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ABSTRACT

This research report focuses on the educational, migrational, and occupaticnal characteristics of the rural-born people from various class origins in a highland minifundia community near Bogota, Cclombia. Three main objectives are to describe the nature of growth and adjustment in the labor force under conditions of rapid population growth and highly skewed ownership and control of production; indicate the present limits on the quality and quantity of rural education along with limits on access to education and its role in opening new employment and income opportunities for rural people; and document the level of occupational attainment of rural-born people when controlling data for class of origin, educational attainment, and migration. The report analyzes the impact of a shifting occupational structure on a cross section of rural families in the highland community of Fomeque. Some of the findings are that the mean level of educational attainment is less than four years of primary training; the mean occupational level for nonmigrants is directly related to degree of parental land ownership; and better educated migrants who move to urban centers enter low-level professional and clerical positions with high employment competition. Many data tables and concluding implications are included. (Author/ND)

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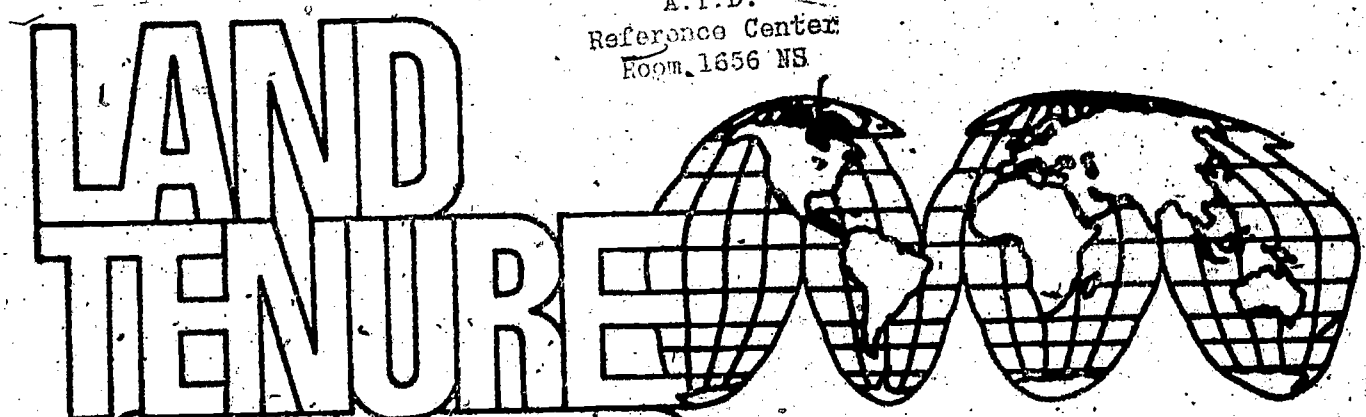
EDUCATIONAL AND OCCUPATIONAL ATTAINMENT OF MIGRANTS AND NONMIGRANTS FROM A COLOMBIAN HIGHLAND COMMUNITY

by
WAVA G. HANEY



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EDUCATIONAL AND OCCUPATIONAL ATTAINMENT OF MIGRANTS AND NONMIGRANTS FROM A COLOMBIAN HIGHLAND COMMUNITY

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CHAPTER I

INTRODUCTION

Employment opportunities for people born in rural areas of most underdeveloped countries are severely limited by gross inequalities in economic and political institutions. In Colombia development attempts have tended to ignore the burgeoning labor force, perpetuating instead the concentration of production factors and favoring substitution of capital for labor. The resulting pattern in industry and agriculture produces important shifts in the occupational structure and consequently in human spatial and intersectoral mobility.

This analysis focuses upon differential educational, migrational, and occupational characteristics for the rural-born from various class origins in a highland minifundia community near Bogotá, Colombia. It has three main objectives: 1) To describe the nature of growth and adjustment in the labor force under conditions of rapid population growth and highly skewed ownership and control of productive means; 2) To indicate the present limits on the quality and quantity of rural education along with limits on access to education and its role in opening new employment and income opportunities for rural people; and 3) To document the level of occupational attainment of rural-born people when controlling for class of origin, educational attainment, and migration.

The Problem

Despite significant changes in agrarian reform legislation and increased expenditures by the agrarian reform agency, productive agricultural resources--land, credit, and technology--remain very unequally distributed.[1] In the industrial sector, there is a strong emphasis upon capital-intensive investments by foreign capitalists and a few nationals with access to credit.[2] Under these conditions, productive positions in both agriculture and industry

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1. In the case of Colombia, see the works of Land Tenure Center associates in the bibliography under Adams, Davis, Felstehausen, Flinn, Grunig, Haney, Havens, Soles, Thome, Tinnermeier; Departamento Administrativo Nacional de Estadística (DANE), Boletín Mensual de Estadística, no. 222 (enero de 1970) and no. 234 (enero de 1971); Comité Interamericano de Desarrollo Agrícola (CIDA), Tenencia de la tierra y desarrollo socio-económico del sector agrícola: Colombia (Washington: Panamerican Union, 1966); and Oscar Delgado, "La reforma agraria: ineficas y regresivas," Flash, 16-30 de septiembre de 1970, pp. 8-21.

2. DANE, Boletín Mensual de Estadística, no. 224 (marzo de 1970), no. 236 (marzo de 1971), and no. 239 (junio de 1971); Alvaro Camacho, "Modernización y desarrollo: dialéctica fundamental," in Rodrigo Parra Sandoval, Dependencia externa y desarrollo político de Colombia (Bogotá: [cont.]

increase disproportionately to increments in the labor force. At the same time, the spread of bureaucratic organizational forms creates new positions which carry a high degree of formal education as prerequisites for entry. Concentration of educational facilities in urban areas effectively limits the rural-born from obtaining such training.

Increased knowledge and dissemination of preventive and curative medicine, coupled with limited usage of population control techniques, has caused population growth rates to soar in both rural and urban areas of underdeveloped countries during the last few decades. This rapid population growth extends the gap between productive labor force positions and labor force age population.[3] Under these conditions, the prospects for permanent, productive employment in either rural or urban areas are poor for tenant and small-owner families who comprise much of the rural population.[4]

Agricultural Sector

Rapid population growth within these structural constraints has seriously exacerbated the precarious man-land relationships, which have evolved through historical patterns of resource use and control. In the heavily populated rural areas, continuing deforestation and intensive cultivation of steep mountainsides by generations of rural families has left the present inhabitants a very depleted resource base for agricultural activities. With relatively few serious attempts at redistribution of large holdings in the fertile highlands and intermontana valleys, increases in the rural population have forced further parcelization of subfamily units on marginal agricultural lands. The resulting high population concentration of an exhausted agricultural resource base has fostered outmigration during the past few decades.[5] Some densely settled areas have become virtually depopulated

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Universidad Nacional, 1970); and Rodrigo Parra-Sandoval, "Education and Dependency: The Colombian Educational System as an Agent of Underdevelopment" (Ph.D. diss., Univ. of Wis., 1972).

3. Although population growth rates may be declining, such decreases have only limited consequence on the job market in the immediate future since present increments in the labor force are the result of previous population expansion.

4. These general categories include landless who operate agricultural production units under service tenancy, sharecropping and such arrangements, and day laborers as well as owners of subfamily-sized units--those who own insufficient land to allow employment of the family labor force throughout the year. For data on the distribution of rural families in Colombia see CIDA, Tenencia de la tierra. Data for this and six other countries are summarized and discussed in Solon Barraclough and Arthur Domike, "Agrarian Structure in Seven Latin American Countries," Land Economics 42 (Nov. 1966): 391-424.

5. T. Lynn Smith, "Land Tenure and Soil Erosion in Colombia," Proceedings of the Inter-American Conference on the Conservation of Renewable Resources (Washington: U.S. Department of State, 1948).

as rapid soil depletion forced generations of youth to seek employment in the cities and rural frontiers. However, this migration of rural families from densely populated marginal agricultural regions has been somewhat curtailed by the limited expansion of productive employment positions in both the frontier and the urban labor markets.

The widely heralded frontier areas (primarily the tropical rain forests and savanna plains of the Amazon and Orinoco river basins) have not created the employment once believed possible. In general, the highly leached tropical soils lack the natural fertility needed to sustain small-scale, intensive cultivation. Without adequate governmental assistance for initial land improvement and infrastructural development, shifting cultivation practices by colonists often lead to a rapid destruction of the fragile resource base. Furthermore, many of the colonist-cleared lands are quickly consolidated into large absentee holdings with only limited employment opportunities for the displaced families.[6]

Meanwhile, many owners of extensive holdings on the coastal plains and in the high mountain plateaus and intermontana valleys have begun to substitute capital-intensive technology for labor as many traditional ranching and plantation operations are converted into commercial crop and livestock enterprises. Even owners who maintain traditional ranching patterns continue to absorb a diminishing number of workers as mechanization and other labor-saving techniques become available and relatively cheap.[7] Likewise, labor-saving technology has made heavy inroads into all but the harvesting stage of many large-scale field crops such as sugar cane and cotton.[8] In addition, the public sector has generally plowed money into infrastructural development and made cheap credit available for the benefit of large-scale producers.[9] These same producers also have better access to the new yield-increasing inputs of the "Green Revolution" and are its biggest beneficiaries.[10]

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6. Food and Agricultural Organization of the United Nations (FAO), Shifting Cultivation in Latin America, 1971.

7. Roger E. Soles, "Rural Land Invasions in Colombia" (Ph.D. diss., Univ. of Wis., 1972), especially Chapter IV; United Nations Economic Commission of Latin America (ECLA), Analyses and Projections of Economic Development III: The Economic Development of Colombia (Geneva, 1957), pp. 139-239; T. Lynn Smith, The Process of Rural Development in Latin America, University of Florida Monographs no. 33 (Gainesville: University of Florida Press, 1967), pp. 47-59.

8. Soles, "Rural Land Invasions."

9. Ibid.; DANE, Boletín mensual, no. 222, pp. 164-165; and U.S. Senate, Committee on Foreign Relations, "Colombia: A Case History of U.S. AID Together With A Report of the Comptroller General," in Survey of the Alliance for Progress, Document no. 91-17, 91st Congress, 1st Session (1969).

10. Clifton R. Wharton, Jr., "The Green Revolution: Cornucopia or Pandora's Box?," Foreign Affairs 47 (April 1969): 464-76.

In sum, large-scale agricultural expansion using both labor-saving and yield-increasing technology without any significant efforts toward redistribution of land and capital continues to uproot settlers and diminish the agricultural wage labor force as well as reduce market alternatives for small-scale producers on marginal land. This increased use of capital-intensive technology on unequally distributed agricultural land--together with continued population increases and limited expansion of employment opportunities in urban areas--has substantially increased underemployment and unemployment of the rural labor force, with family-operated enterprises no longer so able to absorb underemployed family labor.[11]

Industrial Sector

Increasing use of labor-saving technology (imported from more developed countries)[12] in the industrial sector means insufficient jobs for the rapidly growing internal urban labor force, to say nothing of the labor increment contributed by rural-urban migration. These inputs (labor-saving technology) are largely associated with multinational conglomerates, based primarily in the United States but with subsidiaries in foreign countries with low interest public or private credit funds available for investment. Controlling interests as well as profit repatriation are, of course, largely absorbed by the parent corporation. Most subsidiaries are built on the parent company model. Usually this means the use of scarce foreign exchange earnings for the importation of capital-intensive (and labor-extensive) technology. Initially, at least, technical and managerial staffs are almost completely non-nationals.

A relatively stable investment climate along with high returns to investments have attracted increasing numbers of these multinational corporations to underdeveloped countries. Many companies, formerly concentrated around the capital and a few secondary cities, are now being forced toward other metropolitan areas by certain urban diseconomies or lured to industrial growth poles by transport economies. The effect of this continued economic concentration around major metropolitan areas is to augment and reinforce regional as well as rural-urban disparities.

At the national level, the short-run economic consequences have been an increased rate of industrialization, a rising GNP, and an increase in the availability of modern consumer products. Such gains have been made, however, at the expense of employment opportunities for both skilled and unskilled nationals--and therefore, perhaps, long-term expansion of internal markets--not to mention a reduction in national financial stability and control.[13] While so-called aid and loan programs help to create markets

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11. Wyn F. Owen, "The Double Developmental Squeeze on Agriculture," American Economic Review 56 (March 1966): 43-70.

12. Camacho, "Modernización y desarrollo"; Parra Sandoval, "Education and Dependency."

13. The increased debt burden and service changes paid on loans from the industrial countries and their international banking institutions (cont.)

for industrialized countries, they stifled the development of national enterprises. At the same time, the general populace of the underdeveloped countries has been burdened with expensive infrastructural development and improvement when other forms of social overhead capital (for example, public rather than private transportation facilities) could have been used at reduced social cost with benefits (including employment) more widely spread.

With such scale of operation and vertical integration of function, the multinational conglomerates have had a profound impact upon the availability and nature of positions in the industrial as well as commercial sector of the economy. In effect, they have fostered a striking duality of scale, technology, and markets within a largely commercialized economy. They compete with the numerous small artisan enterprises which co-exist with them at present. These small firms operate mostly on a nuclear or extended family basis and cater primarily to local rural or urban markets. Only a relatively small number of the rural-born are able to amass sufficient capital to own such firms; of course, some may enter them as craftsmen or semi-skilled laborers. It seems inevitable, however, that mass production and mass marketing techniques will eventually engulf most of these petty concerns.

Service Sector

Likewise, in the commercial sector one finds an extensive and intricate system of small- and intermediate-scale trading alongside contract marketing by large-scale producers. Some division of large estates, parcelization of medium and small farms under equal inheritance rights, and erosion of indigenous communal forms have given rise to numerous small owners who produce food and fiber for local and regional markets. The marketing of small quantities by these producers geographically isolated from major consumption centers has established a hierarchy of middlemen and peddlers between the producer and consumer. Such commercial intermediaries (who often double as landlords and usurers) are not limited to the agricultural sector. A similar hierarchy exists between artisans and regional consumers of traditional products, or in some instances, international consumers. This intermediary hierarchy encompasses many forms and sizes, from small local operations through regional and wholesale ones.

Notwithstanding the increase in centralized and franchised retail facilities in large cities, most retailing of processed consumer goods and handicraft items in both urban and rural areas is still carried out by the many family-operated stores, market stalls, and street stands. This

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for complementary infrastructural development and improvements--together with remitted profits--have generally weakened the economies of the underdeveloped countries. And until recently, most of these loans were "tied-loans" specifically designated for the purchase and transportation of certain goods and services from the lending countries and their allies. Much of the so-called aid has consisted of dumping surplus agricultural products and war material from the industrial countries.

small-scale commercial sector has traditionally been an important supplement to or replacement of agricultural employment. But here, as in the agricultural sector, it is likely that occupational classification disguises a high degree of underemployment. And, like technology in the producer sector, modern merchandising methods and communications facilities will very likely diminish the number of petty merchants without creating a sufficient number of new sales positions to replace them.

The service sector is very occupationally diverse, encompassing such occupations as professionals, bureaucrats, technocrats, personal servants, and prostitutes. Collectively, these occupations have absorbed much of the nonagricultural labor force in underdeveloped countries.

Most of these countries were ushered into the capitalist world under a centralized form of government which appointed officials to carry out its dictates throughout its territories. Given the tradition of bureaucratic government--together with the functional specialization encouraged by development programs--there has been a continual horizontal and vertical expansion of administrators and their clerical assistants.

The number of governmental professional and para-professional positions has been further augmented by the expansion of such services as education, medicine, and communications. While many of the top echelon positions created by the multinational corporations have been filled by non-nationals, lower level positions--mostly clerical and operative--have absorbed some of the national labor force. Through educational programs and in-service training, long-term foreign investors tend to move nationals into managerial and technical positions over time.

This expansion of professional, bureaucratic, and technocratic positions--often referred to as the nascent or growing "middle class"--in countries with mechanizing agricultural and industrializing economies and with labor forces swollen by population growth tends to hold wages of unskilled workers down and thus enlarge the personal service segment. Where tourism is not yet an important industry, household servants form the bulk of this segment. Since much of the demand in the service sector is for females (domestic servants, clerical workers, and prostitutes, for example) this further aggravates the employment plight of males released from the agricultural sector.

Occupational Prerequisites

Accompanying the spread of capital-intensive technology has been the notion of long-term, formal training as a prerequisite for virtually all occupational activities. This implanted need for formal training together with functional specialization and greater use of bureaucratic organizational techniques not only emphasizes formal educational prerequisites, but also requires documented evaluations of occupational and related performance. Concomitant, then, with the decrease in employment positions in traditional

areas has been an increase in positions requiring certificates of training, letters of recommendation, and other credentials for admission.[14]

Response by both private and public educational systems to this increased demand for more highly educated workers has lagged. In many cases educational expansion has been scarcely sufficient to maintain existing educational levels for the increasing population, especially in rural areas. Most urban areas have had superior facilities and faculties which have been gradually upgraded and expanded. By the late 1960s, most small and intermediate-sized cities had complete primary and basic secondary systems, and larger cities had universities and professional and vocational training institutions as well. On the other hand, rural areas often did not even have a complete secondary system. In many outlying areas, primary education had only recently been initiated or perhaps just expanded to a complete program. And in the scattered villages servicing most of these areas, only a partial secondary program was offered.

Educational facilities may not be the only obstacle to employment for rural youth. Rural communities with primary and post-primary educational facilities could train youth who would be qualified for managerial, clerical, and skilled labor positions. But the superior quality of urban education as well as knowledge of modern bureaucratic procedures should give native urban residents a distinct advantage over their rural migrant competitors in a saturated urban labor force.

Impact on Minifundia Populace

Within minifundia communities, families may vary in their relationship to economic and educational spheres.[15] Most people in minifundia communities produce agricultural goods for sale; the income-earning opportunities of these producer-sellers vary according to the amount of land owned and operated. Under an equal inheritance system, such variation theoretically ought to be a major factor in determining occupational levels of offspring. However, the children's position will not necessarily be equivalent to or better than their parents' given the ongoing decrease in the number of owners in all economic sectors cited above. And, as small-scale production

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14. Jorge Balán, "Migrant-Native Socioeconomic Difference in Latin American Cities: A Structural Analysis," Latin American Research Review 4 (Spring 1969): 3-29; and Ivan Illich, "Schooling: The Ritual of Progress," New York Review of Books, 3 December 1970, pp. 20-26.

15. According to Weber, a family's relationship to the economic sphere is its "class situation." He defines class situation as: "A specific causal component of ... life chances .... represented exclusively by economic interests in the possession of goods and opportunities for income ... under the conditions of the commodity or labor markets...," or, alternatively stated, "chance ... to dispose of goods or skills for the sake of income ...." Max Weber, "Class, Status, Party," in Hans Gerth and C. Wright Mills, eds., From Max Weber: Essays in Sociology (New York: Oxford University Press, 1946), p. 181.

is engulfed, children of smaller landowners will be less likely to become owners in any sector.

Both private and semi-public post-primary education--and to some extent, even public education--can generally be supported only by seller-owner families. Accordingly, we might expect some larger landowning families to enroll their children in the primary and post-primary educational system and encourage them to leave for urban centers as local communities reach their meager capacities for trained personnel. Considering the limited availability of scholarship funds and restricted economic opportunities, nonowner families will be less likely to have generated income streams necessary to move their offspring into productive nonagricultural positions through education or through provision of enough capital to enter ownership positions in either the agricultural or the nonagricultural sector. Hence, we would expect to find children of nonowners--and even those of very small owners--engaged in unstable, poorly paid urban jobs or as tenant/laborer or underemployed rural residents.

CHAPTER II

SHIFTS IN THE COLOMBIAN OCCUPATIONAL STRUCTURE

The purpose of this chapter is to show how development strategies produce shifts in the occupational structure which limit, rather than open, employment options for the rural-born.

The Agricultural Sector

According to census figures, Colombia's average annual population increase since 1951 has held around 3.2 percent.[1] Assuming this rate of growth throughout the 1960s, the national population should have reached approximately 22 million by 1970.[2] In the inter-censual period of 1951-64, the rural net population growth rate was 1.7 percent and that of the urban areas was 7.0 percent.[3] Given the high natural growth rate of rural areas, these figures obviously reflect substantial intersectoral geographical movement during this period.

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1. Departamento Administrativo Nacional de Estadística (DANE), XIII censo nacional de población: resumen general (Bogotá: Imprenta Nacional, 1967). The Colombian Association of Medical Schools estimated that by 1967 the growth rate was 3.5 percent per annum.

2. Comisión Económica para América Latina (CEPAL), El cambio social y la política de desarrollo social en América Latina (New York: Naciones Unidas, 1969), p. 32.

3. Ibid.

Nearly 63 percent of the population live in rural areas (places of fewer than 20,000 inhabitants) and the rural sector is estimated to be absorbing a weekly average of 1,000 new families.[4] At the same time, inter- and intrasectoral geographical and occupational movement contributed to a decline in the proportion of the total economically active population employed in agriculture from 53.9 percent in 1951 to 47.3 percent in 1964.[5]

The bulk of the rural population is crowded onto an unequally distributed and depleted resource base. Official data for 1960 show that 45 percent of the cultivated and pasture land was owned by 1.2 percent of the population (living primarily in urban centers), while 65 percent of the rural people lived on 5.5 percent of the land. These figures are only a crude measure of the critically insufficient land resource (with respect to the population) since they do not take into account crucial arability factors. A CIDA study concluded that 5 hectares for the Andean region and 10 hectares for the Caribbean region were the minimum amounts of land necessary to provide productive employment for 2 to 3.9 adult workers under prevailing technological and agricultural service conditions. Using this criterion, we find that 47 percent of Colombia's rural families (58 percent of the agricultural work force) own farms which cannot provide an adequate level of employment for their members. Another 23 percent of the rural families are landless. More than one-third of the land is in subfamily units and nearly one-third of the families operating such units correspond to sharecropping and tenancy arrangements.[6]

Although it has been shown that units of less than 5 hectares could absorb more labor and increase agricultural output through the application of yield-increasing technology,[7] such a possibility does not seem forthcoming in light of present development policies. And with each successive generation, further division of these subfamily units without access to labor-intensive and resource conserving technology only exacerbates underemployment and unemployment and the skewed resource distribution.

In response to these conditions, there has been a steady, though perhaps dwindling, stream of migrants to the frontiers. An estimated 400,000

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4. Speech to a Senate Commission by Enrique Peñalosa (at that time the director of the Colombian Agrarian Reform Institute) quoted in El Tiempo, 12 de abril de 1967, p. 23. By 1970, the percent of the Colombian population living in the rural areas was expected to have dropped to 54.

5. DANE, XIII censo nacional de población; and Censo general de población de 1951 (Bogotá: Imprenta Nacional, 1954).

6. Comité Interamericano de Desarrollo Agrícola (CIDA), Tenencia de la tierra y desarrollo socio-económico del sector agrícola: Colombia (Washington: Panamerican Union, 1966). For a summary of the study--together with studies of six other Latin American countries--see Solon Barraclough and Arthur Domike, "Agrarian Structure in Seven Latin American Countries," Land Economics 42 (Nov. 1966): 391-424.

7. Emil B. Haney, Jr., "The Economic Reorganization of Minifundia in a Highland Community of Colombia" (Ph.D. diss., Univ. of Wis., 1969), Chapter 14.

people moved into areas of new land settlement between 1951 and 1964.[8] In the same inter-censual period, population increases in Llanos Orientales were 122 percent, and in the frontier territory of Caqueta, 7.3 percent annually.[9] While Colombia's unsettled lands are extensive, a recent FAO survey seriously questions the degree to which they can absorb a continuing onslaught of migrants engaged in traditional small-scale, intensive agriculture. Of the 13 million hectares surveyed in the more fertile piedmont region of the Llanos Orientales, less than 1 percent was found suitable for intensive cultivation, relying only on natural fertility; an additional 12 percent could sustain intensive cultivation with intensive artificial fertilization.[10]

Structural barriers to massive agricultural employment on the frontiers are perhaps even more significant; much of the colonist-cleared land suitable for intensive cropping there has already been consolidated into large holdings used for speculation or for traditional ranching activities.[11] In recent years, some of these holdings have been converted into large-scale commercial production of food staples and fiber crops, thereby competing with the small holders who had for decades marketed surplus staple crops. With continuing agricultural mechanization on an unequally distributed land base--coupled with differential access to other inputs and market outlets[12]--many small-scale operators have been engulfed by absentee and corporate owned holdings, and to some extent, converted to landless laborers on these large units. This continuing land concentration and mechanization has not only resulted in the creation of producer monopolies which reduce employment but also in a gradual lowering of the demand for permanent and seasonal agricultural laborers.

A similar trend is occurring in the fertile intermontane valleys (traditionally devoted to extensive absentee-owned ranching) where a shift to mechanized commercial production has been underway for the past few decades.

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8. Dale W. Adams, "Rural Migrants and Agricultural Development in Colombia" (Paper presented at the 13th Conference of the International Association of Agricultural Economists, Sydney, Australia, August 1967).

9. DANE, XIII censo nacional de población and Censo general de población de 1951.

10. Food and Agricultural Organization of the United Nations, Reconocimiento edafológico de los Llanos Orientales: Colombia (Rome: United Nations Special Fund, 1965).

11. Joseph R. Thome, "Title Problems in Rural Areas of Colombia: A Colonization Example," Inter-American Economic Affairs 19 (Winter 1965): 81-97; and Charles H. Mullenax, James S. Plaxico, and James M. Spain, Alternative Beef Production Systems for the Eastern Plains of Colombia (Cali: Centro Internacional de Agricultura Tropical, 1969).

12. Karl Wierer, "Economics of Improving Marketing Organization and Facilities to Accelerate Agricultural Development in Land Settlement Projects," Mimeo. (Bogotá: Instituto Latinoamericano de Mercadeo Agrícola, 1967).

In 1960, fewer than 1 percent of the country's 1.2 million farms had tractors (two-thirds of the farms possessed only human power and another 30 percent had animal power) and most of these were concentrated on the "multi-family farms" (large enough to provide employment for four or more people) which operated nearly three-fourths of the total agricultural land.[13] More than half of these tractors were found in the intermontane valleys of the departments of Valle and Tolina and in the Sabana de Bogotá in the department of Cundinamarca. Meanwhile, the importation of other agricultural machinery--which cuts heavily into the country's foreign exchange reserves--continues at a steady pace.[14]

The continuing mechanization of agriculture in the fertile valleys and plains plus the high natural population increases in rural areas have left rural youth with few options but to join the redundant rural labor force on the already over-populated slopes of the three principal mountain ranges or to move to the small towns and urban centers. Not surprisingly, large numbers of rural people--together with those from small villages and towns--have opted to move to the principal urban centers. By the mid-1960s, official figures show that 68 percent of Colombia's urban population were reported to have been born in the rural areas.

Official figures show that Bogotá grew at the rate of 6.8 percent per annum during the 1951-64 inter-censual period:[15] the annual population increase for 1964-69 is estimated at 7 percent.[16] Over three-fourths of the total 1964 Bogotá population in the 15 to 64 age range were born outside the city. Fifty-eight percent of these migrants originated from highland departments adjacent to Bogotá-Boyacá and Cundinamarca.[17] Several towns in the surrounding Sabana de Bogotá also experienced substantial growth

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13. L. Jay Atkinson, "Changes in Agricultural Production and Technology in Colombia," Foreign Agricultural Economic Report No. 52 (United States Department of Agriculture, Economic Research Service in cooperation with the Ministry of Agriculture and the Central Planning Agency of Colombia, June 1969), p. 18; CIDA, Tenencia de la tierra.

14. U.S. Senate, Committee on Foreign Relations, "Colombia: A Case History of U.S. AID together with a Report on the Comptroller General," in Survey of the Alliance for Progress, Document no. 91-17 (91st Cong., 1st sess., 1969), pp. 659-965.

15. Statistics from DANE quoted in the Colombian Information Service (CIS), Colombia Today, 4, 8 (Aug. 1969).

16. Statistics from DANE quoted by Humberto Jiménez M., "Crecimiento de Bogotá en la próxima década," Sunday magazine section of El Espectador, 5 de noviembre de 1967, pp. 8, 9.

17. Alan B. Simmons and Ramiro Cardena G., "La selectividad de la migración en una perspectiva histórica: el caso de Bogotá (Colombia) 1929-1968" (Paper presented at the Conferencia Regional Latinoamericana de Población, México, D.F., 17-22 de agosto de 1970).

through migration from the same areas.[18] Medellín and Cali, the second and and third largest Colombian cities with about a million inhabitants each, experienced annual population growth rates of 6.0 and 6.3 percent, respectively, during the inter-censual period (1951-64). Barranquilla, with over 500,000 inhabitants, increased its population by 4.5 percent per year during the same period. In the past 20 years, the number of Colombian cities with over 100,000 inhabitants increased from 10 to 18,[19] spurred by the development of manufacturing nuclei in and around traditional urban centers. National boundaries have not stopped migration; a 1966 survey of the oil refining city of Maracaibe, Venezuela, indicated that 25 to 30 percent of its total population at that time were Colombians.[20] Other western Venezuelan regions have experienced a similar influx.

The Nonagricultural Sector

While nonagricultural employment grew in the 1951-64 inter-censual period, there was only a slight increase in industrial employment--from 18.4 to 19.6 percent of the economically active labor force.[21] However, inter-censual figures show a slight decline in the proportion of the nonagricultural labor force employed in transforming industries.[22] A 1964-70 estimate shows an annual growth rate of employment in the manufacturing sector of only 2.5 percent.[23] The Colombian manufacturing sector is characterized by many small labor-intensive firms among a few capital-intensive "giants." In 1966, 31 percent of the manufacturing firms employed fewer than five persons; 63 percent employed fewer than ten. Even in Bogotá nearly one-half of the city's firms employed fewer than 10 workers. Contributing only 2.6 percent of the national net industrial investment, small firms

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18. Miguel Urretia M., "Estudio económico-social de los centros secundarios de la CAR" (Bogotá: Corporación Autónomo Regional de la Sabana de Bogotá [CAR], julio de 1963).

19. Statistics from DANE quoted in CIS, Colombia Today, 4, 12 (Dec. 1969).

20. A study cited by the governor of the Venezuelan state of Zulia in an interview carried in La República, 20 de agosto de 1966.

21. Statistics from DANE quoted by Ifigenia M. de Navarrete, "Sobre población y desarrollo económico," Investigación Económica 27 (julio-diciembre de 1967): 238.

22. Statistics from DANE classified and reported by Ann R. Miller, "Algunas características de la estructura industrial del empleo en paises latinoamericanos," (Paper presented at the Conferencia Regional Latinoamericana de Población, México, D.F. 17-22 de agosto de 1970).

23. This compared with an annual growth rate of 3.6 in construction, handicraft, commerce, and personal services, and 3.3 percent in financial and governmental services.

(under 10 workers) employed one-eighth of the industrial labor force; while 4.5 percent of the large firms (over 100 workers) contributed 83 percent of the net investment and employed only 55 percent of the labor force.[24]

Nearly one-half of the manufacturing labor force and 51 percent of the industrial firms are in the food and fiber processing industries, but between 1962 and 1966, these firms absorbed an average of only 1,375 new employess per year.[25] In both food and fiber, particularly the latter, women workers predominate and family-operated firms employing unpaid family workers comprise the bulk of the enumerated firms.

Over one-fifth of the manufacturing labor force works on assembly lines producing metal products, machinery, and equipment.[26] In these plants medium- or large-scale male labor forces predominate. The trend in these industries has been a significant increase in capital investment with only a slight increase in employment. For example, in basic metals an eleven-fold increase in net fixed investment between 1962-66 was accompanied by a mere 21 percent employment increase.[27]

With a 128 percent increase in net investment in the industrial sector between 1962-66, total employment increased only 8 percent.[28] Much recent industrial investment in Colombia has been undertaken by foreign companies. Between 1960 and 1966, foreign investment averaged $1.5 million annually; in 1969, $27.4 million were invested and in 1960 an estimated $40 million.[29] While this foreign investment will certainly create new jobs, its capital-intensive nature will not make much of a dent in the nearly 3.0 percent annual increase in the labor force, to say nothing of the unemployed residual labor force. Besides being plowed into automated production equipment, a large portion of this investment goes for capital-intensive exploration and extraction, neither of which requires many workers.

Consider, for example, the case of a principal foreign investment sector--the petroleum companies.[30] Consistent with policies elsewhere in the

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24. DANE, Anuario general de estadística 1966-67: trabajo, Tomo IV (Bogotá: Litografía Colombia, S.A., 1967), pp. 66-68.

25. DANE, Anuario, p. 62.

26. Miller, "Algunas características de la estructura industrial del empleo en paises latinoamericanos."

27. DANE, Anuario, pp. 64, 65.

28. Ibid., pp. 62, 63.

29. Statistics from Departamento Nacional de Planeación as quoted in CIS, Colombia Today 6, 1 (Jan. 1971).

30. In 1961, 28 oil companies operating in Colombia were registered as foreign; of the nine national companies, some were more than 50 (cont.)

oil producing world,[31] most of the production flows to industrial countries for refining.[32] With increasing automation in oil extracting and with most refineries located outside Colombia, the employment index for the petroleum industry has decreased sharply from the 1962 base period (= 100) while production has increased. By the end of 1967 the index reached 72.6.[33] Production of coal and petroleum derivatives is also a capital-intensive operation. In 1966, these industries contributed 26 percent of the total net investment in the industrial sector, but employed less than 1 percent of the industrial labor force. Foreign companies are also investing in other extractive industries, such as ferronickel ore deposits.[34]

Some of the more recent foreign investment is in tourism, and absorbs workers into the service sector. Most of the remainder is in goods using highly automated processes.[35] Even with low market volume and high production costs, high product prices, low interest rates, accelerated depreciation allowances, and other tax breaks generally permit high profits, but create few jobs.

Together with rapidly increasing private investment, public investments have soared from a 1961-66 average of $84 million to a 1970 estimate of $344 million.[36] A list of recent public investments reveals the extent to which the government has been willing to invest in infrastructural development projects which coincide with the needs of private corporations: a $4.3 million investment (financed by international banking institutions) for a global satellite tele-communications network; construction of a new hydroelectric plant near Bogotá; a $2.2 million investment in improved shipping facilities at Buenaventura and air transport facilities near Cali.[37] Although supposedly creating thousands of new jobs,[38] these infrastructural

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percent foreign owned. Data from Miguel Urrutia, The Development of the Colombian Labor Movement (New Haven: Yale University Press, 1969), pp. 152-53.

31. Michael Tanser, The Political Economy of International Oil and the Underdeveloped Countries (Boston: Beacon Press, 1969).

32. During the 1960s, while the petroleum production in Colombia increased, the relative proportion produced by ECOPETROL declined. Data supplied by the Banco de la República and published in CIS, Colombia Today 5, 6 (June 1970).

33. DANE, Anuario, p. 47.

34. Data supplied by Asociación Nacional de Industrialistas (ANDI) and published in CIS, Colombia Today 6, 1 (Jan. 1971), and amplified in 6, 4 (April 1971).

35. Ibid.

36. Statistics from the Ministerio de Hacienda published in CIS, Colombia Today 6, 1 (Jan. 1971).

37. Data supplied by ANDI and published in CIS, Colombia Today 6, 1 (Jan. 1971)

38. Ibid.

projects may do little more than offset industrial employment layoffs as automation increases and transport facilities are modernized. At best, they can employ only a large temporary labor force during construction and a small permanent one to operate the facilities.

The proportion of the labor force employed in the commercial sector increased in the 1951-64 inter-censual period; however, the service sector continued to absorb the bulk of those employed in nonagricultural activities. Fifty-three percent of the employees in the service sector provided personal services; in Colombia, this means household servants. An additional 22 percent are engaged in governmental bureaucratic services and 25 percent provide community, business, and recreational services.[39] The nonfamily female labor force is concentrated in the service sector; females comprise over 80 percent of the personal service labor force and over 50 percent of those engaged in business, social, and recreational services.[40]

The governmental campaign to provide universal primary education and expanded secondary education, basic medical care, etc., has created a number of community service positions. At the same time, the proliferation of governmental agencies to carry out various development programs has expanded the public and semi-public service sector. However, these positions are effectively closed to most rural youth because of their lack of educational qualifications. Since only 13 percent of those over 15 have completed some secondary education and only 1 percent some university training,[41] it is not surprising that the personal service sector continues to expand.

Thus, despite anticipated increases in volume of investment and production in both the agricultural and nonagricultural sectors, importation of capital-intensive techniques cannot create a sufficient number of productive positions to absorb the estimated 5 million new labor force members of 1985.[42] Colombia's GNP grew nearly 7 percent annually during the 1960s, but a substantial portion of the labor force remained unemployed or underemployed.

While unemployment statistics are not readily available, there are several indicators which suggest a high rate of unemployment. CIDA studies reveal disguised unemployment in perhaps one-third or more of the agricultural

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39. Miller, "Algunas características de la estructura industrial de la empleo en países latinoamericanos."

40. Ibid.

41. Calculations taken from the 1964 census data by Tomas Frejka, "A Demographic Analysis of the Educational Situation in Latin America," CELADE, 1970. Summary of this work was presented in "La estructura de la población adulta de América Latina segun su nivel de educación en base a los censos de 1960" (Paper presented at the Conferencia Regional Latinoamericana de Población, México, D.F., 17-22 de agosto de 1970).

42. International Labour Office (ILO), Toward Full Employment (Geneva: ILO Publications, 1970).

labor force. To this, one can add thousands "employed" in menial service and petty vending in cities. One study suggests that 20 percent of the total labor force is unemployed, and still another projects that by 1971 unemployment will be as high as 36 percent.[43] A 1970 survey by DANE indicated that 14 percent of the employable inhabitants of Bogotá (later stated as 11.6 percent), 11 percent in Cali, and 12.9 percent in Medellín were unemployed.[44] The unemployed of Bogotá were young (66 percent between 20 and 34 years) and with less than secondary education (42 percent some primary and 19 percent no formal education). According to the 1970 ILO study, one-fourth to one-third of the urban population are unemployed. A conservative estimate of the conventionally unemployed (looking for work) in the urban labor force is one-half million out of three million.[45]

Industrial development and a shrinking of productive alternatives in agriculture have spurred rural-urban migration, but, as the above data suggest, few migrants have become industrial workers and even fewer have entered white collar positions or the professions. Two recent studies of rural in-migrants to Bogotá suggest that it is not only the limited expansion of employment opportunities but also educational and occupational skill levels which limit rural-urban migrants in obtaining secure and economically remunerative positions. In a study of male migrants age 15 to 59, Simmons found two principal migratory streams to Bogotá. Forty percent of these migrants to Bogotá come from nearby medium-size urban centers. They tend to have higher educational and skill levels and, therefore, enter Bogotá at middle or upper status levels.[46] The larger "rural" migrant stream--predominantly from highland villages and small towns--is comprised mostly of the sons of landowners, merchants, and white collar employees. Their mean years of education completed was 4.6 compared with 6.9 for natives of Bogotá and 3.3 for a sample of nonmigrant rural inhabitants in eleven highland municipios. Using a six-point occupational scale, Simmons found that the mean occupational status of "rural" migrants was 2.6. This compared with a mean of 2.4 for the nonmigrant rural inhabitants and 3.2 for urban natives. Regardless of age at time of arrival, migrants arriving

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43. U.S. Senate, Committee on Foreign Relations, "Colombia."

44. Statistics from Bogotá and Cali reported in El Tiempo, 25 de julio de 1970, and for Medellín in El Tiempo, 31 de julio de 1970.

45. ILO, Toward Full Employment.

46. Alan B. Simmons, "The Emergence of Planning Orientations in a Modernizing Community: Migration, Adaptation, and Family Planning in Highland Colombia" (Ph.D. diss., Cornell Univ., 1970), especially Chapter 4. These data are also reported in Simmons and Cardona G., "La selectividad." The study by Reyes Carmona which looks at characteristics of a representative sample of in-migrants to Bogotá does not discriminate between those originating in rural and other urban areas. See Marco F. Reyes Carmona, "Estudio socio-económico del fenómeno de la inmigración a Bogotá," Economía Colombiana 22 (octubre de 1964): 39-47, and "Estudio socio-económico del fenómeno de la inmigración a Bogotá: segunda parte," Ibid. (noviembre de 1964): 21-29.

in the 1959-68 period scored lower (2.1 and 2.2) on the occupational status index than those arriving in the three previous decades. Since the mean occupational status score of the first job for those arriving during the ten-year intervals between 1929 and 1958 is lower than that at the time of the study, there may be some reason to expect a limited degree of occupational mobility for the recent migrants. In sum, the data presented in Simmons' study indicate that the vast majority of "rural" migrants to Bogotá (and probably other Colombian urban centers) were employed during their entire labor force career in positions the author labeled "skilled-manual" requiring less than a complete secondary education and receiving a salary of less than 2,000 pesos per month (US$120).

Secondly, Flinn's 1965 study of a clandestine Bogotá shantytown (barrio) where the household heads were primarily migrants from scattered farmsteads, villages, and small towns of Cundinamarca and Boyacá, indicated that the immediate pre-migration occupations required a few years of primary training at the most.[47] Moreover, the pre-migration occupations of those who moved directly to the shantytown were superior to those of rural-urban migrants who lived a while in the central city before moving to the shantytown.

In sum, efforts to increase Colombian agricultural output through imported capital-intensive technology on large holdings has led not only to the traditional release of labor to the industrial sector but also, given the high population growth rate, to an absolute increase in a redundant agricultural labor force. Furthermore, a sharp increase in capital-intensive industrial investment has limited employment to only a small proportion of those being thrust into the urban labor market. Some are absorbed into the service sector but many find only occasional employment or join the growing reserve labor pool.

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47. William L. Flinn, "The Process of Migration to a Shantytown in Bogotá, Colombia," Inter-American Economic Affairs 22 (Autumn 1968): 77-88.

CHAPTER III

THE PRESENT STATUS OF RURAL EDUCATION IN COLOMBIA

Prerequisites for lower level professional, bureaucratic, and technocratic positions in government and multinational corporations increasingly require completion of secondary education. But in spite of persistent efforts by individuals, political parties, and governments to enact and implement mass education legislation, many rural areas have yet to obtain complete primary curriculae. The purpose of this chapter is to document the educational differences between rural and urban areas and social classes of Colombia in an effort to depict the magnitude of the educational barriers for the rural-born.

Historical Background and Overview

The present Colombian educational system reflects the traditional values of catholicizing masses while reserving formal instruction for a select few. Throughout Colombian history, however, groups espousing countervalues which stressed mass education and a broader-based curriculum have been heard. Since independence, liberals have attempted to carry out these countervalues, partially aided by foreign "experts" in both educational methods and subject matter. Conservative parties have given lip service to mass education while effectively favoring the educational status quo--a highly trained urban upper class.[1]

In the late nineteenth century, landowners' reaction, coupled with that of the church against curriculum revisions, culminated in the repeal of the liberal 1863 constitution and the enactment of the 1886 one which halted the drive for mass education which the earlier constitution had initiated. Later laws set up an educational system which stipulated very different programs for the rural and urban schools. It was not until the 1930s, probably because of the impact of ideas coming out of Europe, that compulsory education legislation was enacted.

In the 1950s and 1960s many pieces of legislation aimed at guaranteeing access to primary education were passed. A 1960 decree made the federal government financially responsible for primary education. In 1963 discriminatory legislation against rural areas dating from 1904 was revoked. With agrarian reform legislation in the 1950s and 1960s came an intensification of rural adult literacy programs. These educational reforms coincided with an increased interest in the need for planned economic growth and a concomitant interest in trained personnel.[2] However, nearly 88 percent of the one billion peso (US$64 million) educational budget in 1967 was still allocated for maintenance as opposed to expansion.[3]

Despite what is generally considered to be forward-looking legislation, more than one-fourth of Colombia's population over 9 and nearly a third of those over 6 are illiterate. Although declining proportionately, illiteracy continues to rise in absolute terms. Perhaps the most striking figure

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1. For an historical discussion of Colombian education in English, see Orlando Fals Borda, "Bases for a Sociological Interpretation of Education in Colombia," in A. Curtis Wilgus, ed., The Caribbean: Contemporary Colombia (Gainesville: University of Florida Press, 1962), pp. 183-213; also published as "La educación en Colombia" (Bogotá: Facultad de Sociología, 1962).

2. The information in the preceding paragraph was presented in a 1966 report prepared by the Ministry of Education for submission to Congress. The report was published in part as "Situación actual de la educación en Colombia," Gaceta Tercer Mundo, nos. 31-32 (noviembre-diciembre de 1966), pp. 2, 9.

3. El Tiempo, 4 de enero de 1967. In 1967, for the first time, the Ministry of Education's budget exceeded that of all other entities.

is that nearly 60 percent of the 7 to 9 year olds are not even attending school to overcome their illiteracy.[4] An additional 55 percent of the population may be classified as functionally illiterate, having attended only a few years of primary instruction of questionable quality,[5] leaving only 8 to 12 percent of those above 7 years to be defined as functionally literate.

For a given group of 100 Colombian children born in a specified time period, 90 would reach one year of age, 83 would reach seven years of age, 79 would begin primary training, 7 would finish primary training, 3 would enter secondary training, and 1 would finish secondary training.[6] For every 2 Colombian children who reach primary school age, 1 enters the first grade; and, for every 1,000 children who enter primary school, 100 finish the five grades, 20 finish the secondary education, and 2 or 3 (1 in 400) obtain a university degree.[7] Of even greater consequence for the rural population is the extreme discrepancy between the quantity and quality of rural and urban education at all levels.

Primary Education

During the 1960s about one-third of the total primary school enrollment was rural. Yet, one-half of the primary school age group (7 to 12 or 7 to 14) lived in the rural areas.[8] More significant is the low retention rate among rural primary school students. During the 1960s, over 90 percent of the children completing the five years of primary school attended urban primary schools. The completion rate also varies considerably from public to private schools (primarily Catholic with a few Protestant ones). In 1960, for every 100 boys and girls entering private rural schools, 29 and 19, respectively, completed five years of training, as opposed to 1.9 and 1.4 in public rural schools. (This compared to urban private school rates of 46 and 61 and urban public school completion rates of 28 for both sexes.) Of course, private primary schools enroll relatively few students; in 1960, for example, only 3,077 out of 405,959 rural primary students had matriculated in private schools.[9]

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4. Based on calculations from DANE, XIII censo nacional de población: resumen general, the Ministry of Education, and UNESCO as compiled by Herman Felstehausen and Jaime Mira, "Colombian Statistical Tables for General Reference," Mimeo. (Madison: Land Tenure Center, Jan. 1970), p. 10.

5. Estimates made by the School of Education of the University of Antioquia as cited in Oscar Uribe Londoño, "Carta abierta al Señor Ministro de Educación," El Espectador, 25 de septiembre de 1966, p. D-1.

6. Asociación Colombiana de Facultades de Medicina, "Acelerado crecimiento de la población en Colombia," as reported in Luis Lalinde Botero, "La educación y algo en Píldoras," El Espectador, 31 de enero de 1967.

7. This study was cited in Uribe Londoño, "Carta abierta."

8. DANE, XIII censo nacional de población, p. 42.

9. Consalo Cataño, "Escolaridad y movilidad social en Colombia," in DANE, Boletín Mensual de Estadística, no. 243 (octubre de 1971), p. 178.

Official statistics show that the percentage of rural primary teachers is about equal to the percentage of rural primary enrollment (about one-third). The same data show that the overall student-teacher ratio is 27 to 1.[10] These data do not reflect variation in level of teacher training, however. While standards are in general rising,[11] normal school training is needed for primary teacher certification. In the 1960s this usually meant that the teacher had completed four years of secondary training and two of normal school. While 41 percent of rural primary teachers are at the lowest rank (sin escalafón), they accounted for 73 percent of the primary teachers at this level.[12]

This concentration of those least prepared in the rural educational system does not solely manifest a lack of qualified personnel. In the 1960s for every normal school graduate, only three were engaged in teaching,[13] partially because of lack of government funds. However, two principal reasons for the high attrition rate seemed to be discrepancies in rural and urban salaries[14] and working conditions. Thus, many of the recently trained normal school graduates who come from rural communities flee to larger towns or large urban centers. Those who are available to rural communities, particularly in outlying areas, are thus often either older teachers with more experience though less training--sometimes nothing more than primary education--or young teachers who stay because of no other alternatives. This often leads to a lack of enthusiasm and commitment as well as a general disdain for the clientele, with only limited motivation for creative teaching.

Even for committed teachers, other aspects of rural education often dampen enthusiasm. Often isolated, school buildings are grossly deficient in furniture, lodging facilities, and hygiene services. Basic supplies are often lacking, as well as supplementary materials like up-to-date

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10. Felstehausen and Mira, "Colombian Statistical Tables," pp. 7-9.

11. For a discussion of the quality of rural education, see A. Eugene Havens, "Education in Rural Colombia: An Investment in Human Resources," Research Paper no. 8 (Madison: Land Tenure Center, University of Wisconsin, 1965); and A. Eugene Havens and William L. Flinn, "Structural Blocks to Higher Educational Attainment," in A. Eugene Havens and William L. Flinn, eds., Internal Colonialism and Structural Change in Colombia (New York: Praeger, 1970), pp. 165-85.

12. DANE, Boletín Mensual, p. 138.

13. Data cited in Uribe Londoño, "Carta abierta."

14. In 1971, for example, the salary of a primary school teacher of lowest rank was 1,060 pesos per month (US$53) in Cundinamarca (up from 620 pesos, or US$37, in 1966) and 1,900 pesos (US$95) in Bogotá. For those of the highest rank, the comparable figures were 1,930 pesos (US$96) and 2,050 pesos (US$102). However, it is important to note that 98 percent of the primary teachers of the highest rank work in urban areas, while 73 percent of those without rank at the bottom of the scale work in rural areas. DANE, Boletín Mensual, pp. 138, 141.

textbooks. To solicit funds from local government may only meet with denial or imposition of an additional tax on an already impoverished populace. And to ask that parents furnish some of these materials will probably reduce attendance.

Some argue that inability to obtain these materials represents no educational loss, since official textbooks are often geared to moral and religious teachings, while non-ecclesiastical materials, designed for urban usage, do not really help rural children to understand their environment.

Rural children's poor nutrition levels partially account for frequent absences, high drop-out rates, and low performance levels. Contributing factors are helping during peak agricultural periods, poor study conditions at home, and irrelevant study materials.

In a few areas there are semi-public and private schools which differ somewhat in the general educational structure. Generally, these schools have boarding facilities; however, some provide only meals. Many of these schools combine a basic reading, writing, and arithmetic program with applied science, especially in agriculture and homemaking. To date, however, such programs are limited in number.

Post-Primary Education

Most available secondary education is still handled by private institutions. In 1963, there were facilities for 215,912 private secondary students and for only 143,967 public ones. In 1968, bachillerato students accounted for 70 percent of the total secondary enrollment.[15]

Given the rather large difference in tuition and other costs between public and private schools, children of low and middle income families are seriously impeded in post-primary training and attainment of white collar and professional occupations. The cost of secondary education is a particularly important obstruction to those types of occupational positions in a country with a skewed income distribution and a paucity of scholarships. Moreover, secondary facilities are found only in urban areas but not in all urban areas.[16] In addition, secondary education is often limited to three or four years rather than the standard six because of insufficient qualified personnel, laboratories, and, paradoxically, students.

Only one-third of those who matriculated in the years 1955, 1957, and 1959 graduated six years later, 35 percent boys and 29 percent girls. However, nearly two-thirds of private secondary students graduated. Some of these students had begun in public schools and later transferred to private schools.[17]

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15. DANE, Boletín Mensual, pp. 145, 147.

16. Cataño, "Escolaridad y movilidad," p. 180.

17. Ibid., p. 181.

Two studies dating from the early 1960s of the social class of bachillerato students indicate that 2 to 8 percent originated from worker and petty commercial families, about two-thirds from middle class families, and one-fourth from upper and upper middle class families.[18]

Classifying the self-employed persons, professionals, middle and lower level white collar workers, and owners of enterprises employing up to 49 persons as middle class, and high public and private administrators/owners of enterprises employing 50 or more persons and renters as upper class, a study of 5th and 6th year secondary students aspiring to enroll in the National University in Bogotá found that 78 percent were from middle class origins, 8 percent were from upper class families, and 8 percent were industrial worker families. Being Colombia's largest public university with a prorated tuition based on parental income, this university probably enrolls the highest number of economically disadvantaged children. Upper class enrollment is generally restricted to private universities.[19]

Thus, rural families who wish their children to benefit from shifts in the occupational structure face many obstacles in sending their offspring to school: 1) the limited availability of primary and especially secondary educational facilities; 2) a curriculum content heavily weighted toward moral training rather than basic subject matter; 3) inadequately prepared teachers and a scarcity of instructional materials. The prevalence of private schools in the secondary system creates two additional barriers--the high costs of tuition, books, uniforms, and often room and board, and a preference on the part of employers for graduates of private schools. This accumulation of barriers results in the more remunerative positions being filled disproportionately by children of the urban middle and upper classes.

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18. Ibid., pp. 185-87.

19. Ibid., p. 186.

PART II

CHAPTER IV. INTRODUCTION

Part II analyses the impact of a shifting occupational structure upon minifundistas (small rural owners and tenants) through data collected from a cross section of rural families in the highland community of Fómeque.

The analysis is based on a field study conducted by the author and her husband during late 1966 and early 1967 in the Colombian highland municipio of Fómeque, located approximately three hours by bus east of Bogotá. The study community was selected according to three criteria: 1) Proximity of major rural and urban migration poles--in this case, the Llanos Orientales and Bogotá; 2) Proportion of the agricultural labor force operating "independent minifundia"[1] producing for the market economy; and 3) Availability of general, as well as agricultural, services to the population.[2] Fómeque is quite similar to most highland municipios with respect to the first two criteria and somewhat above average on the third. Hence, generalizations from these data will be expected to, if anything, overstate the attainment levels of minifundistas and their offspring.

The field study primarily utilized an intensive interview schedule administered to a 10 percent sample--204 rural household heads and spouses--selected by means of an area sampling technique. The sample was designed to include all household units found in randomly selected blocks of a grid superimposed upon an aerial photograph. In addition, a brief census of the village and hamlet in the municipio was conducted by the informant method. Data on private and public services were obtained from the records of various local units. In many instances the records were supplemented by interviews.

In general, this study documents the educational and occupational attainment of: 1) The sample household heads and spouses, 2) Their brothers and sisters, both migrant and nonmigrant, and 3) Their migrant and

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1. Independent minifundia as described by Adams and Schulman are one component of a typology based upon the structure and function of the production unit. For a full description, see Dale W. Adams and Sam Schulman, "Minifundia in Agrarian Reform: A Colombian Example," Land Economics 43 (Aug. 1967): 274-83. As the analysis will show, minifundistas not attached directly to large estates (latifundia) are most often in a formal or informal dependent relationship to larger owners, middlemen, users, and others. That is, the major difference between minifundistas is not dependency or independency but the source of dependency.

2. This criterion was especially important for the topic studied by my husband. For a more detailed discussion, see Emil B. Haney, Jr., "The Economic Reorganization of Minifundia in a Highland Community of Colombia" (Ph.D. diss , Univ. of Wis., 1969), Chapter 3, available in condensed form as Land Tenure Center Research Paper no. 43 (May 1972).

nonmigrant children age 12 and older. In the ensuing analysis we utilize means and frequencies to show magnitude, kind, and direction of differences in educational and occupational attainment for those populations whose families vary in type and degree of relation to the labor market--parental class situation. The guiding hypothesis is that the number obtaining high educational (post-primary) and occupational (economically remunerative--incomes approaching the minimum salary of lower level white collar employees, and economically secure--reserve generating and advance dismissal notification if an employee) levels will be meager, and that those from the families of larger landowners attain the higher levels. Our assumption is that those who originate in medium and large owner families will differ considerably on these variables from those who come from other parental class situations. In general, then, we expect that parental ownership of less than X amount of land (the threshold level seems to be about 5 to 10 hectares) means low educational and occupational levels for offspring, and that ownership above that amount makes higher educational and occupational levels both possible and probable.

CHAPTER V

THE COMMUNITY SETTING

The municipio of Fómeque is located in the densely settled region of the Eastern Range of the Andes Mountain chain. The municipio extends from about 4,800 feet above sea level along its eastern boundary formed by the Río Blanco and the Río Negro to nearly 12,000 feet above sea level on its eastern and southern boundaries with the department of Meta and the municipio of Quetame.[1]

Like the neighboring municipios in the eastern part of the department of Cundinamarca, most of Fómeque's inhabitants are crowded into lower altitudes which have a temperate climate (tierra templada). While two-thirds of the total area of the municipio lies above timberline in the alpine climate zone (paramo) and an additional 25 percent falls into the cold climate zone (tierra fria), 85 percent of the people live in the remaining 9 percent of the area situated in the temperate climate zone. About one-fourth of the temperate climate population reside in the village of Fómeque and the hamlet of La Unión--the only other population nucleus. Most of the remaining population live on scattered small plots of land on the steep mountain slopes and a few alluvial and colluvial fans. The population of the other two climatic zones is widely dispersed on extensive (primarily absentee) holdings dedicated to traditional cattle ranching, and in a few cases, the production of potatoes, peas, and other cold climate crops.

1. DANE, Mapa estadístico de Cundinamarca (Bogotá: Imprenta Nacional, 1966); local cadastral records and aerial photographs supplied by Agustin Codazzi.

The village of Fómeque--located near the western boundary of the municipio--is connected to the neighboring municipios to the west, to Bogotá, and to the paved road linking the Llanos Orientales to Bogotá by a crushed-stone road. Eight daily buses leave Fómeque bound for Bogotá. This bus service provides connections to neighboring municipios and Villavicencio--the capital of the department of Meta. Except for a recently completed road to Lake Chingaza by the Bogotá Water Commission and a current road project to link Fómeque with Quetame, the transport network within the municipio is restricted to a small extension of dirt penetration roads passable by heavy-duty vehicles during the dry season and a system of rugged trails limited to human and animal traffic. Although most of the temperate climate residents live within two hours by foot from the village, perhaps as many as one-fourth of the rural families live two to five hours by horseback from their administrative and service center. A limited number of this latter group of families who live closer to service centers in neighboring municipios often do not journey to the village of Fómeque more than once a month. In the majority of rural families, however, someone comes to the village at least twice a week.

Notwithstanding some boom periods, especially as an intermediate trade center from the early 1900s until the Bogotá-Llanos Orientales road bypassing the municipio was completed in 1932 and a brief period when the hamlet flourished as a weekend retreat for some members of the upper class of Bogotá, the economic base of the municipio has been agricultural production and services. The introduction of horticultural crops--especially tomatoes--by the local priest in the late 1940s provided a few rural families with increased income streams for a period of perhaps a decade. But in recent years, the market for horticultural crops has been taken over by larger producers in the warmer, more fertile valleys of western Cundinamarca, Tolima, and Valle. Local industrial enterprises have been limited to a few family-operated brick factories. In sum, then, the municipio of Fómeque fits reasonably well the characteristics of a stagnant rural community.[2]

Local Services

Scattered primary schools are one of the few services located outside the village. Notwithstanding federal efforts to improve rural primary educational facilities, much of the increment in Fómeque can be attributed to the rural school construction campaign waged by the local priest, of 32 years tenure. Through the combination of federal grants channeled through both the local government and the local autonomous community development corporation, and participation of the rural families in the form of levied quotas, bazaars, labor, and donated materials, the priest was able to increase the number of rural primary schools to 28 before his death in 1968. With few exceptions, there was a primary school for every vereda; two veredas had two schools each. Still, in 1966, only children of the veredas

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2. This is one cell of a four-fold typology using the rate of economic development and place of origin. See Jorge Balan, "Migrant-Native Socio-economic Differences in Latin American Cities: A Structural Analysis," Latin American Research Review 4 (Spring 1969): 10.

bordering the hamlet or the village had complete primary education (5 years) available within an hour's walk from their home. The majority of the rural schools had three years available, while only a few offered four years.

These schools were staffed almost exclusively with locally trained teachers who had for the most part completed four years of secondary training and two years of normal school. A few of the older teachers had received only the four years of secondary school training. Before the death of the aforementioned priest, the curriculum was heavily loaded with religious and moral content.

As is true of the rural schools, the village educational system received much of its impetus for construction and staffing from the campaign headed by the priest. At the time of his arrival in 1936, the village was without any organized secondary educational system. During his tenure in the municipio, the priest was able to combine federal funds (mostly grants secured during the Rojas Pinilla regime's emphasis on rural education) with local quotas of cash, supplies, and labor to construct a primary school, a boys' secondary and normal school, and both a boys' and girls' vocational school. Consequently, by the end of the 1950s Fómeque had a fairly complete secondary educational system. And with the continuing, though dwindling funds flowing from the federal government, the secondary schools increased their course offerings from four to six years. Students could choose six years of college preparatory secondary training, or four years of secondary education and two years of normal school.

But while much of the labor, supplies, and funds were contributed by local families, a large percentage of the limited enrollment is comprised of non-Fómequenians. In 1966, nearly one-half of the students enrolled in the girls' secondary/normal and vocational schools were from outside the municipio. In the boys' secondary/normal school, over two-thirds of the students were from outside the municipio. The majority of these non-Fómequenian students came from neighboring villages, the Llanos Orientales, and the working class barrios of Bogotá.

A meager portion of rural youth from the municipio are enrolled in the village secondary and vocational system despite the availability of boarding facilities in the village schools. In 1966, less than one-third of the students of the two vocational schools were from the rural areas of Fómeque. Slightly over 8 percent of the girls' secondary/normal school students and 10 percent of the boys' secondary/normal school students were rural Fómequenians. The 1966 graduating classes of 22 and 20 contained one girl and one boy each from the rural areas. The girl lived only a 10 minute walk from the village. Since these facilities are only "semi-public," students must pay a $3-$6 monthly tuition fee, a $3-$4 matriculation fee, and an annual cost of $17-$30 for uniforms and books, to say nothing of the $16-$18 per month for room and board. Clearly, such costs are prohibitive for many local families.

And in general, scholarship funds are limited. A student from this community is eligible for national and provincial scholarships which are based on competitive examinations as well as two local scholarships--one sponsored by the municipal government and another by the local autonomous

community development corporation. In the mid-1960s, 5 to 10 percent of the secondary school students received some monies for educational fees through scholarships. Six of the 42 students enrolled in Fómequenian secconary schools who received national scholarships in 1966 were Fómequenians. A cause of much bitterness among rural and village families alike is the donation to students from other communities of local funds in addition to national scholarships. Many of these students came from professional or large landowner families, as, for example, a 1966 recipient of the local development corporation scholarship whose father owned hundreds of hectares in the Llanos Orientales.

The staffing of the village school system has been done mostly with local normal school graduates. Without any known exceptions, the village primary system is composed of Fómequenian born and educated teachers. The girls' secondary school is under the direction of the Dominican Sisters. The lay members of the faculty are primarily Fómequenians, as are the faculty members of the girls' vocational school. In the boys' secondary and vocational facilities, about one-third of the 1966 faculty were originally from other areas. Approximately one-fourth of this faculty had received some university training, but only three had received degrees.

In addition to being an educational center, the village serves as a governmental, health, and agricultural service center. Since the late 1950s, the community has been served by a moderately equipped 120-bed hospital staffed with two to three full-time and at least one part-time doctor. Usually one of the full-time doctors has been an intern fulfilling his (her) legally required year of service to the rural areas.

The departmentally appointed mayor, local branches of the federal judicial system, the federal and municipal revenue offices, the local branch of the federal statistics bureau, and a locally appointed ombudsman of sorts (personero) are all housed in the local municipal building together with the chambers of the elected Municipal Council. Most of these offices are open daily including Saturday and Sunday--the days when most rural families come to the village for the market and mass.

With few exceptions over the past two decades, all local officials have been village residents and/or non-Fómequenians. It has not been unusual for the majority of the Municipal Council seats to be filled by former Fómequenians who, though usually landowners, are only weekend village residents. For example, the 1967-68 council included six (of ten) members whose permanent residence was Bogotá. All of these men owned land and/or a home in the municipio. In addition to being hacendados, most were lawyers, physicians, or politicians by profession.

Most of the agricultural inputs and other supplies are sold in six private stores and three other farm supply centers--the Agricultural Credit Bank store, the National Agrarian Reform Institute cooperative, and a community supply cooperative operated by the local community development corporation. Most of the private agricultural supply store owners are also important buyers in the product market. A fairly typical arrangement is for the owner of the store to extend credit for inputs with the agreement that he will purchase the entire crop--usually at somewhat below the going

market rate. The weekly market also attracts numerous buyers from neighboring municipios, Bogotá, and Villavicencio. Many of these outside buyers are truck owners who specialize in the purchase and transportation of certain types of livestock or fresh products to wholesale or retail urban markets.

Besides their farm supply stores, the Agricultural Credit Bank and National Agrarian Reform Institute have agricultural credit programs in the community. Since 1946, the Credit Bank has provided short-term loans--primarily to owners of three hectares or more--for both livestock and crop enterprises. About 40 percent of the rural families have received credit from this source largely to purchase land and livestock or to launch "rural housing" or small agricultural service enterprises. Since 1964, the supervised credit program of the National Agrarian Reform Institute has provided loans primarily for livestock purchases and related improvements to approximately 10 percent of the rural families, many of whom live at least part time in the village.

Land Tenure and Occupational Shifts

Perhaps the major impact of Colombia's economic development upon the inhabitants of rural communities like Fómeque has been to make their populace more profoundly dependent upon the national producer and consumer markets. Larger urban centers had attracted earlier traditional elite and their heirs. Their large estates were generally divided into smaller units and offered for sale on terms which virtually excluded petty owners and the landless as prospective buyers. Those who met collateral requirements for government-financed short-term loans were primarily village merchants and salaried government bureaucrats.

A few traditional haciendas remained, but increased internal demand accompanied by relatively cheap, publicly aided infrastructural development made commercial production more lucrative. As an abundant labor supply built up, the new landowners converted this available labor into tenants and wage laborers, utilizing vestiges of the old tied-labor institutions. Meanwhile, demographic pressure and equal inheritance patterns forced a further division of the holdings of small owners. This compelled many to enter tenancy arrangements in order to increase the size of their production unit and finance inputs necessary for the horticultural production.

At the same time, the scarcity of land coupled with its high commercial use value forced rural tenant and small owner families to devote smaller proportions of their land resources to staple crops for their own consumption (and occasional sale). Thus, increasingly, these rural families were relying on funds received from the sale of their commercial crops to purchase the family's food and fiber. In many cases, natural calamities and large-scale competitors from the fertile intermontane valleys reduced the profit margin of these small-scale producers to levels insufficient for sustaining their families without indebting themselves to village merchants and other creditors.

As population pressure built, some rural families left the municipio. Beginning in the early 1900s until the serious civil conflict erupted in

that region in the mid-1940s, many Fómequenians--especially young males--moved permanently to the coffee zone (to what is now Quindio) or joined the seasonal migration to that area at harvest time. Likewise, when crop production began in the Llanos Orientales many--again, predominantly males--took buses and trucks or walked the trails over the mountain to join the migratory planting and harvesting crews. In this region, seasonal migration was more frequent than permanent movement since the conditions of the crowded highland area were often preferred for child-raising to the malaria-infected, nearly serviceless frontier. Those who did migrate from the highlands permanently seemed to settle in the transitional zone along the piedmont where their intensive agricultural practices were more appropriate. Others left for the urban centers. This stream included most of the female migrants, many of whom left to work as domestics. Males who learned some basic skills in the military service often remained in the cities after their discharge. Commercial intermediaries also began to settle with their families in the urban poles of their trade circuits.

Increasingly, manufactured products began to replace local and regional craft and artisan goods in the local market. As light manufactured goods were disseminated to the populace, a few repairmen replaced the old master craftsmen. The trend to commercial production increased the need not only for physical inputs such as fertilizers and pesticides, but for light manufactured goods and food products as well. Several large and many small retailers provide these services.

In addition, public and semi-public service programs gave rise to a new salaried class whose educational requirements excluded many Fómequenians. Most of this group have through inheritance and purchases become part of the new absentee landowning class.

Along with the process of market integration (and consequently dependency upon urban centers), widespread utilization of capital-intensive technology and population growth have created communities with: 1) a very skewed distribution of resources, and 2) a very young population who upon denial of access to education are released at age 15 years or so into a saturated local labor market.

Much of the land and capital resources are held by merchants, professionals, and bureaucrats from the village together with a small group of rural landlords, all of whom employ large numbers of tenants and some wage laborers and salaried managers. Vast stretches of the cold climate and paramo zones are owned by absentee holders and operated by a salaried manager and several wage laborers in traditional ranching operations. Governmental agency input lending policies also favor the landowning elites. And control of the local government by these elites or the combination of old and new landowning elites has led to infrastructural development which largely benefits the landowning elite.

Effectively, then, the small producers are experiencing a double squeeze--an erosion of their markets as a result of increasing mechanization of large-scale agriculture and the aforementioned limits on obtaining land. They and the youth entering the labor force are being thrust into an already redundant rural labor pool.

CHAPTER VI

EDUCATIONAL, OCCUPATIONAL, AND INCOME LEVELS OF THE SAMPLE FAMILIES

At this point, we begin the analysis of the educational and occupational attainment of three generations of rural Fómequenian families faced by the population-mechanization-resource deterioration squeeze. First we examine the relationship between parental class situation (Generation I) and educational and occupational attainment of the sample household and their spouses (Generation II), then their sibs (Generation II), and finally their children (Generation III).

Background Data

Of the 204 households interviewed, 169 were headed by males and the other 35 by females, 27 of whom were widows. The majority of the household heads were between the ages of 35 and 64; their average age was 50.5 years. The 157 spouses were younger, their average age being 41 years. Nearly all of the household heads and their spouses were born in Fómeque (about 95 percent) or neighboring municipios (the remainder excepting 3 individuals). Moreover, most had never lived outside the municipio--78 percent of the household heads and 84 percent of the spouses. The majority of the return migrant males had worked as farm laborers or tenants in the Llanos Orientales and the coffee zone and the majority of return females as domestic servants in Bogotá or neighboring municipios.

Educational Attainment

Three-fourths of the household heads and nearly two-thirds of the spouses were essentially functional illiterates. Thirty-seven percent of the household heads had received no formal education and another 38 percent had completed only one or two years of primary education. Comparable figures for the spouses were 25 and 36 percent, respectively. One male household head and eight spouses had studied beyond the primary level with only one exception (a normal school graduate) in agricultural and home economics short courses. Nevertheless, the median educational attainment of household heads and their spouses was 2 years and with insignificant exceptions inversely related to age. In large measure this reflects an increase in the availability of rural primary schools throughout the veredas of the municipio.

Our data do indeed show as we had postulated that mean educational attainment is directly related to the amount of land owned by parents (Generation I)--our measure of parental class situation. When controlling additionally for family size on the assumption that educational costs would make high levels of educational attainment more economically prohibitive for larger families, we find the expected relationship. That is, the greater the land resources and the smaller the family, the higher the educational level and the fewer the land resources and the greater the family size, the lower the educational level. Within each category of family size, those

coming from medium and large owner families have higher mean levels of educational attainment than those from nonowner and small owner families. (See Table 1.)

Table 1. Mean Educational Attainment of Generation II by Amount of Land Owned by Generation I and Number of Siblings[a]

	Amount of Land Owned by Generation I (hectares)				
Number of Siblings	None	0.01-2.99	3.00-9.99	10+	Total
Male Household Heads					
00-03	0.9 (15)	1.3 (28)	1.0 (4)	2.0 (1)	1.2 (48)
04-06	1.1 (15)	1.5 (26)	1.7 (17)	2.2 (10)	1.6 (68)
07-09	1.7 (6)	2.7 (11)	2.2 (13)	2.0 (1)	2.2 (31)
10+	1.5 (4)	1.0 (1)	2.5 (2)	1.7 (3)	1.7 (10)
Total	1.2 (40)	1.6 (66)	1.8 (36)	2.1 (15)	1.6 (157)
Female Household Heads					
00-03	0.0 (1)	0.0 (1)	1.3 (3)	3.0 (1)	1.2 (6)
04-06	0.8 (5)	0.0 (3)	1.6 (5)	1.7 (2)	1.0 (15)
07-09	2.0 (1)	0.8 (4)	0.0 (1)	3.0 (1)	1.0 (7)
10+	0.0 (1)	- (0)	0.0 (1)	- (0)	0.0 (2)
Total	0.8 (8)	0.4 (8)	1.2 (10)	2.2 (4)	1.0 (30)
Spouses					
00-03	1.9 (24)	1.9 (9)	3.7 (7)	2.5 (2)	2.2 (42)
04-06	1.6 (17)	2.3 (16)	2.5 (8)	4.5 (2)	2.1 (43)
07-09	1.5 (13)	2.4 (7)	2.0 (8)	3.0 (6)	2.2 (34)
10+	1.8 (4)	1.5 (2)	3.0 (6)	- (0)	2.3 (12)
Total	1.7 (58)	2.2 (34)	2.6 (29)	3.2 (10)	2.2 (131)

[a]Generation II refers to the sample families and Generation I their parents. All respondents for whom there was incomplete information on the amount of land owned by parents were omitted from this table.

Since room and board constitute such a major portion of educational expenses, the proximity to village schools may be of even greater importance than family size in explaining the level of educational attainment. As Table 2 indicates, those spending their childhood in veredas where farmsteads are less than 4 kilometers from the village (easy walking distance) had attained higher mean educational levels than those who grew up in veredas where farmsteads were located 10 kilometers or more from the village (a minimum of two hours on horseback one way).

Table 2. Mean Educational Attainment of Generation II by Amount of Land Owned by Generation I and Distance Lived From the Village[a]

	Amount of Land Owned by Generation I (hectares)				
Distance from Village[b]	None	0.01-2.99	3.00-9.99	10+	Total
Male Household Heads					
Near	1.7	1.5	2.0	5.0	1.9
	(6)	(15)	(8)	(2)	(31)
Intermediate	1.0	1.7	1.6	1.6	1.5
	(12)	(26)	(12)	(5)	(55)
Far	1.2	1.2	1.6	2.0	1.4
	(16)	(23)	(11)	(6)	(56)
Non-Fomequenian	0.8	6.0	2.6	1.5	2.1
	(6)	(2)	(5)	(2)	(15)
Total	1.2	1.6	1.8	2.1	1.6
	(40)	(66)	(36)	(15)	(157)
Female Household Heads					
Near	1.3	0.0	2.5	0.0	1.4
	(3)	(1)	(2)	(1)	(7)
Intermediate	1.0	1.5	1.3	3.3	1.7
	(2)	(2)	(3)	(2)	(9)
Far	0.0	0.0	0.6	1.0	0.3
	(3)	(5)	(5)	(1)	(14)
Total[c]	0.8	0.4	1.2	2.2	1.0
	(8)	(8)	(10)	(4)	(30)
Spouses					
Near	2.3	1.9	4.3	3.5	2.4
	(6)	(12)	(5)	(2)	(25)
Intermediate	1.6	3.0	2.6	4.5	2.3
	(19)	(7)	(11)	(2)	(39)
Far	1.5	1.8	2.1	3.5	2.0
	(24)	(12)	(13)	(4)	(53)
Non-Fomequenian	2.4	2.7	-	1.0	2.2
	(9)	(3)	(0)	(2)	(14)
Total	1.7	2.2	2.6	3.2	2.2
	(58)	(34)	(29)	(10)	(131)

(Table 2 cont.)

[a]Generation II refers to the sample families and Generation I their parents. All respondents for whom there was incomplete information on the amount of land owned by parents were omitted from this table.

[b]Distance from the village is measured by categorizing the vereda where the respondents spent their childhood according to the approximate number of kilometers from the village. Near equals less than 5 kilometers from the village; intermediate, 5 to 9.9; and far, 10 or more.

[c]The total includes one non-Fomequenian who had completed no formal education.

Thus we find that both parental class situation and distance from the educational services have important impacts upon levels of educational attainment. Those living far from the village were particularly disadvantaged in obtaining upper level primary and post-primary training, but originating from medium or large owner familes lessened this handicap. A basic guideline to the minimum economic level needed for those living far from the village to have funds sufficient to meet educational costs seems to be resources sufficient to rent or purchase a village home. Given the abundant labor resources of the nuclear family in highland communities, this is often the least expensive manner in which to withstand one of the principal components of the upper level primary and post-primary educational costs.

On the other hand, although parental class situation seems to remain a key determinant of higher educational attainment, close proximity to educational facilities can somewhat compensate for the economic/resource handicap. It appears that once a certain minimum economic level is achieved (someplace slightly above physical subsistence), living close to the village can replace increments (perhaps of as much as five to ten hectares) in landownership. When resources and proximity are combined we greatly increase the probability of higher levels of educational attainment.

Occupational Position

Slightly over one-half of the male household heads were full-time agricultural producers. Another 43 percent devoted part-time to their agricultural production units and part-time to various secondary occupations, mostly as agricultural day laborers, fresh produce peddlers, or livestock traders. Over 60 percent of these part-time agricultural producers operated production units less than three hectares in size. The remaining 5 percent were engaged full-time in nonagricultural production activities although members of their family produced crops and livestock for both home consumption and marketing.

Five of every seven female household heads devoted their time to household and farm duties. Of the other ten, one-half were employed part-time in the village as domestic servants--primarily laundresses--and the other one-half worked as fresh produce peddlers or handicraftsmen. Nearly 30 percent of the spouses were engaged part-time in the nonfamily labor force. Most were fresh produce peddlers or handicraftsmen while a few were

domestics or agricultural day laborers. One was a primary school teacher and another a midwife and quack doctor.

Among male household heads we found the expected relationship between parental class situation and occupational position, namely, that those whose parents had been large landowners were most likely to be medium landowners in 1966. (See Table 3.) The mean occupational score of male household heads from large owner families was 6.1 (corresponding to a medium owner), while those from medium owner families was 4.6 (corresponding to a small owner).[1] But when we inspect the mean occupational scores of male household heads whose parents are nonowners, we find that many have become landowners, in contrast to our expectations. The mean occupational score for both male household heads of nonowner and small owner families was 4.2 (corresponding to a small owner, farm manager, or cash renter). Judging from the fact that nearly 60 percent of the male household heads from nonowner families married into nonowner families, most of the male household heads from nonowner families who are now owners would have acquired their land by purchase.[2]

As is apparent from an inspection of Table 3, educational attainment has little effect upon overall occupational attainment. But there is a sharp difference in mean occupational scores between those from large owner families and those from all other parental landownership categories for all educational groups. That is, parental class situation was the overriding factor in occupational attainment. In general terms, to become other than a small owner one needs to have been born into a large owner family. (See Table 4.)

Based upon the mean amount of land owned by the nuclear family, like the male household heads the spouses have either by inheritance, purchase, marriage, or a combination of these methods been able to improve or maintain their ownership position vis-à-vis that of their parents.

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1. Occupations were ranked on the basis of three criteria. First, a distinction was made between no, partial, and full-time labor force participation. The first category (coded 0) included: the unemployed, students, and full-time family labor force members--housewives, family domestics, and family farm laborers. The second category (coded 1) included family labor force members who were additionally employed as little as one day per week in the nonfamily labor force. Those who were members of the nonfamily labor force were ranked from two to eight on the basis of annual income (determined by an inspection of the range in annual income--income in kind as well as cash income--for the informants in each occupational category together with income figures compiled by the census bureau for various occupational categories) and economic security (amount of ownership of productive means). For exact rankings, see Tables A-1, 2, and 3 in the Appendix.

2. One respondent, after serving 27 years as a service tenant for an absentee landowner, had been given title to 0.6 of an hectare (one fanegada).

Table 3. Mean Occupational Level of Generation II by Amount of Land Owned by Generation I and Educational Level[a]

Educational Level	Amount of Land Owned by Generation I (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Male Household Heads					
None	4.3	4.2	4.3	5.3	4.5
	(16)	(24)	(8)	(3)	(51)
1-2 Primary	4.0	4.0	4.6	6.3	4.5
	(18)	(23)	(17)	(8)	(66)
3-5 Primary	4.7	4.2	5.0	6.0	4.5
	(6)	(19)	(11)	(3)	(39)
6+	-	-	-	6.0	6.0
	(0)	(0)	(0)	(1)	(1)
Total	4.2	4.2	4.6	6.1	4.5
	(40)	(66)	(36)	(15)	(157)
Female Household Heads					
None	1.8	0.0	1.5	6.0	1.1
	(5)	(7)	(4)	(1)	(17)
1-2 Primary	1.0	-	0.0	6.0	1.4
	(3)	(0)	(4)	(1)	(8)
3-5 Primary	-	4.0	0.0	1.3	1.3
	(0)	(1)	(2)	(2)	(5)
Total	1.5	0.5	0.6	3.2	1.2
	(8)	(8)	(10)	(4)	(30)
Spouses					
None	0.0	0.0	0.0	0.0	0.0
	(21)	(9)	(3)	(1)	(34)
1-2 Primary	0.1	0.5	0.4	0.0	0.2
	(20)	(11)	(16)	(2)	(49)
3-5 Primary	0.0	0.0	0.0	0.0	0.1
	(15)	(12)	(6)	(7)	(40)
6+	0.0	0.0	2.7	-	1.0
	(2)	(2)	(4)	(0)	(8)
Total	0.0	0.1	0.5	0.0	0.2
	(58)	(34)	(29)	(10)	(131)

[a]Generation II refers to the sample families and Generation I their parents. All respondents for whom there was incomplete information on the amount of land owned by parents were omitted from this table.

Table 4. Mean Amount of Land Owned (Hectares) by Generation II[a] by the Amount of Land Owned by Generation I and Number of Siblings[b]

	Amount of Land Owned by Generation I (hectares)				
Number of Siblings	None	0.01-2.99	3.00-9.99	10+	Total
Male Household Heads					
00-03	1.5	1.5	4.8	1.3	2.2
	(15)	(28)	(4)	(1)	(48)
04-06	2.2	1.4	2.4	15.8	3.9
	(15)	(26)	(17)	(10)	(68)
07-09	1.0	1.3	3.3	0.6	3.3
	(6)	(11)	(13)	(1)	(31)
10+	0.3	0.6	1.8	8.8	3.2
	(4)	(1)	(2)	(3)	(10)
Total	1.6	1.4	3.0	12.1	3.2
	(40)	(66)	(36)	(15)	(157)
Female Household Heads					
00-03	0.0	0.5	3.3	14.6	4.2
	(1)	(1)	(3)	(1)	(6)
04-06	1.2	1.3	1.9	5.5	2.5
	(5)	(3)	(5)	(2)	(15)
07-09	1.0	0.7	2.6	2.2	1.7
	(1)	(4)	(1)	(1)	(7)
10+	0.0	-	3.2	-	1.6
	(1)	(0)	(1)	(0)	(2)
Total	0.9	0.9	2.5	6.7	2.5
	(8)	(8)	(10)	(4)	(30)
Spouses					
00-03	1.8	1.5	10.7	16.0	2.8
	(24)	(9)	(7)	(2)	(42)
04-06	0.6	1.3	6.6	14.5	2.4
	(17)	(16)	(8)	(2)	(43)
07-09	1.8	2.3	2.1	15.2	5.0
	(13)	(7)	(8)	(6)	(34)
10+	1.0	0.0	2.3	-	1.5
	(4)	(2)	(6)	(0)	(12)
Total	1.0	1.5	4.6	12.6	3.2
	(58)	(34)	(29)	(10)	(131)

[a]In all categories the amount of land owned included the entire holding of a nuclear family.

[b]Generation II refers to the sample families and Generation I their parents. All respondents for whom there was incomplete information on the amount of land owned by parents were omitted from this table.

Land Tenure

About three-fourths of the rural families owned some land. (See Table 5.) The median amount of land owned was 1.3 hectares. About one-third of the owners had less than one hectare; two-thirds owned less than three hectares; and three-fourths owned under five hectares--the CIDA minimum to qualify as a farm capable of productively employing the family members.

Table 5. Distribution of Generation II by Amount of Land Owned and Tenure of Land Operated

Amount of Land Owned (hectares)	Tenure of Land Operated				
	Non-Owners	Part-Owners	Owner-Operator	Landlords	Total
None	55	--	--	--	55
Less than one	--	33	11	3	47
1.00 to 2.99	--	22	20	4	46
3.00 to 9.99	--	7	15	19	41
Ten or more	--	--	3	12	15
Total	55	62	49	38	204

Accordingly, one-half of the sampled owners and the one-fourth of the household heads who were nonowners operated land as tenants. In fact, more land was tenant-operated than was owner-operated. And compared to the amount of land owned the median amount of land operated per household was 2.6 hectares, still below the CIDA standard of five hectares. Since the amount of land owned was positively related to age, a substantial portion of young household heads were tenants.[3]

Given the historical land tenure patterns and the large number of village families owning rural land, it is not surprising to find that nonowners secure land for production and part-time owners expand their meager holdings principally through sharecropping and service tenancy arrangements. (See Table 6.) These seemingly simple arrangements become quite complex when a family uses several tenancy forms to secure enough land to sustain themselves. The most frequent combination of tenancy forms is service tenancy and sharecropping.

The 25 percent of the household heads who owned all the land they operated in general had small units. Sixty-three percent of owner-operated units were under three hectares and only three were ten hectares or more; the average size was four hectares. Owner-operators included two distinct

3. The average amount of land owned by male household heads 25-34 years was 0.77 hectares, compared with 3.83 hectares for the 55-64 year old male household heads. Tenant-operated land increased the average size of the production unit to 3.49 and 5.44 hectares, respectively.

Table 6. Distribution of Generation II Tenants and Landlords by Principal Type of Tenancy Arrangement

Principal Type of Tenancy Arrangement	Tenure of Land Operated			
	Non-Owners	Part-Owners	Landlords	Total
Family sharecropping	21	7	5	33
Nonfamily sharecropping	6	37	21	64
Cash rent	4	12	3	19
Service tenancy	24	6	9	39
Total	55	62	38	155

groups--older household heads who reduced their production units by ceasing to enter sharecropping arrangements and younger household heads who operated larger commercial units.

One-fifth of the household heads sublet land primarily under service tenancy or sharecropping agreements. Most of these rural landlords were not exceedingly large landowners--the average amount of land owned was 12 hectares of which an average of 8 hectares were sublet--but their holdings were generally fragmented into several parcels separated by considerable distance. A fairly typical arrangement was crop production in the temperate climate zone under sharecropping agreements and cattle production by service tenants in the cold climate zone.

Farm and Family Income

Given the high incidence of tenancy and the substandard size of the production units, it is not surprising to find that 83 percent of the rural sample families had some nonfarm income. In 17 percent of the cases, the nonfarm income exceeded the net cash and kind farm income. The mean nonfarm cash income was US$133; the median was US$65. Excluding the large production units, the mean did not vary much with the size of production unit. Smaller producers tended to receive their nonfarm incomes in the form of wages and salaries supplemented by earnings from handicrafts and peddling, while the principal sources of nonfarm income for larger producers were rents, interest, and self-employment.

Analysis of total annual farm and family income (i.e., net cash and kind farm income plus nonfarm income) shows that 18 out of every 100 families sampled earned less than the going agricultural wage in the municipio calculated on an annual basis (15 Colombian pesos per day, 5 days per week, 52 weeks per year, or US$230). Another 29 families earned more than the going agricultural wage but below the minimum wage for semi-skilled and unskilled nonagricultural laborers in the area--15 to 24 pesos per day, or a maximum of US$383. Twenty-seven families earned within the semi-skilled and unskilled nonagricultural laborer range (25 to 39 Colombian pesos per day--US$383 to $613) and 18 within the skilled nonagricultural laborer range (40 to 79 pesos per day--US$614 to $1,226). Only 8 of every 100 sampled

families had annual farm and family incomes above the minimum wage of urban white collar employees--80 pesos per day or US$1,227 and over.

There is a direct relationship between both amount of land owned and operated and annual farm and family income. Nearly all of the families earning below the minimum nonagricultural wage level were small owners or nonowners, while 70 percent of those with income exceeding the urban white collar minimum were landlords. Two-thirds of the small operators earned less than the minimum nonagricultural wage while two-thirds of the large operators earned above the minimum white collar wage. Likewise, mean and medium farm and family income varies directly with size of the production unit and the rank ordered tenure categories.[4] (See Table 7.) The mean farm and family income for nonowners was US$276 compared with US$1,080 for the landlords, and US$345 for small operators compared with US$1,186 for large operators. The most striking difference, however, is the mean annual farm and family income of US$259 for nonowner, small operators compared with US$1,538 for landlord, large operators.

Table 7. Median and Mean Net Farm and Family Income ($ U.S.)[a] for Male- and Female-Headed Households by Amount of Land Operated and Tenure of Land Operated

Amount of Land Operated (hectares)	Tenure of Land Operated									
	Non-Owner		Part-Owner		Owner		Landlord		Total	
	M	$\bar{x}$	M	$\bar{x}$	M	$\bar{x}$	M	$\bar{x}$	M	$\bar{x}$
0.01-2.99										
Male	278	282	325	375	372	396	500	691		
Female	127	159	304	390	242	241	420	420		
Total	268	259	317	378	331	356	500	614	302	345
3.00-9.99										
Male	257	289	514	593	580	615	731	939		
Female	448	448	494	494	571	572	563	608		
Total	265	311	507	587	580	603	623	856	518	596
10+										
Male	355	321	474	588	1,617	1,340	1,367	1,570		
Female	--	--	--	--	--	--	1,098	1,098		
Total	355	321	474	588	1,617	1,340	1,231	1,538	1,098	1,186
Total	268	276	417	487	449	492	926	1,080	408	541

[a] Farm and family income refers to the net cash and kind farm income plus nonfarm income earned by family members in 1966.

4. The same direct relationship between income, size, and tenure exists when one takes family size into account and when one standardizes for family size and age of family members.

In sum, most rural Fómequenian household heads enter into contractual agreements with either rural or village landlords to secure land or expand their operations. In the majority of cases, however, the surpluses which remain after payment of rents and tributes are not sufficient to sustain their relatively large families. Accordingly, they and/or their wives and children pursue nonfarm employment to supplement their farm earnings. But because of their limited education, employment possibilities are restricted to petty commerce, personal service, and agricultural day labor. Still, the combined farm and family incomes are barely sufficient to cover subsistence needs of the family.

On the other hand, a small minority of the rural household heads are children from large landowning families who now own family-size farms which they operate entirely themselves or give out partially to tenants. In either case, their farm incomes are substantially greater than those of the majority group and often above those of full-time nonagricultural laborers. In addition, many also engage in such nonfarm employment as weekend businesses and livestock trading.

CHAPTER VII

EDUCATIONAL AND OCCUPATIONAL ATTAINMENT OF GENERATION II SIBLINGS

So far we have only dealt with rural-born living in their place of birth. Given the possibility of selective migration, it may be that the underemployment reported in the previous analysis is very distinct from the occupational picture for the larger category. To address the occupational attainment of the rural-born population, we examine data from the Fómeque-born siblings of the household heads and their spouses (Generation II siblings)[1] and, in the following chapter, the children of the families in the rural sample (Generation III).

Educational Attainment

While the median educational attainment was also two years, the mean number of years of education completed by the male and female siblings was slightly higher than that of the household heads and their spouses. Consistent with the expansion of primary education in the veredas as well as the village, the proportion completing three or more years of primary training is markedly greater among the younger age group. However, the meager increment in younger males and females studying in the secondary curriculum

1. In this chapter we use data from the 1,316 sixteen-year-and-older Fómeque-born siblings of the household heads and spouses who were still alive at the end of 1967.

has not been commensurate with the increase in positions for boarding and nonboarding secondary school students in the village and if one considers more than two years of primary training necessary for functional literacy in a modernizing society, two-thirds of the male and female sibs would not qualify. Five and 6 percent of the male and female sibs, respectively had received post-primary education, primarily a few years of vocational or secondary training in the local schools. Twenty-three were secondary/normal graduates, two had completed some professional training, and two were university graduates with law degrees.

As we found among the household heads and spouses, the mean educational level of Generation II siblings is directly related to the amount of land owned by Generation I. Particularly among the younger sibs, the mean educational level of those from large owner families is markedly higher than that of those from nonowner, small or medium owner families. (See Table 8.) While mean educational levels for children from nonowner, small and medium owner families are higher among the younger age group, the magnitude of difference is quite pronounced for those from large owner families. Thus, not only were children of large owner families more likely to receive higher levels of education than their peers from families with smaller landholdings, but it appears that in more recent years there is a greater tendency to complete some post-primary schooling.

Table 8. Mean Educational Attainment of Generation II Siblings by Amount of Land Owned by Generation I and Number of Siblings[a]

	Amount of Land Owned by Generation I (hectares)				
Number of Siblings	None	0.01-2.99	3.00-9.99	10+	Total
Males - 35 years					
00-03	1.0 (4)	0.6 (5)	- (0)	- (0)	1.4 (9)
04-06	1.6 (10)	2.1 (27)	2.9 (15)	7.3 (4)	2.4 (56)
07-09	1.8 (30)	3.3 (36)	2.1 (25)	6.4 (7)	2.8 (98)
10+	3.3 (11)	3.8 (8)	3.0 (13)	3.0 (3)	3.3 (35)
Total	2.0 (55)	2.7 (76)	2.5 (53)	5.9 (14)	2.7 (198)
Males - 35+ years					
00-03	1.4 (19)	2.3 (20)	1.3 (9)	2.5 (5)	1.8 (53)
04-06	0.8 (47)	1.5 (58)	1.7 (58)	3.7 (24)	1.6 (187)
07-09	1.7 (24)	1.7 (20)	2.0 (37)	2.7 (9)	1.9 (90)
10+	1.6 (9)	1.6 (7)	3.5 (15)	3.3 (9)	2.7 (40)
Total	1.2 (99)	1.7 (105)	2.0 (119)	3.4 (47)	1.8 (370)

(Table 8 cont.)

Number of Siblings	Amount of Land Owned by Generation I (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Females - 35 years					
00-03	2.2 (12)	2.1 (7)	- (0)	- (0)	2.2 (19)
04-06	2.5 (19)	2.7 (21)	2.1 (7)	7.0 (6)	2.9 (53)
07-09	1.9 (35)	2.9 (32)	2.5 (26)	8.8 (4)	2.8 (97)
10+	2.4 (8)	2.9 (10)	5.0 (15)	9.0 (1)	3.9 (34)
Total	2.2 (74)	2.8 (70)	3.2 (48)	7.8 (11)	3.0 (203)
Females - 35+ years					
00-03	1.1 (26)	1.0 (17)	2.8 (8)	0.0 (1)	1.2 (52)
04-06	1.5 (37)	1.7 (54)	1.5 (43)	4.3 (19)	1.8 (153)
07-09	2.2 (30)	2.2 (31)	1.6 (43)	3.9 (10)	2.1 (114)
10+	1.8 (13)	1.7 (25)	3.0 (21)	2.0 (3)	2.2 (62)
Total	1.6 (106)	1.7 (127)	1.9 (115)	3.8 (33)	1.9 (381)

[a]Generation II siblings refers to the Fómeque-born siblings of the sample household heads and their spouses. All respondents for whom there was incomplete information on the amount of land owned by Generation I were omitted from this table.

Siblings who grew up in veredas located nearer the village had, like the household heads and spouses, attained higher mean educational levels than those who grew up in veredas ten kilometers or more from the village. An inspection of the mean educational level when controlling for parental class situation, location of farmstead, age, and sex suggests that distance from the village may be decreasing in importance among the younger age group. As we discovered among the household heads and spouses, however, proximity to the educational services of the village can somewhat compensate for limited land resources.

Migration

One-fourth of both male and female sibs were living outside the municipio, principally in urban centers of 100,000 or more. However, the place of settlement for male and female sibs differed in two important ways. The

male migrants were more likely to have settled in other rural areas, villages, and small towns and in a greater variety of large urban centers. Seventy-five percent of the female migrants had gone to large urban centers, chiefly Bogotá.

The Process. Employment opportunity was the most frequently reported reason for migrating, accounting for nearly 85 percent of the migrants. Among the remainder, most of the male rural-rural migrants left to seek adventure on the frontier and most of the rural-urban migrants to pursue secondary or theological studies. Most of the male migrants left alone, with their family of orientation or their family of procreation in that order. The female migrants, on the other hand, more frequently left with their family of procreation, alone or with their family of orientation. The one-fifth or so of both sexes who left with employers went to work for former Fómequenian families as domestics or service tenants.

Nearly three-fourths of the migrants left before reaching 30 years of age. Most of the migrants had left Fómeque in the 1950s and 1960s. The earlier male migrants were more likely to have gone to rural areas than later male migrants. For males, the median period of residency in their present location was 12 years for the rural-rural migrants and 10 years for the rural-urban migrants.

The Selectivity. As can be seen from Table 9, the percentage of Generation II males migrating to other areas is inversely related to parental class situation. Nearly one-third of the sons from nonowner families had migrated, but only one-fifth on the sons from large owner families had left the municipio. Sons from landless and small owner families were more likely to have gone to rural areas, while those from medium and large landowning families were overwhelmingly urban migrants.

Table 9. Percent of Generation II Living Outside the Municipio in 1966 by Selected Characteristics[a]

Selected Characteristics	Total Number N = 829	Number Living Outside Mpo. in 1966 N = 222	Percent Leaving Fómeque
Males			
Amount of Land Owned by Generation I (hectares)[b]			
None	194	61	31
0.01-2.99	247	58	24
3.00-9.99	208	51	25
10 or more	76	15	20
Number of Siblings			
0 to 3	119	22	18
4 to 6	350	87	25
7 to 9	275	80	29
10 or more	85	33	39

(Table 9 cont.)

Selected Characteristics	Total Number	Number Living Outside Mpo. in 1966	Percent Leaving Fómeque
Males			
Education in 1966			
None	234	56	24
Primary 1-2	326	99	30
Primary 3-5	235	52	22
Post-primary	34	15	44
Vocational[c]	(7)	(2)	(29)
Some secondary	(12)	(6)	(50)
Secondary graduate	(12)	(4)	(33)
Some university	(1)	(1)	(100)
University graduate	(2)	(2)	(100)
	N = 848	N = 217	
Females			
Amount of Land Owned by Generation I (hectares)[b]			
None	246	70	28
0.01-2.99	239	66	28
3.00-9.99	198	39	20
10 or more	58	17	29
Number of Siblings			
0 to 3	134	30	22
4 to 6	301	76	25
7 to 9	303	80	26
10 or more	110	31	28
Education in 1966			
None	210	58	28
Primary 1-2	340	84	25
Primary 3-5	251	58	23
Post-primary	47	17	36
Vocational[c]	(21)	(3)	(14)
Some secondary	(13)	(8)	(62)
Secondary graduate	(12)	(5)	(42)
Some university (religious)	(1)	(1)	(100)

[a]Generation II siblings refers to the Fómeque-born siblings of the sample household heads and their spouses.

[b]All respondents for whom there was incomplete information on the amount of land owned by parents were omitted from this part of the table.

[c]Includes persons who have completed the final year of primary and/or one or two additional years of training in the local vocational schools.

Unlike their male siblings, there is no inverse relationship between the percent of Generation II females migrating and amount of land owned by parents. Except for daughters of medium owners, the percent migrating varied slightly with the size of parents' landholding. Regardless of the amount of land owned by parents, daughters went mostly to large urban centers.

The proportion of Generation II males leaving the municipio was directly related to family size. Nearly two-fifths of the males from very large families were migrants, while less than one-fifth of the males from small families were residing outside the municipio. However, there was not much variation by family size in the percent of Generation II females migrating. Daughters from very large families were only slightly more likely to have migrated than daughters from small, medium, or large families. One-half of the females were not responsible for the decision to migrate, a pattern that could easily have produced this very distinctive trend. We find essentially the same pattern among females who left alone or with friends and employers, however.

Since females usually marry at an early age and are not encouraged to seek nonfamily labor force positions, it may be that marriage or its prospects substantially alter family conditions which affect migration among males as well as any push to seek employment. Using the 129 matchable household heads and spouses as an indicator and comparing the amount of land owned by parents of each, we find that daughters of nonowners are more likely to marry into landowning families than are sons of nonowners. If the same pattern holds among Generation II female sibs, it would seem that conditions in Generation I families are of lesser relative importance to migration decisions for females than for males.

Although they were few in absolute terms, a greater proportion of males with post-primary education had migrated than those from any other educational level. Among the primary-educated and those with no formal training, there were no outstanding differences in the proportions leaving the area. Migrants with no education were essentially equally distributed between the rural and urban areas, but those with education beyond the primary level were without exception residing in urban areas. In contrast to the males, the magnitude of difference in the proportion of female post-primary and unschooled who were migrants was much reduced. The primary school educated females showed essentially no difference in their propensity to migrate. Even though the greatest proportion of the unschooled migrated to urban areas, all migrants with post-primary education had gone to urban centers.

There is a reversal in the relative mean educational level of male migrants and nonmigrants when we control for age. Older migrants had attained a mean educational level of 2.2 years, compared to 1.7 for the 60 percent who had never resided outside the municipio and the 15 percent who had returned.[2] But while the mean educational level increases for both

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2. About one-fifth of the return migrants had left the municipio to fulfill military service obligations, while the remainder had been (cont.)

groups of younger males, the nonmigrants had achieved a mean level of 2.8 years and the migrants, 2.4. The concurrence of an increased demand for primary education in the rural areas and the inauguration of normal school facilities in the village stimulated local youth, especially from large owner families, to fill the newly created primary school teaching positions upon completion of their studies in the local normal school. And even though they are a small proportion of this age group, there is the additional effect of an increased proportion of the under-20-year-old age group attending village post-primary educational facilities and migrating either before or after completion.

There is no difference in mean educational attainment among younger female migrants and nonmigrants,[3] and the difference among those in the older age group is less than that of their male siblings. Again, the brevity of the high demand period in the municipio for Fómequenians who had received lower level professional training appears to account for the finding. When the sparse number of teaching and governmental bureaucratic positions are filled, a greater proportion of the increasing number of post-primary trained people will undoubtedly leave in search of positions commensurate with their training.

Occupational Position

Generation II male siblings had attained higher mean occupational scores[4] if they were more educated and if they had been born to large owner rather than nonowner families. (See Table 10.) The combination of post-primary education and medium or large parental landownership resulted in the highest

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employed as farm laborers, service tenants, or sharecroppers in the Llanos Orientales or the coffee zone; 12 percent had been pursuing secondary or university studies.

3. This includes the two-thirds who had never lived outside the municipio and the 9 percent who returned after living in other places for a few years. One-half had returned from Bogotá and the remainder from eastern Cundinamarca and the Llanos Orientales. Nearly all of those who entered the nonfamily labor force had been employed as domestic servants.

4. Occupations were ranked on the basis of three criteria. First, a distinction was made between no, partial, and full-time labor force participation. The first category (coded 0) included: the unemployed, students, and full-time family labor force members--housewives, family domestics, and family farm laborers. The second category (coded 1) included family labor force members who were additionally employed as little as one day per week in the nonfamily labor force. Those who were members of the nonfamily labor force were ranked from two to eight on the basis of annual income (determined by an inspection of the range in annual income--income in kind as well as cash income--for the informants in each occupational category together with income figures compiled by the census bureau for various occupational categories) and economic security (amount of ownership of productive means). For exact rankings, see Tables A-1, 2, and 3 in the Appendix.

Table 10. Mean Occupational Level of Generation II Siblings by Amount of Land Owned by Generation I, Migration Status, and Educational Level[a]

Educational Level of Generation II	Amount of Land Owned by Generation I (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Nonmigrant Males - 35 years					
Primary	3.2 (30)	3.1 (57)	3.3 (35)	4.5 (8)	3.3 (130)
Post-primary	0.0[b] (2)	- (0)	5.0 (4)	8.0 (4)	4.3 (10)
Total	3.0 (32)	3.1 (57)	3.5 (39)	5.7 (12)	3.4 (140)
Migrant Males - 35 years					
Primary	2.4 (23)	4.2 (18)	4.2 (13)	5.0 (1)	3.5 (55)
Post-primary	- (0)	0.0 (1)	7.0 (1)	8.0 (1)	4.0 (3)
Total	2.4 (23)	4.0 (19)	4.3 (14)	6.5 (2)	3.6 (58)
Nonmigrant Males - 35+ years					
Primary	3.9 (60)	3.8 (66)	4.6 (80)	5.6 (32)	4.3 (238)
Post-primary	4.0 (1)	- (0)	5.5 (2)	5.0 (2)	5.0 (5)
Total	3.9 (61)	3.8 (66)	4.7 (82)	5.6 (34)	4.3 (243)
Migrant Males - 35+ years					
Primary	2.8 (37)	3.2 (37)	4.0 (34)	4.9 (11)	3.5 (119)
Post-primary	8.0 (1)	7.5 (2)	7.7 (3)	7.5 (2)	7.6 (8)
Total	2.9 (38)	3.4 (39)	4.3 (37)	5.2 (13)	3.7 (127)
Nonmigrant Females - 35 years					
Primary	0.4 (43)	0.1 (48)	0.7 (37)	2.5 (2)	0.4 (130)
Post-primary	0.0 (1)	5.0 (1)	0.0[b] (3)	2.7 (6)	2.8 (11)
Total	0.4 (44)	0.2 (49)	0.7 (40)	2.6 (8)	0.6 (141)

(Table 10 cont.)

Educational Level Of Generation II	Amount of Land Owned by Generation I (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Migrant Females - 35 years					
Primary	1.9 (29)	1.0 (20)	3.3 (7)	5.0 (1)	1.8 (57)
Post-primary	0.0 (1)	2.0 (1)	8.0 (1)	8.0 (2)	4.2 (5)
Total	1.8 (30)	1.0 (21)	4.5 (8)	7.0 (3)	2.1 (62)
Nonmigrant Females - 35+ years					
Primary	0.6 (65)	0.3 (79)	0.5 (82)	0.4 (16)	0.5 (242)
Post-primary	0.0 (1)	5.3 (3)	2.5 (2)	1.0 (3)	2.7 (9)
Total	0.6 (66)	0.5 (82)	0.5 (84)	0.5 (19)	0.5 (251)
Migrant Females - 35+ years					
Primary	1.6 (38)	0.7 (45)	2.0 (29)	3.8 (9)	1.5 (121)
Post-primary	8.0 (2)	- (0)	5.0 (2)	4.6 (5)	5.4 (9)
Total	2.0 (40)	0.7 (45)	2.2 (31)	4.1 (14)	1.8 (130)

[a]Generation II siblings refer to the Fómeque-born siblings of the sample household heads and their spouses.

[b]Most members of these cells are students.

mean occupational scores. Post-primary training can increase the mean occupational score of children from any ownership group, however. These males are overwhelmingly members of the small owner and manual labor occupations who the more advanced their age are more likely to have become petty owners of either agricultural or commercial establishments. A comparison of the mean occupational scores of male migrants and nonmigrants indicates higher scores for migrahts among the younger age group. However, the older nonmigrants had attained the highest mean occupational score of any age migration group. This reflects the tendency for owners to be older. (See Table 10.)

A greater proportion of the sons of nonowners, small, and medium owners who had migrated to rural areas (compared to nonmigrants) had become landowners. But most of the landowners were 45 years and older who had left prior to 1950 and were under 25 years when they migrated. The more recent rural-rural migrants were employed primarily as tenants, managers,

or farm laborers. And 15 percent were members of the seasonal migrant agricultural labor force and "work in what they can find" ("trabaja en lo que puedan") the remainder of the time.

Nearly 7 of every 10 rural-urban migrants held blue collar positions. Two of these 7 were craftsmen in small-scale construction projects (masons and painters, primarily) or semi-skilled workers employed in small industrial concerns. In many cases the contractors and industrial owners were former Fómequenians who established contact with their workers through kinship or pseudo-kinship networks. Another two were employed in protective service (policemen and watchmen) or personal service (butchers, bakers, barbers, cooks) positions. Again the establishments in which these migrants worked were with few exceptions owned by former Fómequenians. One each were employed as chauffeurs of public transport vehicles; petty merchants or peddlers; and freight loaders, street sweepers, and road repairmen.

Lower level governmental, community, and business service positions employed another 1 of every 10. Most were clerical workers in agencies of the state and federal government or in banks and private companies. The others were primary school teachers, members of religious orders, or small-scale lawyers. Two had reportedly earned law degrees attending night classes.

The remaining 2 of every 10 had no identifiable stable employment. One was occasionally employed in manual labor jobs (e.g., "alla anda trabajando en lo que encuentre") or was seeking work (e.g., "tenia tal puesto, pero ahora vive con su tia," o mi hermano, etc.).

The nonmigrant males were primarily agricultural producers. Sixty percent of those engaged in agricultural pursuits owned at least part of their production unit while another 30 percent were service tenants. But nearly three-fourths of those reporting ownership held less than three hectares. A greater proportion of the small and medium owners are older; sons of large owners are likely to become at least medium owners. There are, however, two occupational patterns for sons of large owners. A small number have attained post-primary educations and entered primary teaching or the priesthood. The primary educated sons are family service tenants managing agricultural enterprises with their fathers, small owners, or petty merchants.

Migrant females were more likely to have been employed in the nonfamily labor force than nonmigrant females. Slightly over one-half of the migrants were employed in nonhousehold activities. Slightly over one-third of the female migrants in nonfamily labor force positions worked as domestics while an additional one-fourth performed other personal services (waitresses, prostitutes, laundresses, cooks, etc.). One-fourth were petty merchants or peddlers and one-sixth clerical workers, nuns, or primary school teachers. Among the nonmigrant females, two-thirds were full-time housewives while another one-fifth were employed in the family labor force as domestics. These included unmarried, mentally and/or physically handicapped females who live primarily with siblings and help with household and farm chores in return for room and board, and single females living with parents

and therefore not in complete charge of household responsibilities. Nonmigrant females employed in the nonfamily labor force are primarily domestics; 10 are petty merchants and peddlers and 5 are primary school teachers.

In general, then, our data show occupational attainment of the rural-born as low--there is much seasonal unemployment and underemployment. Only 4 of every 100 males and 5 of every 100 Generation II sibling females have completed any post-primary education. Those who have attained post-primary education are primarily sons and daughters of Generation I large owners or small owners and nonowners living in veredas bordering the village. In increasing proportions, the small number of post-primary educated Fómequenians join the rural-urban (especially large urban) migration stream and enter low level white collar and professional positions--usually as clerks or primary teachers in either the public or private religious entities. A couple of these rural-urban migrants combined work with night study to earn professional degrees and enter law practice.

But two-thirds of the Generation II sibling males had not attained functional literacy. And regardless of movement to other rural or urban areas those males were engaged, at least most of the time, in petty commerce or nondomestic service or were entrepreneurs of petty agricultural or craft enterprises.

In numerical terms, certainly no more than 5 to 8 percent of the Generation II male siblings had attained a reasonably secure and remunerative occupational position. And while another 15 to 20 percent may be engaged in occupations with incomes sufficient to most minimal family needs (with or without a second breadwinner in the family unit), the nature of the shifts in the labor market call into question the long-term security of such occupations. Accordingly, it is risky to maintain that in the long run these positions are "better" than the position of petty agricultural owner. Of course, the 25 to 30 percent who are cash or kind laborers in any sector can claim neither an economically rewarding nor secure present or future occupational position.

CHAPTER VIII

EDUCATIONAL AND OCCUPATIONAL ATTAINMENT OF GENERATION III

Data from the 12 year and older children (Generation III)[1] of the sample household heads and spouses (Generation II) seem to support the

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1. Twelve years was selected as the cutting point because it corresponds to the age when Colombian children usually enter secondary school. (Colombian primary schools require five years of training which one usually enters at age seven.) In practice, most rural Fómequenian children enter at (cont.)

prediction of: 1) limited entry into economically remunerative and secure positions, and 2) parental class situation as an important determinant of offspring educational, migrational, and occupational characteristics.

Educational Attainment

Increased availability of primary education in the rural areas and secondary education in the village had upgraded educational attainment so that 60 of every 100 were functionally literate. This represents a doubling of the functionally literate population from one generation to another. Moreover, most sons had attained more educational training than their fathers, and most daughters than their mothers--the more highly educated of Generation II. Still most rural youth received two or three years of primary education. Only 9 of every 100 males and 16 of every 100 females had completed post-primary training.

In a system that has limited public secondary educational facilities and offers few scholarships, rural youth from families with greater income-earning opportunities were most likely to receive more education.[2] Offspring of large owner families[3] tended to have superior levels of education (see Table 11) except for three sons of a landless veredal leader who received tuition scholarships and other assistance through the local priest and the daughter of a nonowner who entered a religious order. Likewise, offspring of large producer families had received more education. (See Table 12.) However, large producers were most frequently medium or large owners since tenancy arrangements usually served only to give sufficient land to place a family in the next closest land category. Therefore, except among the few nonowners and small owners who operated medium and large units, tenancy arrangements did not sufficiently improve income earning opportunities so as to alter educational opportunities for their children. In sum, the amount of land owned is generally the best measure of income earning opportunities, the few families who can obtain medium or large production units under tenancy arrangements seem to be able to compensate for ownership to some extent. But, large ownership and medium and high incomes (see Table 13) were the factors that distinguished primary educated from post-primary educated children.

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a later age. Of the 637 children 12 years and older, 593 were included in the analysis. Seven males and 8 females were omitted because of physical and mental abnormalities. In addition, 16 males and 13 females who were born outside the municipio of Fómeque were dropped from the analysis. Nineteen of these "non-Fómequenians" had been born in other Eastern Cundinamarca villages, while the other 12 had been born to Fómequenians living elsewhere but who later returned to the municipio.

2. Our anlaysis of Generation II revealed differences between amount of land owned and amount in the production unit.

3. Amount of land owned and operated was categorized according to employment criteria. The categories are: nonowner, small owner, less than 3 hectares; medium owner, 3 to 9.99 hectares; and large owner, 10 or more hectares.

Table 11. Mean Educational Attainment of Generation III by Amount of Land Owned by Generation II and Number of Siblings[a]

	Amount of Land Owned by Generation II (hectares)				
Number of Siblings	None	0.01-2.99	3.00-9.99	10+	Total
Males - 25 years					
00-03	4.1	2.8	3.5	10.0	4.0
	(7)	(11)	(2)	(2)	(22)
04-06	2.8	3.2	4.6	3.4	3.6
	(10)	(28)	(20)	(12)	(70)
07-09	3.5	3.5	4.0	3.0	3.6
	(4)	(26)	(20)	(3)	(53)
10+	2.6	2.0	2.0	4.8	3.0
	(7)	(4)	(5)	(6)	(22)
Total	3.1	3.2	4.0	4.3	3.6
	(28)	(69)	(47)	(23)	(167)
Males - 25+ years					
00-03	2.5	2.1	4.3	2.5	2.6
	(8)	(8)	(3)	(4)	(23)
04-06	3.8	2.0	2.4	2.0	2.3
	(6)	(37)	(14)	(5)	(62)
07-09	5.4	3.1	2.9	2.8	3.4
	(10)	(16)	(16)	(9)	(51)
10+	2.0	2.0	3.7	4.0	3.5
	(1)	(1)	(4)	(4)	(10)
Total	3.9	2.3	2.9	2.8	3.0
	(25)	(62)	(37)	(22)	(146)
Females - 25 years					
00-03	3.0	4.0	3.5	11.0	4.0
	(4)	(12)	(4)	(1)	(21)
04-06	2.6	4.1	5.3	5.5	4.2
	(11)	(27)	(12)	(6)	(56)
07-09	3.0	3.9	4.6	3.0	4.0
	(2)	(17)	(15)	(4)	(38)
10+	2.7	2.0	3.0	6.8	4.0
	(3)	(1)	(5)	(4)	(13)
Total	2.7	4.0	4.5	5.5	4.1
	(20)	(57)	(36)	(15)	(128)

(Table 11 cont.)

Number of Siblings	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Females - 25+ years					
00-03	3.5 (6)	2.9 (22)	4.5 (3)	3.5 (2)	3.2 (33)
04-06	4.8 (8)	2.9 (24)	1.4 (14)	3.1 (7)	2.8 (53)
07-09	5.5 (4)	2.5 (23)	3.5 (19)	3.0 (1)	3.2 (47)
10+	- (0)	- (0)	3.9 (17)	2.5 (2)	3.7 (19)
Total	4.5 (18)	2.8 (69)	3.1 (53)	3.1 (12)	3.1 (152)

[a]Generation II refers to the sample families and Generation III to their Fómeque-born children 12 years and older.

Table 12. Mean Educational Attainment of Generation III 12 to 24 Years by Amount of Land Owned and Amount of Land Operated by Generation II[a]

Amount of Land Operated by Generation II	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Males - 25 years					
None	3.5 (4)	- (0)	- (0)	- (0)	3.5 (4)
0.01-2.99	2.8 (19)	3.0 (45)	- (0)	- (0)	2.9 (64)
3.00-9.99	4.2 (5)	3.6 (24)	3.9 (44)	- (0)	3.8 (73)
10+	- (0)	- (0)	6.0 (3)	4.3 (23)	4.5 (26)
Total	3.1 (28)	3.2 (69)	4.0 (47)	4.3 (23)	3.6 (167)

(Table 12 cont.)

Amount of Land Operated by Generation II	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Females - 25 years					
None	3.0	-	-	-	3.0
	(1)	(0)	(0)	(0)	(1)
0.01-2.99	2.7	3.9	-	-	3.5
	(15)	(41)	(0)	(0)	(56)
3.00-9.99	3.0	4.5	3.9	-	4.0
	(4)	(15)	(30)	(0)	(49)
10+	-	2.0	7.5	5.5	5.9
	(0)	(1)	(6)	(15)	(22)
Total	2.8	4.0	4.5	5.5	4.1
	(20)	(57)	(36)	(15)	(128)

[a]Generation II refers to the sample families and Generation III to their Pomeque-born children.

Table 13. Mean Educational Attainment of Generation III 12 to 24 Years by Amount of Land Owned and Net Farm and Family Income of Generation II[a]

Net Farm and Family Income (U.S. dollars)[b]	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Males - 25 years					
0-383	3.4	2.7	-	-	3.0
	(19)	(25)	(0)	(0)	(44)
384-613	2.7	3.3	3.1	2.5	3.1
	(9)	(32)	(20)	(2)	(63)
614-1,226	-	3.8	4.8	2.7	4.1
	(0)	(11)	(19)	(7)	(37)
1,227+	-	3.0	4.4	5.4	4.9
	(0)	(1)	(8)	(14)	(23)
Total	3.1	3.2	4.0	4.3	3.6
	(28)	(69)	(47)	(23)	(167)

(Table 13 cont.)

Net Farm and Family Income (U.S. dollars)[b]	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Females - 25 years					
0-383	2.7 (16)	3.6 (25)	- (0)	- (0)	3.2 (41)
384-613	3.0 (4)	4.0 (24)	3.0 (12)	2.0 (2)	3.6 (42)
614-1,226	- (0)	4.3 (6)	5.4 (16)	3.7 (3)	5.0 (25)
1,227+	- (0)	8.0 (2)	4.8 (8)	6.8 (10)	6.1 (20)
Total	2.8 (20)	4.0 (57)	4.5 (36)	5.5 (15)	4.1 (128)

[a]Generation II refers to the sample families and Generation III to their Fómeque-born children.

[b]Farm and family income refers to the net cash and kind farm income plus nonfarm income earned by family members in 1966. These income categories were established on the basis of the going nonagricultural wages in the area in 1966. They are, respectively: under 25 pesos per day; 25 to 39 pesos per day; 40 to 79 pesos per day; and 80 pesos and over per day. The conversions to U.S. dollars were made at the official exchange rate for 1966 of 1 peso equals .059 U.S. dollars.

Opportunities to obtain services such as education are also related to the proximity to these services. Mean educational attainment is directly related to proximity to the village--the focus of a complete primary and secondary school system. Indeed, close proximity to the village compensates somewhat for meager ownership and low net farm and family income, usually by insuring more primary education. For example, children of nonowners as well as those from low and very low income families living near the village had attained three to four years of primary training rather than only one or two years. But regardless of proximity, children from large owner and high income families had attained the highest mean educational level, generally some secondary education.

Parental educational level has an impact upon that of their children. Offspring of parents with three to five years of primary training had attained that level and often some secondary education; those whose parents had attended one or two years of primary school, three to five years; and those whose parents had no education, one to two years.

In sum, children from large owner and medium owner-large producer families, living in veredas bordering the village and with at least one parent

who attained three to five years of primary education, were most likely to have received post-primary education.

Migration

One-third of the Generation III males and females 25 and over were residing outside the municipio in 1966, and one-fourth of those 12 to 24 years had already left. Unlike their parent-siblings, no females had gone to rural areas and only one-fifth of the males (compared to 35 percent of the Generation II males) were residing in rural areas outside the municipio. Seventy percent of the female and 60 percent of the male migrants to urban areas were living in Bogotá.

The Process. Both married and single males left primarily to seek employment. Married female migrants usually accompanied their husbands to a perceived source of employment--although as managers one-half were seeking employment opportunities for themselves as well. Pursuit of educational opportunities was the second most important reason for migrating; one-third of the single female migrants left to attend classes elsewhere because: 1) they had been refused admission to the local secondary school, 2) they had failed a year in the local schools and could not repeat it, or 3) the secondary schools in neighboring communities offered more acceptable curricula, e.g., commercial, bachillerato.

Nearly 8 of every 10 migrants left before reaching 25 years. The median age at the time of migration was 18 years for both males and females. Rural-rural male migrants had left at a slightly earlier age than rural-urban male migrants.

The Selectivity. The most meaningful group to discuss in this section is those 25 years and older for whom migration should be nearly complete. Like their parent-siblings, the percent migrating is inversely related to parental class situation. (See Tables 14 and 15.) For example, one-half of the children from nonowner families and nearly one-half of the children from very low income[4] families had migrated. This compared to one-fifth of the females from large owner and high income families and 36 and 25 percent, respectively for males. Sons of nonowner, low income families were especially prone to migrate--two-thirds compared to one-fourth of the sons of large owner, high income families. So again, we observe the importance of nonownership of the productive resource land in "pushing" rural-born people to other areas. The importance of nonownership is underscored by the limited differences in the proportion migrating according to the amount

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4. The income categories were established on the basis of the going nonagricultural wages in the area in 1966. They are: very low, under 25 pesos per day; low, 25 to 39 pesos per day; medium, 40 to 79 pesos per day; and high, 80 pesos and over per day. The conversions to U.S. dollars, made at the official exchange rate of 1 peso equals .059 U.S. dollars, are: very low, under $383 per year; low, $383-613 per year; medium, $614-1,226 per year; and high, $1,227 or more per year.

Table 14. Percent of Generation III Males 25 Years and Over Living Outside the Municipio in 1966 by Selected Characteristics[a]

Selected Characteristics	Total Number N = 146	Number Living Outside Mpo. in 1966 N = 54	Percent Leaving Fómeque
Amount of Land Owned by Generation II (hectares)			
None	25	13	52
0.01-2.99	62	18	29
3.00-9.99	37	15	41
10 or more	22	8	36
Amount of Land Operated by Generation II (hectares)			
0.01-2.99	53	19	36
3.00-9.99	63	23	37
10 or more	30	12	40
Tenure of Land Operated by Generation II			
Nonowners	25	13	52
Part-owners	48	12	25
Owner operators	39	17	44
Landlords	34	12	35
Net Farm and Family Income (U.S. dollars)[b]			
Less than $384	60	28	47
$384-$613	45	16	36
$614-$1,226	29	7	24
$1,227 or more	12	3	25
Number of Siblings			
0 to 3	23	10	45
4 to 6	62	19	31
7 to 9	51	22	43
10 or more	10	3	33
Distance from Village (kilometers)			
0.1 to 4	54	21	39
5 to 9	61	20	33
10 or more	31	13	42

(Table 14 cont.)

Selected Characteristics	Total Number	Number Living Outside Mpo. in 1966	Percent Leaving Fómeque
Education in 1966[c]			
None	13	3	23
Primary 1 to 2	67	29	43
Primary 3 to 5	56	16	29
Post-primary			
Secondary 6 to 10	8	5	63
Secondary graduate	1	0	0
Post-secondary	1	1	100

[a]Generation II refers to the sample families and Generation III to their Fómeque-born children.

[b]Farm and family income refers to the net cash and kind farm income plus nonfarm income earned by family members in 1966. These income categories were established on the basis of the going nonagricultural wages in the area in 1966. They are, respectively: under 25 pesos per day; 25 to 39 pesos per day; 40 to 79 pesos per day; and 80 pesos and over per day. The conversions to U.S. dollars were made at the official exchange rate for 1966 of 1 peso equals .059 U.S. dollars.

[c]The category "secondary 6 to 10" includes any post-primary education in vocational or secondary schools while the category "post-secondary" refers to university or professional training.

Table 15. Percent of Generation III Females 25 Years and Over Living Outside the Municipio in 1966 by Selected Characteristics[a]

Selected Characteristics	Total Number N = 152	Number Living Outside Mpo. in 1966 N = 51	Percent Leaving Fómeque
Amount of Land Owned by Parents (hectares)			
None	18	9	50
0.01-2.99	69	27	39
3.00-9.99	53	13	24
10 or more	12	2	17

(Table 15 cont.)

Selected Characteristics	Total Number	Number Living Outside Mpo. in 1966	Percent Leaving Fómeque
Amount of Land Operated by Parents (hectares)			
0.01-2.99	55	20	36
3.00-9.99	77	25	32
10 or more	20	6	30
Tenure of Land Operated by Parents			
Nonowners	18	9	50
Part-owners	44	18	41
Owner operators	40	12	30
Landlords	50	12	24
Net Farm and Family Income (U.S. dollars)[b]			
Less than $384	60	29	48
$384-$613	47	17	36
$614-$1,226	40	4	10
$1,227 or more	5	1	20
Number of Siblings			
0 to 3	33	11	33
4 to 6	53	15	28
7 to 9	47	21	45
10 or more	19	4	21
Distance from Village (kilometers)			
0.1 to 4	47	18	38
5 to 9	66	20	30
10 or more	39	13	33
Education in 1966[c]			
None	14	4	29
Primary 1 to 2	61	19	31
Primary 3 to 5	55	18	33
Post-primary			
Secondary 6 to 10	19	8	42
Secondary graduate	2	1	50
Post-secondary	1	1	100

(Table 15 cont.)

[a]Generation II refers to the sample families and Generation III to their Fómeque-born children.

[b]Farm and family income refers to the net cash and kind farm income plus nonfarm income earned by family members in 1966. These income categories were established on the basis of the going nonagricultural wages in the area in 1966. They are, respectively: under 25 pesos per day; 25 to 39 pesos per day; 40 to 79 pesos per day; and 80 pesos and over per day. The conversions to U.S. dollars were made at the official exchange rate for 1966 of 1 peso equals .059 U.S. dollars.

[c]The category "secondary 6 to 10" includes any post-primary education in vocational or secondary schools while the category "post-secondary" refers to university or professional training.

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of land operated by the parents. In other words, regardless of the amount of land parents operate under various tenancy agreements, knowledge that there will be no land inheritance fosters migration.

While the mean educational attainment of male migrants is higher than that of their nonmigrant counterparts, migration is selective of the extremes. The functionally illiterate and the most highly educated were more likely to have left the municipio than were those with intermediate levels of educational attainment. The 1966 data clearly reveal the attraction to urban centers of young educated males, but it does not capture another process, that of temporary retention in the municipio. While 6 of 10 post-primary trained males had left by 1966, all had taken positions outside the municipio by 1970. Positions within the municipio were a temporary source of employment while awaiting more attractive openings in nearby Bogotá or other urban centers. None of the rural-rural migrants had received post-primary training; indeed, most were functionally illiterate. On the other hand, one-fifth of the rural-urban male migrants were post-primary educated, but another one-fifth were functionally illiterate.

The females do not show the same educational selectivity as their male peers. While post-primary educated females are most likely to have migrated, those with three to five years of primary training are slightly more likely to have migrated than those with fewer years of primary studies. The difference in the magnitude of migration rates among post-primary educated females and males is primarily accounted for by the differential attendance at the vocational schools. More females than males attend the local vocational school. Those who attend are not so likely to migrate as those who attend the normal school. The apparent reason for this pattern is the type of positions for which the respective schools provide training. The vocational school offers training in homemaking skills and crafts which can be utilized in a family or nonfamily enterprise within the municipio. The normal school training is more specific and therefore offers few alternative outlets. Only a relatively small number of normal school graduates can be absorbed locally despite the increment in classrooms.

Occupational Attainment

The somewhat higher educational level of Generation III males and females might suggest that occupationally they would be less concentrated than their parent siblings in manual labor and petty enterprises. However, such reasoning would fail to take into account shifts at all levels and sectors of the Colombian occupational structure. Indeed, it is questionable whether additional education is sufficient to maintain Generation III in the same relative position as Generation II. The youthfulness of Generation III mitigates against our being able to deal as precisely as desired with this tremendously important question. While we have caught most of Generation II at their maximum level of occupational attainment, our data for Generation III are biased toward the first job, which we know does not necessarily correspond to the highest level of attainment in an individual's occupational history. This difference notwithstanding, those over 25 years will provide some general indication of any shifts in occupational attainment from generation to generation.

Those attaining some post-primary training were found in the higher ranked occupations generally of a semi-skilled or petty entrepreneurial nature. But the effect of nonfamily assistance rendered to the three sons of a nonowner and the extensive family labor force participation by the sons of large owners reversed the expected direct relationship between parental class situation and mean occupational score. Of course, we might expect that future inheritance by sons of large owners may provide instantaneous movement to an occupation with a considerably greater score while sons from any other parental landownership category have no opportunities for movement to higher ranked occupations.

The agricultural sector was absorbing nearly two-thirds of the older and younger sons from all parental landownership categories, but the type of position differed considerably. Older sons of nonowners were primarily laborers and tenants; older sons of small and medium owners were evenly divided between tenancy and ownership; and older sons of large owners were operating the family agricultural enterprise with their fathers. Most of the younger sons of small owners contributed to the family labor force on a part-time basis. Indeed, even though they supplemented their family labor with off-farm employment as agricultural laborers, many in this group remained underemployed during parts of the year. Younger sons of nonowners were primarily farm laborers and sharecroppers. And younger sons of medium and large owners assisted their fathers on a full-time basis.

Data from the younger males reflect the differential educational attainment and consequently earlier entry into the labor force of sons of small owners and nonowners. Younger sons of medium and large owners retained student status longer or were employed in the family labor force. There were no sons of nonowners who were students, and only 10 percent of the sons of small owenrs were in school, nearly all in primary. However, 21 and 26 percent of the sons of medium and large owners were enrolled as post-primary students.

The pattern of relative success in obtaining title to land we observed among the parent siblings is repeated among the very small number of

rural-rural Generation III male migrants. One-third had acquired land while the remainder were agricultural laborers.

Compared to their parent siblings, older male migrants to urban areas had slightly higher mean occupational scores. The difference seems to stem from a lower rate of periodic unemployment even though fewer have been absorbed into clerical, lower level professional, and small proprietor positions. Seven of every 10 of these migrants were employed in the tertiary sector. Two of these were ex-military conscripts or volunteers who were presently members of the national police force. Another 2 were miscellaneous service employees as messenger boys, short order cooks, bakery employees, and power company employees. Two others were employed as nonmanufacturing laborers, primarily in freight loading jobs for bus companies and in miscellaneous day labor positions. Except for a priest, a secretary, and two sales clerks, the other 1 in 10 were engaged in petty commerce as drivers for taxi or bus companies, peddlers, or petty proprietors.

The secondary sector employed 2 of every 10 rural-urban Generation III male migrants. One of these was engaged as semi-skilled or unskilled industrial labor in small firms and the other one typically worked in the construction trades as contractors on petty jobs or as employees of subcontractors, many of whom were ex-Fómequenians.

The remaining 1 in 10 were almost evenly divided between unemployment and studying. With the exception of a small owner's son who was receiving support from the ecclesiastical order that administered the secondary school he attended, all of the secondary students were sons of medium and large owners. A different ecclesiastical order was providing financial support in exchange for some labor for the studies of one of the sons of a medium owner. Three students had matriculated in post-secondary professional training curriculae. Two of them had been awarded scholarships to attend the Colombian Coffee Federation School which, along with other activities, trains agricultural technicians at the para-professional level. The other post-secondary student was enrolled in a pre-veterinary program at a university in Bogotá. His father was one of the largest landowners in the sample and had one of the largest holdings of any full-time municipio resident.

Three important generalizations are obvious from a careful examination of the nonmigrants' occupations. First, nonmigrants were concentrated in the agricultural sector. Nearly three-fourths were nonowners who operated production units as tenants under either sharecropping or service tenant agreements or provided labor input to the parental enterprise. Most of the other nonowners worked as agricultural day laborers; they are primarily under 25 years of age. Only 10 percent had become owners; 60 percent of the owners had title to less than three hectares of land. The 10 percent not engaged in agriculture were engaged in petty commercial ventures as merchants or chauffeurs or were miscellaneous service employees. Aside from two secondary school teachers and a local bureaucrat the service employees held low paying positions.

Secondly, two-thirds of the younger nonmigrant males were members of the family labor force as part-time or full-time family farm laborers or as family service tenants, i.e., they operated a separate production and

consumption unit. The fully employed, full-time family farm laborers worked about 300 days per year on the family enterprise in a nondecision-making capacity. They are primarily from large owner families. Even with additional land received under tenancy arrangements, many families still had operating units too small to productively employ all of the family labor force. Consequently, one-third full-time family farm laborers were underemployed; most were from families operating less than three hectares. Some sons of small owners who were absorbed into the family labor force found part-time work in the nonfamily labor force as agricultural day laborers (two-thirds) or as sharecroppers on their own or with their fathers (one-fourth).

There was an overwhelming tendency for females to be members of the family labor force. Nonfamily labor force employment was greatest among two groups, daughters of nonowners and the post-primary educated who most often are daughters from medium and large owner families. However, the type of occupations into which females from these parental landownership groups were absorbed differed markedly. Daughters of nonowners most often became domestic servants or unskilled laborers. The exceptions usually were dressmakers or nuns. Only 5 percent were students. On the other hand, all of the daughters of large owners in the nonfamily labor force were lower level professionals and clerical workers. Slightly over one-fourth of the younger daughters of large owners were pursuing post-primary studies.

Migrant females were also more likely to enter the nonfamily labor force than nonmigrants. Sixty-four percent of the migrants, all rural-urban, had entered the nonfamily labor force. Four of every 10 nonfamily labor force employed worked as domestic servants and 1 as a prostitute. An additional 1 in 10 were engaged in each of the following: in petty commerce as peddlers, in nonfamily retail shops as sales clerks, and as seamstresses in their home or small manufacturing firms. Two in 10 were lower level professionals, para-professionals, or office workers.

The most important occupational data for female nonmigrants are their nonparticipation in the nonfamily labor force. Only 20 percent were employed in nonfamily occupations, one-half of whom worked as domestic servants usually for village families. The others were nearly evenly divided among dressmaking, primary school instruction, and petty commercial endeavors.

One-half of the family labor force members were full-time housewives and family farm laborers. Another 2 percent worked as laundresses in addition to their housekeeping role. Thirty-eight percent were family domestics; that is, although not the decision-maker on homekeeping matters, they contributed labor to household chores--primarily laundry and meal preparation--as well as farm chores such as tending farm animals. Finally, 10 percent of the family labor force members worked in nonhousehold activities in addition to being part-time family domestics. Generally, the secondary occupations of these part-time family domestics were agricultural day laborer and domestic servant. One was a dressmaker and another a weekend sales clerk in a local shop. (See Table 16.)

Overall, then, the occupational level of Generation III is quite low. Certainly this is a young population, the majority of whom cannot be assumed to have reached their peak occupational achievement. Still, despite

Table 16. Mean Occupational Level of Generation III by Amount of Land Owned by Generation II, Migration Status, and Educational Level[a]

Educational Level of Generation III	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Nonmigrant Males - 25 years					
Primary	2.3 (16)	1.3 (56)	1.6 (32)	0.2 (18)	1.3 (122)
Post-primary	- (0)	2.3 (3)	0.0[b] (2)	0.0[b] (2)	1.0 (7)
Total	2.3 (16)	1.3 (59)	1.4 (34)	0.2 (20)	1.3 (129)
Migrant Males - 25 years					
Primary	3.5 (12)	4.6 (9)	3.0 (7)	- (0)	4.0 (28)
Post-primary	- (0)	0.0[b] (1)	0.8[b] (6)	0.0[b] (3)	0.5 (10)
Total	3.5 (12)	4.1 (10)	2.0 (13)	0.0 (3)	3.1 (38)
Nonmigrant Males - 25+ years					
Primary	3.1 (9)	3.3 (43)	3.0 (21)	2.9 (14)	3.3 (87)
Post-primary	6.7 (3)	4.0 (1)	7.0 (1)	- (0)	6.2 (5)
Total	3.8 (12)	3.3 (44)	3.2 (22)	2.9 (14)	3.4 (92)
Migrant Males - 25+ years					
Primary	4.2 (12)	4.1 (18)	4.8 (12)	4.3 (6)	4.9 (48)
Post-primary	8.0 (1)	- (0)	5.3 (3)	5.0 (2)	5.7 (6)
Total	4.5 (13)	5.1 (18)	4.9 (15)	4.5 (8)	4.9 (54)
Nonmigrant Females - 25 years					
Primary	0.9 (13)	0.2 (34)	0.5 (24)	0.0 (8)	0.4 (79)
Post-primary	- (0)	2.0 (5)	1.1[b] (7)	1.6[b] (5)	1.5[b] (17)
Total	0.9 (13)	0.4 (39)	0.6 (31)	0.6 (13)	0.6 (96)
Migrant Females - 25 years					
Primary	3.0 (7)	2.1 (16)	3.5 (4)	- (0)	2.5 (27)
Post-primary	- (0)	0.0 (2)	0.0 (1)	7.5 (2)	3.0 (5)
Total	3.0 (7)	1.9 (18)	2.8 (5)	7.5 (2)	2.6 (32)

(Table 16 cont.)

Educational Level of Generation III	Amount of Land Owned by Generation II (hectares) None	0.01-2.99	3.00-9.99	10+	Total
Nonmigrant Females - 25+ years					
Primary	0.8 (6)	0.2 (39)	0.7 (35)	1.4 (8)	0.6 (88)
Post-primary	1.7 (3)	0.0 (3)	1.4 (5)	4.0 (2)	1.5 (13)
Total	1.1 (9)	0.2 (42)	0.8 (40)	1.9 (10)	0.7 (101)
Migrant Females - 25+ years					
Primary	0.4 (5)	2.5 (23)	1.3 (11)	2.5 (2)	2.4 (41)
Post-primary	7.3 (4)	2.2 (4)	8.0 (2)	- (0)	5.4 (10)
Total	3.4 (9)	2.5 (27)	2.4 (13)	2.5 (2)	3.0 (51)

[a]Generation II refers to the sample families and Generation III to their Fómeque-born children 12 years and older.

[b]Most members of these cells are students.

receiving more schooling than their parents and parent-siblings, only 5 percent were engaged in an occupation which might be considered reasonably remunerative and secure. Presently, there are no large landowners (25 hectares or more). Slightly more than 2 percent (about 1 percent of the males) are engaged in lower level professions, and another 4 percent of the males are medium-size landowners. The former might be considered reasonably remunerative and secure positions and the latter marginally remunerative and secure. But this accounts for less than 10 percent of the members of Generation III. And even with the addition of those presently pursuing post-primary studies, the proportion of members of Generation III obtaining economically remunerative and secure positions would not reach 15 percent. Inheritance of larger plots by the sons of large owners who presently are family farm laborers would add another 2 or 3 percent.

For the other four-fifths of the members of Generation III presently employed in low-paying, unstable positions--such as family or nonfamily laborers and tenants on small agricultural holdings--petty commercial agents and petty craftsmen, or freight loaders, construction workers, and semi-skilled laborers in small industrial enterprises--possibilities for obtaining more stable, higher paying occupations are bleak. The bulk of them possess neither the quantity of education, capital, or contacts to penetrate the prerequisites for the limited number of viable occupations. At best, they may enter reasonably well paying temporary jobs like construction, or become low income but perhaps more secure small landowners.

CHAPTER IX

SUMMARY AND DISCUSSION

Stress on the use of capital-intensive technology in a society with unequally distributed economic resources exacerbates the capacity to create new employment positions and maintain existing ones. Concomitantly, unprecedented population growth releases thousands of youth each year into a redundant labor pool. These processes, coupled with the accelerated depletion of rural physical resources, spell a high degree of disguised unemployment for the bulk of the rural population associated with small owner, tenant, or wage labor production.

The Employment Dilemma

Tied-loan and assistance programs by developed countries or their representatives emphasize schemes which tend to replace labor with capital while increasing output. Ostensibly to alleviate scarcities in domestic food production, capital-intensive technology has become part of the government development programs. As has been the case with infrastructural development, land reforms, credit and other policies, use and control of technology is maintained primarily by the 5 to 15 percent who own nearly three-fourths of the land resources. Through their increased volume of production (though productivity per unit of land may be less than that of small-scale producers) this type of large-scale agriculture erodes the markets of the small labor-intensive production units. As the small producers attempt to compete, their expanded use of yield-increasing technology without proper soil and water management exhausts the physical resource base. And most must enter tenancy agreements in order to finance these inputs. At the same time, wage labor positions are not expanding at a rate equal to the numbers being thrust into the labor market.

The incipient national industrial production and distribution enterprises are being converted to capital-intensive technology. Even more important, the subsidiaries of multinational corporations headquartered in large urban centers of the United States, Western Europe, and Japan are now the major investors in extractive, processing production and distribution industries. They employ capital-intensive technology managed and sometimes operated by non-nationals. Furthermore, infrastructural development projects sponsored by the government with funds from foreign loan and assistance programs have followed the same capital-intensive route. The use of capital-intensive technology in all of the above-mentioned areas eliminates many petty producers and merchants while not creating many skilled and unskilled labor positions.

Accompanying the utilization of capital-intensive technology in the private economic sector has been a move to bureaucratic forms of organization. Bureaucracies require literate incumbents. Multinational corporations usually base their employability criteria on ethnocentric educational standards. Together with limiting the number of employable nationals, this creates demands for an enlargement of the educational facilities and the

establishment of vocationally oriented curriculae. With increments in the demand for educational and related services, private and public service bureaucracies likewise expand. But despite increases in both public and private bureaucratic and technocratic positions, two factors mitigate against their being filled to any marked degree by inhabitants of rural communities. First, the historical and continued neglect by most political administrations of rural education virtually predetermines that the rural populace is less well schooled than their urban counterparts. Secondly, the rural-born population is less knowledgeable about the availability of such positions, less familiar with the documentation, application procedures and other such prerequisites, and less likely to have friends and acquaintances within any incipient or established bureaucracy.

Summary of Findings

Overall educational and occupational levels and residential mobility as well as differentials on these variables by the degree of parental landownership were examined for two generations from a minifundia community in the Colombian highlands.

At the time of the study, a complete five-year primary school program existed in the village and hamlet, while two- or three-year primary educational establishments were operating in nearly all veredas of the open countryside. In addition, six-year secondary education programs (whose first four years were bachillerato training and whose last two years were normal school training) and two-year semi-public vocational schools were located in the village.

A decrease from Generation II to III in illiteracy and functional illiteracy notwithstanding, the mean level of educational attainment was still less than four years of primary training. The following demonstrates the differentials in educational attainment by generation, controlling for sex:

For every 100 males in Generation II,
28 had received no formal education (illiterate)
40 had completed one to two years of primary training (functional illiterate)
28 had completed three to five years of primary training
4 had completed some post-primary training.

For every 100 males in Generation III,
5 had received no formal education (illiterate)
35 had completed one to two years of primary training (functional illiterate)
51 had completed three to five years of primary training
9 had completed some post-primary training.

For every 100 females in Generation II,
25 had received no formal education (illiterate)
40 had completed one to two years of primary training (functional illiterate)
30 had completed three to five years of primary training
5 had completed some post-primary training.

For every 100 females in Generation III,
6 had received no formal education (illiterate)
31 had completed one to two years of primary training (functional illiterate)
47 had completed three to five years of primary training
16 had completed some post-primary training.

Distance from educational facilities in the village of Fómeque and neighboring municipios ruled out daily commuting to school for most rural youth. Consequently, rural families who wanted to continue the education of their children and who did not have homes, relatives, or close friends in the village were faced with room and board expenses in addition to the monthly tuition and the cost of school books, supplies, and uniforms. Only those living in the veredas surrounding the village (usually distances under five kilometers) could avoid the expense of operating a second household, paying a small fee to a relative, or paying a much larger fee to a village landlord or the secondary school for live-in privileges. These educational costs in relation to rural family incomes resulted in a low enrollment of rural youth and an even sparser number of graduates from local secondary schools. Indeed, 50 to 60 percent of the enrollment in the local secondary schools were non-Fómequenians coming principally from families residing in neighboring villages, Meta, and Bogotá. The others were children of village residents. For both generations there was a direct relationship between mean educational level and proximity to the village.

A few offspring of nonowners had received financial assistance from relatives and friends which enabled them to obtain a post-primary education. Nevertheless, for both males and females there was a direct relationship between mean educational level of the offspring and degree of parental landownership. On a standardized basis:

For every 100 Generation II males from medium and large owner families, 7 had completed some post-primary training.

For every 100 Generation II males from nonowner and small owner families, 2 had completed some post-primary training.

For every 100 Generation III males from medium and large owner families, 15 had completed some post-primary training.

For every 100 Generation III males from nonowner and small owner families, 5 had completed some post-primary training.

Among the females, we find a similar pattern:

For every 100 Generation II females from medium and large owner families, 11 had completed some post-primary training.

For every 100 Generation II females from nonowner and small owner families, 3 had completed some post-primary training.

For every 100 Generation III females from medium and large owner families, 21 had completed some post-primary training.

For every 100 Generation III females from nonowner and small owner families, 13 had completed some post-primary training.

Likewise, mean occupational level for Generation II males is directly related to degree of parental landownership. Analysis shows that among the Generation II nonmigrants nearly three-fourths were landowners. But utilizing either the traditional figure of three hectares or that of five hectares established by the CIDA studies for the Andean region of Colombia as the standard for a viable income and employment producing land unit, a maximum of one-third or one-fourth would qualify. Over one-fourth of the landowners possess a title to less than a hectare. Less than 10 percent owned ten hectares or more--what we have termed a large owner in this community. Whereas inheritance of marriage partners, gifts, and purchases enabled many sons of nonowners to receive title to very small plots of land, almost all the owners of five hectares or more were sons of large owners.

But despite the low incidence of significant ownership, at least two-thirds of the sample household heads produced commercial enterprises. Besides the absentee owners (the majority of whom live in Bogotá) of hundreds of hectares in the cold alpine climatic zones, over one-half of the full-time village household heads owned land in the municipio. Most of these village landowners were merchants, professionals, bureaucrats, and public officials who gave out all or part of their land for commercial cropping under informal sharecroppping or service tenant agreements. Accordingly, both owner and nonowner full-time rural household heads (nearly 60 percent in total) supplemented their landholdings with cash or share rented land used for commercial production. Consequently, slightly over one-half of them operated production units of up to three hectares; over one-third operated from three to ten hectares; and only 12 percent operated ten or more hectares. Still, we found that, with rare exceptions, only the large landowners had a yearly farm and family income above the minimum of urban white collar employees.

On the other hand, the better educated migrants to provincial towns and large urban centers entered lower level professional, clergy, and clerical positions. But the vast majority of the migrants--primarily the offspring of nonowners and small owners--were concentrated in petty enterprises as self-employed operators, tenants, or laborers. Employment and underemployment in these low-paying, unstable jobs is frequently accompanied by periodic unemployment.

Considering that owners of three hectares or more (in this case seldom exceeding 25 hectares), lower level professionals, clergy, and clerical workers are the most economically remunerative and secure occupations into which the males entered, 22 out of 100 Generation II males had attained such a level. At least 11 of these 22 were owners of three to ten hectares of land (medium owners). But, again, we find substantial differences between high occupational levels and more extensive parental landholdings. For every 100 Generation II males from medium and large owner families, 38 had attained high occupational levels by our definition. This compared to 11 out of every 100 sons of nonowners and small owners.

Among the females where the nonfamily labor force participation was greatly reduced, 9 out of every 100 daughters of medium and large owners

compared with only 2 of the daughters of nonowners and small owners were employed in the lower level professions, religious orders, or clerical positions.

The youthfulness of Generation III indicates that we are not likely to have recorded the highest occupational level some members of this generation will attain. Only 5 out of every 100 were employed in an occupation we classified as high. But five others were post-primary students. Assistance from the ecclesiastical order of the local priest to three sons of a nonowner enabled more sons of nonowners and small owners to obtain "high" occupational levels--6 of every 100 sons of nonowners and small owners compared with 5 of every 100 sons of medium and large owners. Nonetheless, the vast majority of the children of nonowners and small owners are concentrated as laborers in petty enterprises, while the offspring of medium and large owners have remained family farm laborers. Like their parent-siblings, a few have found employment in small industrial and building contracting ventures launched by former Fomequenians. A few military veterans joined the national police force or private protection forces as watchmen. Most became service workers--the females as domestic servants, the males as bakery, slaughterhouse, restaurant, garage, and transport workers--or nonmanufacturing laborers loading freight, sweeping streets or floors, or shoveling materials on road crews.

However, even these oftentimes unstable and/or low-paying jobs are less available to the younger males as attested to by their massive concentration on meager production units incapable of absorbing their labor. Some of these underemployed family farm laborers find periodic employment as agricultural day laborers or launch weekend retail or middlemen ventures for short periods. Most of these family farm laborers pool resources with their families of orientation (parents and unmarried siblings). Increasingly, these family units sustain themselves through a multiplicity of income-earning relationships. They enter service tenancy, and often share-cropping arrangements as well, with village and sometimes rural landlords to receive land or inputs necessary to produce commercial crops. Frequently, the landlord is a village merchant who also extends consumer and producer credit during the interim between harvests. In addition, family members pursue one or more of the following off-farm activities: agricultural day laborer, petty merchant, peddler of fresh agricultural products, domestic service, handicraftsmanship, and seasonal migration to join harvesting crews.

The continual automation of production processes together with increased attention to educational prerequisites further restricts not only the possibilities for those entering the labor force to obtain economically remunerative and secure jobs, but even possibilities of extended families to provide underemployment and unemployment compensation. Among other consequences, these trends might force many rural familes away from commercial agricultural production and consumption of light manufactured goods toward a subsistence type of living. However, a reversion to subsistence production may be hampered by recent changes in the physical resources. Drawn increasingly into cash markets by profit-minded commercial and landowning interests, small producers have abandoned many of their traditional intercultivated subsistence crops in favor of clean cultivated row crops which

seriously threaten the fragile ecological balance. Without proper soil and water management techniques, the fertile top soil quickly erodes from the mountainous plots and chokes the valleys and waterways with sediments. And the heavy application of chemical fertilizers and pesticides has contaminated local streams and destroyed many natural predators. Consequently, the small landowning family faces an increasingly hostile environment in which to eke out a living.

By 1970, there were some signs of a trend away from commercial agricultural production. A particularly severe rainy season had accelerated the erosion of the mountainside plots and many small producers indicated heavy losses in commercial crops. Declining yields as a result of fertility losses, disease, and insect damage, together with rising costs of fertilizer and pesticides, had driven a number of producers back to subsistence crops. These crops, they argued, might at least feed themselves and their families. Even some medium and large owners were weighing alternative sources of employment. Some were shifting toward extensive livestock enterprises while others with secondary educated children were deliberating the possibilities of becoming economically dependent upon the incomes of these offspring. As one respondent expressed it, "Perhaps it is better to quit agriculture while the debts are few and contribute my labor to my children's families. They, in turn, can provide food and shelter for us older folks. Who knows, I might even find occasional employment in Bogotá.". To be sure, the number of full-time rural household heads with this alternative is meager.

Implications

What clues does the present analysis give us about employment of future generations of stagnating rural communities of underdeveloped countries? Under the prevailing conditions, prospects for remunerative employment in the rural areas appear to be very dim. Within the densely populated rural areas, continuing concentration of the productive means in the hands of an eroding elite, and more importantly a newly emerging administrative and commercial elite, denies rural families and their children access to the kinds of opportunities that are essential to the alleviation of perpetual poverty. In particular, there seems to be no evidence that the dominant local groups are relinquishing control of physical inputs, technology, and information which are clearly needed to increase permanent, productive employment positions in these rural areas.

Furthermore, there is every reason to believe that the national as well as international economic elites are having an increasingly deleterious effect upon employment opportunities in local economies as they fortify their control over important capital and commodity markets. This control extends into the political arena such that rural people have virtually no influence over the political decisions taken in their communities, to say nothing of higher levels.

Prospects for employment in less densely populated rural areas are not any brighter. As the less productive frontier areas become filled and as large-scale mechanized agriculture takes over in the fertile intermontane valleys and coastal plains, it appears that opportunities for migration out of congested rural areas to productive employment elsewhere in

rural areas will diminish. To be sure, these areas may absorb significant streams of in-migrants as they are squeezed out elsewhere, but these migrants are not likely to fare well among the ranching and large-scale agricultural operations.

For those who will be siphoned off to the urban areas, the employment picture appears to be mixed. On the one hand, the children of the petty owners and nonowners can expect intense competition for menial jobs from the children of the urban workers. On the other hand, those children from the relatively few large and medium owner families may expect to find viable positions in the ever-growing private and public bureaucracies. However, they too will be facing growing competition from children of urban bureaucratic, technocratic, and commercial employees who will likely have a comparative advantage over their rural counterparts because of their established contacts and knowledge of the prerequisites. And this disadvantage will undoubtedly grow as the educational opportunities expand differentially for urban youth compared to rural youth.

Contrary to popular view, education does not appear to be a panacea for future generations of rural youth. Structural constraints so limit the job market that education alone does not assure productive employment. Even if present forms of education were made available to all rural children, this would not substantially enhance their chances for remunerative employment because of the relative advantages of urban youth and limited, if any, change in the number of such occupational positions.

But expansion of educational facilities for the rural masses cannot take place without pervasive changes in the ownership and control of economic and political resources. As long as the terms of trade favor the urban areas and metropolitan centers of the developed countries and as long as the rural masses are denied political participation, neither local nor outside resources will be channeled into rural education or into other programs for the rural populace.

Moreover, the persistence of urban-focused educational models coupled with an emulation of models from developed countries does little to create rural employment--and indeed may diminish it--while multiplying service and administrative positions in the urban areas. Hence, the educational system as it presently functions aids in the creation of a self-supplying urban consuming class and a marginally consuming rural mass.

APPENDIX

Occupational Listings for All Groups

Table A-1. Primary and Secondary Occupations[a] of Generation II[b]

Occupations	Household Heads	Spouses
Agricultural Producer	88	
Part-Time Agricultural Producer	73	
Agricultural laborer	(41)	
Unskilled nonagricultural laborer	(2)	
Petty merchant	(18)	
Livestock trader	(5)	
Craftsman	(4)	
Handicraftsman	(3)	
Housewife	24	111
Part-Time Housewife and Family Farm Laborer	11	46
Agricultural laborer		(6)
Unskilled nonagricultural laborer	(3)	(1)
Petty merchant		(16)
Livestock trader		(1)
Craftsman		(5)
Handicraftsman	(2)	(8)
Domestic	(6)	(8)
Lower-level salaried professional		(1)
Unskilled Nonagricultural Laborer	2	
Petty Merchant	2	
Craftsman	4	
Total	204	157

[a]The eleven individuals with tertiary occupations were omitted from this table since this employment accounted for only a small portion of their total work commitment.

[b]Generation II refers to the sample families and Generation I their parents.

Table A-2. Primary Occupations of Generation II Siblings by Migration Status[a]

Occupations	Males		Females	
	Nonmigrant	Migrant	Nonmigrant	Migrant
0) Seasonal laborer/ unemployed	11	46	1	20
Student	10	3	7	-
Full-time housewife	-	-	286	110
Full-time family domestic	-	-	79	-
2) Domestic servant	-	2	28	30
3) Farm laborer	22	11	-	-
Service tenant	44	13	6	-
Family service tenant	76	8	5	-
Sharecropper	5	5	-	-
4) Nonmanufacturing laborer	4	9	-	-
Farm manager	2	6	-	-
Cash renter	6	2	-	2
Small owner	141	7	3	-
5) Service, other	2	25	1	18
Operative	2	8	-	-
Crafts	7	19	3	3
Peddler and livestock traders	17	19	6	9
Petty merchant	10	1	3	8
Unskilled industrial laborer	-	1	-	1
Semi-skilled industrial laborer	-	8	-	-
6) Medium owner	52	11	5	1
7) Merchant	2	2	1	3
Clerical worker	3	6	-	2
8) Large owner	18	2	-	-
Lower-level salaried professional	4	3	6	5
Lower-level non-salaried professional[b]	-	2	-	5
Self-employed professional	-	3	-	-
Total	438	222	439	217
Summary:				
Family Labor Force	-	-	365	110
Nonfamily Labor Force	417	173	67	87
Primary Sector				
Nonowner	155	45	11	2
Owner	211	20	8	1

(Table A-2 cont.)

Occupations	Males		Females	
	Nonmigrant	Migrant	Nonmigrant	Migrant
Secondary Sector				
Industrial laborer	-	9	-	1
Craftsman	7	19	3	3
Tertiary Sector				
Laborer	4	9	-	-
Service	2	27	29	48
Domestic	-	(2)	(28)	(30)
Commerce	31	30	10	20
Clerical	3	6	-	2
Lower-level professional	4	8	6	10
Other	21	49	7	20
Student	(10)	(3)	(7)	(-)
Total	438	222	439	217

[a]Generation II siblings refers to the Fómeque-born siblings of the sample household heads and their spouses.

[b]All members of this category are in the priesthood or sisterhood.

Table A-3. Primary Occupations of Generation III by Migration Status[a]

Occupations	Males		Females	
	Nonmigrant	Migrant	Nonmigrant	Migrant
0) Unemployed	2	6	1	2
Student	14	9	15	7
Full-time housewife	-	-	77	22
Full-time family domestic	-	-	59	-
Full-time family farm laborer	41[b]	-	-	-
1) Part-time housewife	-	-	4	-
Part-time family domestic	-	-	15	-
Part-time family farm laborer	54	-	-	-
2) Domestic servant	2	1	13	21
3) Farm laborer	12	7	-	-
Service tenant	11	1	-	-
Family service tenant	18	-	-	-
Sharecropper	18	2	-	-
4) Sales clerks	-	2	-	5
Nonmanufacturing laborer	4	12	-	-
Farm manager	1	-	-	-
Cash renter	7	1	-	-
Small owner	14	4	-	-

(Table A-3 cont.)

Occupations	Males		Females	
	Nonmigrant	Migrant	Nonmigrant	Migrant
5) Service, other	2	18	-	4
Operative	2	5	-	-
Crafts	1	6	4	4
Peddler	4	4	1	6
Petty merchant	2	1	4	-
Unskilled industrial laborer	-	3	-	2
Semi-skilled industrial laborer	-	5	-	-
6) Medium owner	9	3	-	-
7) Clerical	1	1	1	2
8) Lower-level salaried para-professional and professional[c]	2	1	3	8
Total	221	92	197	83
Summary:				
Family Labor Force	95	-	155	22
Nonfamily Labor Force	110	77	26	52
Primary Sector				
Nonowner	67	11	-	-
Owner	23	7	-	-
Secondary Sector				
Industrial laborer	-	8	-	2
Craftsman	1	6	4	4
Tertiary Sector				
Laborer	4	12	-	-
Service	4	19	12	25
Petty commerce	8	10	3	6
Sales/clerical	1	3	1	7
Lower-level professional	2	1	3	8
Other	16	15	16	9
Student	(14)	(9)	(15)	(7)
Total	221	92	197	83

[a]Generation III refers to Fómeque-born children 12 years and older of the sample families.

[b]This includes 12 males, or 29 percent of the full-time family farm laborers, who were underemployed.

[c]This category includes those remunerated in kind such as priests and nuns.