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A SOCIOECONOMIC AND NUTRITIONAL SURVEY OF TWENTY-FIVE CHICANO
MOTHER-FIGURES RESIDING IN ARMOURDALE DISTRICT,
KANSAS CITY, KANSAS

by

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A MASTER'S THESIS

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requirements for the degree

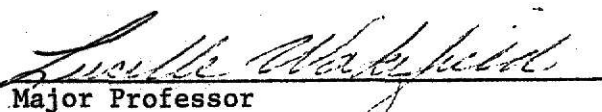
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INTRODUCTION

Interest in the subject of nutrition has increased since a report published in 1968 by the Citizens' Board of Inquiry revealed nutrition in the United States was far from adequate (1). Results of this report and the National Nutrition Survey conducted by Shaefer and Johnson (2) imply that malnutrition flourished in the United States, a country with one of the highest standards of living in the world.

Morcheberg's study (3) published in 1969, indicating that inadequate nutrition in formative years will prevent persons from reaching full mental and physical potentials, caused grave concern. According to Morcheberg malnourishment lowers both learning capacity in older children and productivity in adults.

The majority of undernourished persons belong to the lower socioeconomic class (4). It consists of persons denied the minimal level of housing, health, food, and education that our present stage of scientific knowledge specifies as necessary for life as it is now lived in the United States (5).

Minority ethnic groups or subculture groups prevail in the lower socioeconomic levels (Miller, 6). Many records of investigations dealing primarily with large low socioeconomic subcultures of the Midwest are currently available (7, 8, 9).

This survey is designed to measure the nutritional intake of the urban Chicano living in the Armourdale Area of Kansas City, Kansas. Differences in the level of nutritional intake in relation to the amount of time living in the United States and to the food buying plan were ascertained and compared

to the Recommended Dietary Allowances of the National Research Council (RDA) (10) and the percentage of nutrients attributable to Mexican-American foods. Differences were also determined between the RDA and the actual intake of female respondents according to weight classification and skinfold thickness measurements.

REVIEW OF LITERATURE

Poverty Groups

There are two main types of poverty, voluntary and involuntary. Hereafter, involuntary poverty will be referred to as poverty. Poverty is an economic phenomenon of the material conditions of life, of multiproblem family and individual, of dysfunctional behavior. The result of this phenomenon is that the individual is ill-housed, ill-clad, and ill-nourished (11). A precise income figure cannot differentiate poverty from affluence because of regional differences in income and cost of living (12). Low socioeconomic groups have varying characteristics and are composed of all cultural segments of the population. There are, however, levels of poverty groups. These levels are identical for all cultural segments. First, there are persons able to work, primarily unskilled such as construction laborers, factory laborers and domestics, and semi-skilled workers, those employed in marginal and obsolete industry. Second, school drop-outs, and those possessing an obsolete skill. Third, those unable to work, such as the aged, the handicapped, those who cannot adapt after their skill has become obsolete (13).

Minority ethnic subcultures compose most of the lower socioeconomic levels (14). Discrimination is a major factor in the maintenance of this situation. Members of minority subcultures are employed in unskilled work and marginal industries providing low economic resources for the minority family. The lack of funds to finance education maintains culturally low educational levels in minority children. These low educational levels insure future employment in unskilled work and marginal industry maintaining the low economic status of the family. In this manner discrimination perpetuates itself in a vicious poverty cycle for the minority family (15).

As these individuals are forced to live in low rent neighborhoods it leads to the initiation of poverty neighborhoods and poverty cycles of communities (16).

These low-rent neighborhoods may be classified as blighted areas or, when inhabited by one ethnic group, ghettos (17). Life in the ghetto affects not only the physical conditions but also the thinking, the decisions, and the actions of those who live there (18). Slum clearances, highway programs, and urban renewal programs have killed communities before the physical facilities have become obsolete, forcing people to move into already overcrowded neighborhoods (19). Housing needs become acute and as the supply decreases landlords raise rents. The overcrowded conditions poison family relationships, while overcrowded run-down ghetto schools stifle initiative, inquisitiveness, and the desire to learn. Ghetto residents are forced to purchase all necessities in their own communities because of lack of transportation to outlying areas; therefore, paying more for less quality. The ghetto dweller no longer hopes--he endures (20).

The threat alone of urban renewal adds to the insecurity of ghetto living--low paying jobs, lack of job security and high crime rates. Urban renewal means an uprooting of family, loss of friends and loss of cultural ties--a complete loss of group identity. This threat of urban renewal confuses thinking and makes budgeting and planning difficult. Long range plans are impossible because the residents have no idea how long the community will exist. Even assuming the family earns the \$1800 per annum per person established by the U.S. Dept. of Health, Education and Welfare as a minimum level of annual income for nonfarm families, this money may be spent to alleviate the insecurity instead of being budgeted and "spent wisely" (21, 22). The

family or the family member who controls family funds may spend this money for items an observer would consider unnecessary--a new car, a new TV, or liquor. The minimum income viewed in relation to the living conditions of the ghetto is no longer a realistic figure.

Cultural Influences on Food Intake

Culture refers to the learned or nonbiologic aspect of human existence (Wellen, 23). Culture dictates to a large extent what man can, cannot, and will or will not eat. How foods are prepared, served, stored; who will purchase, prepare and serve the meal are also parts of a cultural pattern (24).

Ethnic groups have distinctive cultural patterns, and food, being a part of the cultural pattern, is therefore, a distinctive type, having a distinctive pattern. The foods themselves may express a sense of security, festivity, crisis, or they may attest to a social position (25). Meal patterns are unique to each culture. In the American middle class, food type repetition during the day may signify poverty, while in Mexico at all class levels, beans are repeated as part of the cultural pattern each meal (26). Low income area residents have more nutrition-related problems than residents outside of the area. The kinds of food consumed vary with culturally preconditioned patterns and status in the social hierarchy (27).

The low income family generally pays more for food than those in non-poverty areas because of lack of transportation out of the poverty area (28, 29). Captain and McIntire reported the quality of foods available to poverty area residents was poor (30). Poor storage and cooking facilities also prevent the low-income consumer from receiving maximum benefits of food purchased.

The Chicano Community

General Characteristics

One of the submerged poverty subcultures in the United States is the urban Mexican-American (Chicano) population. They are the second largest minority group in America. The exact number is unknown, however; since no uniform system of group classification exists. The actual number of Chicano persons included in the survey may have to be extracted from other classifications such as: whites, non-whites, Mexican-Americans, persons of Spanish mother-tongue and persons of Latin American surname. Filipinos, South Americans, fifth-generation Spanish Americans and other groups may be included in the above classifications (31). Estimates on the basis of those rather loose classifications indicate that there are approximately 7.5 to 10 million Chicanos living in the United States (32, 33).

Originally many of those persons were part of the migrant labor force, but they rapidly are becoming an urban people (33). In an urban situation, the Chicano is a ghetto dweller. He resides in a low-income area composed primarily of Chicanos.

Chicanos differ from other poverty groups culturally. Their community is steeped in a rich cultural tradition (34). This tradition presents a cultural and linguistic barrier, which prevents them from being assimilated into the white American mainstream.

The linguistic barrier is a major factor responsible for limited education, low-status occupation, a high unemployment rate and relatively low income of Chicanos living in ghetto areas (33, 35).

In the Southwestern United States, although the Mexican American is the largest minority, more than one-third of all Chicano families in this area

live on incomes of less than \$3,000 per year. Here, Mexican-Americans are seven times more likely than whites to live in substandard housing and their unemployment rate is about double that of whites (36). Not until 1970, when Cesar Chavez and United Farm Workers (UFWOC) scored a dramatic victory in California, were Mexican campesinos included in organized labor (33).

Social Systems

The social system of a Chicano can be described in terms of three major organizing features, (1) the nuclear family is the primary motivating feature in his life, the only feature in terms of which he should pursue economic and social ends, (2) relationships beyond the range of the family are between one individual and another, rather than between an individual and a group of others, (3) relationships between a Chicano and others are characterized by a high degree of personalism (37). This third feature is the one that distinguishes the Chicano most markedly from Anglos. In comparison, the Anglo's relationships with people or groups is often based on status, economic, or political interests, the Chicano's relations are often based on like or dislike of the person.

The family is the center of the Chicano life. The individual uses the family as a barrier or retreat from an unfriendly world, and consequently the family is a rather closed unit. The family views other individuals and families with distrust (37). There is an even greater distrust of impersonal governmental agencies. A major reason for this distrust is the fact that in spite of many studies and promises--such as bilingual instructors in schools and greater job opportunities--there has been no significant action to alleviate Chicano problems (35). Considering the size and concentration of this subculture the Chicano has little elected representation and this

situation does not seem likely to change very soon. The Chicano is aware that if the subculture cannot gain representation in the area where his people are most highly concentrated, it is virtually impossible to affect representation in any area where they are in an even smaller minority (33).

Nutritional Research

Research concerning the nutritional status of the Chicano population (excluding migrant farm workers) is totally lacking (38). Early surveys are mainly speculative and expository. Three of the major problems in working with this group are (1) language barrier, (2) high level of distrust, (3) low use of medical facilities (38).

Unless the physician or nurse is a Spanish speaking person communication as to exact problem and cause of problem is difficult to ascertain. Symptoms must be precisely defined to make accurate diagnosis.

The clinic, health center, hospital and even the medical staff are viewed with distrust. The staff is viewed much the same as any governmental agency. It is a large, impersonal organization with little personal contact.

Low usage of medical facilities is partly due to a reliance on folk medicines, but also due to the economic status of the family and the accessibility of the medical facility. Curanderas, specialists in the diagnosis and treatment of folk syndromes, are much more available and trusted than the medical staff. They are members of the community and often family friends. The curanderas are also less expensive than a physician (39).

Methods of Assessing Nutritional Levels

Dietary Study

A dietary survey is utilized to give a pattern of food intake and its relationship to the physical state. Several types of dietary study methods

were listed by Becker, Indik and Beeuwkes (40). The primary types mentioned are controlled dietary study and survey estimates.

The controlled dietary study necessitates careful measurements of food intake under supervised conditions. This is costly and time consuming. This type of study usually is not utilized for population surveys. The second main type, a survey estimate, is not as accurate but is easier to administer, requires a minimum of time and is far less costly. There are several types of survey estimates; the 24-hour recall, where food intake over the past 24-hours is tabulated to determine nutrient content; the market basket approach which gives a record of total foods purchased per time interval by the family; the interview technique of 48-hour recall of food consumed; or a day-by-day record of foods eaten (41).

The various methods have been compared and dietary history, seven-day food record and 24-hour recall were of comparable value (42). To select the correct method, the various devices must be judged in relation to the information sought, the unit surveyed, and the availability of time and resources (43).

Interpretation of Dietary Adequacy

There are two basic methods utilized in determining dietary adequacy: comparison to the Basic 4 Food Group and comparison to standards of adequacy established by the Food and Nutrition Board of the National Research Council (10). The first method, comparison to the Basic 4 Food Groups is a relatively quick, easy way to determine adequacy of the diet in relation to four areas, meat or meat substitute, vegetables, milk and milk products and carbohydrates. Disadvantages of this type of analysis include the fact that specific deficiencies, such as a Vitamin A or D deficiency or linoleic acid deficiency

cannot be determined. Foods may be placed in one group but contribute significantly to another area, such as beans which are high in carbohydrates but are also protein substitutes. There is no adequate way to measure the contributions to each area under this system of analysis (44).

The second type, comparison of adequacy established by the Food and Nutrition Board and commonly referred to as the RDA, lists specific nutrients. Food intake records may be analyzed for nutritional constituents and a comparison to the RDA may be made. In this way nutritional deficiencies may be identified easily.

Body Measurements

Various techniques are used to determine body composition. Commonly used measurements are height, weight and skinfold thickness.

Studies have been made to determine a relationship between height, weight, and body build (45, 46, 47, 48, 49, 50). Many techniques have been used to more precisely define body build--hip width compared to height, lean body mass compared to body fat, and height, weight compared to skeletal frame. The height-weight to frame is a rough estimate, but is quickly estimated. Tables of height-weight according to frame are available from Metropolitan Life Insurance Company (51) (Table 9, Appendix II).

Skinfold thickness measurements are used to make a reliable and useful estimate of subcutaneous fat (52). It was noted in the early work of Lehman, Mueller, Munk, Senator, and Zuntz that skinfold thickness decreased during starvation (53, 54). Oeder in his study of 1910 noted a parallelism between the measured thickness of abdominal skinfold and clinical appraisal of relative fatness. Oeder categorized all persons as thin, normal and fat and established averages for each group (55).

To determine the fatness of the person a caliper is used, the earliest one having been developed in 1890 by Recher (57). Since that time numerous calipers have been developed including ones by Franzen (57), Vernier (58), MNL (59), 7953 (60), Harpenden (61), Tanner (62), and Lange (63). The most widely used caliper is the Lange. Both the Harpenden and Lange calipers exert a pressure of 10 gm/mm on a contact surface of 20-40 mm² (63). These calipers are used today for pressure control and accuracy.

PROCEDURE

The Sample

The sample for this research consisted of 25 mother-figures selected from the census area of Armourdale District of Kansas City, Kansas. The area was defined and alternate houses on each block were selected from St. Paul Street to 7th Street Trafficway until a quota of 25 Chicano mother-figures was filled. This is approximately 2.5% of the total number of mother-figures in the area. The total was estimated on the basis of total number of families (1115).

Method of Gathering Data

Initial contact was made through a former community member, and a meeting scheduled with one of the coordinators of community groups. Cooperation of the Bethel-Riverview Action Group (refer to p. 20), and the extension and expanded nutrition organization was obtained. Each community group and individual was given a letter of introduction from Kansas State University (Letters 1 and 2, Appendix). Each individual was assured that information would be confidential. The individuals for the sample were selected by choosing alternate houses on alternate blocks. The desired data from both groups and individuals was obtained through personal interview using a questionnaire (Form 1 and 2, Appendix I).

Interview

A letter of introduction from the Foods and Nutrition Department of Kansas State University was given the respondent by the researcher and assistant. Respondents were asked if they were willing to answer questions concerning their community and also about their diet. If they agreed, they

were then asked if they would allow height, weight and skinfold measurements to be taken. If they agreed, the researcher explained what the various sections of the interview concerned and cautioned each respondent that there were no right or wrong answers to the questions. If the respondent wished to answer the questions in Spanish, the assistant interpreted the questions and answers and the researcher recorded the answers. Each interview lasted approximately 25 minutes. At the close of the interview the respondent was thanked for her cooperation.

Observation of Place of Food Purchase

Distance to the only store was noted in relation to the residence of the persons interviewed (figure 5a, Appendix II). The researcher noted the general appearance of the outside of the store and the amount of parking area. A general inspection of the inside of the store was made noting condition of floor, counters and ceilings, check-out facilities, shop-lifting safeguards, and special shopping features such as carry-out boys, coffee and condition of shopping carts. A survey of prices, quality of product, and brand selection was conducted. A similar survey was conducted in a second store of the same chain out of the Armourdale area the same day to compare conditions, prices, quality and brand selection. These surveys were conducted the same day to insure as little discrepancy in sale prices as possible. The second store was located at the Mission shopping center (figure 5b, Appendix II).

Methods of Measurement

The interview of the group was conducted to gather data concerning type of group and goals, public services and usage, special community services and programs. The personal interview of mother-figure was conducted to gather

data concerning family composition, socioeconomic level, 24-hour dietary recall, food purchasing and storage information, cultural food usage, and amount of time elapsed since immigration to the United States. Height, weight and skinfold measurements were taken for the mother-figure.

Dietary Recall

The 24-hour dietary recall was a record of all foods and beverages consumed by the respondent for the day previous to the interview. Amounts of each food was recorded.

Foods listed were coded according to the 1969 Method of Watt and Merrill (64). Master cards were punched on an International Business Machine No. 029. Foods that had no code number in the Watt and Merrill system were coded according to constituent ingredients. Dietary data were tabulated according to subject code number.

Height

Height was measured by having the respondent stand with shoes on, against a wall. Measurements were made to the bottom of the shoe. A steel tape measure with head level bar was used to measure the height to the nearest one-fourth inch. Measurements were made 3 times and averaged together to obtain a more accurate measurement.

Weight

Respondent wore indoor clothing and shoes and was weighed on a Health-O-Meter scale, capacity 250 pounds. Weight was recorded to the nearest pound. The weight of the respondent was compared to averages in the Metropolitan Life Insurance Company guidelines (51) (table 9, Appendix II).

Skinfold

Skinfold thickness was measured using the Lange calipers. The site of

measurement was midpoint between the tip of the Acromial process of the scapula and the tip of the elbow. The forearm of the subject was flexed at a 90° angle. A fold of skin approximately 1 cm below the midpoint was pinched between the thumb and forefinger of the investigator and was lifted parallel to the long axis of the arm. The caliper was placed above the fingers and the pressure applied (53).

Analysis of Data

Bar graphs using raw data were used to compare various results (tables 2-8, 13, 14, figures 1-4). No statistical analysis was used because of small numbers surveyed.

RESULTS AND DISCUSSION

Armourdale Industrial Community

The Armourdale Industrial area contains 2,126 acres and has a population of 5,232 persons, according to a report conducted by the City Planning Department of the City of Kansas City, Kansas. This report of the Community Renewal Program was published in 1969.

The report defined Armourdale as the area bordered on the north by the Muncie Expressway, and on the east, south, and west by the Kansas River. This entire area is in the flood plain of the Kansas River.

Because of its excellent location in the Metropolitan area, flat land, and good transportation facilities, Armourdale has become increasingly attractive to industry. Recurrent flooding together with poor environmental conditions have caused deterioration in the residential areas (65).

This area is a prime prospect for industry, yet because of inadequate flood control sewer systems, the community is considered a potential flood area today.

A picture of the land usage (figure 6, Appendix II) shows a residential area completely surrounded by industry. These are primarily one-family residences, 52% of them built between 1910 and 1930. At the present time the condition of the residential structures ranges from fair to poor reflecting a deteriorating environment, flood damage, age, and obsolescence.

At the time of the survey, in 1969, there were a total of 1568 residential structures. Of these, 45 were in excellent condition; 114, good; 562, fair; 489, poor; and 358 were recommended for clearance (table 10, Appendix II).

The population falls in the lower socioeconomic level. These persons are primarily blue-collar workers, although there are a considerable number

of skilled craftsmen--woodworkers, welders--residing in the area. The primary ethnic group of the area is Chicano. And scattered throughout the area are a small number of whites and blacks.

Because of the low income of the community, low educational level and lack of available jobs, there are a number of persons on some form of public aid. In 1966 a total of 105 families, i.e. 5% of area population, were receiving some type of welfare. The families in the study were distributed as follows:

TABLE 1

Distribution of public assistance for the year 1966¹

Type of Assistance	Number of Families	Number of Persons
Aid to Dependent Children	35	164*
Aid to the Aged	38	41
Aid to the Blind	1	1
Aid to the Disabled	17	17
General Assistance	14	14

* Estimated

¹ Figures reported in 1969 Urban Renewal Survey (URS) (Appendix II)

Economic Conditions

According to the 1969 URS report, income of families in the area is definitely below the city average and falls into the poverty income level. The average family income for this entire area is about \$3,000 (table 11, Appendix II).

Information based on the 1960 census shows the median income for families in the area was \$5,288, although 19.4% of families living in the Armourdale area have yearly incomes of under \$3,000. This is offset by 5.1% with

yearly family incomes over \$10,000 (table 12, Appendix II).

The average family income in the 1960 Census Survey was \$2,288 higher than the 1969 Urban Renewal Survey. This discrepancy may be due to population sample or faulty survey techniques.

The low incomes of 19.4% of the population may be partially explained by the high unemployment of the area. This area had formerly housed Armour Packing Plant. When the packing company was moved to Lenexa, Kansas, residents were without jobs. In August of 1968, an estimated 176 persons out of a civilian labor force of 1,932 persons were unemployed. This is approximately 6.2% of the population.

The area contains all the problems that come with the threat of urban renewal (see p. 4) and the closing of the main industry of the area, rather than as stated in the report of the 1969 Urban Renewal Survey, "all the problems that come with physical blight and poverty." These things merely follow.

The Commission on Urban Renewal proposed that ". . . the Armourdale Industrial District appears to be most economically useful as an industrial area. From the standpoint of tax revenue and employment opportunities, the area holds tremendous potential for the city if developed properly" (table 13, Appendix II). Although the area, to date, has not been designated as an urban renewal area rezoning of unused land for industrial development has occurred. According to residents of the area, this has now set the tone for the condemnation of Armourdale residential areas in preparation for the complete industrialization of the area (figure 7, Appendix II).

Community Organizations

Although there are a number of government sponsored organizations in the community, the number of persons participating in these programs is small. Eight of the twenty-five persons interviewed were active in only one or two programs. Sixteen percent utilized public health facilities; i.e. public health, clinic; eight percent, child care services including head start, youth programs or day care; sixteen percent, inoculation clinics; twenty percent, i.e. 5 persons, adult education. The sole offering of adult education was English. Family planning clinics were offered but not utilized.

One of the more active groups in the community is the Armourdale Action Group. Open forum meetings are held to discuss problems in the community. All aspects of the community are considered at these meetings. One of the most pressing issues facing the community at this time is the threat of urban renewal.

Community meetings with major city officials have been held to discuss the urban renewal situation. Community renewal versus industrialization has been the major topic of discussion. Many of the issues concerning the community such as discrimination and unemployment also are discussed. Groups are initiated to study these problems and action taken to correct or help correct these situations. One of the recently activated groups is a low-rent housing study group. Residents were notified several months prior to the meeting that a seven-story 250 unit low-rent housing for the aged unit would be constructed in the area. The units were then reduced to 150--a number below the needs of the community. Study of the situation and needs was to be made and a recommendation for a solution made to the larger group.

One of the largest government funding organizations becoming active in

the area is BRAG (Bethel-Riverview Action Group) (see p. 12). This is an anti-poverty organization funded by the Office of Economic Opportunity through the Economic Opportunity Foundation. The BRAG center is used as a referral point for family counseling, health and welfare problems. It is also an initiating point for many other programs: Senior Citizens Retail Handicraft Shop, Buying Club, Youth Council, Head Start, day care and remedial reading programs. There is also a tenants union, Welfare Rights Organization, Home Improvement Association. These programs and action groups are primarily founded for inner-city residents. Prior to this time, emphasis has been placed on problems in the black ghetto with little action taking place in the Chicano area.

The Expanded Nutrition Program of Kansas City, Kansas, is also beginning to work in the Armourdale area. The Expanded Nutrition Program is under the guidance of the Extension Department of Wyandotte County. This program works on a one-to-one basis. That is, for every single referral there is an aide, although the aide may have as many as 20 referrals. When a referral is made to the Expanded Nutrition office one of the five aides is sent to determine the needs of that family and the cause of its problem. Often the cause of the nutritional problem is the lack of understanding of commodity foods. The aide works in the home helping the homemaker utilize foods available to her and helping her manage time and resources to the best advantage.

The five aides employed in the Kansas City Expanded Nutrition office consist of three black aides who work primarily in the black area, 1 white aide and 1 Chicano aide. These aides are hired on the basis of their ability to relate to the people with whom they will be working.

One of the major problems is legislated funding cutbacks. September

1971, welfare funding was cut 20%. This means that personnel increase has been stopped, food allowances were decreased, and all special allowances for clothing, furniture, and special diets were deleted. This increases problems for the welfare recipients and for persons working with the recipients.

Commercial and Public Facilities of the Community

Schools located in the Armourdale area are inadequate by modern standards. Facilities are old, but usable. There are four schools located here: Fishe School, St. Thomas School, Morse School and Ingalls School. The Ingalls School is representative of the four. Enrollment is 129 children ranging from grades 1 through 6. The school, although one of the older schools of the area, is in serviceable condition. This school is slated to be phased out in 2 to 3 years, according to Joseph H. McDowell, mayor of Kansas City, Kansas. The phase out, according to community residents is part of the plan to industrialize Armourdale, rather than renew the community. They believe that the phase out is an attempt to overcrowd the remaining schools thereby causing unsafe conditions in the other schools and creating a way to close them.

Because this is a low income area, cost of food items is of critical concern, therefore a small survey was conducted to determine cost of food items purchased in the area compared to cost of food items outside of area.

Shopping facilities of the area are limited. There is only one grocery chain store serving the area. The store, Milgrams, is centrally located on 7th Street Trafficway (figure 7, Appendix II). Results showed that it was more costly to purchase items in the low income area of Armourdale than in the higher income area of Mission Hills (table 2 and figures 1 and 2).

TABLE 2

Shopping basket survey comparing prices of selected grocery purchases in two locations in Greater Kansas City

Product	Milgrams 7th Street Trafficway		Milgrams Shopping Center ¹	
	Price/unit	Price/ common purch.	Price/unit	Price/ common purch.
Dairy Products				
Vitamin D Milk, Milgrams				
half gallon	\$.61	\$.61	\$.61	\$.61
Margarine, 1-lb., Food Club	.29	.29	.25	.25
Bread				
Milgrams, 16 oz. loaf	.20	1.00	.20	1.00
Meats				
Stewing Meat	.89	1.78	.59	1.18
Bacon, Food Club	.65	1.30	.59	1.18
Pork Chops, Breakfast	1.29	2.58	1.19	2.38
Choiza	1.29	2.58		
Beef Short Ribs		none	.59	1.18
Vegetables, fresh				
Green Beans	.29	.58	.19	.38
Lettuce	.39	.39	.39	.39
Tomatoes	.49	.49	.49	.49
Avacadoes	.33	1.00	.25	.75
Onions, White	.25	.50	.19	.38
Green Peppers	.12	.24	.12	.24
Fruit				
Oranges, Medium	.10	1.18	.10	1.18
Vegetables, Canned				
Peas and Carrots, Libby				
16 oz.	.26	.26	.26	.26
Beets, Food Club, 16 oz.	.17	.17	.17	.17
Cooking oil				
Salad and Cooking Oil,				
Food Club, 38 oz.	.89	.89	.89	.89
Paper Products				
Scott Tissue, 1000 Sheet Roll	.16	.33	.16	.33
TOTAL		\$16.48		\$13.04
Minus Products unavailable in other store		2.18		1.18
CORRECTED TOTALS		\$14.30		\$11.86
Difference			\$2.44	

¹Mission Shopping Center

**THIS BOOK
CONTAINS
NUMEROUS PAGES
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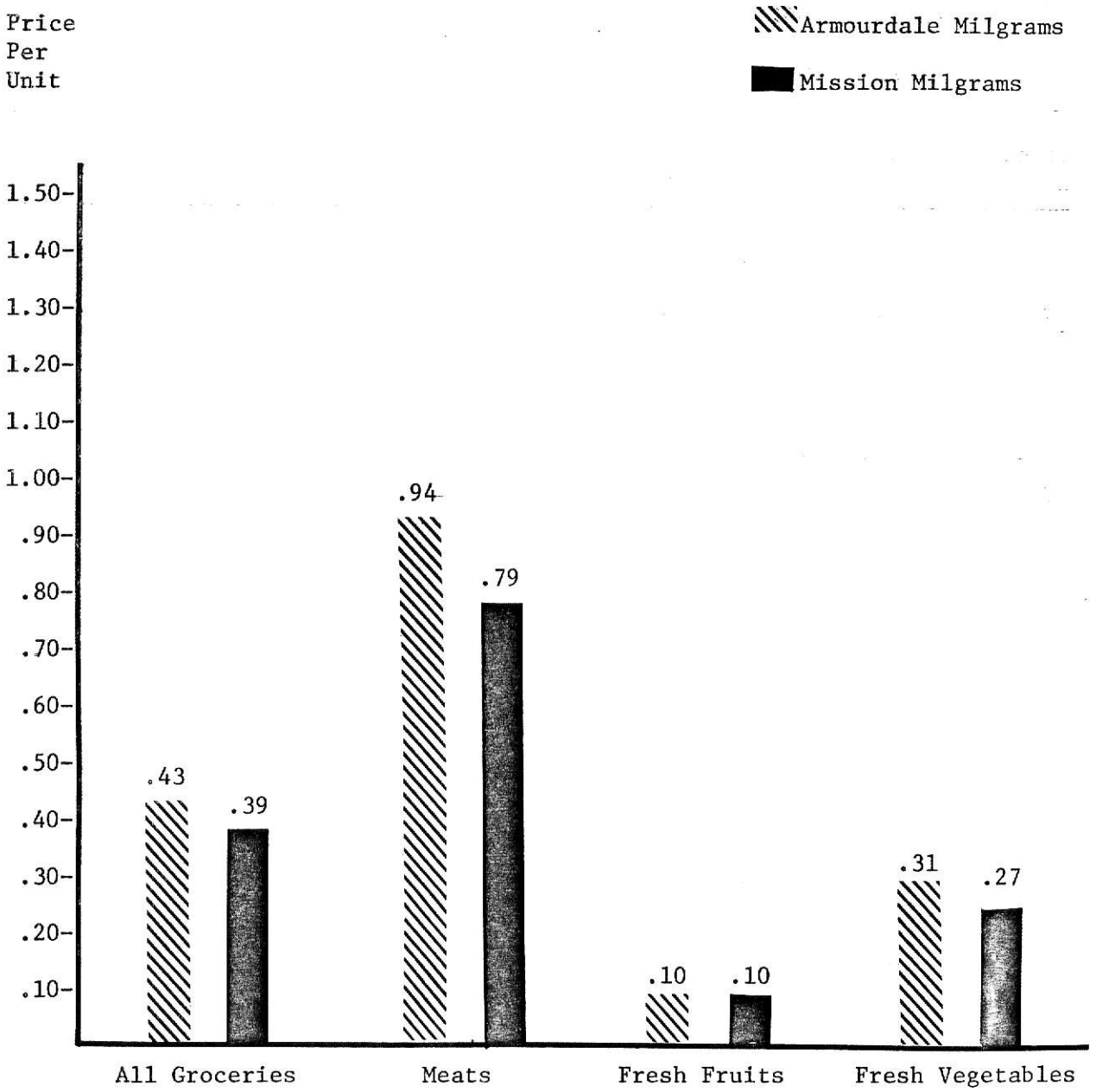


Fig. 1 Price comparison of similar products sold in 2 Milgrams stores

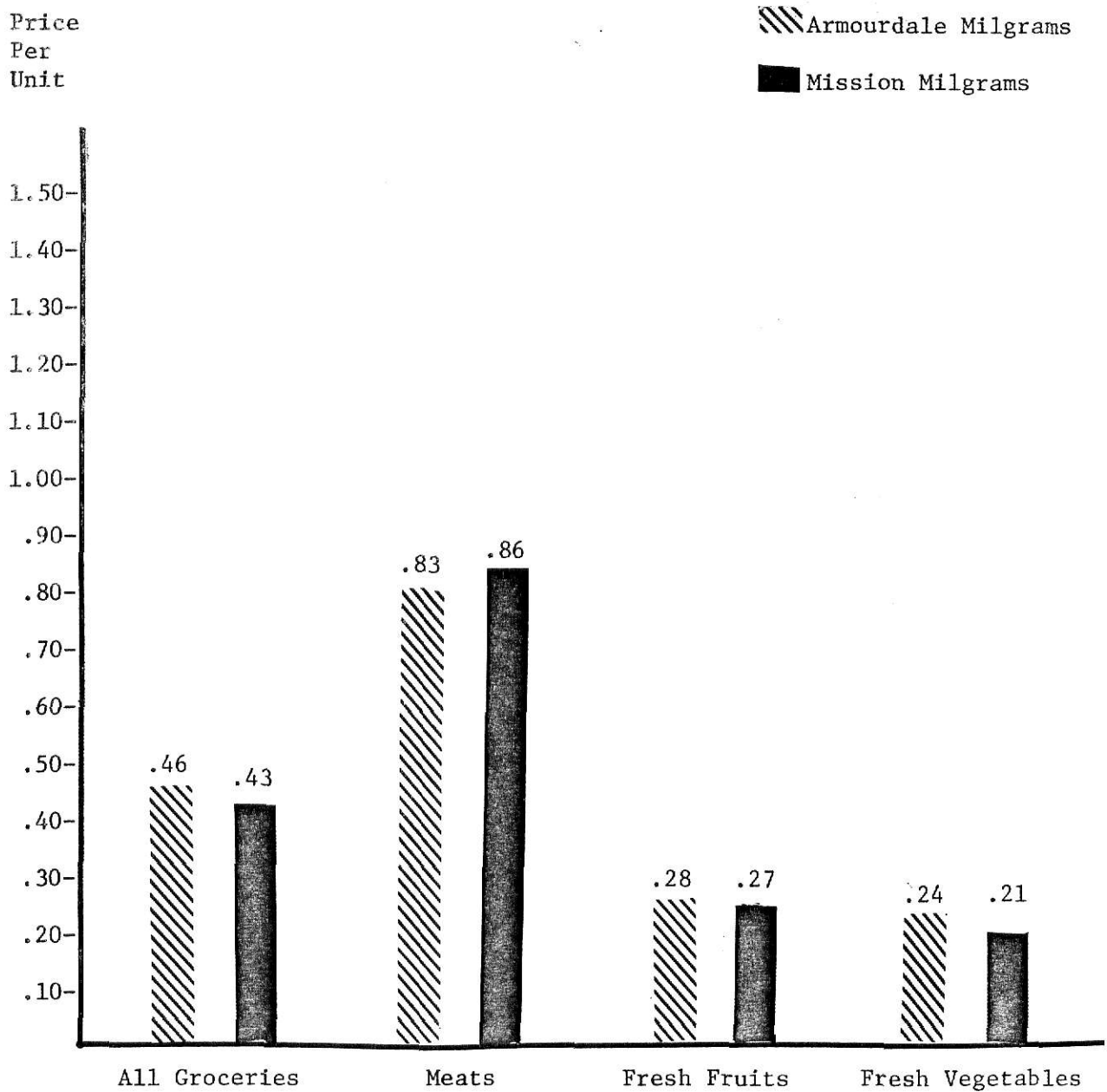


Fig. 2 Price comparison of all types of groceries sold at 2 Milgrams stores

When products of equal quality were compared, products at the Armourdale store were more costly than products at the Mission Hills store, however; when all products of every quality were compared, it was more costly at the Mission Hills store (table 2, figures 1, 2 and 3). The reason for this difference is the quality of products, i.e., the Mission Hills store sells smoked pork chops, the Armourdale store does not.

The major differences between the two stores is not in price of goods, although this is a factor, but rather the condition of the stores. The store located in the Armourdale area is obviously a much older store and has not been properly cared for. Tiles on the floor are broken or missing and all tiles are worn and dirty. The store could be improved and expanded and with improved customer services would be comparable to the store located at the Mission Hills Shopping Center.

The Armourdale store was a much friendlier store and the manager and check out clerks were helpful.

A rating of the two stores is shown graphically in figure 4.

Personal Interview and Nutritional Survey

Respondents who participated in this survey were Chicano mother-figures residing in Armourdale Industrial area. A random sample was taken by selecting each third house on a block beginning on Osage and St. Paul (figure 7, Appendix II). A time was designated for the interview at the mother-figure's convenience. If the mother-figure was unavailable at the second time, an alternate house was selected. Twenty-five mother-figures were interviewed.

Information obtained from the respondents was not considered by the researcher representative of the household diet intake, but merely

Average
Price
Per
Pound

Armourdale Milgrams
Mission Milgrams

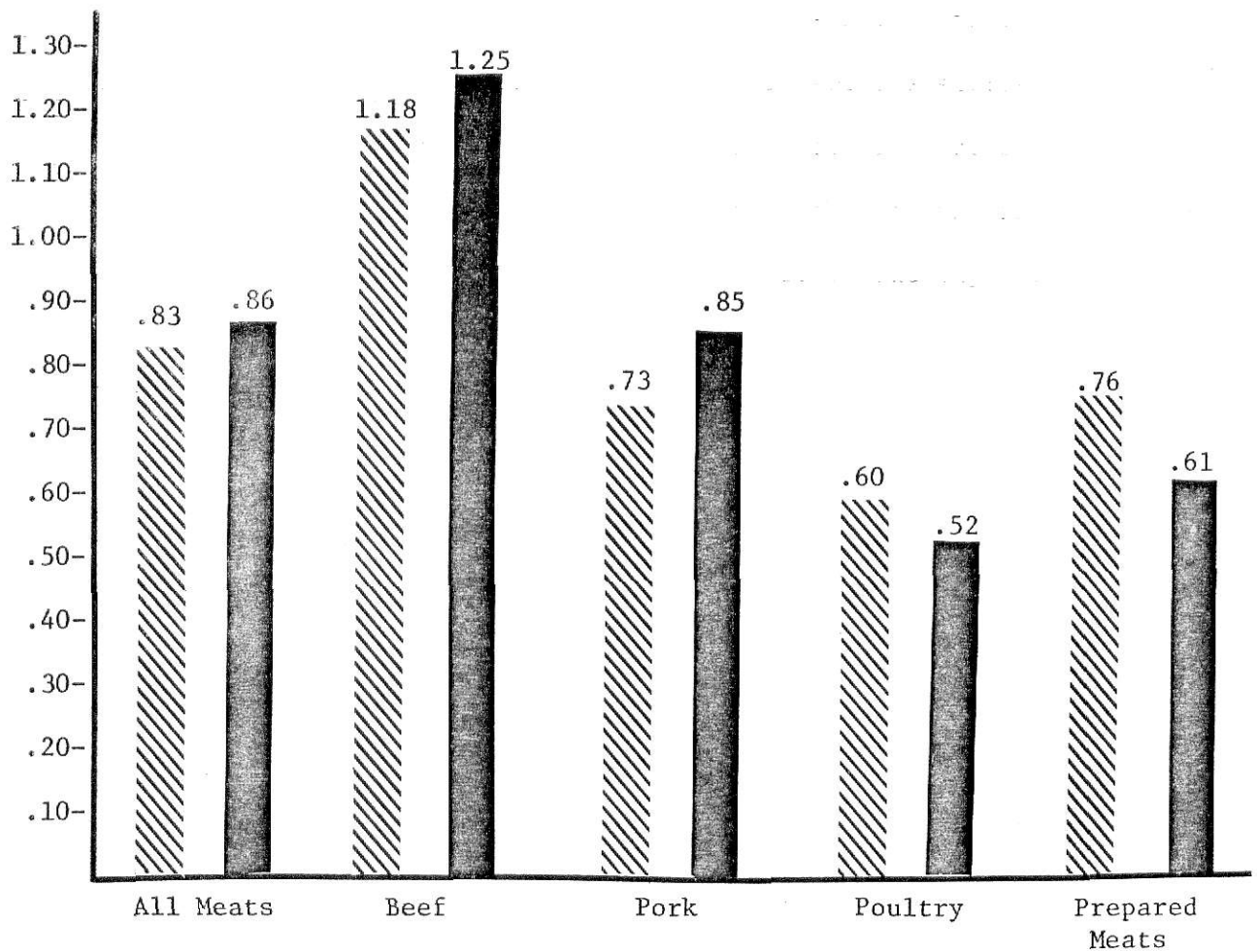


Fig. 3 Price comparison of meats sold in 2 Milgrams stores

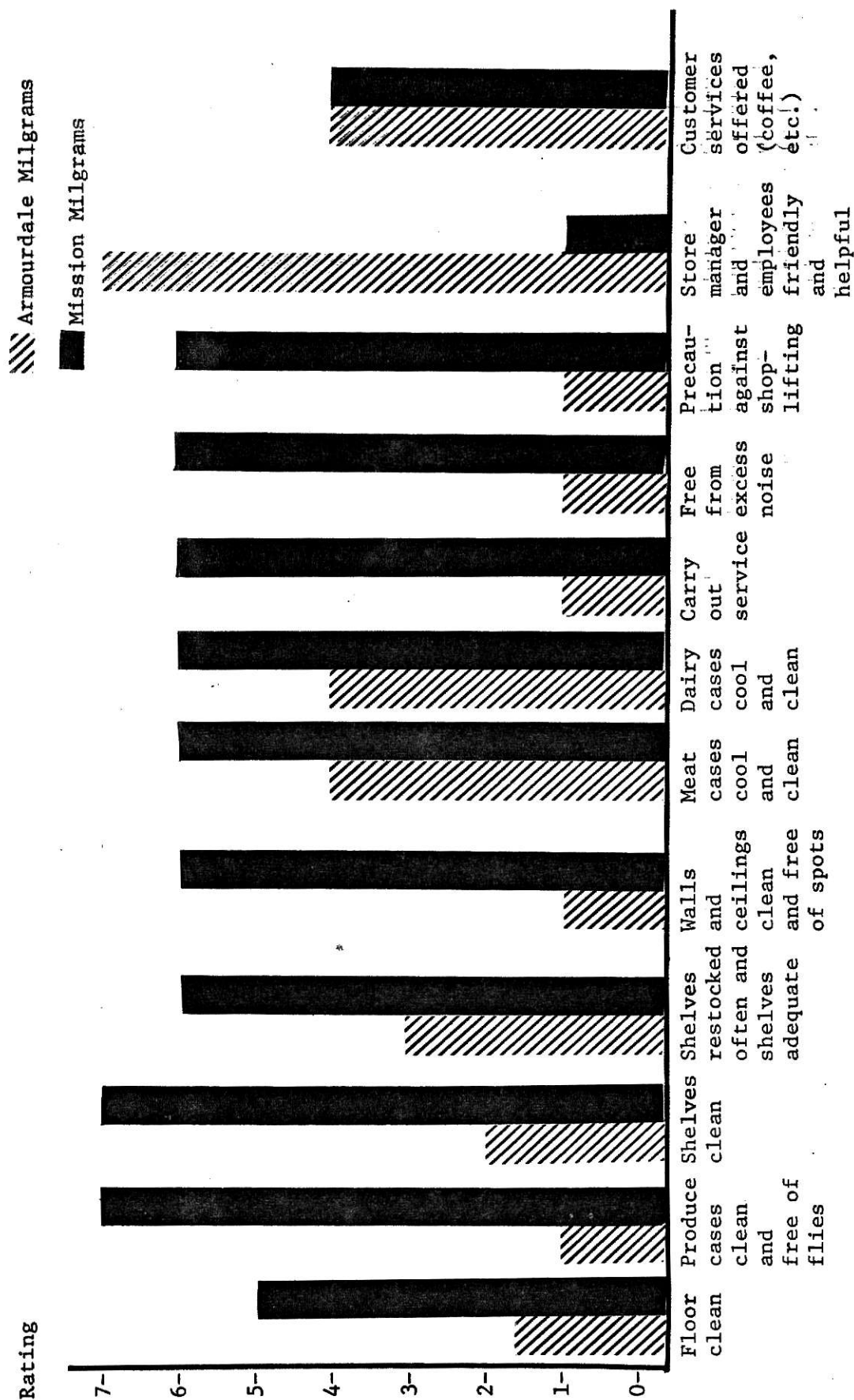


Fig. 4 Subjective comparison of 2 Milgram stores. 1--below average, 4--average, 7--excellent

representative of mother-figure intakes. The 24-hour dietary intake was compared on the basis of RDA (10).

The size of the 25 families ranged from 1 to 12 members, and the family mean size was 4.75 members. There were 118 individuals included in the 25 families.

There was low usage of public facilities by the respondents. Adult education was used by 20% of the mother-figures. The adult education class which they attended was a class in speaking English. Family planning was not utilized. Other services in the community, health clinic, well-baby clinic, child care, action groups received low usage with only 4% of the persons interviewed using them.

The number of family members ranged from three to six persons for 72% of the families. The head of household had a higher average educational level than the mother-figures (table 14, Appendix II) and had a higher status job than employed mother-figures.

Occupations of the head of household was classified as unskilled (thirty-six percent); semi-skilled (eight percent); skilled (forty percent) and retired or disabled (sixteen percent) (table 14, Appendix II).

Thirty-six percent of the mother-figures worked away from home. Of those employed away from home, twenty-two percent were employed as unskilled laborers (laundry workers and factory workers) compared to thirty-six percent of head of household employed as unskilled workers. There were fifty-six percent semi-skilled workers (cooks, dark room assistants, and clerks). There were twenty-two percent employed as skilled workers (secretaries and bookkeepers).

Income was directly related to level of education of head of household

and the number of family members working and contributing to the support of the family (table 15, Appendix II). The yearly income of the families ranged from \$666 to \$10,000. Income per person per year ranged from \$666 to \$2,408.50.

Income alone cannot predict nutritional adequacy of the diet. Family priorities may necessitate channelling of available funds into areas other than food. To determine how the family was allocating funds in relation to food, amount spent per week for food was determined. This amount was then compared to standards established by the U.S. Dept. of Agriculture to determine cost plan utilized by the family. The standards are based on family composition and divided into high, medium and low cost plans (66). If the family allocations fell below the low cost plan it was so designated.

Comparison shows that persons interviewed using low cost plan had a higher intake of nutrients except for iron than the other three categories. All nutrients met or exceeded recommended dietary allowances except for iron and calcium (table 3).

This higher nutrient intake of persons on low cost plan may be attributed, in part, to the fact that approximately 60% of the daily nutrients came from Mexican-American foods (table 4). These foods rely heavily on legumes, red peppers, and cheaper cuts of meat, thus a higher nutrient intake is possible at lower cost.

Those persons on the high cost plan had the second highest nutrient intake. All nutrients met or exceeded recommended dietary allowances except for calcium, thiamine, riboflavin and niacin. Slightly over 50% of all nutrients came from Mexican-American foods. Both groups had a high caloric, protein, fat and carbohydrate intake.

TABLE 3

A comparison of family food purchasing plan to nutrient intake

Nutrient	Weight	Food Energy	Protein	Total Fat	Fatty Acid Total Saturated	Unsaturated Oleic	Unsaturated Linoleic	Carbohydrate	Calcium	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic Acid
Food Cost Plan *	Grams	Calories	Grams	Grams	Grams	Grams	Grams	Grams	Milli-grams	Milli-grams	Int'l unit x 10	Milli-grams	Milli-grams	Milli-grams	Milli-grams
High Cost Plan	1430.33	2309.50	65.82	134.65	32.90	42.30	8.55	202.03	481.62	18.53	3907.23	1.19	1.33	12.11	105.41
Medium Cost Plan	1044.98	1392.38	49.78	79.01	24.45	27.60	9.15	137.93	475.91	8.91	665.42	0.83	0.95	10.87	59.36
Low Cost Plan	1466.33	2503.33	89.62	148.59	50.77	60.36	10.36	203.59	708.75	15.37	4158.72	1.25	1.55	18.64	140.16
Below Low Cost Plan	1110.60	1478.08	49.89	55.50	18.04	22.69	3.87	174.23	302.26	13.24	1724.55	0.88	1.10	13.17	66.12

* Classes computed on the basis of standards established by U.S. Dept. of Agriculture in Family Economics Review.

TABLE 4

Percent of nutrients gained from Mexican-American foods compared to food purchase plan

High Cost	5	7	13	16											Average	
Calories	47.88	30.35	54.86	76.69											52.44	
Protein	32.50	34.66	43.86	96.79											51.95	
Fat	48.67	5.81	42.76	76.45											43.42	
Carbohydrate	54.21	45.26	66.26	68.58											58.58	
Medium Cost	4	10	11	12	17	19	21	22	24	25	Average					
Calories	0	23.7	0	66.00	70.53	0	1.17	82.02	35.64	50.11	32.92					
Protein	0	44.44	0	65.33	64.29	0	1.46	76.10	50.06	59.21	36.09					
Fat	0	32.20	0	37.97	84.13	0	1.73	86.42	34.31	43.04	31.78					
Carbohydrate	0	19.78	0	74.06	41.40	0	0.73	60.20	37.39	67.49	30.10					
Low Cost	2	9	15	18	20											Average
Calories	35.11	29.36	57.18	82.57	100											60.84
Protein	41.44	28.34	84.75	88.08	100											68.52
Fat	22.63	36.30	53.79	89.12	100											60.37
Carbohydrate	53.25	20.94	46.18	54.82	100											55.04
Special diet																
Below Low	1	3	6	8	14	23							Average			
Calories	62.84	0	37.56	100	61.68	81.89							57.33			
Protein	75.92	0	40.31	100	61.16	94.66							62.01			
Fat	57.52	0	20.63	100	57.05	77.45							52.11			
Carbohydrate	65.03	0	57.50	100	60.05	79.15							60.29			

1 = 6 Below Low 2 = 5 Low 3 = (10) Medium 4 = 4 High

The medium cost plan users and those spending less than low cost plan users had low nutrient intake. The medium cost plan users had intakes below RDA levels for all nutrients except Vitamin A and Ascorbic Acid. That group had fewer Mexican-American foods contributing to the diet and had the lowest nutrient intake of the four food purchasing groups.

The below low cost plan families group received almost 60% of their nutrients from Mexican-American foods, comparable to the low cost plan users--the most well-nourished group. Those spending less than low cost plan users had intake below RDA levels for Vitamin A, Niacin, and Ascorbic Acid. The low nutritional intake of the below low cost group may be attributed to the fact that the families in this category do not allot enough money for food purchases.

Nutritional Intake Compared to Physical Condition of Mother-figure

Thirty-six percent of the mother-figures interviewed fell into the obese category. Of those classified as obese, weighing 20% over medium suggested weight for their height and build, none of the skinfold measurements indicated obesity. This may be attributed to the extreme activity of the individuals. The additional weight may be more in the form of muscle tissue rather than adipose tissue. The obese persons received 68% of their 2648 caloric intake from Mexican-American foods (tables 5-7).

The Mexican-American foods alone provided 1817 calories and 53 grams of protein. The RDA specifies 55 grams of protein as necessary for maintenance and repair of the body. The protein requirement is nearly adequate from Mexican-American foods. American foods that were added to the diet were mainly foods high in carbohydrate--potato chips, soda pop, candy bars; some

TABLE 5

Calculated nutrient intake attributable to Mexican-American foods compared to
physical state of mother-figure

Obese	Code												Special diet
Nutrients	No.	1	3	5	8	9	10	13	18	20	Average		
Calories	1375	0	2154	1573	722	188	570	5265	1066	1434	1817		
Protein	40	0	45	43	25	8	24	131	68	42	53		
Fat	102	0	157	53	49	7	11	438	28	93	119		
Carbohydrate	75	0	147	277	48	27	102	183	137	110	138		
Overweight	2	4	6	7	11	21	22	23	25	Average			
Calories	681	0	334	280	0	16	3524	1320	379	727			
Protein	31	0	11	11	0	1	72	73	19	24			
Fat	27	0	8	2	0	1	310	46	24	46			
Carbohydrate	80	0	59	58	0	1	100	160	23	53			
Average	12	14	15	16	17	19	24			Average			
Calories	1341	1079	2280	1447	2025	0	651	1260					
Protein	43	45	158	91	49	0	40	60					
Fat	50	47	104	49	164	0	23	62					
Carbohydrate	193	121	184	163	83	0	76	117					

TABLE 6

Percent of nutrients gained from Mexican-American foods compared to
physical state of mother-figure

Class	Subject	1	3	5	8	9	10	13	18	20	Average	Special diet deleted
Obese												
	Calories	62.84	0	47.88	100	29.36	23.70	54.86	82.57	100	55.69	68.22
	Protein	75.92	0	32.50	100	28.34	44.44	43.86	88.08	100	57.02	66.95
	Fat	57.52	0	48.67	100	36.30	32.20	42.76	89.12	100	56.28	67.77
	Carbohydrate	65.03	0	54.21	100	20.94	19.70	66.26	54.82	100	53.44	65.89
Overweight												
		2	4	6	7	11	21	22	23	25	Average	
	Calories	35.11	0	37.56	30.35	0	1.17	82.02	81.89	50.11	35.36	
	Protein	41.44	0	40.31	34.66	0	1.46	76.10	94.66	59.21	38.65	
	Fat	22.63	0	20.63	5.81	0	1.73	86.42	77.45	43.04	28.63	
	Carbohydrate	53.25	0	57.50	45.26	0	0.73	60.20	79.15	67.49	40.40	
Average		12	14	15	16	17	19	24			Average	
	Calories	66.00	61.68	57.18	76.69	70.53	0	35.64			52.53	
	Protein	65.33	61.16	84.75	96.79	64.29	0	50.06			60.34	
	Fat	37.97	57.05	53.79	76.45	84.13	0	34.31			49.10	
	Carbohydrate	74.06	60.05	46.18	68.58	41.40	0	37.39			46.81	

TABLE 7

Calculated nutrient intake compared to physical state of mother-figure

Obese											-Special diet	
	Nutrient	1	3	5	8	9	10	13	18	20	Average #3 & 10	
Obese	Calories	1487.15	700	4499.45	1573.49	2459.98	793.00	1039.65	6376.20	1065.80	2221.63	2648.10
	Protein	52.95	49	139.26	42.96	90.02	18.00	55.76	148.55	68.54	81.54	85.43
	Fat	90.63	49	323.4	52.96	135.8	23.6	26.00	491.2	28.5	148.81	164.07
	Carbohydrate	115.84	12	270.82	276.95	230.84	137.00	153.57	333.08	137.08	185.32	216.98
Overweight	Calories	1941.83	1035	888.35	954.8	1020	1361.10	4296.05	1612.40	757.75	1540.81	
	Protein	75.14	30	26.54	32.14	42	61.54	94.18	76.92	31.75	52.25	
	Fat	118.92	37	39.99	36.10	58.75	51.9	358.8	59.0	55.75	90.69	
	Carbohydrate	149.76	151	102.17	127.88	79.50	163.88	166.86	201.94	34.30	130.08	
Average	Calories	2032.05	1749.85	3755.53	1887.75	2871.25	682.5	1825.7			2114.95	
	Protein	65.78	72.87	186.32	93.69	76.02	23	79.1			85.25	
	Fat	131.67	81.27	177.47	63.72	195.44	24.75	65.92			105.75	
	Carbohydrate	261.02	180.04	359.72	238.74	214.86	91.25	203.66			223.62	

meat--hamburgers--were also included. Caloric content of the diet was raised 681 calories and protein, 22 grams.

Those in the overweight category (weight exceeded medium weight for height and build by 10%) received less than 40% of their total nutrients from Mexican-American foods. These persons tended to have lower total intakes of food energy, protein, fat and carbohydrate than the obese subject. The average overweight person was below RDA standards for both food energy and protein.

Persons having average weights for their height and build received approximately 50% of their nutrients from Mexican-American foods. Average nutrient intake for the group approximated recommended dietary allowances for weight maintenance. American foods added to these diets were snack foods and salads.

Nutritional Intake Compared to Generation

Fifty-two percent of mother-figures interviewed were second generation Americans. Of the nutrients included in the analysis, protein and Vitamin A content were higher in the first generation American diets. The remaining nutrients, calories, total fat, fatty acids, oleic acid, linoleic acid, carbohydrates, calcium, iron, thiamine, riboflavin, niacin, and ascorbic acid were higher for the second generation Americans.

Comparing intakes of first generation Americans to RDA shows that the intake is below recommended allowances for: calories, calcium, iron, thiamine, riboflavin, and niacin. For second generation Americans a similar comparison shows low intakes of calcium, iron, riboflavin, and niacin but adequate caloric intake.

The higher caloric intake in second generation American diets may be due

in part to the higher American food intake. With the higher caloric intake there is a decrease in protein and vitamin A. This is due to the decreased use of legumes which contribute significantly to protein intake and red peppers, a rich source of vitamin A. This comparison is shown graphically in table 8.

TABLE 8

Calculated nutrient intake compared to generation of mother-figure
lineage residing in the United States

Generation	Weight	Calories	Protein	Total Fat	Fatty Acid Total Saturated	Unsaturated Oleic	Unsaturated Linoleic	Carbohydrate
1	1132.41	1723.95	66.42	92.55	27.96	37.76	6.81	164.92
2	1273.97	2049.80	62.97	123.73	41.79	48.42	10.49	179.71
RDA		2000	55	153.33				100

Generation	Calcium	Iron	Vitamin A	Thiamine	Riboflavin	Niacin	Ascorbic Acid
1	362.73	13.59	3215.42	.94	1.07	13.8	97.47
2	622.49	18.92	2296.51	1.05	1.34	15.01	98.23
RDA	800	18	500	1	1.5	13	55

SUMMARY

This study was designed to survey and evaluate the nutritional intake of urban Chicano mother-figures living in the Armourdale area of Kansas City, Kansas. Differences in the level of nutritional intake in relation to food purchasing plan, percentage of nutrients derived from Mexican-American food, percentage of nutrients derived from American foods and nutritional level were compared to the amount of time living in the United States. All classifications were compared to the RDA. Differences in the recommended daily food intake of female respondents attributable to weight classification and skinfold thickness measurements also were determined.

The level of nutritional intake compared to the food purchasing plan indicated respondents on the low cost plan had the highest level of nutritional intake. All nutrients met or exceeded the RDA except for iron and calcium. Approximately 60% of the daily nutrients came from Mexican-American foods. High cost food plan users met or exceeded the RDA for all nutrients except calcium, thiamine, riboflavin and niacin, and had a lower usage of Mexican-American foods. Both the medium cost plan users and those spending less than the low cost plan had intakes below RDA level for most nutrients.

A comparison of physical status with percentage of nutrients derived from Mexican-American foods showed the obese respondents derived a higher percentage from Mexican-American foods than the overweight or average weight respondents. The overweight persons received only 40% of their total nutrients from Mexican-American foods, and the average group received one-half of their nutrients from Mexican-American foods.

Nutritional intakes were compared to generation of female respondent. Both first and second generation Americans showed deficiencies in calcium,

iron, riboflavin, and niacin when compared to the RDA. First generation Americans were also low in thiamine and food energy. Of the nutrients included in analysis, protein and Vitamin A contents were higher in first generation American diets. The intake of nutrients, calories, total fat, fatty acids, oleic acid, linoleic acid, carbohydrates, calcium, iron, thiamine, riboflavin, niacin, and ascorbic acid were higher for the second generation Americans.

The shopping basket survey of two shopping centers showed that it was more costly to purchase food and household items in the Armourdale area than in the Mission Hills shopping center. The Armourdale store was friendlier than the Mission store but offered very few customer services and needed repair and remodeling.

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APPENDIX I

KANSAS STATE UNIVERSITY
Manhattan, Kansas 66502

Department of Foods and Nutrition
Justin Hall

Letter 1

August 2, 1971

Dear Community Leader:

This letter is to introduce Nancy Ertz, a member of our group, conducting a research study in the Department of Foods and Nutrition, at Kansas State University. We are interested in the nutritional level of families of Armourdale district, Kansas City, Kansas.

You will be asked as a community leader to give background information about the community. This information is necessary to place the nutritional information in perspective of the community.

Twenty-five homemakers will be contacted to assess the nutritional adequacies in the community. These homemakers will be asked to fill out a questionnaire dealing with family composition, foods eaten, household arrangement and community interaction.

Sincerely,

Lucille M. Wakefield, Ph.D.
Professor, Head of Dept.
and in charge of research study

KANSAS STATE UNIVERSITY
Manhattan, Kansas 66502

Department of Foods and Nutrition
Justin Hall

Letter 2

August 2, 1971

Dear Homemaker:

This letter is to introduce Nancy Ertz, a member of our group, conducting a research study in the Department of Foods and Nutrition, at Kansas State University. We are interested in the nutritional level of families of Armourdale district, Kansas City, Kansas.

As a homemaker, your opinion is important to us. The questions we will ask have no right or wrong answers but they tell us about the foods frequently eaten. We hope you will help us by answering these questions.

Sincerely,

Lucille M. Wakefield, Ph.D.
Professor, Head of Dept.
and in charge of research study

COMMUNITY ORGANIZATION QUESTIONNAIRE

1. Name of Organization _____
 2. Number of Members _____
 3. What nationalities are represented in your group?
 - Mexican-Americans _____
 - Anglos _____
 - Blacks _____
 - Chinese _____
 - Indian _____
 - Others (specify) _____
 4. Are all of your members native to the area? Yes No
 5. When was the organization established? _____
 6. Was it locally founded? Yes No
 Is it state _____ nationally _____ affiliated?
 7. Why was it founded here? _____

 8. What are the goals of the organization? _____

 9. Is this organization officially associated with any other organization or group? Yes No
 If yes, what is the organization and nature of affiliation _____

 10. What is the amount of your budget? _____
 11. Funds come primarily from membership dues _____, state funding _____
 national funding _____ others (specify) _____
 12. What are some organization projects completed within past year?
 - a. _____

- Do you feel this project was successful _____ unsuccessful _____

b. _____

Do you feel this project was successful _____ unsuccessful _____

13. What are some current projects? _____

14. What projects are planned for the future? _____

15. What do you consider the organizations most significant contribution to the community? _____

Why? _____

16. This organization has would work with other groups on specific projects.

Socioeconomic status

1. What is the approximate income of the area?

Under \$2,000 _____	\$5,000-\$6,000 _____
\$2,000-\$3,000 _____	\$6,000-\$7,000 _____
\$3,000-\$4,000 _____	Above \$7,000 _____
\$4,000-\$5,000 _____	

2. What is the approximate range of income? \$ _____ to \$ _____.

3. What is the approximate educational level of the community?

8th Grade _____	High School _____
Some high school _____	Advanced Training _____

4. Approximately how much would it cost to buy a house in the community?

5. Do most people rent own house?

ILLEGIBLE DOCUMENT

THE FOLLOWING
DOCUMENT(S) IS OF
POOR LEGIBILITY IN
THE ORIGINAL

THIS IS THE BEST
COPY AVAILABLE

6. Are there any adult education programs in the community? Yes No
 If yes, do many people attend these programs? Yes No

Social Services and Facilities

1. Is there a health clinic in the area? Yes No
 If yes, have you ever used the facilities? Yes No
 If no, why? _____

2. Are there any child care facilities in the area? Yes No
 What type of facilities? day care _____ baby sitters _____ are none _____
3. Is there a well baby clinic in the area? Yes No
 Where is it located? _____
 Have you used it? _____
4. Is there a family planning center in the area? _____

Recreational Facilities

1. Are there any parks or picnic areas in the community? Yes No
 Number _____ Location(s) _____

2. Do you ever use them? Yes No
 If yes, how often? _____
3. What facilities are there for young people of the community? _____

4. What do you usually do for recreation? _____

INTERVIEW SCHEDULE
Family Profile

Code Number _____ How long has your family lived in this country?

Family Composition Table:

Household member	M	F	Age	Marital Status	Occupation	Education

What is the income level for the household? (circle one)

Below \$2,000	\$5,000-\$6,000
\$2,000-\$3,000	\$6,000-\$7,000
\$3,000-\$4,000	above \$7,000
\$4,000-\$5,000	

The following questions cover several different areas, first concerning the foods you and your family eat, second about this household and then 3 questions concerning the community. This is not a test and there are no right or wrong answers. If you have any questions feel free to stop me at any time.

1. 24-hour dietary recall (refer to page 14).
2. How often do you serve Mexican foods? _____
3. Where do you usually shop? (name) _____
(location) _____
4. Do you buy all of your foods at this store? Yes No
5. Do you feel prices are (pick one) high, low, average at this store?

6. Approximately how much per week do you spend on food items? _____

7. Who purchases the food? _____
8. Who prepares meals? _____
9. Do you use any convenience foods? Yes _____ No _____
 If yes, how often do you use them? Often _____ Seldom _____ Never _____
10. How do you store perishable foods such as meats? _____

11. Do you own or rent a freezer? Yes _____ No _____
 If yes, what type? Own _____ Rent _____ Freezer _____
12. Do you belong to any community groups? Yes _____ No _____
 Specify _____

13. Do you ever use:
- | | | |
|---------------------------------------|-----|----|
| Public health facilities? | Yes | No |
| Child care facilities? | Yes | No |
| Well baby clinic? | Yes | No |
| Family planning? | Yes | No |
| Extension or adult education courses? | Yes | No |
- If yes, what type have you attended?

14. Would you consider moving out of this community? Yes _____ No _____
 Why? _____

Dietary Record

Code Number _____

Are you taking any supplement, such as vitamin pills, iron pills?

Yes No (specify type and amount) _____

Food	Amount
Breakfast	
Snacks	
Lunch or Dinner	
Snacks	
Dinner or Supper	
Snacks	

APPENDIX II

TABLE 9

Desirable weights for men and women of ages 25 and over* +
Weight in pounds according to frame (in indoor clothing)

Height [‡]		Small Frame		Medium Frame		Large Frame	
Feet	Inches	Men	Women	Men	Women	Men	Women
4	10	----	92-98	---	96-107	---	104-119
4	11	----	94-101	---	98-110	---	106-122
5	0	---	96-104	---	101-113	---	109-125
5	1	---	99-107	---	104-116	---	112-128
5	2	112-120	102-110	118-129	107-119	126-141	115-131
5	3	115-123	105-113	121-133	110-122	129-144	118-134
5	4	118-126	108-116	124-136	113-126	132-148	121-138
5	5	121-129	111-119	127-139	116-130	135-152	125-142
5	6	124-133	114-123	130-143	120-135	138-156	129-146
5	7	128-137	118-127	134-147	124-139	142-161	133-150
5	8	132-141	122-131	138-152	128-143	147-166	137-154
5	9	136-145	126-135	142-156	132-147	151-170	141-158
5	10	140-150	130-140	146-160	136-151	155-174	145-163
5	11	144-154	134-144	150-165	140-155	159-179	149-168
6	0	148-158	138-148	154-170	144-159	164-184	153-173
6	1	152-162	---	158-175	---	168-189	---
6	2	156-167	---	162-180	---	173-194	---
6	3	160-171	---	167-185	---	178-199	---
6	4	164-175	---	172-190	---	182-204	---

* Courtesy of the Metropolitan Life Insurance Company, New York, 1964.

+ For girls between 18 and 25, subtract 1 pound for each year under 25.

‡ Height given with shoes on; 1-inch heels for men, 2-inch heels for women.

Weights at each height are given for small, medium and large frames. Irrespective of height, a person with a thick chest, broad shoulders and pelvis should be classified as having a large frame. Conversely, a person with a thin chest, narrow shoulders and pelvis should be classified as having a small frame. Those in between should be considered as of medium frame. The size of your gloves is sometimes a useful guide. Women wearing gloves smaller than size 6 and men smaller than size 8 are generally of small frame. Women wearing gloves larger than size 7 and men larger than size 9 are generally of large frame. (Jolliffe, N. 1952 Reduced and Stay Reduced Simon and Schuster, Inc. Rockefeller Center, 620 Fifth Avenue, New York, New York)

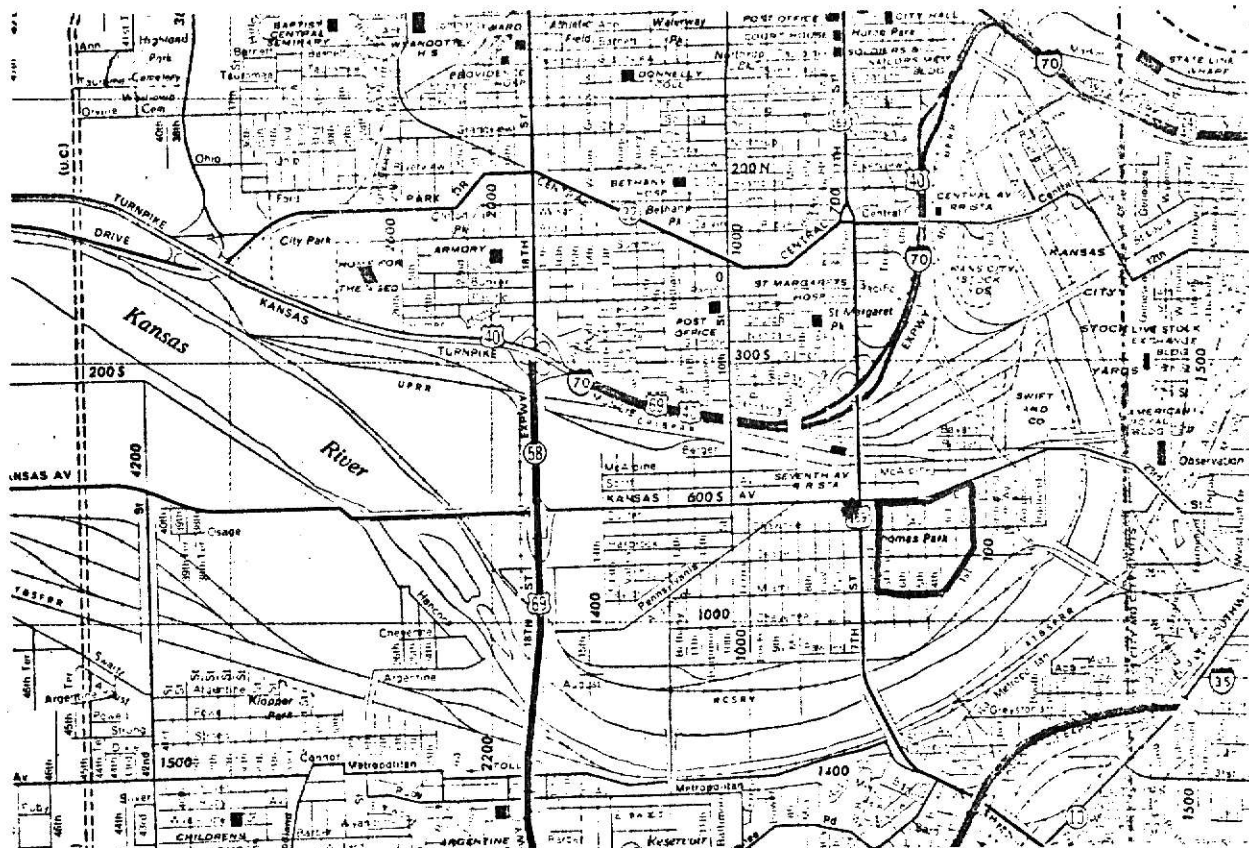


Fig. 5a. Relationship of survey area to location of Milgram store.

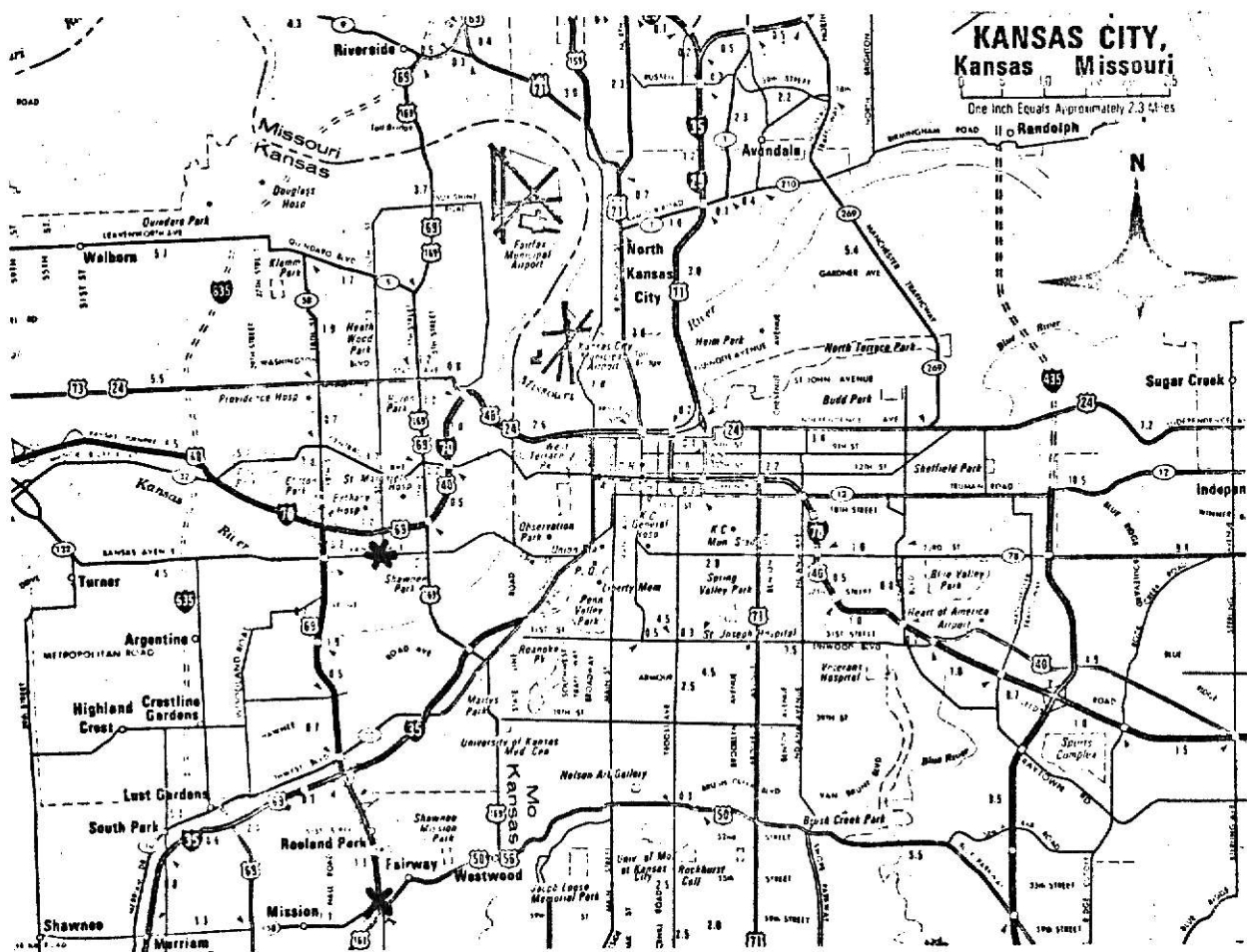


Fig. 5b. Relationship of two Milgram stores. *Armourdale *Mission

TABLE 10

Condition of structures

Land Use	Excellent	Good	Fair	Poor	Clearance	Total	Percent
One-Family	32	106	520	450	314	1422	70.4%
Two-Family	11	7	34	32	32	116	5.7%
Multi-Family	2	1	8	7	12	30	1.5%
Total Residential	45	114	562	489	358	1568	
Commercial	35	55	82	67	53	292	14.4%
Industrial	44	9	52	8	20	133	6.6%
Public*	7	4	10	4	3	28	1.4%
Total	131	182	706	568	434	2021	
Percent	6.5%	9.0%	34.9%	28.1%	21.5%		

* Does not include schools.

Age of Improvements

The town of Armourdale was platted by the Kaw Valley Town Site and Bridge Company in 1880. The area flourished for many years both as an industrial and residential area. The majority of the residential structures were built before 1930.

The decline of the area as a residential community became irreversible after the damage caused by the 1951 flood. In only a few isolated cases, has there been residential construction since 1950.

Age of structures

Land Use	1960- present	1950- 1959	1940- 1949	1930- 1939	1920- 1929	1910- 1919	1900- 1909	Before 1900	Total
One-Family	15	96	63	239	598	258	101	52	1422
Two-Family	10	9	3	12	50	20	4	8	116
Multi-Family	3	2	1	2	5	7	8	2	30
Total Residential	28	107	67	253	653	285	113	62	1568
Commercial	27	58	32	55	39	30	38	12	292
Industrial	33	16	12	5	13	27	20	7	133
Public*	5	6	0	4	6	2	3	2	28
Total	93	187	111	317	711	344	176	83	2021
Percent	4.6%	9.3%	5.5%	15.7%	35.2%	17.0%	8.7%	4.1%	

* Does not include schools.

TABLE 1
Welfare cases, 1966

Type of Assistance	Number of Families	Number of Persons
Aid to Dependent Children	35 (129 children)	164*
Aid to the Aged	38	41
Aid to the Blind	1	1
Aid to the Disabled	17	17
General Assistance	<u>14</u>	<u>14</u>
Total	105	237

* This figure includes an assumed one adult per family.

The Armourdale Industrial District has 105 welfare cases which effects 237 people or 5% of the area's population. The total population for the area is 5,232 or 3% of the city's total population.

TABLE 11
Economic conditions

Income of Families
The income of families in this area is below the city average and, according to data from the 1960 census, falls in the poverty income level. The entire area falls below \$4,000 yearly income and only a small portion is in the \$3,000 to \$4,000 level. It is felt that as a result of inflation that the income levels for this area could be proportionately lower. The average family income for this area is about \$3,000 a year.

TABLE 12
Census tract analysis

Number of square miles	0.43
Total population	4,499
Population per square mile	10,463
Total white population	4,497
Percent of white population	99.9%
Total negro population	0
Percent of negro population	0
Percent of persons over 5 years of age with same 1960 residence as 1955	46.3%
Percent of immigrants from the south	3.6%
Percent of foreign stock	5.3%
Total number of persons 14 years of age and over	2,930
Percent of persons 14 years of age and over, single	16.7%
Percent of persons 14 years of age and over, married	69.1%
Percent of persons 14 years of age and over, separated or divorced	6.3%
Percent of persons 14 years of age and over, widowed	7.8%
Total number of married couples	986
Total number of married couples with children under 6 years of age	373
Percent of married couples with children under 6 years of age	37.8%
Total number of married couples with children under 18 years of age	587
Percent of married couples with children under 18 years of age	59.5%
Total number of persons under 18 years of age	1,820
Number of males under age 18	933
Number of females under age 18	925
Total number of persons under 18 years living with both parents	1,560
Percent of persons under 18 years living with both parents	85.7%
Total number of persons 65 years of age and over	338
Percent of persons 65 years of age and over	7.5%
Median age	25.3
Number of persons 25 years of age and over	2,286
Percent of persons 25 years and over with less than high school education completed	85.2%
Percent of persons 25 years and over with college education completed	0.7%
Median school years completed--persons over 25 years of age	8.6%
Ratio of school enrollment of population 14-17 year olds	0.61
Percent of males over 14 years of age in labor force	78.3%
Unemployment rate--male	12.9%
Percent of male semi-skilled workers	40.6%
Percent of male unskilled workers	13.6%
Percent of females over 14 years of age in labor force	35.6%
Unemployment rate--females	9.6%
Married women in labor force with husband present	295
Percent of married women in labor force with husband present	19.7%
Married women in labor force with children under 6 years of age	89

TABLE 12--Continued

Percent of married women in labor force with children under	
6 years of age	5.9%
Total number of families	1,150
Average population per household	3.41
Median income for families	\$5,288
Total number of families with incomes under \$1,000	54
Percent of families with incomes under \$1,000	4.7%
Total number of families with incomes \$1,000-\$1,999	93
Percent of families with incomes \$1,000-\$1,999	8.1%
Total number of families with incomes \$2,000-\$2,999	76
Percent of families with incomes \$2,000-\$2,999	6.6%
Total number of families with incomes under \$3,000	223
Percent of families with incomes under \$3,000	19.4%
Total number of families with incomes over \$10,000	59
Percent of families with incomes over \$10,000	5.1%
Total number of housing units	1,405
Total number of housing units deteriorating	289
Percent of housing units deteriorating	20.6%
Total number of housing units dilapidated	32
Percent of housing units dilapidated	3.2%
Total number of occupied units	1,321
Total number of units--renter occupied	587
Percent of units renter occupied	44.4%
Median contract rent (\$)	\$61
Median owner occupied value (\$)	\$6,300
Number of housing units averaging 1.01 or more persons per room . .	265
Percent of overcrowded homes	20.1%

TABLE 13

Proposed land use acreages

Total Acreage 2,569.85		Acres	Total
Developed for private use			1,611.95
Single family		.00	
Two family		.00	
Multi-family		.00	
Mobile homes		.00	
Commercial		7.23	
Industrial		1,604.72	
Vacant			.00
Railroad R.O.W. and levee areas			482.86
Institutional			3.57
Public buildings		3.57	
Industrial institutional		.00	
Airports		.00	
Open space		.00	
Schools		.00	
Cemeteries		.00	
River			444.00

Necessary Public Action if Potential is to be ReachedDevelopment policies

- (a) Industrial development should be encouraged and residential or residentially related commercial developments should be discouraged.
- (b) Further study needs to be done to determine the best manner of redevelopment for the area. The timing for this redevelopment should be given very careful consideration.
- (c) The city should encourage a change in state renewal laws to allow private renewal projects.
- (d) Careful consideration should be given to the functional interrelationship of various industrial and commercial uses during the planning stage of the redevelopment of the area.

LEGEND

EXISTING LAND USE

- SINGLE FAMILY
- TWO FAMILY
- MULTI-FAMILY (MED DENSITY)
- MULTI-FAMILY (HIGH DENSITY)
- COMMERCIAL
- INDUSTRIAL
- SCHOOLS & INSTITUTIONS
- PARKS & OPEN SPACE

SCHOOLS

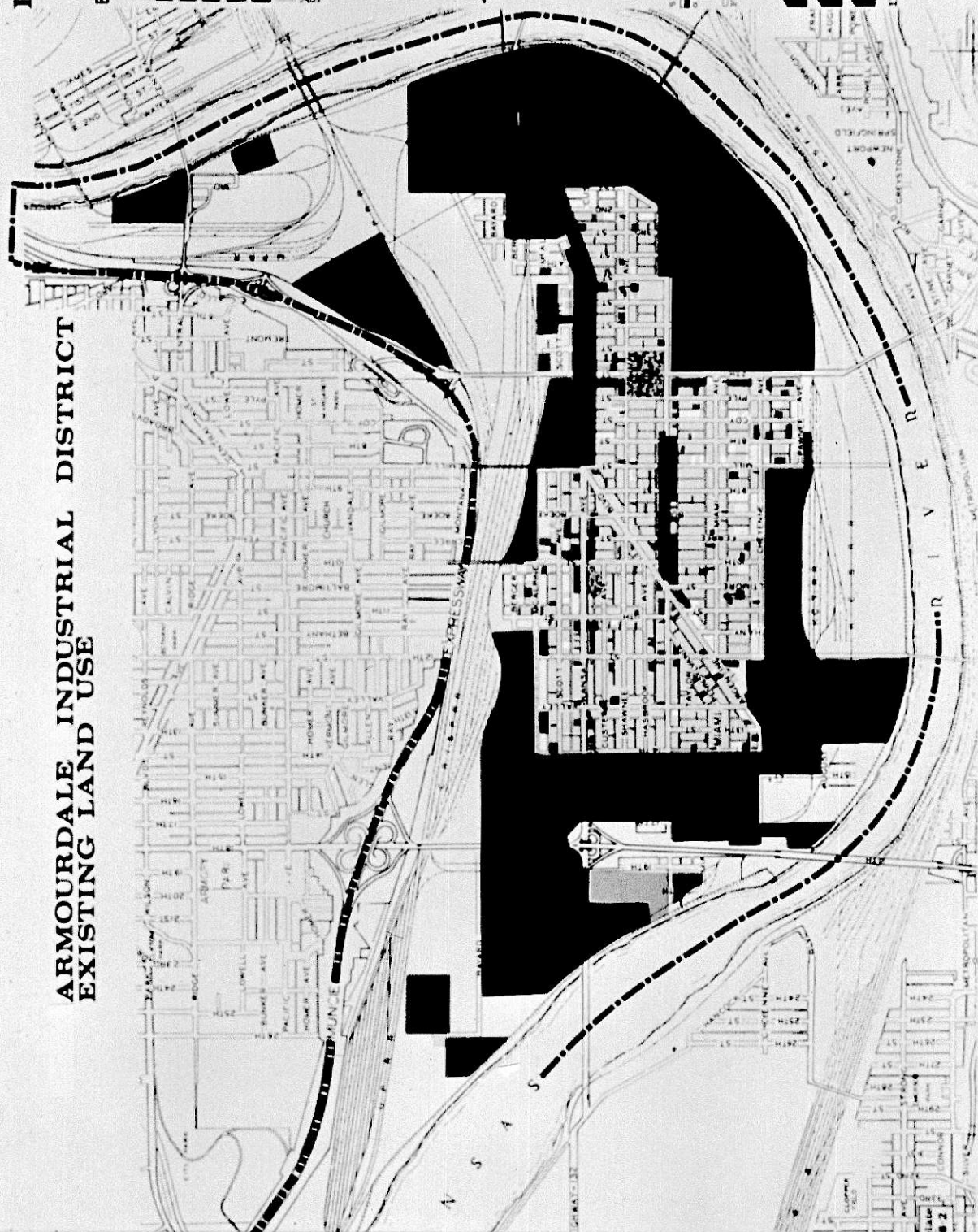
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COMMUNITY RENEWAL PROGRAM
FOR KANSAS CITY KANSAS 1988

KANSAS
CITY
KANSAS
PLANNING
DEPARTMENT

ARMOURDALE INDUSTRIAL DISTRICT EXISTING LAND USE



LEGEND

NO. 8-ARMOURDALE INDUSTRIAL DISTRICT PROPOSED DEVELOPMENT PLAN

PROPOSED LAND USE

- COMMERCIAL
- INDUSTRIAL
- PARKS & OPEN SPACES



COMMUNITY RENOVATION PROGRAM
FOR KANSAS CITY KANSAS 1968



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8-3

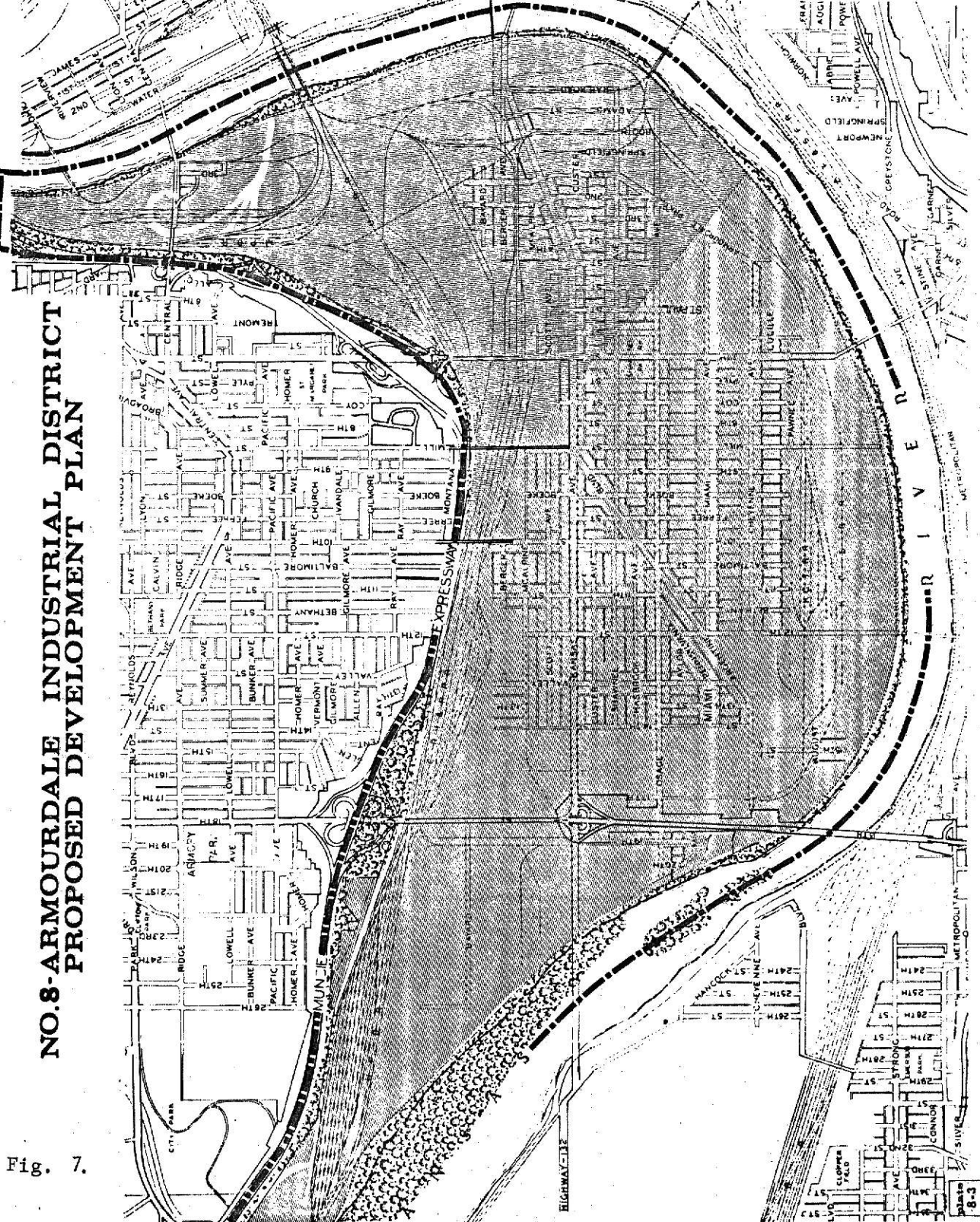


Fig. 7.

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8-3

TABLE 15

Distribution of income according to number working, income per person working, income per person living at home

Income Range	Number of Families	Number Working							Income per Person per Year		Generation			
		Full time			Part-time				Average	Range	1st	2nd	4th	
		0	1	2	3	4	5	6						
Below \$2,000	1	1							666		1			
\$2,000-\$2,999	4	2	2						1,083.38	0-2,500	3	1		
\$3,000-\$3,999	2	1	1					1	2,408.50	1,333-3,500			2	
\$4,000-\$4,999	5		4	1					1,345	764-1,660	1	3		
\$5,000-\$5,999	3		1	2					1,472.20	416.60-2,500	3			
\$6,000-\$6,999	3		1	1					1,903.00	1,500-1,126			3	
Above \$7,000	7		2	4	1	1			1,700.94	833.33-2,500	2	4	1	

A SOCIOECONOMIC AND NUTRITIONAL SURVEY OF TWENTY-FIVE CHICANO
MOTHER-FIGURES RESIDING IN ARMOURDALE DISTRICT,
KANSAS CITY, KANSAS

by

NANCY ERTZ

B. S., South Dakota State University, 1969

AN ABSTRACT OF A MASTER'S THESIS

submitted in partial fulfillment of the

requirements for the degree

MASTER OF SCIENCE

Department of Foods and Nutrition

KANSAS STATE UNIVERSITY
Manhattan, Kansas

1972

Twenty-five Chicano women from Armourdale, Kansas City, Kansas were surveyed for nutritional intake. Differences in level of nutritional intake in relation to the food purchasing plan, percentage of nutrients derived from Mexican-American food, percentage of nutrients from American foods, the calculated nutrient intake from Mexican-American foods and the amount of time living in the United States were compared. All classifications were compared to the recommended daily dietary allowances (RDA). Differences between actual and recommended daily food intake of the women were determined on the basis of weight classification and skinfold thickness measurements.

The level of nutritional intake on the basis of the food purchasing plan indicated respondents on the low-cost plan had the highest level of nutrient intake. All nutrients met or exceeded the RDA except for iron and calcium. Sixty percent of the nutrients came from Mexican-American foods. High-cost food plan users met or exceeded the RDA for all nutrients except calcium, thiamin, riboflavin and niacin, and had a lower usage of Mexican-American foods than the other cost plan groups. Both the medium cost plan users and those spending less than the low cost plan had intakes below RDA level for most nutrients.

Height-weight compared to percentage intake of Mexican-American foods showed obese respondents had a higher intake of Mexican-American foods than overweight or average weight respondents. Those foods provided a balanced diet. The additional American foods provided little else than calories. Overweight persons met or exceeded RDA recommendations for protein, but fell below the RDA for calories. Women in the average group received one-half of their nutrients from Mexican-American foods. The American foods included in the diet were mainly snack foods and increased caloric intake but added few other nutrients.

Nutrient intake on the basis of generation showed that both first and second generation Americans were below RDA intakes in calcium, iron, riboflavin, and niacin. First generation persons had low intakes in thiamin and food energy.

A shopping basket survey of two shopping centers showed that it was more costly to purchase food items in the Armourdale area than outside of the area.