SOME EFFECTS OF TEMPORARY TO THE UNITED STATES ON PEASANT FARMERS IN TWO MEXICAN COMMUNITIES

MICHAEL D. BARING-GOULD

INTER-AMERICAN INSTITUTE OF AGRICULTURAL SCIENCES

TRAINING AND RESEARCH CENTER

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Michael D. Baring-Gould

Inter-American Instituto of Agricultural Sciences
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Thesis

by

Michael D. Baring-Gould

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Approved by:

D. E. W. Holden — Head Advisor
David E. W. Holden

Linda Nelson — Committee
Linda Nelson

A. L. Jolly — Committee
Arthur L. Jolly

Harold T. Edwards — Committee
Harold T. Edwards

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ABSTRACT

Seventy farmers were interviewed in two communities in order to study the relationship between temporary migration to the USA and the use of improved agricultural practices, extra-local orientation and level of living of peasant landholders in Mexico. The small migrant and non-migrant samples within both communities were controlled for the factors of farms size and irrigation, and questionnaires were administered to both farmers and homemakers. Migration was measured through five separate indices of a migrant non-migrant dichotomy, time spent by farmers in the USA, degree of family contact with the USA, agricultural work experience of migrants while in the USA, and the amount of money returned from the USA. Agricultural practices were measured through a list of 17 crop and livestock practices, and orientation through five indices of mobility, use of information sources, contact with agricultural change sources, knowledge and aspirations. Level of living was determined through five indices of house construction, household possessions, clothing, diet and health.

Correlation coefficients were used to measure the relationships between variables. Migration was generally found to be positively related to the use of improved agricultural practices, extra-local orientation and a higher level of living. However, a broader and more applicable agricultural work experience by migrants in the USA was not related to the use of improved agricultural practices, and the amounts of money returned by migrants were not related to a higher level of living.

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BIOGRAPHY

The author was born in Glasgow, Scotland in 1937 and grew up in the United States. He completed his secondary education at Groton School, Massachusetts and attended Williams College, Massachusetts, from which he graduated with honors in geology in 1959. Following two years of work with the Laubach Literacy Fund in rural Mexico, a linguistic study of several Central and South American countries, and six months of additional university study in his home state of California, he entered the Inter-American Institute of Agricultural Sciences in September, 1963. He studied in the Department of Economics and Social Sciences, with the major emphasis of his studies in the field of rural sociology.

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INTRODUCTION

The Background: Mexican Migration to the United States

Types of Migration

Migration between Mexico and the USA is not a recent population movement. Due both to factors of common heritage in the Southwest and the geographical proximity this migration has existed throughout the history of both countries, and has been characterized by its temporary as well as permanent nature[1/].

The temporary migration of Mexicans to the USA may be classified into three major typologies, dependent on the means of entry into the USA. The first group consists of those who are admitted as permanent immigrants, and who subsequently are classified as resident aliens. Although the vast majority of this group has established permanent residence in the USA many have also returned to Mexico, or maintained family and homes in Mexico to which they return with regularity. The second group is composed of the illegal migrants who have entered the USA as "mojados" or "alambristas"[2/]. Normally in search of temporary employment in seasonal agricultural work, these migrants have largely been isolated to the border areas of the Southwest and their permanence in the USA has on the average been for short

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1/ For a detailed account of both the history and forms of Mexican migration to the USA the reader is referred to: Charles C. Cumberland, "The United States-Mexican border: a selective guide to the literature of the region", Rural Sociology 25(1960 Supplement). Also John Chala Elac, "Employment of Mexican workers in United States agriculture 1900-1960; a binational analysis", Unpublished Ph.D. dissertation, Los Angeles, California: U.C.L.A., 1961. Also Stella Leal Carrillo, "Importancia económica y social de la población mexicana en Estados Unidos de Norteamerica", Tesis, Mexico, D.F., Escuela Nacional de Economía, Universidad Nacional Autónoma de México, 1963.

2/ Wetbacks or wirecrossers, terms used to describe their method of crossing the border.

periods of time[1]. The third group consists of the Mexcian braceros, contracted workers who are admitted to the USA for temporary employment under specific conditions, requirements and guarantees which were formally arranged by both the Mexican and USA governments. Initiated in 1942 to compensate for World War II labor shortages in USA agriculture and railroad construction, the bracero is bound by legal obligations to return to Mexico following the completion of his contract in the USA. These contracts are issued for one to nine months, but can frequently be renewed for longer periods of time. Since 1942 almost ten million braceros and wetbacks have temporarily migrated to the USA[2].

The Migrant: his Origin and Migration

Although specific information is available on only the states of origin of bracero workers, Gamio (1930) and Saunders (1951) both support the evidence that major migration has occurred from the northern and central states of Mexico, especially Guanajuato, Jalisco and Michoacán[3]. Although few authors

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1/ In the lower Rio Grande Valley of Texas, Saunders estimated that only 5% re-remained between one and five years, 10% were deported within two days, and the largest group (40%) remained in the USA between one and three months. In Lyle Saunders, "Sociological study of the wetbacks in the Lower Rio Grande Valley", Reprinted from: Proceedings; 5th Annual Conference, Southwest Council on the Education of Spanish-Speaking People: George Pepperdine College, Los Angeles, California, 1951.

2/ See Appendix A.

3/ See Appendix B. Gamio reported on migration during the 1920's prior to the establishment of the bracero program, and Saunders estimated that in 1951 over 75% of the wetbacks in the Lower Rio Grande Valley originated from Guanajuato, Michoacán, Jalisco, San Luis Potosi and Nuevo León. The figures in Appendix II, however, do not include the intensity of migration. De la Peña estimated that 24.5% of the 20-50 age male population of Zacatecas migrated as braceros in 1959, 23.5% of Durango, approximately 18.8% of both Michoacán and Gto., and 15% of Chihuahua. These compared with 7.3% of the same age-sex population for the whole of the Mexican nation. Moises T. de la Peña, "El pueblo y su tierra; mito y realidad de la reforma agraria en México, México, D.F.: Cuadernos Americanos, 1964, p. 152.

have scientifically studied the specific causes for migration, many have noted or studied native social and cultural characteristics of Mexicans who have migrated to the USA. (Humphrey (1948), Form and Rivera (1958), Mendieta y Núñez (1960), Elac (1961), Leal Carrillo (1963), and Lewis (1964.) In summary these studies provide evidence that migrants have generally been young; originate from poor and depressed rural areas; have been, in the majority of cases, landless or the sons of small landholders; and have belonged to the lower segments in their native, local social structure[1/]. In general these characteristics largely coincide with the factors which Hancock (1959), Leal Carrillo (1963), de la Peña (1964) and others suggested have encouraged the migration. These include the high, by comparison, USA farm wage level; inflation and the decline of real wages in agricultural employment in Mexico; the high birth rate and under-employment; seasonal unemployment in agricultural production; the lack of land and low production levels of small central Mexican farms, including "ejidos[2/]"; the inability of Mexico's rapid economic growth to greatly influence and increase the level of living of much of the rural population; the adventuristic spirit of Mexican youth; and the publicity sponsored by the USA agricultural industry. Among these Cámara (1956) emphasized the hypothesis of the discrepancy existent in the Mexican society between the aspirations and needs of the population with their actual opportuities for economic development, and the restrictions and difficulties of realizing these needs within their own cultural and social environment.

1/ That only the most impoverished migrate is qualified by Humphrey and Lewis who noted that in both the communities which they studied migration was strongest among the middle and upper lower economic sectors. Apparently the very poor in both communities were either unwilling or economically unable to migrate to the USA.

2/ Ejidos are comunal or privately farmed land distributed through agrarian reform by the Mexican government. Although the ejidatario, or individual member of the ejido, holds title to work the land the Mexican government and country retains specific ownership.

The majority of research on Mexican migration, and the most controversial in nature, has taken place in the USA[1/]. In the USA the actual work roles performed by migrants have varied widely, according to both their migratory typology and their area of employment. Whereas braceros have been specifically limited to agricultural work since World War II, the resident aliens or "green card" workers, and a minority of wetbacks, have obtained both industrial and commercial employment. The vast majority of work performed by both braceros and wetbacks, however, has been hand and stoop labor associated with specific cultural and harvesting practices in the production of commercial (especially sugar beet and cotton), vegetable and fruit crops. Although legislation in recent years has limited braceros occupations specifically to stoop labor, specialized and skilled roles, such as the use of farm equipment, irrigating, application of fertilizers and insecticides and general farm work, were formerly common[2/]. Individual farm employers frequently trained both wetbacks and braceros in skilled farm tasks and continued to re-contract and employ these "specials" on subsequent migrations. Although the existence of "specials" and the presence of labor pools have made the bracero available to some small farmers, many authors have noted that most of the braceros are employed on the large and corporation farms.

1/ These have emphasized the impact of Mexican migrants on the USA and their detrimental effect on USA farm labor and wage levels, and the general social conditions, treatment, frequent discrimination and wage levels under which the migrant has labored. For information regarding braceros see, for example, Ernesto Galarza, "Trabajadores mexicanos en tierra extraña", Problemas Agrícolas y Industriales de México 10 (1958):1-84; and Galarza, "Merchants of labor; the Mexican bracero story", San José, Calif.: The Rosicrucian Press, 1964; and House of Representatives, Committee on Agriculture, "Farm labor hearings", Washington: USA Government, 1958. For information on wetbacks see Lyle Saunders, op. cit. and Ed Idar and Andrew McLellan, "What price wetbacks", American G.I. Forum of Texas and Texas State Federation of Labor: Austin, 1953.

2/ Galarza, op. cit., 1964, pp. 87-95.

(Motheral, Metzler and Ducoff (1953), Fuller, Mamer and Viles (1956), Leal Carrillo (1963) and Galarza (1964.)

Because of their more permanent residence, resident aliens are the migrants who receive the broadest exposure to the USA culture, especially that of the Spanish-speaking population of which they form a fundamental part. Although small groups of braceros may live on individual farms and form friendships with Americans, the majority are largely segregated to labor camps. As well wetbacks, due to their fear of detection and for economic reasons, tend to either seclude themselves to isolated farms or else congregate in shanty towns, such as Tampiquito in Texas[1/]. However, Saunders (1951) noted that although the newly arrived wetback is easily identifiable, the one that avoids detection "begins after a time to blend into the human landscape. He learns new social habits and takes on new linguistic ways. His clothing and mannerisms change subtly"[2/].

Wages received by migrants in the USA vary widely according to the type of employment, and even in agriculture there is a large variation dependent on area, crop, and field. Anderson (1961), Hancock (1958) and others have estimated the average weekly salaries of braceros following all deductions at anywhere from 19-25 dollars. On the other hand salaries paid to wetbacks have normally been lower. Saunders (1951) reported wages of two to three dollars a day in Texas; since the wetback must also pay his own living and travel expenses his chance to accumulate capital is slight.

1/ Idar and McLellan, op. cit.

2/ Saunders, op. cit., p 9.

The Problem

Affects of Migration in Mexico

Mexicans returning to their communities following temporary periods of employment in the USA may be expected to have been affected in three major ways. The basic hypothesis of this study is that these affects will serve to differentiate the use of improved agricultural practices and orientation of migrant workers from those Mexican farmers who did not leave their local communities.

The first of these affects is expected to result from the accumulation of specific knowledge and skills, both agricultural and otherwise, which the migrant may have acquired from his work and experiences while in the USA. Many authors, including Elac (1961), Gamio (1961), Leal Carrillo (1963) and de la Peña (1964) have suggested that agricultural changes and the direct application and diffusion of new farm technology may have occurred as a result of migration and agricultural work in the USA. In a descriptive, non-scientific study, Baker (1953) largely credits the rapid agricultural development of the Pacific Coast states of Sonora and Sinaloa to the efforts of braceros who obtained certain agricultural skills and insights while working in the USA. Barlow and Crow (1957), both USDA specialists, credit the technical skills brought to Mexico by braceros as being one of the major factors for the rapid increase in Mexican cotton production. Although Hancock (1959) also noted that new and improved technical skills were a characteristic of returning migrants in Chihuahua, he considered these to be of secondary importance compared to other effects. Other writers, including Lewis (1960) and Elac (1961) doubt that braceros have learned many agricultural skills that can be applied in their own rural communities. Among small

ejido migrants in a mountainous municipio[1/] of Chihuahua Hancock (1959) found that the area was not greatly suited for the application of new farm technology with which the migrant may have become familiar while in the USA. Due to the great differences in the applicability of farming methods between the large USA commercial farms and the small non-irrigated Mexican farms of migrants these results are not surprising. Gamio (1961) also doubts that many braceros, employed largely in unskilled stoop labor such as harvesting and hoeing, are brought into contact with situations where they might be able to learn technical skills regarding general and improved farm practices. In his study of the diffusion and adoption of hybrid corn in four Guanajuato municipios Martinez Reding (1963) actually found that a larger proportion of non-bracero farmers than bracero farmers had adopted the practice of hybrid corn, and that braceros were generally retarded in the adoption process[2/].

The second affect, resulting from the migrant's total experience in a different culture, is his introduction to both attitudes and values which are different from those in his native community. Although migrants may remain relatively isolated in terms of complete cultural contact while in the USA, it may be expected that certain changes occur in their perspective and general orientation, and that these values would be maintained following the migrants' return to Mexico. In discussing the many controversial affects of the bracero migration in Mexico Elac (1960) states: "One thing is certain: the bracero program tends to reduce the fatalism that is often encountered with people accustomed to the stability of poverty"[3/]. Likewise Lewis (1960)

1/ Equivalent to a county in the USA.

2/ However, in this study no attempt was made to control the environmental conditions of the comparison; a majority of the braceros were found to be farming non-irrigated land, a factor which significantly limited the adoption of the hybrid corn.

3/ Elac, op cit., p. 193.

and Leal Carrillo (1963) suggest that the bracero program has greatly broadened the perspective and orientation of the rural Mexican population. A basic concept of the present study is that the insight and experiences gained as a result of working with new agricultural methods in an efficiency minded and highly economic environment, such as the USA, may provide a definite conceptual break with both the traditional agricultural methods used by the migrant, and the traditional values and customs which formerly governed his behavior.

In research regarding the adoption of new farm practices major attention has been devoted to the mobility and extra-local orientation of the individual farmer, especially in reference to his sources of farm information. The studies of Ryan and Gross (1943), Wilkening (1952), Lionberger (1953), Rogers and Burdge (1961), Deutschman and Fals Borda (1962) and others have shown that farm innovators and early adopters are generally more mobile in nature and make greater use of cosmopolitan, or non-local, information sources. Similarly Hoffer (1942), Wilkening (1951) and Lionberger (1951) have shown that cultural isolation, the antithesis of mobility and migration, is negatively related to new practice adoption. In respect to this study it might be hypothesized that the experience in the USA has not only provided the migrant with specific information unavailable to the non-migrant who remained in the local community; it may also stimulate the formation and maintenance of extra-local contacts and a general extra-local orientation. This orientation, in turn, may provide information and stimulus not only for the adoption of new agricultural techniques, but for changes in all phases of the migrant's living and behavioral patterns. Similarly Wilkening (1952) and Marsh and Coleman (1954) found that a high dependence on relatives and friends is usually negatively associated with the adoption of new farm technology. It may be expected that the migrant who decided to leave his

community temporarily, and who forms new values and friendships as a result of his migratory experience, will be less dependent upon these local and restricting influences than the non-migrant. The studies in the USA by Hoffer and Stangland (1958) and Ramsey, Polson and Spencer (1959) also found that the values of traditionalism and security were negatively related to the adoption of new farm practices. It might be expected that the temporary separation of a migrant from his native community setting and his exposure to a very different environment and culture (both that of the USA and also the greater Mexican society) would tend to weaken traditional values opposed to the adoption of new ideas and change.

Similarly studies by anthropologists, including Redfield (1941) and Lewis (1951) in Mexico, have generally shown that those individuals in contact with cultures and social processes outside of their native community serve as agents for the incorporation of fundamental changes in their particular social systems. With increased participation in the culture outside of their native communities, such as the contact migrants have experienced as a result of their trips to the USA, individuals will be more likely to accept changes and values which are foreign to their local culture. As a direct result of braceroism many authors, including López Malo (1954), Hancock (1959), Lewis (1960) and de la Peña (1964), have noted this acculturation effect of the migration upon Mexico. In Villagran, Guanajuato García Manzanedo and Garate de García (1956) found that migrant savings had been converted into the construction of new houses, changes in clothing and the purchase of modern articles such as radios, electric irons and sewing machines. In an indigenous community within the same municipio these authors also reported the learning of Spanish and changes in literacy. In Tepoztlan, Lewis (1964) noted changes in clothing and the possession of radios and

mechanical toys; as well many braceros had invested their savings in house improvements and in land and cattle. In their study of the stratification system of a Sonora border community, Form and Rivera (1958) found that returning migrants not only achieved improved social and occupational positions within the community, but also that their social and occupational mobility was greater than those who had not gone to the USA. Although Gamio (1961) felt that seasonal migratory workers who had only spent short periods in the USA did not experience permanent change, he did suggest that those who have spent several years in the USA, in what he terms an environment "at a higher stage of development", not only undergo fundamental cultural changes, but also are the agents for diffusing these changes once they return to their native communities. Gamio also feels that migration has been a very important factor in disrupting the barriers which have been opposed to social change.

The third factor, and probably the most obvious, is the economic affect resulting from the wages paid to migrants in the USA. In years of maximum bracero migration Hancock (1959) and Elac (1961) estimated that between 120 and 150 million dollars were returned to Mexico annually by braceros. Similarly, at the peak of the wetback migrations in 1953 Idar and McLellan (1953) suggested that between one and five million dollars per week were being sent to Mexico by wetbacks. Although the individual earnings of migrants may never be high by USA standards, and the investments required for contracts and travel to the USA often great, they obviously stand in sharp contrast to the low wages obtainable in rural Mexico. Not only do these provide a means for the maintenance of the migrant and his family; they also provide an important resource with which the migrant can

demonstrate and realize both new and old aspirations and values, be it the purchase of a mule, a transistor radio or materials for improving his home.

Hypotheses

The fundamental problem of this study was to investigate the relationships existent between migration[1/] and two dependent variables, the use of improved agricultural practices and the general orientation of the Mexican farmer[2/].

A variety of agricultural practices, covering both crops and livestock, were studied in order to determine whether migration was positively associated with any improvement in farming conditions in Mexico. Although the study of Martinez Reding (1963) showed a negative relationship between the adoption of hybrid corn and migration, this study attempted to measure the relationship within a more restricted and controlled environment[3/].

The orientation of the farmer was based on the society and social values toward which individual farmer's behavioral and thought patterns were directed. Divided into five sub-variables which included mobility, information sources, contact with agricultural change sources, knowledge and aspirations it evaluated the extent to which individuals were oriented toward local and traditional values and behavioral patterns within their

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1/ A migrant was defined as anyone who had been to the USA for a minimum period of one month. This was done to avoid the cases of individuals, exclusively wetbacks, who had been deported from the USA within several days of crossing the border.

2/ A third variable, the level of living, was also studied by the author's wife using corollary data obtained from the homemakers of the same sample. The presentation and analysis of these data parallel that of the agricultural practices and orientation, and are presented in Appendix D.

3/ See Chapter II, Selection of the Communities and Sample.

own community, or toward extra-local patterns largely foreign to the immediate native community.

Four major hypotheses were formulated in order to evaluate the relationships between migration to the USA and the two dependent variables of agricultural practices and orientation. The first hypothesis was a basic comparison to determine the differences between those who had migrated to the USA and those who had not migrated: That migrants who have been to the USA would make greater use of improved agricultural practices and have a stronger extra-local orientation than farmers who have not been to the USA.

The second hypothesis, also used to differentiate between migrants and non-migrants, attempted to evaluate migration in terms of the duration of time spent in the USA: That the greater the amount of time spent by farmers in the USA, the greater would be their use of improved agricultural practices, and and the stronger their extra-local orientation away from the local community. The basic concept of this hypothesis is that if the dependent variables are influenced by migration that increased migration, measured in time, should exert a corresponding increase in both agricultural practices and extra-local orientation.

The third hypothesis considered the indirect influence of migration by attempting to determine the extent of migration within individual family households. The purpose of this hypothesis was to evaluate the affect of migration on a farmer by both his own migratory status as well as the migratory status, and resultant indirect influence, of other members of his immediate family who might also have gone to the USA. The hypothesis proposed: That the greater the degree of family contact with the USA, the greater would be the farmer's use of improved agricultural practices and his degree of extra-local orientation.

A final hypothesis was formulated in order to evaluate the agricultural affect of the actual work experiences of migrants while in the USA. The hypothesis projected that: There would be a positive relationship between the type of agricultural work performed in the USA and the use of improved farm practices. The basic function of this hypothesis was to determine the possible direct diffusion of improved agricultural technology from the USA, dependent on the type of work performed by the migrant and the applicability of the crops with which he had worked to those grown in his own community. The hypothesis projects that migrants who have performed more skilled and applicable work roles in the USA will make greater use of improved agricultural practices on their own farms in Mexico.

CHAPTER II

METHODOLOGY

Introduction and General Procedure

The collection of field data and the analysis of the problem followed a progressive series of separate, but interrelated, stages.

The first stage, accomplished in November and December of 1964, involved the delineation of major migration areas in Mexico, and finally the selection of the communities for the study.

The second stage, carried out between January and March of 1965, involved establishing residence in the communities. During this three month period work was concentrated on observation and informal interviewing in the communities, for the purpose of formulating an applicable questionnaire and selecting the sample. During this period information was obtained both from observation and informants and is presented in the description of the communities and the characteristics of migration in both communities. During this observation period items were selected for the questionnaire which were later to be used in the construction of the indices of migration, agricultural practices, and orientation.

The third stage involved the actual sampling of the population in the two communities and the application of the questionnaires. This was carried out from April to June. From these questionnaires specific data were obtained which were used in the analysis of the problem. From these data additional information was obtained which is included in the description of the setting and migration in the two communities.

Following the completion of field work, the fourth stage was devoted to tabulation and the actual construction of the indices of migration, agricultural practices and orientation. This was done following a re-evaluation of the results of the specific items obtained from the application of the questionnaires.

The final stage of methodology involved the analysis of the different indices in order to determine the relationship that existed between migration and the dependent variables of agricultural practices and orientation. Coefficients of correlation were calculated in order to measure these relationships.

Selection of the Communities

Three criteria were used for the selection of the communities. The first was that the study be conducted within a major migration area in order that it be representative of migration in the nation. The second was that within the specific community or communities there should be a minority of migrants as compared to non-migrants, in order to minimize the indirect influence of migration on the non-migrant sector of the population. The third criteria was that within the community agricultural conditions should be homogeneous to the extent that both migrants and non-migrants would have an equal opportunity for the application of improved farm practices. This was done in order to control the influence of other independent variables, such as irrigation which was analyzed by Martinez Reding (1963).

The first criteria was met by selecting the Central Plateau area of Mexico which includes the states of Guanajuato, Michoacán and Jalisco. From literature, conversations with social scientists, and information available

on the states of origin of bracero workers[1/], these three states were found to constitute a major area of migration in Mexico.

The second criteria of a minority of migrants within the total community population could not be met. Since state and municipio archives did not maintain accurate records of migration, specific visits to random communities had to be made. Due to the press of time, professionals in Mexico suggested that the community visits be limited to municipios surrounding Morelia and Yriria, Michoacán, and Celaya, Guanajuato. In all, 25 communities were visited, and information was obtained from community and ejido leaders on the number of landholders or ejidatarios and the size of their holdings, and the approximate number of these who had been to the USA. The communities visited fell into two distinct groups. In communities without irrigation and with small land holdings of one to five hectares, a majority of the farmers had gone to the USA. In other communities with irrigation and larger landholdings, or non-irrigated but optimum farming land, very few of the farmers had reportedly gone to work in the USA. The criterion was abandoned because it was felt that if the choice had to be made between a very low or high migrant community, it was preferable to select the latter in order that the study reflect the overall affect of migration on farmers in Mexico. From the communities visited with a high migrant population, La Cañada de Caracheo in Cortazar, Guanajuato was selected. Although a large proportion of the total members of the community had been to the USA, community leaders initially estimated that only one half of the landowners had actually done so.

1/ See Appendix B.

La Cañada de Caracheo met the third criterion that the community should exhibit homogeneity in regard to farming conditions. No land in the community was irrigated and although there was variation in regard to farm size, this could be controlled through the selection of the sample.

After residence had been established in La Cañada and the landowners and their migration had been examined more closely, it was found that the proportion of migrant landowners had been underestimated by the initial informants. Of the 89 resident male landowners, it was actually possible to select only 21 pairs of migrants and non-migrants who could be matched and controlled for the size of their farms[1/]. It was therefore decided to select an additional nearby community, in order to obtain additional interviews. A community with irrigation, and therefore with a smaller proportion of migrants, was felt to be preferable.

Four additional communities were visited; all of them were ejidos. The lists of ejidatarios were checked with the local formal leaders of the ejido, who served as informants, and the proportion of estimated migrant male ejidatarios to non-migrant male ejidatarios for these four communities and La Cañada was determined. (See Table 1.) The location of these communities in respect to each other is shown on Figures 1 and 2.

1/ For a complete description of this sample, see The Sample.

Table 1. ESTIMATED PROPORTION OF MIGRANT AND NON-MIGRANT MALE LANDHOLDERS IN FIVE COMMUNITIES IN CORTAZAR, GTO.

Community	Migrant %	Non-migrant %	Total %
Ejido de Parra	10	90	100
Ejido de las Colonias	29	71	100
Ejido de La Mocha	35	65	100
Ejido de Caracheo	41	59	100

1. For a complete description of this sample, see the Sample.

From these four ejidos Las Colonias was selected as the second community for the study[1/]. It met the third criterion of homogeneity in that all the ejidatarios received irrigation on at least part of their land and there was almost no variation in regard to size of the holdings of all ejidatarios. It also appeared to meet the second criteria in that a minority of the ejidatarios had been to the USA. As well, Las Colonias offered an interesting comparison to La Cañada; because the ejidatarios farmed holdings of 9-10 hectares, the vast majority of which was irrigated, it offered an optimum environment for the application and use of improved farm practices. Due to the lack of irrigation in La Cañada, the use of improved agricultural practices in the community was expected to be low.

1/ In Parra each ejidatario held six hs. of completely irrigated land. In Las Colonias each ejidatario held 8-10 hs. of land, all but one or two of which was normally irrigated. However, originally Las Colonias had no irrigated land and received irrigation at a later date than Parra. In La Mocha each ejidatario had approximately six hs. of land, one half of which was irrigated. In Caracheo the size of ejido plots was also six hs., but only slightly over one half of the ejidatarios held two or three hs. of irrigated land, aside from their non-irrigated holdings. In La Cañada all of the land was non-irrigated. This continuum of an increasing percentage of migrants, inversely proportional to the amount of irrigated land available, appeared to support the information obtained from the initial 25 communities.

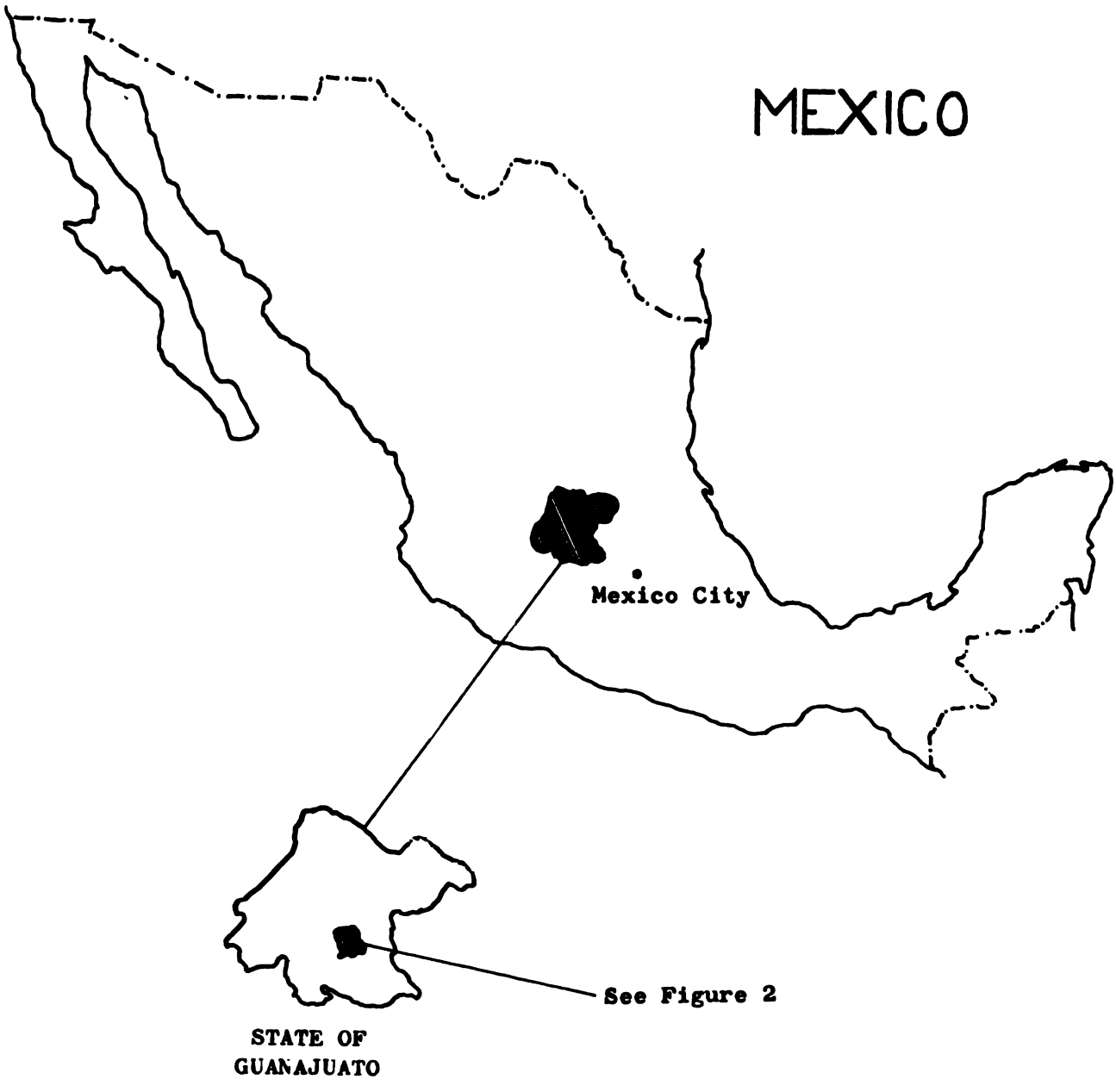

Figure 1. REGIONAL LOCATION OF THE STUDY

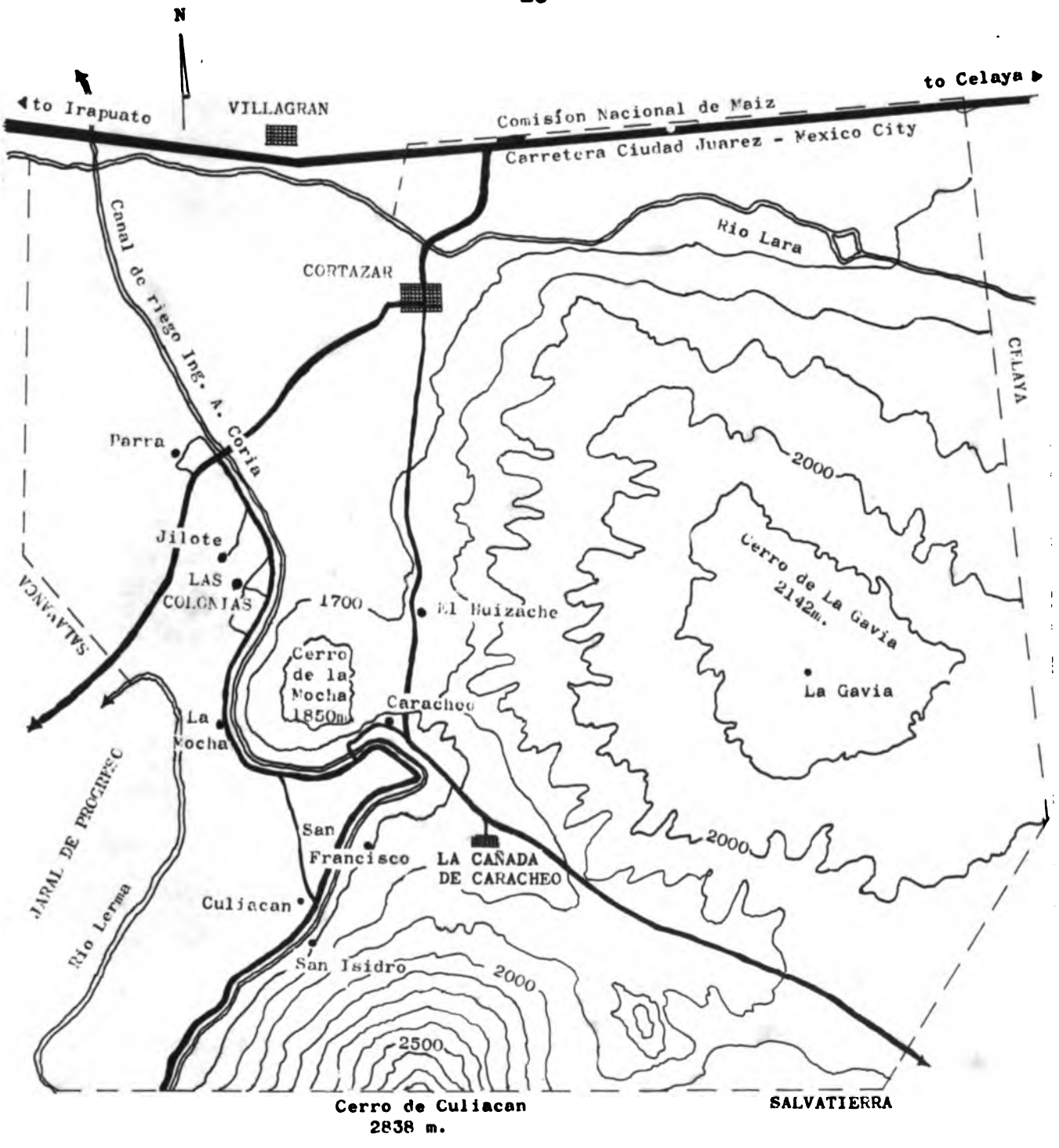

Figure 2. MUNICIPIO OF CORTAZAR, GUANAJUATO

Scale = 1:100,000

Based on data obtained by Rafael Aguilar, Cortazar, 1954

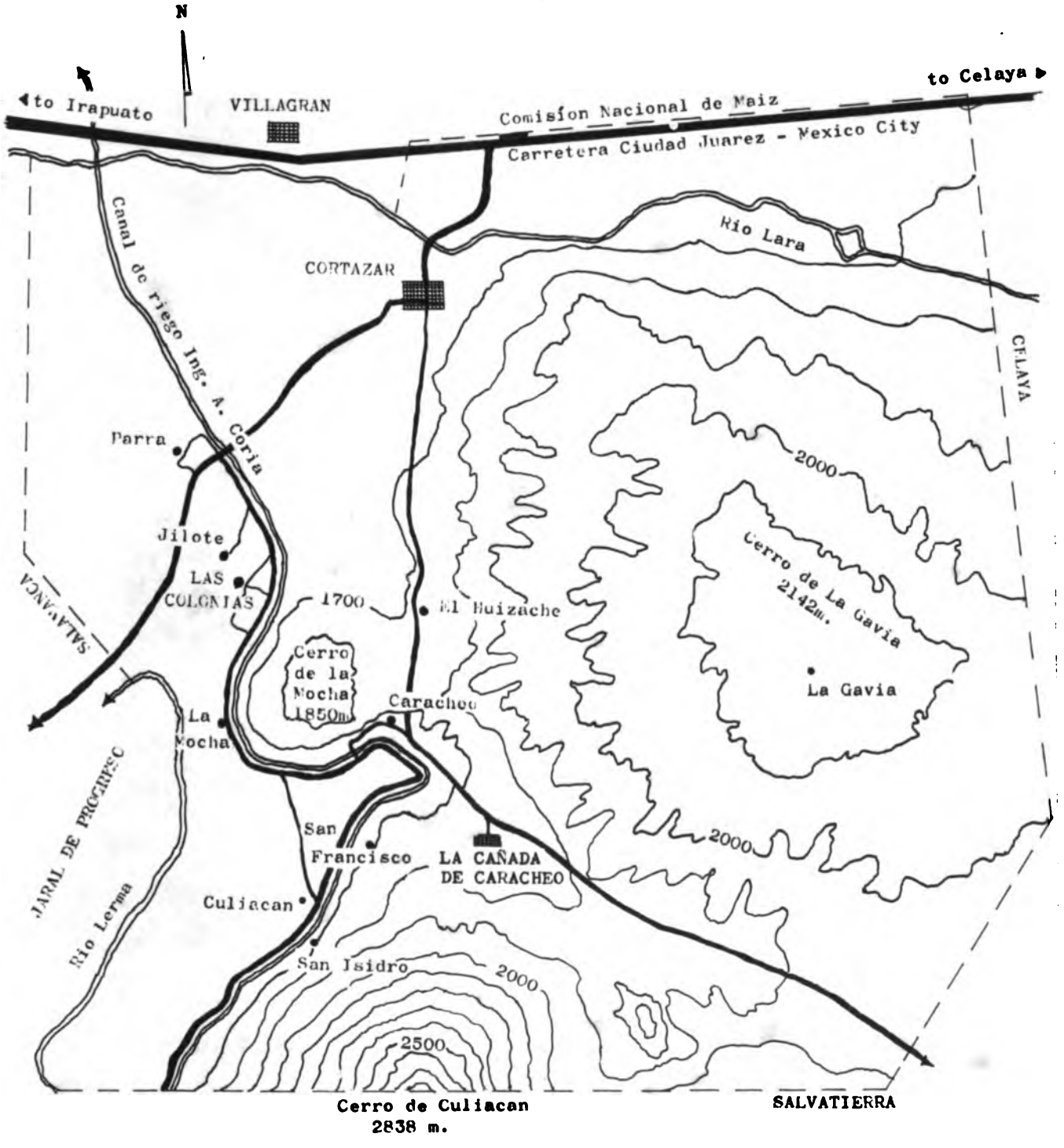

Figure 2. MUNICIPIO OF CORTAZAR, GUANAJUATO

Scale = 1:100,000

Based on data obtained by Rafael Aguilar, Cortazar, 1954

The Setting

Description of the Communities1/

La Cañada de Caracheo and Las Colonias are both mestizo communities in the municipio of Cortazar in the state of Guanajuato. Cortazar, the municipio seat and service center of the immediate area, is three kilometers south of the Panamerican Mexico City-Ciudad Juarez highway, and 19 kilometers west of Celaya. (See Figure 2, p.20)

Climatological differences between the communities are slight. They both experience a rainy season from June through the beginning of October and a dry season from October through May. Yearly average rainfall is approximately 660 mm. (26 inches) and the medium annual temperature is 19.5º C (67º F.)

La Cañada is a comparatively large village of 3,499 inhabitants situated at an altitude of approximately 1800 meters in the valley foothills between the mountains of Cerro de Culiacan and La Gavia. Fourteen kilometers by poor grade dirt road from Cortazar, the community is largely traditional, isolated, and to an extent, self-sufficient. It contains two schools, a priest and church, post office, military outpost, movie theater, pharmacy, four corn mills, and 35-40 small stores which sell a limited variety of essential merchandise. All of the service needs of La Cañada may be satisfied within the community with the exception of agricultural equipment, certain clothing and household items, and the payment of yearly land taxes. The community does not have electricity and only two residences receive piped water. Ten villagers own

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1/ A more complete description of the two communities is presented in Appendix C.

trucks, and, weather permitting, three buses made trips daily to Cortazar. An improved road being constructed in 1965 will insure this service.

Farming land is steep and extremely rocky due to its volcanic origin. All land is privately owned and the average holding is less than 20 hectares, although a small number of villagers own large tracts in excess of 100 hectares. The vast majority of the population does not own land and works as "medieros", or sharecroppers. Both plow and hoe culture are practiced, although the former is clearly dominant. Corn, beans, and garbanzo (chick pea) are the only important crops grown. In addition many farmers raise cattle, goats or pigs. None of the farming land is irrigated and much of the uncleared land and fallow fields are used as pasture.

Las Colonias is a small and new farming settlement of 365 inhabitants. It is situated at an altitude of 1700 meters on the flat valley floor of the "Plan", which covers most of the important, large agricultural area known as El Bajio. It is only three kilometers by good, dirt road from the paved highway joining Cortazar and Jaral de Progreso, and a total of eight kilometers from Cortazar. The community is also one kilometer down slope from a large irrigation canal which provides water for farming.

Las Colonias is highly dependent on Cortazar. The only public service which the community receives is a primary school, and two corn mills are privately owned. There is no church, village square or stores selling general merchandise. Only one farmer has electricity, and household water is provided from individual, private wells. All of the community's religious, agricultural and daily household service needs are met in Cortazar, as well as many of the educational, diversion and general social needs of the population. Busses frequently pass along the irrigation canal and five farmers possess vehicles.

Las Colonias is an ejido community and almost all of the ejidatarios were former residents of Cortazar. At the present, a majority of the members of the ejido live in Las Colonias, but almost half of the ejidatarios reside in either Cortazar or the nearby community of El Jilote. One quarter of the ejidatarios living in Las Colonias actually own houses in Cortazar.

All the ejidatarios hold title to irrigated land, and the size of each ejido holding is 8-10 hectares. Cultivation is intensive and diversified; the major crops grown are corn, alfalfa, wheat and field beans, and minor crops include "habas", garbanzo, tomatoes, garlic,and a small variety of other vegetables. All of the land is plowed and machinery is commonly used with certain agricultural practices. Three of the ejidatarios own tractors. Almost all of the farmers own small Holstein dairy herds. These animals are maintained in corrals beside the homes due to the fact that there is no land for pasturage.

Migration in the Communities

The major difference between the two communities is that migration has been more intense in La Cañada than in Las Colonias. (See Table 1). Whereas it was estimated that 50% of the male landholders in La Cañada had been to the USA, informants estimated that only 29% of all the male members of the Las Colonias ejido had migrated[1/]. From data obtained in the interviews with

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1/ Both these figures were underestimates. Following corrections made after interviewing the sample, 66% of the male landholders in La Cañada had been to the USA as compared to 47% of only the male ejidatarios residing in Las Colonias. This underestimation in Las Colonias is probably due to the fact that ejidatarios had migrated when young and for short periods, some of them prior to establishing their residence in Las Colonias. As a result, informants did not give an accurate evaluation of migration. In La Cañada, where migration was a more important social value and the duration and frequency of trips greater, informants were able to offer more accurate information.

migrants in the two communities, those from La Cañada had also been to the USA more frequently and for longer periods of time, and had also returned with larger earnings. Whereas there was only one individual from Las Colonias who had resident papers for the USA, approximately 65 part-time residents of La Cañada were classified as USA residents. For the most part, these men and women lived the majority of the year with or without their families in the USA, and returned every year or two to spend several months at their homes in La Cañada.

Economic conditions largely explain this difference between the two communities. In La Cañada the lack of land and irrigation, and unemployment, have all stimulated and dictated migration, whereas the contrary has been characteristic of the ejidatarios in Las Colonias.

Within both communities certain migrational patterns were shared which further supported this assumption. In La Cañada migration was stronger among farmers with small landholdings as compared to farmers with larger landholdings. (See Table 2, page 26) In the total population of the community a vast majority of the landless peasants had been to work in the USA. Similarly in Las Colonias a majority of the peasants in the community who were not ejidatarios and had no land had been to the USA. In both communities migration was a characteristic of youth; men migrated most frequently between the ages of 20 and 35, beyond which the desire to migrate and the frequency of migration decreased.

The Sample

The basic research design of the present study was to provide an evenly matched comparison between migrant and non-migrant farmers, controlling to as great an extent as possible other factors which might tend to influence

their behavior. This comparison was achieved within both communities by selecting equal pairs of migrant and non-migrant farmers, who were evenly matched for the size of their landholding[1/] and for the possession of irrigated land.

The universes in the two communities were determined through the use of municipio records and with the help of community leaders and local informants. In La Cañada these lists were outdated and had to be revised to include all landowners. From the compiled lists of landholders in both communities females, non-resident landholders[2/], and landholders living in the households of other older landholders were eliminated. The resultant lists of 30 ejidatarios in Las Colonias and 89 landowners in La Cañada constituted the universes from which the samples were drawn. Because of the variation in the size of the landholdings in La Cañada, the universe of the remaining resident male landowners was stratified according to farm sizes, using divisions of 10 hectares. This step was unnecessary in Las Colonias because it was previously determined that none of the ejidatarios owned private land and that none held title to more than a single ejido plot. Subsequently the farmers in each community were dichotomized as migrants or non-migrants, according to the information offered by community informants. In Las Colonias this

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1/ Previous studies have shown a consistent relationship between the size of agricultural holdings and the adoption of new farm practices. See Herbert F. Lionberger, "Adoption of new ideas and practices", Ames, Iowa: Iowa State University Press, 1960. Also Everett Rogers, "Diffusion of innovations", New York: Free Press of Glencoe, 1962.

2/ In La Cañada this resulted in the elimination of only a small number of non-resident landowners. In Las Colonias, however, 38 of the 82 ejidatarios who resided in either Cortazar or El Jilote were eliminated. Due to the shortage of time available for the completion of this study, it was not possible to interview any of these non-resident ejidatarios.

resulted in a universe of 10 migrants and 20 non-migrants. In La Cañada the universe consisted of 57 migrants and 32 non-migrants, whose farm size were stratied according to 10 hectare categories. (See Table 2.)

Table 2. ESTIMATED FARM SIZES AND MIGRATORY STATUS OF RESIDENT FAMILY HEAD MALE LANDHOLDERS IN LA CAÑADA

Size of Landholding (hs.)	Migratory Status Migrant	Non-migrant	Total
1 - 9	28	10	38
10-19	20	6	26
20-29	4	3	7
30-39	1	4	5
40-49	2	3	5
50-59	0	2	2
60-69	2	1	3
greater than 70	0	3	3
Total	57	32	89

The procedure of selecting the matched pairs of migrant and non-migrant farmers was staggered over time during the actual process of interviewing. This was done in order to be able to correct and compensate for informants' errors regarding estimated migratory status, and in La Cañada, estimated farm size. In each ten hectare grouping in La Cañada, and each migrant grouping in Las Colonias, the sub-group of migrants or non-migrants with the fewest number of cases was interviewed first. In Las Colonias this resulted in initially interviewing all of the migrants. In all cases the total population of this minority sub-group was interviewed. Where information obtained in the actual

interview was different from the informants estimated information, the interviewed farmer's name was added to the list of farmers in the correct sub-group. When the entire minority sub-group had been interviewed, a random selection of farmers from the majority sub-group was made in order to provide the matched pairs. In Las Colonias this resulted in the random selection and interviewing of non-migrants. Similarly, where an error was found regarding a farmer in the majority sub-group, his name was placed in the correct sub-group and a second adjustment was made.

In the sub-groups interviews were only conducted with selected migrants and non-migrants who could be matched. Where matching between the two groups was not possible, or no longer possible, the actual selection for interviewing was terminated. Where interviews could not be obtained in La Cañada due to either refusal or prolonged absence from the community[1/] these farmers were replaced by a random choice from the remaining farmers in the same migrant and farm size sub-group. Interviews which had to be adjusted due to informant error and which subsequently were not randomly selected for matching were not used in later analysis. In Las Colonias eight additional non-migrants had to be selected and interviewed in order to compensate for informant error and to complete the 14 matched pairs. In La Cañada ten interviews had to be changed from their original migrant and farm size sub-groups due to informant error. Of these, eight were subsequently selected and matched, and the remaining two were discarded.

1/ In La Cañada one interview was formally denied and another could not be obtained in spite of numerous visits to the farmer's home. At the time of the interviewing in La Cañada three migrant farmers were temporarily in the USA and could not be interviewed. In Las Colonias all of the selected farmers were interviewed.

In La Cañada the sampling resulted in the selection of 21 matched pairs of migrant and non-migrant farmers. These consisted of eight matched pairs owning less than 10 hectares, five pairs from the 10-19 hectare sub-group, three pairs from both the 30-39 and 40-49 hectare sub-groups, and one pair from the 60-69 hectare group. No interviews or matched pairs could be made in the 50-59 or greater than 70 hectare sub-groups due to the absence of migrants in these categories.

In Las Colonias 14 pairs of migrants and non-migrants were selected and interviewed. As a result of not stratifying the ejido population prior to selection, the two migrant groups failed to be as evenly matched as was originally expected. Of the interviewed farmers two migrants and one non-migrant were able to irrigate less than half of their farm land. Also five migrants and only three non-migrant ejidatarios were heads of families which held more than a single ejido plot; the extra plots were held by a brother, mother or son living in the same house. The maximum number of ejido plots held by any single family was three, and these were held by one migrant and one non-migrant family. However, it is unlikely that the actual size of the family's ejido holding bore any relationship to the farmer's use of improved agricultural practices[1/].

Instruments Used

In December, 1964, the author first visited La Cañada and was introduced into the community by an ex-health official from Cortazar, who had extensive

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1/ The actual correlation coefficient between the two variables of farm size and agricultural practices in Las Colonias was -0.03. On the other hand, in La Cañada there was a strong positive relationship of +0.53.

professional and personal knowledge of both La Cañada and Las Colonias. In January the author and his wife established residence in the community which they maintained for a period of four months. At the end of April this residence was changed to Las Colonias where the study was continued until the completion of field work in June, 1965.

Although formal interviewing with questionnaires was used to obtain the analyzed data, this represented the final phase of the field work. The first three months of residence in the communities were devoted to establishing rapport, a difficult process in La Cañada due to the general distrust of outsiders; the ennumeration and classification of landholders and migrants for the purpose of selecting the sample; and general observation in order to familiarize the author with the communities.

Based on this experience and period of observation in La Cañada and Las Colonias, as well as extensive informal interviewing with many farmers and their families, two questionnaires were formulated[1/]. The actual items on these questionnaires were specifically selected for their applicability to the communities, and for their ability to distinguish existent differences between farmers in the variables studied.

1/ These questionnaires are presented in Appendices I and J. Due to differences between La Cañada and Las Colonias, certain items in the questionnaires referred specifically to one of the two communities and were analyzed as such. In the tabulation and analysis of the data from the questionnaires certain other items were eliminated. This was done where the specific items failed to be of use in distinguishing differences within the communities; where the items were found to be not particularly applicable to the situation or applicable to only a very reduced number of the population; and where poor interviewing and omissions had consistently been made in the homemakers' questionnaire in La Cañada.

The first questionnaire, administered by the author to the selected male heads of families, included sections regarding personal characteristics of the farmer, migration and attitudes toward migration, land tenancy, cropping systems and the use of agricultural practices, and orientation. The second questionnaire, prepared by the author's wife, was administered to the wives of the previously interviewed farmers[1/]. Its purpose was to obtain corollary information on the level and conditions of living in the home, and included sections on the demographic data of the family, house construction, the possession of items and furnishings in the house, diet, clothing and health. The interviews with the farmers took place either in the farmer's home or outside the home in the street; in Las Colonias some of the interviews were administered to farmers in their fields. All of the interviews with female homemakers were conducted in their homes.

Indices Used for the Analysis of the Data

Different indices were prepared and used in order to quantitatively measure the three variables considered in this study. The framework of analysis of the problem in both communities was based on the degree of relationship found to exist between these indices of migration and the different indices of agricultural practices and orientation.

1/ In cases where the farmer was not married, the interview took place with the female head of the house. In three non-migrant cases in La Cañada, where there were no female residents in the home, the farmer himself was interviewed. Although the majority of questions were specifically asked of the respondent, certain observations of house construction and furnishings were made. The author's wife interviewed all of the homemakers in Las Colonias, but due to illness six primary school teachers, all untrained interviewers, administered the questionnaires in La Cañada. The analysis of the data obtained from these questionnaires is presented in Appendix D.

Indices of Migration;

The use of improved agricultural practices and the orientation of the farmer were measured against four separate indices of migration. These migration indices included:

1. Migrant Non-migrant Dichotomy:

   A migrant was considered to be any farmer who had been to the USA for a minimum of one month, regardless of whether he went to the USA as an immigrant, bracero, or wetback. Due to the sampling procedure the number of migrants and non-migrants in each community was evenly matched in this dichotomy.

2. Amount of Time Spent in the United States:

   This index measured the amount of time spent by farmers in the USA and was based upon the accumulated time period for all of the migrations of each farmer. The index was divided into one year intervals and ranged from less than one month, which by definition represented a non-migrant, to 60 or more months. In calculating the correlation coefficients for this index, the median of 90 months was used for the "60 or more" month category.

3. Family Contact with the United States:

   A four point scale was used to measure the approximate degree of family contact with the USA. The scale included three distinct items and each item was given a single point value. The sum total of points for each farmer ranged from zero, representing no direct contact, to three, representing maximum family contact. The three items included:

   1. Male head of the household has been to the USA for a minimum period of one month.

2. Any other member of the family residing in the same household has been to the USA.

3. The male head of the household has a son or daughter presently residing in the USA, or any other family relative who either regularly sends money from the USA or who lives in the household when he or she come to Mexico.

4. Agricultural Experience in the United States:

A five point scale was used to measure the migrant farmer's work experience while in the USA. The purpose of this scale was to estimate whether a migrant was exposed to agricultural work from which he might have learned something which he could apply in his native community, and the index was correlated only with the farmer's use of improved agricultural practices. Four general items were included in this index. Each item was assigned a single value and the total score for each migrant was determined. A maximum value of four was felt to represent maximum exposure to agricultural technology from which the migrant could have benefited; a minimum value of zero represented little or no exposure to USA agriculture. The four items included:

1. Migrant while in the USA worked in an agricultural occupation rather than in completely non-agricultural work, such as railroad construction.

2. Migrant performed general or skilled farm work rather than just stoop labor. This item differentiated work such as irrigating, tractor driving, applying fertilizers and pest controls from work that involved nothing more than hoeing, thinning or harvesting.

3. Migrant worked with livestock or in crops that were applicable to and actually grown in his community. This involved work with crops and livestock previously mentioned in the description of La Cañada and Las Colonias.
4. Migrant, when asked what he liked about the USA during the interview, made specific mention of anything regarding agricultural practices or agriculture, other than general comments regarding agricultural labor.

Index of Improved Agricultural Practices

Seventeen practices, fourteen applicable to La Cañada and fifteen to Las Colonias[1/], were analyzed in order to determine each farmer's use of improved agricultural practices. Three general types of practices were used in this index. The first included the planting of recommended seed varieties[2/], the second the performance of recommended and improved cultural practices[3/], and the third the performance of improved livestock practices related to the raising of cattle or dairy herds and pigs[4/].

1/ Practices were eliminated from the tabulation of either community where less than 25% of the population interviewed in the community had cultivated that particular crop.

2/ The seed varieties and several other practices were those recommended by the Centro de Investigaciones Agrícolas del Bajio in Celaya, Gto. They included recommended varieties of corn, wheat and field beans. A complete listing of the agricultural practices index and the actual use of these practices by farmers in La Cañada and Las Colonias is presented in Appendix F.

3/ Such as the application of fertilizers, planting dates of alfalfa and garbanzo, and the means used for plowing.

4/ Such as the breed of animals, whether they were vaccinated and facilities used for their maintenance.

The practices were evaluated on the basis of their use by the farmer during the past year if he had cultivated the particular crop during this period. With the exception of the possession and breed of cattle, livestock practices were also evaluated only in cases where the farmer owned the particular animals. Each practice on the index was assigned a value of one point, and the partial use of certain practices was assigned fractional values of one point. Each farmer received an improved agricultural practice score which was determined by dividing the sum total of points which he accumulated on the index by the number of practices which were applicable to his farm; in other words, the percentage of applicable practices which he had used. The possible range in scores varied from 0.00, which represented no use of any practices, to 1.00, which represented the full use of all the improved agricultural practices applicable to any particular farm.

Extra-Local Orientation

Because of the broad working definition of the concept orientation, five separate indices were used to measure this variable[1/]. The five indices included: mobility toward three urban centers; the use of four information sources; contact with specific agricultural change sources; knowledge of extra-local and current events; and migrational and occupational aspirations[2/]. All of these indices were composed of items which were largely foreign to the local communities and characteristics which pertained to a more nationally

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1/ No attempt was made in this study to relate or total the five indices of orientation, and each was correlated independently with the variable of migration. The major purpose of treating each orientation index separately was to be able to determine which particular aspects of orientation were most strongly related to migration.

2/ A complete listing of the five orientation indices, the specific score value of each item, and the use of these items by interviewed farmers in La Cañada and Las Colonias are presented in Appendix G.

oriented society. Positive responses to individual items indicated an extra-local orientation which was directed away from the native community; a negative response indicated a local orientation toward traditional customs and values within the community.

1. Mobility:

Three questions were included to obtain information regarding the frequency of trips to Celaya and the last time the farmer had visited Irapuato and Mexico City. These three urban centers were regarded as an indication of orientation because farmers from La Cañada and Las Colonias could satisfy the vast majority of their service needs in Cortazar. Highest credit was given to Mexico City, the national center, and the lowest value to Celaya, a local urban center, and divisions were made on the median of the frequency of visits to each center by farmers in both La Cañada and Las Colonias. The sum total of points ranged from zero, which represented minimal mobility to only Celaya, to six, which represented maximum mobility to all of the urban centers.

2. Use of Information Sources:

The use of four information sources; newspapers, magazines, radio and mail correspondence, were included in this index. Each item received a single point value and the total scores for farmers ranged from zero, representing no use of any of the information sources, to four, representing use of all the sources.

3. Contact with Agricultural Change Sources:

Six items, all receiving a single point value, were included in this index. The actual sources of agricultural change considered were banks,

agronomists, farm bulletins, and agricultural demonstrations, research stations and fairs. A minimal total score of zero represented contact with none of the change sources; a maximum score of six represented contact with all of the sources.

4. Extra-Local Knowledge:

This index was composed of four items related to current events which might not have been known had the farmer not had some contact with information outside of the community. They included the ability to name Guatemala, the state governor, the significance of PRI[1/], and the words for which PRI stands. The total score of points for farmers ranged from zero, or no knowledge of these items, to four, which represented knowledge of all the items.

5. Extra-Local Aspirations:

This index was prepared to determine the occupational and geographic aspirations of each farmer. It included five items regarding the farmer's desire to leave the community, his desire for his sons to migrate from the community and hold non-agricultural occupations, and his aspirations for his daughters to leave the community and perform any occupation other than homemaker. The basis of this index was the traditionally held concept, existent in both communities, that a farmer would want his son to remain in the native community and to assume the same agricultural profession of the peasant farmer; similarly that he would want his daughters to marry within the community and assume the role of homemaker, without any consideration of an occupation or personal career. Although physical mobility and migration was a prerequisite for most forms of occupational mobility, exceptions were

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1/ A political party.

possible. For example, in La Cañada, it was possible to be a small store owner or a school teacher without leaving the community. In both communities, however, only a very small proportion of the total population held non-agricultural occupations. In Las Colonias only one member of the community had an occupation other than farming. Total scores for each farmer ranged from zero points, representing complete local and traditional aspirations, to five, which represented complete extra-local aspirations.

Limitations of the Study

The present study has several limitations which should receive consideration. These include:

1. The universes used for the selection of the sample did not represent all the farmers in either community. In La Cañada a majority of the peasant farmers were landless sharecroppers, none of which were included in the sample. In Las Colonias none of the ejidatarios residing in Cortazar or El Jilote were interviewed, in spite of the fact that these constituted a large and important segment of the ejido.

2. In both communities the size of the samples was very small. This was particularly true in Las Colonias where only 28 farmers were interviewed. A very small minority of cases therefore could strongly influence the results, especially in regard to determining the correlation coefficients existent between variables.

3. In the indices of migration the basic migrant non-migrant comparison was the only index in La Cañada which was actually controlled for farm size, and therefore roughly equivalent conditions for the application of farm practices. Use of the other indices necessarily involved a breakdown in the control of farm sizes.

4. Due to the agricultural environment in La Cañada and the subsistence type of agricultural exploitation, it was difficult to select agricultural practices that were completely recommendable. For example, the planting of hybrid corn had not always brought improved yields in the community. The applicability of commercial fertilizers was also questionable due to the terrain and climate which resulted in high risk as well as high cost. As well, organic fertilizer in almost all cases had to be transported to the fields by animals which may have resulted in an uneconomical amount of work.

5. The determination of an agricultural practice score on the basis of the percentage of applicable practices used has limitations, which, in this particular study, were probably minimal. However, certain practices were less frequently used than others and farmers' scores were obviously influenced slightly by whether or not they had planted a specific crop associated with a practice which was difficult or easy to use.

6. In all of the orientation indices only a small number of actual items were used as indicators of orientation.

7. The school teachers generally did not administer the questionnaires to the homemakers in La Cañada in an acceptable form. Certain questions were frequently left unanswered and inaccuracies were occasionally found in the recorded data. Where these omissions or inaccuracies were numerous specific questions were eliminated from the analysis of the data in La Cañada.

CHAPTER III

MIGRATORY CHARACTERISTICS OF THE SAMPLE

Results of the Migration Indices

The frequencies obtained in La Cañada and Las Colonias on the four indices of migrant non-migrant dichotomy, time spent in the USA, degree of family contact, and agricultural work experience in the USA were the following:

1. Migrant Non-migrant Dichotomy:

By research design the number of migrants and non-migrants were evenly balanced within each community. (See Table 3)

Table 3. NUMBER OF INTERVIEWED MIGRANTS AND NON-MIGRANTS

Migratory Status	La Cañada	Las Colonias	Total
Migrant	21	14	35
Non-migrant	21	14	35
Total	42	28	70

2. Amount of Time Spent in the United States:

Migrants from La Cañada had generally spent more time in the USA than migrants from Las Colonias. (See Table 4.)

Table 4. TIME SPENT BY INTERVIEWED FARMERS IN THE UNITED STATES

Time in USA (months)	La Cañada	Las Colonias	Total
60 or more	4	2	6
48-59.9	3	0	3
36-47.9	4	0	4
24-35.9	3	1	4
12-23.9	4	6	10
1-11.9	3	5	8
0-0.9	21	14	35
Total	42	28	70

Whereas 14 of the 21 migrants interviewed in La Cañada had spent two years or more in the USA, only three of the 14 migrants in Las Colonias had spent an equivalent period of time in the USA. This difference was due both to the greater frequency of migration in La Cañada and the fact that individual migrations had been for longer periods of time. Four interviewed non-migrants from La Cañada and five non-migrants from Las Colonias had been to the USA for total periods of less than one month. One farmer from La Cañada had spent as long as 23 years living in the USA.

3. Family Contact with the United States:

There was a higher degree of family contact in La Cañada than in Las Colonias. (See Table 5.)

Table 5. DEGREE OF FAMILY CONTACT WITH THE UNITED STATES OF INTERVIEWED FARMERS

Score of Family Contact	La Cañada	Las Colonias	Total
3	2	0	2
2	8	4	12
1	19	12	31
0	13	12	25
Total	42	28	70

Eight of the non-migrant farmers in La Cañada had some degree of immediate family contact with the USA, whereas only two non-migrant ejidatarios in Las Colonias had migrants living in their homes. Among the interviewed farmers in La Cañada there were seven who had sons or daughters, or other close family relations, living in the USA, as compared to none in Las Colonias[1/].

4. Agricultural Experience in the United States:

The agricultural experience scores obtained by migrants in Las Colonias were slightly higher than those in La Cañada; the major difference between the two communities was that only migrants from Las Colonias received the maximum possible scores on the index. (See Table 6.)

1/ See Appendix E for the results of individual items on the indices of family contact with the USA and agricultural work experience in the USA.

Table 6. AGRICULTURAL WORK EXPERIENCE OF INTERVIEWED MIGRANTS IN THE UNITED STATES

Score of Work Experience	La Cañada	Las Colonias	Total
4	0	5	5
3	9	3	12
2	5	2	7
1	4	3	7
0	3	1	4
Total	21	14	35

Results of individual items for the two communities, however, were quite different[1/]. Whereas 57% of the migrants from La Cañada performed skilled agricultural jobs, only 19% had worked in crops that were applicable in La Cañada. Due to the more diversified agriculture in Las Colonias, 71% of the migrants had worked in crops that were actually applicable in their community, though only 36% had performed agricultural labor of a skilled nature.

Personal Characteristics of Interviewed Migrants and Non-Migrants

The interviewed migrant and non-migrant groups were compared within each community in regard to certain personal characteristics. The purpose of this comparison was to determine whether either migrant or non-migrant groups were

1/ See Appendix E.

characterized by any inherent factors other than migration which might tend to explain differences in the viriables of agricultural practices or orientation . The personal characteristics studied include place of birth and age, formal education, family characteristics, occupation, and motivation regarding migration.

1. Place of Birth and Age:

All of the farmers interviewed in both communities were natives of the municipio of Cortazar, although only one ejidatario, a non-migrant, was born in Las Colonias. Of the 42 farmers interviewed in La Cañada, only three had been born outside of the community and all of these were non-migrants.

In La Cañada there were few differences in age between the migrant and non-migrant group. (See Table 7.)

Table 7. AGE GROUPS OF INTERVIEWED MIGRANT AND NON-MIGRANT FARMERS

	La Cañada		Las Colonias		
Age	migrant	non-migrant	migrant	non-migrant	Total
20-29	3	1	0	1	5
30-39	1	3	2	4	10
40-49	2	2	9	1	14
50-59	7	6	3	4	20
60-69	5	8	0	1	14
70-79	2	1	0	3	6
80-and over	1	0	0	0	1
Total	21	21	14	14	70

In Las Colonias, however, there is a tendency for migrants to be concentrated in the 40-59 age groups while the non-migrants predominate in the younger and older age groups. In part this may be due to the fact that very few ejidatarios have migrated since the community obtained irrigation about 10 years ago.

2. Formal Education:

The degree of formal education in the sample was low in both communities, and a majority of the interviewed farmers had never attended school. (See Table 8.)

Table 8. NUMBER OF PRIMARY SCHOOL YEARS COMPLETED BY INTERVIEWED MIGRANTS AND NON-MIGRANTS

Final year of primary school completed	La Cañada		Las Colonias		
	migrant	non-migrant	migrant	non-migrant	Total
4 or more years	1	1	0	0	2
3rd year	2	2	3	2	9
2nd year	2	3	2	3	10
1st year	0	2	2	1	5
Did not attend school	16	13	7	8	44
Total	21	21	14	14	70

In neither of the community samples was there a marked difference in the amount of formal education received by migrants or non-migrants. The only slight differences that did exist in the samples referred to present-day claims to literacy. Of the total 23 migrants interviewed who had not attended school, nine claimed to have learned to read and write since leaving

school[1/]. On the other hand, of the 21 non-migrants who never attended school, only two claimed to have become literate in the intervening period.

3. Family Characteristics:

There was a wide variation of the number of family members living in each household. (See Table 9.)

Table 9. NUMBER OF PERSONS LIVING IN INTERVIEWED MIGRANT AND NON-MIGRANT HOUSEHOLDS

No. living in house	La Cañada		Las Colonias		Total
	migrant	non-migrant	migrant	non-migrant	
1-3	5	6	2	2	15
4-6	7	6	3	5	21
7-9	6	8	1	3	18
10-12	2	0	6	2	10
over 12	1	1	2	2	6
Total	21	21	14	14	70

However, in neither community were there large differences between the variation in family size between the migrant and non-migrant groups. Likewise, differences were minimal between the sampled groups in regard to the type of family organization. (See Table 10.)

1/ Four of these nine farmers specifically mentioned that they had learned to read and write while working in the USA.

Table 10. ORGANIZATION OF INTERVIEWED MIGRANT AND NON-MIGRANT FAMILIES

Family Type	La Cañada		Las Colonias		Total
	migrant	non-migrant	migrant	non-migrant	
nuclear	14	13	9	10	46
extended	6	5	4	4	19
nuclear modified[a/]	1	3	1	0	5
Total	21	21	14	14	70

[a/]Included one grandparent living in the home.

The only differences found between interviewed migrant and non-migrant groups concerned the ownership of a house prior to their first migration, or the year 1947[1/]. (See Table 11.)

[1/] Prior to interviewing, the author estimated 1947 as the median year at which migrants had initially gone to the USA. Migrants were asked questions regarding land tenancy, occupation and house ownership prior to their first trip to the USA; non-migrants were asked the same questions for the period prior to 1947. In La Cañada the actual median for first trips to the USA by interviewed migrants was 1944; in Las Colonias it was 1947.

TABLE 11. OWNERSHIP OF A HOUSE BY INTERVIEWED MIGRANTS AND NON-MIGRANTS PRIOR TO FIRST MIGRATION OR THE YEAR 1947

Ownership of house	La Cañada		Las Colonias		Total
	migrant	non-migrant	migrant	non-migrant	
Owned house	9	13	6	9	37
Did not own house	12	8	8	5	33
Total	21	21	14	14	70

In both communities more interviewed non-migrants owned houses prior to 1947 than did migrants prior to their first migration. This would appear to suggest that the interviewed migrants may have had fewer economic resources than non-migrants at a roughly equivalent period in their past.

4. Occupation:

Although all the men interviewed in both communities were farmers, a small minority were also dependent on other forms of employment for their livelihoods. (See Table 12.)

TABLE 12. OCCUPATION AT WHICH INTERVIEWED MIGRANTS AND NON-MIGRANTS SPEND THEIR GREATEST AMOUNT OF TIME

Occupation	La Cañada		Las Colonias		Total
	migrant (n=21)	non-migrant (n=21)	migrant (n=14)	non-migrant (n=14)	
Farming	18[b/]	18	14[b/]	14[b/]	64
Hired labor	2[b/]	2[b/]	0	1[b/]	5
Semi-skilled[a/]	2[b/]	1	1[b/]	0	4
Commercial (store)	2	0	0	0	2
Total	24	21	15	15	75

a/ Includes police chief, church secretary, television and radio station guard, and irrigation canal inspector.

b/ Included cases where individual divided his time equally between two occupations.

In addition, four migrants and two non-migrants in the samples had small stores, and three migrants and one non-migrant, all from Las Colonias, rented machinery or vehicles as a secondary source of income. The occupational differences that do appear between the two migrant and non-migrant groups, however, seem to be minor.

The slight occupational differences that do exist in the sample are also all recent developments. The occupations held prior to 1947 by non-migrants and prior to their first migration by migrants were also determined. (See Table 13.)

Table 13. OCCUPATION OF INTERVIEWED MIGRANTS AND NON-MIGRANTS PRIOR TO FIRST MIGRATION OR 1947

	La Cañada		Las Colonias		
Occupation	migrant	non-migrant	migrant	non-migrant	Total
Farmer (landholder)	3	9	9	11	32
Sharecropper	15	8	0	0	23
Student and/or helping father	2	3	2	3	10
Hired farm labor	0	0	3	0	3
Other[a]	1	1	0	0	2
Total	21	21	14	14	70

a. Includes muleteer and administrator of hacienda.

In Las Colonias the differences between migrants and non-migrants are minimal, due probably to the fact that the ejido was established by government decree. However, in La Cañada fewer of the interviewed migrants had owned land and more migrants had been sharecroppers. In addition to this, half of the non-migrants who obtained all their land since 1947 received it through

inheritance rather than purchase. In contrast, less than one quarter of the 18 interviewed migrants who had obtained land since their initial migration had inherited their land[1/].

5. Motivation Regarding Migration:

In order to study the possible causes of migration, the interviewed migrants were asked why they had initially gone to the USA, and the non-migrants were asked why they had never migrated. (See Tables 14 and 15).

Table 14. REASONS MENTIONED FOR MIGRATION TO THE USA BY INTERVIEWED MIGRANTS

Motivation Mentioned	La Cañada (n=21)	Las Colonias (n=14)	Total
For necessity or to work and earn money	18	11	29
To "conocer" or visit	8	9	17
Total	26	20	46

Table 15. REASONS MENTIONED FOR NOT MIGRATING TO THE USA BY NON-MIGRANTS

Reasons Mentioned	La Cañada (n=21)	Las Colonias (n=14)	Total
Lack of need (had land and/or sufficient work)	18	12	30
Family reasons	5	4	9
Inability to obtain bracero contract	4	4	8
Fear	3	0	3
Economically inadvisable	2	0	2
Lack of economic resources	2	0	2
Total	34	20	54

1/ Of the total 57 migrant landholders in La Cañada, one informant estimated that 42 of these, or 75%, had obtained their land directly or indirectly from earnings made in the USA.

Although these results should be evaluated with caution, there appears to be a definite difference between the interviewed migrants and non-migrants. a majority of the migrants in both communities mentioned need as a reason for initially going to the USA. This was expressed in such terms as "poverty", "inability to support their families", "lack of work", "need to obtain work and earn money"[1/]. However, non-migrants mentioned as their most frequent reason for not migrating that they had work, most often associated with land or animals, and that there was no need to migrate. In the light of previous data, this appears to support the evidence that there may have been past economic differences between the interviewed migrants and non-migrants. The data also suggests that it was economic factor which motivated farmers to migrate.

A considerable number of the interviewed non-migrants also mentioned other factors which had discouraged their migration, such as parental dissaproval or not wanting to leave their families, the difficulty of obtaining bracero contracts, and fear of making the trip north. Migrants either did not experience these same problems or else were able to overcome them. This suggests either that certain non-migrants were more strongly influenced than migrants by traditional values and orientation, such as family or insecurity involved in leaving the community, or else that the economic needs of migrants

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1/ An interesting comparison between the two communities was that a larger proportion of migrants from Las Colonias mentioned, as motivation, their desire to know the USA. This probably reflects the economic differences between the two communities, and may be indicative of why migration was stronger from La Cañada.

were stronger than any local values which may have resisted migration. In addition, a considerable number of the interviewed migrants mentioned as motivation the desire to know the USA; three migrants in both La Cañada and Las Colonias mentioned this as their only reason for migration. These cases do suggest an inherent orientation away from the community prior to migration.

Summary:

In the sample described, migrant and non-migrant groups within each community appeared to show little differences in regard to place of birth, age, formal education, family size and organization, and present occupation. The only exceptions were that, in Las Colonias, more migrants appeared to come from the middle age group, and that a few more interviewed migrants than non-migrants owned stores. It seems unlikely, therefore, that any of these factors would serve to distinguish migrants from non-migrants in regard to the dependent variables in this study.

On the other hand, past land ownership and occupation, the ownership of houses and motivation for migration to the USA, suggest that migrants, in the period prior to their first migration, had fewer economic resources than non-migrants. The data regarding motivation also suggest that the economic factor was the most important one which influenced migration, especially in La Cañada. From this economic factor alone, it would appear that the migrants in the sample had no inherent advantage over the non-migrants in regard to the two dependent variables[1/]. However, the fact that some farmers migrated in order to know the USA, and that certain

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1/ In regard to level of living, it would actually be expected that non-migrants would have had an inherent advantage over migrants.

non-migrants did not migrate due to traditional values does suggest that in individual cases orientation may be inherently related to migration. Future studies will obviously have to investigate these relationships.

CHAPTER IV

FINDINGS

Use of Improved Agricultural Practices

The most obvious difference in regard to the use of improved agricultural practices was that which existed between La Cañada and Las Colonias. (See Figure 3, page 54) In spite of the fact that the practices which were applicable only to Las Colonias showed considerably lower use than those applicable only to La Cañada[1/], the medians of both migrant and non-migrant groups in Las Colonias were considerably higher than those in La Cañada. This basic difference between the two communities is undoubtedly due to the better soil conditions and irrigation in Las Colonias. For example, in La Cañada only two farmers had planted hybrid corn during the past year[2/], whereas half of the farmers in Las Colonias had planted hybrid corn. All of the farmers interviewed in Las Colonias used chemical fertilizers while no farmers in La Cañada applied these; the risk of drought or heavy rains, the slope of most of the land, the lack of credit opportunities, and high cost

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1/ In the three practices only applicable to Las Colonias, the percentage use of recommended wheat varieties, wheat pest control, and the date for planting alfalfa were 33%, 42% and 38% respectively. In the two practices applicable only to farmers in La Cañada the respective percentages for the date for planting garbanzo and the variety of crops grown were 57% and 69%. See Appendix F.

2/ In La Cañada almost half of the farmers claimed to be planting hybrid corn; however, seed that was originally hybrid was replanted yearly.

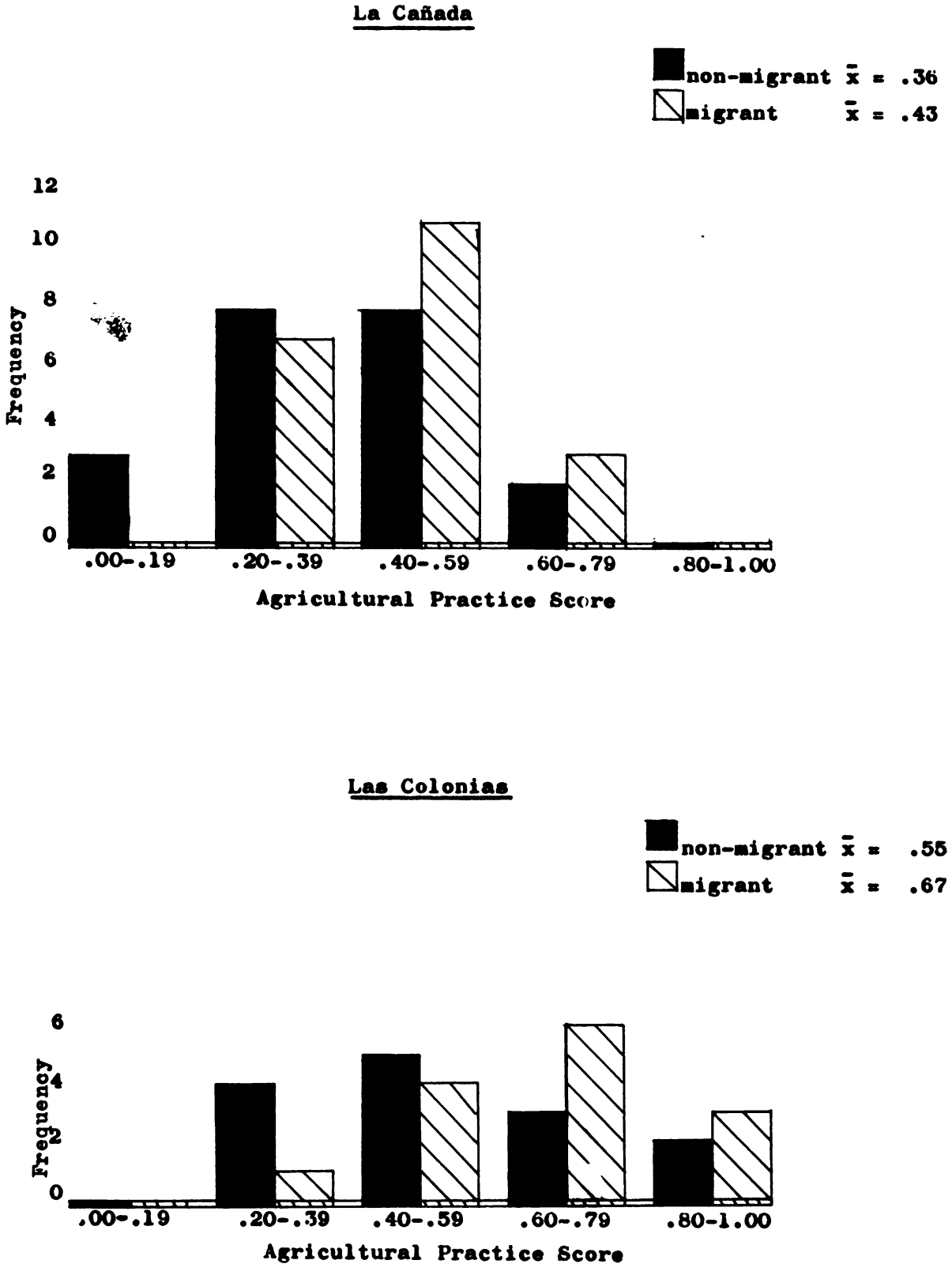

Figure 3. IMPROVED AGRICULTURAL PRACTICE SCORES OF INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

were all given as justifiable reasons for not using chemical fertilizers[1/]. To an extent, this major difference between the two communities eclipses the smaller differences that also exist between the migrant and non-migrant groups within each community. (See Figure 3, page 54.)

1. Migrant Non-migrant Dichotomy:

Although the relationships were not strong, the positive correlations in both communities appear to support the basic hypothesis that migrants make greater use of improved agricultural practices than non-migrants. (See Table 16.)

Table 16. COEFFICIENTS OF CORRELATION BETWEEN INDICES OF MIGRATION AND IMPROVED AGRICULTURAL PRACTICE SCORES IN THE SAMPLES OF LA CAÑADA AND LAS COLONIAS

Migration Indices	Agricultural Practice Scores		
	La Cañada	Las Colonias	La Cañada and Las Colonias
Migrant non-migrant	+0.23	+0.30	+0.26
Time in the USA	+0.38	+0.19	+0.31
Family contact with the USA	+0.27	+0.18	+0.22
Work experience in the USA	-0.03	-0.29	-0.15

In La Cañada the mean agricultural practice scores of interviewed migrants were .43 compared to .36 for non-migrants, and in Las Colonias the mean scores were .67 for migrants compared to .55 for non-migrants. (See Figure 3, page 54). In both communities, therefore, a slight positive relationship was found between the use of improved agricultural practices and migration.

1/ That the differences between the two communities were largely due to irrigation was supported by the fact that of the 15 interviewed ejidatarios in Las Colonias who held small portions of non-irrigated land, only one had applied chemical fertilizers to non-irrigated crops during the past year.

The relationship between migration and improved agricultural practice scores was also stronger in Las Colonias than in La Cañada; in Las Colonias this correlation coefficient was +0.30 compared to +0.23 in La Cañada. Although this difference was only very slight it may have been due to the fact that the physical limitations in La Cañada tended to restrict differences in the use of improved agricultural practices. In Las Colonias the agricultural environment was conducive to the adoption of new agricultural practices, farmers were not restricted in the application of new practices, and the difference between mjgrants and non-migrants was greater.

Although the interviewed migrant and non-migrant groups exhibited minor and individual differences regarding many of the agricultural practices, in certain specific practices they held a clear advantage[1/]. In Las Colonias 64% of the interviewed migrants planted hybrid corn in comparison to 36% of the non-migrants; 86% applied fertilizer in growing field beans compared to 33% of the non-migrants; and migrants had superior corral, feeding and water facilities for their dairy herds and pigs. On the other hand, the differences were slight or non-existent regarding the fertilization of corn, the variety of beans planted, wheat practices, the breed of dairy cattle and pigs, and the vaccination of these animals. In La Cañada migrants planted a wider variety of crops than non-migrants, and as a group used superior methods for plowing their lands. Although more non-migrants than migrants possessed cattle and of improved breeds, migrants took better care of their livestock in terms of vaccination and feeding, and also owned more pigs. Differences between the interviewed migrant and non-migrant groups were minimal regarding corn and bean practices, the date for planting garbanzo, and the facilities for maintaining cattle and pigs. There appeared to be

1/ For the specific results of the agricultural practices see Appendix F.

no common practices, or types of practices, which the migrants in both communities used more consistently than non-migrants.

2. Time Spent in the United States:

At first glance the data appear to generally support the hypothesis that the greater the time period spent by farmers in the USA, the greater would be their use of improved agricultural practices. (See Table 16) In La Cañada there was a positive correlation coefficient of +0.38 between the agricultural practice scores and the amount of time spent in the USA; in Las Colonias the relationship was positive but the correlation of +0.19 was low. This specifically reversed the trend established in the previous migrant non-migrant comparison, where the differences were more exaggerated and the relationship stronger in Las Colonias. The relationship was actually weakest where the greatest potential for agricultural change existed.

Of greater importance is the fact that in Las Colonias the correlation of +0.19 between the time spent in the USA and the agricultural practice scores appeared lower than the +0.30 correlation existent between agricultural practices and the basic migrant non-migrant dichotomy. This suggests that in the Las Colonias sample the actual amount of time spent in the USA is of secondary importance to the mere factor of having gone to the USA. Two unrelated factors may partially explain this relationship in Las Colonias. In the first place it may be due to purely statistical reasons; the small number of cases studied and also the fact that only three of the interviewed migrants had spent more than two years in the USA. (See Table 4) The second possible reason was expressed by many of both the informal informants and interviewed ejidatarios. They stated that it might be worthwhile to go to

the USA as a bracero one or two times, especially in the past prior to irrigation when life was more difficult, but that only a poor man or a fool would keep returning to the USA. Many farmers in Las Colonias realized that higher economic returns could be made by remaining in their community and farming their own irrigated lands than could ever be gained from additional, and even successful, trips to the USA. This factor, which might have tended to limit continued migration among the more progressive farmers, may partially explain the low relationship between the use of improved agricultural practices and the amount of time spent in the USA.

In La Cañada the correlation coefficient of +0.38 between the amount of time spent in the USA by all the interviewed farmers and their agricultural practice scores signified a stronger relationship. This suggested that in La Cañada longer periods of migration strengthened the relationship between migration and agricultural practices. This may be due largely to the inhospitable nature of La Cañada's environment and the antithesis of what was observed in Las Colonias. Unlike Las Colonias, it was far more difficult for a farmer in La Cañada to improve the condition of his home and farm, especially with the resources available to him in the community. It was generally accepted in the community that one of the easiest means to obtain wealth and improve one's standing in the community was to go to the USA. For this reason certain individuals may have migrated more frequently, and channelled both their experience and their money into farm improvements.

Therefore the hypothesis that a greater period of time spent in the USA would be related to an increase in the use of improved agricultural practices was only partially acceptable. In La Cañada, the more traditional and poorer community, the hypothesis was accepted; in Las Colonias, the more progressive

3. Family Contact with the United States:

Similar to the time spent in the USA, the hypothesis that increased family contact with the USA would be positively related to the use of improved agricultural practices was only partially accepted. (See Table 16) In La Cañada the correlation coefficient of +0.27 signified a positive, though weak, relationship between family contact and agricultural scores. On the other hand, in Las Colonias the +0.18 correlation was very low.

In Las Colonias the low correlation may be due to the same reasons that were postulated in regard to the amount of time spent in the USA. Only six interviewed farmers in the community had younger migrants living in their homes, and the very low correlation that does exist is undoubtedly due to the differences between migrants and non-migrant heads of families (the migrant non-migrant dichotomy). The contribution of younger family migrant in regard to the use of improved agricultural practices in Las Colonias, therefore, appears to be negligible.

In La Cañada the degree of family contact with the USA was stronger and its relationship to the use of improved agricultural practices was higher. This suggests that in the more traditional community limited agricultural improvement may bear a slight relationship to, and be partially dependent on, family contact with the USA. The degree of relationship, however, was only slight.

In summary, only the data from La Cañada supported the hypothesis that the greater the degree of family contact, the greater would be the use of improved agricultural practices. In Las Colonias the data did not support this hypothesis.

4. Work Experience in the United States:

In both communities the hypothesis that a broader agricultural work experience, and hypothetically greater exposure to USA agricultural methods, would lead to an increased use of agricultural practices was rejected. (See Table 16) In La Cañada the negative correlation of -0.03 signified no relationship between these two variables. In Las Colonias a negative correlation coefficient of -0.29 existed between the variables of work experience and agricultural practice scores; this suggests that migrants with broader, more applicable agricultural experiences in the USA actually tended to use fewer improved agricultural practices. The importance of this relationship is that in these two communities the results appear to specifically deny the often quoted idea that braceros and migrants directly apply agricultural technology learned in the USA.

Also, migrant farmers do not appear to have used their experiences in the USA as specific sources of information for the adoption of agricultural practices. (See Table 17)

Table 17. SOURCES OF INFORMATION USED BY INTERVIEWED MIGRANTS LEADING TO THE INITIAL ADOPTION OF HYBRID CORN AND THE FERTILIZATION OF CORN

Source of Information	Hybrid corn			Fertilization of corn		
	Cañada (n=12)	Colonias (n=13)	Total	Cañada (n=1)	Colonias (n=14)	Total
Friends or family in community	8	6	14	1	10	11
Banks	0	4	4	0	6	6
Comisión Nacional de Maíz or government agronomist	2	7	9	0	0	0
Friends outside of community	2	2	4	0	0	0
Observed in United States	0	0	0	0	2	2
Total	12	19	31	1	18	19

Only two migrant farmers, both from Las Colonias, mentioned that they had learned about the application of fertilizers while in the USA, and no farmers in either community gave as sources of information for hybrid corn that they had observed this in the USA. In none of the other agricultural practices studied did farmers mention the USA as a direct source of information. This appears to support the theory that migrants have not brought back new farming methods from the USA.

One reason for the apparent lack of a positive relationship between a migrant's work experience and his use of improved agricultural practices was found when the interviewed migrants were asked whether they felt that they had learned anything from their work while in the USA, and whether they were presently applying any of this knowledge. Almost two thirds of the migrants

from La Cañada and one third of those from Las Colonias stated that they had learned something of agricultural importance[1/]. Of these 19 cases, however, only four migrant farmers were actually applying what they had learned. One of the possible reasons for this was that migrants from La Cañada had gone to the USA for longer periods of time and many had repeatedly obtained general and specialized farm work from which they stated that they were able to learn new agricultural methods. However, almost none of these skills were applicable to La Cañada due to the lack of irrigation and the poor grade land. In Las Colonias, on the other hand, the majority of trips to the USA were for shorter periods of time and frequently to the cotton fields of Texas or Arkansas[2/]. Although a majority of the interviewed migrants did work in crops which were grown in Las Colonias, a majority also performed only stoop labor jobs, such as the harvesting of tomatoes[3/]. A majority of those who did obtain general type farm work also stated that they were already familiar with the particular skills and work prior to their migration, and that they had learned nothing which they did not already know.

1/ Among other things, a surprising number of migrants in both communities told the author that they had observed the rotation of dairy herds and cattle on irrigated pasture, although none of them had worked on such farms.

2/ An interesting case was that of one young ejidatario from Las Colonias who returned from Texas with several sacks of cotton seed. Local agricultural officials, however, did not permit him to plant the seed.

3/ See Appendix E, Agricultural Work Experience in the USA

Extra-Local Orientation

Similar to the use of improved agricultural practices, the greatest difference which existed in regard to the five indices of extra-local orientation was that which differentiated the farmers of Las Colonias from those of La Cañada. (See Figures 4-8, pp 64-68) In all of the orientation indices, with the exception of aspirations, the median scores of the farmers interviewed from Las Colonias were higher than those of the farmers from La Cañada. The exception of extra-local aspirations was undoubtedly due to the same factors which had caused a more intense migration from La Cañada. With eight to ten hectares of irrigated farming land, ejidatarios in Las Colonias could live comfortably and only one farmer interviewed expressed a desire to leave the community. On the other hand, in La Cañada where farming potential was limited, almost one third of all the farmers interviewed expressed a desire for permanent migration. The differences between the two communities in the other four orientation variables were due to numerous factors. Whereas La Cañada has been an isolated, largely self-sufficient and traditional community , almost all the farmers interviewed in Las Colonias had at one time lived in Cortazar. Las Colonias was also less than one half the travelling time from Cortazar, and the inhabitants depended completely upon Cortazar for all their farming, marketing, religious and recreational needs. In addition, Las Colonias was an ejido, and the ejidatarios were all necessarily members of the Comisión Nacional Campesina, a political and administrative organization of the Mexican government. As a result of these factors, it was only natural that the sample of farmers from Las Colonias were more involved in and oriented toward Mexican national and urban society.

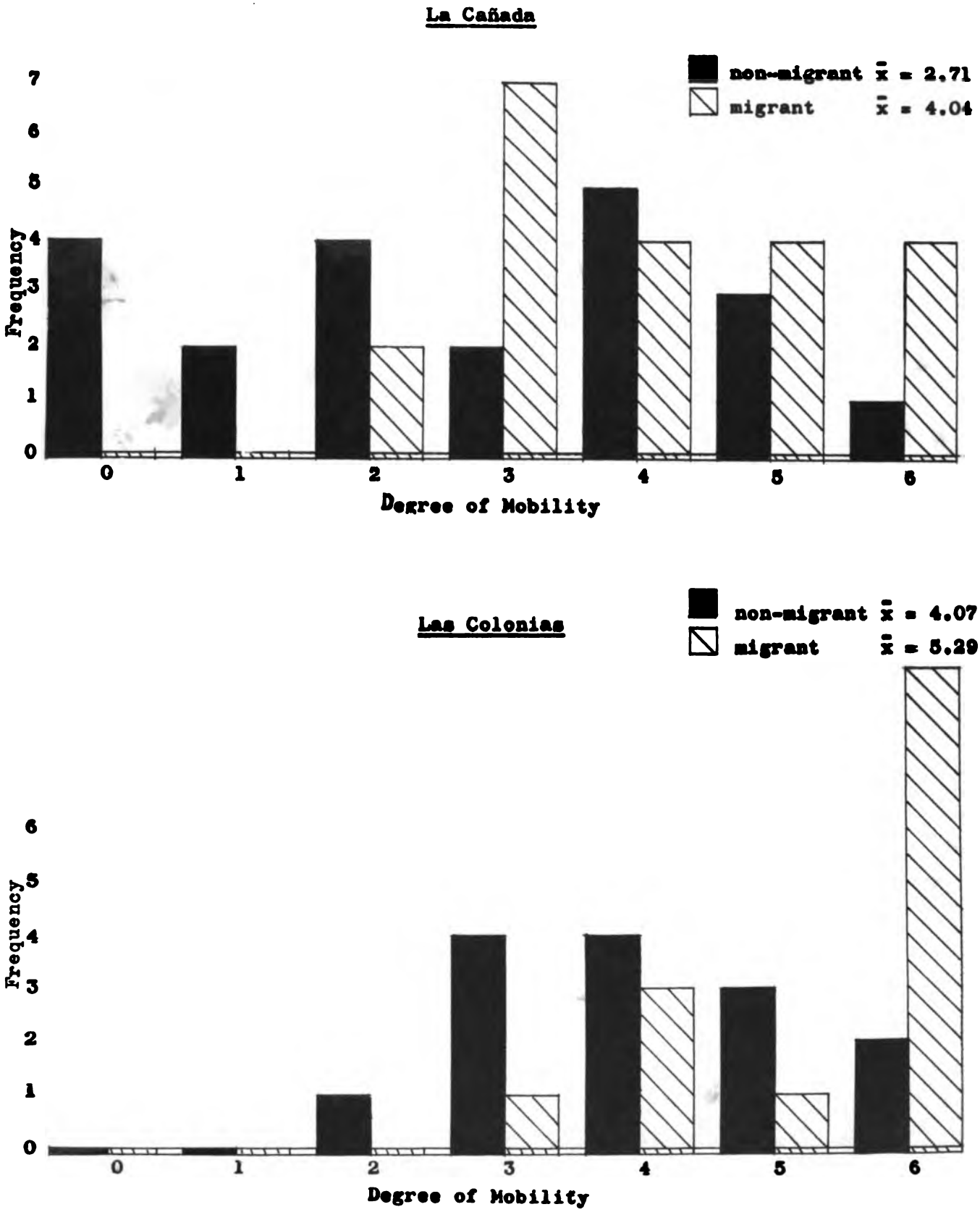

Figure 4. DEGREE OF MOBILITY TOWARD THREE URBAN CENTERS OF INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

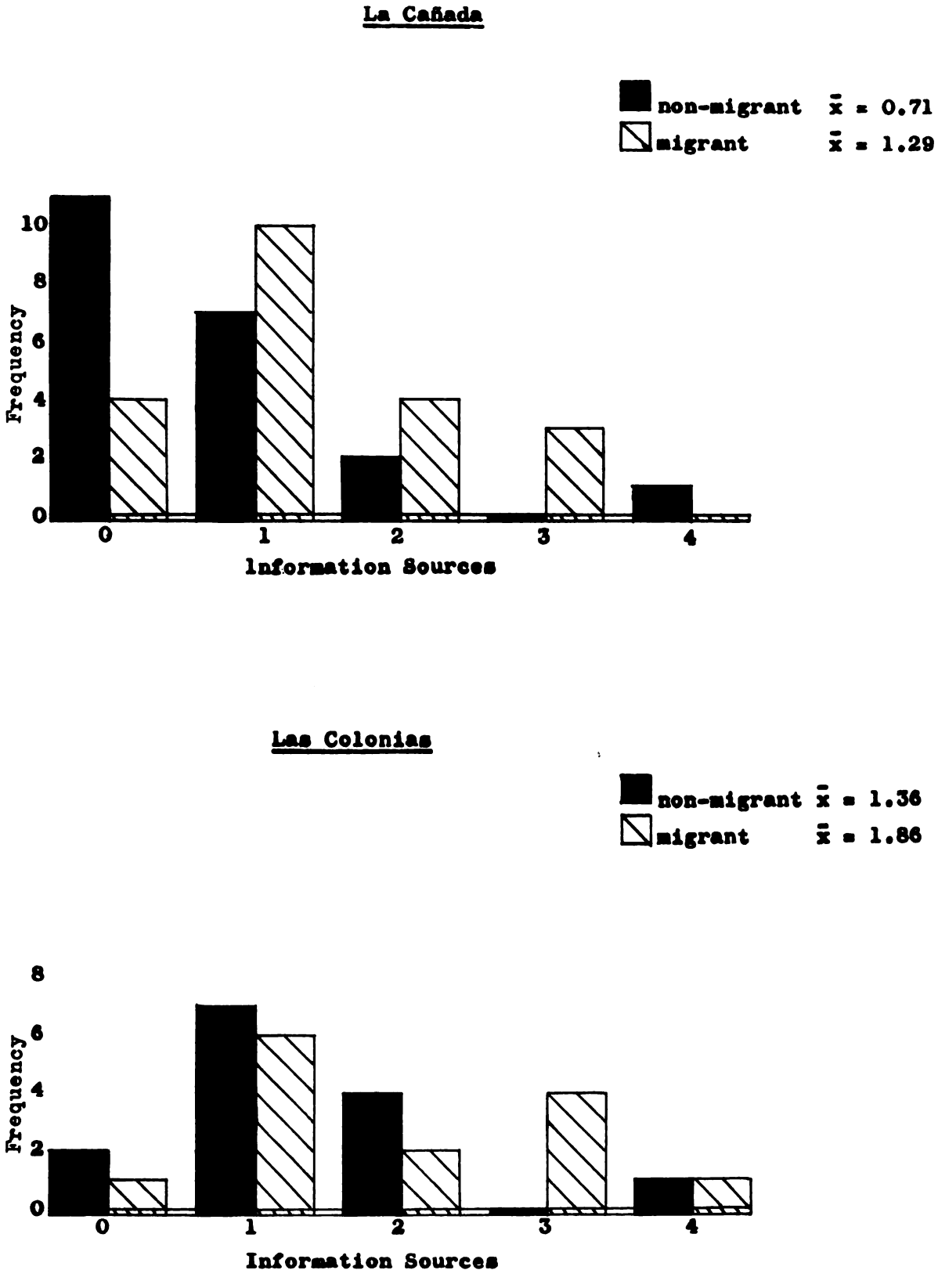

Figure 5. USE OF FOUR INFORMATION SOURCES BY INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

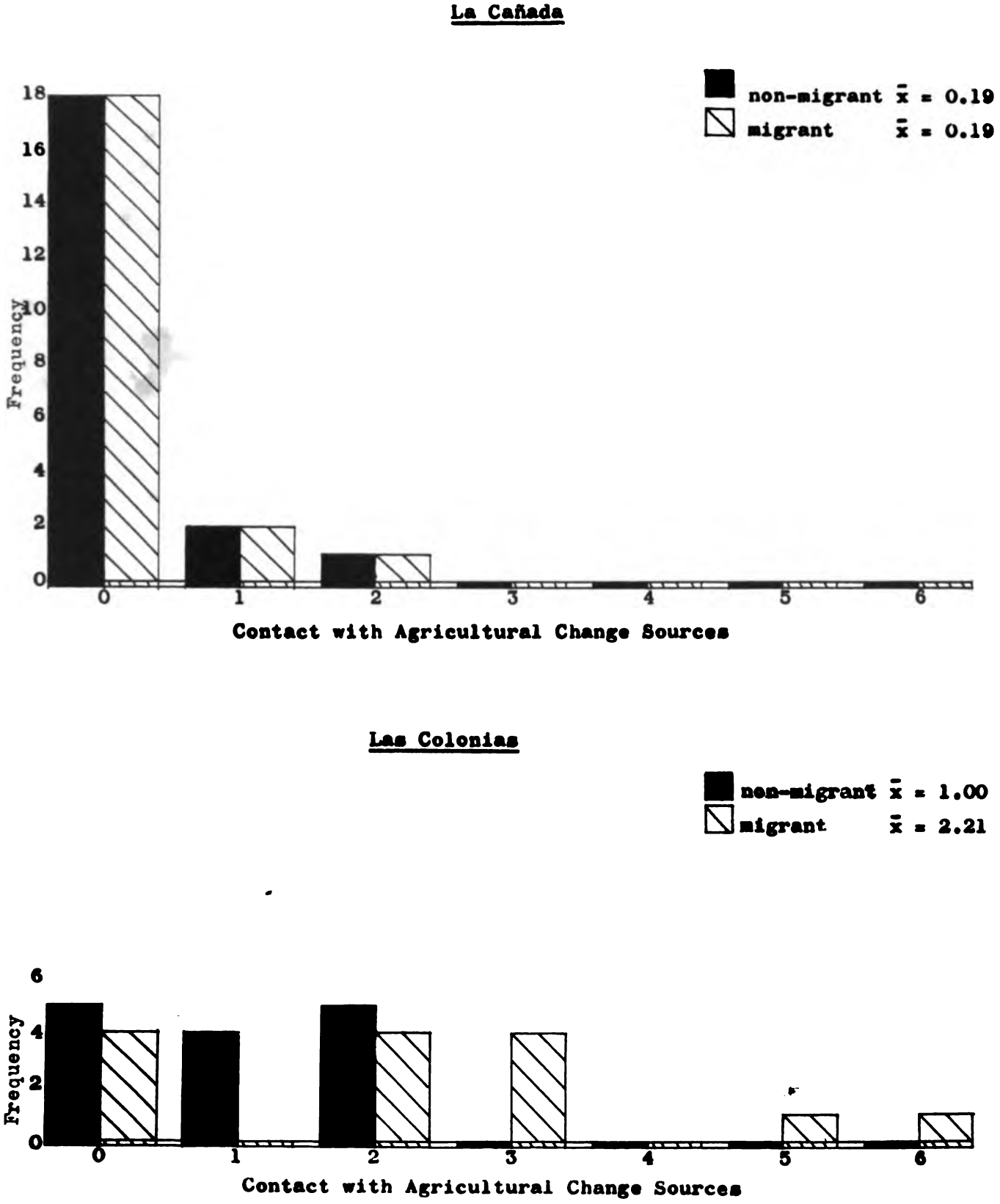

Figure 6. DEGREE OF CONTACT WITH AGRICULTURAL CHANGE SOURCES BY INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

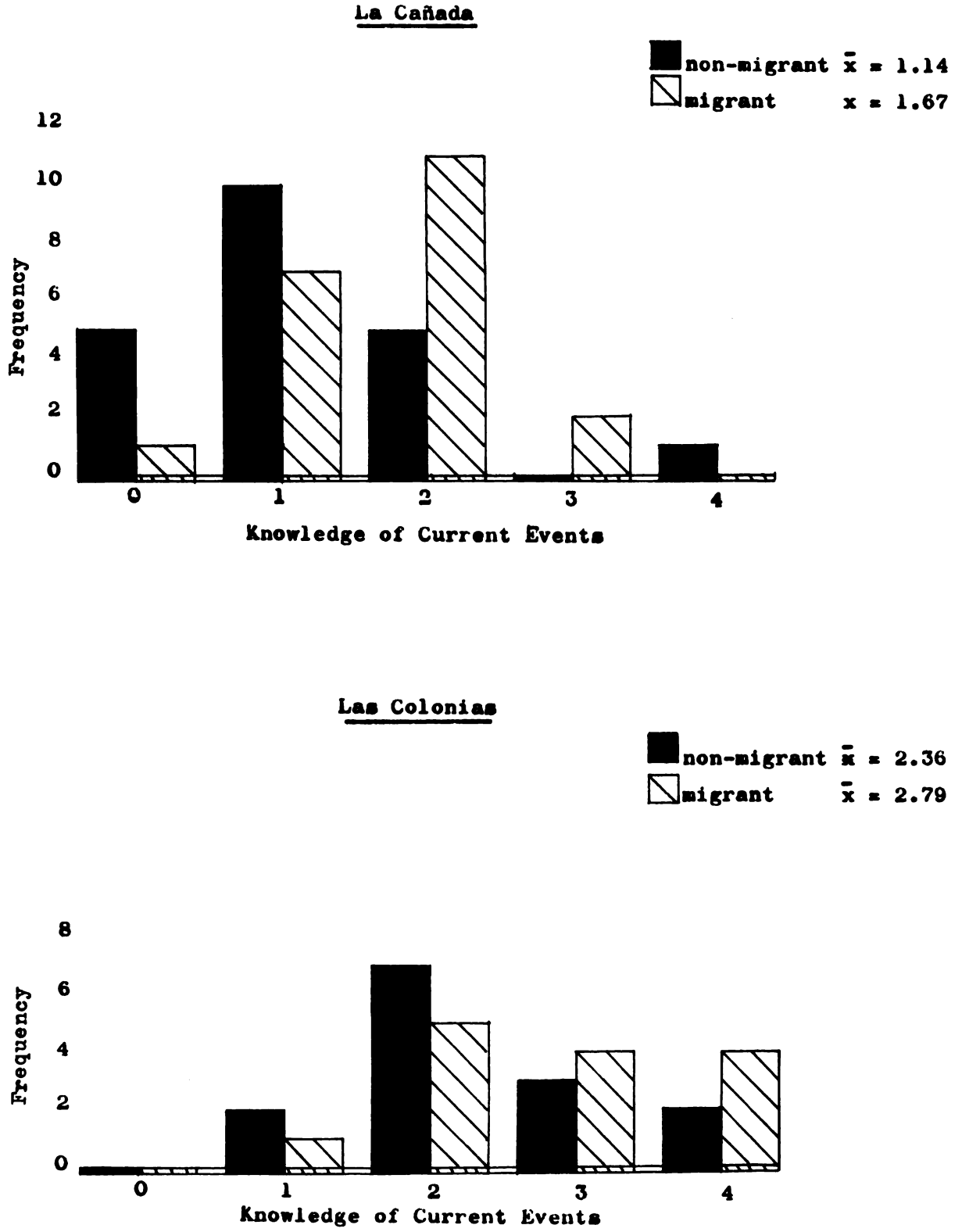

Figure 7. KNOWLEDGE OF CURRENT EVENTS BY INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

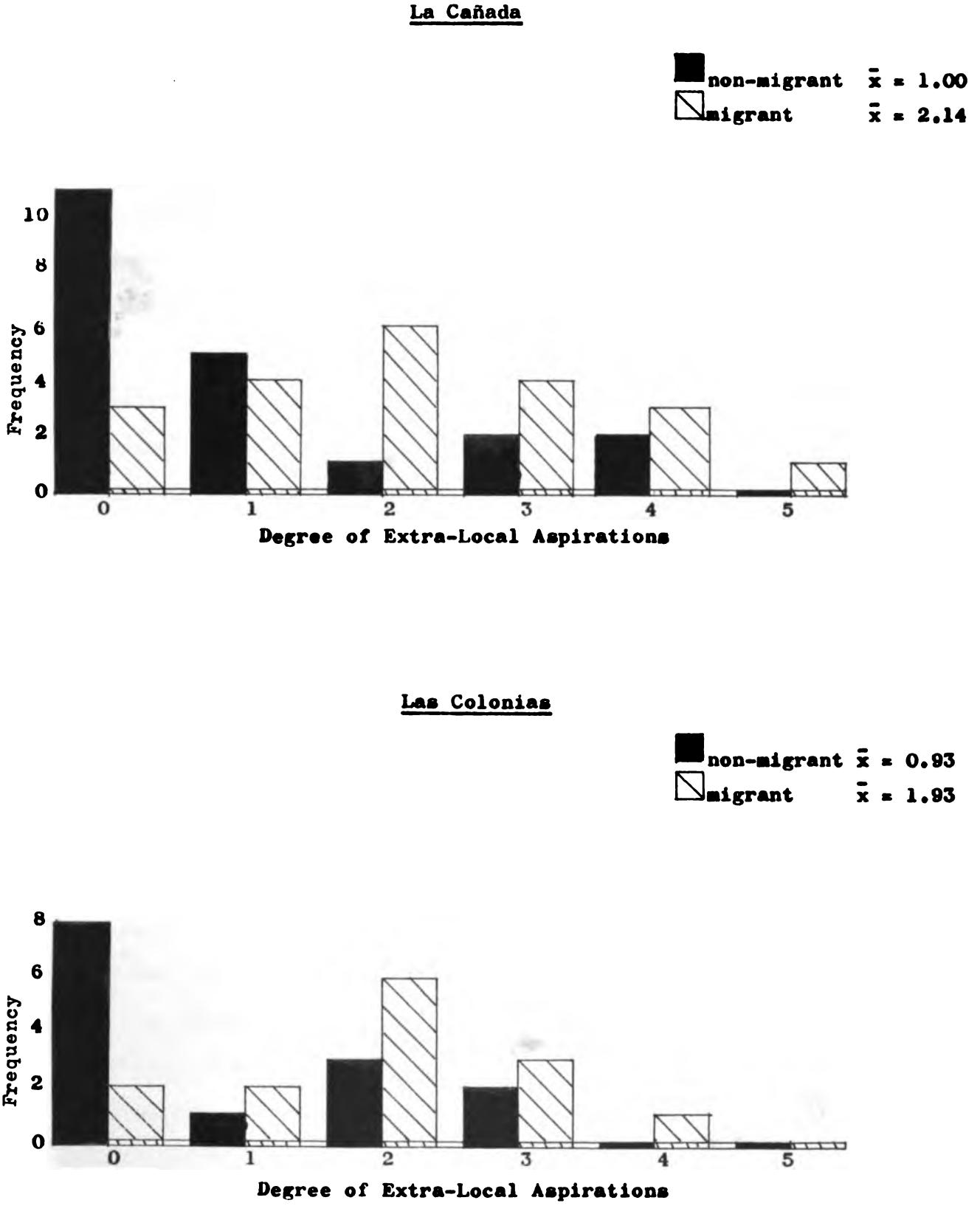

Figure 8. DEGREE OF EXTRA-LOCAL ASPIRATIONS OF INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

Within each community there also appeared to be definite relationships between these variables of extra-local orientation and the indices of migration.

1. Migrant Non-migrant Dichotomy:

In observing the medians and differences between the interviewed migrant groups and the five indices of orientation in the two communities, a second conclusion is apparent. (See Figures 4-8, pp.64-68) With the exception of contact with agricultural change sources in La Cabaña where only six interviewed farmers had any contact with change sources, the migrant groups in each community received higher scores on all the indices of orientation than the non-migrant groups. These differences also appeared to be greatest in regard to mobility and aspirations. (See Figures 4 and 8). These data appear to support the basic hypothesis that migrants have a stronger degree of extra-local orientation than non-migrants.

The coefficients of correlation between migration and the five orientation variables also support the hypothesis. (See Tables 18-20). In the La Cañada sample the correlations were all positive, with the exception of the contact with change sources. (Table 18). Those correlations between migration and mobility (+0.39) and migration and aspiration (+0.39) were fairly strong. In Las Colonias all the relationships between migration and orientation remained positive. (Table 19). Particularly strong were these involving mobility (+0.48), contact with agricultural change sources (+0.40) and aspirations (+0.40). The findings from both communities suggest that migration has had its strongest influence in regard to mobility and aspirations. (Table 20).

Table 18. COEFFICIENTS OF CORRELATION BETWEEN INDICES OF MIGRATION AND EXTRA-LOCAL ORIENTATION IN THE LA CAÑADA SAMPLE

Migration Index	Extra-Local Orientation				
	Mobility	Information sources	Contact change sources	Knowledge	Aspirations
Migrant Non-migrant	+.39	+.29	.00	+.30	+.39
Time in USA	+.54	+.27	-.04	+.37	+.31
Degree of Family Contact	+.44	+.60	+.01	+.50	+.34

Table 19. COEFFICIENTS OF CORRELATION BETWEEN INDICES OF MIGRATION AND EXTRA-LOCAL ORIENTATION IN THE LAS COLONIAS SAMPLE

Migration Index	Extra-Local Orientation				
	Mobility	Information sources	Contact change sources	Knowledge	Aspirations
Migrant Non-migrant	+.48	+.23	+.40	+.23	+.40
Time in USA	+.42	+.30	+.40	+.29	+.10
Degree of Family Contact	+.34	+.04	+.26	+.09	+.35

Table 20. COEFFICIENTS OF CORRELATION BETWEEN INDICES OF MIGRATION AND EXTRA-LOCAL ORIENTATION IN LAS COLONIAS AND LA CAÑADA SAMPLES COMBINED

Migration Index	Extra-Local Orientation				
	Mobility	Information sources	Contact change sources	Knowledge	Aspirations
Migrant Non-migrant	+.41	+.26	+.23	+.27	+.39
Time in USA	+.50	+.28	+.19	+.34	+.24
Degree of Family Contact	+.41	+.39	+.14	+.34	+.34

In comparison to La Cañada the correlation between migration and mobility was higher in Las Colonias. This may have been largely due to the fact that five of the migrants interviewed in Las Colonias possessed vehicles,the only ones owned by interviewed farmers in the study, and this greatly facilitated their movement outside of the community. On the other hand, the correlations involving information sources and knowledge were lower in Las Colonias, possibly due to the higher diffusion of items included in these indices in the community. The lack of a correlation between agricultural change sources and migration in La Cañada may be due to the isolation of the community from these sources of change, and the low actual use which farmers in the non-irrigated community could make from them. Where contact was possible and could directly lead to agricultural improvements in Las Colonias, there was a positive relationship.

2. Time Spent in the United States:

The hypothesis that an increased amount of time spent in the USA would be positively related to the extra-local orientation of farmers was generally supported by the data. (See Tables 18-20). With the exception of contact with change sources in La Cañada and aspirations in Las Colonias a positive relationship existed between all the indices of orientation and the amount of time spent in the USA.

Particularly strong was the relation between time in the USA and mobility, especially in La Cañada where the correlation between these two variables was +0.54. To an extent this high correlation may be directly attributed to migration. One half of the migrants interviewed in La Cañada gave as reasons for their most recent trips to Mexico City attempts to arrange

bracero contracts, and especially visits to the USA Embassy to try and arrange papers for immigration visas. Also, Irapuato lies on the migratory trail to the California-Mexican border. For these reasons migrants who had spent more time in the USA and who had migrated more frequently would perhaps naturally obtain higher scores in visits to these two urban centers. In Las Colonias, where recent migration had been negligible, the correlation between time in the USA and mobility was lower than in La Cañada. Although the relationship was still fairly strong it was also lower than the correlation between mobility and the migrant non-migrant dichotomy.

The only correlation which showed a slight increase in both communities over the migrant non-migrant dichotomy was that between the time spent in the USA and the knowledge of extra-local events. The correlation of +0.37 in La Cañada suggested that the time a farmer has spent away from his community in the USA may have a fairly strong relationship to his knowledge of current events in Mexico. In Las Colonias the correlation of +0.30 between the use of information sources and the time in the USA was slightly higher than that between the use of information sources and the migrant non-migrant groups. In spite of the positive relationship between information sources and the time in the USA, however, in neither community was this correlation high.

The only correlation which was lower in both communities than the migrant non-migrant dichotomy was that between aspirations and the amount of time spent in the USA. In Las Colonias there was virtually no relationship between these two variables. The lower correlation in La Cañada may be explained by two factors, in spite of the fact that a positive relationship still existed. Three of the migrants who had devoted over three years of their lives to work in the USA had greatly improved their social standing in the community; all

had purchased considerable amounts of land and, by community standards, had a comfortable level of living. These migrants were unwilling to leave the community and would have liked their children to remain with them to help farm the new lands. A second reason which may have influenced this correlation was that although 12 of the 21 migrants wanted their sons to live in the USA, nine of them wanted their sons to work in agriculture as an occupation. Four of these cases involved migrants who had spent over three years in the USA. Because of their own migration experiences, they considered that living in the USA and working in agriculture was a definite step upward in social mobility, in spite of the fact that the agricultural nature of their occupation remained basically unchanged. However, whereas the extra-local aspirations of the La Cañada sample were specifically directed toward the USA[1/], in the Las Colonias sample only one migrant wanted to emigrate to the USA, and one other to have his son emigrate. Ten of the remaining 13 migrants wanted their sons to live somewhere in Mexico other than Las Colonias. It was reasonable to expect, therefore, that in the La Cañada sample where aspirations were directed toward the USA, that the time spent by a migrant in the USA would influence his attitudes. On the other hand, in Las Colonias where there were almost no aspirations for migration to the USA, it was perhaps natural that the correlation between time spent in the USA and aspirations would be low. Several migrants in Las Colonias who had spent a minimum time in the USA expressed desires and were taking steps to make their sons

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1/ Eight of the nine migrants who wanted to leave the community wanted to emigrate to the USA. Twelve of the 14 migrants who specifically wanted their sons to live somewhere other than La Cañada wanted them to live in the USA.

professionals in Mexico. On the other hand, several migrants who had spent long periods in the USA had sons working in Las Colonias as ejidatarios and wanted them to remain there performing the same occupational role.

In summary, the data support the hypothesis that the amount of time spent by farmers in the USA is positively related to the indices of extra-local orientation. However, only in regard to mobility in La Cañada is the relationship much stronger than that which was observed between the orientation indices and the migrant non-migrant dichotomy. In both communities the correlation between extra-local aspirations and time in the USA was lower than that which existed between the migrant groups; in Las Colonias aspirations appeared to bear little or no relation to the amount of time which the interviewed ejidatario had spent in the USA.

3. Family Contact with the United States:

The hypothesis that there would be a positive relationship between the degree of family contact with the USA and extra-local orientation was only partially accepted. With the exception of contact with agricultural change sources in La Cañada, this relationship was positive and fairly strong for all the other four indices of orientation. (See Table 18). In Las Colonias, however, the degree of relationship varied specifically with the individual index of orientation. In regard to mobility and aspirations, the correlation coefficients remained fairly strong, although they were lower than the basic migrant non-migrant dichotomy. (See Table 19). The correlation between contact with agricultural change sources was also positive, but weaker. In respect to the use of information sources and knowledge, there was virtually no relationship between these variables and family contact with the USA.

This is the antithesis of what was found in the La Cañada sample where the degree of family contact was strongly related to both use of information sources (+0.60) and knowledge of current events (+0.50)[1/].

In La Cañada family contact with the USA tended to directly influence the use of information sources. Of the eight people receiving correspondence in the two weeks prior to interviewing, five had received letters from family relations in the USA[2/]. Also, radios were mentioned as the third most requent article brought back to Mexico by returning migrants[3/]. Whereas 72% of the homes with family contact possessed radios, only 38% of the homes not containing migrants had radios. On the other hand, in the Las Colonias sample no correspondence was received from the USA and all but three of the families possessed radios. Therefore, family contact with the USA may have had an important affect in increasing the use of information sources and knowledge in a more traditional community such as La Cañada, which, without this migratory contact, remains relatively isolated. However, in other communities such as Las Colonias, where information sources and knowledge are more highly diffused and more easily obtained, and where there are other means at the disposal of the population to obtain information, the degree of family contact with the USA appears to be insignificant.

1/ It was to be expected that the use of information sources and knowledge would bear a strong relationship to each other. Combining the results of both communities the actual correlation coefficient between those two variables was +0.66.

2/ The postman estimated that the present amount of incoming mail (approximately 20-30 letters a day) was very low in comparison to periods of heavy bracero contracting when the vast majority of correspondence came from the USA.

3/ After clothing and suitcases.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Summary

The present study attempted to measure the affect of temporary migration to the USA on the use of improved agricultural practices and the degree of extra-local orientation of peasant farmers in Mexico. Thirty-five farmers who had migrated to the USA and 35 farmers who had not migrated were interviewed in two communities in the State of Guanajuato. One community was an ejido colony and possessed irrigated land; the other was a non-irrigated, generally isolated and traditional community of private landholders. In the non-irrigated community 42 farmers were selected for interviewing, and 28 ejidatarios in the irrigated community. Within both communities the migrant and non-migrant sample was matched through pairs in order to control the variables of farm size and irrigation. One questionnaire was administered to the farmers. A second questionnaire was administered to the homemakers of the same sample in order to obtain data on the family's level of living, the results of which are presented in the Appendix of this study.

The problematic variable of migration was measured by four separate indices. These migration indices included a basic migrant non-migrant dichotomy, the amount of time spent by farmers in the USA, the degree of family contact with the USA, and the agricultural work experience of migrants while in the USA.

The migration indices were correlated with six indices used to measure the two dependent variables of agricultural practices and orientation.

Seventeen agricultural crop and livestock practices were included in one index, and an agricultural practice score was determined for each farmer according to the percentage use of practices which were applicable to his farm and cropping system. Five orientation indices were used to measure the degree of mobility toward three urban centers, contact with six agricultural change sources, the use of four information media, knowledge of four items of current events, and geographical and occupational aspirations. In addition, level of living was measured by five indices which evaluated house construction, household possessions, clothing, diet and health. The analysis of the problem was based on the correlation coefficients found between the indices of the dependent variables and the indices of migration. In addition, the relationship was determined between level of living and the amount of money returned to Mexico by migrants from the USA.

The findings of the study indicated that:

1. In both communities migrants tended to make greater use of improved agricultural practices and have a stronger extra-local orientation than non-migrants. The relationships between migration and orientation were generally stronger than those between migration and agricultural practices.

2. A positive relationship was generally found between the time spent in the USA by farmers and their use of improved agricultural practices and extra-local orientation. In most cases, however, these relationships were weak and lower than the correlations between the migrant and non-migrant groups.

3. Although the degree of family contact with the USA was positively related to agricultural practices and orientation, in most cases these correlations were low. The only strong relationships were found between family contact and the use of information sources and knowledge in the non-irrigated community.

4. No relationship was found between a broader and more applicable work experience in the USA and the use of improved agricultural practices by migrants. Likewise migrants had not used their experience in the USA as a source of information for using improved agricultural practices.

5. A positive relationship was generally found between the indices of migration and level of living, with the exception of the earnings which migrants had returned to Mexico[1/].

Resumen

Este estudio trató de medir el efecto de la migración temporal hacia los EE.UU. en el uso de prácticas agrícolas mejoradas y la orientación extra-local de agricultores mexicanos. Treinta y cinco agricultores que habían emigrado a los EE. UU. y 35 agricultores que no habían emigrado fueron entrevistados en dos comunidades en el Estado de Guanajuato. Una comunidad era un ejido con tierras de riego; la otra era una comunidad relativamente aislada y tradicional de pequeños agricultores, propietarios de terrenos sin riego. Se seleccionaron 42 agricultores en la comunidad sin riego, y 28 ejidatarios en la comunidad con riego. En las dos comunidades la muestra de

1/ A detailed account of the analysis and findings of the level of living variable are presented in the Appendix. This was done because the data were collected largely by the author's wife and were not planned to fulfill the academic requirements of the author.

migrantes y no-migrantes fue controlada por las variables de tamaño de finca y riego. Se aplicó un cuestionario a los agricultores. Otro cuestionario fue aplicado a las amas de casa de la misma muestra para obtener datos sobre el nivel de vida de los mismos agricultores y sus familias, los resultados de los cuales son presentados en el apéndice de este estudio.

Cuatro índices fueron usados para medir la variable problemática de migración. Estos índices eran una dicotomía de migrante y no-migrante, el tiempo total que los agricultores habían pasado en los EE. UU., el grado de contacto familiar con los EE. UU., y la experiencia de trabajo agrícola que habían hecho los migrantes mientras que estaban en los EE. UU.

Los índices de migración eran comparados con seis índices usados para medir los variables dependientes de prácticas agrícolas y orientación. Diez y siete prácticas agrícolas de cultivos y ganadería fueron estudiadas, y se determinó un rango de prácticas agrícolas para cada agricultor basado en el porcentaje de prácticas que él estaba usando, comparado con el número de prácticas aplicables a su finca.[9] Los cinco índices de orientación midieron el grado de movilidad hacia tres centros urbanos, el contacto con seis fuentes de cambio agrícola, el uso de cuatro fuentes de información, el conocimiento de cuatro factores de noticias nacionales, y aspiraciones. Además, el nivel de vida fue medido por cinco índices que evaluaron la construcción de la casa, posesiones de la casa, vestuario, alimentación y dieta. El análisis del problema fue basado en los coeficientes de correlación que existían entre los índices de migración y los índices de las variables dependientes. Además, se determinó la relación entre el nivel de vida de los migrantes y la cantidad de dinero que ellos habían traído de su trabajo en los EE. UU.

Los resultados del estudio fueron los siguientes:

1. En las dos comunidades los migrantes estaban usando más prácticas agrícolas mejoradas y tenían una mayor orientación extra-local que los agricultores que no habían migrado. Por lo general las correlaciones entre migración y orientación eran más altas que las correlaciones entre migración y el uso de prácticas agrícolas mejoradas.

2. Respecto a la mayoría de los índices había una correlación positiva entre el tiempo pasado en los EE. UU. por agricultores y el uso de prácticas agrícolas y una orientación extra-local. Sin embargo, en la mayoría de los índices estas correlaciones no eran altas y por lo general más bajas que las correlaciones entre los migrantes y no-migrantes.

3. Aunque había correlación positiva entre el grado de contacto familiar con los EE. UU. y el uso de prácticas agrícolas mejoradas y orientación, estas correlaciones eran bajas. Las únicas relaciones fuertes existían entre el contacto familiar y el uso de fuentes de información y conocimientos en la comunidad sin riego.

4. No había relación entre la experiencia agrícola de los migrantes en los EE. UU. y el uso de prácticas agrícolas mejoradas. Tampoco habían usado los migrantes su tiempo y experiencia en los EE. UU. como fuente de información para la adopción de prácticas agrícolas.

5. Por lo general había correlación positiva entre los índices de migración y un mayor nivel de vida, con la excepción de la cantidad de dinero traído de los EE. UU. por migrantes, que no tenía relación con su nivel de vida[1/].

1/ El análisis y resultados del nivel de vida son presentados en el apéndice de este estudio, debido a que los datos por su mayoría fueron tomadas por la esposa del autor, y no se planeó su inclusión para completar requisitos académicos.

Conclusions

The specific problem of this study was to determine the relationship which existed between migration to the USA and the dependent variables of improved agricultural practices and extra-local orientation.

The specific findings and conclusions of this study were:

1. Improved Agricultural Practices:

1) The basic hypothesis of a positive correlation between migration to the USA and the use of improved agricultural practices was accepted in both communities. Migrants in both La Cañada and Las Colonias obtained higher agricultural practice scores than non-migrants. Although the relation in both communities was only slight, it was stronger in Las Colonias, the community with irrigated land.

2) In La Cañada the findings supported the hypothesis that the greater the amount of time spent by farmers in the USA, the greater would be their use of improved agricultural practices. Although the relationship was also positive in Las Colonias, it was low and did not support the hypothesis.

3) In La Cañada the findings also supported the hypothesis that a greater degree of family contact with the USA would be related to an increased use of improved agricultural practices. The relationship between these two variables, however, was only weak. In Las Colonias the positive correlation between family contact and agricultural practices was low and did not support the hypothesis.

4) The hypothesis that a broader and more applicable agricultural work experience by migrants while in the USA would be related to the use of improved agricultural practices was rejected in both communities. In Las Colonias the actual relationship between work experience and agricultural practices was negative. Likewise, migrants very rarely mentioned the USA as a source of information for using the agricultural practices.

2. Extra-Local Orientation:

1) The hypothesis that migrants would have a stronger extra-local orientation than non-migrants was supported in both communities. The only exception was that no relationship was found between migration and contact with agricultural change sources in La Cañada, where the actual use of change sources by farmers was very limited. In both communities the strongest relationships were between migration and the two orientation variables of mobility and extra-local aspirations.

2) The findings in both communities generally supported the hypothesis that an increased amount of time spent by farmers in the USA would be positively related to a stronger degree of extra-local orientation. Only in regard to the use of agricultural change sources in La Cañada and extra-local aspirations in Las Colonias was the hypothesis rejected. In La Cañada there was a relatively strong relationship between the amount of time spent in the USA and mobility. The correlations between the other orientation indices and time spent in the USA, however, were all similar to the correlations found between these indices and the migrant non-migrant dichotomy.

3) With the exception of contact with agricultural change sources, the findings in La Cañada supported the hypothesis that the greater the degree of family contact with the USA, the stronger would be the farmer's extra-local orientation. The relationships were particularly strong regarding the use of information sources and knowledge of extra-local events. In Las Colonias the same hypothesis was rejected regarding both information sources and knowledge, and although the relationships between family contact and mobility, change sources and aspirations were all positive, they were lower than those between these variables and the migrant non-migrant dichotomy.

3. General Conclusions:

1) In both communities migration to the USA was found to be positively related to the use of improved agricultural practices and extra-local orientation. In general the relationships between migration and orientation were stronger than the relationships between migration and agricultural practices.

2) The differences in agricultural practices and orientation which were found between the two communities were generally greater than the differences which existed between the migrant and non-migrant groups within each community. Although migration in both communities was positively related to improved agricultural practices and orientation, the non-migrants from the irrigated community generally obtained superior scores on the agricultural practice and orientation indices than migrants from the non-irrigated community.

3. The relationships found between migration and the two dependent variables were often inconsistent in the two communities. Because migration showed a strong relationship to a variable in one community this did not necessarily signify a similar relationship in the other community.

Commentary and Recomendations

In general the findings of this study were that migration appeared to be positively related to both the use of improved farm practices and an extra-local orientation. The information in the Appendix also suggested a positive relationship between migration and level of living.

Although no attempt was made to study the causal relationships between these variables, the data obtained from both communities appeared to suggest that the differences between migrants and non-migrants had not existed prior to migration. This fact, however, is largely unproven. Differences between the migrant and non-migrant groups were minor regarding both birthplace and education. Although an apparent age difference was found in Las Colonias, this did not exist in regard to migrants and non-migrants in La Cañada. On the other hand, in La Cañada fewer migrants prior to their migration had owned houses and land than non-migrants at a roughly equivalent time period in their past. Similarly migrants in both communities gave economic need as their major reason for migrating, whereas the majority of non-migrants stated that they had not migrated because they had had land and work in the community. This suggests that migrants were on a lower economic level prior to leaving the community than non-migrants, and that they originally may have had a lower level of living. It therefore appears that the present level of living

advantage of migrants was preceded by their migration. Since only a very small minority of migrants originally owned land it also appears that the differences in agricultural practices were preceded by migration[1/].

The same cannot be stated in regard to orientation. Economic need appears to have been a primary cause for migrating, but some migrants, especially in Las Colonias, mentioned their desire to know and visit the USA as reasons for migration. A minority of non-migrants also mentioned factors indicative of a local orientation which had prevented them from migrating. In certain cases, therefore, migrants may have initially gone to the USA because they were oriented away from the community. The low scores of certain non-migrants on all of the indices of agricultural practices, orientation and level of living may also have been due to the same traditional values which had dissuaded them from migrating.

The actual agricultural experiences of migrants in the USA showed no positive relationship to their use of improved agricultural practices. Similarly few migrants were using improved agricultural practices which they had learned in the USA. This suggests that in La Cañada and Las Colonias migrants have either not learned specific agricultural skills and techniques in the USA, or else that they are not applying, or cannot apply, these techniques on their own farms. Migrants mentioned as sources of information for their agricultural practices that they had learned these in Mexico, frequently from sources outside their communities. The relatively high correlations in both communities between agricultural practice scores and contact with

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1/ Although migrants all adopted the new agricultural practices following their initial migration to the USA, non-migrants had similarly adopted these practices only in recent years.

agricultural change sources (+0.53) and agricultural practices and mobility (+0.49) suggest that the orientation outside the community of the particular farmer in Mexico may have had a basic influence in his use of improved farm practices.

This same process may also exist in regard to the level of living. Whereas positive relationships were generally found in both communities between migration and the level of living, the latter showed little relationship to the total earnings returned by migrants from the USA. Likewise only a minority of the interviewed migrants had specifically spent their earnings in home improvements, although an improved level of living may have resulted from the returns of initial investments by migrants in other enterprizes. It would appear, therefore, that the differences existent between migrants and non-migrants may be due to other than purely economic factors resulting from migration. The orientation of migrants away from traditional living habits toward new and non-local values may be the most important factor responsible for the differences that do exist in regard to the level of living.

In summary, neither technical skills nor purely financial savings appear to be the most important results of the temporary migration of Mexican workers to the USA. A more basic consequence appears to be the fact that migration may have caused changes in values and orientation, and that this orientation has resulted in the agricultural and home differences existent between migrants and non-migrants.

Although migration in both communities was found to be positively related to the use of improved agricultural practices the low correlation of +0.23 in La Cañada suggests that in this community migration has probably played only a limited role in agricultural change. From the results of interviews

and observations in La Cañada major agricultural changes, such as the use of new seed varieties, cultivation practices, crop diversification and mechanization, were not taking place, and a traditional form of agricultural exploitation was still being practiced. La Cañada appeared to be representative of the vast majority of the communities visited in the selection of the locality for this study, i.e. that the most intense migration to the USA has occurred from communities where land, soil and climatic conditions are not conducive to the incorporation of many changes in farming methods. In communities such as these other effects of migration, such as changes in land ownership, orientation and level of living may be expected to be greater than changes in farming methods.

Five basic recommendations can be made for future research related to the present study of migration in Mexico.

1. Future studies should be made using a large sample based on a municipio or greater level. A basic weakness of this study has been the small number of cases included and its limitation to only two communities. However, the basic design of this study in controlling factors such as farm size and irrigation, or other independent variables, must be maintained.

2. Future case studies using depth interviewing are needed. These personality studies must attempt to measure variables existent prior to migration, causes for migration, and specific changes occurring as a result of migration. This before-and-after migration measurement is essential and the only effective way in which the results of migration can be evaluated. It must also take into account the fact that many migrants react very differently to identical migration patterns.

3. Future studies should not be conducted in areas of moderate migrant population intensity. They should either focus their attention on poorer areas from which migration has been intense, or areas of greater natural resources from which migration has been lower but where the opportunity for change is great.

4. Future studies should include research regarding possible effects which were not specifically investigated in this thesis. Included among these are effects on migrants who do not own land, social and occupational mobility and urban migration, as well as possible negative effects, such as family instability.

5. Future studies should be made of temporary migration from underdeveloped to highly developed areas in other countries of the world. For example, the effects of temporary migration in Peru from the central highlands to the coastal plain may present similar, or different, characteristics to the temporary migration between Mexico and the USA. Social theory needs to be established on the sociological implications of temporary migration between undeveloped and developed areas.

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APPENDICES

APPENDIX A

NUMERICAL DATA ON BRACEROS AND WETBACKS, 1942-1963

APPENDIX A

MEXICAN BRACEROS ADMITTED TO THE UNITED STATES AND WETBACKS APPREHENDED, 1942-1963[1/]

Year	Bracero Workers Admitted	Wetbacks Apprehended[2/] (by U.S. Immigration)	Total Braceros And Wetbacks
1942	4,203	9,000	13,203
1943	52,098	12,000	64,098
1944	62,170	28,000	90,170
1945	49,454	64,000	113,454
1946	32,043	69,000	101,043
1947	19,632	184,000	203,632
1948	33,288	180,000	213,288
1949	143,455	280,000	423,455
1950	76,519	466,000	542,519
1951	211,098	500,000	711,098
1952	187,894	800,000	987,894
1953	198,424	1,000,000	1,198,424
1954	310,476	1,000,000	1,310,476
1955	390,846	242,000	632,846
1956	444,581	72,000	516,581
1957	436,290	44,000	480,290
1958	432,491	37,000	469,491
1959	444,408	30,000	474,408
1960	319,412	30,000	349,412
1961	296,464	30,000	326,464
1962	198,000	30,000	228,322
1963	189,538	?	189,538
Total	4,533,106	5,107,000	9,640,106

1/ Data from Committee on Agriculture, House of Representatives, op.cit., 1958, pp. 450-452. Also Hancock, op. cit., 1959, p. 17. Also Leal Carrillo op. cit., 1963, p. 116.

2/ Approximate figures.

APPENDIX B

STATE ORIGIN OF BRÁCEROS, 1942-1954, 1958-1963

APPENDIX B

EMIGRATION OF BRACEROS TO THE UNITED STATES, 1942-1954[1/] and 1958-1963[2/]

Zone and States	Number of Braceros
NORTHERN ZONE	
Baja California	13,013
Chihuahua	376,782
Coahuila	137,538
Durango	246,179
Nayarit	31,660
Nuevo León	120,935
San Luis Potosí	123,737
Sinaloa	32,958
Sonora	38,790
Tamaulipas	54,663
Zacatecas	260,306
CENTRAL ZONE	
Aguascalientes	64,172
Colima	6,148
Federal District	122,905
Guanajuato	398,883
Hidalgo	26,822
Jalisco	328,717
México	56,301
Michoacán	339,277
Morelos	17,167
Puebla	42,975
Querétaro	39,892
Tlaxcala	21,006
Veracruz	14,132
SOUTHERN ZONE	
Chiapas	1,017
Guerrero	87,275
Oaxaca	85,193
Tabasco	9,023
SOUTHEAST ZONE	
Campeche	672
Quintana Roo	56
Yucatán	12,175
Total	3,110,369

1/ Luis Yanéz-Pérez, "Mecanización de la agricultura mexicana". México, D.F.; Editorial Cultura, 1957, p. 67. In Hancock, op. cit., p. 22.

2/ Oficina Central de Trabajadores Emigrantes de la Secretaría de Gobernación, Secretaría de Industria y Comercio. México, D.F.

APPENDIX C

DESCRIPTION OF THE COMMUNITIES

APPENDIX C

DESCRIPTION OF THE COMMUNITIES

La Cañada de Caracheo and las Colonias are in the municipio of Cortazar in the state of Guanajuato, in the general agricultural area of Central Mexico known as El Bajío. Cortazar, the municipio seat and small metropolis of 20,000 inhabitants, serves as the political and economic head of the municipio, and is only three kilometers south of the Panamerican Mexico City-Ciudad Juarez highway, and 19 kilometers west of Celaya, the major service center of the Bajío.

Due to their geographic proximity climatological differences between La Cañada and Las Colonias are slight. The year is divided into two major seasons; a rainy season from June through the beginning of October, and a dry season lasting from October through May. Yearly average rainfall is approximately 660 mm. (26 inches) and the medium annual temperature is 19.5°C.(67°F.). Maximum temperatures of 36°C.(104°F.) are sometimes recorded in May, and several degrees of early morning frost are occassionally expected between November and February. These frosts are both more frequent and severe in Las Colonias which has an altitude of less than 1700 meters, compared to the 1800 meter elevation of La Cañada.

However, in spite of their geographic proximity and common mestizo based culture La Cañada and Las Colonias are distinctly different communities.

La Cañada de Caracheo

La Cañada is in a narrow valley which slopes toward the east. (See Figure 2, p. 20). It lies on the lower northern slopes of the Cerro de Culiacan, a prominant 2800 meter extinct volcano which overlooks most of the Bajío. As a result of this location, the land of the community is both very rocky and sloping. On the northeast side of the village the land also slopes upwards toward the Cerro de La Gavia, and more gently to the south-east, toward the divide which separates the municipio of Cortazar from Salvatierra. The fourth side of the village faces the west and north-west overlooking the irrigation canal of Ing. Antonio Coria and the predominantly irrigated farming land of the "Plan", the flat, green valley floor of the Bajío.

La Cañada is an old and traditional community which dates back to the pre-Revolutionary period when it was part of the large hacienda of Caracheo and its history still plays an important function in the attitudes of the community. Older villagers still talk of having observed Pancho Villa's defeat in the Battle of Celaya in 1915, and the community's most important religious festival commemorates the death of a local priest who was shot during the Revolution after refusing to abandon the community. Frequent violence and murders associated with opposition to the agrarista movement may largely explain the community's general fear of outsiders and the resistance with which it has confronted such government programs as land reform. Even after the Revolution, the land remained in the hands of five or six wealthy families, and only in the period since the 1930's have the villagers themselves begun to by up small landholdings.

La Cañada has a population of 3,499 according to the 1960 General Census and is the second largest community within the municipio of Cortazar. In typical Mexican tradition it is divided into six "barrios" which surround the central plaza. The major streets of the town are cobbled; the minor side streets are stones, rocks and dirt. They are bordered by high volcanic stone walls which serve to completely separate corrals and houses from the street. A majority of the homes are also built of stone and during the last 15 years thatch roofing has largely been replaced by tile. An average house consists of two rooms, a stone patio and corral for animals, and a windowless cooking shed or kitchen, invariably of inferior construction compared to the remainder of the house. Although volcanic rock is the most commonly used material of construction, many of the older homes of wealthier families are built of brick; cement and mozaic tile are both recent introductions.

Men, wearing patched cotton pants or blue jeans and heavy sandals and hat, sit in small groups in the streets in the shade of trees or a wall; they may play dominos or cards, but their major form of diversion is conversation. The hour of greatest activity in the community is at dusk when men return from work in the fields and the streets are filled with children, and with goats, cattle and mules being herded to water. The activities of women are largely limited to work in the home. When they pass in the street it is normally on a specific mission; to carry water or take corn to the mill, to make small purchases in the stores, to take clothes to be washed at a spring or two public water troughs, or to attend mass.

The values in the community tend to be traditional and local. Formal interpersonal relationships are almost nonexistent. Men are considered and expected to play a dominant role in the society compared to females and hard work is a value which is admired in both sexes. Work roles are specific and divided on sexual lines. Both land and animals are considered traditional symbols of high social standing. In spite of extensive migration outside of the community it remains largely locally orientated. Outsiders to the community are generally mistrusted and the inhabitants seldom leave the community except to obtain work, attend nearby village fiestas, or for periodic trips to the markets in Cortazar and Celaya.

A public dirt road connects La Cañada with Cortazar which lies approximately 14 km. northwest of the community. Until 1965 this road was in poor condition as far as Caracheo, and frequently during the rainy season villagers had to walk, or ride by donkey or horse to the improved road where bus service could be maintained. This is one of the major reasons why the community has remained isolated and relatively self-sufficient; in 1965, however, a new graded and gravel surface road is being constructed between Cortazar and Salvatierra which will pass within several hundred meters of La Cañada. Three buses make three trips daily between La Cañada and Cortazar and provide the community with its only public means of transportation.

There is a church and a village priest in La Cañada and two primary schools, one federal and one state. The priest is in process of constructing a third, Church school. There is no telephone or public electricity in the village; the priest owns one gasoline generator which is very occasionally used for lighting the plaza and two others are owned by a storekeeper and owner of the theater which shows three cowboy films weekly. The community does

have a post office, whose function is shared with that of the sitting room of the house of the postman, who is also a corn mill owner. There is also a garrison of 10-15 soldiers who are responsible for maintaining public order.

There is no permanent doctor in La Cañada. Several have come to the community, but all have left after short periods due, reportedly, to the lack of electricity. However, a medical student is presently performing his temporary field service in La Cañada. During the author's residence in the community an unsuccessful attempt was made to establish a rural health center. Only two residences in the community, the Church and an hacienda building, obtain piped water from near-by springs. The remainder of the community carry water to their homes from three centrally located outlets, the women carrying clay jars on their shoulders, the men using a yoke and two metal containers.

There is no central marketplace in La Cañada although peddlers and travelling merchants exhibit their merchandise in the plaza at frequent intervals, and one resident of the village has a permanent stall where he sells ice-cream. However, 35-40 small stores sell a limited variety of essential merchandise. There is also one pharmacy but no restaurants, hotels or bars in the community, although many of the stores perform the function of "cantinas". There are five butchers who kill normally at least one cow or pig weekly and the meat is hung and sold in the street outside their homes. There are also four mills for grinding corn, a practice which has been accepted by almost the entire community. Many of the stores and several merchants of the community, called "maizeros", are involved in the purchase and sale of seed crops, namely corn, garbanzo and field beans. "Maizeros" from outside the community also come to La Cañada for the purpose of purchasing these products; only a minority of the farmers carry their agricultural products to sell in Cortazar. The only essential articles which often must be purchased outside of the community include clothing and agricultural equipment, such as plows.

The two types of agriculture noted by Lewis (1951) in Tepoztlan are practiced in La Cañada. In terms of area and economic importance, however, the plow culture clearly dominates. Hoe culture, or "guamil", is limited to ravines and the steeper slopes near the summit of the Cerro de Culiacan, and pasture land area which has not yet been cleared of boulders and stones. Only two interviewed farmers actually worked their land without the use of plows, although many permitted "medieros" to work small portions of their pasture on a sharecrop basis. Similarly the use of oxen is a rapidly disappearing tradition. Only eight or nine farmers in the community owned oxen at the time of the study, and they were considered very traditional by other members of the community. The remainder of the farmers all plowed with mules or horses. Of the 42 interviewed farmers only five did not own at least one team of animals, three of which were farmers who leased all their land to sharecroppers. Due to the very rocky nature of the soil, and also the slopes, no tractors are used in the community, in spite of the fact that one hacienda owner possessed one which he reserved for use on land which he also owned on the "Plan". Although two thirds of the landholdings were less than 20 hectares in size, several large holdings were in excess of 200 hectares.

BIBLIOTECA

Almost all farmers who owned more than 20 hectares of land farmed all or part of their lands through sharecroppers, with whom they equally divided operating expenses and the harvests.

Three major crops are grown in La Cañada following a specific rotational pattern. A farmer normally divides his fields and lands into two areas. In one of these he plants corn at the beginning of the rainy season in June and the corn is invariably interplanted with beans. Several varieties of squash are also frequently planted among the corn and beans. The second area or field is left fallow and used for pasture during the beginning of the reainy season. It is then planted to garbanzo beans between August and October, and the following year planted to corn while the first field is fallowed. Some farmers break this basic rotational pattern by planting half of their fallowed fields to field beans, thereby completing a full rotation over a four year period. Some farmers do not plant garbanzo beans, especially those who farm lands toward the summits of Cerro de Culiacan or La Gavia due to the danger of frost damage. In some of these cases farmers substitute wheat for garbanzo beans in their cropping system. With the exception of one very small field, none of the land is irrigated.

The favorite sport in La Cañada is the "jaripeo", or rodeo, and the possession of cows and cattle is a sign of both economic and social standing. Herds vary in size from one or two animals to 40-50. Both Brahman and Holstein blood have been introduced into the community. Of these the former are both the more numerous and popular; there is no form of improved pasturage for dairy herds and green alfalfa must be purchased and brought up from the "Plan". The production of meat and milk from goats is also an important source of income for a number of families. Both cattle and goats are considered of extreme importance in the economy of the community agricultural life. A portion of almost every farmer's landholding is not arable due to the ruggedness of the terrain or rockiness, and livestock provide the only means of exploitation. It also provides a way whereby a farmer can take advantage of a non-intensive crop rotation without completely removing his fallowed land from economic production. The conceivable substitution of a more intensive cropping system, including the use of chemical fertilizers, is considered too risky and costly by the villagers.

Almost all households raise chickens and turkeys both for family consumption and for sale. The raising of pigs is also considered by many to be a very important and profitable enterprise. They are fattened on corn and garbanzo, which the farmer himself has cultivated, as well as wastage from the house.

Las Colonias

Las Colonias is on the flat valley floor of the "Plan", one kilometer down slope from the irrigation canal. In contrast to La Cañada this is a new modern farming community. It is still in the processes of growth and establishment, and in 1960 had a population of only 365. Las Colonias is located eight kilometers from Cortazar, and only three kilometers from the paved road which links Cortazar and Jaral de Progreso.

Only one of the ejiditarios interviewed was born in Las Colonias. The father of this individual and all the rest of the population were residents of Cortazar when, during the Cardenas administration, the ejido of Cortazar was established. This large ejido was subsequently divided into smaller sections, one of which is the present ejido of Las Colonias. Initially the ejiditarios had remained residents of Cortazar. During the 1930's, some of the ejiditarios moved to the village of El Jilote in order to be nearer their farm plots and then built their first thatched and adobe houses in what is now Las Colonias. Other ejidatarios followed them, coming from both El Jilote and Cortazar. This process has continued up to the present time; the last known case of an ejidatario moving to Las Colonias from Cortazar occurred in 1962. At the present time 44 of the 82 ejidatarios of Las Colonias reside in the community, 12 live in El Jilote, 25 in Cortazar, and one is an architect in Mexico City.

Among the 28 residents interviewed, seven farmers still owned houses in Cortazar, and all members of the community have family relatives there. Due to the complete lack of market facilities in the community, the sale and purchase of all commodities must be done in Cortazar. Members of the community must also go there for diversions such as attending the movies or the Sunday evening "paseo" in the plaza. They also attend mass in Cortazar. It is also important that a considerable number of farmers holding land in Las Colonias reside permanently in Cortazar and make the two trips daily by bicycle or pick-up truck.

The town is divided into two main sections. The majority of houses lie on two wide, closely parallelling dirt streets which are transformed into a quagmire of mud during the rainy season. One half a kilometer to the south a cluster of 10 other houses marks the second and smaller half of the settlement. Several of the ejiditarios living in Cortazar also maintain corrals here for their animals and sheds for their farm equipment. The construction of the houses shows the visible traces of change. Two or three cases show remnants of thatched roofs and a majority of the houses contain rooms of adobe, although almost all contain recently constructed rooms of brick. One modern six room house is built entirely of cement; the owner, however, still feels intimidated by its size and modernity, and prefers to live in the brick and adobe house of his mother and brother. In contrast to La Cañada, the houses are set back from the street in large open plots of land. A three or four foot high wall separates neighbors and each yard from the street. A wide gateway opens onto each yard within which lie an assortment of plows, alfalfa carts, well, fruit trees, temporarily abandoned washing and kitchenware, sleeping dogs and playing children. To one side or behind many houses are corrals for the animals, and behind some houses small half acre plots cultivated to corn.

Although values such as the dominant male rôle, the admiration of hard work, and the division of work along sexual lines also exist in Las Colonias, the community is less traditional than La Cañada. The villagers have greater outside contact and are less suspicious of outsiders; there is a greater awareness, appreciation and participation in the happenings and values foreign to the local community. Due to the scarcity and productivity of the

land and the high operating expenses of farming, there is also a great dependence on modern technology; agriculture is considered to be a business enterprise rather than a traditional and subsistence level occupation. The farmers themselves appear to be busier; during the day tractors, trucks and mule drawn wagons pass through the streets carrying alfalfa, seed, and fertilizers, and only in the evening does one see groups of idle men sitting in the streets or yards talking.

Las Colonias has very few public services. The nearest bus service passes one kilometer from the village five or six times a day, but four ejidatarios own trucks, one a motorcycle and three tractors, all of which, combined with bicycles, busses and taxis, are used for transportation. There is no priest or church in the community, and no central plaza. There is a state school with one teacher that covers the first four years of primary school, and some families send their children to Cortazar to receive additional education. Only one farmer has electricity which comes from a privately owned gasoline generator and he also has a television set. There is no piped water, but each family has a private well in the yard of their home. There are two corn mills and three small stores; actually the latter are windows into private houses where soft drinks, cigarettes, matches and the like can be obtained.

Whereas the non-irrigated land of La Cañada has limited the farmer's ability to vary his crops, the water from the irrigation canal has provided Las Colonias with greater possibilities of crop diversification. A more intensive cultivation is practiced due in part to pressure on the limited resource of land, the long use of continued yearly cultivation, the complete acceptance of commercial fertilizers, and the accepted use of farm credit. Corn still remains the most basic crop, but only rarely, and on non-irrigated fields above the irrigation canal, are beans intercropped with it. The corn is normally planted in March and irrigated until the beginning of the summer rains. The second crop of major importance is alfalfa which is cultivated both for sale and for the feeding of dairy cattle. During the winter and dry season, crops include wheat, habas, beans and garbanzo beans. Garlic, onions, tomatoes, melons and carrots are also grown; however, these crops involve both higher production costs and greater fluctuation in their market value, and this prevents the majority of the ejidatarios from planting them.

Although the ejidatarios of Las Colonias still use mules for cultivation, they are becoming increasingly dependent upon the use of machinery for performing certain agricultural tasks. Three ejidatarios own tractors, and only one interviewed farmer exclusively used animals for plowing his field. The remainder used or contracted tractors, or varied between using tractors and animals, basing their decision on soil factors, momentary economic resources and free time available. However, the planting and post-planting practices of corn are normally accomplished by hand and/or animals. Alfalfa is cut by hand, but the planting, pest control, and harvesting of wheat are contracted and performed by modern machinery.

All but three interviewed ejidatarios in Las Colonias own dairy cattle and all of the cows are of the improved Holstein breed. In almost all cases the herds are small; only four of the 28 farmers interviewed owned more than 10 animals. The milk is collected and sold to dairies in Villagran and Cortazar, and it is considered to be one of the major and most stable income sources for the families of the community. Cows are only frequently taken to pasture in harvested fields or ones that on rare occasions are left fallow, and the ejido has no land which is specifically used for pasture. The majority of cows are kept permanently in corrals at the house. They are fed alfalfa, which is the major reason for the popularity of this crop,and, in a few cases, concentrates.

Half of the ejidatarios interviewed had pigs, but in all cases the number was limited to one or two and they were considered more as mere farm animals than as an economic investment. All the families had chickens and/or turkeys, but contrary to La Cañada, the vast majority of the meat and eggs produced were used for consumption in the home. Only one ejidatario had a herd of goats.

APPENDIX D

METHODOLOGY AND FINDINGS OF LEVEL OF LIVING

APPENDIX D

LEVEL OF LIVING

Introduction

During field work in La Cañada and Las Colonias additional information was obtained on the level of living of the same sample of interviewed migrant and non-migrant farmers. These data were obtained from questionnaires administered by the author's wife, with the assistance of six rural school teachers, in interviews conducted with homemakers in all of the previously interviewed farmers' homes[1/]. The procedure followed in obtaining, tabulating and analyzing these data was generally the same as that used regarding the other two dependent variables of agricultural practices and orientation.

Methodology

Indices of Level of Living

Level of living was defined as the qualitative or quantitative use or possession of items in family households. In order to measure and study the relationship between migration and different aspects of living conditions and habits, level of living was divided into five major categories. These categories or sub-variables included house construction, household furnishings and family possessions, clothing and the maintenance of clothing, diet and health. In order to measure each of these sub-variables five separate indices were constructed[2/].

1/ In three non-migrant homes in La Cañada the farmer himself was interviewed, because there were no female residents in the home.

2/ A complete listing of these five indices, the specific score value of each item, and the ownership or use of these items by the interviewed families in La Cañada and Las Colonias are presented in Appendix H.

The selection of items or practices to be included on each of these indices was based on value judgments by the author and his wife following the observation of homes and living habits in the two communities, and consultation with local informants. The individual items on each index were generally selected and classified as to whether they were traditional or non-traditional items according to the observations which were made in both communities. Other factors were also taken into consideration in the selection and classification of items, such as their economic, nutritive or sanitary value, as well as their ability to distinguish wealthier and poorer families in the communities.

Each index consisted of between five and fourteen general items or practices, such as the kitchen floor material in the index of house construction. Each of these items was then divided into specific sub-items which were owned or used, such as the actual type of floor observed in a particular kitchen. Each general item was normally assigned an arbitrary maximum point value of one, and the specific sub-items were assigned fractional values which ranged from zero to one. A minority of general items were assigned maximum values of two; this was done only in the cases of the clothing of the farmer and homemaker, where a number of different items were involved, and certain foods of high nutritive value. In all cases where a general item or practice in the home exhibited a variety of specific sub-items, such as several different types of stoves for cooking, the specific sub-item owned by the family with the highest point value was always selected in the tabulation of scores.

The score for each index was determined by adding the values of the different sub-items that were owned or used in each house, and dividing this

sum by the total maximum value of the general items or practices applicable to the particular home[1/]. The possible range in scores for each index varied from 0.00, which represented the lowest possible level of living for any particular index, to 1.00, which represented the highest possible score.

1. House Construction

Ten general items in Las Colonias and eight items in La Cañada were included in this index in order to measure the size of the house and the type of construction of the kitchen, living quarters and patio. Aside from the number of rooms in the house and the type of patio, the items evaluated the construction of floors, walls and ceiling in both the kitchen and the most improved room used for a living quarter. Windows were not evaluated in La Cañada because many of the interviewers did not obtain this information. Due to differences in house construction between La Cañada and Las Colonias certain items were scored differently for the two communities.

2. Household Furnishings and Family Possessions:

The index of household furnishings included 10 general items which were identical for both the communities. Both kitchen and general household items were selected for the index, such as the type of stove used for cooking, beds, house decorations, kitchen utensils, and the means used to store clothing.

1/ This was done in order to compensate for items that were not applicable to certain homes. For example, the clothing of the homemaker could not be considered in cases where there were no female residents in the home, the grinding of corn where tortillas were bought outside the home, or the possession of irons where a homemaker employed a neighbor to perform this task. It was also used in cases where the school teachers in La Cañada failed to obtain information on specific questions.

3. Clothing:

Five general items were included in this index for both La Cañada and Las Colonias, although the specific clothing habits of the farmer and homemaker each received a two point value. Men's and women's clothing was generally classified according to traditional and non-traditional forms of dress, including the hairstyle, skirtstyle, footwear and use of "rebozo"[1/] or sweater by the homemaker, and footwear, type of pants and use of "gaban"[2/], jacket or sweater by the farmer. The other items in the index included the making or purchase of dresses and the possession and use of items for laundry and ironing.

4. Diet:

All of the foods found to be included in the normal diet of the interviewed families were divided into three major categories or groups[3/]. Foods in the first group, which were assigned zero points, were traditional foods such as beans, chile and tortillas. Foods in the second group were assigned one point and consisted of foods which were less traditional or of important nutritive value, such as bread, vegetables, the daily consumption of milk and meat once to three times per week. Certain foods were included in the third group and assigned two points which were frequently consumed and of high nutritive value, such as the consumption of milk twice daily or meat four or more times per week. The scores of individual families were based on a minimum of zero and maximum of 14, and were obtained by adding the foods, and their values, which the family consumed. Individual scores were then converted into the percentage of the 14 maximum points which the family received.

1/ A shawl worn over the head or shoulders.
2/ A blanket worn over the shoulders.
3/ For the specific enumeration of the foods in these groups see Appendix H.

5. Health:

Eleven items in both communities were included in this index. Both general health practices and kitchen sanitation were evaluated by selecting items such as the frequency of bathing, toilet facilities, disposal of garbage, where dishes were washed and foods prepared, and who the family consulted in the case of a specific child illness.

Hypotheses and Indices of Migration

The same hypotheses formulated in respect to extra-local orientation were examined concerning the different sub-variables of level of living. These included:

1. That migrant farmers who had been to the USA would have a higher level of living than farmers who had not been to the USA.

2. That the greater the amount of time spent by farmers in the USA, the higher would be their level of living.

3. That the greater the degree of family contact with the USA, the higher would be the farmer's level of living.

4. An additional hypothesis was formulated to study the relationship between the amount of money earned and returned to Mexico by migrants and their level of living. The hypothesis projected: That the greater the amount of money returned by migrants from the USA, the higher would be the migrants' level of living.

To determine the relationships existent between the dependent variable of level of living and migration, the same migration indices of migrant non-migrant, time spent by farmers in the USA, and the degree of family contact were used[1/]. To test the fourth hypothesis an additional migration

1/ See Chapter II, Methodology; Indices Used for the Analysis of the Data.

index was constructed by dividing a migrant's accumulated savings from all migrations according to grouping of thousands of dollars. (See Table 21).

Table 21. AMOUNT OF MONEY RETURNED TO MEXICO FROM THE USA BY INTERVIEWED MIGRANTS

Money Returned $ (US)	La Cañada	Las Colonias	Total
7000-7999	1	0	1
6000-6999	0	0	0
5000-5999	1	0	1
4000-4999	3	0	3
3000-3999	4	1	5
2000-2999	5	2	7
1000-1999	3	4	7
0- 999	4	7	11
Total	21	14	35

Similar to the results of the other migration indices, migrants from La Cañada had returned with larger savings than migrants from Las Colonias. This was largely because migrants from La Cañada had been to the USA both more frequently and for longer periods of time; they had also focussed their migration toward areas of higher agricultural wages.

Findings

In general the findings of the level of living indices paralleled the results of the use of agricultural practices and orientation. (See Figures 9-13 pp. 114-119). In all of the indices the level of living scores of the

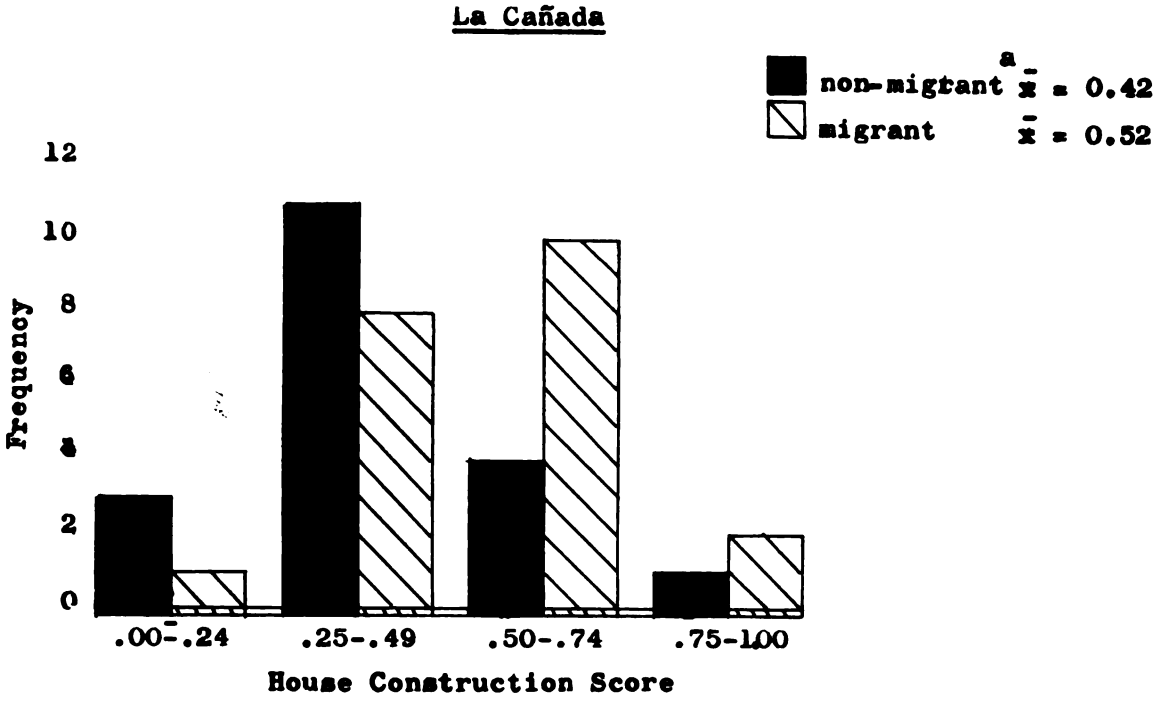
interviewed families were generally higher in Las Colonias than La Cañada. Within each community, however, there also appeared to be considerable differences in the level of living of migrant and non-migrant families.

1. Migrant Non-migrant Dichotomy:

Generally the data supported the hypothesis that migrants would have a higher level of living than non-migrants. (See Figures 9-13 and Tables 22-24). In the Las Colonias sample there was a definite positive relationship between migration to the USA and the level of living; in all the five indices the migrant group consistently obtained higher level of living scores than non-migrants. In the La Cañada sample, however, the findings showed greater variation with the specific index of level of living. Whereas there appeared to be a definite relationship between migration and improved house construction and household possessions and a weaker relationship to diet, there were no notable differences between migrants and non-migrants in regard to either clothing or health.

The lack of any relationship in respect to the health items was probably due to their low social value in La Cañada, and the fact that of all the level of living indices this was probably the one which was most strongly influenced by tradition. Whereas the houses in the community varied widely in construction, there was generally little variation between interviewed families in health practices. For example, only three homes possessed latrines; only one had a room specifically used for bathing purposes; only two of the 42 houses had "pilas"[1/] or their equivalent for washing dishes or clothes; and only two families had in their homes either of two first-aid items, bandages or methiolate.

1/ Elevated cement washstand, normally used for washing clothes.



a. Due to faulty interviewing, no data was obtained from two non-migrant families

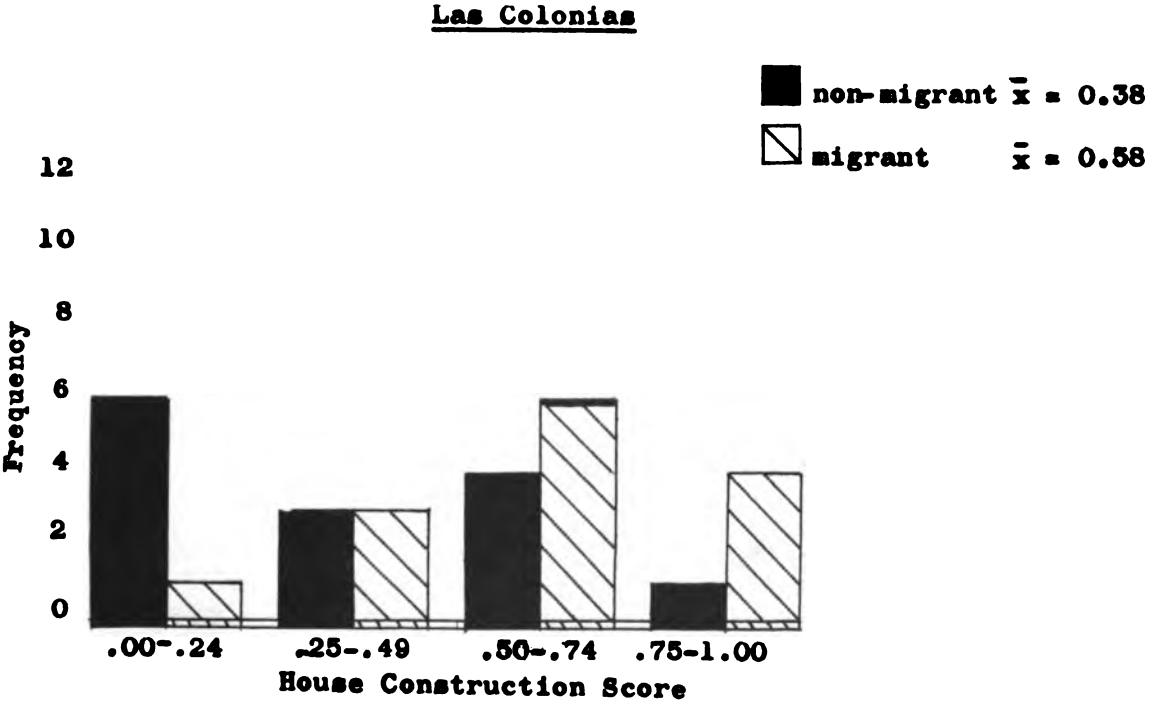
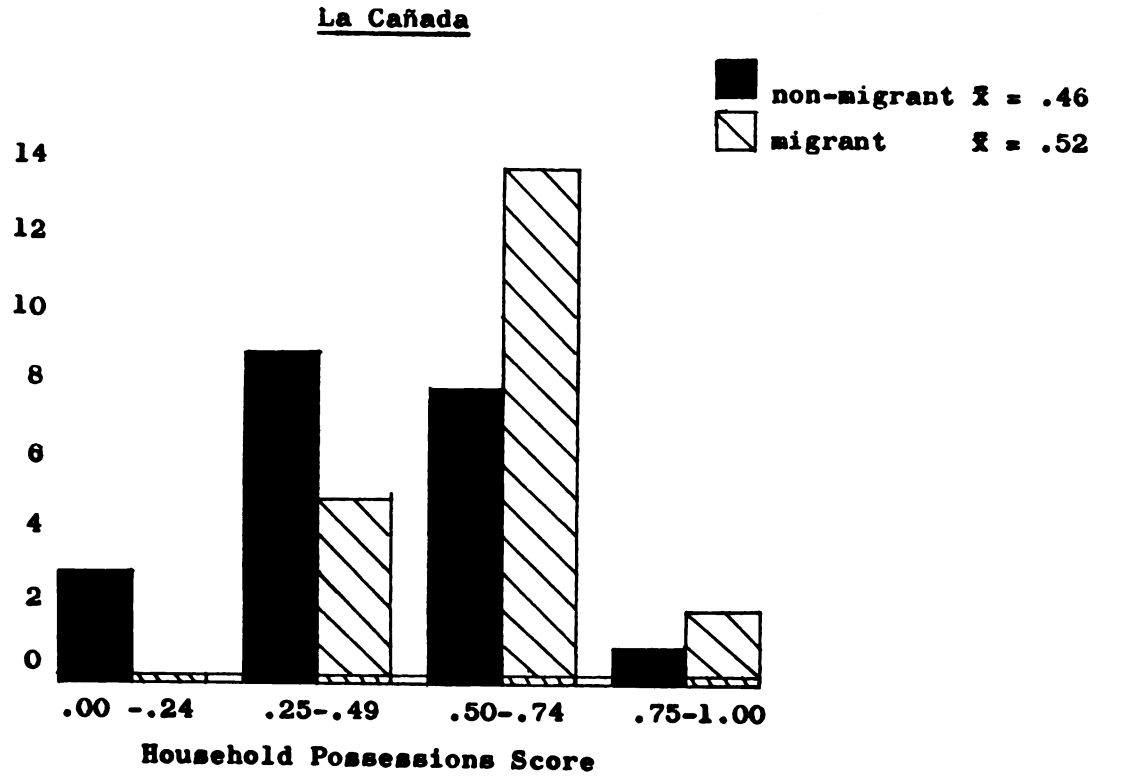


Figure 9. HOUSE CONSTRUCTION OF INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS



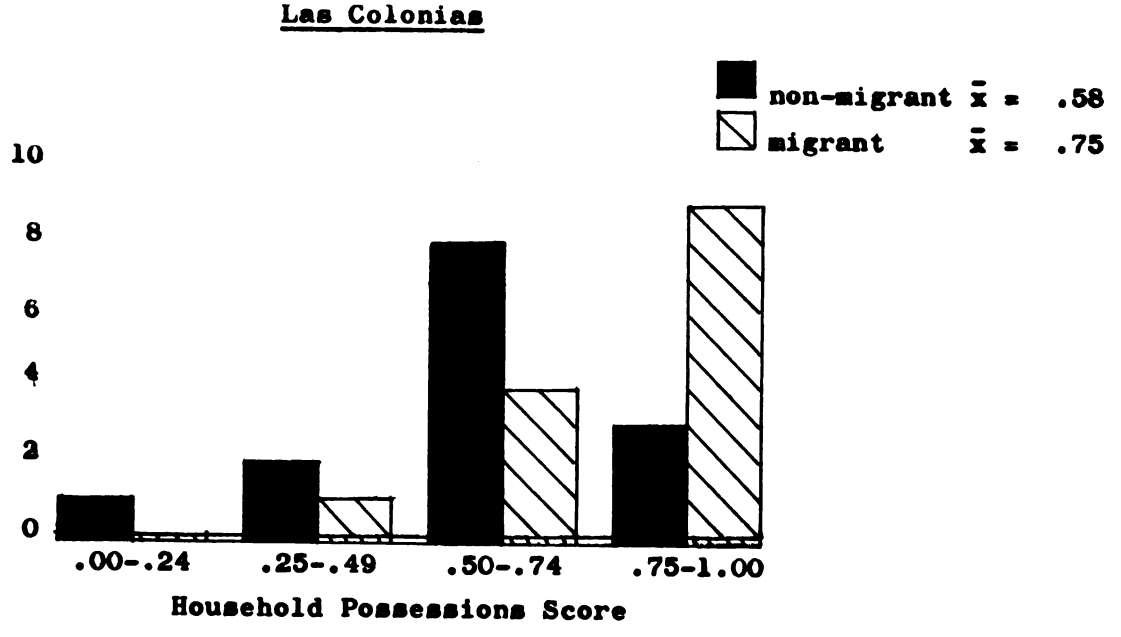


Figure 10. POSSESSION OF HOUSEHOLD ITEMS BY INTERVIEWED MIGRANTS AND NON-MIGRANTS IN LA CAÑADA AND LAS COLONIAS

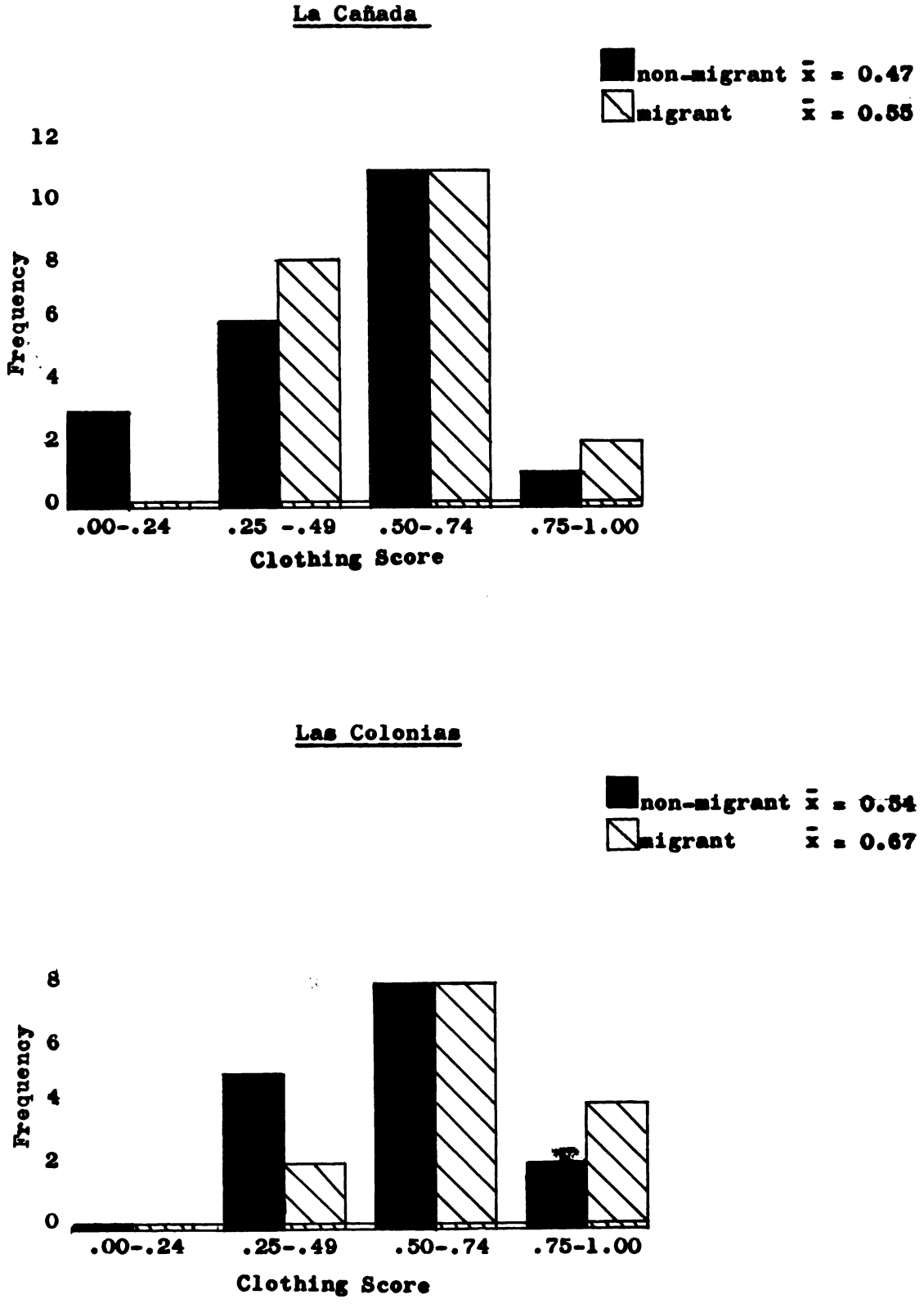


Figure 11. CLOTHING OF INTERVIEWED MIGRANT AND NON-MIGRANT FAMILIES IN LA CAÑADA AND LAS COLONIAS

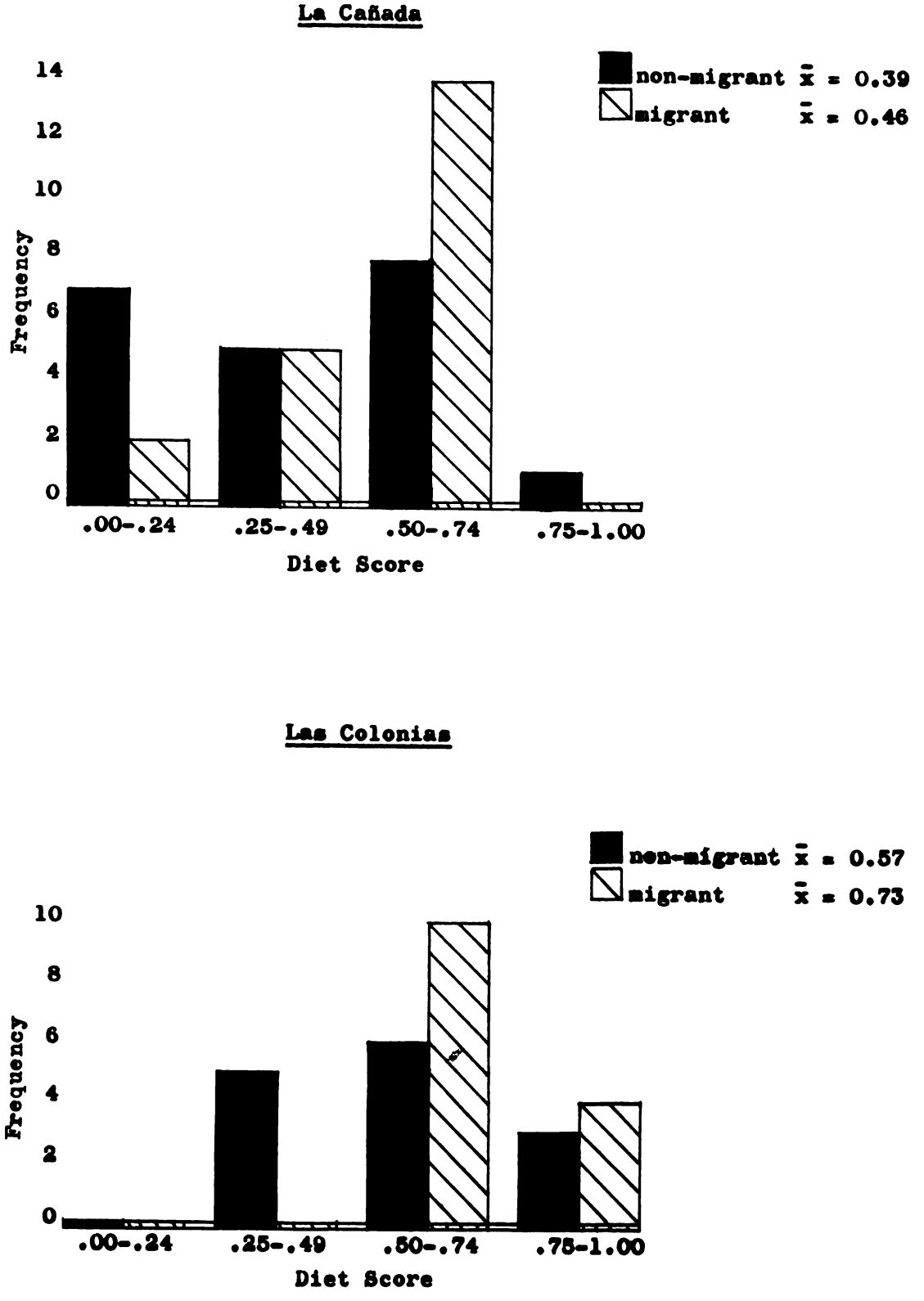
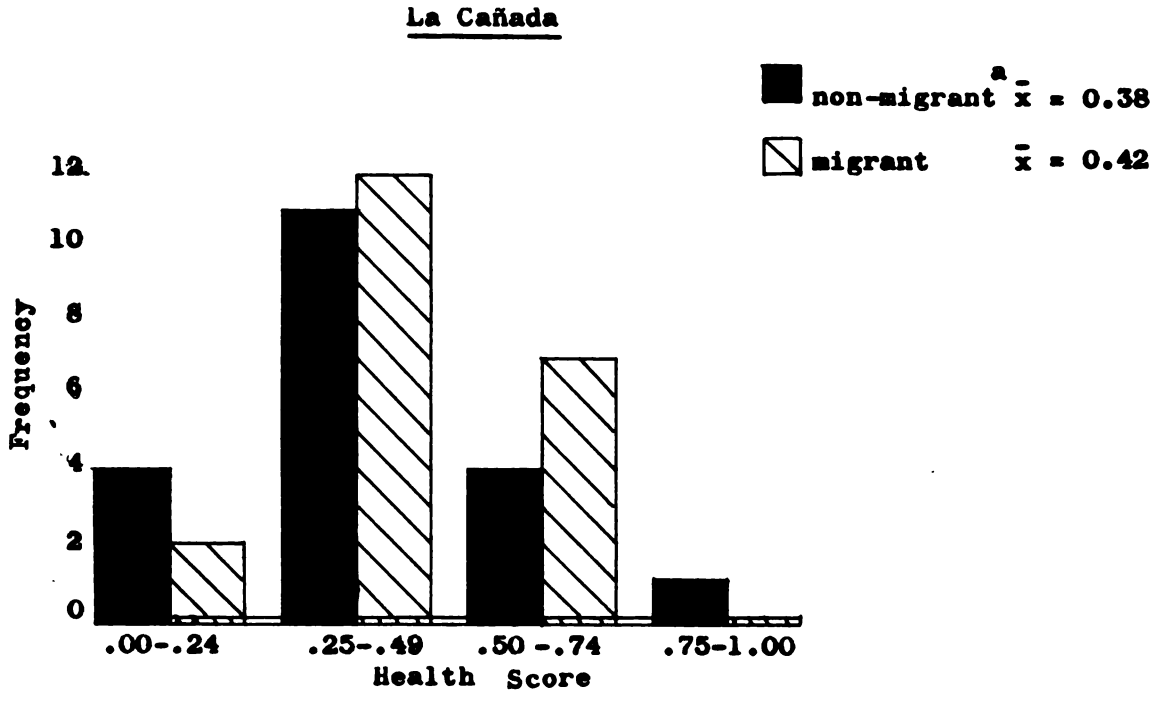


Figure 12. DIET OF INTERVIEWED MIGRANT AND NON-MIGRANT FAMILIES IN LA CAÑADA AND LAS COLONIAS



a. Due to faulty interviewing, no data was obtained from one non-migrant family.

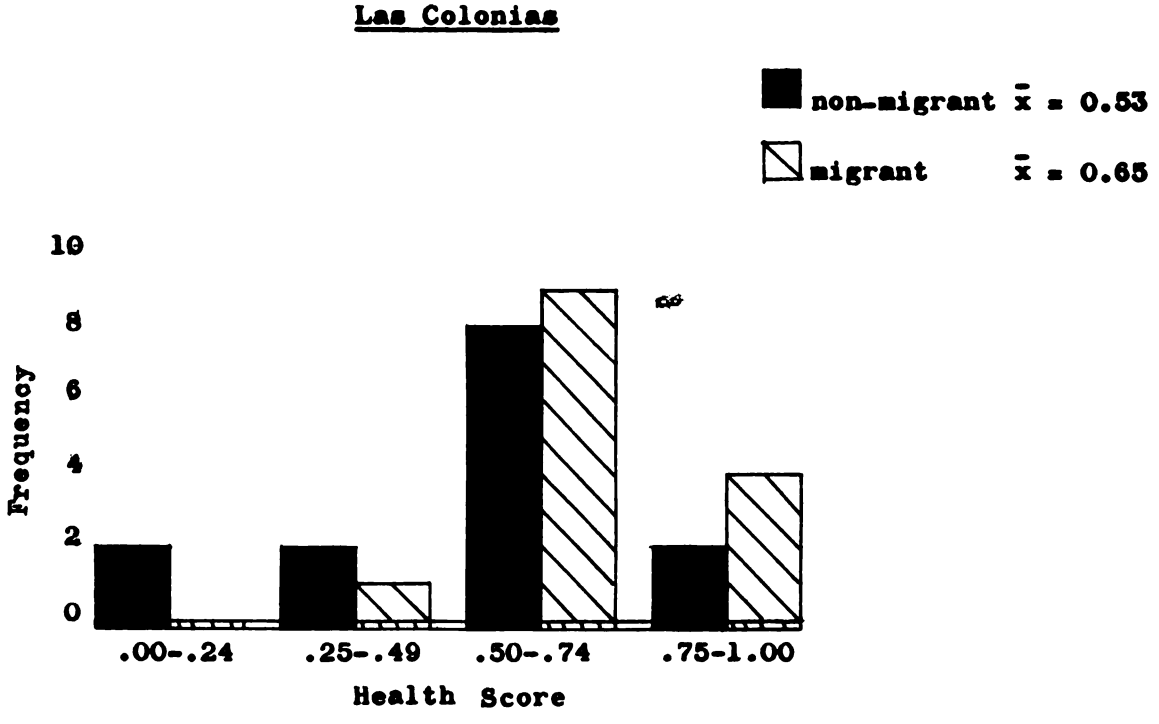


Figure 13. HEALTH ITEMS OF INTERVIEWED MIGRANT AND NON-MIGRANT FAMILIES IN LA CAÑADA AND LAS COLONIAS

Table 22. CORRELATION COEFFICIENTS BETWEEN INDICES OF MIGRATION AND LEVEL OF LIVING IN THE LA CAÑADA SAMPLE

	Level of Living				
Migration Indices	House Construction	Household Possessions	Clothing	Diet	Health
Migrant Non-migrant	+.30	+.36	+.16	+.26	+.10
Time in USA	+.40	+.24	+.13	+.26	+.09
Degree of Family Contact	+.19	+.42	+.18	+.15	+.08
Money Returned	+.14	-.10	-.04	+.16	-.03

Table 23. CORRELATION COEFFICIENTS BETWEEN INDICES OF MIGRATION AND LEVEL OF LIVING IN THE LAS COLONIAS SAMPLE

	Level of Living				
Migration Indices	House Construction	Household Possessions	Clothing	Diet	Health
Migrant Non-migrant	+.44	+.41	+.33	+.33	+.32
Time in USA	+.21	+.30	+.11	+.28	+.08
Family Contact	+.42	+.33	+.43	+.28	+.31
Money Returned	+.15	+.21	+.17	+.48	+.09

Table 24. CORRELATION COEFFICIENTS BETWEEN INDICES OF MIGRATION AND LEVEL OF LIVING IN THE LA CAÑADA AND LAS COLONIAS SAMPLES COMBINED

	Level of Living				
Migration Indices	House Contruction	Household Possessions	Clothing	Diet	Health
Migrant Non-migrant	+.36	+.38	+.23	+.28	+.20
Time in USA	+.31	+.26	+.12	+.27	+.08
Family Contact	+.29	+.38	+.26	+.19	+.17
Money Returned	+.14	+.00	+.01	+.22	+.00

Although most migrants were probably exposed to improved health standards while in the USA, this apparently did not result in changes following their return to Mexico. Although the differences were only slight, more migrants than non-migrants actually cooked and washed dishes on the floor rather than on an elevated location. Variations in regard to clothing and its maintenance were also generally limited in La Cañada. For example, only one homemaker did not use a wooden washboard for laundry, and only four of the interviewed farmers did not regularly wear "huaraches"[1/]. Although migration may have caused certain changes regarding men's clothing styles these appeared from observation to be limited to the wearing of blue jeans and Western style shirts. In regard to the quality and general style of men's and homemakers' clothing, as well as the maintenance of clothing, the data did not show major differences between the interviewed migrant and non-migrant groups.

The highest correlations in the La Cañada sample were between migration and house construction (+0.30) and migration and household possessions (+0.36). (See Table 22). The relationships between migration and these same sub-variables were also the strongest in Las Colonias and suggest that the physical improvement of the house and specific possessions within it may be the most important effects of migration on the level of living. In the construction of the houses, the actual differences between migrants and non-migrants in regard to kitchens were minimal; the only large difference in the two samples was that in Las Colonias seven of the eight kitchens with cement floors belonged to migrants[2/]. Although the houses of sampled

1/ Sandals.

2/ For the specific data on these items and indices see Appendix H.

migrants in Las Colonias tended to have more rooms than those of non-migrants, in La Cañada there was no difference between the two groups. The major differences that did exist between the interviewed migrants and non-migrants were concentrated in the living quarters of the houses. In La Cañada non-migrant houses were the only ones with unimproved stone walls, and six of the eight houses with only stone floors and the only house with completely thatched roof belonged to non-migrants. On the other hand, in the La Cañada sample seven of the nine houses with cement floors belonged to migrants, and also five of the seven houses which had used cement in the construction of their patios. In the Las Colonias sample eight of the 12 houses with painted or plastered brick walls, nine of the 11 houses with cement floors, and 11 of the 16 houses with glass or screened covered windows belonged to migrants.

The interviewed migrants in both communities generally had more household possessions, though their advantage over non-migrants in specific items was slight. Among those items with larger differences was the fact that three migrants from both La Cañada and Las Colonias had gas stoves, whereas only one non-migrant from La Cañada had this item. Of the 21 homes in La Cañada where half or more of the beds were single or double spring beds, 15 belonged to migrant families. Although there was no difference in lighting facilities in the La Cañada sample, one migrant in Las Colonias had electricity, and six others had "linternas"[1/], while no non-migrants possessed these items. Likewise, migrants had more cooking utensils than non-migrants in both communities, with the exception of tortilla presses; forks, which were a relatively recent introduction to the communities, were owned by six migrants in each community and by only three non-migrants in Las Colonias.

1/ A petroleum wick lantern with handle and hood.

Although the hypothesis that migrants would have a superior diet than non-migrants was accepted in both communities, this correlation was generally low in both La Cañada and Las Colonias.

2. Time Spent in the United States:

The correlations regarding the time spent by farmers in the USA and the level of living indices exhibited basically the same patterns as the migrant non-migrant dichotomy. (See Tables 22-24). The hypothesis that farmers who had spent more time in the USA would have a higher level of living was only supported in the indices of improved house construction, household possessions and diet, whereas in clothing and health the hypothesis was rejected in both the communities.

However, in regard to household possessions in both La Cañada and Las Colonias the correlation coefficients were lower than those between this index and the migrant non-migrant dichotomy. This suggests that the actual duration of time which a migrant had spent in the USA had relatively little influence over the actual items possessed. This same pattern existed regarding house construction in Las Colonias, where migrants who had spent only a minimum time period in the USA had similar houses to those who had migrated for longer periods of time. On the other hand, in La Cañada the amount of time spent in the USA was more strongly related to the improved construction of houses.

3. Degree of Family Contact with the United States:

While the information obtained in Las Colonias supported the hypothesis that an increased degree of family contact would bear a positive relationship to all the indices of improved level of living, in La Cañada the

same hypothesis was rejected in all cases except for household possessions. (See Tables 22-24). This was exactly contrary to the expected results. In La Cañada the degree of family contact was more intense than in Las Colonias, and if family contact was significant in improving living conditions a positive relationship should have been observed. For this reason the hypothesis is generally rejected, with the exception of the possession of household items. The positive relationship that does occur in Las Colonias may be attributed to the high correlations already existent between the migrant non-migrant groups and their level of living, and the fact that in only six of the interviewed families was there any form of additional family contact other than the migratory status of the farmer himself.

In both community samples, however, there was a positive relationship between family contact and the possession of household items. A possible reason for this relationship, which obviously requires further study, is that household possessions are among those items in the communities which were most subject to change, and also those which required the lowest economic investment to purchase. For this reason, sons living in the same household, or family members returning periodically from the USA, may have contributed to causing small changes in the home such as the purchase of decorations, furniture, or kitchens utensils, whereas they would not introduce changes in factors of such magnitude as the construction of the house.

4. Money Returned by Migrants to Mexico from the United States:

With the exception of the strong relationship for diet found in Las Colonias, the amount of money which migrants had returned to Mexico as a result of their work in the USA showed no relationship to improved level of

living, and the hypothesis was rejected. (See Tables 22-24). Although a very low correlation of +0.21 was also found between savings and household possessions in Las Colonias, in La Cañada these two variables were negatively correlated (-0.10). At first glance this appeared to reject the frequently stated economic effect of Mexican migration to the USA, as well as support the opposite theory that migrants have squandered their earnings. It also appeared to deny the opinion of both migrants and non-migrants in La Cañada that many migrants have used their earnings to improve their houses and living conditions.

In order to study the possible economic effect of migration, migrant were asked the ways in which they had employed their savings following their return to Mexico from the USA. (See Table 25).

Table 25. USE OF EARNINGS MADE BY INTERVIEWED MIGRANTS IN THE USA

Use of Earnings	No. of Mentions[a]		
	La Cañada (n=21)	Las Colonias (n=14)	Total
Family maintenance	21	14	35
Expenses of migration	10	5	15
Purchase or construction of house	11	2	13
Purchase of land	13	0	13
Purchase of animals	8	0	8
Cultivation or clearing of land	4	2	6
Family illness	5	1	6
House and home improvement	5	1	6
Non-agricultural business	1	1	2
Amusement	1	1	2
Total	79	27	106

[a]Each use was credited with no more than a single mention by each migrant, even though on consecutive migrations he may have employed his earnings toward the same use.

This information partially explains the lack of relationship between the earnings which were returned to Mexico and improved levels of living, due to the fact that most migrants employed their money in factors such as family maintenance and the purchase of houses, land and animals. These were factors which were not included in the specific level of living indices. It may also be explained by the number of migrants from La Cañada who used their earnings to specifically purchase land and houses. Twelve of the 21 migrants did not own houses before their first migration and 18 did not own land. (See Tables 11 and 13). It is likely that a large majority of the earnings of these migrants were spent catching up to the living standards maintained by other members of the community who already possessed land and houses. A final reason for the lack of relation between earnings and level of living may be the variable of time that was involved in the actual accumulation of this money. Some migrants had worked for relatively short periods of time in the USA and returned with small but significant savings which they could immediately employ to a specific purpose. On the other hand, other migrants had worked in the USA on almost a yearly basis, thereby accumulating larger sums of money over a longer period of time, but most of their earnings were actually spent in the maintenance of their families in Mexico.

Conclusions

In general the findings appeared to support a positive relationship between migration and improved level of living. The specific findings included:

1. The hypothesis that migrants would have a higher level of living than non-migrants was accepted in Las Colonias. In La Cañada the hypothesis was accepted for the level of living indices of house construction, household possessions and diet, but rejected for the indices of clothing and health. The strongest relationships in both communities were found between migration to the USA and house construction and household possessions.

2. In both communities the hypothesis that an increased amount of time spent by farmers in the USA would be related to a higher level of living was accepted for the indices of house construction, household possessions and diet and rejected for the indices of clothing and health. However, the only relatively strong relationship was that between time spent in the USA and house construction in La Cañada. The other positive relationships between time in the USA and the level of living indices were all lower than the correlations between these level of living indices and the migrant non-migrant dichotomy.

3. The hypothesis that a greater degree of family contact with the USA would be related to a higher level of living was rejected in La Cañada in all of the indices except for household possessions. In Las Colonias, where family contact was largely due to only the migratory status of the farmer himself, the hypothesis was accepted with all of the level of living indices. Household possessions was the only level of living index which showed a moderate degree of relationship to family contact in both of the communities.

4. The hypothesis that greater amounts of money returned by migrants from the USA would be positively related to a higher level of living was rejected in both communities, with the exceptions in Las Colonias of a relatively strong relationship between savings and diet and a very low relationship between savings and household possessions. In general migrants appeared to have employed their earnings and savings in items and factors that were not considered in the indices of level of living.

APPENDIX E

ITEM FREQUENCIES OF MIGRATORY INDICES

APPENDIX E

FINDINGS OF SPECIFIC ITEMS ON TWO INDICES OF MIGRATION[1/]

1. Degree of family contact with the USA

	La Cañada (n=42)	Las Colonias (n=28)	Total
Male head of family has been migrant	21	14	35
Other family member in house has migrated	13	6	19
Family member in USA	7	0	7

2. Work experience of migrant in the USA

	La Cañada (n=21)	Las Colonias (n=14)	Total
Performed agricultural work	18	13	31
Performed general or skilled farm work	12	5	17
Worked with crops or livestock applicable to native community	4	10	14
Mentioned agriculture as something migrant liked about USA	7	8	15

1/ The findings and frequencies on the migrant non-migrant and time spent in the USA indices are presented in the text, Chapter III, Findings, Results of Migration-Indices.

APPENDIX F

INDEX AND USE OF IMPROVED AGRICULTURAL PRACTICES

APPENDIX F

INDEX AND USE OF IMPROVED AGRICULTURAL PRACTICES

			LA CAÑADA		LAS COLONIAS	
			M[a]	Nm[b]	M[a]	Nm[b]
	Planted corn		21	21	14	14
1.	Planted hybrid corn variety	(1.0)[c]	1	1	9	5
2.	Fertilized corn (organic or chemical)	(1.0)	1	2	14	14
	Planted field beans separately from corn		12	8	8	3
3.	Planted Flor de Mayo or Rosita bean varieties	(1.0)	11	7	8	3
4.	Fertilized beans(organic or chemical)	(1.0)	0	0	7	1
	Planted wheat		3	1	6	6
5.	Planted recommended wheat varieties[d]	(1.0)	x[e]	x	2	2
6.	Applied fungicide to wheat	(1.0)	x	x	2	3
	Planted alfalfa		0	0	13	13
7.	Planted alfalfa in Nov.-December	(1.0)	x	x	6	4
	Planted garbanzo		18	17	3	3
8.	Planted barganzo Sept.-November	(1.0)	11	9	x	x
9.	Variety of crops planted					
	Only corn interplanted with beans	(0.0)	2	3	x	x
	Corn and winter crop	(0.5)	6	10	x	x
	Corn, beans separately and winter crop	(1.0)	13	8	x	x
10.	Instrument used for plowing					
	La Cañada:					
	Hoe or oxen	(0.0)	0	4	x	x
	Mules	(1.0)	21	17	x	x
	Las Colonias:					
	Mules	(0.0)	x	x	0	1
	Tractor and mules	(0.5)	x	x	1	2
	Tractor	(1.0)	x	x	13	11

a. M = Migrant. b. Nm = non- migrant
c. Value assigned to practice for computing agricultural practices score.
d. Recommended wheat varieties included Nadadores 63, Mayo 64, Sta. Elena, Sonora 63, 64 and 64-A, and Chapingo 53.
e. x = practice not included in computing scores for farmers in one of the two communities.

			LA CAÑADA		LAS COLONIAS	
			M	Nm	M	Nm
11.	Possession and breed of cattle or goats					
	Did not own cattle of goats	(0.0)	10	6	1	2
	Non improved breed of cattle or goats	(0.50)	8	10	0	0
	Brahman or Holstein cross	(0.75)	2	2	10	10
	Brahman or Holstein	(1.0)	1	3	3	2
12.	Vaccination of cattle					
	Did not vaccinate	(0.0)	6	10	7	6
	Vaccinates only when animal is sick	(0.5)	0	2	2	2
	Vaccinates yearly	(1.0)	5	2	4	4
13.	Feeding of cattle					
	Only corn stalks and pasturage	(0.0)	6	9	0	0
	Alfalfa	(0.5)	2	4	9	10
	Alfalfa and corn or concentrate	(1.0)	3	1	4	2
14.	Type of corral for cattle					
	Corral with roofed shelter	(0.33)	3	3	9	2
	Barrel or pail drinking trough	(0.17)	2	1	4	7
	Cement drinking trough	(0.33)	1	0	5	11
	Wood or stone feeding trough	(0.17)	1	2	1	4
	Cement feeding trough	(0.33)	0	1	6	1
		(values totalled)				
15.	Owned pigs		10	6	7	7
	Unimproved breed	(0.0)	5	2	1	2
	Duroc crossed	(0.5)	2	1	2	3
	Duroc Jersey	(1.0)	3	3	4	2
16.	Vaccination of pigs					
	Did not vaccinate	(0.0)	4	4	4	3
	Vaccinates only when animal is sick	(0.5)	2	0	0	0
	Vaccination yearly	(1.0)	4	2	3	3
17.	Type of corral for pigs					
	No corral	(0.0)	0	1	0	3
	Corral with roof	(0.5)	7	5	6	3
	Dirt corral	(0.1)	2	1	1	0
	Stone and dirt corral	(0.2)	3	1	0	0
	Stone and cement corral	(0.3)	0	0	1	1
	Stone cobbled corral	(0.4)	2	3	1	2
	Cement corral	(0.5)	3	1	4	1
		(values totalled)				

APPENDIX G

INDICES AND ITEM FREQUENCIES OF EXTRA-LOCAL ORIENTATION

APPENDIX G

INDICES OF EXTRA LOCAL ORIENTATION

		LA CAÑADA		LAS COLONIAS	
		M[a]	Nm[b]	M[a]	Nm[b]
I. MOBILITY					
1. Last trip to Mexico City					
Never has gone to Mexico	(0)[c]	3	6	0	2
Last went more than 2.9 years ago	(2)	10	9	3	6
Went within last 2.9 years	(3)	8	6	11	6
2. Last trip to Irapuato					
Never has gone to Irapauto	(0)	1	10	0	2
Last went more than 1.9 years	(1)	11	6	3	4
Went within last 1.9 years	(2)	9	5	11	8
3. Frequency of trips to Celaya					
Less than once per month	(0)	9	16	3	7
Once per month or more	(1)	12	5	11	7
II. INFORMATION SOURCES					
1. Read newspaper within past week	(1)	1	1	3	2
2. Read magazine within past month	(1)	5	1	7	4
3. Received correspondence in mail within past two weeks	(1)	4	4	4	1
4. Listens to radio daily	(1)	17	9	12	12
III. CONTACT WITH AGRICULTURAL CHANGE SOURCES					
1. Obtaining credit from Banco Agrícola[d]	(1)	0	0	7	4
2. Visited on farm by agronomist in past year	(1)	0	0	4	1
3. Attended agricultural demonstration, meeting in past year	(1)	1	1	3	0
4. Has ever visited CIAB	(1)	1	1	3	2
5. Attended agricultural fair in Celaya in 1964	(1)	1	1	6	3
6. Reads farm magazine	(1)	1	1	8	4

a. M= migrant. b. Nm = non-migrant.

c. Value assigned to item for computing index score.

d. Agronomists supervising loans from the Banco Agrícola were mentioned in Las Colonias as one of the major sources of information for the adoption of agricultural practices.

			LA CAÑADA		LAS COLONIAS	
			M	Nm	M	Nm
IV.	KNOWLEDGE OF CURRENT EVENTS					
	1. Identified Guatemala	(1)	2	1	5	5
	2. Knew name of State govenor	(1)	19	16	13	11
	3. Knew what PRI was	(1)	14	6	14	13
	4. Knew words for which PRI is abbreviation	(1)	0	1	7	4
V.	EXTRA LOCAL ASPIRATIONS					
	1. Wanted to leave community	(1)	8	4	1	0
	2. Wanted son to leave community	(1)	15	5	11	4
	3. Wanted son to have non-agricultural occupation	(1)	9	5	10	4
	4. Wanted daughter to leave community	(1)	6	5	4	3
	5. Wanted daughter to have occupation other than housewife	(1)	7	2	1	2

APPENDIX H

INDICES AND ITEM FREQUENCIES OF LEVEL OF LIVING

APPENDIX H

INDICES AND RESULTS OF LEVEL OF LIVING

		LA CAÑADA		LAS COLONIAS	
		M [a]	Nm [b]	M [a]	Nm [b]
I. HOUSE CONSTRUCTION					
1. Number of rooms in house, including kitchen: [c]					
1 or 2 rooms	(0.0) [d]	3	4	3	5
3 rooms	(0.33)	11	10	3	8
4 rooms	(0.67)	5	5	4	1
5 or more rooms	(1.0)	1	1	4	0
no information		1	1	0	0
2. Patio:					
House has no patio	(0.0)	0	0	3	7
Dirt patio	(0.25)	1	3	1	1
Cobbled stone patio	(0.50)	15	16	3	2
Stone and cement patio	(0.75)	1	1	6	4
Cement patio	(1.0)	4	1	1	0
3. Floor of kitchen:					
La Cañada: Dirt	(0.0)	4	5		
Stone or stone+cement	(0.33)	13	11		
Brick	(0.67)	1	1		
Mozaic tiled	(1.0)	1	2		
Las Colonias: Dirt	(0.0)			6	8
Brick	(0.33)			1	5
Cement	(0.67)			7	1
Mozaic tiled	(1.0)			0	0
No information		2	2	0	0

a. M = migrant
b. Nm = non-migrant
c. Not including bathrooms, chapels, storage rooms used solely for keeping agricultural produce and implements, and stores.
d. Value assigned to specific items.

			LA CAÑADA		LAS COLONIAS	
			M	Nm	M	Nm
4.	Walls of kitchen: (values totalled)					
	La Cañada: Stone or adobe	(0.0)	10	9		
	Stone and "mezcla" [a]	(0.33)	6	9		
	Brick	(0.67)	3	1		
	Plastered or painted	(0.33)	2	1		
	Las Colonias: Adobe or thatched	(0.0)			4	2
	Brick	(0.33)			9	12
	Cement	(0.67)			1	0
	Painted or plastered	(0.33)			3	3
	No information		2	2	0	0
5.	Roof of kitchen:					
	Thatch	(0.0)	1	3	0	0
	Open tile (tejamanil)	(0.5)	8	10	11	13
	Closed tile (baldoza)	(1.0)	10	6	3	1
	No information		2	2	0	0
6.	Windows in kitchen:					
	Only Las Colonias: No windows	(0.0)	x [b]	x	6	9
	Open or shuttered	(0.5)	x	x	3	2
	Screen or glass	(1.0)	x	x	5	3
7.	Floor of living quarters, other than kitchen:					
	La Cañada: Stone or stone and cement:	(0.0)	7	10	x	x
	Brick	(0.33)	2	2	x	x
	Cement	(0.67)	7	2	x	x
	Mozaic tile	(1.0)	5	5	x	x
	Las Colonias: Dirt	(0.0)	x	x	2	4
	Brick	(0.33)	x	x	0	5
	Cement	(0.67)	x	x	9	2
	Mozaic tile	(1.0)	x	x	3	3
	No information		0	2	0	0

a. Prepared with limestone, sand and water

b. Item not considered in computing score for one of two communities.

			LA CAÑADA		LAS COLONIAS	
			M	Nm	M	Nm
8.	Walls of living quarters, other than kitchen: (values totalled)					
	La Cañada: Stone	(0.0)	0	4	x	x
	Stone and "mezcla"	(0.33)	18	14	x	x
	Brick	(0.67)	3	1	x	x
	Painted or plastered	(0.33)	6	6	x	x
	Las Colonias: Adobe	(0.0)	x	x	0	0
	Brick	(0.33)	x	x	12	12
	Cement	(0.67)	x	x	2	2
	Painted or plastered	(0.33)	x	x	9	6
	No information		0	2	0	0
9.	Roof of living quarters, other than kitchen:					
	Thatch	(0.0)	0	1	0	0
	Open tile(tejamanil)	(0.5)	3	2	2	5
	Closed (baldoza)	(1.0)	18	16	12	9
	No information		0	2	0	0
10.	Windows of living quarters:					
	Only Las Colonias: No windows	(0.0)	x	x	1	7
	Open or shuttered	(0.5)	x	x	2	2
	Screen or glass covered	(1.0)	x	x	11	5
II.	HOUSE FURNISHINGS AND POSSESSIONS					
1.	Type of stove used for cooking:					
	Open hearth fireplace (fogón)	(0.0)	12	13	2	5
	Petroleum stove	(0.5)	6	7	9	9
	Gas stove	(1.0)	3	1	3	0
2.	Storage place for kitchen articles:					
	Table or bench	(0.0)	0	2	1	1
	"Trastero" a/	(0.33)	13	13	1	1
	Open cabinet or shelves	(0.67)	1	0	2	5
	Closed cabinet	(1.0)	7	6	10	7

a. Stone or cement shelves built into kitchen specifically designed to hold cooking equipment.

		LA CAÑADA		LAS COLONIAS	
		M	Nm	M	Nm
3. Kitchen utensils: (values totalled)					
More than 10 spoons	(0.25)	16	10	14	11
Fork(s)	(0.25)	6	3	6	1
Aluminum or enamel pots	(0.25)	13	7	12	10
Tortilla press	(0.25)	14	14	13	14
4. Kitchen furniture:(values totalled)					
Chair (s)	(0.50)	20	15	14	10
Table	(0.50)	17	13	14	12
5. House furniture for rooms other than kitchen: (values totalled)					
Chair(s)	(0.25)	16	14	14	11
Arm chair or couch	(0.25)	1	1	1	1
Table	(0.25)	15	10	8	11
Cabinet	(0.25)	2	1	5	0
No information		0	2	0	0
6. Beds:					
More than one half of the beds in the house were metal or board beds	(0.0)	6	13	1	3
One half the beds in the house were single or double spring beds [a]	(0.50)	3	0		
More than one half of the beds in the house were single or double spring beds	(1.0)	12	8	13	11
7. Object used to store clothing:					
Cardboard boxes or hooks on wall	(0.0)	1	5	0	3
Suitcase or trunks	(0.5)	13	11	4	4
Wardrobe or bureau	(1.0)	7	5	10	7

a. A double bed was valued as equalling two single beds.

		LA CAÑADA		LAS COLONIAS	
		M	Nm	M	Nm
8. Object used to illuminate house:					
"Aparato de lata" [a]	(0.0)	2	3	0	0
"Aparato de bombillo" [b]	(0.5)	11	12	7	14
"Linterna" [c], gas lamp, or electricity	(1.0)	8	6	7	0
9. Mass media items: (values totalled)					
Radio	(0.5)	15	10	13	14
Books	(0.5)	6	5	8	5
10. House decorations: (values totalled)					
Photographs	(0.33)	11	11	6	7
Non-religious paintings or prints	(0.33)	14	8	10	3
Plants or flowers	(0.33)	16	15	7	6

a. Wick in a small can containing petroleum.
b. Petroleum wick lantern with glass hood.
c. Larger and more elaborate wick lantern with hood and handle.

	LA CAÑADA		LAS COLONIAS	
	M	Nm	M	Nm
III. CLOTHING				
1. Clothing of homemaker [a]				
0.0 points	0	1	0	0
0.5 points	4	2	0	0
1.0 points	9	7	1	4
1.5 points	7	6	12	7
2.0 points	1	2	1	3
No information	0	3	0	0
2. Clothing of interviewed farmer [b]				
0.0 points	0	1	0	0
0.25 points	1	2	0	1
0.50 points	5	3	0	0
0.75 points	4	8	2	4
1.0 points	1	2	1	4
1.25 points	6	4	6	4
1.50 points	2	0	2	1
1.75 points	2	0	1	0
2.0 points	0	0	2	0
No information	0	1	0	0

a. Scale of woman's clothing:

Traditional (0.0 points)	Non-traditional (0.50 points)
Long skirt	Short skirt or dress
Sandals	Shoes
Rebozo	Sweater
Braids	Permanent wave or short hair

b. Scale of man's clothing:

Traditional (0.0 points)
Wears "huaraches" 7 days/week
Wears "gaban"
Only owns "calzones" (white wrapped cotton pants)

Traditional non-traditional (0.25 points)
Wears "huaraches" daily, but shoes on Sunday
Wears jacket or windbreaker
Owns cotton, khaki or blue jean pants

Non-traditional (0.50 points)
Wears shoes daily
Wears sweater
Owns dress pants or suit

		LA CAÑADA		LAS COLONIAS	
		M	Nm	M	Nm
3. Manner in which homemaker obtains dresses					
Doesn't own sewing machine; homemaker or family member makes dresses	(0.0)	0	1	3	2
Owns sewing machine; homemaker or family member makes dresses	(0.33)	7	10	6	10
Doesn't own sewing machine; homemaker buys dresses or pays to have them made	(0.67)	8	3	0	2
Owns sewing machine; homemaker buys dresses or pays to have them made	(1.0)	6	4	5	0
4. Family owns four or more irons [a]	(1.0)	20	14	7	12
5. Items used for washing clothes					
Stone	(0.0)	1	5	0	1
Wooden wash board or box	(0.5)	20	14	7	12
"Pila" or equivalent	(1.0)	0	0	7	1
No information		0	2	0	0
IV. DIET					
1. Point frequency for foods consumed					
0 points		1	2	0	0
1 point		0	2	0	0
2 points		1	1	0	0
3 points		0	2	0	0
4 points		4	1	0	1
5 points		1	2	0	3
6 points		1	2	0	2
7 points		6	0	0	2
8 points		1	3	2	0
9 points		4	4	2	1
10 points		2	1	6	2
11 points		0	1	2	1
12 points		0	0	1	2
13 points		0	0	0	0
14 points		0	0	1	0

a. Owning less than 4 irons resulted in a time loss while ironing as the woman had to wait for irons to reheat.

	LA CAÑADA		LAS COLONIAS	
	M	Nm	M	Nm
Frequency of food consumption used for determining point value (values totalled)				
0 Points group				
Beans/day	21	21	14	14
Tortillas/day	21	21	14	14
Chile/day	21	21	14	14
Atole [a]/day	8	0	0	0
Chocolate (beverage)/day	7	2	6	8
Own less than 17 fowl [b] which are both sold and eaten in home	6	10	0	3
1 Point group				
"Sopa" [c]/day	17	16	13	14
Cereal/day	2	3	4	2
Bread/day	15	13	12	8
Eggs once/day	5	8	10	10
Milk once/day	12	14	9	9
Coffee/day	1	1	6	0
Meat: 1,2 or 3/week	17	18	10	12
Vegetables/week	12	9	14	12
Fruit: twice/week	16	10	10	9
Owns more than 17 fowl which are sold and eaten, or less than 17 fowl which are only eaten in home	14	9	9	6
2 Points group				
Eggs:twice/day	1	2	4	1
Milk:twice/day	7	3	2	2
Meat: 4 times or more/week	2	2	4	2
Owns more than 17 fowl which are only eaten in home	0	0	5	5
No information on fowl	1	2	0	0

(a) Beverage made from ground corn
(b) Median number of chicken and turkeys owned by families in the 2 communities.
(c) Dry soup of rice or noodles.

		LA CAÑADA		LAS COLONIAS	
		M	Nm	M	Nm
V. HEALTH					
1. Frequency with which adults bathed:					
Less than twice/week	(0.0)	13	15	3	3
Twice/week	(0.5)	6	5	4	7
More than twice/week	(1.0)	1	0	7	4
No information		1	1	0	0
2. Frequency with which children bathed:					
Less than twice/week	(0.0)	3	3	1	0
Twice/week	(0.5)	7	6	6	1
More than twice/week	(1.0)	2	4	4	6
No information		9	9	3	7
3. Family has bathroom in house for bathing with or without running water:	(1.0)	1	0	4	2
4. Who family consults when child has whooping cough:					
Home remedies	(0.0)	2	2	0	0
Pharmacy	(0.5)	1	5	0	4
Doctor	(1.0)	12	9	14	10
No information		6	5	0	0
5. Medicines kept in home:(values totalled)					
Methiolate or iodine	(0.5)	1	2	8	10
Bandages or band-aids	(0.5)	2	1	4	2
6. Toilet facilities of family:					
No established location	(0.0)	13	17	3	6
Uses established location	(0.5)	6	2	3	2
Latrine	(1.0)	2	1	8	6
7. "Fogón" is elevated from floor:	(1.0)	12	15	12	10
No information		1	1	1	0
8. Where homemaker washes dishes:					
On floor	(0.0)	18	13	6	6
On table or bench	(0.5)	2	5	3	7
In pila	(1.0)	1	1	5	1
No information		0	2	0	0

		LA CAÑADA		LAS COLONIAS	
		M	Nm	M	Nm
9. Protection of stored foods: (values totalled)					
Water in kitchen is covered	(0.5)	20	14	12	9
No information		1	5	0	0
Leftover cooked beans are covered	(0.5)	18	16	12	13
No information		0	2	0	0
10. Homemaker grinds corn on elevated place rather than floor:	(1.0)	11	7	10	5
No information		1	3	2	3
11. Garbage disposal:					
Floor in general	(0.0)	2	5	5	5
Fixed place on floor	(0.5)	9	5	7	8
Box or other receptacle	(1.0)	10	9	2	1
No information		0	2	0	0

APPENDIX I

QUESTIONNAIRE ADMINISTERED TO FARMERS

Copied from the questionnaire administered in the field without making corrections.

APPENDIX I

- 1 -

CUESTIONARIO

Entrevista N° _____

Cuestionario N° _____

Clasificación de migrante _____

Comunidad _____

Residencia _____

Nombre de Sra. o jefe de casa _____

Visitas	Fecha	Hora	Completada
Primera visita	_____	_____	_____
Segunda visita	_____	_____	_____
Tercera visita	_____	_____	_____

I CARACTERISTICAS PERSONALES

1. Cómo se llama Ud.? _____
2. Qué edad tiene Ud.? _____
3. Sabe Ud. leer y escribir Si ___ No ___
4. Cual fué el último año que Ud. cursó en la escuela? _____

II. CARACTERISTICAS MIGRATORIAS

5. Dónde nació Ud.? _____(Minicipio de Cortazar:Si__No__)

6. Cuántos años tiene Ud. de vivir aquí?_____

7. a) Se encuentra Ud. viviendo a gusto aquí, o le gustaría cambiar de lugar para vivir y trabajar?

   a. a gusto aquí _____

   b. cambiar de lugar _____

   b) (Si quiere cambiar) Dónde le gustaría irse?_____

8. a) Dónde le gustaría que vivieran y trabajaran sus hijos varones?

   _____

   b) En que le gustaría que trabajaran ellos? _____

9. a) Dónde le gustaría que vivieran sus hijas?_____

   b) Qué le gustaría que hicieran ellas? _____

10. Ha ido Ud. a los EE. UU. para trabajar o vivir? Si ___ No ____

11. a) Tiene Ud. alguien viviendo en su casa que ha ido a los EE. UU.? Si ___ No ____

    b) Quienes son?

Relación con agricultor	Nombre	Tiene papeles de imigración

12. a) Tiene Ud. actualmente familiares viviendo en los EE. UU. Si____ No ____

    b) Quienes son?

Relación con agricultor	Tipo de papeles que tiene en EE. UU.	Ocupación en EE. UU.	Manda $ a Ud.	Vive con Ud. cuando viene a México

(Si no ha ido a los EE. UU. pasa hasta Pregunta #20)

13. Cuántas veces ha ido a los EE. UU.? _____

14. Puede darme unas informaciones sobre sus temporadas y trabajos en los EE. UU.?

Frecuencia	Fecha (año)	No. de meses	Como b,m,i	En Cuáles cultivos trabajó	Ocupaciones y trabajos realizados	Gratificación	Dinero mandado o traído	Manera en que fue usado el dinero
1ª Vez								
2ª Vez								
3ª Vez								
4ª Vez								
5ª Vez								
6ª Vez								
7ª Vez								
8ª Vez								
9ª Vez								

15. a) Vió o hizo Ud. algo en los EE. UU. que uno pudiera usar aquí en Mexico? Si___ No ____

b) Cuáles fueron? _____

_____

c) Está usando actualmente algunos de éllos en su trabajo y vida? Si____ No ____

d) Cuáles está usando? _____

e) (Si no los esta usando) Por qué? _____

_____

16. a) Qué pensó Ud. de los EE. UU.?

a. No le gustó _____
b. Le gustó _____
c. Indiferente _____

b) Cuáles fueron las cosas que le gustaron más en los EE.UU.?_____

_____

_____

c) Cuáles fueron las cosas que no le gustaron en los EE. UU.?_____

_____

_____

17. a) Tiene Ud. quejas acerca de injusticias o mal tratamiento allá? Si__No___

b) Cuáles fueron?_____

_____

_____

18. Cuando Ud. regresó de los EE. UU., ¿cuáles cosas trajo de allá?

_____

_____

_____

19. (al migrante) En qué estaba trabajando aquí antes de ir a los EE. UU. por la primera vez?

(al no-migrante) En qué estaba trabajando Ud. antes de la aftosa? _____

_____

20. a) Tenía Ud. casa propia en aquellos días? Si ____No ___

b) Si "sí", ¿cuántas casas tenía? _____

c) Si "no", ¿de quién era la casa donde vivía? _____

21. a) Tenía Ud. terreno propio en aquellos días? Si ___ No ___

b) Si "sí", ¿cuántas hectáreas tenía? _____

22. a) Es suya la casa en que vive ahora? Si ___ No ___

b) Cuántas casas tiene ahora? _____

c) Vive Ud. en la misma casa como en aquellos días? Si ___ No ___

d) (si ha conseguido una casa nueva) Como consiguió su casa nueva?:

a. la compró _____
b. la heredó _____

23. a) Cuántas hectáreas de terreno tiene ahora? Riego Temporal Agostadero

_____ _____ _____

b) Cómo y cuando consiguió Ud. su terreno? _____

_____

24. a) Si tuviera Ud. la oportunidad ahora para ir a los EE. UU. como un bracero con un contrato por no menos de 6 meses, ¿iría Ud? Si___ No___

b) Con un contrato de no más que 45 días sin esperanza de renovarlo.

Si____ No____

c) Con papeles de pasaporte? Si____ No____

25. a) Qué opina Ud. de las contrataciones y la salida de gente para trabajar en los EE. UU.?:

a. han ayudado el pueblo _____

b. ho han ayudado _____

c. han perjudicado _____

b) En qué sentido? _____

26. Opina Ud. que un nuevo convenio entre México y los EE. UU. sería:

a. bueno _____

b. malo _____

c. indiferente _____

27. Cómo cree Ud. que podrían mejorar las condiciones para el trabajador mexicano en un nuevo convenio? _____

_____

28. (solo a migrantes) Por qué fue Ud. a los EE. UU. la primera vez? _____

_____

29. (solo a migrantes que han ido más de una vez) Por qué volvió Ud. a ir a los EE. UU.?_____

_____

30. (solo a migrantes que no han ido más de una vez) Por qué nunca volvió Ud. a ir a los EE. UU.?_____

_____

31. (solo a no-migrantes y migrantes-familiares) Por qué nunca ha ido Ud. a los EE. UU. para trabajar?_____

_____

III CARACTERISTICAS AGRICOLAS

32. Dónde tiene Ud. sus terrenos?_____

33. Cómo trabaja Ud. sus terrenos?

	Riego	Hectáreas temporal	Agostadero	
Propietario	_____	_____	_____	Ha ido asociado a los EE. UU.
Ejidatario	_____	_____	_____	
Por medieros	_____	_____	_____	_____
A medias	_____	_____	_____	_____
Por aparceria	_____	_____	_____	_____
Aparcero	_____	_____	_____	_____
Otro	_____	_____	_____	_____

34. (Si tiene terreno de agostadero) a) Siembra a veces su terreno de agostadero? Si____ No____

b) Si "sí", cuántas hectáreas siembre?_____

35. (Si tiene riego) a) De dónde consigue el agua de riego?_____

b) (Si lo consigue de pozo) De quien es el pozo y bomba?_____

c) En que año fue puesto?_____

36. Cuáles cultivos siembra en sus terrenos?

Cultivos		Hectáreas
Riego	Temporal	(abril 64 - abril 65)
_____	_____	_____
_____	_____	_____
_____	_____	_____

37. Sigue Ud. un tipo de rotación cambiando sus cultivos de un año al otro, o sigue sembrando los mismos cultivos en los mismos terrenos?

a. Rotación _____

b. No rotación _____

38. Cuál es la rotación que se acostumbra usar? _____

_____

39. Qué animales cria Ud.?

Animal	Clase	Número
Ganado (res)	_____	_____
Vacas lecheras	_____	_____
Puercos	_____	_____
Chivas	_____	_____
Otros _____	_____	_____

40. a) Tiene Ud. animales para trabajar?

	Número
a. caballos	_____
b. machos	_____
c. bueyes	_____
d. burros	_____

41. a) Tiene Ud. un corral en lo que guarda sus puercos? Si ___ No___

b) De qué está hecho el corral?

c) Tiene un techo el corral de los puercos? Si ___ No___

d) Deja a sus puercos andar libres en la calle? Si ___ No___

42. a) Compra o da Ud. alfalfa a sus puercos cada día? Si ___ No___

b) Qué otro tipo de alimento les da?_____

_____

43. a) Tiene Ud. un techo en el corral para sus vacas de leche? Si ___ No___

b) Tiene Ud. comedero en el corral para echar la comida de las vacas? Si ___ No___

c) De qué está hecho el comedero?_____

d) Tiene bebero y agua en el corral para sus vacas? Si ___ No___

44. a) Con qué alimenta sus vacas de leche?_____

b) Cada cuanto les da eso?_____

45. a) Siembra hortalizas o verduras para comer en la casa? Si ___ No___

b) Qué tipos siembra?_____

46. a) Tiene sembrado algunos árboles de fruta? Si ___ No___

b) De qué tipos son?_____

47. a) Aparte del trabajo en su propio terreno, ¿ desempeña Ud. otros trabajos o ocupaciones? Si ___ No___

Si "sí", ¿cuáles son?_____

_____

b) A cuáles de todos estos trabajos dedica Ud. la mayoría de su tiempo?

(Apunte 1, 2, 3, etc., incluyendo trabajo de "agricultor".)

c) De cuáles de estos trabajos reciben Ud. y su familia sus mayores ingresos? (Apunte #1, #2, #3, etc.)

48. Prácticas Agrícolas	Comentario ó forma de hacer las prácticas	Ha probado la práctica recomendada	Usa ahora la práctica	Año que empezó a usar o probar	Dónde y de quién aprendió la práctica	Razón por el cual la usa o no la usa
a. Qué tipo de maíz siembra Ud.	var. sembrado					
b. Usa abono ó estiercol en el cultivo de maíz	tipo de fert.					
c. Qué tipo(s) de garbanzo siembra Ud.	var. sembrado					
d. En que mes siembra Ud. su garbanzo	fecha de semb.					
e. Qué tipo de trigo siembra Ud.	var. sembrado					
f. Cuando siembra frijol solo, que tipo siembra	var. sembrado					
g. Cuando siembra frijol con maíz, que tipo siembra	var. sembrado					
h. Usa abono ó estiercol en el cultivo de frijol	tipo de fert.					
i. En que mes siembra Ud. alfalfa	fecha de semb.					
j. Vacuna su ganado o vacas	antes enf.___ desp. enf.___					
k. Vacuna sus puercos	antes enf.___ desp. enf.___					
l. Fumiga Ud. su trigo	tipo de fumig.					

49. a) Compra la semilla de maíz que siembra Ud.; o siembre Ud. la semilla que Ud. mismo cosecha?

a. compra semilla _____

b. produce semilla _____

b) (si compra) Dónde y de quién compra la semilla?_____

c) (si produce) Escoge Ud. la mejor semilla para sembrar? Si___ No___

50. Cómo decidió Ud. sembrar la variedad de maíz que sembró este año?

a. no sabe _____

b. siempre ha sembrado esta variedad _____

c. vecinos, amigos le aconsejaron _____

d. vendedores le aconsejaron _____

e. tenía la semilla de la cosecha anterior _____

f. faltaba dinero para comprar otra variedad _____

g. un agrónomo o institución agrícola le aconsejó _____

h. variedad sembrado tiene mejor sabor _____

i. variedad sembrado da mayor rendimiento, precio _____

j. variedad sembrado da mejor rastrejo _____

k. otro _____ _____

51. a) Dónde vende el maíz que cosecha Ud.?_____

b) Si lo vende en la comunidad, ¿á quién lo vende?_____

a. persona de la comunidad _____

b. comerciante de afuera _____

c) Cómo lo vende?

a. en bulto a una vez _____

b. poco a poco durante el año _____

52. a) Dónde vende los puercos que cría Ud?_____

b) Si los vende en la comunidad, ¿ a quiénes los vende ?

a. personas de la comunidad _____

b. comerciante de afuera _____

53. a) Tiene Ud. vehículo? Si___No___

b) De que tipo es?_____

54. Qué maquinaria y otros implementos agrícolas tiene Ud?

_____ _____ _____

_____ _____ _____

55. Qué usa Ud. para barbechar la tierra?

tractor _____

mulas _____

bueyes _____

56. Qué tipo de arado usa para barbechar?

metal _____

madera _____

57. a) Ha solicitado Ud. crédito de un banco para los trabajos de sus terrenos? Si___ No___

b) De cúal banco ha conseguido Ud. préstamos y con cúal banco está trabajando Ud. ahora? _____

58. Mantiene Ud. un registro o cuenta de los gastos y las ganancias de sus terrenos? Si___ No___

IV ORIENTACION DEL AGRICULTOR

59. a) Ha sido visitado Ud. por algún agrónomo o ingeniero agrícola durante el último año? Si___ No___

b) Si "sí", ¿de que institución vino y con que fin? _____

_____

60. a) Ha asistido Ud. durante el último año a alguna actividad, o demostraciór sobre la agricultura y maneras de mejorar sus cosechas? Si___ No___

b) Si "sí", cuáles fueron?_____

_____

61. a) Conoce Ud. las demostraciones agrícolas en el CIAB é el Roque?

Si___ No___

b) Si "sí", ¿cómo oyó decir de ellos?_____

_____

62. a) Ha representado Ud. a su pueblo o ejido teniendo algún cargo; tales como delegado, comisariado, vigilante, o comandante?

Si___ No___

b) Cuáles cargos, y en qué año?

Cargo	Año
_____	_____
_____	_____
_____	_____

63. Ha leído Ud. un periódico durante la última semana? Si___ No___

64. Cuál periódico lee con más frecuencia?_____

65. a) Compra o lee Ud. cualquier revista que trata de cosas agrícolas? Si___ No___

b) Cuáles son?_____

66. a) Ha comprado o recibido Ud. otras revistas durante el último mes?

Si___ No___

b) Cuáles revistas son?_____

67. Escucha Ud. al radio todos los días? Si___ No___

68. Ha ido Ud. al cine durante el último mes? Si___ No___

69. a) Recibió Ud. cartas u otra cosa en el correo durante los últimos 15 días? Si___ No___

b) Si "sí", ¿cuántas piezas recibió? _____

c) Fueron algunas de los EE. UU.? Si___ No___

70. Cada cuanto va Ud. a Celaya? _____

71. Cuando fué la última vez que Ud. fué a Irapuato? _____

72. Cuando fué la última vez que Ud. fué a México? _____

Para que fué allá? _____

73. Fué Ud. a la feria agrícola en Celaya en diciembre? Si___ No___

74. a) Tiene Ud. familia o amigos que viven dentro del país pero afuera del municipio de Cortazar? Si___ No___

b) Si "sí". ¿cuándo fué la última vez que salió para visitarlos? _____

c) Cuándo fué la última vez que éllos lo visitaron acá? _____

75. Puede decirme que país queda al sur de México y que toca a la frontera de México? Si___ No___

76. Sabe Ud. el nombre del gobernador de Guanajuato? Si___ No___

77. a) Sabe Ud. que quiere decir PRI? Si___ No___

b) Y las letras? Si___ No___

APPENDIX J

QUESTIONNAIRE ADMINISTERED TO HOMEMAKERS

Copied from the questionnaire administered in the field without making corrections.

APPENDIX J

CUESTIONARIO

Entrevista Nº _____

Nombre del Agricultor _____

Clasificación de Migrante _____

Comunidad _____

Residencia _____

Visitas	Fecha	Hora	Completado
Primera visita	_____	_____	_____
Segunda visita	_____	_____	_____
Tercera visita	_____	_____	_____

CARACTERISTICAS PERSONALES DE LA FAMILIA

1. Puede darme unos datos sobre Ud. y su familia?
   (Datos debe incluir información sobre todos los que viven en la casa, después sobre hijos que viven en otras partes).

Nombre	Relación con jefe	Sexo	Edad	Sabe leer y escribir?	Ultimo año que cursó	Nacido en: (casa, hospital)	Est. civil	Pedido?	Casado= Civil	Casado= Iglesia	Casado= Unión libre	Residencia	Ocupación	Ha ido a los EE. UU.?

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2. Tenía hijos que ya están muertos?

Sexo	Muertos a la edad de:	Muertos de:	Nacidos en: (casa, hospital)

II. ALIMENTACION

(La cocina)

3. Qué tiene Ud. para cocinar? (Obs.)

a. brasero _____
b. fogón en el piso _____
c. fogón en banco _____
d. estufa de petróleo _____
e. estufa pequeña de gas _____
f. estufa grande de gas _____

g. otro _____ _____

4. Qué tiene en la cocina para guardar las cosas? (Obs.)

a. caja _____
b. canastas _____
c. trastero o gradas _____
d. armario _____
e. gabinete _____
f. mesa _____

g. otro _____ _____

5. Tiene bancos (pretiles, tinajeros) en su cocina? (Obs.) Si ____ No____

6. Cuántos bancos tiene? (Obs.)

a. para fogón _____
b. para agua _____
c. para trastes _____
d. otro _____ _____

7. Dónde lava los trastes?

a. lugar elevado que no es pila _____
b. piso o suelo _____
c. pila _____
d. otro _____ _____

8. En qué pone el metate para moler?

a. piso _____
b. banco o mesa _____
c. otro _____ _____

9. De dónde trae el agua que usa en la cocina?

a. llave pública _____
b. pozo público _____
c. pozo de la casa _____
d. ojo de agua _____
e. tubería en la casa _____
f. canal de riego _____
g. otro _____ _____

10. Quién trae el agua que usa en la casa?

a. mujer _____
b. muchachas _____
c. hombre _____
d. muchachos _____
e. otro _____ _____

11. Qué tipo de "burra de agua" tiene?

a. palo bruto _____
b. labrado _____
c. otro _____ _____

12. Están tapadas las ollas o tinajas que usan para guardar el agua?(Obs.)

13. Dónde tira la basura en la cocina? (obs.)

a. piso en general _____
b. piso, lugar fijo _____
c. caja _____
de otro _____ _____

14. Al tomar los alimentos la familia, comen todos al mismo tiempo?

Si ___ No___

15. Dónde come:

	sentado a una mesa	silla (sin mesa)	parado	en el piso
a. su esposo				
b. usted				
c. sus hijos mayores				
d. sus niños				

III. ALIMENTACION
(La comida)

16. Qué acostumbran Uds. comer en:

a. el desayuno _____
b. el almuerzo _____
c. la comida _____
d. la merienda _____
e. la cena _____

17. Cuántos días a la semana come:

a. carne _____
b. huevos _____
c. pan _____
d. fruta _____
e. verduras _____

18. a) Toman leche sus hijos Si ___ No____

b) Cada cuando la toman?_____

19. Manda Ud. su maíz al molino? Si ___ No ___

20. Cuántos cuarterones de maíz comen Uds. al día?_____

21. Cuando su esposo está trabajando en el campo todo el día

a. él lleva su almuerzo al campo? _____
b. manda Ud. el almuerzo al campo? _____
c. regresa él a la casa a tomar el almuerzo?_____

22. Cuando sobran frijoles cocidos, como los guarda?

a. tapados _____
b. sin tapar _____

IV VESTIDO

23. Qué ropa lleva la señora? (Obs.)

a. falda larga _____
b. vestido o falda corta _____
c. rebozo _____
d. suéter _____
e. zapatos _____
f. sandalias _____
g. descalza _____

24. Cómo esta peinada la señora? (Obs.);

a. pelo largo en trenzas _____
b. permanente _____
c. otro _____ _____

25. Dónde lleva la ropa para lavarla?

a. lagito o huerta _____
b. llave de agua (público) _____
c. río _____
d. en la casa _____
e. canal de riego _____
f. otro _____ _____

26. Qué usa para lavar?

a. lavadero _____
b. piedra _____
c. otro _____ _____

27. Qué tipo de jabón usa para lavar?

a. jabón de barra _____
b. deterjente o jabón en polvo _____

28. En qué ropa duerme Ud.?

a. la misma ropa del día _____
b. sin ropa _____
c. ropa especial para dormir _____

29. Cuándo hace mucho frío, ¿Ud. pone:

a. un suéter? _____
b. un rebozo? _____
c. otro _____ _____

30. Su esposo se pone:

a. un suéter _____
b. chamarra _____
c. un gabán _____
d. otro _____ _____

31. Qué tipo de pantalones tiene su esposo?

a. mezclilla _____
b. kaki _____
c. dril _____
d. casimir _____
e. otro _____ _____

32. Qué tipo de calzado usa su esposo?

a. siempre usa huaraches _____
b. siempre usa zapatos o botas _____
c. usa huaraches pero tiene _____
zapatos o botas para el _____
domingo _____

33. Quién hace sus vestidos?

a. Ud. o un familiar _____
b. paga a alguien para hacerlos _____
c. los compra en una tienda _____
d. otro _____ _____

V. VIVIENDA

34. En qué clase de cama duermen Uds., y cuántas tienen?

a. petate _____
b. cama de tablas _____
c. catre _____
d. cama sencilla _____
e. cama matrimonial _____
f. otro _____ _____

35. Si usan petates, quién duerme en ellos?

36. Usan sábanas en las camas? Si___No___

37. Tiene algo en las paredes de la casa como santos, calendarios, etc.?

a. fotografías _____
b. santos _____
c. calendarios _____
d. cuadros _____
e. otro _____ _____

38. Qué tiene para guardar la ropa?

a. cajas de cartón _____
b. clavijeros _____
c. maletas _____
d. petaca _____
e. ropero alto _____
f. ropero bajo _____
g. otro _____ _____

39. Con qué alumbran su casa?

a. velas _____
b. aparato de lata _____
c. aparato de bombilla _____
d. linterna _____
e. lámpara de gas _____
f. luz eléctrica _____
g. otro _____ _____

40. Puede decirme cuáles de estas cosas tiene en su casa?

a. foco _____
b. cuchara (más de 10) _____
c. tenedores _____
d. ollas de peltre _____
e. prensa para hacer tortillas _____
f. plancha (cuántas?) _____
g. máquina para coser _____
h. radio _____
i. TV _____
j. cenicero _____
k. merthiolate _____
l. curitas _____
m. libros _____
n. revistas _____
ñ. bicicleta _____

41. Esta pintada la casa por fuera? Si___No___

42. Qué muebles tiene en los cuartos?

43. Qué tipo de construcción tienen los cuartos?

CUARTOS (función del cuarto)

MUEBLES	Mesa grande											
	Mesa pequeña											
	Silla											
	Sillón											
	Diván											
	Ropero gr.											
	Ropero peq.											
	Armario											
	Gabinete											
	Petaca											
PAREDES	Piedra											
	Piedra y mezcla											
	Adobe											
	Ladrillo											
	Yeso											
	Pintadas											
	Otro											
PISO	Tierra											
	Piedra											
	Piedra y cemento											
	Ladrillo											
	Cemento											
	Mosaico											
	Otro											
TECHO	Paja											
	Baldoza											
	Tejamanil											
	Otro											
VENTANAS	Nada											
	Abierto											
	Con póstigo											
	Vidrio											
	Tela de alambre											

44. Tiene la casa un corral para los animales? Si ___ No___

45. Tiene la casa un patio separado del corral? Si ___ No___

46. De qué está hecho el piso del patio?

a. tierra _____
b. piedra _____
c. piedra y cemento _____
d. cemento _____
e. otro _____ _____

47. Andan libres los animales en el patio? Si ___ No___

48. Hay plantas y flores en el patio? Si ___ No___

49. a) Tiene la casa?

a. letrina _____
b. excusado _____

b) (Si "no") Usan el corral para hacer sus necesidades? Si ___ No ___
c) (Si "sí") En el corral, usan lugar fijo o cada quien las hace donde puede? _____ _____

50. Tiene drenaje la casa? Si ___No ___

VI. SALUD

51. Cuántas veces por semana se bañan las personas mayores?_____

52. Cuántas veces por semana bañan a los niños?_____

53. Dónde se bañan las personas mayores?

a. baño con agua de tubería _____
b. baño sin agua de tubería _____
c. en la casa o patio _____
d. lugar público _____
e. otro _____ _____

54. Han sido vacunados los niños contra la viruela? Si___ No___

55. Cuando tienen los niños tosferina, a quién consultan?

a. al Doctor _____
b. botica _____
c. remedios caseros _____

56. Qué edad tenía Ud. cuando nació su primer niño?_____

57. a) A qué edad dejó de dar el pecho a sus hijos?_____

b) Cómo acostumbran quitar el pecho al niño?_____

_____

VII. INGRESOS DE LA FAMILIA

58. Cría Ud. gallinas en su casa?

59. Cría Ud. pollos para carne en su casa?

60. Cría Ud. guajolotes en su casa?

61. Utiliza los animales para vender o comer?

62. Les da alimento comprado?

63. Les dan maíz o masa?

64. Les deja libres en la calle?

Animal	Cuántos tiene?	Vender	Comer	Alimento	Maíz	Libres	Quién los cría?
Gallinas							
Pollos							

Guajolotes _____

65. Qué hacen con los huevos de las gallinas y las guajolotes?

a. venderlos _____
b. comerlos _____

66. Ud. o sus hijos menores, hacen otros trabajitos para ganar centavos?

Si___ No___

Cuáles son?
a. trabajar como sirviente en otra casa _____
b. vender cosas tejidas o bordadas _____
c. coser para otras gentes _____
d. lavar ropa _____
e. planchar ropa _____
f. vender tortillas _____
g. traer agua para otra familia _____
h. traer leña para otra familia _____
i. otro _____ _____

67. Emplea Ud. a alguien para trabajar en la casa? Si ___ No___

Qué hacen?
a. sirviente
b. coser
c. lavar
d. planchar
e. hacer tortillas
f. traer agua
g. traer leña
h. otro _____