. The author recommends the idea that migration should be studied taking into consideration the interplay that exists among demographic, economic, and social factors.

2. This research was focused toward the study of the relationship between individual migration and some personal characteristics of the migrants, family variables related to the means of production and change of these variables over time. It is also recommended to complete this research taking family migration as the dependent variable and studying its relationship with the same set of independent variables.

3. Future research should be also directed toward examining the amount of variance explained by specific community characteristics and differences among communities.

4. Finally, any attempt to stop peasant migration in Colombia ought to start in the improving of the rural conditions.
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