

The Douglas Report:
The Community Context
of Housing and Social Problems

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Bureau of Ethnic Research
The University of Arizona
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Preface

The research on Douglas really began in the many discussions held between the directors and staffs of the Bureau of Ethnic Research, University of Arizona, and the locally based office of the Bureau of Community and Environmental Management, United States Public Health Service. Eventually a contract became available and was awarded for an "interior survey" devised to correlate internal with external housing conditions. The Bureau of Community and Environmental Management had conducted a 100 percent study of housing in Douglas to complement its studies in seven other border towns and desired a study from a socio-cultural point of view.

Near the end of the completion of this study, the Bureau of Community and Environmental Management was disbanded and the contract officer, Mr. Richard Reavis, and our other liaison, Dr. William Loring, left the Bureau. The responsibility for the Douglas contract was transferred to the Center for Disease Control, Department of Health, Education and Welfare. The Bureau of Ethnic Research never received official communication of this change and continued the research and analysis of materials through the assignment of new students. The goal of the project became a book instead of a report and Mr. Reavis and Dr. Loring were advised of this change. The project was also extended in terms of the scope of materials to be collected.

The original contract funding was exhausted during the research phase of the project; since that time the Bureau of Ethnic Research has more than

doubled its expected financial contribution to the project. Staff people were required to work on other projects as well as pursue their studies as graduate students, and so the work expanded to fit new goals and receded to accommodate available staff. Nevertheless, our commitment to Douglas, the Douglas study and to the topic continues. The following dissertation and professional papers have resulted from this commitment:

Bauwens, Eleanor

- 1974 Medical Decision-Making Among Lower Class Anglos of Douglas Arizona, Dissertation, Tucson, University of Arizona.

Downing, Theodore

- 1973 "The Lesson of the Three Little Pigs: Housing and Social Conditions in a Border Town." Paper presented at the 33rd Annual Meeting of the Society for Applied Anthropology, March 1974.

Hernandez, Jose

- 1973 "Demography of a Small U.S. Border Town." Presented at a professional meeting of demographers, Washington, D.C.

Weaver, Thomas

- 1973 "Conceptual and Technical Problems in Urban Anthropology," Presented at the Annual Meeting of the American Anthropological Association, Toronto, December 3, 1973.
- 1973 "Goals of the Douglas Project," at the Staff Meeting of the Department of Community Medicine, University of Arizona Medical School, March 23, 1973.
- 1973 "Cultural Ecology of a Border Town," Presented at the Second Arizona Conference on Rural Health, Tucson, Arizona, May 1, 1973.
- 1975 "Crime and Delinquency by Illegals in a Border Town," at the Mexican-United States Relations Conference, Tucson, Arizona, January 18, 1975.
- 1975 "Education in a Bicultural Community," to a class on Psychological and Cultural Factors in Education, Northwestern University, February 12, 1975.
- 1975 "Migration and Economic Activity: A Border Town Example," at the 34th Annual Meeting of the Society for Applied Anthropology, Amsterdam, The Netherlands, March 19-23, 1975.

The results of these papers have been incorporated into the report.
Dr. Bauwen's dissertation is available through interlibrary loan
from the University of Arizona library.

Acknowledgements

The final result of any project is composed of the work of many individuals. First, we would like to acknowledge the work of the members of the original research team, who, in addition to providing a sounding board for ideas, conducted the necessary research: Barbara Curran, Peteris Dajevskis, Ruth Gartell, Ron Giteck, Jose and Lilia Hernandez, Anna Bennett Howells, Carol Mudgett, David Ruppert, and Olivia Villegas. Also part of the original research team were Carol Margolis, computer programmer, Larry Manire, computer consultant; and Barry Gartell, staff photographer. Thomas Weaver was project director and Theodore Downing was in charge of data analysis. Our thanks to them as well as to Glee Hubbard, who although not a member of the original research team, helped to write the chapter on health. Secretaries on the original staff included, Grace Clark, Barbara Ketchum, Josephine Cento, and Beverly Modory. In addition, Anne Spencer and Barbara Gigstad helped in typing the final draft. Our thanks to all for their diligent work.

We would also like to thank those who helped on the various drafts of the report with comments and editing. Primary among these people is Carolyn Niethammer, whose excellent editorial work aided several drafts of the report. Anne Wright was responsible for seeing through all the details of the preparation of the final report. The comments and proof-reading of Teresa Fallon and Teresa Brice were most appreciated. The cover design for this report was done by Christine Conte.

We would particularly like to single out the help of Richard Reavis among those employed by the Bureau of Community and Environmental Management.

We thank him for his cooperation and that of his staff, especially Carlos Jury and Herbert Caudill Jr., who were most helpful. We would also like to thank William Loring, our other major liaison with the Bureau of Community and Environmental Management for suggestions and encouragement. Together the two Bureaus have shared many common interests and problems before and since the present study.

The major expression of gratitude must go to the people of Douglas; without their interest and hospitality this project would not have been possible. Of the many persons who helped us we feel we can only publicly thank Mayor Paul Huber Jr. and Chief of Police Joseph Borane. They cooperated with us to the fullest extent possible, but can not be held accountable for what we have written here. Others who were helpful in this study have our private thanks. Should they like what we have said and agree, we shall include their names here in future issues of this report.

Finally, in addition to those who participated directly in this project, there are a number of people who have helped analyze the data provided by the research team. Their secondary analyses may have influenced our thinking about certain aspects of Douglas. Primary among these is Dr. Eleanor Bauwens, who conducted research on the health of lower class Anglos in Douglas for a Ph.D. dissertation directed by Dr. Weaver. Nancy Corbin, Christine Conti and Gretchen Heimpel also made use of the Douglas data in their analyses of social organization and social mobility in border towns.

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Chapter 1

THE CULTURAL ECOLOGY OF A BORDER TOWN

Thomas Weaver

CHAPTER 1

THE CULTURAL ECOLOGY OF A BORDER TOWN

Thomas Weaver

Douglas, located in the extreme southeastern corner of Arizona, is like every other town, like many other towns and like no other town. One of the aims of this report is to view this community from a variety of perspectives. We will have occasion to discuss its history, economy, demography, family structure, education, health, housing, and numerous other characteristics. The most important problem concerns the relation of the physical environment of the town, its neighborhoods, and houses, to the social characteristics of their inhabitants. Employing the techniques of modern social science research and the combined energy of over a dozen researchers from numerous specialties, has resulted in a report which may be considered a mirror for Douglas residents and others to view and compare themselves to other towns and to their own past. We cannot guarantee, of course, that this view will be attractive. We can only guarantee that this represents the most accurate, honest scholarship of which we are capable.

The objective of the study, although circumscribed by contract requirements, was influenced by the particular research techniques and methodology of the research team. That is to say, the research contract appeared to ask a simple question, but when translated into action by a research team trained in anthropology, sociology and demography, the approach became more complex and the results emerged somewhat differently than expected. The problem posed by the locally based office of the Bureau of Community and

Environmental Management, a branch of the United States Public Health Service, was to correlate the social and demographic characteristics of Douglasites with their housing conditions. When translated into the methodology and research techniques of the behavioral sciences represented on the research team the question resulted in the need to do a complete community study. Neither housing, juvenile delinquency, welfare recipients, nor political behavior exist in a vacuum. They are related one to the other in an interminable, yet not solid chain of behavior throughout the local community and from the community to other places in the state, country, and even remote parts of the world. This means that a study of the community context of housing had to be conducted which would include such variables as economic condition, crime, educational standards, health, political behavior, voluntary association, history, the physical setting, and other such factors.

The Douglas Project conducted by the Bureau of Ethnic Research is basically concerned with the social and cultural correlates of housing. A contract with the United States Public Health Service matched by University funds provided the means for studying the community context of such social pathologies as juvenile delinquency and arrest rates, and their relationship to various demographic factors.

The Douglas Project is part two of an independent study (called NEEDS I) conducted by the Tucson-based Southwest Human Ecology Center, a branch of the Bureau of Community and Environmental Management under the Health Services and Mental Health Administration of the United States Public Health Service. One of their projects they are conducting involves the study of environment and health along the United States-Mexico border. The cities

they have been working in are Laredo, Del Rio, Eagle Pass, Douglas, Nogales, and Calexico. In addition, they have completed studies in Phoenix and Tucson.

The Southwest Human Ecology Center staff consists of sanitarians and engineers, who conduct a 100 percent survey of exterior housing conditions in cooperation with some local agency. For the first phase the U.S. Public Health Service uses a mark sensing form. The form is analyzed by computer with penalty points assigned for such housing conditions as walls, windows, doors, porches, stairs, foundations, roof, bathroom facilities, premise conditions, streets, water, environmental stress, natural deficiencies, shopping facilities, public transportation, parks and playgrounds, aircraft stresses, land use, rubbish and trash, abandoned automobiles, landscaping, pests and livestock.

Douglas is a community of approximately 13,500 persons located in southeastern Arizona about two hours drive from Tucson. It is part of Cochise County with a total population of some 61,000 people. The 1970 U.S. Census report indicates that 64.3 percent of the population claim Spanish as their mother tongue, 29.4 percent claim English, and 6.3 percent other. The major employer in Douglas is the Phelps-Dodge Corporation, which operates a smelter. Six hundred of the 4,176 families have a family member who works in the smelter. Increasing numbers of Douglasites are working for one of the industries being established under the Twin Cities Industrial Program. Many people work in various businesses which cater primarily to the Northern Mexico market. Others work in real estate, farming and cattle and in the developing tourism and retirement related occupations.

The Research Team

The research team consists of a project director and an assistant project director, who is a computer specialist. The eight research assistants were concerned with separate topics such as background and previous studies, political organization, health among lower class whites, juvenile delinquency and arrest rates, voluntary associations (primarily with discovering the services they provide for the community), family organization, education, and economic development. Two assistants acted as interviewer trainers and supervisors.

Two sociologist-demographers worked with vital statistics for death causes and fertility statistics to determine how they are related to particular regions in the city. They are also doing an analysis by enumeration district of U.S. Census materials which is more detailed than presently available through U.S. Census reports. Other staff members include a computer programmer, a keypunch operator, a photographer, two secretaries, and 15 resident volunteer interviewers.

Research Techniques

The research techniques used in this project include: demographic analysis, open-ended interviewing, participant observation, structured interview schedules, random sampling, and the use of newspapers and other public records.

A structured interview schedule was administered by resident interviewers and research staff in April, 1973. An interviewer training program was conducted in March, 1973. Our questionnaire includes questions on interior household conditions, household composition, ethnic identity, language, marital status, education, migration, health, attitudes and conditions of community health services, income and employment, monthly household expenses,

neighborhood conditions and services, local economy, associations and organizations, church membership and friendship patterns.

In terms of sampling techniques a ten percent sample was taken of the 21,000 police records available between 1961 and 1973. For the structured questionnaire we used a step sampling procedure on a stratified randomly drawn sample by household address relating to population size and type of housing as classified by the U.S. Public Health Service survey. Our initial sample was five percent of the 4,176 households (209 households). Data was gathered by address and in order to protect the anonymity of our respondents, the data was generalized to a sufficiently large unit so that individuals could not be identified.

The Theoretical Framework

The basic question to be answered by the research was: what are the social, cultural, and economic correlates and effects of different kinds of housing? Specifically what are the social pathologies or social problems correlated with housing? This usually assumes a middle class bias, namely that the good guys live in nice houses and the bad guys live or come from poor housing. We forget too easily that white collar crime and hard drugs present more of a problem to the foothills than to the barrio. The fact is we are not certain what the correlations are between housing and social pathologies. We intended to find this out by making various cross correlations of data gathered in Douglas.

It would be difficult to identify an encompassing theory which can be used to guide our research in the Douglas project. Our basic approach

involves using the principles which underlie anthropology and sociology. I refer to the use of a holistic framework, which states that some things are functionally connected to other things, so that for example, housing conditions or health problems do not operate in a social vacuum but are related to political organization, ethnic and other social characteristics. Holism involves the notion that changes or conditions in some areas of life are related to changes or conditions in other areas. This is related to the premise that you can not look at health or housing without looking at their linked variables. That is why we are looking at the community context of social pathologies.

One of our goals is to identify certain types of families in the community through demography and interviewing, such as female-headed households, single-parent households, extended households with one grandparent, nuclear family households or single person households. The task is to establish correlations between a particular type of family and such pathologies as juvenile delinquency, alcoholism, health conditions and others. Key families could then be identified in terms of welfare or other needs, and special programs recommended for these target populations.

The type of study referred to in the paragraph above has been dealt with in research on multi-problem families and has been called the clustering of socio-cultural liabilities. Clustering refers to the fact well known to professional health and welfare workers, that human problems can set up a vicious circle within individuals and family groups -- the presence of one problem may lead to other problems. Straus has discussed this problem in several articles and lectures as:

. . . the tendency of many forms of human pathology to occur in clusters. This is seen in the frequency with which congenital anomalies occur in multiple form. It is accepted procedure for a physician who observes an anomaly in a newborn infant to conduct a rigorous examination for other possible signs of defect or malformation, and more often than not these will be found. The "clustering principle" is seen when trauma affecting one of the major body systems is accompanied or followed by involvement of other systems. Studies of social pathology have clearly demonstrated the clustering of such problems as poverty, unemployment, undereducation, residential mobility, inadequate housing, delinquency and crime, marital incompatibility, divorce, alcoholism, mental illness and poor health. Within families, a serious illness or behavioral problem in one member invariably is reflected in the health and well-being of the entire family unit. (Straus, 1968:1)

Another example is provided by a study of 41,000 families under care of agencies in St. Paul, Minnesota in 1948. Of this group 6,466 or six percent of all families in the community were identified as multi-problem families.

Over 5000 families were dependent; in over 5000 there was evidence of serious maladjustment; in nearly 5000, serious ill-health. In more than one-third, person were chronically handicapped; in nearly one-third, there was an official record of antisocial behavior on the part of one or more family members; mentally defective persons were found in about one-fifth. Caseworkers reported persons who were failing to meet major social responsibilities in 40 percent.

Over one-third of the mentally defective persons in this group of multi-problem families were heads of families, as were a quarter of those who exhibited antisocial behavior. Altogether nearly half the persons with reported behavior disorders were at least titular heads of families. In this group of 6466 families there were 1940 persons with both behavior disorders and physical illness, and half of these were family heads. (Buell and Associate, 1952)

The idea that things are differentially utilized and distributed in a community and that class and social differentiation exist in use of and access to services and with respect to the differential presence of social pathologies are general statements referring to the notion of cultural ecology. The term cultural ecology has achieved wide use among a number of behavioral scientists; political scientists, cultural geographers, sociologists, and anthropologists use variants of the term and concept.

At the outset of his study Bennett states that "ecology" has two meanings. Used in the anthropological sense developed by Steward cultural ecology refers to:

. . .the study of how human utilization of nature influences and is influenced by social organization and cultural values. . . More specifically, the cultural ecological approach in this book is concerned with the study of interrelationships between population, culturally styled needs and wants, the division of labor, technology and methods of production, and the ways of dividing natural resources among those who need and use them.
(Bennett, 1969:10-11)

In a sense the approach delineated by Bennett is just another way of stating what twentieth century anthropologists have set as their goal in the study of primitive and peasant societies. The major difference is that Bennett applies the approach to modern society. In the cultural ecological approach, taken from the perspective of the adaptation or adaptive behavior,

.....we refer to coping mechanisms or ways of dealing with people and resources in order to attain goals and solve problems. Our emphasis here is not on relationships between institutions, groups, or aggregates of data, but on patterns of behavior: problem-solving, decision-making, consuming or not consuming, inventing, innovating, migrating, staying. (Ibid.)

By focusing on adaptation, Bennett is concerned with the process of coping with resources in order to realize goals and by so coping, creating new goals or problems to solve. In this use, then, adaptation can be divided into two parts:

. . .first, the notion of adaptive strategies, or the patterns formed by the many separate adjustments that people devise in order to obtain and use resources and to solve the immediate problems confronting them; second, the idea of adaptive process, or the changes introduced over relatively long periods of time by the repeated use of such strategies or the making of many adjustments. (Ibid.:14)

Bennett then points out that adaptive strategies are generally at the conscious level in the behavior of the people involved, and that adaptive processes are formulated by observers and analysts. Another way of saying the same things is that adaptive strategies exist at the emic level, whereas adaptive processes are etic formulations.

Using this terminology, adaptive strategies taken by Douglasites in coping with their environment include migration, dropping out of school, acculturation and assimilation, working at the Phelps-Dodge smelter, attending Cochise College, working after school, and others.

Four Characteristics of Douglas

Certain cultural characteristics loom large in affecting life in the Douglas area and give it a specific distinctiveness. We

refer to a series of underlying factors which in the long run may provide predictive value for Douglas and similar communities. Douglas may be characterized by four different phases: 1) a one-company town, 2) a border town, 3) a small town, and 4) a multi-ethnic community. We are concerned about what factors in the city explain why the city is the way it is. Is it because it is small, because it lies on the U.S.-Mexico border, because it was originally established by a single company, or because of its multi-ethnic composition? In a way the city suffers from problems of all small towns, all border towns, all one-company towns and all multi-ethnic communities. In what follows, the social and cultural variables which relate to these four characteristics are outlined and discussed.

Characteristics of a One-company Town

About 1905 Phelps-Dodge decided to locate a smelter where Douglas now stands. They bought up the land, set up streets, and started leasing, carefully deciding what businesses and enterprises best suited the company. Up until only a few years ago there were no shopping centers or businesses other than Phelps-Dodge.

Today, Douglas suffers from the fact that it has been a one-company town. For example, it has inordinately wide streets originally mapped by Phelps-Dodge. Why? Because they wanted to be able to turn a 20-mule team around in the middle of the street. It makes the city look open and interesting; however, the problem presented is that these streets must be paved, maintained, and curbs and gutters must be constructed at taxpayers' expense. The city is spending an inordinate amount of money maintaining its inordinately great number of wide streets.

A recent study suggested they reduce the number and size of these streets and prohibit independent construction of curb and gutter at varying home owner specifications. They were also advised to convert some streets into main thoroughfares.

There are other factors related to a one-company town that impinge on this community. The environment and pollution standards set at the national and state levels affect Douglas. Phelps-Dodge has had an open smelter for processing different grades of copper ore, and a single pollution control standard cannot be imposed on such a multi-purpose operation. A result is that the smelter may be closed. Six-hundred people out of 4,776 families work at the Phelps-Dodge smelter, involving a payroll of about \$6-9 million a year which is redistributed in the community in rent, house payments, car payments, groceries, and so on. Local people believe they can recuperate from the loss of Phelps-Dodge in a few years because they have border city industries to replace some of the expected loss in income. However, employees at Phelps-Dodge make an average of \$9,500.00 a year. The minimum wage for twin cities industry is \$1.60 per hour on the Douglas side of the border, and mostly women are employed.

Phelps-Dodge is building a smelter 90 miles northeast of Douglas in Animus, New Mexico, which is more centrally located to their future operations. They have purchased land and are planning another town. Phelps-Dodge has planned new electronically automated equipment at the plant in Animus. The main problem is that Phelps-Dodge keeps assuring the citizenry it will not leave. Despite what Phelps-Dodge is saying, people realize that it is going to move. It is not that Phelps-Dodge

plans to move that bothers people, because the workers may commute for several years from Douglas to Animus as they now commute to Tucson, Sierra Vista and other places; it is the uncertainty of what Phelps-Dodge will do that bothers them.

The copper mine at Bisbee, from which Douglas derives most of its smelting ore has drastically reduced production in recent years. Another source of copper is Pima County, where a new pollution free, chemically based smelter is being constructed, and people assume that all Pima copper now coming to Douglas will be sent to the Pima smelter.

They are also faced with the fact that Phelps-Dodge has supported local library, which it recently turned over to the city, making it eligible for municipal improvement grants. Phelps-Dodge also has a local hospital and health clinic, and many doctors in town work for the clinic on a part-time basis at least. The fact that Phelps-Dodge is the biggest employer in the area makes its influence heavily felt in economy and politics.

How does the company continue to enforce its authority over a long period of time? A one-company town goes through a certain series of steps. At the beginning Phelps-Dodge leaned on the local people. They were very strict about who could establish or compete in business, who could set up markets and what could be done with land. For example, a couple who owned a small grocery store about 30 years ago were told by Phelps-Dodge that they could not sell day old bread at a reduced rate because it was bad for their business.

The company had certain restrictive covenants written into the leases on all the land, which specified that when the land ceased to be used as

originally intended, it reverted back to Phelps-Dodge. The local government was thus hindered in establishing industries along the border because of these restrictions.

The company began to lose power gradually. A union was organized and wages were raised. New businesses began to pressure and compete with the company store. Safeway established a local branch and because it was a national chain store, Phelps-Dodge could not keep it out the way they had the small stores. Safeway, however, set prices at the same rate as Phelps-Dodge mercantile. But then Bayless, also a national chain, came in with cheaper prices and established a competitive base which has had a salubrious effect on local economy.

Change has been taking place gradually. Phelps-Dodge does not employ all people in the city, but it still remains a major economic and political influence. Other examples of how the Phelps-Dodge flag is being carried by other than Phelps-Dodge administrators or officers is demonstrated by the split between the younger and the older people. The younger people are aware of the effects of pollution and argue with their parents. Parents have worked at Phelps-Dodge and have been raised with pollution and do not see it as a problem. Local gossip is that respiratory illnesses are not listed as cause of death because the doctors are on the Phelps-Dodge payroll.

Today, people feel very defensive about Phelps-Dodge. They say the smog is not that bad and point out the value of Phelps-Dodge for the community. "When we are on strike, they allow us to charge at the store, even though the prices are high." Workers and politicians have joined in support of Phelps-Dodge. The Steel Workers Union petitioned the

Pollution Control Board to reduce its demand on pollution controls and cease trying to close down Phelps-Dodge because "it's really good for the community." Phelps-Dodge, thus, no longer has to be coercive because many people have cathected their values in favor of Phelps-Dodge through generations of association. The analogy we are making is between political systems theory and one-company towns. The company no longer has to maintain control directly; it can now tolerate criticism in the newspapers and allow freedom in changing educational and other systems.

Douglas as a Border Town

Douglas is not a self-sustaining, independent, isolated community. Its economy, politics and welfare are closely tied to the rest of the county, the state and the nation, but especially to its sister border town, Agua Prieta with 30,000 people on the Mexican side of the border. The streets in Douglas continue on the other side only separated by a wire fence which is only two or three miles long.

Douglas and Agua Prieta are intimately tied together at every level, socially, physically, culturally, and economically. Leaders in Douglas are close friends of the leaders in Agua Prieta. The social classes are linked through social interactions and intermarriages. The advent of the twin cities industrial program has induced greater cooperation between them. Mexican Americans have relatives and friends in many cities of the state of Sonora. There is constant visiting and exchange between them at the familial level. The upper class elite Mexicans have their upper class elite American friends on this side of the border. They hunt together and attend social events together. A Mexican political event requires ceremonial participation by the American politicians and vice versa.

The parks in Douglas welcome Mexicans at any time. Most services in the city are open to the Mexican citizens of Agua Prieta, and vice versa. Recently a Two Flag Ceremony and an Art Festival were conducted and the activities were divided between the two cities. Mexican children are sent to school on the American side by paying tuition and many Mexican Americans send their children to school in Agua Prieta.

They are tied economically at all levels. Douglas is a shopping center for Northern Mexico. The people in Douglas are geared to stocking the kinds of things that Mexicans want to purchase. Douglas has open street sales, and a constant stream of Mexicans move across the border with pick-ups loaded with merchandise purchased on the American side. On November 15 the Mexican border was closed because they did not want Mexicans spending money on this side for Christmas shopping. The stores in Douglas began their Christmas sales on September 1, and they had record breaking sales every day. Even after November 15, it was simple to pay the guard a five dollar "tax" to cross the border with a pick-up full of commodities.

American cattle buyers purchase cattle in Mexico and bring them to their feed lots, and later sell them for a sizeable profit. As a result Agua Prietians must buy meat on the American side because the Mexican ranchers have sold their meat to the Americans, depleting local supplies, and raising local meat prices. Other services, such as houses of prostitution and the drug traffic exist in Agua Prieta and Douglas. Although seldom mentioned publicly, this must be counted as an economic resource and tie between the two cities.

What does Agua Prieta offer Douglas? There are few good restaurants, bars, or nightclubs in Douglas. The nightclubs, steak houses and restaurants in Agua Prieta serve a total population of about 45,000. Ornamental iron work, pottery planters, picture frames, lamp fixtures, liquor, pastries, and other things can be purchased cheaply in Agua Prieta.

What about labor? Formerly one could get an all day maid for very little from Mexico. Now the Douglas people are complaining because maids are not available as they were before, because the twin cities businesses employ Agua Prieta people, who can earn better wages without commuting. The unemployment rate is very low in Agua Prieta today because of the twin cities industrial program. They have probably profited more from it than Douglas has, although Douglas has done well.

Douglas as a Small Town

What are the problems involved in being a small town? First, a paranoia of big towns exists. They think that Tucson and Phoenix are big city competitors and the politicians and professors of the universities have unfair advantages compared to Douglas. There is a lack of local demographic information and expertise characteristic of other small towns. For example they know that grants are available, but they lack the experience or personnel to write proposals. They are limited by their own world of experiences.

Douglas as a Multi-ethnic Community

The community is from 65 to 70 percent Mexican American. Up until the last ten years Mexican Americans were almost completely powerless in the community. They are what could be categorized as a recycling

first and second generation Mexican American population, with the third, fourth, or fifth generations moving away. A constant replenishment of the first and second generation occurs with a constant cultural feedback from Mexico. This creates language difficulties, over age children in each grade, and other cultural problems, with the contingent prejudice.

Up until about 10 or 12 years ago there were no Mexican American members on the city council, now there are two or three. Up until recently they had also succeeded in acquiring a majority on the school board, with five out of nine Mexican American members. Since then two have lost elections and now there are three Mexican American members on the school board. A Mexican American is now director of finance for the school district. Another is the director of the Department of Public Works. There is one Mexican American principal out of eight schools, and some Mexican American teachers. Until about ten years ago political power was completely in the hands of the Anglos, even though the Anglos were a numerical minority in the city.

Mexican Americans are upset because industrial plants are creeping in on the barrio. The location of an industrial park in some other part of the city requires that sewer, light and water facilities must be constructed. The easiest way is to displace an area where these facilities are available, such as the barrio, but political leaders deny these allegations.

The chapters which follow have attempted to use the scheme and theoretical approaches provided in this chapter as guides for research and analyses.

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Chapter 2

HISTORY AND BACKGROUND

David Ruppert

CHAPTER 2

HISTORY AND BACKGROUND

Dave Ruppert

There are few people in the Southwest who observe things closely enough to realize how prosperous Douglas is, how fast it is growing and how much the vast mineral and agricultural country tributary to Douglas is filling up with people and developing. When one starts out to gather statistics as to the rapid progress made by Douglas in various lines he is astonished . . . The improvements and industries coming to Douglas during 1903 will be double those of 1902, and judging from the number of people arriving daily, and the way in which they are investing in Douglas, leads all to believe that the line city will certainly eventually become a second Denver.

(Douglas Dispatch 1903)

It is easy to understand why early visionaries felt Douglas would become a "second Denver." The early townsite had been nothing more than the scene for round-ups by local cowboys. As early plans were made the city began modestly as a few tents on the eastern edge of the Sulfur Springs Valley along the U.S.-Mexican border. But once these plans were realized, the tents gave way to brick buildings, dusty cattle trails turned into wide city streets, noisy saloons replaced the evening campfires, and most important, the surrounding sagebrush was supplanted by the city's future mainstay -- the giant copper smelters. These smelters and the jobs they provided generated an enthusiasm unmatched in the territory; an enthusiasm which led many to believe that Douglas was, indeed, becoming a second Denver.

The Early Years

Douglas was founded in 1901 by men who foresaw the prosperous future of the mining industry in Southern Arizona and Northern Sonora. The rich copper ores in Bisbee and Nacozari were already being mined when James Douglas, John Slaughter, William H. Brophy, S. W. Clawson, and others (Jeffrey, 1951:6) rode down from Bisbee's Mule Mountains to stake out a new city; a city which would, they hoped, provide labor for what would be the largest and most modern reduction works in the world at that time. The smelting operations in Bisbee, the location of major mining operations, were too small to handle the increasing load of rich ores. This increase of ore from the Bisbee mines, and the Phelps-Dodge acquisition and development of new mining properties at Nacozari, Sonora, demanded a new convenient site for larger, more profitable smelter operations.

A short time later, James Douglas and his partners formed the International Land and Improvement Company and quickly laid out plans for an entire town. Plans were made for water plants, ice plants, electric and gas works, streets wide enough to turn a twenty mule team, and a breakdown of the land into saleable plots. Douglas was a planned city from its very beginning, planned by men who knew exactly what they wanted the town to be -- a smelter town. This careful planning was, perhaps, one of the earliest distinguishing characteristics of Douglas. Early settlers of Douglas may have had it a little rough but they could look in confidence to the plans for the city and the seemingly well organized development program envisioned by its founders.

This early planning paid off. In Douglas' early years people arrived in large numbers. Land was sold quickly while homes and stores appeared

overnight. Reliable work and the accompanying regular salaries from the first smelter in town, the Calumet-Arizona, along with rumors of additional smelter investments by Phelps-Dodge, encouraged rapid settlement of the town.

With the seemingly endless ore supplies rolling in from the mines in southern Arizona and northern Sonora and with almost complete assurance that major mining companies would build smelters near the new townsite, Douglas grew with a vengeance. The initial population of four to five hundred in 1901 mushroomed to 3,500 by November of 1902 (Douglas Dispatch, November 15, 1902). By 1903 five hundred and sixty miles of railroad track had been laid to give Douglas access to the mines and points north and east. The previous twelve months had seen the erection of 1,526 new homes, including small shacks as well as substantial houses, and 322 homes were in the process of being built (Douglas Dispatch, February, 1903).

There was every reason for the early unbridled optimism to grow with the town's population. The city's future seemed bright, investments grew and people poured into the area. For those who saw the city grow so rapidly, saw it prosper so quickly, there was good reason to see Douglas turning into a "second Denver." The town's expanding business and the feeling of optimistic fervor is expressed in the following yearly editorial summary which appeared in the Douglas Dispatch in December of 1902:

[In the beginning]. . . not more than 500 people comprised the little tent city upon the International line - a town that would hardly exceed the town of Agua Prieta, a dozen inhabitants in number.

Those who left Douglas on the first day of 1902 on a freight train or staged it out will return in 1903 in a palace car enjoying as superb service as any in the entire west . . .

Nowhere in the history of the United States can we find a town that has grown into a city of substantial bricks having a population of the present size in so short a time.

(Douglas Dispatch, December, 1902)

In these early years Douglas residents were primarily laborers who sought work in the reduction works. People were drawn to the town by the prospect of jobs offered at the new smelter, and by the substantial rumors that Phelps-Dodge was definitely planning to invest in a larger reduction plant near the townsite. The 1904 Douglas City Directory may give some indication of the massive role the smelters played early in the town's history. Thirty percent of all entries in the directory were listed as "smelter laborers." An additional 22 percent were listed under the general category of "laborer."¹ No doubt many of these laborers were smelter laborers as well. The remaining workers were no doubt involved in construction of both the smelter works and the many new homes and buildings in town which, in turn, owed their existence to the presence of the smelters. The combined occupations of "laborer," "construction laborer" and "smelter laborer" accounted for 60 percent of the young city's work force. In short, the city of Douglas was turning into what its founders had hoped it would be -- a town that would provide an adequate labor force to meet the increasing smelting needs of the Bisbee and northern Sonora area.

At times the optimism in Douglas' future was tempered with concern. For some the town was growing too fast; some citizens were afraid that Douglas' phenomenal growth heralded the beginnings of a boom town. Southern Arizona had seen its share of boom towns, especially those in the mining industry. Too many of them had already failed and others were making that deadly transition from boom town to ghost town. No doubt Tombstone's problems at that time were looked upon by early Douglas residents as problems to avoid.

This concern over Douglas' accelerating growth generated a quiet but concerted effort by some citizens to deliberately play down any unusual aspects of the young city's growth. To suggest that Douglas was booming (as had other towns associated with mining concerns) meant that Douglas was headed down the trail taken by other small but fast growing towns. While there was pride in Douglas' growth there can be no doubt that there was also an effort to deny the boom town aspects of that growth. A 1903 newspaper editorial expresses this clearly.

. . . The rapid growth of the line city within the past twelve months has truly been phenomenal, and yet you cannot find a single man in Douglas who will say that his town had a boom. It has been a steady continuous growth, and by no means unnatural in any way . . .

(Douglas Dispatch, January 10, 1903)

A year later this effort to downplay some aspects of the city's rapid growth was recognized by outsiders. The first Douglas City Directory appeared in 1904. In the introduction of this Directory the publishers cautioned that the city tended to diminish its own rapid growth by providing estimates far below the actual population count.

The strange anomaly presents itself here of a community that refuses to acknowledge that it is as large in point of population as a careful examination reveals to be the fact; the usual tendency is quite the other way. The most sanguine local estimate of population do not exceed 5000, while the majority place the figure at about 4000. Publishers find that Douglas' population is 6800.

(City Directory, 1904:1)

The fear that Douglas was merely another boom town may have, at that time, been well founded. The town was beginning to exhibit problems, problems that no doubt existed in boom towns around the territory.

Ironically, the earth that yielded the rich copper ores also produced a major health problem. Dust from the heavily travelled dirt streets made it impossible for doctors to operate during the day when the rising dust made Douglas appear as if it was shrouded in a dense modern smog. A lung disease, related to the thick dust in the air, created a serious public health hazard.

With the dust came a thirst, and with thirst came saloons -- and lots of them. The many saloons in town were run by men "who'd plenty notches on their guns" and many of the customers were all "just plain poison" (Rynning, in Jeffrey, 1951). The dust created a serious public health problem, and the many saloons, thirsty cowboys and assorted desperados posed law enforcement difficulties. Dunke notes (1948:287) that "the Cattle Exchange, the Waldorf and the White Horse [Douglas establishments] may not have been as accustomed to the smell of powder as were the Oriental and the Crystal Palace in Tombstone, just a few miles away, but they were correspondingly tough."

The dust problem was partially solved by oiling the streets. Tucson newspapers reported success in keeping the dust down in this manner and Douglas was willing to try anything. The law enforcement problem was harder to solve. The Arizona Rangers, a tough group of lawmen from Bisbee, moved their headquarters from Bisbee's Brewery Gulch to Douglas (Jeffrey, 1951:37). Captain Rynning, the rangers' leader, initially found resistance to his efforts to increase law and order, but it did not take him long to provide the town with some rough and tumble law enforcement. Rynning comments on his own job in the following way:

. . . Right away we got busy and cleaned up the town. Told every killer and bad man who didn't have a good excuse to be in Douglas to get out and get out quick . . .

I forget how many more we made hit the grit, but we got rid of the worst of them . . . and the town begun to be part-way safe for other people besides murderers and thieves.

(Jeffrey, 1951:40)

In summary, Douglas' early years can be seen as a period of rapid growth -- a rapid growth accompanied by careful initial planning by its founders and an unbridled enthusiasm by its early settlers. In turn, this phenomenal growth gave some cause for concern. The fear that Douglas was merely a boom town came to light as a subtle underlying theme in those early years. Most important of all, Douglas was becoming what its founders had hoped it would be -- a smelter town that would grow under the tutelage of the mining and smelting industry.

Jeffrey (1951:50) draws two important conclusions from Douglas' early years. First, the early population of Douglas displayed an inspiring ability to meet problems head on. The citizens seemed undaunted by the city's early problems and continually showed a willingness to see Douglas through hard times. Second, the city in 1951 enjoyed the results of that early optimism and willingness to solve its problems. "The town today enjoys the fruits of earlier struggles against the poor conditions of health and educational facilities and an early willingness to plan and proceed with the establishment of a regularly organized city government" (Jeffrey, 1951:50).

A third and equally important conclusion can be added. The fear that Douglas was on its way to becoming a typical boom town was derived from three factors: 1) that the town was solely dependent upon the

mining industry in those early years, that 2) other small towns with an economy based on the mining industry had already folded or were in the process of folding and 3) that Douglas' phenomenal growth in those early years seemed to dangerously mimic the development of these towns. A combination of these three factors suggests that there was an obvious attempt to learn from the errors other towns had made. There seemed to have been a conscious effort to look beyond the city limits to learn what to avoid and to actively take steps to turn the city in a positive direction.



Problem Years

From 1901 through 1906 the city's growth continued unhampered. A population peak of 12,000 was reached in early 1907, an estimate based on that year's City Directory. This figure may be a bit high but it certainly was an indication that the pattern of growth Douglas enjoyed in its first few years was continuing.

The year 1907 not only ushered in a peak in the city's population, but it also brought an economic panic. A national recession set in, commonly referred to as the Panic of 1907. Wholesale prices took a plunge and people began to lose jobs. The price of copper dropped which, of course, directly affected Douglas and other mining and smelting towns in the area. The most immediate effect for Douglas was a curtailment of smelting operations and the inevitable loss of jobs. Bisbee cut back on its mining operations while the Cananea mines shut down completely leaving over 4000 persons unemployed (Douglas Dispatch, October 26, 1907). Labor disputes in Bisbee resulted in walkouts and, in turn, drastically cut the amount of ore processed by the Douglas smelters. Both the Copper Queen and the Calumet and Arizona smelters reduced wages (Cleland, 1952:170). For the first time, Douglas felt the degree to which it was directly dependent upon the mining industry.

As a consequence of this curtailment in activity, Douglas' population dropped. At best, growth simply stopped. The 1910 census showed a population figure of 6,437, a figure below the 1904 City Directory estimate of 6,800 and far below the 1907 estimate of 12,000. Although the local newspapers played down the effect of the Panic on Douglas and

Dunke (1948) claims that by 1910 the city had recovered completely, the economic slump of 1907 marked a change in Douglas' growth patterns which would take a half century to correct. Douglas did begin to grow again a few years later, but this panic was just the first among many problems Douglas was to face in the years ahead.

The Panic of 1907 was not the only major event to halt Douglas' growth. Proximity to the border of northern Sonora was to affect the city as profoundly as any economic event. Agua Prieta, Douglas' sister city on the Mexican side of the border, became intimately caught up in the Mexican revolutionary war. Trouble began in 1911 when rebel forces, opposing the dictatorship of Porfirio Diaz, began to use Agua Prieta's location on the United States border for shipments of supplies and arms. United States troops were sent to Douglas as a precautionary measure to insure that the fighting on the Mexican side of the border did not spread into Douglas (Jeffrey, 1951).

These developments were particularly unfortunate for Douglas. Just as everyone was beginning to see an end to the troubles of the financial slump of 1907, the border caused new problems equally as serious. Stung by the panic and looking for some kind of economic diversification after the temporary failure of the mining industry, the city began to play up its location on the border and sought to advertise itself as the "Gateway to Sonora." The hostilities came at a bad time. Developments on the Sonora side of the border no doubt discouraged tourists and travelers from entering Mexico through Douglas.

The Mexican civil strife also caused some problems for the rich copper properties in Sonora. Nevertheless, the local smelters continued to increase the processing of ore and ore concentrates. By 1913 the two reduction plants in Douglas were handling "nearly half of Arizona's copper ore output" (Dumke, 1948:294). Building resumed once again and the town began to expand. Dumke (1948) reports that by 1913 the population reached 13,000, a figure which was double the 1910 census figure. Though Dumke does not document this figure, it seems reasonable in light of the fact that the 1914 City Directory listed more than 5000 household entries.²

Douglas appeared to be growing once again, in spite of the border problems. Agua Prieta's population also grew. The Sonoran city's growth was due primarily to rural Sonorans who sought protection from the civil war. No doubt the jump in Douglas' population at this time was in part a result of an increasing number of Mexican citizens entering the United States to escape the war and its problems. But this was not the only factor at work to cause a rise in Douglas' population; as already mentioned, the army had stationed men in Douglas for security reasons and the increase in ore processing at the smelters stimulated building and encouraged people to seek work in Douglas.

In 1914, as Douglas was getting back on its feet and returning to its rapid growth pattern, war broke out in Europe. The copper market took a predictable plunge and for a time the economic situation began to look dangerously like the Panic of 1907. Once again the local smelters curtailed processing and mines began to close (Dumke, 1948:294-295).

This slump lasted only a short while. Demand for copper grew with the hostilities in Europe. The price of copper rose sharply. Consequently, the mines were once again busy and the smelters were at peak production. Douglas' population grew to 15,000, a figure never again reached. In short, the Great War in Europe brought a measure of prosperity to the American mining industry and, as a consequence, to Douglas as well.

The prosperity was short lived. By the end of 1917 the labor union movement had arrived in Bisbee (Cleland, 1952:178). Problems soon broke out between those opposed to unionization and those favoring the Metal Mine Worker's Industrial Union. Strikes in Bisbee caused half of the work force to remain at home. Some violence broke out at the Bisbee mines which did not encourage a return to work for either side of the dispute.

While the labor dispute dragged on the war in Europe was coming to an end. When the war finally ended the price of copper dropped causing a mild post-war depression in the mining industry. In the few months following the war ".... Phelps Dodge, like other major companies, was compelled to cut its output even below prewar levels. From a high of 186 million pounds in 1918, its production was reduced by nearly one half in 1920 and fell to less than twenty-two million pounds the year following" (Cleland, 1952:199). Business in Douglas was so bad in 1922 that it dropped off 75 percent from the peak in 1918 (Dumke, 1948:296).

Douglas was once again feeling its great dependence upon the smelters. Business in town dropped with the copper prices and the city's growth simply stopped. Things became so depressed in the copper

industry that Phelps-Dodge closed the Copper Queen smelter for nearly a year in 1922 and 1923. The Douglas population figures changed the only way they could -- they dropped. The 1923 City Directory listed a little over three thousand entries (i.e. estimated 7,500 persons). This was a one-third drop from the five thousand entries in 1918. Census figures show a decline in population from 1920 to 1930 but this decline was only 0.9 percent. It should be mentioned here that the ten year intervals measured by the census may be too large. Though there was only a 0.9 percent decline in figures between 1920 and 1930 the actual fluctuations in Douglas' population may have been far more severe during the decade than the census count indicates. But no matter how one reads these figures it is clear that Douglas was economically depressed for a good many years after the war in Europe.

But Douglas' problems were only beginning. The financial panic of 1929 swept the nation and brought catastrophic results for the Douglas copper smelters. Copper prices dropped from eighteen cents a pound in 1929 to five and one-half cents in 1930. The following year Phelps-Dodge cut its operations to only 26 percent of capacity (Dumke, 1948:296). Unlike the 1907 panic the situation grew worse instead of better. By 1932 copper prices dropped to a staggering low of 4.8 cents a pound. Two additional situations provided an even more threatening atmosphere, at least for Phelps-Dodge: 1) domestic copper was feeling the pressure of low-cost mining operations in Africa and South America and 2) new, rich copper bodies were becoming very hard to find. There seemed to be

no new Copper Queens or Pilares de Nacozari to keep Phelps Dodge on top of the market (Cleland, 1952:226-227).

In 1931 Phelps-Dodge sought to consolidate its strengths and expand its interests to absorb its initial early losses in the depression. The company badly needed new mineral deposits and saw a merger with the Calumet and Arizona properties as one way to obtain new properties and increase its production. This merger marked the end for the Calumet and Arizona Company, including their smelting operation in Douglas. This meant, of course, an end to the many jobs this smelter provided for the citizens of Douglas.

Cleland suggests (1952:235) that Douglas, throughout its history can be seen as an infallible measure of the success or failure of the mining industry in Arizona. The mining industry was not doing well during the depression. Prices plunged and companies folded. Especially important for Douglas, the Nacozari mines shut down and remained closed until the price of copper rose a few years later. Douglas responded as one could predict it would at that time. The city displayed as much as an 80 percent drop in business from 1929 to 1931. (Cleland, 1952:235).

After the Calumet and Arizona merger, Douglas was not only a one industry town but also a one company town. In losing one smelter the city became solely dependent upon the Phelps-Dodge operations. Its citizens should have, perhaps, considered themselves very lucky that the company remained and was resourceful enough to keep its doors open throughout the depression. The company's able leadership took bold actions to protect domestic mining concerns which directly protected Douglas from what may have been complete collapse.

Due to the company's efforts to stabilize the copper market, conditions improved for Douglas near the end of the 1930's. By 1937 improvements were underway on the smelter and Phelps-Dodge decided to reopen its Nacozari mines that had been closed since mid-1931. Improvements and construction continued for the next few years. But as Jeffrey notes (1951:121) Douglas would "...probably never again enjoy the huge smelter payrolls of bygone days. While these improvements and investments by Phelps-Dodge were signs of economic health that would see the city through the depression, they were also signs that technology was replacing manpower. The signs were clear; the smelter simply would not need the large number of workers it once had in the past.

The depression years took their toll. The 1940 census enumerates a population of 8,623. This is approximately 12 percent less than the 1930 count of 9,828. Perhaps many of the people who lost their jobs in the merger simply left town in search of jobs elsewhere. The job situation picked up when Phelps-Dodge began to make improvements on the smelter, but World War II and additional problems were just around the corner.

Jeffrey claims (1951:121) that the Second World War did not bring a great change in Douglas' economic situation, although it did create an increase in the demand for copper. War time labor shortages kept smelter production low. Also, the mineral deposits in the Bisbee mines were being depleted. Douglas' importance dropped in proportion to the increasing emphasis placed on Morenci and Ajo, Phelps-Dodge's newer mining districts. The purchase of these newer properties at Ajo and Morenci provided the company with a far more reliable source of ore which could be extracted at lower cost.

An end to Douglas' "problem years" seemed long in coming. When the industry had serious problems, the city experienced serious problems. But the city learned some vital lessons from these problem years; the lessons were that dependency upon one industry and one company was essentially unhealthy and that positive steps should be taken to diversify its **interests**.

Recent Years: New Directions

As the city was learning that its dependency on one industry should be lessened internal problems began to take precedence over external problems. That is, before 1945 the city was buffeted about by external matters (e.g. two world wars, national recession, Mexican wars, etc.). Now the city found regional and internal matters equally important. The first of these internal affairs concerned labor relations.

The formation of the union brought some changes in labor relations at the smelter. The first strike occurred in 1946 and brought the reduction works to a halt for three and one half months. The amount of metal bearing ore usually handled by the smelter dropped considerably. The reason for the strike was simple -- higher wages. The dispute centered around the fact that the federal government had not lifted the price ceiling on copper and laborers were demanding money for their work. As soon as the ceiling was lifted the strike was settled and the strikers returned to work.

Douglas' decision to diversify its interests occurred when the mining industry was exhibiting problems. The importance of the Ajo and Morenci mines increased after the war. The Bisbee mine closure in 1953 and 1954 had its effect on Douglas employment as did the 1953 closure of Fort Huachuca. Douglas citizens had gained employment at the Fort after the war and the closure of the Fort put the Douglas commuters out of work. McCleneghan notes (1957:6) that there was a reduction in cotton acreage allocation during the same period which "brought about declines not only in these fields but in the supporting ones of construction, services, wholesale and retail trades and government work."

Things began to look up when in 1954 the Fort reopened to house the military's Electronic Proving Grounds. A rise in employment and commuter figures between Douglas and the Fort suggests that the Fort was becoming a stable source of employment for Douglas citizens (McCleneghan, 1957).

Agricultural activity picked up after the war and became one of Douglas' primary sources of employment. The major crop was cotton while smaller yields included grains, alfalfa, vegetables and hay. Cattle, always important in the Sulfer Springs Valley, became increasingly more important to the Douglas economy (McCleneghan, 1957).

The problems of labor-management relations at the smelter increased in the mid-1950's. In 1955 a one month strike occurred. The years 1959 and 1960 witnessed strikes of four months and one month, respectively. The longest strike occurred in 1967 as a five and one-half month walkout dragged on, leaving many Douglas citizens out of work. One Douglas citizen referred to this strike as the worst since the union began in terms of the hardship it placed on the striking workers. But the strikers were not the only ones affected. The smelter suffered as well; the amount of metal bearing ore processed at the smelter dropped by almost 50 percent from the 1966 figures. The most recent strike occurred in 1971 and lasted only a month.

Douglas has seen its ups and downs in the past, but has remained rather stable economically since the end of World War II. The city has had some success in its efforts to diversify its interests by actively inviting other industries to invest in the Douglas area. The Twin-Cities Industrial Development Program, the city's major effort to attract industry, seems to be the most promising of all these efforts.

Increasingly important in the last couple of years has been the rumor that the smelter may close its doors for good and move to New Mexico.

Some citizens feel that the closure of the smelter would make Douglas a ghost town while a larger group feels confident that, while the closure would cause some temporary hardships, the city would bounce back economically in a short time. The confidence in the city which characterized the town's early years seems to have survived to this day. Later in this study, these opinions will be examined in more detail. In any case, if the smelter does close, the inhabitants of Douglas will be faced with the success or failure of their recent efforts to diversify. And the city will have an accurate measure of just how dependent it has been on the smelter in recent years.

CONCLUSION

A closer look at Douglas history reveals some major themes which weave through the city's past. Taken together, these themes provide a more coherent picture of the city and the forces which have influenced community decisions and caused major changes. They may, perhaps, also give some indication of the city's future.

A major theme that runs through Douglas history is one of dependence upon one industry. The mining industry built the town and the town responded predictably to any changes in the industry. Douglas first learned just how dependent it was on mining in early 1907 during the economic panic. In 1918 the Great War pushed the price in copper up and Douglas' population shot up as well. Douglas can be seen, throughout its history, as an accurate barometer of the success and failure of the mining and smelting industry.

More important perhaps is the fact that for years the city seemed to be pushed and pulled by the winds of economic decisions made elsewhere. Being primarily dependent upon the mining industry made the town especially vulnerable to the national (and international) copper market.

Transportation to and from the city was also a pertinent factor. Douglas was once a major stopover in the journey from El Paso to Tucson and Phoenix along Highway 80. But much of its importance was lost when the decision was made to build Interstate 10 through Willcox instead of along the old highway. The city's tourist trade suffered a blow (McCleneghan and Olson, 1957). In its early years the major railroad companies placed an emphasis upon a north-south route from Denver to Mexico City (Meinig, 1971). Douglas

would certainly have benefited from such an emphasis. But the Mexican civil war problems and the increased importance of Los Angeles changed the proposed routes to an east-west direction through Flagstaff, Phoenix and Tucson and on to Los Angeles. Decisions like these, made outside of Douglas, give one the impression that the city was economically buffeted about for many years by outside forces and was not able to control its own affairs when changes did occur.

But there are signs that this may be changing. Douglas' early dependence upon one industry (and eventually one company) proved to be a disadvantage in later years. The ore reserves from the major mines which supplied the Copper Queen Smelter began to dwindle. The richer ore deposits at Morenci and Ajo already had their own smelting plants. The city began to entertain the possibility that the smelter might close for good when the ore reserves in the area dipped to dangerous levels.

Learning from the major and minor failings in the mining industry in the past, the city sought to diversify its economic base and plan for the future. This marked, perhaps, a significant turning point in the history of Douglas. In the late 1940's tourist trade was encouraged and the city began to emphasize the value of the farming and ranching industries in the Sulfur Springs Valley. Additional industrialization was sought which would provide a base for jobs and further growth. In the early 1960's the city enlisted professional researchers to make recommendations which would help the city expand its economic base (Van Cleve, 1964). The more recent encouragement of the Twin-Cities Industrial Program seems to move in the same direction.

Throughout its history Douglas has had some hard times. The city has weathered some of the worst possible economic conditions and has, somehow, survived them all. Just where and how the city will expand its business community is still a question for debate, but there can be no doubt that this proposed expansion may see the city through some hard times to come.

This short history of Douglas is far from complete. One of the more important aspects of the city's past is embodied in changes in its own population. The populace of Douglas has always been composed of two major ethnic groups, the Anglo-American and the Mexican American. These two groups have changed in relative size over the years and this change has had important effects on the city's political and economic atmosphere. Chapters 3 and 4 will examine this aspect of Douglas history in depth to give a more complete picture of the elements that have shaped present-day Douglas.

FOOTNOTES

1. See note on page 135 for a description of this category.
2. The estimates made by City Directores are made by multiplying the number of entries by a factor of 2.3-2.5.

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Chapter 3

POPULATION

José Hernandez, Lilia Hernandez, Theodore E. Downing

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POPULATION

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Since basic forms of social change involve the birth and death of people and other major life events, an overview of the Douglas society should begin with a description of its population size and composition, including the city's ethnic, age, and occupational groups. An overview continues which reveals that the past, present and future in Douglas partially depend on its unusual population pattern, largely attributable to its characteristics of a multi-ethnic, one-company, small town situated on the United States - Mexico border.

Population Growth

The United States' government enumerates the nation's population once every ten years. Examining several censuses shows that Douglas has a history of irregular population change. Dating from the city's founding, a large population increase came in the 1920's, when the number of residents grew from sixty-five hundred to almost ten thousand. After moderate population declines during the 1930's and 1940's, the downward trend was reversed in the 1950's, with the population expanding to its current level of slightly more than twelve thousand. Since 1960, no significant change has occurred, with the present population remaining about double the total in 1910. In other words, since 1960, the population appears to have stabilized, showing little sign of change.

The slow growth pattern in Douglas may be compared with different conditions in seven other Arizona cities, all within a 50 percent range of its population (Table 1). Since 1960, Kingman and Sierra Vista have grown more rapidly than is usual for Arizona as a whole. Nogales, the only other border town on this list, and Chandler have grown at rates near the state average. Like Chandler, the population of Casa Grande has increased slightly, but a good deal of its growth can be attributed to recent annexations. Thus, the continued stability of the Douglas population did not keep pace with the prevalent trend of expansion occurring in other communities of its size and the state itself. But on the other hand, the population did not decline, as it did in Bisbee, Prescott, and Winslow.

More than a decade of stability might give the mistaken impression that in recent years Douglas has had a "stationary" population, that is, one in which the number of deaths equals the number of births. Certainly, this would be the most readily understandable explanation for a period of almost no change in population. Further investigations, however, reveal that the births have outnumbered deaths by a considerable margin for several decades. The positive balance between birth and death rates should have caused considerable growth in the population. Considering also the indications of a steady stream of in-migration, this natural increase should have enlarged the population by an annual rate of three percent during the last quarter century. Since 1950, the population should have doubled in size. Obviously this has not happened.

The Douglas population presents a pattern heavily influenced by out-migration which has contributed to stabilization at a particular level, despite considerable internal changes. The situation might be considered to resemble a tank of water being simultaneously filled and drained, but never changing level. The constant replacement and steady state may be better understood by looking at the internal composition of the Douglas population and the forces causing changes in this composition.

Population Composition

Let us first look at the division into ethnic groups, a primary element of the Douglas population. Among Douglasites enumerated in the United States census in 1970, about seventy percent were classified as either of Spanish language or Spanish surname, the broadest designations used by the census to identify a person as Mexican American. Spanish language refers to all residents of households where the head or spouse was exposed to the use of the Spanish language during early childhood, regardless of current use or language ability. Persons having a surname that was identifiable as Spanish, but not living in a household identified as of Spanish language, were added to the Mexican American count. Mexican American identity was also measured by answers to a question which asked how respondents identify themselves¹. In Douglas, these answers gave virtually the same result as the classification by language or surname. Only seven persons out of more than eighty five hundred in this classification reported a nationality or Spanish group other than Mexican.

Table 1

Population Growth and Stability for Selected Small Cities in Arizona, 1970*

<u>Cities</u>	<u>Percent Change, 1960-1970</u>
Arizona	+36.0
Douglas	+ 3.7
Bisbee	-16.0
Casa Grande	+ 2.6
Chandler	+38.6
Kingman	+61.6
Nogales	+18.8
Prescott	- 5.2
Sierra Vista	+87.9
Winslow	- 9.0

*Non-metropolitan urban places with total populations within a range of
± 50 percent of the Douglas total. Source: U.S. Bureau of the Census. Census
 of Population: 1970. General Social and Economic Characteristics. Final
 Report PC (1)-C4, Arizona

The Douglas population presents a pattern heavily influenced by out-migration which has contributed to stabilization at a particular level, despite considerable internal changes. The situation might be considered to resemble a tank of water being simultaneously filled and drained, but never changing level. The constant replacement and steady state may be better understood by looking at the internal composition of the Douglas population and the forces causing changes in this composition.

Population Composition

Let us first look at the division into ethnic groups, a primary element of the Douglas population. Among Douglasites enumerated in the United States census in 1970, about seventy percent were classified as either of Spanish language or Spanish surname, the broadest designations used by the census to identify a person as Mexican American. Spanish language refers to all residents of households where the head or spouse was exposed to the use of the Spanish language during early childhood, regardless of current use or language ability. Persons having a surname that was identifiable as Spanish, but not living in a household identified as of Spanish language, were added to the Mexican American count. Mexican American identity was also measured by answers to a question which asked how respondents identify themselves¹. In Douglas, these answers gave virtually the same result as the classification by language or surname. Only seven persons out of more than eighty five hundred in this classification reported a nationality or Spanish group other than Mexican.

Information collected on the random sample of the Bureau's project reinforced these findings from the United States census data. Each person was asked "How does X prefer to be identified?" They were shown a list and asked to pick the most appropriate terms for each member of their household, including themselves. "Mexican" and "Mexican American" proved the most commonly used ethnic designations, accounting for two-thirds of the population (Table 2). "Chicano" was less frequently used, apparently because of the political activist connotation which most of the Mexican heritage community preferred to avoid. "Anglo American," "American," and "White" seem to encompass most of the non-Mexican heritage community, but also including some individuals who had other characteristics which might cause them to be classified as Mexican heritage by a disinterested third party, that is, they were either born in Mexico, spoke Spanish better than English, or both. The black population formed a small minority in Douglas, representing less than one percent of its total population.

Most Mexican Americans in Douglas were United States citizens and slightly more than one-half were second generation Mexican Americans, meaning that they were born in the United States, but one or both of their parents were born in Mexico (Table 3). Another one quarter were descendants of United States born parents, two or more generations removed from alien status and 23 percent were born in Mexico.

Since at least three percent of the entire United States population was undercounted by the 1970 census and the omission factor is much

Table 2
Self-Identity of People in Douglas

<u>Self-Identity</u>	<u>Number</u>	<u>Percent</u>
All Respondents	703	100.0
Mexican American	281	40.0
Mexican	169	24.0
Chicano	17	2.4
Subtotal	<u>(467)</u>	<u>(66.4)</u>
American	130	18.5
Anglo American	57	8.1
White	9	1.3
Subtotal	<u>(196)</u>	<u>(27.9)</u>
Black or Negro	2	0.3
Other	13	1.8
Don't Know	25	3.6

Source: Unless otherwise specified, all tables and figures are derived from the information gleaned from the Douglas Project Questionnaire.

Table 3

Citizenship Claimed by Respondents For Themselves and Household Members

<u>Citizenship</u>	<u>Number</u>	<u>Percent</u>
United States	539	75.1
Mexico	138	19.2
Both Mexico and U.S.	4	0.6
Burma	5	0.7
No Response	32	4.5
Total	<u>718</u>	<u>100.0</u>

higher in the case of minorities, these percentages probably have some degree of error. If adjustment were possible, the foreign-born group would likely increase in proportion and the entire Mexican heritage ethnic group would increase to at least 75 percent of the Douglas population.

According to the 1970 census, the remaining 25 to 30 percent of the Douglas population was largely of European origin. The combined total of Black, Native and Asian American residents was two hundred seventy-nine, slightly more than two percent of all inhabitants. Adding a small additional margin to compensate for the undercount (also affecting these groups) and for a few individuals classified as "White," but not of European nationality, would raise the non-Mexican minority element to three percent. This left about one quarter as genuinely representative of the Anglo American ethnic group. Among Anglos, eighty-eight percent were native born of native born parents, suggesting United States ancestry from before this century.

The most notable change within the Douglas population during the past few decades has been the gradual increase in the number of Mexican Americans and a corresponding decline of Anglo Americans (Table 4). A brief overview can be gathered from Table 2. The proportion of Anglos in Douglas declined from almost forty-six percent in 1960 to less than thirty percent in the 1970 census. This indicates that Mexican Americans are currently replacing the Anglo population at a rate of about three percent each year.

Table 4

Changes in the Proportions of Mexican Americans and Anglos, 1960-1970 in Douglas

<u>Douglas</u>	<u>Number</u> <u>1960</u>	<u>Percent</u>	<u>Number</u> <u>1970</u>	<u>Percent</u>
Total Population	11,925	100.0	12,462	100.0
Spanish Surname Population	6,252	52.4	N.A.	0
Spanish Language or Surname Population	N.A.	0	8,702	69.9
"Nonwhites"	203	1.7	279	2.2
Anglo Population	5,470	45.9	3,481	27.9

*Unadjusted for undercount. Source: U.S. Bureau of the Census. Census of
Population: 1970. General Social and Economic Characteristics. Final
Report PC (1)-C4, Arizona.

Affluence and Poverty

Comparing Douglas with the seven Arizona cities previously mentioned, offers an idea of the relation of economics to population. Cities undergoing high population growth showed several signs of affluence, while three, which were stable or declining, including Douglas, showed symptoms of poverty (Table 5 and 6). Specifically, growing towns tended to have more families in the \$10,000 to \$25,000 income range than stable or declining towns. They also had a high percentage of their male labor force in professional or managerial occupations and a higher percentage of persons over twenty-five who had some college experience. In contrast, indications of poverty proved more common to cities undergoing a decline in stability or population. Such towns had more families below the poverty level, more people in semi- or non-skilled jobs and a higher proportion of the male labor force unemployed than towns undergoing population growth.

These indicators of affluence and poverty were also related to the residential stability of the eight towns, as measured by the percentage of people living in the same house in 1970 as they occupied in 1965 (Table 7). This comparison revealed that residential stability was consistently linked with poverty, that is, the poorer the town, the more stable the residency. The percentage of foreign born in a city was also linked with its poverty (Table 5 and 6). Douglas stood second only to Nogales in the percentage of foreign born in their populations. Both towns rated low on measures of affluence and high on measures of poverty when compared to the other six cities.

The combination of poverty and a numerous foreign-born population in a town with limited economic opportunity contributes to a situation favoring out-migration of people in quest of a more promising environment. Thus,

Table 6

Correlations of Population Growth, Residential and Foreign Birth
as Indicators of Affluence and Poverty in Eight Arizona Cities

	Indicators of Affluence			Indicators of Poverty		
	<u>Families Percent With Income \$10,000 -25,000</u>	<u>Male Labor Force Percent In Professional & Managerial Occupations</u>	<u>Persons Age 25+ Percent With Some College Education</u>	<u>Families Percent Below Poverty Income Level</u>	<u>Employed Persons Percent In Semi- & Non- Skilled Jobs</u>	<u>Male Labor Force Percent Unemployed</u>
Population Growth	+ .474	+ .719	+ .321	- .354	- .665	- .191
Residential Stability	- .474	- .670	- .575	+ .565	+ .569	+ .197
Foreign Birth	- .512	- .071	- .308	+ .806	+ .004	+ .376

Source: U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic Characteristics.
Final Report PC(1)-C4, Arizona.

Table 5

Economic Indicators for Selected Small Cities in Arizona, 1970*

<u>Locality</u>	<u>Indicators of Affluence</u>			<u>Indicators of Poverty</u>		
	<u>Families</u> <u>Percent</u> <u>With Income</u> <u>\$10,000</u> <u>-25,000</u>	<u>Male Labor</u> <u>Force</u> <u>Percent In</u> <u>Professional</u> <u>& Managerial</u> <u>Occupations</u>	<u>Persons</u> <u>Age 25+</u> <u>Percent</u> <u>With Some</u> <u>College</u> <u>Education</u>	<u>Families</u> <u>Percent</u> <u>Below</u> <u>Poverty</u> <u>Income</u> <u>Level</u>	<u>Employed</u> <u>Persons</u> <u>Percent In</u> <u>Semi- & Non-</u> <u>Skilled Jobs</u>	<u>Male</u> <u>Labor</u> <u>Force</u> <u>Percent</u> <u>Unemployed</u>
Arizona	40.4	28.7	26.4	11.5	34.8	3.8
Douglas	34.9	22.7	18.2	18.9	41.3	3.3
Bisbee	57.7	11.9	16.8	8.1	47.6	3.0
Casa Grande	39.5	22.2	21.7	16.5	43.8	4.8
Chandler	42.7	23.2	24.2	12.3	45.3	4.2
Kingman	54.8	29.0	10.0	7.5	39.0	3.7
Nogales	30.0	28.1	13.9	26.5	38.2	5.5
Prescott	32.8	29.5	25.6	14.1	38.3	4.9
Sierra Vista	60.8	56.9	34.4	7.6	18.1	2.9
Winslow	46.9	32.3	18.1	12.6	35.7	3.2

*Based on 1960-1970 totals, not including areas annexed during the decade.

Source: U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic
Characteristics. Final Report PC(1)-C4, Arizona.

Table 7

Indicators of Stability for Selected Small Cities in Arizona, 1970*

<u>Locality</u>	Percent Living in Same House as in 1965	Percent Foreign Born
Arizona	41.3	4.3
Douglas	59.9	17.8
Bisbee	65.9	7.3
Casa Grande	44.6	2.2
Chandler	40.1	2.6
Kingman	37.4	2.2
Nogales	66.7	32.1
Prescott	50.4	3.8
Sierra Vista	25.0	6.1
Winslow	57.9	2.7

*Non-metropolitan urban places with total populations within a range of ± 50 percent of the Douglas total. Source: U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C4, Arizona.

at any given moment (say, the census enumeration) the percent actually without work may be low, as evident among the figures in Table 5.5. In poverty conditions, the loss of a job or inability to find employment provides strong motives for moving on. Perhaps because of this tendency for the unemployed to leave, we did not find as close a relationship between high unemployment rates and population stability or decline as might be expected.

Labor Force

According to the 1970 census, Mexican Americans and Anglos were participating in the labor force to about the same extent, although distinguishing men and women among those employed reveals significant differences. Anglo males had a slightly lower participation in the labor force (60.0 percent of those over fourteen years of age) than Mexican American males (63.7 percent). Anglo males, however, had a larger proportion of old and retired persons and a smaller proportion of teenage workers than Mexican Americans, which helps explain this unusual instance of lower participation for Anglo males. Due to chronic unemployment and occupation displacement, it is common among adult males in United States minority groups to have proportionately lower labor force participation than the total population.

In contrast, fewer Mexican American women were participating in the labor force (25.8 percent) than Anglo women (34.1 percent). The almost ten percent difference may be partially explained by greater domestic and family responsibilities among Mexican American women, although in a

job-scarce economy many women stay home who would seek work if they perceived opportunities.

All four groups, Mexican American men and women and Anglo men and women, participated in the labor force below the respective national employment levels in 1970 (73 percent for males and 40 percent for females). This fact again reflects the depressed labor market in Douglas, where work opportunity limitations are all the more accentuated among teenagers, young adults, women, and people of Mexican American background. It should also be emphasized that these figures were collected before the economic difficulties of the mid 1970's began to appear. It seems safe to assume that conditions have grown worse since the 1970 census.

Economic differences became even more apparent when comparing the occupational structure of the two ethnic groups (Table 8). Anglo professionals and managers outnumbered Mexican Americans in almost inverse proportion to their presence in the population. Compared with the national level for all males (twenty-four percent) Anglo participation in Douglas in these high status occupations was nearly twice while the Mexican American rate stood at about half the national average. In fact, on a proportional basis almost three times as many Anglo women held these prestigious jobs as Mexican American men. Since Anglo men were employed to a greater extent than Anglo women, these figures demonstrate not only the dominance of Anglos in the economic structure of the community, but also the inferior situation of females.

The distribution of workers in middle levels of employment was more influenced by the workers' gender than by ethnicity. Women from both

Table 8

Occupation Distribution by Ethnicity and Sex: Douglas, Arizona 1970

	Percentage Distribution			
	<u>Mexican American</u>		<u>Anglo</u>	
	<u>Males</u>	<u>Females</u>	<u>Males</u>	<u>Females</u>
<u>Persons Employed, Percent By Occupational Level</u>	100.0	100.0	100.0	100.0
Professionals & Managers	12.5	17.3	41.5	32.1
Sales & Clerical Workers	11.8	37.9	13.5	46.8
Skilled Manual & Foreman	20.4	0.0	17.7	2.0
Semi- & Non-skilled Manual	55.3	44.8	27.2	19.1

ethnic groups held more sales and clerical positions than males, while craftsmen and foremen were mostly male. Nearly half of the sales and clerical positions were occupied by Anglo women, representing almost half of the Anglo female labor force. Only among skilled manual workers and supervisors did Mexican Americans begin to outnumber Anglos. Although this category includes mechanics and repairmen, carpenters, electricians, masons, painters and plumbers, almost half were engaged in other jobs, probably as machinists and metal workers in the smelter operations.

The copper industry enters predominantly into the picture when comparing the proportion of both ethnic groups in manual employment. Over half the Mexican American males worked as semi-skilled and non-skilled workers. Combining this segment with those employed in skilled manual or foreman occupations, fully three-fourths of the Mexican American men were working in manual occupations, much higher than the proportion of Anglo males at the same job levels. Moreover, two-thirds of the Mexican American male operatives were employed in manufacturing of durable goods, which in Douglas means the copper industry. Out of the 402 Mexican Americans listed by the 1970 census as working in the metal industry, about half were non-skilled laborers. So dominant was the copper industry as an employer of Mexican Americans that (placing agriculture and services aside) it represented about forty-five percent of the jobs held by both sexes of this group and an even greater percentage of those jobs held by males.

Mexican American women were predominately employed in semi- or non-skilled manual labor, having slightly less than half their number employed

in such low status positions. Of this group, almost half were employed in private households or as cleaning and food service workers. Traditionally, such jobs have low pay, but locally depressed conditions meant they received an even lower salary than would be the case in more prosperous towns.

Income Distribution

Thus far, we have painted a picture of a society divided into different social and economic levels with the Mexican Americans forming the less advantaged classes. This idea can be verified by comparing the distribution in annual income of Anglos and Mexican Americans (Table 9). Eight out of every ten Mexican American households had less than \$10,000 income in 1969. By contrast, half of all households in the United States received more than \$9,590 during this same period. The depressed economic condition of Mexican American families also appears in their percentage below the poverty line, twenty-three percent, in contrast to 10.7 percent for the nation's total population and 10.3 percent for Anglos in Douglas.

Family income among Anglo Americans followed the national pattern, closely resembling the income distribution among "white" families. Compared with Mexican Americans, Anglos were consistently more numerous in the higher income levels -- especially in the crucial fifteen to twenty five thousand dollar range, which included most of the higher-paying salaried jobs. Nevertheless, there were some relatively affluent Mexican American families as well as a few Anglos submerged in poverty, not typical of the remainder of the population, and comprising about ten to fifteen percent of each ethnic group. In terms of estimated population totals for Douglas

Table 9

Distribution of Annual Income for Anglos and Mexican American Households

<u>Annual Income (1969)</u>	<u>Percentage of Households</u>	
	<u>Mexican Americans</u>	<u>Anglos</u>
Less than \$2,000	10.6	5.5
\$2,000 - \$5,000	26.4	16.2
\$5,000 - \$10,000	40.3	33.1
\$10,000 - \$15,000	16.4	24.9
\$15,000 - \$25,000	4.3	15.5
\$25,000 or more	2.0	4.8
Total	100.0	100.0

in 1970, this system of economic stratification could be depicted as follows (Figure 1).

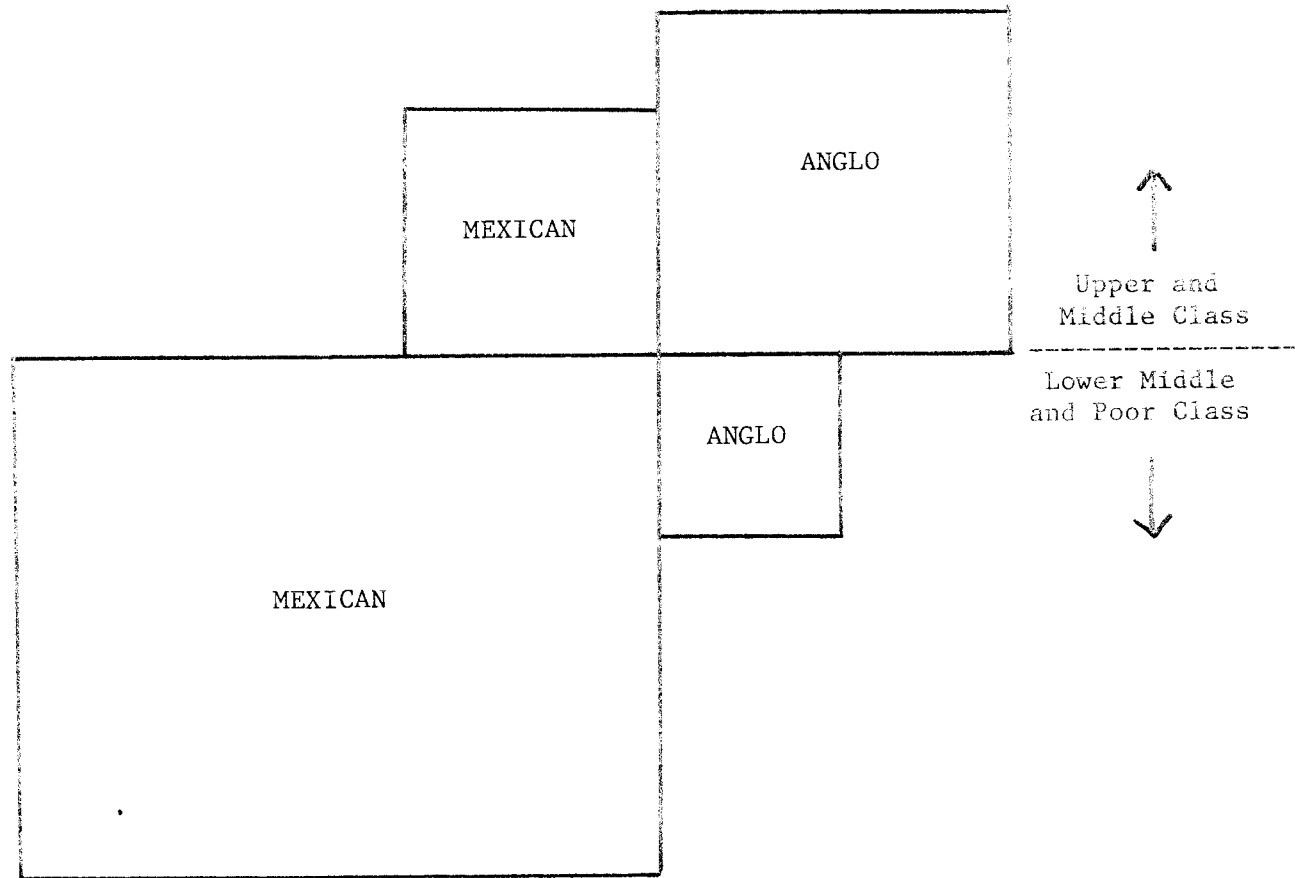
This diagram and the statistical information mentioned, illustrate the restrictive conditions created by the reality of being a "small, border and multi-ethnic, one-company, Anglo dominated town." The Mexican American middle and upper classes were a local, mainly native-born elite with educational and personal backgrounds similar to the corresponding Anglo classes. They were nonetheless limited in social mobility, access to jobs, income and influence that might equalize their situation with the Anglo dominate group, remaining a minority at the crucial level of power and policy implementation in Douglas.

The largest subgroup, made up of lower class Mexican Americans and resident Mexican aliens, resembled a proletariat of manual workers and their families, continually affected by low wage levels, job uncertainties, and a general lack of promising options for remaining in Douglas. The small Anglo lower middle class and poor people shared this condition and probably have resorted more frequently to out-migration as a solution, a choice not always easy for persons from a minority group, who often face the need of adapting to the majority way of life, in addition to the usual constraints of a limited educational attainment and lack of experience.

Later in the report, we shall look at some of the social and political effects of these economic and ethnic rifts in Douglas society, but for the moment, let us raise some rather blunt questions. Why do Mexican Americans fill so few high status occupations in the community,

Figure 1

Proportion of Ethnic Groups in Economic Classes



Squares are proportioned to the size of the group in the population.

especially given their numerical dominance in the population? How does the economically powerful Anglo minority retain its dominance over the impoverished Mexican American majority? How do the small numbers of wealthy Mexican Americans and poor Anglos cope with their unusual economic positions which contrast with the majority of their own ethnic group? What is the future of such an ethnic stratification system? Throughout the report, these questions shall be approached from several perspectives. For the present, we will turn to the dynamic elements underlying population change, the basic ways in which this social system replenishes its numbers through human reproduction, or alters in composition as people grow old and die or move in or out of the population.

Age - Sex Composition and Migration

A population's composition and size changes by three things: births, deaths, and migration. If no migration took place into or out of Douglas, then the stability of its population could be attributed only to an even balance in which the number of births equalled the number of deaths throughout a considerable period of time. However, even a casual look at the city's vital statistics reveals that births have far exceeded deaths for several decades. This finding provides the first of many indications that migration plays a major role in the population dynamics of Douglas.

The migration factor can be further specified by observing changes in age and sex composition of the population between 1960 and 1970, which Figures 2 and 3 summarize for the two major ethnic groups. In general, these graphs show the Mexican American population grew in almost every age

Figure 2

Mexican American Age-Sex Composition, 1960 and 1970

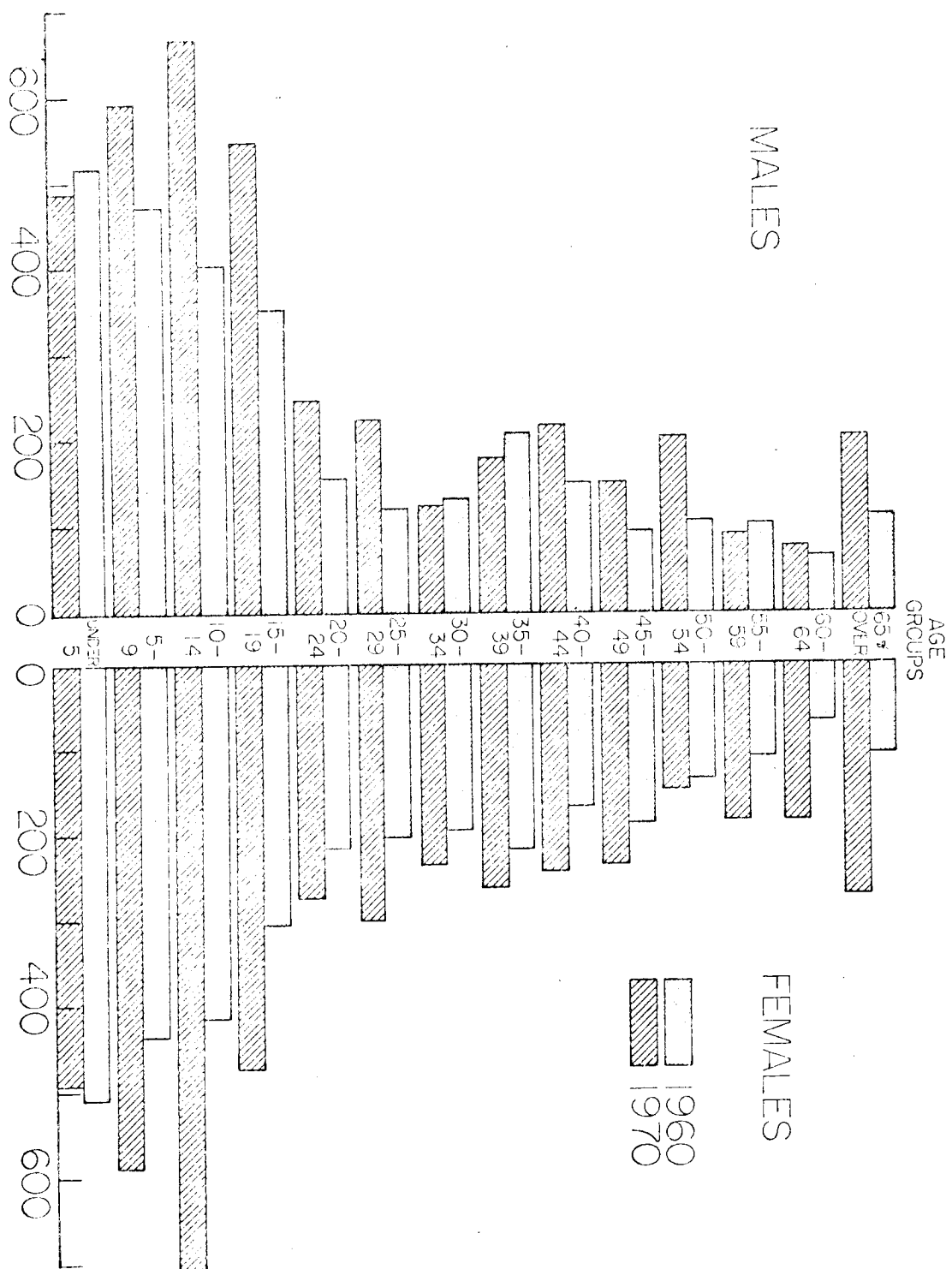
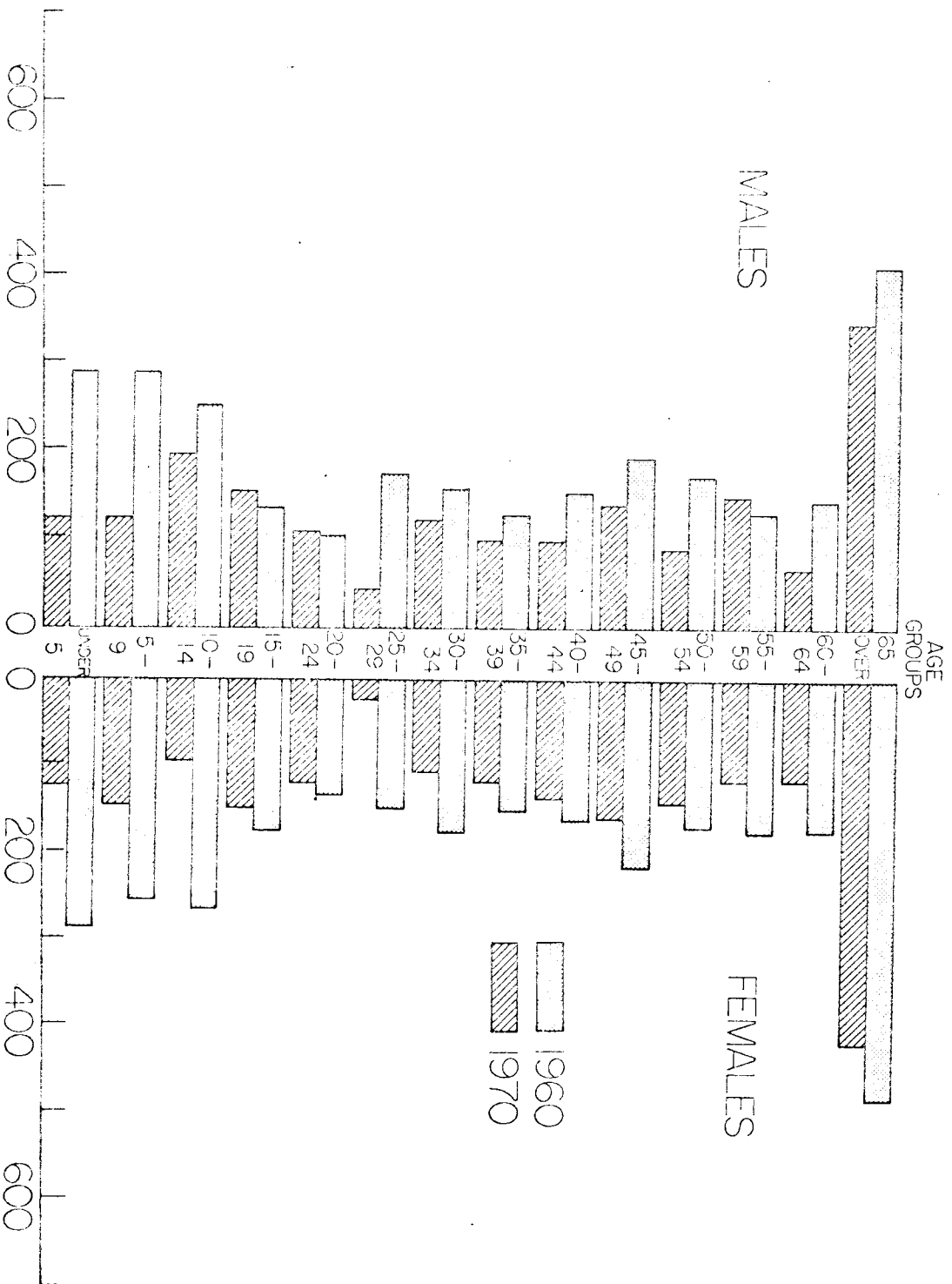


Figure 3

Anglo Age-Sex Composition, 1960 and 1970



category while the Anglo population decreased during the decade. Closer examination, however, reveals more subtle changes taking place in Douglas. Both Anglos and Mexican Americans experienced a decline in children under five years of age. This decline reflected a pattern of declining fertility occurring throughout the United States dating from the early 1960's. It was particularly accentuated by the decrease of Anglo women at all ages (especially in the childbearing years) and occurred despite an increase in Mexican American women in the corresponding age groups.

For example, sharp decline is noted in the number of female Anglos in the twenty-five to twenty-nine year old age group. There were about a hundred and fifty women between ages fifteen and nineteen in 1960; ten years later, we would expect this same number less those that died. But, we found only twenty still in Douglas by 1970. The logical explanation is that over one hundred have left town during the intervening ten year period. Linked with general impressions from our study of the Douglas educational system this evidence indicates a strong outward migration following high school graduation.

Mexican American women of the same age group did not show such an enormous exodus from the community. This contrast is especially significant for its effect on reproduction rates for each group. The decline in Anglo women of childbearing age (twenty-five to thirty-nine) partly accounts for a drop in the number of Anglo children (age five to fourteen). Meanwhile, Mexican American women of childbearing age were more numerous and their numbers were increasing. The result is a much larger group of school-age Mexican American children and adolescents for today and for the future.

Generally, there was a decrease in Anglo males and a corresponding increase in Mexican American males; but again, an examination of change by age group indicates certain special aspects of the population dynamics of Douglas. Early middle-age males (thirty to thirty-nine) declined among Mexican Americans and Anglos. This decline appears accentuated among Mexican Americans, since it contrasts with the overall expansion of teenagers and young adults. Once again, the best explanation for this decline is out-migration; something motivates men to leave town about the age of twenty. A second exodus takes place from their late twenties until their late thirties, leaving a higher proportion of elderly men in the community.

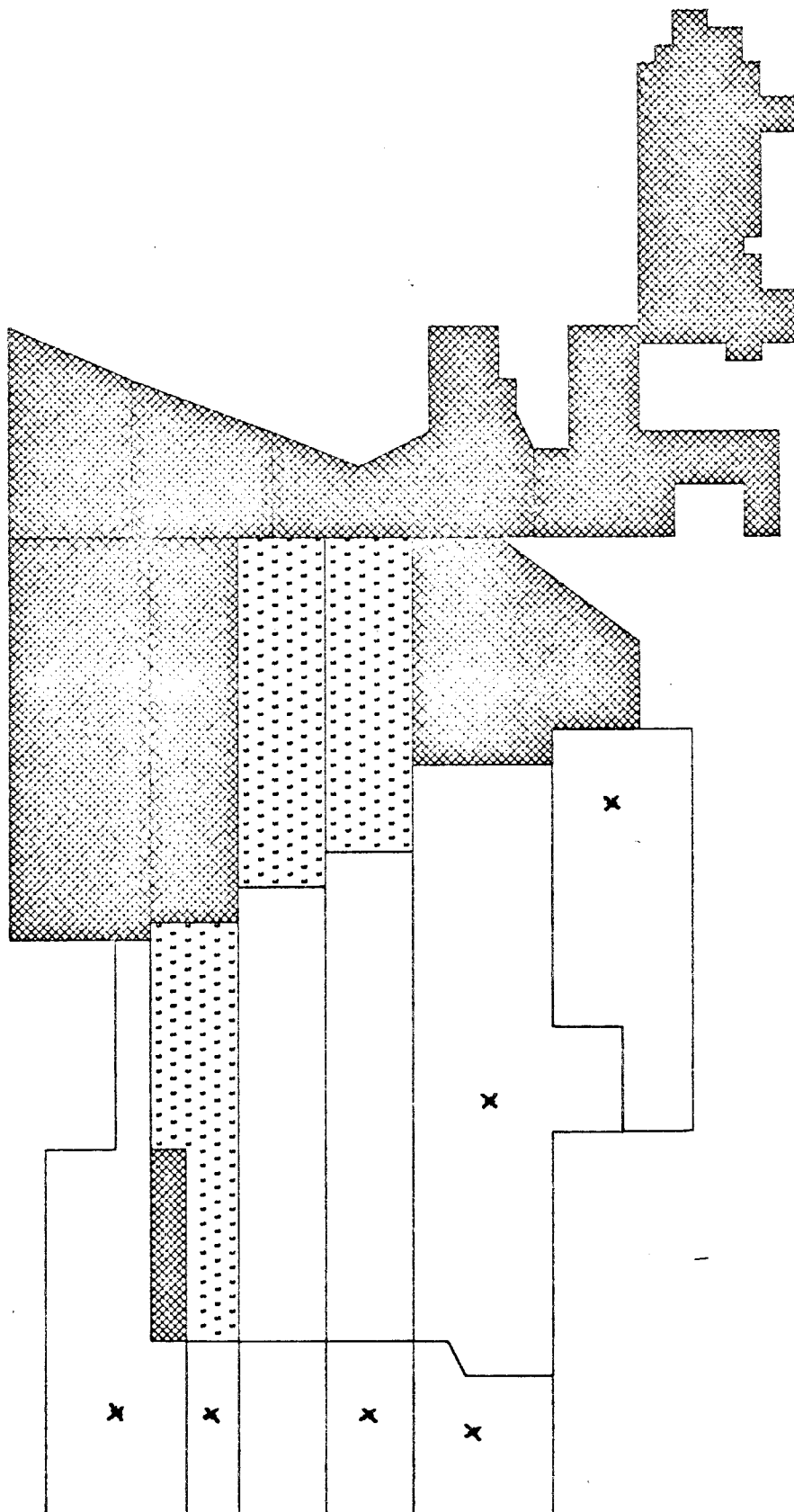
These out-migrations are much less marked among females, with the result that beginning at age twenty, women generally outnumber men in both ethnic groups, especially among Mexican Americans at young adult and middle-age levels. For women above age fifteen, the census reported only slightly more than half as "married with husband present." This is considerably lower than the average of sixty percent for other Arizona cities and the United States in general. In fact, in Douglas the number of women married, but currently separated from their husbands, surpasses those with husbands present by a total of 350 persons. This strongly suggests that certain couples have resorted to an arrangement where the husband works elsewhere and the wife remains in Douglas. Another important finding is the rather high percentage of widows. This accords with the large proportion of Anglo women beyond retirement age and the recent increase in the number of Mexican American women age fifty-five and older.

Adolescents and young adults generally make up the most mobile age groups, the world over. Faced with major decisions regarding continued schooling, careers, marriage, and settlement into adult life, they often incline toward trying new environments. Unencumbered by family responsibilities, change-oriented and energetic, they make the most likely candidates to leave in the face of restrictive conditions such as those found in Douglas. Here the tendency to leave plainly involves women and men of both ethnic groups. By 1970, less than half those who were teenagers in 1960 were still living in Douglas.

Since this trend appeared so important to an understanding of the Douglas population, it was decided to explore the topic in more detail. Among other steps, we reanalyzed the data in hopes of determining whether out-migration varied for different classes of teenagers. Using the United States census and aerial divisions of Douglas census enumeration districts in Douglas, we reclassified by the predominance of particular social levels. These classes were defined using three criteria: the property value of housing, the proportion of renter vs. owner occupied dwellings and the monthly rent of households (Figure 4). Because some districts had very few teenagers, we combined all upper class districts, all middle class districts, and all lower class districts to form three groups.² Next a base line was established for comparing out-migration measures; this consisted of the population between ten and thirteen years of age, who were likely to be the least affected by out-migration and close to the established departure age for the young migrants. The base line population was used as a guide for determining the population loss at older ages, by comparing

Figure 4 (Cont. next page)




DOUGLAS URBAN AREA BY CENSUS ENUMERATION DISTRICTS



ENUMERATION DISTRICTS BY ECONOMIC STATUS(x = NO DATA)

Figure 4 (Continued)

Criteria for Classifying Enumeration Districts by Economic Status

Criteria	Status			Remarks	Areas *
	Upper 	Middle 	Lower 		
1. Property Value, Percent Households: Below \$10,000	Less Than 10	20-30	80 or more*	*ED 43 had 69 percent	Excluded Due to Data Sup- pression or Unavailability in Census Tapes or for Technical Reasons
Below \$15,000	Less Than 30	60-70*	Near 100	*ED 37 had 88 percent	
2. Ratio, Rented Households Per 100 Owner Occupied	Near Zero	20-60	65 or more*	*EDs 43, 45 & 49 were in the 20-60 percent range	
3. Rented Households, Percent Paying Monthly Rent: Below \$40.00	Near Zero	Less Than 15	40 or more	Almost all rented households in lower status EDs paid less than \$80.00 rent	
Below \$60.00	Less Than 15	Less Than 50	75 or more	Less than 0.5 percent of all upper status households were in this category	
Enumeration Districts as Classified	36,38, 39	37,40, 42	34,43, 45,46, 47,48, 49	No genuine borderline case seemed present	

Source: U.S. Bureau of the Census. 1970 Census of Population and Housing,
First Count Summary Tape for Arizona.

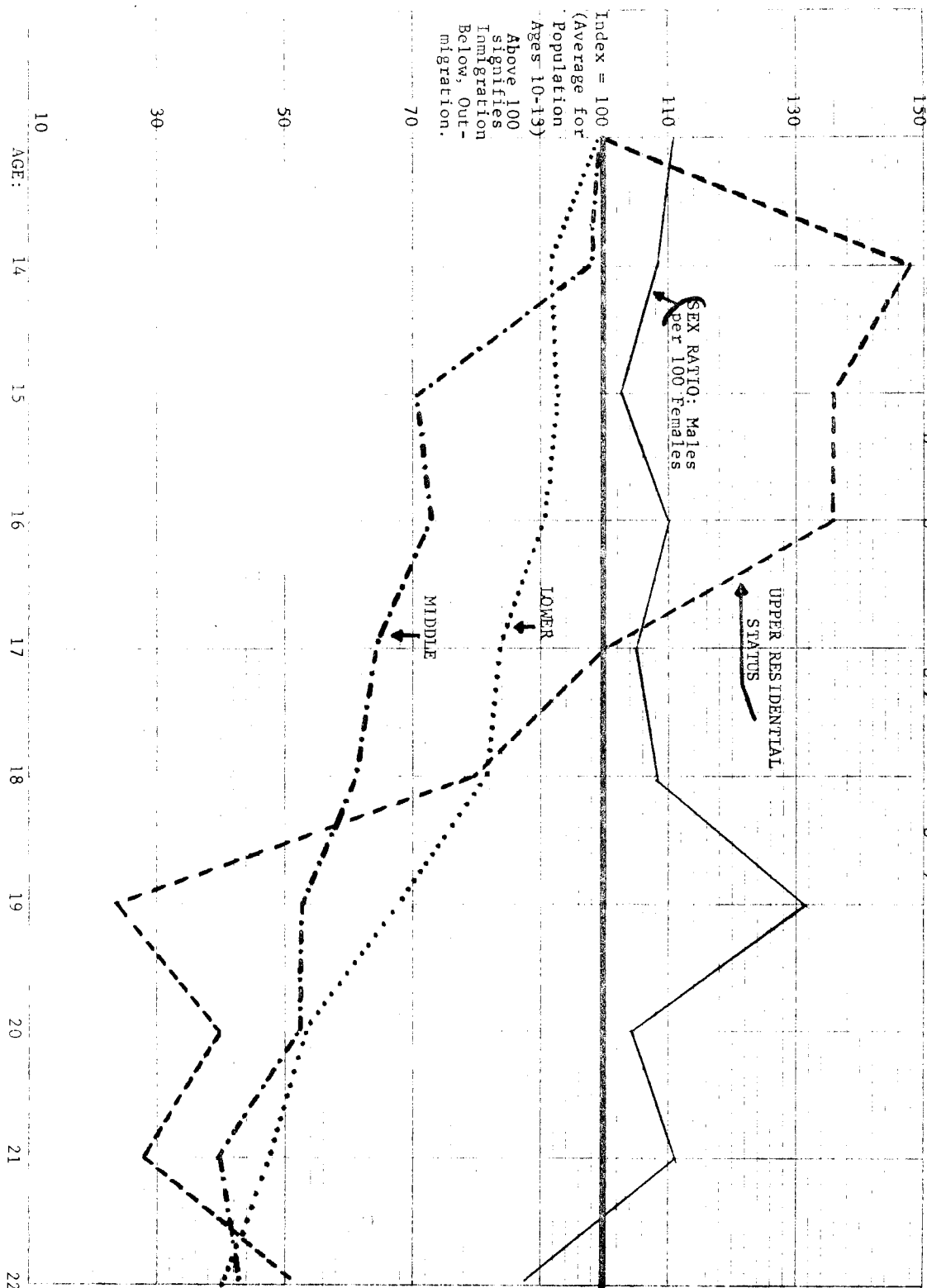
it with older teenagers and young adults. Adjusting for the chance of death up to age twenty-two and fertility rates from 1948 to 1959, any difference between the older groups and the base line of ten to thirteen year olds would be attributable to migration.

This rather complicated procedure proved worthwhile, for it revealed that out-migration was a general tendency among young people in all economic status groups (Figure 5). First, among upper class teenagers fourteen and sixteen years old, a temporary increase had taken place, probably due to the arrival of middle-aged, high level professionals and administrators. But at high school graduation, ages seventeen to nineteen, there came a sharp drop. While the losses continued through the college years, at age twenty-two and older, only the upper class showed an increase in young men, perhaps college graduates employed at the junior executive level.

In contrast, the departure of middle and lower class teenagers followed a steady outward flow, beginning at age fourteen and reaching its greatest intensity in the late teens and early twenties. Although the population loss was greater in middle status districts, teenage out-migration in the lower status neighborhoods was more likely counterbalanced by immigration from Mexico. Thus, had it been possible to separate the immigrants from this group, their population loss might have been as great as in the middle sector or even more accentuated.

Also contrary to the trend in upper status districts, some teenagers in the middle and lower class apparently did not await high school graduation, to leave Douglas. This suggests that drop-outs may be as related to out-migration as transfers to schools in other cities. Nevertheless, age

Figure 5
Migration Trends by Economic Status of Residence (for Males and Females Combined) and Sex
Ratios According to Single Years of Age, 14-21. Douglas, Arizona 1970.



eighteen and graduation seemed to be the crucial moment, since the greatest numerical losses were registered between then and the mid-twenties, regardless of social class.

From a migration viewpoint, there is more to Douglas than a town with a stable ethnically stratified population experiencing the heavy loss of people. Douglas also has been receiving numerous in-migrants from other areas, as evidenced by data on the birthplace of current residents (Figure 6). Only one out of every five residents of Douglas were born there. For every Douglas born resident, there were two born somewhere else in the United States. The remaining two-fifths of the population were born in Mexico. Mexican immigration was not primarily from nearby areas, contrary to the image that depicts people born in Agua Prieta as stepping across the street into the United States. Instead, eight out of every ten Mexican-born residents of Douglas came from someplace other than Agua Prieta, many from villages and towns deep in the interior of Mexico.

By relating birthplace to ethnicity several additional insights were gained (Table 10). Among those migrants into Douglas who originated in the United States, almost three out of ten were Mexican Americans joined with the numerous immigrants from Mexico, this stateside movement meant that only a quarter of the town's large Mexican American population was born in Douglas. Anglos native to Douglas formed a minority as well, comprising only sixteen percent of the total Anglo population.

While Douglas combines high in-migration and high out-migration there remains a "core population" standing firmly in the tide of others moving in and then out. Again, limited economic opportunities explain the tendency

Figure 6

Place of Birth of Current Douglas Residents

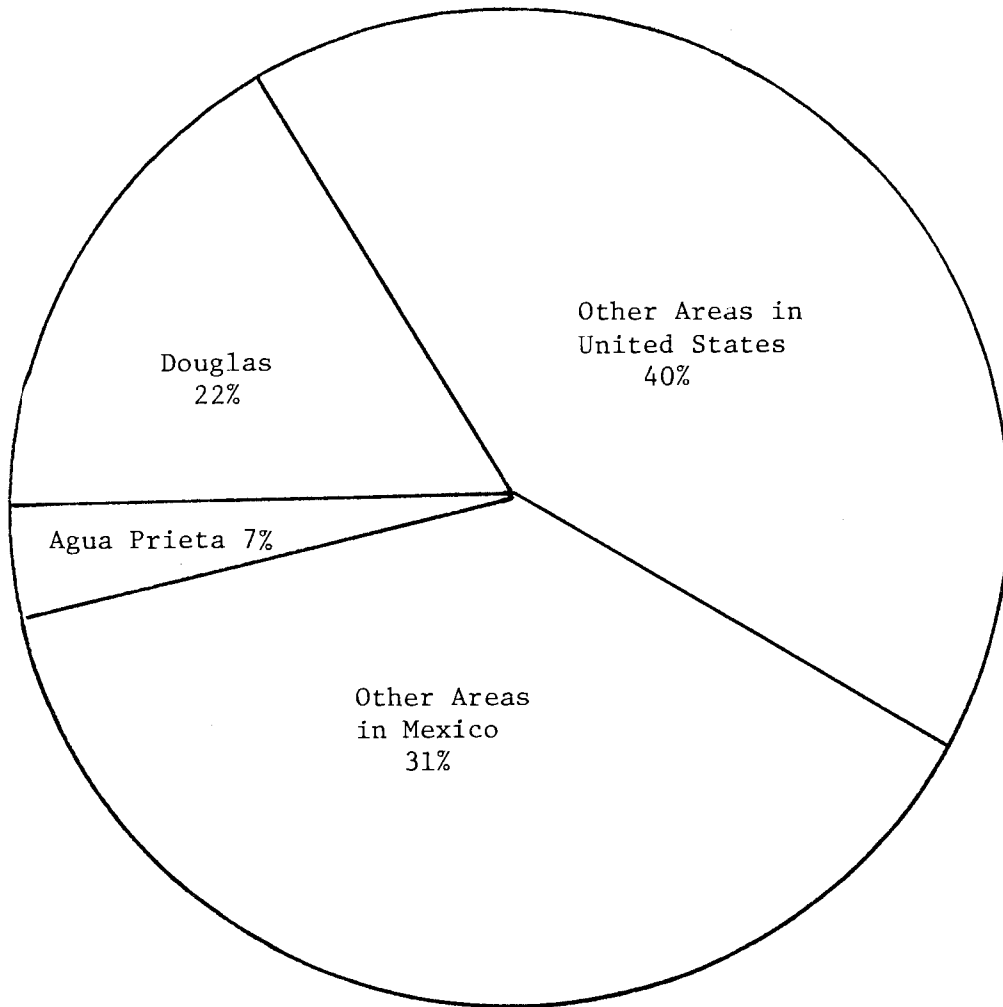


Table 10
Place of Birth and Ethnicity

<u>Place of Birth</u>	<u>Ethnicity</u>	
	<u>Anglo</u>	<u>Mexican American</u>
Douglas	9	26
Agua Prieta	-	11
Other United States	46	19
Other Mexico	2	49

$\chi^2 = 65.29$ Sig. **.2** .001 N = 162

for people to leave, particularly young men and women seeking a livelihood, after graduation from high school. For those who do find work, a lack of genuine opportunity for advancement and increasing financial responsibilities join to urge out-migration after a few years on the job. At each step, the generally low salary scales provide little hope for significant improvements in the standard of living. A few facts on unemployment summarize the story. Among males aged sixteen to twenty-one in 1970, over one third were neither enrolled in school nor working. Only between ages twenty-five and thirty-four do those remaining begin to find full employment. Meanwhile, the large number of women working (particularly at ages when marriage and childbearing usually take place) suggests a strong need for substitute or supplementary income among young couples living in Douglas.

The job scarcity is exacerbated by the influx of Mexican immigrants who compete for employment with the Douglas lower and middle-class young. More detailed analysis might contribute further refinements, but the attraction of being a border community is obvious from the high rates of immigration from the interior of Mexico. The immigrants willingness to work for depressed wages forces the sons and daughters of the core population, themselves often second generation Mexican Americans, to seek employment elsewhere. But, as in many other locations in the American southwest, little change seems likely in economic institutions encouraging the immigration by their continued exploitation of cheap labor. As long as hiring orientations continue favoring alien workers, the cycle of displacement of American citizens will persist.

Fertility and Marriage

Migration in Douglas has modified the composition of the female population and this in turn has affected the number of children in the community. We have already seen how the declining number of Anglo women at child-bearing ages contributed to a subsequent reduction in the Anglo child population. The numerical reductions, however, do not necessarily imply a lower fertility rate among women remaining in Douglas, since this depends on the average number of live births per female, a measure based on individual levels of reproduction.

We have several indications that Douglas has higher fertility rates than the United States average. First, the 1966-68 reports of Arizona vital statistics showed Douglas as having from twenty-three to twenty-five births per thousand inhabitants, a high rate when compared to national figures, although about average for small Arizona cities (Table 11). Second, the 1970 census reported a ratio of four children per woman for Douglas, well above the national average of 2.7, but below the high ratio of 5.5 to 6.0 children per woman reported for Mexico. Vital statistics for 1968 and 1969 for Douglas formed the basis for calculating the annual birth rate for women between ages fifteen and forty-four as 126.4 births per one thousand women.³ Again, this figure falls between a rate of 75 in the United States and the rate for Mexico of 184 births per one thousand women (Table 12).

The age-specific birth rates in Table 12 also suggest an early childbirth syndrome, that is, childbirths higher than the national average, but presumably typical for small cities in the United States. Among women in their twenties, one out of every four women gave birth in a given year, as

Table 11

Gross Reproduction Rates: Douglas 1968-69*

<u>Population</u>	<u>Female Births per Women</u>	<u>Birth Rate per Woman</u>
<u>Douglas</u>	2.0	4.0
Spanish-surname	2.1	4.3
Non-spanish surname	1.8	3.5
<u>Mexico</u>	2.7-3.1	5.5-6.0
<u>United States</u>	1.4	2.7

*Source: computer tapes provided by the Division of Health Records and Statistics, Arizona State Department of Health, through the Arizona Regional Medical Program, and U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C4, Arizona.

Table 12

Birth Rates for Different Ages: Douglas, Arizona, 1968-69*

<u>Specific Annual Birth Rates per 1,000 Women</u>	<u>Douglas Total</u>	<u>Rates Typical of Current Fertility Level in:</u>	
		<u>Mexico</u>	<u>United States</u>
Ages: 15-19	63.2	50-100	20-30
20-24	273.9	249	158
25-29	239.4	327	163
30-34	128.6	275	88
35-39	63.7	207	40
40-44	30.9	98	11
<hr/>			
General Annual Birth Rate per 1,000 Women Age 15-44	126.6	184	75

*Source: computer tapes provided by the Division of Health Records and Statistics, Arizona State Department of Health, through the Arizona Regional Medical Program, and U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C4, Arizona.

compared with a national ratio of one in every sixth or seventh women. Birth rates below and above age twenty were unusually high. Women age fifteen to nineteen were bearing as many children as those thirty-five to thirty-nine years old, and those twenty to twenty-four had the highest fertility rate of all age groups, a condition most often occurring among women age twenty-five to twenty-nine.

High birth rates among the young reflect a relatively young median age at first marriage: twenty-one for males and twenty for females. Many marriages below the median are related to graduation from high school; as a young man assumes job responsibilities he often views himself as economically capable of supporting a wife and family. Young women raised in a small town, family-oriented environment frequently view marriage soon after high school graduation as a natural sequence of events. And in both cases, the freedom from parental constraints and for self-fulfillment believed to ensue from marriage proves a powerful reason for leaving the single state.

Mexican Americans seemed especially inclined to marry young and have children in early adulthood, something of a difference from the pattern of postponement until the late twenties that characterizes people moving up from poverty in high fertility nations such as Mexico. But, the accumulated number of children born by women up to age thirty was quite similar to rates for Mexico, suggesting that early marriage did not necessarily mean the very large families customary in Mexico. In fact, beyond age thirty, the Mexican American rate of child production dropped from the annual fertility rates of two hundred or more per one thousand women

(a distinguishing feature of high fertility nations) to half way between this level and the much lower levels common to affluent, industrial societies. This suggests a bi-cultural pattern where Mexican American fertility not only falls midway between Mexico and the United States, but also shows the influence of factors deriving from both nations. It remains possible, however, that what appears as a bi-cultural pattern is actually a statistical balance between one segment adhering fairly closely to the Mexican pattern and another segment exhibiting the American small family pattern. Some adolescents marrying early may be influenced by lower class Mexican traditions, while others might be primarily oriented to the high school graduation pattern typical of small towns in the United States. Based on the data analyzed, it is not possible to say which is the case.⁴

Anglo Americans resembled Mexican Americans in also having high fertility (Table 13). In fact, Anglos were more inclined to show early childbirth. The median age of Anglo mothers delivering babies in 1968-69 was just above nineteen years, meaning that somewhat more than half conceived while still teenagers. Although this might appear out of line with the relatively low fertility rate for Anglo women age fifteen to nineteen, the sharp decline in Anglo females above this age means that most who gave birth were relatively young. The number of Anglo women between ages twenty and twenty-nine was so small, that a single ten year category had to be used to calculate a rate consistent with the general pattern. But, the result is still much higher than average for low fertility nations such as the United States. Why Anglos had children early and often may relate to the possibility of "selection;" that is, women postponing marriage and

Table 13

Birth Rates of the Douglas
Spanish Surname and Non Spanish Surname Women, 1968-69*

<u>Annual Birth Rates</u> <u>per 1,000 Women</u>	<u>Douglas</u> <u>Spanish</u> <u>Surname</u>	<u>Douglas</u> <u>Non Spanish</u> <u>Surname</u>	<u>Mexico</u>	<u>United States</u>
Ages: 15-19	64.7	58.4	50-100	20-30
20-24	324.5	262.2	249	158
25-29	202.1		327	163
30-34	165.9	57.9	275	88
35-39	74.5	37.4	207	40
40-44	34.5	24.2	98	11
General Annual Birth Rate per 1,000 Women Age 15-44	138.7	98.5	184	75

*Source: computer tapes provided by the Division of Health Records and Statistics, Arizona State Department of Health, through the Arizona Regional Medical Program, and U.S. Bureau of the Census. Census of Population: 1970. General Social and Economic Characteristics. Final Report PC(1)-C4, Arizona.

oriented to small families may have left Douglas to pursue an education or career, while those remaining would be more inclined to high fertility. Such high fertility might also accompany low income and economic problems and reflect traditional patterns of reproduction in small towns in the United States.

The high fertility of Douglas women has important consequences for the entire community's social structure. When a population has high fertility without out-migration, the average age of the population tends to decline or "youthens." This means that the proportion of children and adolescents in the population increases relative to older age groups. In Douglas, we find the rather unusual situation of "youthening" while high out-migration of teenagers takes place. The percentage of young people between ages five and nineteen has steadily increased from about one fourth the population in 1950 to nearly one third in 1970. Since out-migration is more pronounced among teenage girls, the teenage male population has proportionately out-numbered the females.

"Youthening" helps explain the steadily increasing proportion of single persons among adults at least fourteen years old, up from about twenty-three percent in 1950 to almost thirty percent in 1970. While such increases are normally attributed to a trend toward later marriage, in Douglas, the increasing number of adolescents and the prevalence of early childbirth favor the conclusion that no significant change has taken place in the pattern of early marriage. There were more single people because no matter how many leave Douglas, many others are coming up the age ladder.

The greater number of males among late adolescents stands in sharp contrast with the predominance of women at older ages. In 1970, for

example, there were a hundred and ten males for every hundred females in the fifteen to nineteen age category. While this may have been partially affected by the presence of students at Cochise College, or by the immigration of Mexican males, it suggests that chances for marriage were not the same for both sexes. In a community oriented to early marriage, young men would be at a disadvantage to find marriageable partners, another possible incentive for out-migration.

The disproportion was particularly evident among Mexican Americans, for whom the 1970 census showed a ratio of one hundred and fifteen males for every hundred females in the fifteen to nineteen age category. It also became evident in the vital register information on births. Only a small percentage of fathers were below twenty years old, while the median age fell in the twenty-five to twenty-nine category, significantly higher than the median of twenty years for mothers. The large disparity in age between the sexes is well out-of-line with the trend that has been taking place in the United States for decades; husbands are usually one or at most, two years older than their wives. Again, the bicultural question arises, since it is generally held that age differences among spouses are greater in Mexico, and that migration and uprooting lengthen the time men take to marry and father children.

Illegitimate births provide yet another understandable motivation for out-migration among youth. Regardless of ethnicity or sex, illegitimate births often disrupt the usual sequence of life events and may force unexpected commitments into a person's life. Of all the babies born in Douglas during 1968 and 1969, nearly ten percent were recorded to unmarried parents, somewhat higher than the figure for the United States of

about eight percent. While the Mexican American rate was average for the nation, the Anglo rate was higher, especially in 1969, when it was almost thirteen percent. It is also known that where early marriage and child-birth prevail, legitimate first births include a fair number of pregnancies originating before marriage. In these places, accidental or intentional pregnancies are often a major reason for marriage. Assuming that the Douglas community is no more permissive than most small cities, conception before or outside marriage would provide an additional motive for out-migration or early marriage. In this respect, Douglas may differ somewhat from national trends. Illegitimacy has decidedly increased in the United States since 1940, but the latest trend toward postponed marriages and the legalization of abortion have reversed the trend, while the emerging alternatives to traditional marriages have lent a certain social acceptability to children previously designated as born out of legal wedlock.⁵

An analysis of birth records provided several additional insights into these delicate aspects of social life in Douglas. The records showed that about one out of every four deliveries belonged to parents who were not residents of Douglas. Forty percent of the non-resident births were to parents living in Mexico, high enough to suggest that medical facilities on the United States side were used by preference rather than on an unintended or emergency basis. Some Mexican parents most likely desired to have their child delivered and registered in Douglas to secure United States citizenship, and in many cases, dual citizenship when the child was also registered in Mexico. The remaining non-resident births were mostly

to Arizona residents, many reporting addresses in Cochise county and some from Pima County. Thus, the two Douglas hospitals were mainly providing maternity services for natives, but also for parents from outlying areas and for Douglas natives who settled elsewhere in Arizona and chose to return to Douglas for childbirth, perhaps in order to be with relatives.

In almost every respect, the characteristics of non-resident births resemble those of resident births: about seventy-five percent Spanish surname (either or both parents) with approximately the same distribution by age of parents, birth order, and time since last pregnancy. Both residents and non-residents made greater use of the Phelps-Dodge Hospital than of the Cochise County Hospital, especially in 1969, when births taking place at the latter diminished sharply as compared with the previous year.

Birth records also indicated that the biological characteristics of the child, its length, weight, and the instances of premature and still-birth deliveries, did not significantly differ from national figures. However, the usual sex ratio was reversed. In contrast to the one hundred and four to one hundred and six males born for every one hundred females in almost all large populations with recorded data, female births outnumbered male births in Douglas by a slight margin. No immediate explanation seems evident, except that in small populations unusual cases may be found on a random basis. This possibility has not been researched in any extensive manner and is virtually ignored in demographic literature.

Mortality

Life tables and detailed death rates are usually based on populations much larger than Douglas, which by their magnitude offer a firm basis for tracing the incidence and patterned regularities of this event. Since deaths were less numerous than births and were distributed among all age groups, it was not possible to construct a full array of statistics. For this reason, our analysis of mortality will concentrate on a general overview and interpretation of whatever results came from the research.

In view of the rather large proportion of older persons in the Douglas population, the general mortality rates reported for the city in the Arizona Vital Statistics publications seem somewhat low (about 11 deaths per 1,000 inhabitants). The national rate of nine to ten deaths per 1,000 is typical of a population with a much larger proportion of young adults, who have a minimal risk of dying. On further examination, it was discovered that a major portion of deaths occurring in Douglas were of Anglo residents, whose death rate was more than twice the national average, obviously reflecting the older age structure of the Anglo population. Whatever death rates could be calculated from age 50 on were comparable to national rates, which implies that no unusual conditions were operating relative to Anglo life chances.

The Douglas mortality rate was undoubtedly reduced by the tendency for members of the Mexican ethnic group to go elsewhere to die. Among the elderly, deaths recorded in public records were too infrequent for usual conditions, suggesting that Mexican Americans with serious illnesses often resorted to medical treatment and hospitalization outside Douglas. Another

reason for the low deaths rates may be a tendency to retire or return to Mexico. Both explanations seem plausible, given the large and increasing number of older persons in the Douglas population who are of Mexican origin. Lower costs, greater accessibility, socialized medicine, and easier verbal communication is generally believed to attract many persons of a Mexican heritage to medical services across the international border.

Data on causes of death were informative regarding alternate health care systems. As with births, about one death in four occurred to non-residents of Douglas. But, very few Spanish surnamed persons were found among the non-resident deaths, suggesting that for terminal ailments, Mexicans were not seeking medical treatment in Douglas. Secondly, more than half of the deaths of persons with Spanish surnames involved heart attacks and cerebrovascular hemorrhages, illnesses marked by sudden and unexpected appearance. Although these are leading causes of death in the United States, their prevalence among Mexican Americans in Douglas (in contrast to chronic illnesses) seems to indicate that local facilities were more often used by them in such emergency cases. In Mexico, by contrast, senility outranks the cardiovascular diseases as the leading cause of death among the elderly; other long term degenerative ailments are an important element of the mortality picture.⁶

In line with national trends, heart disease claimed the most lives among Anglos at a rate even higher than among Mexican Americans. In both ethnic groups cancer was less frequent than generally found in the United States, and the rate attributable to accident and violence (suicide and

homicide) was exceptionally low. The near-universal pattern of higher death rates for males held true among Anglo Americans, which helps explain the large proportion of elderly women and widows. The Mexican American ethnic group had an inconsistent pattern, the female rate of demise being slightly higher than that of males, except during middle age. Again, the smallness of the population and the availability of alternatives for medical services may notably affect these results.

Special mention is needed for two surprising findings: the virtual absence of respiratory diseases as a recorded cause of death, contrary to expectations in a mining-smelter community marked by a high level of chemical and dust pollution; and the similar absence of the infective, parasitic and anemic diseases often found in populations affected by poverty. One wonders whether, in certain cases, the cause of death (frequently involving more than a single symptom) may have been assigned to a category other than those associated with the adverse ecological conditions.

In any population, the high risk of death in the first year of life requires particular attention, especially because the infant ~~mortality~~ rate is a sensitive indicator of quality in the social environment on which babies depend. This rate compares deaths with births, in order to determine how many babies die during the first twelve months of their lives. In general, the Douglas infant mortality rate for 1968-69 (18 deaths per 1,000 live births), was slightly lower than the national average (20 deaths per live births). However, the United States average for the late 1960's was high for an affluent, industrial society, compared with measures of 11 to 14 in several European nations. Since

then, some improvement has been obtained, although the American rate remains higher than in similar nations.

One of the leading explanations for the difference assumes a much higher infant mortality rate among minority and economically depressed segments of the American population and supposes that these segments bring up the national average. In the present instance, this explanation was not substantiated, since Douglas compared favorably with the national average, and the Mexican American rate (17) was even lower than that of Anglo Americans (21). Moreover, infant deaths where the parents were not residents of Douglas made up a major portion of the Anglo total. Removing these non-residents from consideration, the local picture appears even more favorable, suggesting at face value a sound environment for infants. But to accept this conclusion firmly, evidence that infants born in Douglas do not die elsewhere would be needed, and some indication as to why the age-old relation between poverty and infant mortality was not as operative as in the many cases which have given the infant death rate its traditionally negative social meaning.

Summary

Since the 1950s, the population of Douglas has remained at about the same level, slightly more than 12,000. This stability stands in contrast with the rapid expansion of communities of similar size and locations in Arizona and the state itself, which have recently experienced rapid population growth. The steady state cannot be attributed to fertility rates and mortality rates canceling one another with the effect of zero

population change. Fertility is high in Douglas and mortality rates are below the national and regional averages. Moreover, mortality rates fail to account for the losses in population known to have been born in Douglas. Migration, the third factor influencing population change provides a more decisive explanation for the many unusual features that emerge when the city's population structure is carefully analyzed.

The combination of high fertility, low mortality, high immigration from Mexico and somewhat lower out-migration than Anglos has fostered an increase in the proportions of peoples of Mexican and Mexican American identity in the population. This trend has left Anglos in a declining minority in terms of numbers, making up about one fourth of the population in 1970, and with no clear sign of increase.

Anglos, nonetheless, form a dominant group in the Douglas economy as is evident in their overwhelming representation among persons and families having higher incomes and higher status occupations. When Douglas was compared with other communities in Arizona, several indicators of affluence and poverty revealed it to be a relatively poor town, with limited economic opportunity and promise for future development. The consequence of this combination of circumstances has been a massive out-migration of its people. This exodus has not been uniform among the various elements of the population, however, the propensity to leave has been greatest among teenagers and young adults, with Anglos leaving more frequently than Mexican Americans and males of both ethnic groups more than females. But, even the group least affected by out-migration -- Mexican American young women -- have an impressive tendency to leave the town. The out-migration of youth affects all social and economic classes in Douglas, and variations relate

mainly to the timing of out-migration. Most upper class youth delay the decision to leave Douglas until high school graduation, while some of the middle and lower class youth leave while still at ages when senior high school attendance is usual.

The situation of Douglas on the United States - Mexico border and the economic institutions profiting from this condition have exacerbated the problem by encouraging a high rate of immigration from Mexico, creating further pressure on the employment situation. More recently, this pressure has probably been decreasing with the expansion of employment opportunities in Agua Prieta. In contrast to Douglas, Agua Prieta has more than doubled its population during the last 20 years to a point where it was twice the size of Douglas (23,272) in 1970.

Data on place of birth suggests that these out-migrants are being replaced by a less numerous, yet significant, inflow of migrants from other parts of the United States and Mexico and to a minor extent from the twin city of Agua Prieta. The consequence of this migratory exchange is that less than a quarter of those living in Douglas in 1971 were born there. Moreover, in this core group the proportion of Anglo to Mexican heritage was similar to that of the whole population, demonstrating again the pervasive character of the outward and inward movement.

Among many other results, migration has affected the dynamics of population change in the remaining population. Typical of small towns and past trends, Douglas women show an early marriage and childbirth syndrome, with fertility rates higher than the national average. Furthermore, a comparison of the fertility rates of the Anglo and Mexican heritage

populations showed that the reproductive rates of both groups were at levels between those recorded in the United States and Mexico in recent years. Mexican Americans had lower fertility rates than average for Mexico, but higher than those of Douglas Anglo women. Likewise, Douglas Anglo women had rates higher than the national American average, but lower than Douglas Mexican American women. While the "in-between" pattern suggests Douglas is a bi-cultural town, combining population patterns of Mexico and the United States, several important aspects escaped analysis due to the limitations of census and vital register data sources.

When death records were examined for all ages, mortality rates were higher than the national average for Anglos, while Mexican American death rates were unexpectedly low. This was not indicative of actual health conditions because of the large proportions of older persons among Anglos -- individuals who did not differ from the national mortality profile, but whose greater chances of dying elevated the general death rate. Older persons of Mexican origin seemed to rely on medical services and prefer retirement and death outside Douglas, judging by the relatively infrequent instances of demise in public records and the sudden and traumatic nature of the causes of deaths recorded. Mortality at younger ages followed a relatively normal pattern, except that the infant mortality rate, particularly for Mexican Americans was lower than average for the United States. This result contradicts established explanations that assume a direct relation between poverty and infant mortality.

The economic and occupational opportunities in Douglas have been adequate only to sustain a certain level of population. Beyond this, the town

is unable to absorb more people, especially the major portion of its own youth who annually become eligible for employment but who eventually leave the city, hopeful of chances elsewhere. This means that in Douglas, human resources are being educated and prepared for opportunities in other cities and states. If it were not for these economic limits to growth, the natural increase from births and in-migration would have pushed population growth to well above three percent per year. Viewed from another perspective, the population of Douglas would have doubled since 1950 rather than have held constant. Subsequent chapters will consider the social and economic adjustments Douglas has made to the inner demographic workings of the steady state just described.

Footnotes

1. For further details, see Jose Hernandez, Leo Estrada and David Alvarez. "Census Data and the Problem on Conceptually Defining the Mexican American Population," Social Science Quarterly 53, 4 (March 1973): 671-687. The Mexican generation break-down is based on Douglas nativity distribution, excluding non-Mexican foreign stock from the foreign-born and foreign parentage categories. These figures were subtracted from the Spanish language or surname, and origin totals, to obtain the native of native parentage. Given the nationality composition and limited size of the non-Mexican foreign stock, it was assumed to follow the 1970 United States pattern, or 28 percent foreign and 72 percent foreign parentage. Between 1960 and 1970, a change in census designation for Mexican Americans may have contributed slightly to an increase in the number of persons in this group, since the new classification included persons not having a Spanish surname, but "exposed to the use of the Spanish language at home, during early childhood." But for Douglas, the margin would seem exceedingly small, probably no greater than the 67 persons enumerated as being of Spanish surname, but not Spanish language. For many United States citizens of Mexican origin today, the hyphenated term "Mexican-American" denotes the proestablishment orientation of the traditional upper- and middle-class people who favor and exemplify assimilation into the Anglo-North American life style. The new middle class of persons oriented to biculturalism, bilingualism, and innovations within the system usually prefer the term "Mexican American" without the hyphen, to emphasize a pluralistic belief that minority groups can live in harmony, mutual respect, and equality with the majority while only partially assimilating to Anglo mainstream values. In most areas of the Southwest, the term "Chicano" is a shade closer to militancy, since it is often associated with youth, feelings of indignation toward continued minority status, and the need for structural changes in the system. The term "Mexican" commonly refers to recent immigrants who remain effectively outside the system because they cannot speak English, cannot vote, have not entered the United States legally, and so on. In everyday life these distinctions are sometimes blurred, and different terms are used depending on the circumstances and audience. At present, "Mexican American" seems the most neutral term, but the trend appears to be toward an increasing use of "Chicano," as happened in the case of "Black."
2. Measures separating each class were relatively clear cut and left very little internal variation. A correlation matrix comparing the enumeration districts according to the five variables listed in Figure 4 yielded an overall coefficient of .848, while individual measures all matched each other at .734 or higher and coefficients above .900 were obtained in four combinations.

Footnotes (Cont.)

3. Data on Tables 11 to 13 is based on an average for both years: number of births, and population estimates (the latter interpolated from 1960-70 totals). Attempts to refine on an actuarial basis yielded very similar figures. Rates for non-Spanish surname women were affected by a very small population total in the 25-29 category. Combining this with the 20-24 category produced total birth and gross reproduction rates apparently more in line with the general birth rate. Sources: computer tapes provided by the Division of Health Records and Statistics, Arizona State Department of Health, through the Arizona Regional Medical Program, and United States Census publications previously cited. Rates listed as typical of Mexico and the United States at present are based on approximations derived from the general literature and estimates for populations having crude birth rates of 42 and 18 per 1,000 inhabitants.
4. Previous studies of Mexican Americans have revealed a higher reproduction rate than usual for the United States, attributed by researchers to cultural continuity in norms for behavior. Benjamin S. Bradshaw and Frank D. Bean, "Trends in the Fertility of Mexican Americans," Social Science Quarterly 53 (March 1973): 688-696, and Some Aspects of the Fertility of Mexican Americans, Report of the Commission on Population Growth and the American Future, Research Papers, Washington, D.C., 1972. David Alvirez, "The Effects of Formal Church Affiliation and Religiosity on the Fertility Patterns of Mexican American Catholics," Demography 10 (February 1973): 19-36.
5. United States Department of Health, Education and Welfare. Trends of Illegitimacy, United States - 1940-65. Nationality Statistics Analysis, 1965-67. Marriages: Trends and Characteristics, United States Washington: National Center for Health Statistics, Series 21, No. 15, 19, 21, 1968-71. Also, same source, Monthly Vital Statistics Report, Vol. 15, No. 3, June 1966 and Vol. 18, No. 12, March 1970.
6. Samuel H. Preston, Nathan Keyfitz and Robert Schoen, Causes of Death: Life Tables for National Populations. New York: Seminar Press, 1972. Also consulted were the Arizona State Department of Health publications, Arizona Health Trends, 1950-66 and Vital Statistics, Annual Reports, 1967, 1968, and United States Department of Health, Education and Welfare, United States Life Tables by Causes of Death: 1959-61. Washington: National Center for Health Statistics, 1968.

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Chapter 4

ECONOMY

Thomas McGuire

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Thomas McGuire

The state of the Douglas economy, a subject of continuous and frequent concern to residents, can most easily be described as one of uncertainty. Such a characterization does not mean that Douglas faces a destiny of becoming a ghost town. Rather than forecasting the economic demise of the town, as outside observers have recently done, or suggesting, with little basis in fact, that Douglas is on the verge of the explosive growth that has characterized other Arizona towns, we will attempt to show that Douglas has the potential for moderate growth in the future.

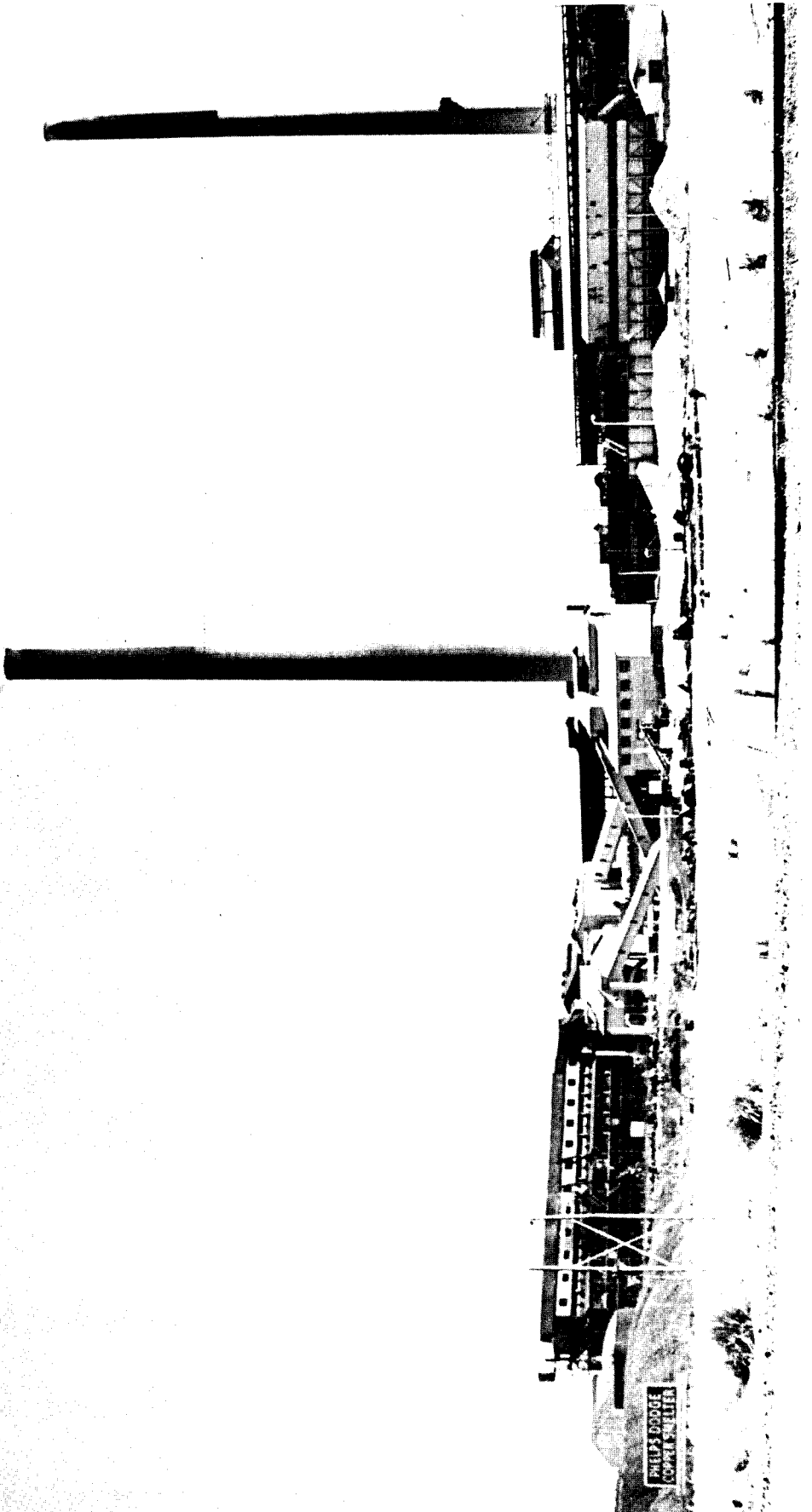
For this growth to be realized, Douglas has to come to grips with some pressing economic and social problems. It must realize that there are problems deriving from the four essential characteristics of the town: a past history as a one-company town; a multi-ethnic composition in which approximately 80 percent of the residents are citizens of Mexican descent; a location along an international border; and a small-town attitude towards or relationship to dominant metropolitan centers.

A One-company Town

Since its founding early in the century, Douglas has been dominated by one company. Phelps-Dodge or "PD" as it is known to Douglas residents, has been a major employer and taxpayer in the county. One consequence of the preeminence of one company is a lack of autonomy and self-control: Douglas to a greater or lesser extent since its founding, has been at the mercy of outside events. Policy decisions made at the main office of the company, world-wide fluctuations in copper demand and prices, unsteady supplies of copper ore, and recently, air pollution standards emanating from Phoenix and Washington have had and will continue to have an effect on the Phelps-Dodge operations in Douglas, and thus on the economy of the town.

There is a danger, however, in overestimating the effect that Phelps-Dodge has had on the Douglas economy. While it is difficult to measure this effect directly, we can make some inferences by comparing shifts in population and copper production in Douglas with similar data from Ajo, Arizona. Ajo, in western Pima County, has also been the site of Phelps-Dodge copper mining and smelting activities, and has no other economic base. In a study of Ajo conducted in the early 1950's, John Leonard found a close match between copper production and the growth and decline of population. For example,

It is obvious that both production and population over the years 1930 to 1940 rose at a faster rate than did production and population during the years 1940 to 1950. As a result we can assume that the population of Ajo is primarily a function of the operations at the New Cornelia Branch. When production at the mine increases at a rapid rate over an extended period, the population also increases at a rapid rate. When production at the mine increases at a slower rate, the rate of increase in population also diminishes. (1954:30)



Bringing Leonard's figure up to date (Figure 1), we can see the rather close association between population and copper production in Ajo. Only since 1960 have the two deviated, with production remaining relatively constant while population declines.

When we examine comparable data for Douglas, population and production curves do not match (Figure 2). Population declined between 1930 and 1940, when the amount of ore tonnage handled at the Douglas smelter increased. And conversely, between 1940 and 1950, population rose slightly while the tonnage decreased. Population has continued to increase at a slight rate since 1950, whereas the smelter has not approached its earlier peak of 1937.

This comparison suggests that the smelter operations in Douglas have not had the preeminent effect on population that they had on Ajo. Douglas, in effect, has been less of a company town than Ajo, a town whose sole economic base has been the mineral industry. If we think of Ajo as the "typical" one-company town, Douglas by comparison is not typical.

Additional evidence supports this conclusion. Leonard, in his Ajo study, compared the number of jobs in "basic" and "non-basic" economic sectors. Basic activities included "efforts devoted to the production of goods and services which are exported from the city" (e.g. mining and smelting), whereas non-basic activities "consist of those endeavors directed toward the production of goods and services which are consumed within the city" (Leonard, 1954:1). In 1950, Leonard found 1,126 employees in the basic class and only 383 workers in other, non-basic areas, for a ratio of 100 basic employees to only 34 non-basic employees in Ajo. In Douglas,

Figure 1: Copper Production and Population Change in Ajo

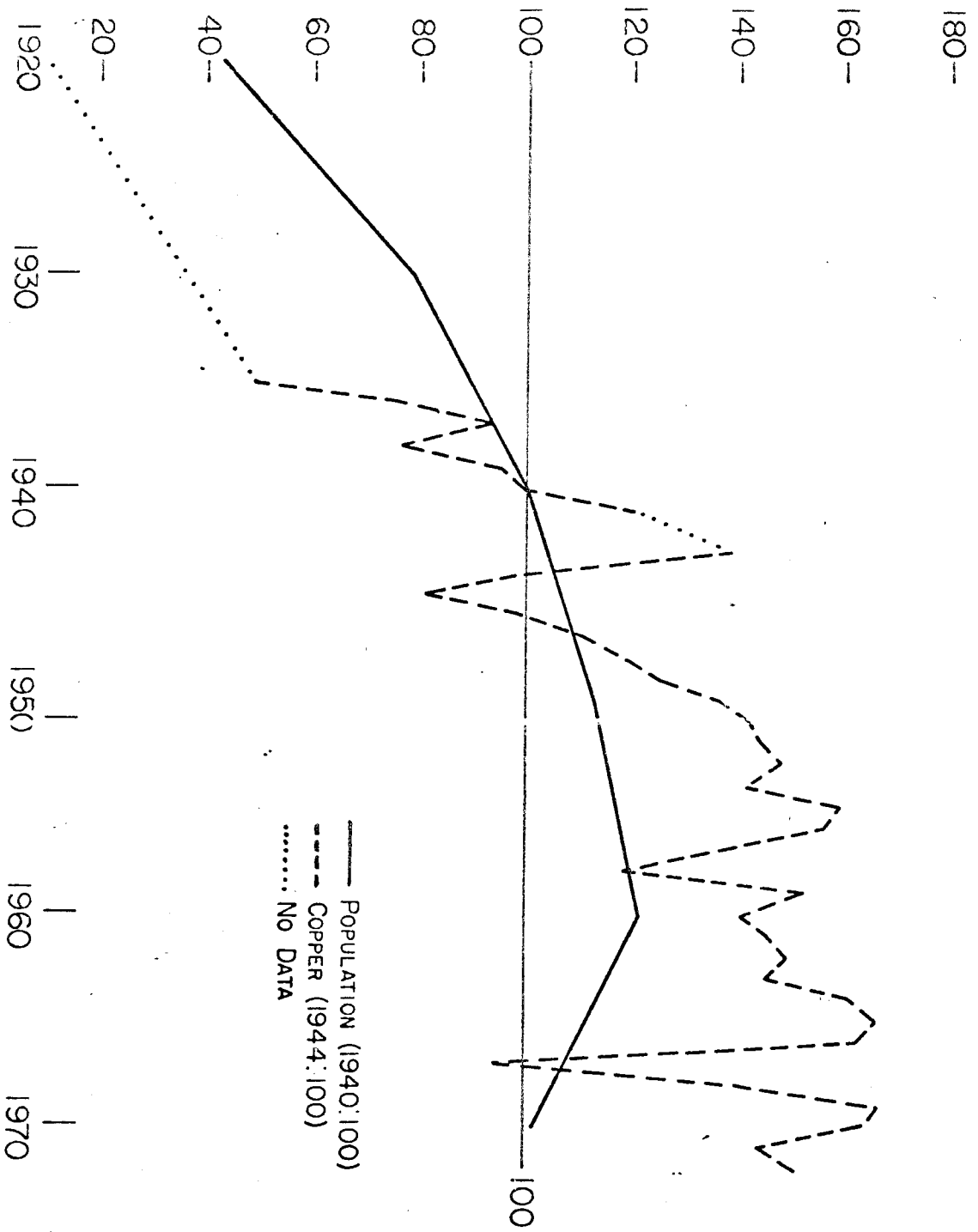
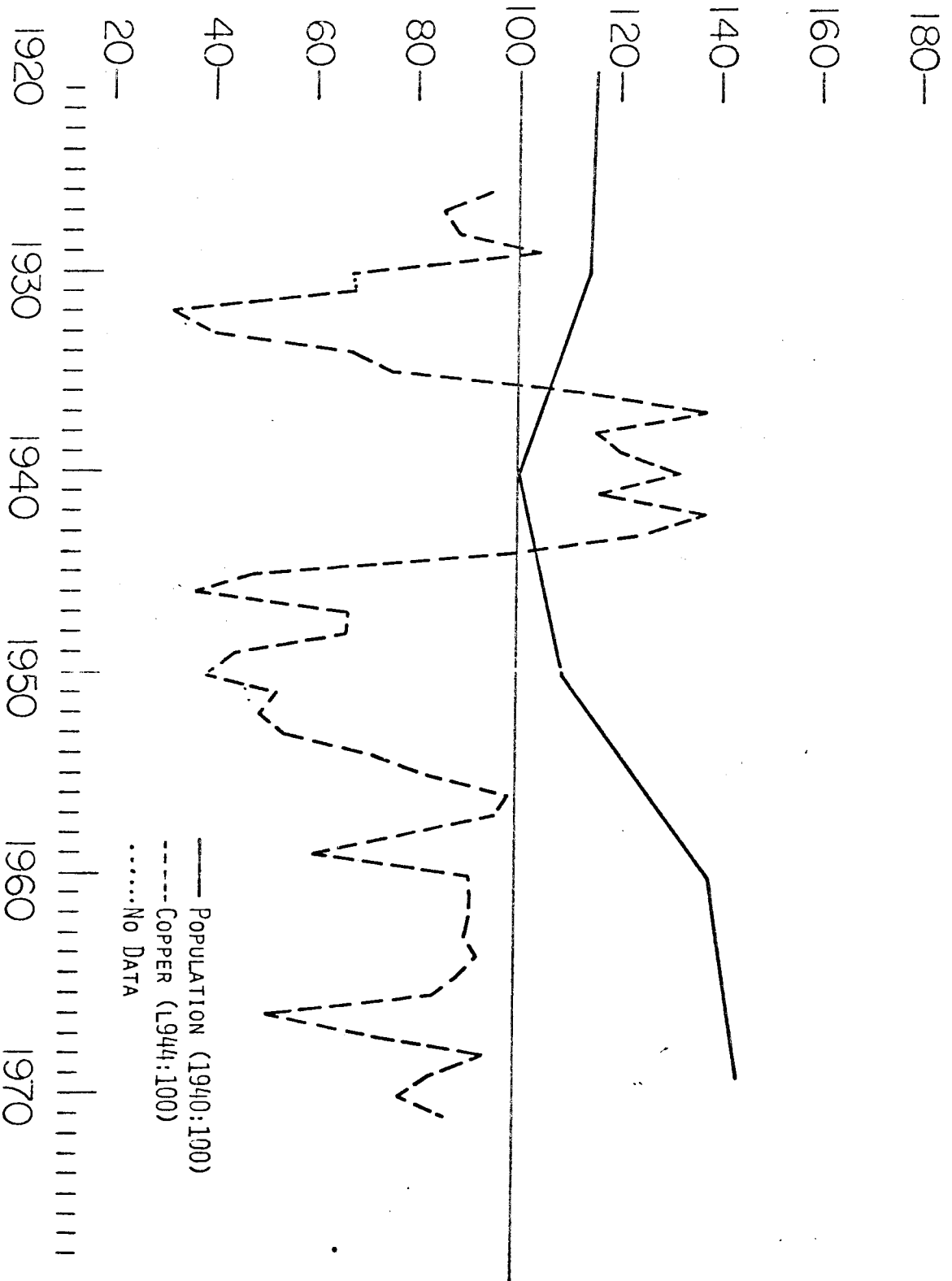


FIGURE 2: COPPER PRODUCTION AND POPULATION CHANGE IN DOUGLAS



in the same year, there were 439 basic employees to 3,720 non-basic employees for a ratio of 100 for every 847 non-basic employees. Thus, the mine-related employment in Ajo represented a substantially greater percentage of total employment than it did in Douglas.

A more detailed examination of the allocation of non-basic jobs further highlights the discrepancies between Douglas and Ajo, the typical one-company town. Table 1 presents comparative data for Ajo and Douglas in 1950, as well as Wichita, Kansas. Wichita, in 1940, could be characterized as a fairly large city of 114,966 persons, with a diversified economic base. Comparing these three towns, we see that in 1950 Douglas was more similar to Wichita than to Ajo. Wholesale and retail trade accounted for 27 percent and 22 percent of non-basic jobs in Wichita and Douglas, respectively. In these two towns, a sizeable percentage of workers were employed in agriculture, construction and manufacturing; in Ajo these sectors of the economy were non-existent.

Although Phelps-Dodge was undoubtedly important to the economy of Douglas, these comparisons indicate that, as far back as 1950, Douglas was diverging from the typical one-company town. This divergence has continued, as a comparison with Bisbee in 1970 indicates. Out of a total work force in Bisbee of 2,671, sixteen hundred workers were employed in mining activities (Gibson et. al., 1971:3). This gives a ratio of 100 basic employees to 67 non-basic employees. By contrast, the ratio in Douglas (1970) was 100 to 570. When we compare the non-copper employment for the two towns, the importance of manufacturing activity to the Douglas economy becomes evident (Table 2). Manufacturing constituted 32 percent of the non-mining jobs in Douglas, but only 7.6 percent of the non-copper labor force in Bisbee.

Table 1
Non-Basic Employment By Industry Class: Ajo (1950);
Wichita (1940); Douglas (1950)

<u>Industry</u>	Ajo		Wichita		Douglas	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Agriculture	0	0.0	1109	3.0	165	4.4
Mining	0	0.0	50	.9	135	3.6
Construction	0	0.0	2837	8.0	410	11.0
Manufacturing	0	0.0	2705	7.0	470	12.6
Transportation, Communication, Public Utilities	35	9.0	3752	10.0	380	10.2
Trade	193	50.0	10,115	27.0	820	22.0
Finance, Real Estate, Insurance	8	2.0	2729	7.0	180	4.8
Service	119	31.0	11,200	30.0	805	21.6
Government	28	7.0	1765	5.0	240	6.4
Industry Not Re- porting	0	0.0	886	2.0	145	3.9
Total	383	100.0	37,148	100.0	3720	100.0

Sources: Leonard, 1954: Douglas Community Plan, 1964.

Table 2

Non-Copper Employment by Industry Class: Bisbee (1970) and Douglas (1970)

<u>Industry</u>	Bisbee		Douglas	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
Construction	24	2.2	186	5.1
Manufacturing	81	7.6	1150	31.6
Trade	627	58.5	744	20.5
Finance, Real Estate, Insurance	70	6.5	145	4.0
Public Service	54	5.0	864	23.8
Service	215	20.0	545	15.0
Total	1071	100.0	3634	100.0

Sources: Lay J. Gibson et al., 1971, p. 3; Douglas Community Prospectus, 1973, p. P-3.

Even though the data presented above point to a divergence from the typical one-company town, we must not underestimate the impact of Phelps-Dodge on the Douglas economy. A recent input-output analysis of the Bisbee-Douglas area (Ayers and Layton, 1972), predicting a dismal future should the P-D smelter phase down its operation, stirred up emotions among the citizens with strong beliefs in the importance of the company. The views expressed by one resident typify this reaction:

It irks me to have people outside of Douglas, even though they have fancy degrees, come into our area and try to tear down in a short time what old-time citizens have worked a lifetime to build.

(The Douglas Dispatch, December 6, 1972)

A Small Town

Douglas, the largest town in Cochise County and twelfth largest in the state, is nevertheless a "small town" when compared to the rapidly growing metropolitan areas of Phoenix and Tucson. But even using the loose and relative definition of a small town, Douglas is not typical: only a fence and a set of tariff regulations separate Douglas from Agua Prieta, Sonora, a growing community of 23,272 Mexican citizens. The Douglas-Agua Prieta area thus represents a total population of about 36,000 people, equal in size to the Phoenix suburb of Glendale.

This ambiguous position -- not a small town but not a large city either -- means that Douglas has to contend with problems found in both small towns and large cities. This situation has a positive aspect as well: Douglas shows some of the benefits of both the small town and the larger city. Even though we will spend more time examining the problems, we should not ignore the fact that most people interviewed would rather remain in Douglas than move to a larger town.

Services

People generally believe that small towns in non-metropolitan areas will lack the quantity and variety of retail stores and services found in larger areas. A comparison of selected types of establishments in Douglas, Prescott, and Tucson, however, suggests that small towns are not always deficient (Table 3). When we rank the three towns in terms of fewest number of people served by particular types of establishments (or conversely, more establishments per person), we find that Prescott (12 points) ranks first, followed by Douglas (20 points)

Table 3

Selected Business Establishments and Services, 1970.

	Tucson, Az. pop. 262,933			Douglas, Az. pop. 12,462			Prescott, Az. pop. 13,134		
	Number	Persons served ¹	Rank	Number	Persons served	Rank	Number	Persons	Rank
Services	169	1558	2	4	3115	3	14	938	1
Dentists									
Funeral Homes	23	11,431	3	2	6231	2	3	4378	1
Barber Shops	61	4310	1	2	6231	2	2	6567	3
T.V. Repair Shops	111	2369	2	3	4154	3	11	1194	1
Movie Theaters	29	9067	3	2	6231	1	2	6567	2
Gas Stations	309	851	3	18	692	2	33	398	1
Beauty Shops	231	1138	3	11	1133	2	17	773	1
Hardware Stores	51	5155	2	2	6231	3	10	1313	1
Self-Service Laundries	29	9067	3	4	3115	2	8	1642	1
Total Rank Points			22			20			12

Source: Telephone Books

1. Computed by dividing the total population of the town by the number of establishments.

and Tucson (22 points). This rather crude procedure indicates that large cities such as Tucson have fewer establishments per person than smaller towns such as Prescott. And, interestingly, it appears that Douglas is more characteristic of large cities than small towns in this regard.

This comparison does not mean that Douglas is on the road to becoming a metropolitan area like Tucson. Rather, it means that Douglas stores and service establishments may be just as crowded as those of a larger city, but without the variety and diversity found in metropolitan areas. For example, even though there are more movie theaters per person in Douglas than in Tucson, there is a much smaller selection of movies to choose from on any given night.

The relatively small size of Douglas affects other services, as well. Uncertainty surrounds the continuation of both air and rail service to the town. A subsidiary of one of the major national carriers currently provides air service to Douglas. During 1972, the parent airline decided it was unprofitable to continue its flights to non-metropolitan Arizona towns and petitioned the Civil Aeronautics Board to remove Douglas from its route schedule. According to a newspaper account, "Douglas' 1972 passenger boarding averaged .96 per day each way, or about one flight for every Douglas passenger" (The Douglas Dispatch, October 18, 1972). But early in 1973, new life was given to the local airlines: the Civil Aeronautics Board, local Douglas officials, and the national airline appeared ready to reach a compromise agreement extending the subsidy from the parent airline for 18 months, hopefully allowing the local carrier time to become self-sufficient (The Douglas Dispatch, March 13, 1973).

The continuation of rail service to Douglas also remains doubtful. A representative of Southern Pacific Railroad, speaking at the Douglas Economic Development Seminar (July 1, 1973), announced that the railroad may be forced to end its spur service to Douglas if the Phelps-Dodge smelter shuts down. Such a move by SP would further isolate Douglas and make it less attractive to new manufacturing plants that would use rail service.

The uncertain future of rail and air links with metropolitan areas indicates the precarious situation of many small towns. Too small to provide the steady volume of passengers and cargo necessary for profitable operation, Douglas may lose these services entirely. Such a loss would make further growth of the town difficult.

These two examples also typify a larger problem facing small towns: lack of control over decisions affecting the town. The future of rail and air service will ultimately depend on government regulating bodies operating out of Washington, D.C. -- the Civil Aeronautics Board and the Environmental Protection Agency. Thus Douglas, while it can make its views known, remains by and large at the mercy of outside forces and policy makers who are unfamiliar or unconcerned with the social consequences of their decisions.

Another problem faced by many small towns is a lack of housing. The housing industry expresses reluctance to construct many new homes or rental units in towns with stable or slowing population growth. In turn, the resultant shortage acts as a check on increased employment and economic expansion. Skilled laborers from metropolitan areas are reluctant to move to small towns where the possibility of finding housing is slim, and industries may avoid a town which cannot provide space for new employees.

De Gennaro and Leaming, speaking of non-metropolitan Arizona in general, suggest another aspect of the housing problem:

There is reluctance among new employers to commit themselves to the purchase or construction of new homes in rural areas because of the limited job market. The result is an unfilled demand for rental housing (1973:12).

With this housing dilemma in mind, it is interesting to compare vacancy rates and population growth rates for the major towns in Cochise County (Table 4). If a shortage of vacant houses for sale is factor in preventing new workers from moving into town, Douglas is in bad shape. Compared to other towns in the county, it has a rate of less than one percent of the total number of housing units available for sale in town. On the other hand, Douglas has one of the highest rental vacancy rates in the county (four percent). This may prove attractive to outsiders coming to town for short or indeterminate periods.

Although the housing shortage may act as a check on the labor pool, additional factors associated with small towns also affect the supply of workers. One such factor is simply the widely-held belief that a shortage of jobs exists in a small town. Workers, whether professional, skilled or unskilled, feel they have a better chance of finding suitable jobs in a metropolitan area. Thus, such workers would be more apt to seek employment in cities and urban areas.

The net effect of this belief is, ironically, that there are more job openings for professional and skilled trades in Douglas than there are applicants. In other words, the small size of the Douglas job market has apparently frightened off suitable applicants despite the fact that the jobs are available. For example, when an Arizona Employment

Table 4

Cochise County Population Growth and Vacancy Rates

Town	Pop. Growth Rate		Vacant, For		Vacant, For	
	1960-70		Sale		Rent	
	<u>Rate</u>	<u>Rank</u>	<u>Units</u>	<u>%</u>	<u>Units</u>	<u>%</u>
Sierra Vista	+114.3	1	44	2	19	1
Benson	+13.8	2	33	3	25	1
Willcox	+5.2	3	40	5	24	3
Douglas	+4.5	4	13	1	141	4
Tombstone	-3.3	5	10	2	3	less than 1
Huachuca City	-6.7	6	24	5	2	less than 1
Bisbee	-16.0	7	56	2	131	4

Sources: Arizona Statistical Review, 1972; Wilsey and Hamn 1972, Housing Analysis.

Security Commission officials in Douglas was recently requested to find a high-level manager to oversee operations in one of the Twin Cities plants in Agua Prieta, he found no one in the Douglas area with the qualifications for that position.

Although the Commission was not able to solve this problem, it provides other useful services. According to one of its local administrators, the Commission has three major functions:

1. It functions as a clearing-house for local employees and laborers. Employers needing temporary or long-term help can contact the office and set up interviews with potential employees already living in the Douglas area.
2. It maintains a "Job Bank" of jobs around the county. Listings, which are updated daily, include salary range, experience required, duration and location. The major drawback to this service is that the jobs are advertized in similar 'job banks' throughout the county, thus increasing the competition. Moreover, most of the openings require relocation in different, often distant parts of the country.
3. The Arizona Employment Security Commission performs the valuable but informal function of recruiting qualified individuals from around the country to fill local job openings.

In addition to the services provided by Arizona Employment Security Commission, several vocational training programs in Douglas attempt to

supply qualified workers to local employers. According to local Arizona Employment Security Commission representatives, a training program at Cochise College meets the small but steady demand for needlepoint workers. Apparently the college program is flexible enough to train people for new types of industries that come to Douglas. For example, the Arizona Employment Security Commission representative said that they could easily set up a light metal-work shop if the need arose. This flexibility could be a selling point to potential twin plant operators since the vocational program could quickly provide the type of skilled or semi-skilled workers necessary for such plants.

At the high school level, however, the vocational training program is less efficient. The small-town school system, because of its small tax base, lacks funds for adequate high school training facilities and counseling.

Our questionnaire data indicate that most people believe the employment services in Douglas are adequate. However, an interesting pattern emerges when Anglo working-age respondents are compared to their Mexican American counterparts. Of the Anglos (with an unemployment rate of about 5 percent) 85 percent felt that the services were adequate. On the other hand, of the Mexican Americans (with a 9 percent unemployment rate), only 69 percent felt the services were adequate. This points out a problem area to which the A.E.S.C. should direct its attention: increasing its services to Mexican Americans.

Border Town

Although Douglas is neither a typical one-company town nor a typical small town, there can be no question that it is a border town. The same fence marks the city's boundary line and the international border. Moreover, Douglas shares a similar economy and a similar set of problems with other small towns along the United States - Mexican border. We will concern ourselves primarily with those facets of the Douglas economy that result from the town's proximity to Mexico: the twin plant concept, the commuter problem, and the developing economy of northern Sonora.

Twin-Plants

The Border Industrialization Program or "Twin Plants Concept" is the most recent in a series of programs taken by the Mexican government with the acquiescence, and sometimes, cooperation, of the United States government to develop its northern border. From the 1940's to the early 1960's, migration from interior Mexico to the United States was stimulated by the bracero program, which provided seasonal agricultural jobs on the United States farms. Although the program was discontinued in 1964, the northward migration to border cities did not cease. As a result, Mexicans coming north with the hope of raising their standard of living discovered over-populated cities, high unemployment rates, and few opportunities.

To alleviate this situation, Mexico in 1961 initiated a National Frontier Program (PRONAF):

Roads were paved; industrial parks were built with railroad spurs and sidings, electricity and water; factor buildings were constructed; and sections of the border cities were cleaned up and beautified.
(Ericson 1970:33)

An important additional step in border development was the Border Industrialization Program. Under the program, which became effective about 1967, United States industries were encouraged to locate a portion of their manufacturing operations in Mexican border cities.

(Mexico) waives its duties and regulations on the importation of machinery, equipment and raw materials for these plants, as well as its restrictions on foreign capital, so long as the end product, mainly assemblies of United States components, are exported. (Ibid.)

The twin plant program now employs over 17,000 workers along the 2,000 mile international border (Ibid.). It has been both highly praised and vehemently criticized. Advocates of the program have claimed that:

1. United States manufacturers locating on the border, with its abundant supply of cheap and easily trained labor, are more successful in meeting competition in United States markets from manufacturers in the Far East, Africa and the Carribbean.
2. United States production will benefit since Mexico's proximity permits administrative, clerical and warehousing operations, as well as to permit the manufacture of the basic product, to stay in the United States.
3. "United States border cities benefit from increased industrial and service employment as well as from the sale of goods and services to Mexican workers who spend part of their earnings in the United States." (Ibid.)

On the other hand, opponents of the program, primarily labor unions, claim that:

1. The program "encourages firms seeking lower wages to leave the United States and go to Mexico, thus creating unemployment in the United States".
2. "Prices paid by the American consumer for products made in the Mexican border area do not reflect the lower wage costs of Mexican workers."
3. Eventually the program "may create unemployment problems as Mexicans from the interior of the country migrate northward to participate in the economic opportunities, thus putting pressure on wages and labor standards in communities on both sides of the border". (Ibid.)
4. Most of the jobs go to women, thus overturning the male role in Mexican society.

The available data do not provide clear-cut support of either of these positions. Some evidence supports the claim that Mexican workers spend some of their wages in United States cities. A plant in Agua Prieta recently paid its workers in silver pesos, approximately 75 percent of which ended up in Douglas stores. However, a study of local employment service data for all border cities indicated that, as of 1970, only 350 new jobs in the United States could be directly attributed to twin plant operations (Ibid.). Thus, the third claim by the proponents of the plan may not be entirely warranted.

We have no reliable figures on the number of workers employed in twin plants in Douglas; the figure is probably somewhat over 500 persons. The data on twin plant employment in Agua Prieta are better, indicating that 2,284 workers were employed in March, 1973, 70 percent of whom were female (Table 5). Most of these workers were in laboring rather than managerial capacities.

A recent study of border town industrialization, written primarily as a manual for businessmen considering the feasibility of setting up a twin-plant operation, compares the attractiveness of particular cities and regions, for such operations (Baerressen, 1971). By reworking some of Baerressen's data we have come up with a rank-ordering of Mexican border cities based on important factors in a businessman's decision to choose one city over another (Table 6).

The first important factor is the availability of skilled labor of various types, including secretaries (bilingual), bookkeepers, office managers, accountants, and plant engineers. For each town studied, Baerressen rated each category of skilled labor in terms of a three-point scale: adequate supply, limited supply, and inadequate supply. We can compare these towns numerically by assigning a score of one to adequate supply, 2 to limited supply, and 3 points to an inadequate supply of skilled labor. By totaling the score for each town, we can arrive at a scale of available skilled labor; the lower the score for each town, the more adequate the supply of skilled labor. Column 1 in Table 6 shows this relative scoring of the towns.

Another important factor is the strength of Mexican unions, the assumption being that the weaker the union, the more attractive the

Table 5
 Assembly Plant Employment in Agua Prieta
 March, 1973

<u>Employment</u>	<u>Number</u>	<u>Percent</u>
Operators	1,949	100.0
Male	460	23.6
Female	1,489	76.4
Supervisors	335	100.0
Male	231	69.0
Female	104	31.0
Total Workers	2,284	100.0
Male	691	30.25
Female	1,593	69.75

Source: Sub Comision de Fomento Industrial (in Douglas
 Community Prospectus, 1973:P-3)

Table 6

Attractiveness of Border Towns to Twin-Plant Operations

Border Town	Availability of Skilled Labor	Union Strength	Water Supply	Electricity Supply	Telephone Service	Total Penalty Points	Rank
AGUA PRIETA, SONORA DOUGLAS, ARIZONA	13	1	2	2	3	21	3
CIUDAD JUAREZ, CHIHUAHUA EL PASO, TEXAS	8	3	2	2	2	17	1
MATAMOROS, TAMAULIPAS BROWNSVILLE, TEXAS	12	4	3	3	2	24	6
MEXICALI, BAJA CALIF. CALEXICO, CALIFORNIA	8	3	2	3	4	20	2
NOGALES, SONORA, NOGALES, AZ.	11	1	4	3	3	22	4
NUERO LAREDO, TAMAULIPAS LAREDO, TEXAS	11	4	2	3	3	23	5
PIEDRAS NEGRAS, COAHUILA EAGLE PASS, TEXAS	14	2	2	2	2	23	5
SAN LUIS R.C., SONORA YUMA, ARIZONA	18	1	3	3	3	28	7
TECATE	16	3	4	3	5	31	8
TIJUANA	8	3	4	3	4	22	4

Source: compiled from Baerresen

town will be for locating a twin-plant. If we assign a score of one to the weakest union and a score of 4 to the strongest union, we can get a relative scale of union strength (column 2, Table 6). Since there are no unions in the state of Sonora, the three Sonoran towns (San Luis R.C., Agua Prieta and Nogales) would be attractive to manufacturers.

Three other important factors are water supply, electric supply and telephone service. In these columns in Table 6, the lower the score, the better the supply or service. By totaling the points for each of these factors, (column 6), we can arrive at a relative index of attractiveness for each of the 10 towns (column 7). As indicated, Ciudad Juarez, Mexicali, and Agua Prieta are the most attractive towns for twin-plant locations, with Nogales and Tijuana closely following Agua Prieta.

This rough comparison suggests that the Agua-Prieta-Douglas area has the potential to attract new border industries. It should be noted, however, that there are other factors which make Douglas-Agua Prieta a less desirable location than some of the other border cities. For example, the area is relatively isolated from major urban centers, thus lacking adequate transportation facilities for bringing raw manufacturing materials into the area and shipping out the finished product.

There is another factor that may reduce the attractiveness not only of Douglas-Agua Prieta, but of the whole twin-plant program itself: the current uncertainty under which the program operates. During recent sessions of the U.S. Congress, bills have been introduced which would repeal the tariff benefits which make twin-plants plausible now. The issue has not been resolved yet, but the possibility of an eventual repeal of the

present tariff laws may have the effect of reducing the number of new plant openings. Companies may be unwilling to invest in a new plant when the possibility exists that it will have to shut down in the near future.

Commuters

Commuters are officially defined as "those aliens who lawfully have the privilege of residing in the United States but who choose to reside in foreign contiguous territory and commute to their jobs in the United States" (Ericson 1970:18). They play a significant role in the economies of most U.S.-Mexican border cities. And, as in the case of the twin plant program, the role of commuters is a topic of frequent emotional debate. This debate centers on three interrelated issues -- employment, wages, and trade union organization. Opponents claim that the commuter program leaves many United States citizens in border cities unemployed, lowers wages along the border, and prevents the development of effective unions. A 1969 AFL-CIO resolution has demanded Congressional action to halt the use of commuters during strikes, claiming that the commuter program induced "strike-breaking and unfair competition with workers seeking their rights to organize on the farms and in the factories of the U.S.". The United Farm Workers have requested similar action since "the fear of losing their jobs to commuter workers stops many resident agricultural workers from striking". (UFWOC organizer, testifying before the Senate Subcommittee on Migratory Labor, 1969; reprinted in Ericson, 1970:23).

On the other hand, supporters of the commuter laws quickly point out the beneficial effects the program has had on Mexican towns. Under the bracero program, which allowed substantial numbers of Mexicans to

work in the U.S., the population of Mexican border cities grew rapidly. Since the end of the bracero program in 1964, the commuter provision has allowed at least some of the Mexican workers in border cities to continue employment in the United States.

Published data on the number of commuters working in Douglas and Cochise County suggest that the impact of commuters on the labor force is not as substantial as it is in some other border areas. Table 7 shows that roughly 3.2 percent of the Douglas daytime population is composed of commuters, as compared to 12.4 percent in Nogales. Looking at the percentage of the total population of the Mexican city of origin of the commuters, we see that, in the Douglas-Agua Prieta case, the commuters are only a small fraction of the Agua Prieta population. This appears to be true for most of the border cities. Thus commuting does not provide a very substantial number of jobs for residents of the Mexican border cities.

Table 8 provides a rough breakdown of the occupations of commuters in Douglas and other border cities and strengthens this conclusion. In 1967, only 380 workers commuted daily to Douglas, whereas 1,118 went to work in Nogales. Although these figures are out of date -- an increase in twin plant operations has probably increased the number of commuting industrial workers -- they give an indication of the different proportion of occupations in the four cities. Particularly interesting here is the difference between Douglas and Nogales in the number of agricultural and sales/service workers. Nogales had 682 sales and service commuters, whereas Douglas had only 99. On the other hand, Douglas had 175 agricultural workers, and Nogales only 6. These differences no doubt reflect the greater orientation to tourism of the Nogales area.

Table 7

Commuter Workers as Percentage of Donor and Recipient Cities

<u>Cities</u>	<u>Population</u> ¹	<u>Primary Employment</u>	<u>Commuters</u> ²	<u>Percentage of Population</u>
AGUA PRIETA, SONORA	23,000	Agriculture		1.6
DOUGLAS, ARIZONA	13,000		380	3.2
CIUDAD ACUNA, COAHUILA	35,000	Industrial		0.9
DEL RIO, TEXAS	28,000		317	1.1
CIUDAD JUAREZ, CHIHUAHUA	525,000	Service & Industrial		2.2
EL PASO, TEXAS	366,000		11,760	3.2
MATAMOROS, TAMAULIPAS	183,000	Industrial & Service		1.0
BROWNSVILLE, TEXAS	51,000		1,917	3.8
MEXICALI, BAJA CALIF.	450,000	Agriculture		1.7
CALEXICO, CALIFORNIA	12,000		7,690	64.1
NOGALES, SONORA	63,000	Service		1.8
NOGALES, ARIZONA	9,000		1,118	12.4
NUЕVO LAREDO, TAMAULIPAS	156,000	Service		1.7
LAREDO, TEXAS	73,000		2,669	3.6
PIEDRAS NEGRAS, COAHUILA	66,000	Agriculture		2.5
EAGLE PASS, TEXAS	17,000		1,635	9.6
SAN LUIS R.C., SONORA	55,000	Agriculture		6.5
YUMA, ARIZONA	33,000		3,553	10.8

Sources: Samora, p. 21; Baerresen, p. 31

¹

1970 estimations

²

1967 figures

Table 8
Commuter Workers, Nov. 1-Dec. 31, 1967 (Daily Averages)

<u>City</u>	<u>Indus. Workers</u>	<u>Building Trades</u>	<u>Agricul- tural</u>	<u>Sales, Service</u>	<u>Private Household</u>	<u>Total</u>
Douglas	48	28	175	99	30	380
Eagle Pass, Texas	185	147	751	398	154	1,635
Nogales	179	136	6	682	115	1,118
San Luis	39	14	3,325	146	29	3,553

Source: Samora, 1971, p. 21

Despite our sparse information on commuters, which does not take into account an unknown number of illegal aliens, we can conclude that the commuter program does not have a very great effect on the Douglas-Agua Prieta area. Only a small number of Agua Prieta workers find jobs on the Douglas side.

Sonoran Development

As a border town, Douglas will be much affected by the economic situation in Agua Prieta and Northern Sonora. Business leaders in Douglas are well aware of the important links between the two economies. Some have gone so far as to suggest that Douglas' future rests not with the United States economy, but with the potentially rich market area of Agua Prieta and adjacent areas of Sonora. And, in view of the uncertainty surrounding copper smelting in Douglas, the development of the Sonoran economy takes on even greater importance.

Although it is difficult to predict the future impact of Mexico on the Douglas economy, there are indications that it will be beneficial. According to the Secretary of Development for the State of Sonora, the Agua Prieta area will become the focus of an economic expansion program in Northern Sonora. Specifically, Agua Prieta is seen as a future industrial center, comparable to Nogales. Plans are apparently under way for the construction of new assembly plants, packing plants for Sonoran cattle and produce, and facilities for processing lumber from Sonora.

The area around Agua Prieta is also a potentially profitable mineral region, with a rich silver deposit south of Lake Angostura, as well as a 600 million ton copper deposit near Lake Caneda. In addition, the

area has good potential as a tourist center. Plans are being made to develop Lake Angostura as a vacation attraction, and a highway construction program that would link Douglas-Agua Prieta with Obregon in Sonora will undoubtedly increase the tourist traffic through Douglas (The Douglas Dispatch, Oct. 21, 1972).

It may be premature to claim that Douglas will become a tourist center of comparable size to Nogales, but there are some indications that the traffic through Douglas has been increasing in the last few years. Travel through Douglas has shown a steady increase of about 10 percent per year. Unfortunately, no comparable figures for Nogales were available. (Arizona Statistical Review, 1971, 1972).

To benefit fully from the present and future ties with the Sonoran economy, Douglas businessmen will have to undergo a shift in attitude. According to one business leader in the town, most Douglas merchants at present look down on Mexican customers. He suggests that this should change with Douglas merchants actively seeking out business contacts in Agua Prieta and attempting to overcome the language and cultural barriers between the areas. To the extent that businessmen are willing to do this, Douglas' economy may get a boost from the future development of Agua Prieta and adjacent areas of Sonora.

Multi-Ethnic Town

The current multi-ethnic character of Douglas has its greatest economic importance in the area of wages and employment. To what extent do Mexican Americans in Douglas enjoy the same wage levels and job opportunities as Anglos? For comparative purposes, we can look at 1970 census data on four Arizona towns: Douglas, with about 80 percent, Nogales with 86 percent, Phoenix with 11.0 percent, and Prescott with 12.6 percent of the work force Mexican American.

Table 9 compares the percentage of Mexican American to total workers in various job categories for these Arizona towns. It indicates that overall, Mexican Americans are under-represented in the higher-paying job categories (professional and technical) and over-represented in the lowest paying categories (farm laborers, with the exception of Nogales; and female service workers). A comparison of the professional-technical level for Douglas and Nogales shows a much higher percentage (78.4 percent) of professionals who are Mexican American in Nogales than in Douglas (36.7 percent).

Some opponents of the twin plant concept and the commuter program, claim that the proximity to the border and the consequent availability of Mexican or Mexican American workers lowers overall wages. Table 10, comparing the median income for the four cities, allows us to examine this claim. Nogales, with the highest percentage of Mexican Americans in the work force, has the lowest total male income, lending some support to this idea. Likewise, Douglas and Nogales have the lowest

Table 9

Mexican American Percentage of Total Employment
in Selected Arizona Cities, 1970

<u>Male-16 yrs or older</u>	<u>Douglas</u>	<u>Nogales</u>	<u>Phoenix</u>	<u>Prescott</u>
Professional, Technical and Kindred Workers	36.7	78.4	5.9	1.8
Craftsmen and Kindred Workers	68.7	78.7	11.5	11.8
Operatives	84.6	84.2	18.2	23.4
Laborers	76.6	93.1	24.9	34.0
Farm Laborers	97.3	48.6	41.8	16.7
<u>Female-16 yrs or older</u>				
Clerical	35.7	69.0	7.6	5.9
Operatives	87.2	100.0	20.5	14.5

Source: 1970 U.S. Census

Table 10

Median Income for Selected Arizona Cities

<u>City</u>	Total		Mexican American	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Douglas	\$6692	\$2066	\$6102	\$1692
Nogales	\$5143	\$2400	\$5065	\$2530
Phoenix	\$7505	\$3611	\$6079	\$2919
Prescott	\$5913	\$2817	\$4089	\$2555

Source: 1970 U.S. Census

female median incomes. On the other hand, Douglas has the highest Mexican American male income, as well as the second highest total male income of the four cities. This anomaly becomes clearer when Table 11 is examined. While professionals have a higher median income in Nogales, the income for craftsmen and operators (both total and Mexican American) is substantially greater in Douglas than it is in Nogales. Most of the smelter workers are placed in these two job classifications, and the relatively high copper salaries may account for this difference between Douglas and Nogales.

Further examination of this table shows that Mexican Americans in Douglas with professional qualifications are making substantially less than the median earnings of the total professional occupation class. Coupled with the data from Table 9, this indicates that Mexican American professionals are under-represented and underpaid compared to their Anglo professional counterparts. This pattern is in marked contrast to Nogales, where Mexican American professionals are well represented (78.4 percent of total professionals) and making on the average only \$135 per year less than the total professional median income for that city. A similar trend is evident when skilled female clerical workers in Douglas and Nogales are compared.

This pattern of Anglo economic domination of Douglas is not simply a recent phenomenon. Ruppert, working with Douglas city directories going back to 1904, has discovered that Anglo-Americans founded the city and have remained, to this day, in a commanding economic position. Table 12 lists percentages of Anglos and Mexican Americans holding labor versus non-labor positions.

Table 11
Median Income by Occupation and Ethnicity
Douglas and Nogales

<u>Occupation</u>	<u>Douglas</u>		<u>Nogales</u>	
	<u>Total</u>	<u>Mexican American</u>	<u>Total</u>	<u>Mexican American</u>
Male, 16 years or older				
Professional	\$8637	\$8064	\$9179	\$9044
Craftsmen	\$7241	\$7234	\$4636	\$3999
Operatives	\$7186	\$7094	\$3619	\$3768
Laborers	\$5464	\$5527	\$3852	\$4146
Farm Laborers	\$2674	\$2652	\$1874	\$2332
Female, 16 years or older				
Clerical	\$2669	\$2359	\$3507	\$3827
Operatives	\$1899	\$1903	\$2699	\$3103

Source: 1970 U.S. Census

Table 12

Percent of Spanish Surname by Labor Category
by Year of Directory

<u>Year of Directory</u>	<u>Percent non-labor</u>		<u>Percent labor</u>	
	<u>Mex Am</u>	<u>Anglo Am</u>	<u>Mex Am</u>	<u>Anglo Am</u>
1904	2.3	97.7	29.1	70.9
1914	6.7	93.3	44.7	55.3
1918	9.9	90.1	16.5	83.5
1923	8.2	91.8	35.6	64.4
1929	8.9	91.1	38.2	61.8
1935	8.9	91.1	29.7	70.3
1940	17.6	82.4	46.0	54.0
1948	15.0	85.0	48.7	51.3
1950	25.5	74.5	44.5	55.5
1956	19.6	80.4	48.2	51.8
1961	21.4	78.6	45.7	54.3
1969	31.7	68.3	47.7	52.3
1972	33.3	66.7	57.0	43.0

Table 12 based on a 10 percent sample of listed directories.

*The occupations listed in the directories were grouped into 15 categories. These categories were 1) construction, 2) teacher, 3) Army, 4) retired, 5) student, 6) professional, 7) civil servant, 8) smelter management, 9) smelter labor, 10) laborer, 11) clerical, 12) management, 13) service occupations, 14) rancher or farmer, and 15) skilled labor. These categories were once again collapsed to produce two categories listed above as "labor" and "non-labor." These categories were created to provide some gross indications of which ethnic group held jobs in management, professional and non-labor categories. A 10 percent sample was taken of each directory listed, except for the 1972 Directory, where a five percent sample of the entries was taken.

Table 12 shows that the Mexican American segment of the Douglas population has been rising in percent in the non-labor category. But the increase has been slow in spite of the fact that this group has dominated, in numbers, the city's population for some years. Notice the rise in the percentage of Mexican Americans in 1914. This rapid rise in the Mexican American labor force may be due in large part to an increase of Sonorans crossing over the border into Douglas to escape the civil wars in Mexico.

The Anglo American population dominated the labor category (as well as the non-labor category) until 1940 when the percentage of Mexican Americans in the labor category jumped to 48.7 percent (again, the bias toward Anglo Americans must be considered). It was during this period that the labor union (C.I.O.) was formed and a demand made for equal pay for Mexican American laborers. The above figures combined with the new involvement of Mexican Americans in unionization support the notion that the Mexican American population had taken a new direction at the outset of the 1940's--- a direction that would make their presence felt in Douglas in the years to come.

Summary: Present Problems and Future Prospects

In the previous sections of this chapter, we have tried to point out some of the problems facing the Douglas economy as a result of its unique situation -- as a one-company town, a small town, a border town, and a multi-ethnic town. These are some of the major findings:

1. Since 1950, Douglas has been evolving away from the typical "one-company town". Thus, persons who forecast economic ruin for Douglas if and when Phelps-Dodge closes down are overestimating the importance of the smelter to the town's economy.
2. As a small town, Douglas suffers from a low rate of housing vacancy and a poor regional transportation network. The housing factor may act as a damper on the town's ability to attract potential workers and residents, thus containing growth. Poor transportation facilities, likewise, may prevent interested businesses and industries from locating in Douglas.
3. As business leaders in Douglas suggest, the town's future economic viability may be more dependent on the economic development of northern Sonora than on the United States economy. Under the current Mexican development program, Agua Prieta and adjacent areas of Sonora are scheduled to be the hub of economic expansion in the north. For Douglas to take full advantage of this, however, will necessitate some changes in attitude on

the part of businessmen and merchants -- they will have to actively seek business contacts in the Sonoran area, and attempt to overcome the language and cultural barriers between the two towns.

4. While there are few overt signs of economic discrimination in Douglas, census data from Douglas and Nogales indicate that professional-level workers of Mexican heritage are under-represented and underpaid in Douglas, compared to their counterparts in Nogales.

The major problem facing Douglas, however, is its uncertain future -- an uncertainty deriving from the threatened shut-down of Phelps-Dodge, which may have the spin-off effect of shutting down the railroad, according to a Southern Pacific official. Uncertainty also stems from the twin plant situation, which is in the process of being re-examined by the U.S. Congress in response to criticism from labor unions. Uncertainty also surrounds the planned development of northern Sonora by the Mexican government, for as with any long-range economic plans, there is always the chance that the plans will not be fully implemented.

In the face of this uncertainty, the town's future may be determined more by the attitudes of the residents than by objective economic conditions and the speculations of economic planners. This belief in the town's future, as well as a willingness to undergo a period of economic hardship in the event of a smelter shut-down, may prove to be Douglas' most valuable asset. Unfortunately, our investigations show that this optimism is not shared evenly among different age groups.

Our questionnaire data provide some interesting, although not entirely conclusive, information on the attitudes of Douglas residents toward the future. When asked what they thought would happen if the smelter closed down, 77 percent of the respondents felt that the town would undergo a period of economic hardship, but would soon recover. Roughly 20 percent of the people felt, on the other hand, that the town would be economically ruined if Phelps-Dodge left. This response indicates a high degree of confidence in Douglas' future, a belief that the town will remain economically viable.

We asked about the respondents' desire to leave Douglas. Again, roughly 77 percent of the people indicated their desire to remain in town. However, when we categorize these responses by age-group, a disturbing pattern emerges (See Table 13).

Table 13

Desire to Leave Douglas

<u>Age Group</u>	Yes		No	
	<u>Number</u>	<u>Percent</u>	<u>Number</u>	<u>Percent</u>
16 - 20	5	55.6	4	44.4
21 - 24	5	55.6	4	44.4
25 - 34	10	27.8	26	72.2
35 - 44	3	13.0	20	87.0
45 - 54	3	9.4	29	90.6
55 - 64	5	22.7	17	77.3
65 or over	8	24.2	25	75.8
Total	38		125	

The majority of people in the younger age brackets (ages 16 - 24) want to leave Douglas. This pattern is disturbing since it shows that the town is not very attractive to younger residents. If the majority of these young people do leave town, Douglas would be faced with the need to attract a new group of youthful citizens; if this is not possible, Douglas will face a steady decline.

What are the alternatives for Douglas' economic future? It appears that the uncertainty of the past will continue. Douglas is no less independent on outside events than any other small town fighting for its economic survival. We see no possibility that Douglas can control these external events any more than any other town. Its efforts to attract new industries can be viewed as attempts to reduce the uncertainties that accompany an overdependence on one industry.

If Douglas is satisfied with its current conditions, with its increasing dependence on events south of the border, with its young people leaving after finishing their education, with its steady population and limited growth rate, then the best alternative would be to continue what it has always been doing. Community leaders will confront each problem as it appears, businessmen will be moderately active in searching for new industries, and the community will react to external events, from EPA, Washington, Phoenix, Tucson as they occur.

But, if Douglas desires to grow, it must carefully integrate plans for economic development with the plans for development of other aspects of the community. For example, if new industries are to be attracted to Douglas, the town must decide if it wants its young people to be the new industry's employees or wishes others to migrate to the city. The

pattern we have shown, in which the young are schooled and then leave, means that new industry will probably find employees by importing them from elsewhere. These new arrivals will change Douglas. On the other hand, if the town wishes to attract new industries for their own young, then the educational institutions, businessmen, and relatives should work to dispel the image that there is no economic future to staying in Douglas.

The necessity for integrating economic and social plans should be obvious. Should young people change their attitudes about staying, and community leaders fail to find new sources of employment, the frustration felt by these unemployed young people could generate new problems. Or, to reverse the coin, the finding of new industries without a corresponding concern for the migration of younger persons could insure that the new industry will bring in new people. This too will change Douglas in a direction that we cannot predict. This does not mean the changes will be either good or bad, just that Douglas will change. Whatever the desires of Douglas, either to grow or hold steady, the future demands creative, responsive, and innovative actions by the community and, in the final analysis, this means each individual.

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Chapter 5

THE ASSOCIATIONS OF DOUGLAS

Peteris Dajevskis

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Since membership in an association is neither mandatory nor acquired through birth, all non-state organizations, churches, business firms, labor unions, foundations, cooperatives, and political parties, could be broadly defined as associations. We will focus our analysis upon voluntary organizations which sociologists refer to as "spare-time" associations, or those which are not directly related to the business of making a living (Sills, 1968:363). These associations are important because they perform functions for both individuals and the community which otherwise are not available from home, work, or government.

Functions that voluntary associations serve can be grouped into (1) those which provide individuals with an outlet to satisfy needs for sociability, recreation, service or political action, and (2) those which enable mediation of interests and needs between individuals and governments. An example of the former function would be the case of a women's club which provides recreational and educational activities for housewives. The latter function could be exemplified by the Chamber of Commerce which mediates the interests of community merchants with the decision making responsibilities of city government officials.

The legal right of citizens to voluntarily organize has been noted by observers as far back as 1835 when the French historian de Tocqueville wrote that the successful application of association activity in a variety of contexts was best exemplified by Americans. More recently, researchers such as Beard and Beard (1956), Myrdal (1944), Bell and Force (1956), and

Babchuck and Booth (1969), have also argued that Americans indeed are joiners. In fact, it has been stated that associations are "created, extended and worked in the United States more effectively than in any other country" (Bryce, 1933:231-282).

How do generalizations like these apply to the Douglas community? Is membership in an association important to a multi-ethnic community which is also characterized as a border town, a small town, and a company town? In other words, can we safely assume that "joining" in Douglas follows national patterns of association?

One of the basic findings of researchers investigating voluntary associations is that membership in them is not random; some segments of the population are more likely to participate than are others (Sills, 1968: 365). Since membership in a voluntary association is a form of social interaction, and since people with varying social, economic and cultural backgrounds share differing ranges of interaction, it is quite obvious that the goals of associations and needs of their memberships will reflect these differences. Our aim here is to discover how varying patterns of membership indicate the nature of community concerns and goals. Answers to the following questions should give us a better idea as to how Douglasites have effectively organized outside the formal channels of government to satisfy their needs:

- (1) What associations are found in Douglas and what services do they provide?
- (2) What is the distribution of association membership in Douglas? Who joins associations?

- (3) How do these patterns of association membership compare with the rest of the nation?
- (4) What is the relationship between membership in associations and socioeconomic position?
- (5) Why are associations important to Douglas?

Classification of Associations

Our investigation identified approximately one hundred twenty-five voluntary associations in Douglas. A useful way to think about associations is to view their functions as unique social resources in the community with specific abilities to provide service. In this context, service refers to the voluntary aspect of an association that supplies activities or benefits which fulfill particular needs.

When we talk about service, we are including both the function of associations to supply outlets for individuals' needs for sociability as well as the mediating powers of the organization to realize certain goals. For example, in the case of the Veterans of Foreign Wars, the local club not only serves as a place for members to get together for social evenings of dining and dancing, but also provides a political lobby in Washington which looks out for the interests of veterans. Professional associations also mediate between their membership and government, especially in such matters as licensing, research funds, and legislation (Sills, 1968:374). The associations of Douglas, as a social resource, therefore, provide wide ranging services to residents of the community. By classifying this range of services into categories, we can begin to differentiate the scope and importance of associations in Douglas.

Furthermore, we can more easily think about associations in terms of the people that benefit by association service activities. Blau and Scott (1962) observe that service can be beneficial to three different groups of people: (1) to the membership of an association only, (2) to the membership of the association and to the public, and (3) to the general public. An organization such as the Merchants Association

provides an organized forum for businessmen to improve business practices so that the members' profits increase. Service in this case is directed to the membership only. A political organization such as the Republican Women, although maintaining certain interests of its own, must maintain periodic contact with the public (e.g. at election time) in order to accomplish its goals. Finally, a group such as Friends of the Douglas Library extends services to the public-at-large through its attempts to establish a municipal public library.

The division of associations by the range of services affecting people is only one dimension of the classification of associations in Douglas. Two other criteria provide an identification of the actual goals of the association, namely whether an association is affiliated with a larger organization and whether an association directs its activities and influence toward the group or to the general public. In terms of this dimension associations can be classified as follows: (1) those limited primarily to providing a framework for personal gratification and whose activities or goals lie primarily within the organization, as in lodges and scout troupes, and, (2) those which emphasize service, such as organizations designed to maintain or create a condition or change (Gordon and Babchuk, 1959:25). An example of the latter sort would be the League of Women Voters who provide information in order to promote an educated electorate.

The final dimension of such a classification must distinguish between "affiliated associations" which are subordinate to a larger company or institution, and "independent associations" or those which are not affiliated with any other organization. Affiliated associations

are usually a "base of operations" for a larger institution. Church related voluntary associations would be an example of this type; church groups accomplish things that the church itself cannot. Church sponsorship furnishes a meeting place, facilitates communication, and allows laymen to participate outside of the formal organization of church structure. Examples of the independent association, on the other hand, would be any social club, lodge, or political club. It maintains its own explicit goals and purposes not subordinate to any other interests.

This discussion summarizes how varying patterns of association in a community can be placed into a manageable format for study purposes. The dimensions of the classification are summarized graphically in Figure 1. The specific purpose of the classification is to provide a framework for gaining an overview and assessment of the importance of different associations for segments of the Douglas community.

The classification follows a model devised by Ross (1972:22) in his work with voluntary membership in Tampa. Although there are twelve cells in the classification, it must be noted that C,E,I, and K are logical impossibilities since influence within an association is defined primarily as a self-directed activity and thus would not apply to any type of "contact with the public" situation. The groups in the eight cells of the classification have been retained to account for the range of involvements of Douglas' clubs, organizations and associations.

Figure 1

Service Activities of Douglas Associations and Their Relationship to the Community

Types of Service	Affiliated with Larger Organizations		Not affiliated with Larger Organizations	
	Goals <u>Within</u> Association	Goals <u>Outside</u> Association	Goals <u>Within</u> Association	Goals <u>Outside</u> Association
1. To membership of association only	A. Church-related Occupational (e.g. Altar, steel-worker's union)	B. No entries in Douglas	G. Social clubs Lodges Veterans (e.g. Winter Visitors club, Mt. Moriah Lodge, <u>VFW</u>)	H. Merchants Association
2. To membership of association but maintaining contact with public	C. Logical Impossibility	D. Business & Professional Women, Law Enforcement Academy	I. Logical Impossibility	J. Kiwanis Republican Women
3. To public-at-large	E. Logical Impossibility	F. Friends of Douglas Library, Hospital Auxiliary	K. Logical Impossibility	L. Action Volunteers Boosters Club

Source: Adapted from Ross, 1972.

Some cells contain few or no entries. Voluntary activity by the public at large is the product of a community with high-level elites and control over resources. In Douglas, such elites are very limited and thus the number of entries are small or absent (See cells B and H, Figure 1). A footnote to this chapter supplies a listing of how each association in Douglas was assigned to the classification.¹

Distribution of Memberships in Douglas

The characteristics of each of the groups found in Douglas designated by cells A to L will be outlined. In cell A, for instance, we speak of associations which provide service to a membership only with affiliation to a larger umbrella organization. Typically, these associations provide such benefits as entertainment or work towards improved work conditions. Thus, the Catholic Youth Center provides young people with a place for meetings, socializing and recreation and the steelworkers union seeks improvements and benefits for its membership in cooperation with the AFL-CIO.

Cell B, with no entries in Douglas, is a very specialized group which could be characterized by the following features: goals outside the association under a large organization but with service benefits directed to the membership only. University alumni associations would be a good example. They try to improve the financial base and academic standing of the University through various activities.

In cell D, we find organizations which are affiliated with a larger organization, maintain goals outside the association and provide service benefits to the membership of the association, but which maintain contact with the public. The Law Enforcement Academy is such an association. It offers a medium through which issues of local law enforcement can be discussed with law enforcement officials, at the same time soliciting input from the community on their perceptions of problems and needs. The Academy is affiliated with similar organizations in Arizona.

Associations which are affiliated with a larger organization have goals outside the association and provide service benefits to the public at large are group in cell F. The Hospital Auxillary, for example, is comprised of voluntary health care personnel at the County Hospital who act as unpaid aides. Voluntary efforts of this type are of particular importance because of the inadequate staffing at the hospital.

Cell G is comprised of associations not affiliated with a larger organization, which maintain goals within the association and provide primary service benefits to the membership only. Social clubs, lodges, and veteran organizations fit into this grouping. It constitutes one of the two largest groups in Douglas. Groups of this variety are largely self directed and provide recreational or leisure-time activities.

Cell H represents a small group of associations which have considerable influence in directing opinion in the community. The Heart Ball Committee, the Merchant's Association and the Douglas Country Club represent memberships which have considerable financial involvement in the community and maintain a tightly knit network of communications with public officials at the social and business levels. Membership in these associations is sanctioned to a large extent by economic and social position. These associations are independent from any larger organization and maintain service benefits oriented basically to the interests of the membership only.

The group of associations characterized by cell J accounts for organizations which generally maintain civic interests and involvements.

This grouping includes organizations with different motivations in its relationships with the public. Thus, for instance, the Junior Women's Club might be interested in improving parent teacher rapport in the city's schools, whereas a local political club also works for the goals of the national organization. Both organizations have separate charters but share the trait of maintaining contact with the public. The organizations of cell J are often visible in the local media as far as discussing their aims and programs. They generally seek membership from a wide spectrum of the local community.

The final cell in the classification (L) is largely a voluntary service association type whose only interest is to serve the public at large. Booster clubs, Head Start programs, or Newcomer groups are oriented to aiding people in the community.

It would be inaccurate to say that all associations clearly fit into one of the groups described above. The classification provides a tool to help view the kinds of association service benefits available to the community. Very often an association could fit into several of the classifications. The intent here is to identify the primary activities of Douglas' associations and how they are represented in terms of the economic, social, or ethnic characteristics of the community.

Membership Patterns in Douglas

Are membership patterns in a multi-ethnic border community any different from those found elsewhere? Table 1 gives the overall picture of association joining for Douglas residents compared to a national sample survey taken by Hyman and Wright (1971). The national trend over the seven year period 1955-1962 suggests that American adults most frequently are not members of voluntary associations. A majority of Americans report no membership whatsoever, and only a small percentage belong to many associations. In Douglas, our survey revealed, that Douglasites are less likely to join associations than is typical of the nation as a whole. About 68 percent of Douglas residents belong to no associations whereas in the nation as a whole, 57 percent do not belong. About 22 percent of Americans belong to one association, whereas in Douglas, 14 percent have one affiliation.

Association memberships in Douglas show least joining in the age group 28-34. Most memberships are reported for the age group 21-27. In the national survey, most memberships tend to be in the over 34 group while fewest memberships are reported in the age group 21-27 (See Table 2). This pattern of heavy joining in the 21-27 age group in Douglas could be linked to the fact that the young adults of Douglas have very few recreational opportunities. Two different national surveys document that the youngest adults of whatever generation, are about equally uninvolved in association activities. Thus, the Douglas survey data suggests lower involvement in clubs and social groups by Douglasites than is true for the national average, but greater proportionate involvement by young adults.

Table 1
Percent of Adult Membership in Associations of
of Douglas Compared to the Nation

<u>Number of Memberships</u>	<u>Douglas 1973</u>	<u>United States</u>	
		<u>1955</u>	<u>1962</u>
None	68.4	64	57
1	14.4	20	22
2	7.5	9	11
3	8.0	4	6
4 or more	1.7	4	4

Source: Hyman and Wright (1971) and Douglas Project questionnaire.

Table 2
Voluntary Association Membership by Age in Douglas
Compared to the Nation for Different Age Groups: Percent of "Joining"

<u>Number of Memberships</u>	<u>Age 21-27</u>			<u>Age 28-34</u>			<u>Age Over 34</u>		
	<u>Douglas 1973</u>	<u>Nation 1962</u>	<u>1955</u>	<u>Douglas 1973</u>	<u>Nation 1962</u>	<u>1955</u>	<u>Douglas 1973</u>	<u>Nation 1962</u>	<u>1955</u>
None	47.1	75	77	79.3	56	62	67.8	54	63
1	17.6	17	14	10.3	24	21	15.7	23	20
2	17.6	4	6	3.4	10	11	7.0	12	9
3	17.6	3	2	6.9	6	4	7.0	7	5
4 or more	0	2	1	0	3	2	1.6	4	3

Source: Hyman and Wright (1971) and Douglas Project questionnaire.

Relationship Between Socioeconomic Position and Membership

Our survey findings indicate that as family income increases, the tendency to join an association increases correspondingly (See Table 3). About 58 percent of Douglas residents with a family income over \$15,000 were association members whereas families with less than \$7,000 yearly income are much less likely to hold such membership. Only in the family income levels above \$10,000 a year do Douglas memberships' patterns correspond to national trends.

With regard to education of members of associations (See Table 4), Douglas compares closely to the national survey except in the categories 0-8 years of education and four years of college or more. While 20 percent of Douglas residents with education from 0-8 years belong to associations, 33 percent of the national survey were members. Of Douglas residents with four or more years of college, however, 46 percent were members while in the same group sampled in the national survey, 64 percent were members. It is also apparent that the Douglasites with a high school education or more tend to belong to more than one club. This finding coincides with national rates.

The findings in the Douglas survey relating socioeconomic position and membership patterns reveal an important trend which differs from national patterns. Nationally, 67 percent of the individuals with less than a high school education did not belong to associations; in Douglas, 80 percent did not belong. This pattern of non-membership is even more pronounced when family income is considered (See Tables 3 and 4). In families with incomes ranging from \$3,000 to \$3,999 in the national sample, 70 percent did not

Table 3

Percent Belonging to Voluntary Associations in Douglas by Income,
and By Number of Memberships

<u>Family Income</u>	<u>Douglas 1973</u>			<u>National Sample 1962</u>		
	0	1	2+	0	1	2+
Under \$2,000	93.3	6.7	0	69	16	14
2,000 - 2,999	71.4	21.4	7.1	62	24	14
3,000 - 3,999	100.0	0	0	70	21	10
4,000 - 4,999	69.2	15.4	15.4	58	26	16
5,000 - 5,999	61.5	38.5	0	56	25	20
6,000 - 6,999	72.7	18.2	9.1	*45	21	35
7,000 - 7,999	67.6	5.9	23.5	<u>*7,999 or more</u>		
10,000 - 14,999	56.5	8.7	34.8			
15,000 - 24,999	36.8	31.6	26.3			

Table 4

Percent Belonging to Voluntary Associations in Douglas by Education
and by number of memberships

<u>Education:</u>	Douglas 1973			National Sample 1962		
	<u>0</u>	<u>1</u>	<u>2+</u>	<u>0</u>	<u>1</u>	<u>2+</u>
0-8 years	80.	14.1	5.9	67	22	11
8-11 years	65.4	23.1	7.7	64	22	14
12 years	55.6	11.1	33.3	53	23	23
1-3 years college or vocational	50.0	12.5	37.6	48	24	27
4 years college or more	54.5	9.1	36.4	37	20	44

belong, while in Douglas 100 percent did not. In income groups ranging from \$2,000 - \$2,999 and under \$2,000 this pattern continued. The national sample showed that 62 percent and 69 percent respectively did not have any memberships. In Douglas, this percentage was 71 percent and 93 percent respectively. This comparison of trends suggests that Douglasites with an education below the eighth grade and who have family incomes below \$4,000 generally do not join associations. This finding is supported when levels of membership reported are compared with occupation (Table 5). The professional and technical workers have the highest frequency of membership whereas those employed as laborers and service workers or those without an earned income are least frequently association members.

One of the most difficult questions to deal with in this examination of membership patterns is whether the multi-ethnic make-up of the community has any significant bearing on how people join, or whether they join at all. Before an analysis of ethnic membership patterns is undertaken, two important points need to be reiterated. First, as in the findings from national surveys, voluntary membership in Douglas is not characteristic of the majority of residents. Second, a relatively small percentage of Douglasites, even smaller than the average national percentage, belongs to two or more voluntary associations.

As indicated in Table 6, 15.3 percent of respondents identified as Anglo belong to one voluntary association. Almost identically, 14.8 percent of those respondents identified as of Mexican heritage also belong to one voluntary association. The trend begins to change when two or more memberships are considered. Anglos tend to belong to more

Table 5

Percent Belonging to Voluntary Associations by Occupation

<u>Occupation</u>	<u>Percentage of Adults Reporting Number of Memberships</u>		
	0	1	2+
Professional & Technical	37.5	12.5	50.0
Managers & Administrators	66.7	16.7	16.7
Sales Workers	42.9	14.3	42.9
Clerical	42.9	14.3	42.9
Craftsmen	100.0	0	0
Operatives (includes F.D.)	81.8	9.1	9.1
Transport Equipment Operators	100.0	0	0
Laborers (except farm)	100.0	0	0
Farm Laborers	100.0	0	0
Service Workers (except private household)	55.6	11.1	33.3
Private Household	81.3	6.3	12.6
Unearned Income	75.6	12.8	11.6

Table 6

Percent Belonging to Voluntary Associations by Ethnicity

<u>Ethnicity</u>	0		<u>Number of Memberships</u> 1		2		3+		Total	
	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>
Anglo	54.2	32	15.3	9	10.2	6	20.3	10	100	57
Mexican Heritage	76.9	83	14.8	16	4.6	5	3.7	4	100	108

than one association more frequently than persons of Mexican heritage. This, of course, does not take into consideration the demographic factor that the majority of the population is of Mexican or Mexican American heritage. Taking this factor into consideration, it is clear that Anglos are disproportionately represented in Douglas' association membership.

Implications for the Community

Voluntary associations play a significant part in the social, economic and political life of the Douglas border area. Activities sponsored by voluntary associations very often increase community co-operation, cohesiveness and prosperity. Douglas associations contain a kaleidoscopic range of cultural values, social attitudes and economic and political statuses. Yet, differentiated as these memberships might be, associations should not be viewed as independent units in community life. Often a mixture of personal and group relations can guide community affairs through association activities.

Such relations can easily become formalized social cliques with considerable influence and power. As part of a voluntary system for providing social services, associations can also be used as a means for manipulating a community's social and economic resources. They can play a part in the distribution of influence and power, and can act as a force for social change or for the maintenance of the status quo.

In light of the above observations, it is important to ask who in Douglas belongs to what association groupings? What service benefits are provided? Who belongs to the associations of greatest influence? An answer to these questions is provided from a closer look at the membership patterns of Douglas according to age, sex, ethnicity, education and home ownership.

Several distinct patterns emerge. Males tend to belong to associations more frequently than females, particularly in Group A

(influence within association and service to membership only). (See Table 7). Members of Groups A, G. and J tended to be 35 years or older (see Table 6). These three are the largest groups of associations and mostly represent organizations which have been in the community for some time. In these same groups, length of residence in Douglas was over ten years. Furthermore, members were among persons who owned homes. In Group A, 85 percent, in Group G, 95 percent, and in Group J, 85 percent owned homes.

Thus, it is clear that features which members in the three largest kinds of associations in Douglas share are that they have been in the community for some time, own homes and are 35 or more years of age. In other words, the members are citizens established securely in the community.

From the national surveys we learn that membership in voluntary associations is directly related to current occupation, education or income. The Douglas data support this fact although it was discovered that in Douglas even a smaller percentage of residents are members of associations than the national average. It was also observed that, unlike the national pattern, young adults in the Douglas age group between 21-27 tend to be most actively engaged in association activities. Much of this activity can be explained by the lack of recreational facilities. Organizations such as the YWCA, the American Legion, the Caballeros group and bowling league competition attests to this fact. Generally, association group G reflects this activity most distinctly.

Table 7

Percent Distribution of Voluntary Association Membership Types by Sex

<u>Association Classification</u>	Male <u>%</u>	Female <u>%</u>
A	76.9	23.1
D	100.0	0
F	0	100.
G	39.1	60.9
H	100.0	0
J	50.0	50.0
L	100.0	0
Total Respondents: 119	66	34

Table 8

Percent Distribution of Membership by Age

<u>Association</u>	17-21 years	21-27 years	28-34 years	35 years and over	<u>Total</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>	
A	7.7	15.4	7.7	69.2	100%
D	100.0	0	0	0	100%
F	0	100.0	0	0	100%
G	4.3	13.0	17.4	65.2	100%
H	0	0	50.0	50.0	100%
J	0	21.4	0	78.6	100%
L	0	0	0	100.0	100%
Total Respondents: 119					

The best indicator of an organization's effectiveness in satisfying residents' needs was ethnicity. An analysis of membership distribution by group, ranked according to level of influence in a community as well as the kinds of services provided, indicates that Douglasites of Mexican American Heritage have disproportionately lower representation in associations which are relatively influential in political, economic and social affairs of the city. As Table 9 indicates, over 70 percent of the membership in high influence association groups (Groups H and J) are Anglo, whereas the lowest influence group (Group A) has a membership which is basically of Mexican heritage (77 percent). Taking the membership representation of the sample as a whole (N=119) another important finding emerges: 70 percent of the respondents who claimed a membership were of Mexican heritage. Only in the middle influence Group G were membership patterns of Mexican heritage comparable to those of Anglos. Anglos, in other words, dominate associations with high visibility and influence in the community.

It is significant that the majority of influential organizations (those in Groups H and J) maintain an almost exclusive Anglo membership. Whether this trend is attributable solely to cultural factors such as satisfying close family ties among residents of Mexican heritage, or whether this practice is a result of exclusionary recruiting practices or a combination of socioeconomic and cultural factors cannot be determined conclusively. The important point is that the pattern is maintained and, as discussed earlier, can severely affect the amount of influence with decision-making officials held by some ethnic groups.

Table 9

Percent Distribution of Membership Ethnicity

<u>Association Classification</u>	<u>Anglo %</u>	<u>Mex. Her. %</u>
A	23.1	76.9
D	0	100.0
F	100.0	0
G	47.8	43.5
H	100.0	
J	71.4	21.4
L		100.0
Total Respondents: 119	27.8	72.2

Conclusion

Associations are important social resources for Douglas. Membership is not only a leisure time activity but also serves as an important opportunity for public service involvement. The objective in this chapter has been to examine Douglas associational patterns in light of national trends among people of like social, economic and cultural backgrounds.

Douglas is much like the nation in that membership is higher in the upper income levels and among those with higher education. This trend held true for all segments of the community. Social clubs, for example, stress their independence and competitively seek recognition and prestige in community activities, and as such reflect the interests of middle income Anglo and Mexican American citizens.

The most significant finding of the present analysis emerges from characteristics which can be described as unlike those of the nation in general. It was found that the majority of Mexican Americans are members of associations which provide service to the membership. These include church groups, trade unions, charity organizations, social clubs and veterans organizations (Groups A and G). Anglos maintain membership in such groups but retain almost exclusive membership in associations maintaining influence in the overall economic and political development of the community. The latter are independent organizations which are not subordinate in most cases to an outside jurisdiction. They also serve the important purpose of providing the channels of communication between businessmen, government officials, professional workers and various economic interests.

The exclusion of Mexican Americans from associations with strong influence is a problem, since such membership reflects the power structure and has a hand in the apportionment of public services. For example, a public service such as street maintenance is inadequate in those areas where the politically powerless are concentrated. Membership in associations with influence in municipal affairs is lacking among Mexican Americans.

As revealed by other aspects of our research in Douglas, inter-generational and interfamilial ties among Anglo influentials is apparent. Only intragenerational and intrafamilial ties are true for Mexican American influentials. The implications of this finding are critical to Douglas' future. Sociologists tell us that to remain effective, community organizations must maintain a process of adaptation for coping with a changing environment (Merton, 1969:73). Conscious adjustment of representation at all levels of association activity would be in order for Douglas, as it is the informal environment of voluntarism that provides plans for priorities for the entire community.

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Footnote

¹
Associations Grouped by Primary Social Position and Service

Association Group A (Goals Within Association and Service Benefits to Membership Only)

Altar Society*	Our Lady of Guadalupe Society
American Legion Auxiliary*	Silver Keys
Auxiliary of WWI Veterans	Sunnyside Volunteer Fire Dept. Aux.
Boy Scouts*	TOPS Club
Bushmasters*	Tri-Hy
Business and Professional Women	United Fed. of Postal Clerks Aux.
Carpenters Union	United Presbyterian Women's Club
Catholic Youth Center	United Steelworkers Union*
Cochise College Drama Club	Vela Perpetua*
Commandery	VFW Auxiliary
Club Selene	Woodman's Circle of the World*
Cowbelles	Religious Classes*
Demolay	Elks Little League*
Education Association*	Women's Society of Christian Services*
Episcopal Church Women	St. Luke's Women's Group*
Golden Keys	Elks Ladies Auxiliary*
Homemakers of America*	Guadalupe Society - St. Bernard's*
National Assoc. of Letter Carriers	

Association Group B (Goals Outside Association and Service Benefits to Membership of Association Only)

No entries in Douglas

Association Group D (Goals Outside Association and Service Benefits to Membership by Maintaining Contact with Public)

Drum and Bugle Corps
Fraternal Order of Police*
Junior Hilburnettes
La Leche League
Law Enforcement Academy
Shrine Club

Association Group F (Goals Outside Association and Service Benefits to Public-at-Large)

American Red Cross Volunteers
Arizona Children's Home Auxiliary Board
Education Association of Douglas*
Hospital Auxiliary of Cochise County
International Reading Association (Cochise Area Council)*
Peppermint Girls
Rainbows
National Customs Service Association*

*Denotes that club represented on Douglas survey frequency printout

Association Group G. (Goals Within Association and Service Benefits to Membership Only)

Alianza	Music Club*
American Legion*	Noblemen
Bert Williams Lodge	Oasis Rebekah Lodge
Bowling Teams*	Ocotillo Club
Caballeros*	Olympia
Coachmen	P.E.O. Sisterhood*
Daughters of the Nile	Retired People's Association*
Distributive Education Clubs of America*	Retired Teachers' Association*
Delta Kappa Gamma	Sociedad Mutualista de Obreros
Elks*	Sunshine Club
Golf and Social Club*	Veterans of Foreign Wars*
International Order of Odd Fellows	Westside Homemakers Club
Inter Club Council*	YWCA *
Job's Daughters	Sir-Safety in Racing*
Laborer's Union*	Beta Sigma Phi*
Las Damas	Bridge Club*
Masons*	Women's Missionary Society*
Mt. Moriah Lodge	Douglas Burial Society

Association Group H. (Goals Outside Association and Service Benefits to Membership of Association Only)

Heart Ball Committee
Merchant's Association
Douglas Country Club

Association J. (Goals Outside Association and Service Benefits to Membership but Maintaining Contact With Public)

Agua Prieta Kiwanis	Rotary*
Agua Prieta Lions	Winter Visitors Club
Art Association	Women's Club
Chamber of Commerce*	Women's Golf Club
Club Alba*	Writer's Workshop
Daughters of the American Revolution*	Sarah Marley PTA*
Democratic Precinct Committee	Cursello Movement*
Evening Lions	Church Council Board*
Girl's Athletic Association	Ecumenical Association*
Jaycee's	NAACP
Junior Chamber of Commerce	
Junior Women's Club	
Kiwanis	
Knights of Columbus*	
La Raza Unida	
Lions*	
Republican Women*	

Association L. (Goals Outside Association and Service Benefits to Public-at-Large)

Boosters Club	Unidad Cultural de Agua Prieta
Friends of the Douglas Library	Douglas Association for Retarded Children*
Future Nurse's Club	Drug Abuse Committee*
Newcomers Open House Committee	Progressive Civic Club*
Salvation Army	Head Start*

Chapter 6

FRIENDSHIP

Theodore E. Downing

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FRIENDSHIP

Theodore E. Downing

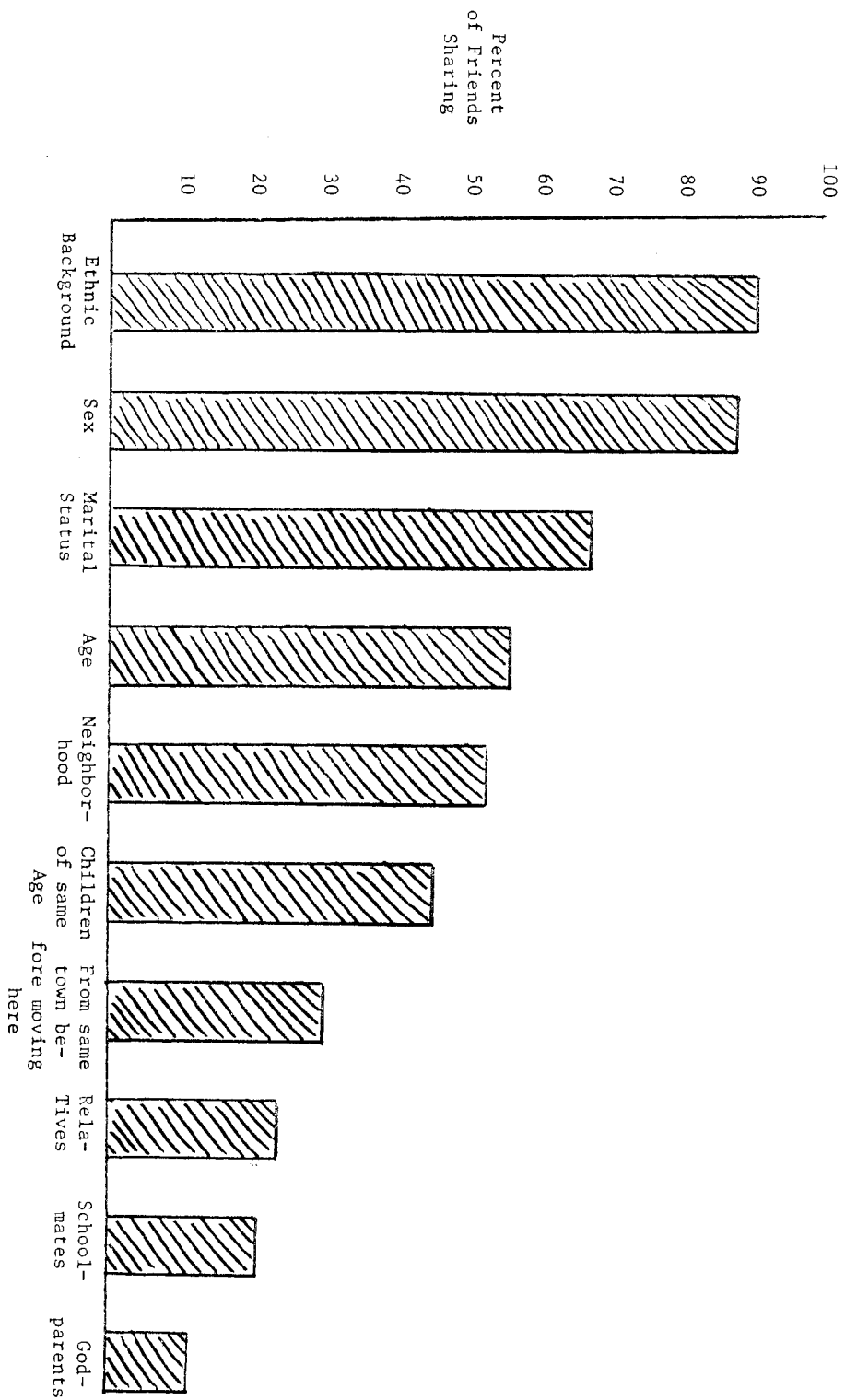
Information collected in the household survey depicted characteristics which friends share in common. Our survey asked people to list three of their closest friends. If they wished, relatives could be considered as friends. Afterwards, the respondent answered questions concerning what they and each of their friends had in common. Were they members of the same church or parish? the same ethnic heritage? watched each others children? and numerous other questions. Answers to these questions provide a profile of friendship patterns. Moreover, since we know the respondent's sex, ethnicity, marital status, and income, we may classify similar characteristics together and observe what they do with their friends as distinct from other groups. Finally, we were interested in what the data suggest about channels of communication between community members.

Overall Profile

The most significant fixed characteristic influencing Douglas friendships is a person's ethnic background (Table 1). In a town with about 65 percent of the population of Mexican heritage, we found that Mexican Americans prefer Mexican Americans and Anglos prefer Anglos as friends. Ninety out of every 100 Douglasites said their friends were of the same ethnic heritage. The second most important characteristic shared by friends in Douglas is their sex. Men prefer to associate with men, and women with women. Eighty seven percent of the persons interviewed stated that their friends were of the same sex.

The next three most commonly shared characteristics are interrelated, reflecting the tendency for people of about the same age to be of the same marital status and to have about the same number of children who are about the same ages. Sixty four percent of the respondents report they were of the same marital status as their friends. Single persons tend to associate with friends who are also single, and married persons tend to have friends that are also married. Likewise, it was discovered that friends tend to be of about the same age. A related characteristic of having children about the same age, was shared by slightly less than half the friendships in Douglas. Slightly fewer people formed friendships with someone in their neighborhood. Other less important characteristics shared by friends included living in the same place together before moving to Douglas, attending school together, and being co-godparents (compadres). One possibility was that a person's friends might also be relatives. This

Table 1
Characteristics Shared By Friends



Note: All these associations are strong enough not to be attributed to chance as measured by a Chi-square test (χ^2 .05 level of significance).

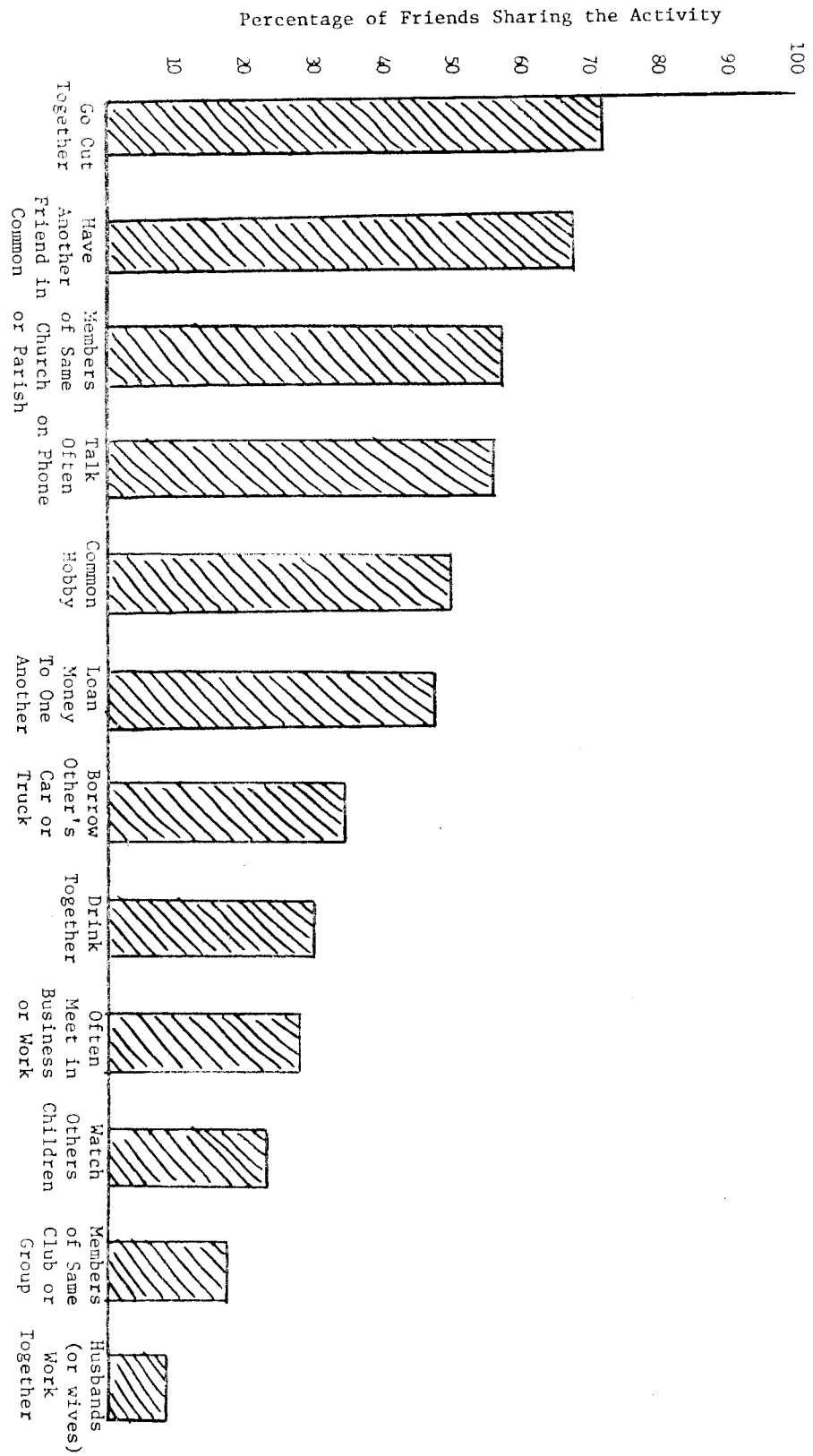
situation occurred in one-fourth of the friendships, a figure that is average for a town this size (Loomis, Loomis, and Gullahorn, 1966).

The survey also provides a glimpse of the activities which friends do together (Table 2). The most frequently mentioned activity was "going out together" (71 percent). This phrase could be interpreted in many ways, but at the most general level, it seems to refer to some activity taking place outside of the house of either friend. In other words, it may be used as a crude indicator of whether friends partake of activities inside a person's household or whether activities with friends are taken to another place.

Similarly, the second most frequently mentioned activity, having another friend in common, is an indicator of much more than appears. Friendships may be held only between two persons, with neither having another friend in common, or friendships may include three or more people each of which views the others as friends. In the social sciences, a friendship pattern that links three or more people indicates greater internal solidarity for a group than a pattern that links isolated pairs of individuals. In Douglas, the friendship patterns suggest a high degree of internal solidarity. Sixty eight percent of the town claims that they and their friends share a third friend in common.

Activities that were less frequently shared by friends are church or parish membership (57 percent) and frequently talking on the telephone (56 percent). The remaining activities, in order of their importance, were having a hobby in common (49 percent), loaning money to one another (forty seven percent), borrowing one another's car or truck (34 percent), and

Table 2
Activities Commonly Shared By Friends in Douglas (Both Male and Female)



Note: All these associations are strong enough not be attributed to chance as measured by a Chi-square test ($\alpha \leq .05$ level of significance).

drinking together in the same place (31 percent). The activities which friends seemed less likely to share in common included frequently meeting in business or work (27 percent), watching one another's children (23 percent), belonging to the same clubs or groups (18 percent) and having husbands (or wives) that worked together in the same place (9 percent).

The preceding information provides a general sketch of all Douglas friendships, but conceals significant differences between the friendship patterns of different types of people. To discuss these differences, it is necessary to contrast the responses of different groups (male vs. female, Mexican American vs. Anglo, or rich vs. poor). Statistical tests can then be performed to determine if the differences between the friendship patterns of groups are significant enough to warrant the conclusion that the groups are different.

Men, Women, and Their Friends

Douglas men choose their friends from a broader universe of people than do Douglas women (Table 3). Men are more likely than women to have friends of different marital status, from inside their own neighborhood and away from their place of work or business. Conversely, women were more likely to prefer friends of about the same age and marital status, who lived in the same neighborhood and, if the women worked, who worked with them.

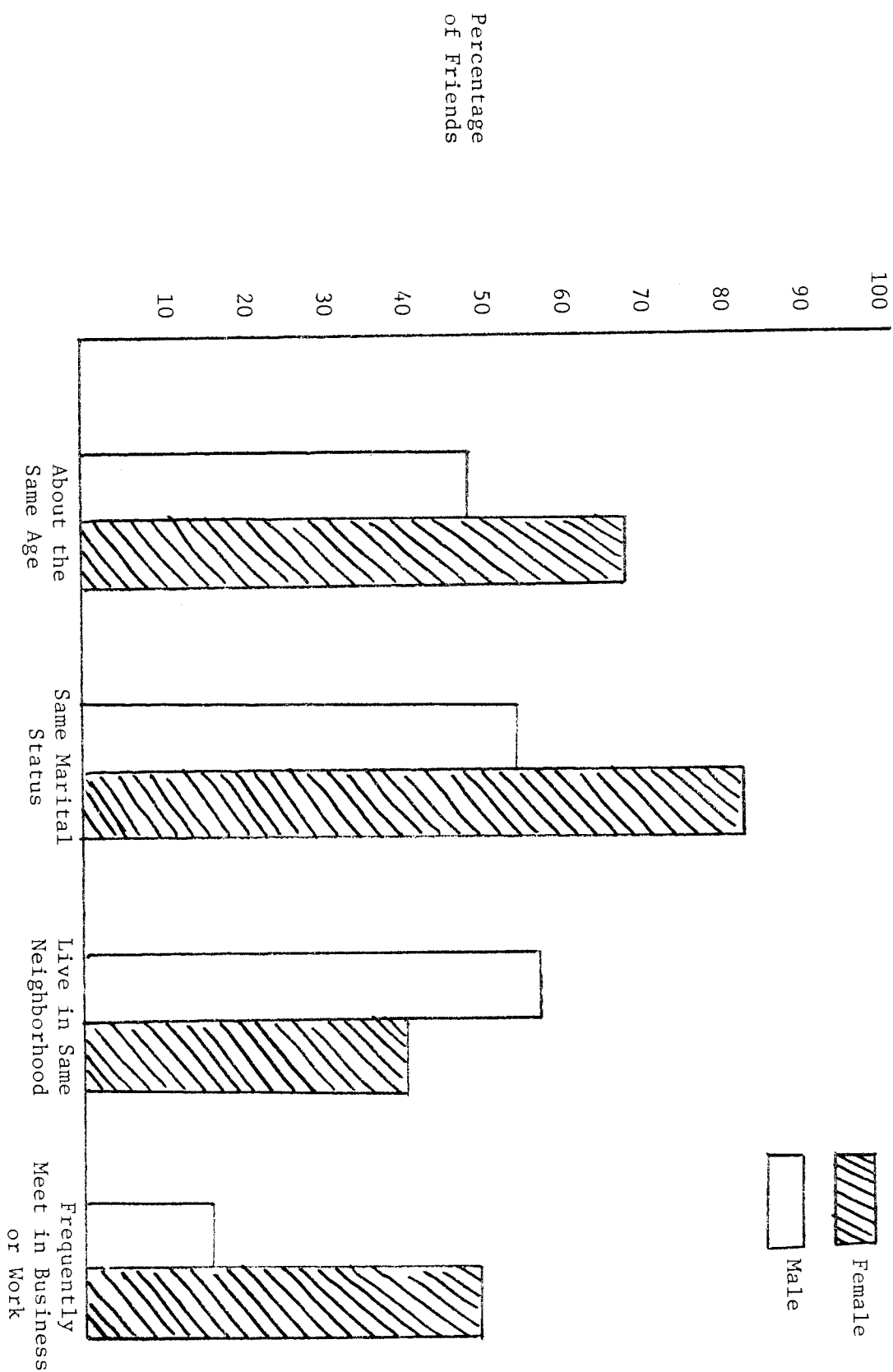
Otherwise, a person's sex had little influence over the kinds of friends made. Men and women were equally likely to have friends who were relatives, of the same sex, old classmates, of the same ethnic background, or who worked with their spouses or lived in the same place before moving to Douglas.

Men and women did not differ in the activities they shared with their friends. In contrast to some popular beliefs, men and women proved equally addicted to talking with friends on the telephone, belonging to the same church, parish, or club, loaning money to each other, trading cars, going out together, being godparents, or having a friend or hobby in common.



Table 3

Friendship Patterns of Men and Women



Note: All these associations are strong enough not to be attributed to chance as measured by a Chi-square test ($\alpha \leq .05$ level of significance).

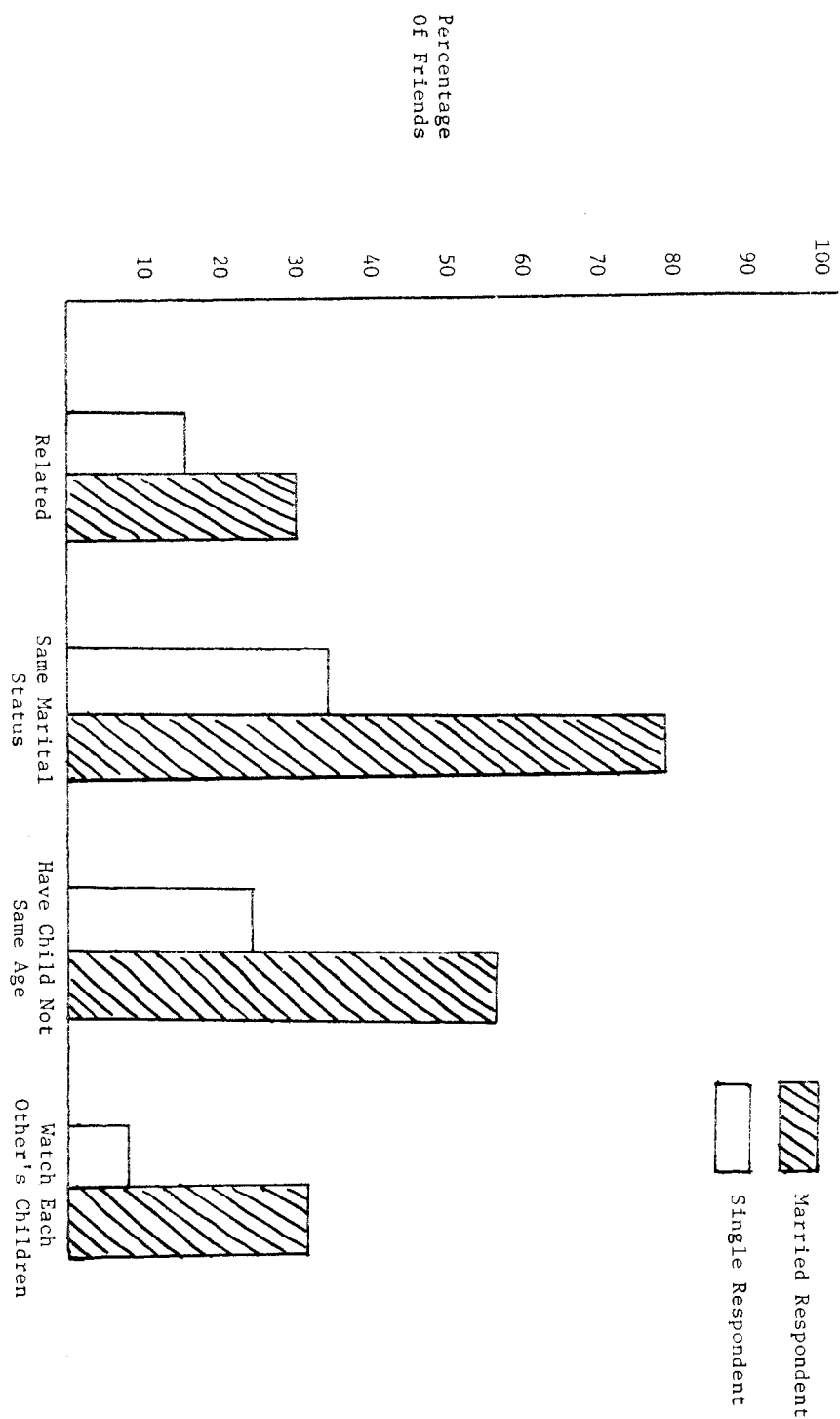
Marital Status

A person's marital status has some influence on his or her selection of friends. Single persons, including separated or divorced parents, appear much more likely to find friends who were married than visa versa (Table 4). Or, reading this finding another way, married people seem to prefer other married people more than singles. In a similar vein, married people are twice as likely as singles to include relatives among their friends.

Respondents showed different characteristics along two other dimensions of friendship. Married respondents were more likely to have children about the same age, a conclusion reflecting a general preference in the Douglas friendship profile of preference for friends of similar age and marital status. A second minor pattern discovered, the practice of watching a friend's child, was more common among married respondents than single respondents with children. Other than these findings, marital status had no other significant influence on friendship activities and patterns.

Table 4

Friendship Patterns of Married and Single Persons



Note: All these associations are strong enough not to be attributed to chance as measured by a Chi-square test ($\alpha = .05$ level of significance).

Ethnicity and Income

Douglasites appear to be making friends within their own ethnic group. I stress "appear" because this finding might be given a different interpretation. In Douglas, Mexican Americans are significantly poorer than Anglos (Table 5). Thus, it is possible that low income is the basis for clustering of Mexican American friendships rather than their ethnicity. To help resolve this problem, we shall first look at characteristics which distinguish friends in the two ethnic groups regardless of income. Then, we shall reverse the perspective and examine characteristics of friendship in which the respondent's income seems important, but not his or her ethnicity. Finally, we shall investigate several friendship patterns in which both the respondent's ethnicity and income seem to influence the choice of a friend.

A few friendship patterns seemed specifically related to the respondent's ethnic affiliation (Table 6). First, 25 percent of the town's population consider relatives among their close friends. Comparing the responses of Mexican Americans and Anglos, however, reveals a preference for relatives as friends twice as strong among Mexican Americans. Second, compared to Mexican Americans, Anglos' friends are more likely to share a common hobby and belong to the same clubs or groups. And third, Mexican Americans' friends loan money to one another more frequently than their Anglo counterparts.

Ethnicity proves unimportant in other spheres of friendship activity. Both Mexican Americans and Anglos are equally likely to talk to their friends on the telephone, watch each other's children, meet in business,

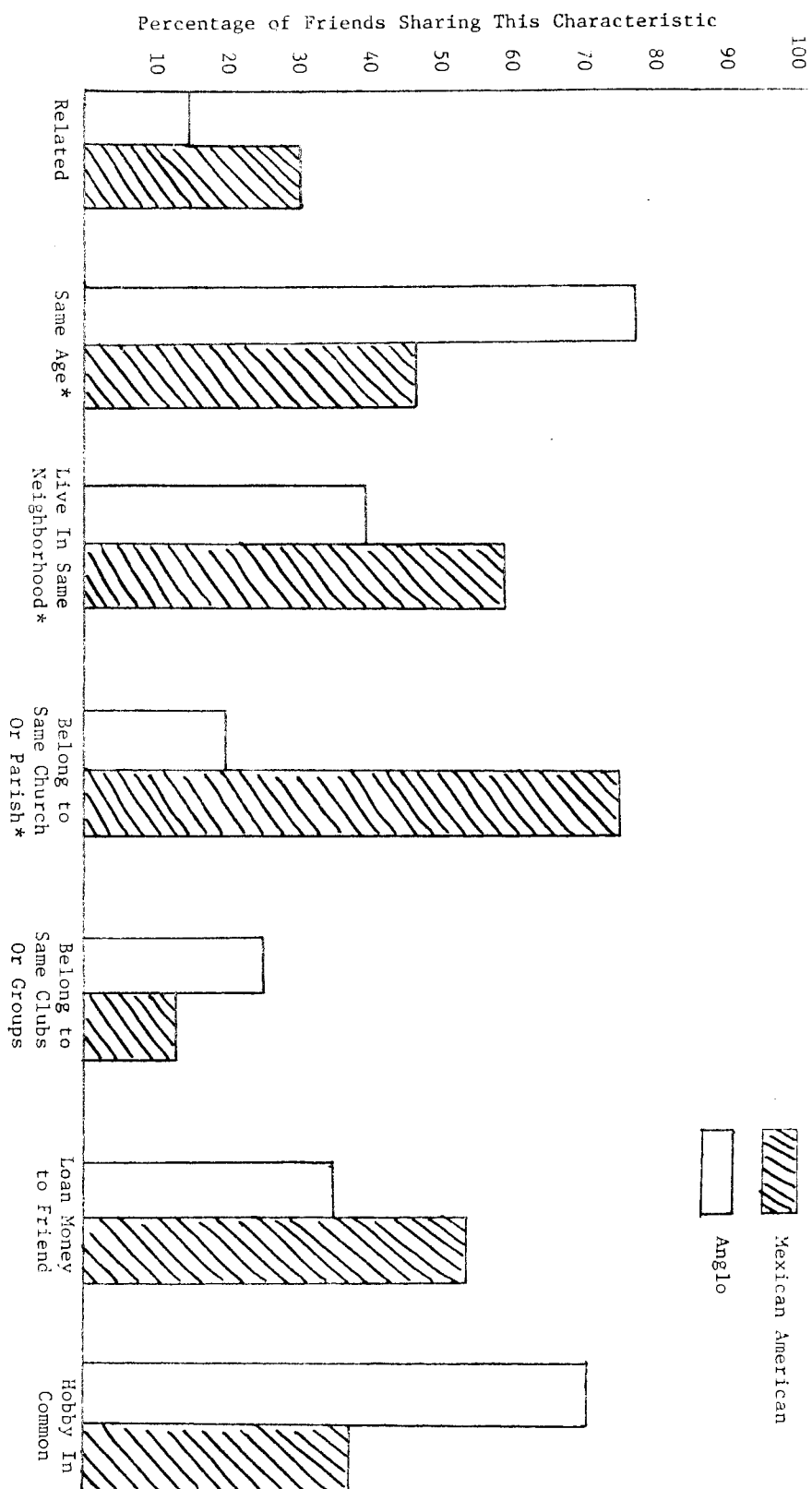
Table 5

Household Ethnicity and Income

ANNUAL INCOME	ETHNICITY	
	Anglo	Mexican Heritage
HIGH 10,000 or more a year	25	19
LOW 10,000 or less a year	29	79

$\chi^2 = 10.98$ Sig. **.2**.0009 N = 152 Households

Table 6
Friendship Patterns of Mexican Americans and Anglos



Note: All these associations are strong enough not to be attributed to chance as measured by a Chi-square test (X^2 .05 level of significance).
*These characteristics were also different for rich and poor. See texts for discussion.

have drinks at the same place, go out together, or have a friend in common. Controlling for income demonstrated that these patterns were attributable to ethnicity, not income (Table 7).

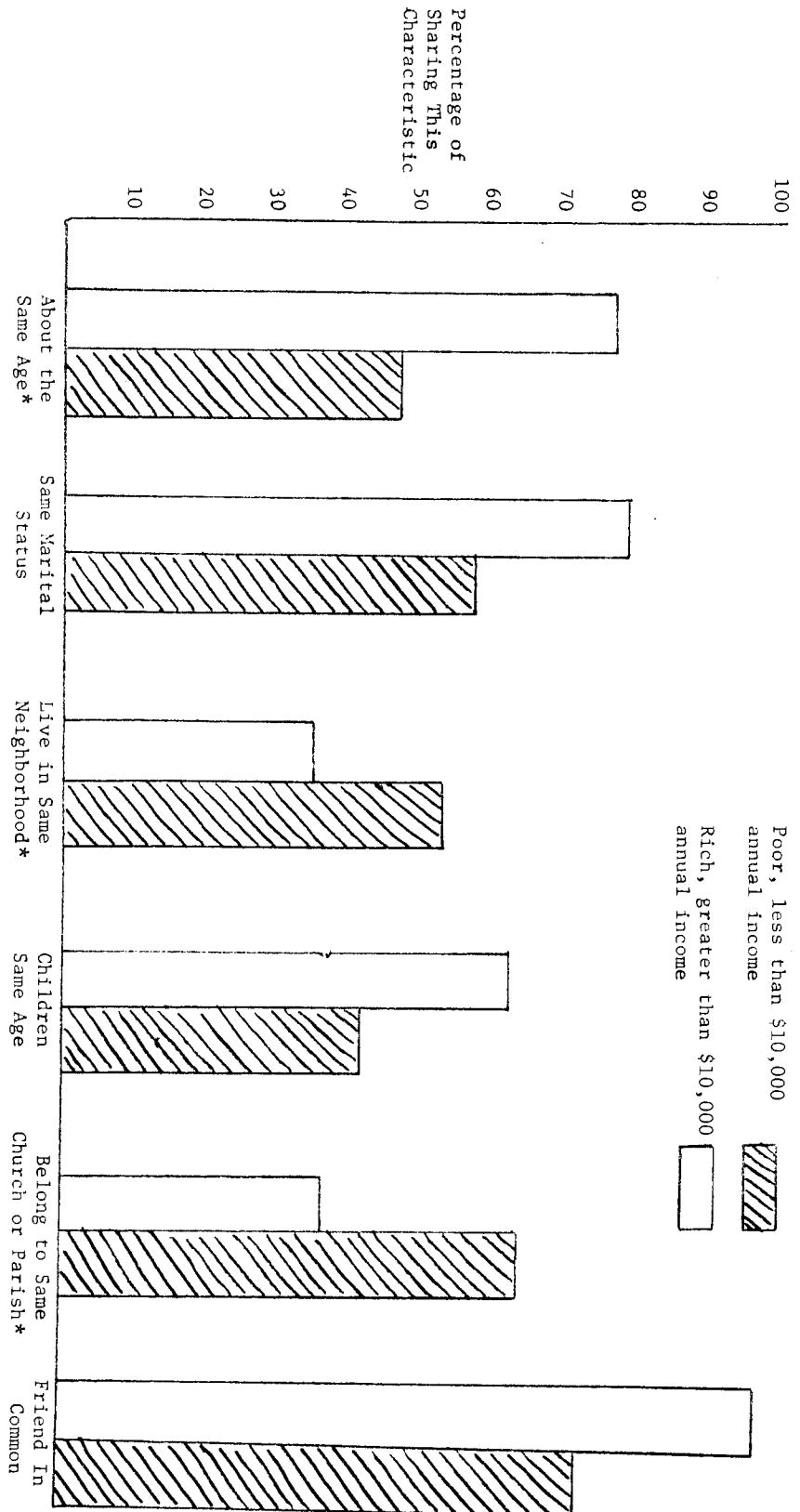
Other friendship patterns are specifically related to the respondent's income, but not his or her ethnicity. People from households with annual incomes over 10,000 dollars showed a significant preference for friendships with people of same marital status. Higher income compared to lower income respondents also tend to have friends with children who were the same age. And higher income appears to be an indicator of greater in-group solidarity because a higher proportion of the respondents claim to share another friend in common with the friend listed.

Problems arise when interpreting the discovery that upper income groups, and Anglos prefer friends who were about their same age or conversely, that lower income groups and Mexican Americans were more likely to form friendships with persons of different ages than their own. That is, upper income peoples are usually Anglo and lower income peoples are usually Mexican Americans. To determine whether income or ethnicity is the dominant factor in these parallel relations, the sample was divided into Anglos and Mexican American. Then the preference for ages was examined for both groups. By using this method of statistical control, we discovered that wealthier Anglos are more likely to form friendships with age mates than are poorer Anglos. In contrast, the income of Mexican Americans did not influence their demonstrated preference for friends of different ages.

Combining the finding that Mexican Americans show a strong preference for friends of different ages, and the finding of their stronger preference for relatives supports the contention that ties linking different generations are stronger among Mexican Americans than Anglos.

Table 7

Friendship Patterns of Rich and Poor



Note: All these associations are strong enough not to be attributed to chance as measured by a Chi-square test (χ^2 5.05 level of significance).

*These characteristics were also different for Mexican Americans and Anglos (Table 6). See texts for discussion.

Place of Birth

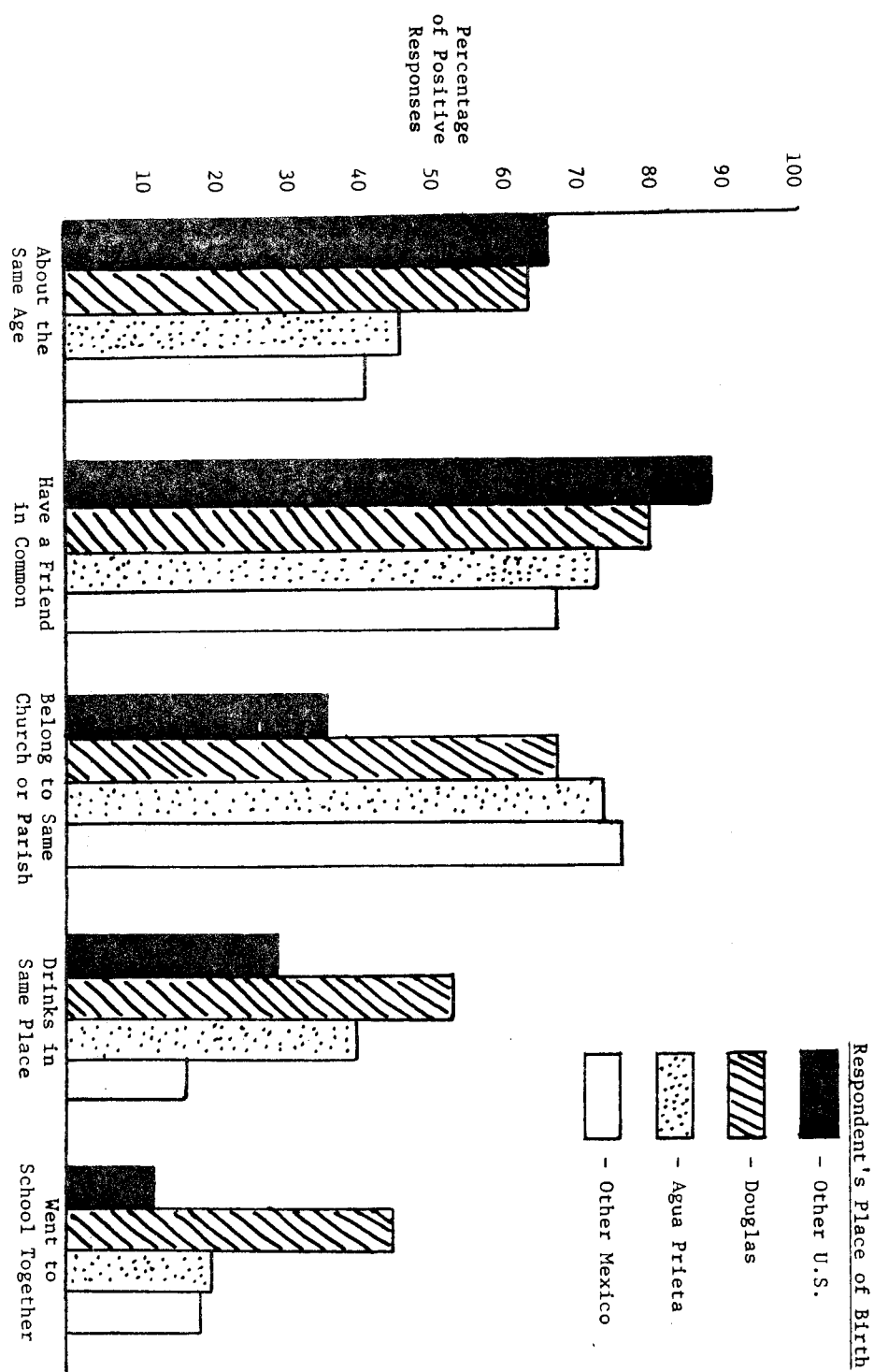
In an earlier chapter, we described the transitory nature of the Douglas population. Only 22 percent of those living in Douglas today were born there. An even smaller percentage (6 percent) were in-migrants from the sister town of Agua Prieta. By far the largest proportion of the Douglas population were outsiders, born in other parts of the United States (40 percent) or in Mexico (32 percent). Knowing this, we asked whether the outsiders had different friendship patterns from those born in the Douglas - Agua Prieta area.

We found that persons born in the United States, either in Douglas or elsewhere, were more likely to prefer friends of about the same age than those born in Mexico (Table 8). Also, United States born people appear to have a higher degree of connectivity in their friendship networks than those from Mexico. Douglas and Agua Prieta did fall closer to the pattern of Mexican born persons in that they prefer friendships with those belonging to their church or parish, and stand in contrast to persons born in other parts of the United States who found fewer friends in the city's religious institutions.

Two other friendship patterns appear to distinguish Douglas and Agua Prieta born persons from those born in other parts of Mexico or the United States. People born in Douglas and Agua Prieta are more likely to have drinks with their friends than do in-migrants, perhaps reflecting long standing associations. Moreover, a sharp difference was found between friends that went to school together. As might be expected, these persons were more often from Douglas than any other town, including Agua Prieta.

Table 8

Friendship Patterns and Place of Birth



Note: All these associations are strong enough not to be attributed to chance as measured by a Chi-square test ($\chi^2 \leq .05$ level of significance).

Most Mexican Americans and people with low annual income show a significant preference for friends within the neighborhood and for members of the same church or parish. Applying statistical controls first for income and then for ethnicity failed to discriminate either factor as being the dominant influence on the Mexican American poor's preference for friends in their same neighborhoods and church or parish.

Overview

The findings on the nature of friendship may be utilized to suggest a general structure of alliances between people in Douglas. First, it is readily apparent that an "ethnic boundary" between Mexican Americans and Anglos is a social reality with only a few friendship ties crossing the ethnic boundary. This implies that information which is normally passed between friends will tend to remain within the ethnic group that possesses or generates such information.

Moreover, the strong association between low income and Mexican heritage suggests yet another barrier within the community. Anglos with high incomes appear to have more limited access, in terms of intimate friendships, to the rest of the Douglas population. They search out friends of the same marital status, age, and have children about the same ages as their own children. These patterns may be viewed as restricting access to the majority of the community. The high connectivity of friendships in the upper class reinforces this pattern, suggesting that since they have friends in common that they form an isolated group. Looking at the opposite end of the social hierarchy, we find the lower income segment of the community forming friendships from a larger spectrum. This lower income group, consisting primarily of people of Mexican heritage, have a greater proportion of friends of different age and marital status. Mexican Americans also tend to form friendships with relatives more than do their Anglo counterparts. Furthermore, we discovered that persons born in Mexico are more likely to have friends from different age groups than Mexican Americans or Anglos from the United States side of the border.

Throughout the community, regardless of ethnicity or income, we discovered women have a more restricted friendship network than men. The fact that men have more friends of a different age and marital status than do women, might be interpreted as an expression of male dominance in social relationships. Another pattern which emerged was that Mexican Americans and Anglos find friends in different types of associations, with the Mexican Americans preferring friends who are in their church or parish, but with Anglos finding friends in clubs or through shared hobbies.

These findings suggest that Douglas has numerous barriers to the flow of information. Knowledge of these barriers may be used to facilitate the flow of information within a certain group. For example, if information on housing is aimed at the lower income community, the logical loci for communicating this information is through the churches. On the other hand, if information is aimed at the upper class Anglo, it can be assumed that clubs are a better means for communication than churches.

Chapter 7

EDUCATION

Carol Mudgett

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Introduction

Douglas' identity as a small, multi-ethnic, one-company border town affects the school system and therefore affects the education and socialization of the town's children. This unique combination of factors produces a social environment that has special meaning for the schools. Although all four factors will be discussed, the main emphasis will be placed on Douglas as a multi-ethnic town. This will be done first by looking at the ethnic characteristics of the town's population in relation to age and education. Then the relationships between economic status, education and ethnicity will be touched upon. The ethnic distribution of the different schools and faculty will also be included. The two educational approaches present in Douglas, "traditional" and "bilingual" will then be described, compared, and analyzed. Finally, several recommendations will be made.

This chapter is based on several different sources of information including the 1970 Census, the NEEDS Survey and the project questionnaire results. The author also interviewed various persons within the schools, from the superintendent to students. They all were very cooperative not only in giving information in informal conversations, but also in providing various records and other data. Hopefully, this report will be used as a base for further studies within the school system itself.

Description of Schools

The Douglas School District includes seven elementary schools, two junior high schools and a high school. The district educates approximately 4500 students, employing 224 teachers and approximately 75 other people in auxiliary services. There is also an adult "Community School." Cochise College is not a part of the district but will be discussed since it provides the extension of local education.

Enrollment

The seven public elementary schools in Douglas include kindergarten through fifth grades with the exception of two of the schools which exclude kindergarten. The two junior high schools include sixth through eighth grades and the high school, ninth through twelfth grades. Enrollment for the elementary grades for 1972-73 was 2240. This was a decline from the previous year, consistent with the steady decrease of more than 530 students in the five previous years. The decline, following a national trend of declining births, will eventually affect the enrollment of the higher grades.

The two junior high enrollments are approximately equal: the 12th street Junior High has 630 students and the 15th Street Junior High has 577. The total enrollment at Douglas High School reached 1479 during the 1972-73 year. There has been a steady growth factor of about 50-75 students each year starting in 1967 when there were 1120 students. There is a projection for an eventual leveling off at 1650, when the decreased elementary school population reaches high school. However, if the smelter should close, the high school would lose approximately 300 to 400 students.

Cochise College, a two-year community college situated just outside the city, opened in 1964. It has provided advanced instruction to many students who otherwise could not have attended college.

Physical Facilities

Many of the school buildings are old and in need of repair. The district budget allows only "stop-gap" measures for the most pressing needs. The 12th Street Junior High School is typical of the older buildings; the wooden floors, very old furniture and minimal classroom equipment have lasted much longer than should be expected. However, not all of the schools are in need of repair. Stevenson School, the 15th Street Junior High School and the high school are all fairly new. Some of the schools have plans to expand into new facilities. If funds were available, the administration would build a new science and vocational complex at the high school enabling the school to return to a single shift. At the present, high school students must attend classes in over-lapping shifts to avoid overcrowded conditions.

Special Programs

The Douglas school system has incorporated special programs at each level of education. For example, there are special reading classes, plus a "reading resource center" which tests children for reading problems. One elementary school has four special education classes. At the same school there is a resource room for physically handicapped children and borderline retarded children all of whom spend much of their time in regular classes. The "Community School" is a fairly new program which allows adults to attend classes in the evening.

Another special program, independent of the district administration, is the Head Start Program which provides a pre-school for children of families with incomes below the federally designated poverty level. There are also two Catholic parochial schools in Douglas, a pre-school and an elementary school. The pre-school has come into existence only recently and is filling a need for day care for children of working parents. The parochial grade school offers an alternative to public education up to eighth grade. Many upper class children from Agua Prieta attend this school to learn English.

Administration

The public schools in Douglas are under the administration of the school board and the school superintendent. The school board had five members elected for four year terms starting on even years. The superintendent is assisted by an assistant superintendent and also a finance director.

Educational Setting: the Small Town

Douglas, like other small towns, has a problem financing its schools. Although the city and county tax base of school funds is supplemented with federal funds, additional sources may have to be found in the future. The budget is being stretched to its limits with the most critical areas being teacher salaries, school building repairs, and the high school expansion.

District Budget

The school district's annual budget is three million dollars. At the city level, 25 percent of the sales taxes goes to education. Federally, the school system qualifies for money under the Elementary and Secondary Educational Act of 1965. Titles I, II, and III provide funds to districts with high percentages of low income and minority students. The money goes toward instructional materials and supplementary programs. Title VII money provides for bilingual educational programs.

A good indication of the financial situation of the district is that its starting teachers' salaries rank in the lowest quarter of Arizona school districts. At \$6600 the starting salary is \$500 lower than the state average. This will still be the case even when the salaries start at \$6900 during 1973-74 because other school districts have also raised teachers' salaries. The state legislature has ruled that school districts not pay over six percent of their budgets for salaries. The Douglas administration, wanting to go over this figure in order to pay their teachers on a competitive scale, took the issue to the townspeople who in turn voted the proposal down. Financial problems in education

are prevalent across the country today, but even more acute in small towns like Douglas.

Teacher Qualifications

It is often assumed that small town schools have difficulty attracting and keeping qualified teachers, which may have been the case in Douglas as late as five years ago. Since the teacher job market is tighter all over the country, there have been progressively fewer jobs available in Douglas. Consequently, the schools have had no trouble filling the open positions. In the 1969-70 school year, there were 57 job openings; the figure decreased to 49 in 1970-71, 40 in 1971-72, and 28 in 1972-73. Up to fifteen years ago, many teachers were attracted to the Douglas Schools because the salaries were competitive with those for the rest of the country.

Douglas teachers are only slightly less qualified in terms of degrees held than Arizona teachers as a whole. Of a total of Arizona teachers (46,756), 62 percent have a B.A. or B.S. degree; 37 percent have an M.A. degree, and one percent have no degree, a specialist degree (one year beyond the master's degree) or a doctorate degree (Arizona Department of Education School District Employee File). During the 1972-73 school year there were 224 teachers in Douglas. Of these, 67 percent had a B.A. or a B.A. plus additional graduate hours, 28 percent had an M.A. or an M.A. plus graduate hours, four percent had no degree and one percent had Ph.D.'s.

In the questionnaire administered by the research team, adults were asked if they were generally satisfied with their schools. The majority

answered that they were happy with the school system. They also answered that the school system would not be a reason for moving away from Douglas (see discussion of questionnaire results below). It is known from school records that there is a high rate of transfer into and out of the school system. If there are reasons to leave Douglas, they are probably related less to the schools than to other factors such as the lack of job opportunities, lack of housing, etc.

Educational Setting: the Border Town

From a comparison of U.S. Census figures and school records it is apparent that there are many school age Mexican and Mexican American children who do not attend school (see discussion below under "Age, Education, and Ethnicity"). The figures suggest that there are Mexican and Mexican American children who never enter school and those who possibly drop out at an early age. However, there are no figures on how many of these children have moved from Mexico and are staying in Douglas only temporarily until their parents seek work elsewhere.

This disparity as well as other concerns related to Douglas as a border town will be dealt with below in the discussion of Douglas as a multi-ethnic town. While reading these sections, it may be helpful to keep in mind the following questions. What happens to children who move across the border into the schools? Do the schools make a conscious effort to integrate Mexican children into American society? To what extent do teachers disassociate students from their Mexican heritage and lifestyle? In more technical terms, is "cultural pluralism" desired or allowed, or is "cultural exclusion" practiced instead?

The influence of the school system of Agua Prieta cannot be easily dismissed since many of the students in Douglas have attended school there. Children in Mexico are required to attend school until they are fourteen or until they have completed six grades. Some claim that these six years are equivalent to eight years in American schools. Children who transfer to Douglas schools often have very good educational backgrounds even though they know little English.

Educational Setting: the One Company Town

In the preceding chapters of this report, Douglas has been considered a one company town because of the major role of the Phelps-Dodge Company in its economy. There are a number of ways the company influences education in Douglas. The most obvious relationship of the Phelps-Dodge Company with the school system is the number of employees' children who enroll in the various schools. If the company were to close in Douglas, the high school alone would lose 300 to 400 students.

Phelps-Dodge has in the past been influential in school administration through school board members who have been Phelps-Dodge employees. In years past, the company usually was represented by two or more members as was the Southern Pacific Railroad. During the 1972-73 school year there was still one Phelps-Dodge employee on the board, but other members included a dentist, a funeral director, a post office worker, and a Cochise College administrator. Two members, including the president, were Mexican American.

Another important role of the company is the revenue or lack of revenue it could provide for the schools through taxes. Because Phelps-Dodge is outside the city limits, the company does not pay city property taxes and the schools receive revenue only indirectly through county taxes. Since the Douglas school district is already one of the poorer ones in the state, the loss of the company as a revenue source is sorely felt.

A more subtle role played by Phelps-Dodge is its influence in job manpower demands in Douglas. The schools produce people for the jobs that exist in Douglas but there are more graduates than jobs. Whether Douglas is in

fact a one business town or not, it is a fact that there are not enough jobs. As a result, the school system is educating people who move to other towns, a factor that can be viewed as doing more than its share of financing the education of the state's population.

Cochise College offers a placement service for its graduates. These graduates often were placed in towns other than Douglas since there were few jobs available in Douglas. The placement service was able to place almost none of their students at Phelps-Dodge. The files at the state employment agency were examined to see what kinds of jobs a person twenty-one or younger could get for permanent employment. Ninety-five people under twenty-one sought help from the agency from July 1972 to July 1973. Seventy-eight of these were Mexican American. The jobs that were available were unskilled and semi-skilled, such as sales clerk, typist, teller, cleaning, yard work, construction, and field work.

Students who complete school are not the only ones who leave Douglas looking for jobs. Douglas has been characterized in preceding chapters as having a highly mobile population. This can be demonstrated by looking at the transfer records at the schools. It was found that approximately 490 junior and senior high school students moved to other places during a four year period (1969-73). The annual transfer rate was approximately 3.5 percent. Both Anglos and Mexican Americans (Spanish surname) were equally represented. Of the total of both groups, the largest percentage (29 percent) moved to California, followed by 26 percent to other towns in Arizona (other than Phoenix and Tucson). The third largest category (18 percent) went

to Tucson and another 11 percent moved to other states. Two destinations most often listed in Arizona (other than Phoenix and Tucson) were Morenci and Bisbee, both mining towns. When Spanish surnamed students were considered alone, the largest proportion of them also moved to California. It is assumed that the families of both groups had various reasons for moving. However, the restricted job opportunities in Douglas may be influential in their decision to move.

Educational Setting: the Multi-ethnic Town

Some of the issues which will be discussed revolve around the following questions: does the Douglas school system provide equal education for all ethnic groups? Do the schools of Douglas serve as a means of social mobility in Douglas? If education can be assumed to allocate roles in Douglas society, are there groups of people who are being shortchanged? If there are such groups, what "adaptive strategies," such as dropping out, do they take?

This section will discuss the relationship of ethnicity to socio-economic and educational factors in the entire Douglas population. In this context we will analyze the two different educational approaches present now in Douglas. All of the schools but one utilize what is here called the "traditional" approach. It has basic philosophical and methodological differences from the "bilingual" approach which is now present at only one elementary school. Some of these differences will be examined and compared.

Ethnicity in Arizona

Studies conducted by university and federal research agencies have clearly demonstrated that children who come from lower socio-economic backgrounds and from ethnic populations do not receive the same education, do not score as highly on national achievement tests, do not stay in school as long and graduate in smaller numbers than the general U.S. student population. This has especially been demonstrated in the Southwest and in Arizona. The U.S. Commission on Civil Rights published a series of reports on Mexican American education in the Southwest which provides a basis for comparison of Douglas and Arizona.

Mexican Americans in Arizona are 1.7 times more likely than Anglos to leave school by eighth grade. Ninety-seven percent of Mexican American students in Arizona are still in school by the eighth grade but by twelfth grade, the figure dwindles to 81 percent. Nearly one-half of all Mexican American students are reading three or more years below grade level. By grade twelve, three-fourths of all twelfth grade Mexican Americans read below grade level. Of all first graders in Arizona, 14.4 percent of the Mexican American students had to repeat the first grade, compared to 5.7 percent of the Anglo children and 11 percent of the Black students (U.S. Commission of Civil Rights, The Unfinished Education, Report II, Mexican American Education Series).

Before discussing these problems in relationship to Douglas, it is informative first to look at the ethnic breakdown of the Douglas population.

Age, Education and Ethnicity

The U.S. Census identifies ethnic background by surname, language spoken in the home, and by self-identification. The entire population of Douglas in 1970 of 12,462 included 70 percent Mexican American and 30 percent Anglo and others. However, the percentage of Mexican Americans is higher in the school-aged population. As can be seen from Table 1, every school age group has a higher proportion of Mexican Americans than the 70 percent in the population taken as a whole.

Table 1

Douglas Population by Age and Ethnicity

<u>Age</u>	<u>Mexican American</u>	<u>Anglo and other</u>	<u>Total</u>
under 5 years	977 (80%)	249 (20%)	1226
5-9 years	1180 (81%)	270 (19%)	1450
10-14 years	1376 (82%)	293 (18%)	1669
15-19 years	1019 (78%)	294 (22%)	1313
20-24 years	520 (72%)	206 (28%)	726

Source: U.S. Bureau of the Census of Population: 1970 General Population Characteristics, and General Social and Economic Characteristics, Final Reports PC (1) B and C, p. 4-52 and 187.

The U.S. Census states that 69 percent of the children in school between the ages of five - seventeen are Mexican Americans. So while Mexican Americans represent approximately 80 percent of the school aged population, only 69 percent are actually in school. This disparity is supported by looking at other sources. In a special report* the Arizona Department of Education found that in the 1970-71 school year, 69 percent of the students through junior high school were Spanish surnamed. This 69 percent can be compared to our finding of 81-82 percent of the children of the same age group in the population.

The disparity becomes even larger for the high school level. The U.S. Census (1970) states that 78 percent of the 15-19 year age group is Mexican American. Douglas High School officials claim that 62-67 percent of the entire student body is Mexican American whereas the Arizona Department of Education report states that the student body in 1971 was 58 percent Mexican American. The percentage of Mexican Americans becomes even lower when looking at graduating classes. Classifying surnames from lists provided by the high school, the average proportion for five years of graduating classes was 56 percent Mexican American (Spanish surname). Taking one class, that of 1970, through four years, the average proportion of Mexican Americans by surname is 50 percent, again less than the stated average.

The difference in figures between Mexican American school aged children and those actually in school cannot be explained by the different definitions (surname, language and self-identification) of "Mexican American" in the reports. Apparently, a number of children

* "Racial Ethnic Survey," Arizona Department of Education, 1970-71

drop out on their way up to and through high school. A critical time for dropping out is junior high school.

Ethnic Distribution in Schools

The schools of Douglas show differing proportions of enrollment by ethnicity. The elementary schools are neighborhood schools. Since there is an uneven distribution of Mexican Americans and Anglos in neighborhoods, there is likewise an uneven distribution in the schools. Four of the elementary schools, Sarah Marley, Pirtleville, 15th Street and Clawson, have 90 percent or more Mexican Americans. Sarah Marley is in the oldest Mexican American community and is nearest the border crossing. It has always had and still has the highest percentage (99 percent) of Mexican American students. Three other schools have 70 percent or less, Carlson (70 percent), A Avenue (60 percent), and Stevenson (26 percent). Stevenson is the newest school in the more affluent part of town; it is also the most Anglo of the schools.

The two junior high schools show a dramatic contrast in enrollment by ethnicity. The 12th Street Junior High School is 96-98 percent Mexican American whereas the 15th Street Junior high is 30 percent Mexican American. The 15th Street Junior High is a new school in the same affluent neighborhood as Stevenson elementary school. Many of the 15th Street Junior High Mexican American students are bused to the school from Pirtleville, the community across town and just outside the city limit. Since the school residential boundaries are not enforced, there is a constant flow of transfers of Anglos to the 15th Street Junior High School and of Mexican Americans to the 12th Street Junior High School.

Students from both junior high schools go to one high school where the proportion of Mexican American students varies from 58 percent to 67 percent (depending on which report one refers to). More and more of the high school students are continuing to Cochise College which serves not only Douglas but all of Cochise County. Its student body is 20 percent Spanish surnamed, 12 percent Black, 2 percent Oriental and American Indian, and 66 percent "other".

Mexican American Faculty and Recruitment

All of the schools are underrepresented in the ratio of Mexican American teachers to Mexican American students. For example, the 12th Street Junior High is 96-98 percent Mexican American but only seven or 20 percent of the thirty-three teachers are Mexican American. The librarian and counselor are also Spanish surnamed. None of the other teachers know Spanish well enough to use it. At the 15th Street Junior High School there are two teachers and one counselor who are Mexican American. At the high school only seven teachers of 73 (7.5 percent) are Mexican American.

Teacher recruitment is the responsibility of the district administration and teachers receive their contracts through the main office. Job openings are advertised nationally and representatives visit state colleges to recruit new teachers. There is a difference of opinion among various teachers and administrators as to the effort involved in recruiting Mexican American teachers. According to some, the district cannot compete with other districts with higher salaries or the attractions of urban life in bigger cities. On the other hand, others say that there is no active effort to attract Mexican American teachers beyond the bilingual program at one school.

Education, Ethnicity, and Economics

Anglo adults are significantly better educated than Mexican American adults in Douglas. The results from the questionnaire administered by the research team demonstrate this effectively.

Of the total number of persons in the sample (718), 361 were adults, nineteen years of age and older, 55 percent male and 45 percent female. Of the 361, 106 were Anglo and 234 were Mexican American. For the adult population of Douglas, the mean number of years in school was 9.02. The mean number of years for Anglos was 12.1 which was much higher than the 7.4 for Mexican Americans. Since the standard deviation was twice as large for the Mexican American mean as the Anglo mean, a "t test" was performed which showed that the means were indeed significantly different (.05 level of significance).

About two-thirds (64 percent) of the Mexican Americans had only eight years of school while only 12 percent of the Anglos had discontinued their schooling at that level. Only 11 percent of the Mexican Americans graduated from high school compared to one-third (32 percent) of the Anglos and three times as many Anglos attended or graduated from college. Few persons of either group attended graduate school or even any type of vocational school.

Several reasons can be suggested to account for the difference of educational backgrounds. A major factor is undoubtedly economic. Many persons in the present adult generation could not afford to continue their education. Of the total of adults, 29 percent attended school only in Mexico, where the compulsory education requirement is sixth grade. When these Mexican Americans moved to Douglas many chose not

to enter school. Anglos moving to Douglas to work, on the other hand, were better educated and got better paying jobs. For example, some were transferred by Phelps-Dodge to jobs in Douglas. These people could afford to keep their own children in school in Douglas and later send them away to college.

The result of the difference in educational levels between ethnic groups can be seen by referring to Thomas McGuire's chapter. McGuire states that although eighty percent of the work force in Douglas is Mexican American, they are under-represented in higher paying jobs and over-represented in lower paying jobs. Even Mexican Americans with professional qualifications, however, are making less money than people in professional occupations as a whole.

Opinions of Adults and Adequacy of Schools

The questionnaire included several items which solicited the respondents' opinions on the schools. Of the 172 households questioned, 92 had children between five and eighteen years of age. Only 32 percent of the Anglo households had children of school age compared to 66 percent of the Mexican Americans. Many of the households without school children nevertheless had definite opinions regarding education in Douglas.

The majority of people (80 percent) believed that the schools were adequate. The respondents represented a cross section of income levels among both Mexican American and Anglo residents. Their opinion of the adequacy of the educational system was not supported by the findings of the research team. This disparity between the information

gleaned by the research team and the attitudes of people responding to the questionnaire, can be explained in several ways. Either the people of Douglas have their own criteria for judging acceptable standards for their schools, or are unaware of the education problems in the schools, or they are aware and do not care.

Two Approaches to Education in Douglas: Traditional and Bilingual

Two different approaches to education are simultaneously present in Douglas. They have different philosophies, perspectives and teaching methods. The older approach, called "traditional" here, will be examined first. A more recent educational approach, bilingual education, has been present at one elementary school for one year and it will also be discussed.

Traditional Approach

The philosophy behind the traditional approach in respect to Mexican American students, is that the schools are seen as the institution for acculturating students to Anglo American society. The student is divorced from his background and language as quickly as possible. If the student has moved across the border from Mexico and he is under eleven years old, he is placed in a special first grade, called "1 C". These classes are essentially crash courses in English and a "culture shock" experience for the student. Many of the children already have a strong educational base and confidence from attending school in Mexico. Although theoretically the students are placed in the appropriate grade for their age when they have learned "sufficient" English, many fall behind and "fail" a grade. Thus, they become older than the other students and often begin to have a lowered self-image.

If the student is too old for the "1 C" classes, he attends the 12th Street Junior High School for special English classes. There again, the student undergoes a crash course in English until he can be placed in the appropriate grade, whether that be at the junior high or senior high level.

At each level there are special classes for reading problems. At the elementary level, there is a summer program to help students with their English reading. In the summer of 1972, 200 children attended classes for five weeks and the average reading improvement was an impressive six months (school term equivalency) for the five week period. During the school year, teachers can send students to a reading specialist for testing. Of those tested for reading difficulties approximately 75 percent are children who speak Spanish as a first language.

The high school has two special reading classes. During the 1971-72 school year, the average reading gain was two grade levels for students enrolled in the special classes. Although this improvement is impressive, these students still remained behind their peers. One of the teachers felt there should also be an "English as a Second Language" course along with the special reading classes, to stress day-to-day English conversation.

The emphasis in the schools was so heavily weighted toward learning adequate English, and implicitly, Anglo culture, it is not surprising that the majority of teachers showed a lack of sensitivity, awareness, and knowledge about their Mexican American students. Very few Anglo teachers could speak even some Spanish. The administration did not offer any incentive for them to learn Spanish during their summers. Even fewer integrated anything about Mexican or Mexican American culture or heritage into their lesson plans. This was the case even when there were special federal funds available for materials through the superintendent's office.

The Traditional Approach and Achievement Test Results

At each level of education, there is evidence that Mexican American students do poorer on national achievement tests than do their Anglo counterparts. At the elementary level, one predominantly Mexican American school (Pirtleville) and one Anglo school (Stevenson) were compared. The Stanford Achievement Test was used for 1969-71 and the Metropolitan Achievement Test for the last two years. At the schools where there was more than one class per grade, there was an attempt to use the same teacher's class for consistency. From an examination of the scores (See Table 2a and 2b) it can be seen that Pirtleville children fall behind after second grade and that Stevenson children consistently score better than their grade level.

At the junior high level, Stanford Achievement Test scores were compared for the 12th Street Junior High School which is predominately Mexican American and the 15th Street Junior High School which is predominately Anglo. Again, the Mexican Americans consistently do poorer than the Anglo students. (See Table 3a and 3b). For example, the eighth graders tested at 12th Street Junior High in 1972 (8.8 grade level) had a composite average score for all tests of 7.05. This one year lag is typical of the performance of all the students at the 12th Street Junior High.

Mexican Americans (Spanish surname) and Anglo students were also compared at the high school. Thirty Mexican Americans (Spanish surname) and thirty Anglo and "other" students were chosen from a random table of numbers for each class (9th, 10th, 11th grade) for each of five years (68-72). A stratified random sample was deemed necessary

Table 2a
Firtleville Elementary School
Achievement Test Results by Grade 1968-73

Stanford Achievement Test 1969-1971													
Date Tested	Grade	Word Meaning	Paragraph Meaning	Science Soc.Std.	Spell.	Word Study Skills	Lang.	Arith. Comp.	Arith. Concepts	Arith. Applications			
February 1969	2	2.3	2.3	2.1	2.7	2.6	2.7	2.1	2.2	-			
	3	2.7	2.7	2.0	3.2	3.4	3.1	3.6	2.9	-			
	4	3.4	3.3	-	4.0	3.5	3.6	3.7	3.1	3.8			
February 1970	2	2.3	2.2	2.1	2.2	2.6	2.4	2.2	2.1	-			
	3	3.0	2.9	2.3	3.8	4.0	3.5	3.4	2.7	-			
	4	3.3	3.3	-	4.0	3.4	3.3	3.7	3.3	3.6			
	5	5.0	4.5	-	5.4	4.9	5.0	4.5	4.6	4.9			
March 1971	2	2.5	2.6	2.3	3.0	3.3	2.9	2.0	2.2	-			
	3	3.0	3.0	2.6	3.4	3.5	3.2	3.0	2.5	-			
	4	3.7	4.1	-	4.4	4.5	4.2	4.0	3.6	3.8			
	5	4.3	4.1	-	5.0	-	4.2	4.5	4.2	4.2			
Metropolitan Achievement Test 1972-1973													
Date Tested	Grade	Word Knowledge	Word Analysis	Read.	Total Read.	Spell.	Lang.	Math Comp.	Math Concepts	Math Prob.	Total Math		
April 1972	2	2.7	3.1	2.6	2.6	2.9	-	2.6	2.5	2.6	2.5		
	3	3.3	-	3.2	3.3	4.2	4.0	3.7	3.4	3.5	3.6		
	4	3.5	-	3.4	3.4	4.3	3.6	4.0	3.2	3.4	3.5		
	5	4.5	-	4.8	4.6	5.2	5.3	5.1	4.4	4.6	4.7		
April 1973	2	2.5	2.7	2.3	2.4	2.5	-	2.4	2.4	2.4	2.4		
	3	3.3	-	3.2	3.2	4.1	3.4	3.7	3.3	3.4	3.5		
	4	3.8	-	4.1	3.8	6.0	4.6	4.4	3.9	3.9	4.1		
	5	4.2	-	4.5	4.4	5.0	5.1	4.7	4.2	4.1	4.4		

Table 2b
Stevenson Elementary School
Achievement Test Results by Grade 1968-1973

Stanford Achievement Test 1969-1971													
Date Tested	Grade	Word Meaning	Paragraph Meaning	Science Soc. Std.	Spell.	Word Study Skills	Lang.	Arith. Comp.	Arith. Concepts	Arith. Applications			
February 1969	2	2.5	2.5	2.7	2.2	2.4	2.9	2.3	2.4	-			
	3	3.5	3.0	2.7	3.7	3.5	2.8	3.2	2.6	-			
	4	4.3	4.5	-	4.4	4.2	3.9	4.0	4.6	4.5			
	5	5.2	5.0	-	5.1	4.9	4.8	5.0	5.1	5.0			
February 1970	2	2.5	2.4	3.0	2.1	2.6	2.9	2.5	2.7	-			
	3	3.6	3.6	3.0	3.3	2.6	3.1	3.9	3.1	-			
	4	4.5	4.4	-	4.4	4.2	4.3	3.9	4.1	4.4			
	5	5.4	5.3	-	5.2	5.0	5.1	5.2	5.3	5.1			
March 1971	2	3.1	3.1	3.4	3.0	2.5	3.1	2.6	2.7	-			
	3	3.4	3.3	3.7	3.5	3.1	3.3	4.3	3.7	-			
	4	4.4	4.5	-	4.4	4.2	4.3	4.6	4.6	4.3			
	5	5.4	5.6	-	5.9	-	5.4	5.5	5.3	5.1			

Metropolitan Achievement Test 1972-1973

Date Tested	Grade	Word Knowledge	Word Analysis	Read.	Total Read.	Spell.	Lang.	Math Comp.	Math Concepts	Math Prob.	Total Math
March 1972	2	2.8	2.5	2.6	2.5	2.4	-	3.0	3.0	2.7	2.8
	3	3.8	-	4.2	3.9	3.6	4.0	4.1	4.0	3.9	4.0
	4	4.2	-	4.4	4.4	4.3	5.0	5.0	4.8	4.6	5.0
	5	5.2	-	5.0	5.0	5.7	5.6	6.0	5.5	5.5	5.7
	6	6.2	-	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
April 1973	2	2.7	2.7	2.6	2.6	2.6	-	3.0	2.7	2.8	2.7
	3	3.8	-	3.7	3.7	3.9	4.1	4.3	4.2	4.1	4.2
	4	4.5	-	4.9	4.6	4.7	5.0	4.9	4.8	4.6	4.8
	5	5.8	-	6.0	5.8	5.4	6.0	5.9	5.9	5.6	5.7
	6	6.8	-	7.0	6.8	6.8	7.0	7.0	7.0	7.0	7.0

Table 3a
12th Street Junior High School
Stanford Achievement Test Results
Grade 8 1968-1972

Grade Level at Test Time-----	5.6	6.6	7.7	8.8
	1968-69	1969-70	1970-71	1971-72
<u>Test</u>	<u>Average</u>	<u>Average</u>	<u>Average</u>	<u>Average</u>
Word Meaning	4.90	5.53	-	-
Paragraph Meaning	5.04	5.74	6.37	6.93
Spelling	5.38	6.37	6.94	7.65
Language	5.40	6.13	6.20	6.77
Arithmetic Computation	5.40	6.01	6.20	6.83
Arithmetic Concepts	4.80	5.50	6.63	7.35
Arithmetic Application	4.80	5.69	6.36	7.18
Social Studies	4.90	5.61	6.34	6.85
Science	4.90	5.61	6.34	6.85
Composite Average	5.06	5.81	6.39	7.05

Table 3b
15th Street Junior High School
Stanford Achievement Test Results
Grade 8 1969-1972

Grade Level at Test Time-----	6.6	7.7	8.7
	1969-70	1970-71	1971-72
<u>Test</u>	<u>Average</u>	<u>Average</u>	<u>Average</u>
Word Meaning	6.53	-	-
Paragraph Meaning	6.31	7.43	8.47
Spelling	6.49	7.56	8.09
Language	6.31	6.87	7.47
Arithmetic Computation	5.79	6.71	7.29
Arithmetic Concepts	5.96	7.59	8.30
Arithmetic Applications	5.87	7.10	7.97
Social Studies	6.27	7.49	8.10
Science	6.25	6.92	8.10
Composite Average	6.20	7.21	8.00

since the sample size was so large. Each group of thirty students were comprised of 15 males and 15 females. Four tests from the Stanford Achievement Tests were chosen and all three scores were utilized; the score according to the national norm (0-99), the local norm (0-99), and the stanine score (0-9).

The mean scores for the tests made by Mexican American surnamed students were statistically significantly lower than Anglo (and others) surnamed students on all tests: "English," "reading," "numerical computation" and "math" (.05 level of significance). On the whole, the Mexican American means were approximately ten percentile points lower than their Anglo counterparts. This was the case for comparison along both national norms and local ones, for the percentile scales and the nine-point standardized or stanine scale.

The Traditional Approach and Drop-outs

One indication of how successful the schools are in relating to their students is to look at attendance and drop-out rates. In Douglas a critical time for Mexican American students to drop-out is in junior high school. The drop-out rate for the 12th Street Junior High, which is 96-98 percent Mexican American, is much higher than the 15th Street Junior High which is 30 percent Mexican American. Of the total junior high drop-outs, 80 percent came from the 12th Street Junior High. This correlates with a high absence rate; for example, the 12th Street Junior High average monthly absentee rate in December 1972 was 7.4 compared to the district average of four to five percent.

The 12th Street Junior High counselor is in the process of following "potential" drop-outs (high absence rate) through high school.

The eighth grade class of 1969-70 had a 38.1 percent drop-out rate by the end of the 1972-73 year, the 1970-71 eighth graders, a 24.8 percent drop-out rate and the 1971-72 class, a 18.3 percent drop-out rate by 1973. These rates are much higher than the drop-out rate for either the other junior high school or the high school as a whole.

The high school has slightly different kinds of records. Administrators have compiled drop-out rates for each year. The average for the five-year period between the 1968-69 and 1972-73 school years was 6.8 percent. A separate tabulation was done by the author to identify drop-outs by ethnicity. Students were identified by surname for a four-year period at the high school. For the high school, 67 percent of the total drop-outs (244 of 383) were Mexican American (Spanish surnamed). Mexican Americans are therefore over-represented by drop-outs if we take the student body proportion of Mexican Americans at either 58 percent given in the 1971 Arizona Department of Education report or the 50 percent average over four years for the class of 1970. At both the high school and junior highs, the drop-outs were approximately 60 percent male and 40 percent female.

On the school records of the drop-outs, reasons for the students' departures were listed by the school. At both the high school and junior high schools, 55 percent of the students dropped because of "no interest", "no return," "attendance," (chronic absenteeism) or "over-aged" (students feeling too old for their class). Other reasons for dropping, which make up the other 50 percent are "marriage," "service," "needed time at home," and "unknown". Most of these "reasons" for leaving school are more of a lack of reasons for staying in school.

At least 50 percent of those dropping have little incentive to stay in school, either because the school isn't reaching them or forces outside school are more attractive.

The Traditional Approach and Honor Students

Just as Mexican Americans are in the majority of drop-outs, they are under-represented among high school honor students. Honor students at Douglas High School are students in the upper 20 percent of their classes. The last four years (1969-72) of senior students were classified by surname to determine ethnic identity. It was found that during the four years, 24-30 percent of the students were Spanish surnamed.

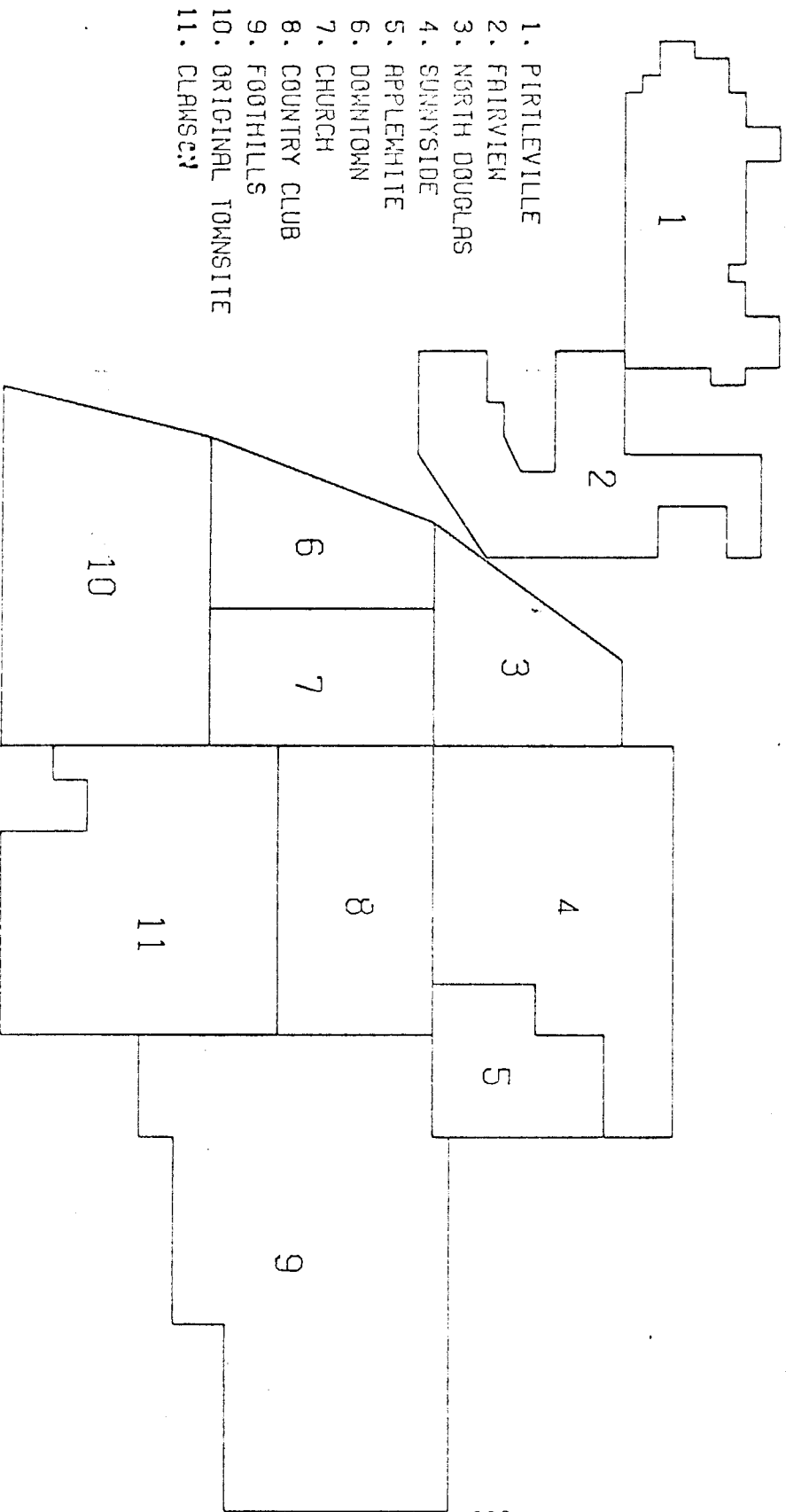
The high school drop-outs and honor students for one year were mapped in relation to the number of juveniles per neighborhood. The number of drop-outs and honor students are taken from the average of the total of four years. This figure is used cautiously since it is only assumed that the number of drop-outs did not radically change from one year to another. Also, we do not know how many of the juveniles in each neighborhood were actually in school. Even with these reservations kept in mind, the implications of the maps are interesting. The reader is referred to the four maps on the following pages.

The neighborhoods referred to are those defined by the NEEDS survey (See Chapter 10). In general, they represent neighborhoods recognized by the people and officials of Douglas (See Map 1). They are all predominantly Mexican American with two exceptions, Country Club and the Foothills. Country Club has a high proportion of both

MAP 1

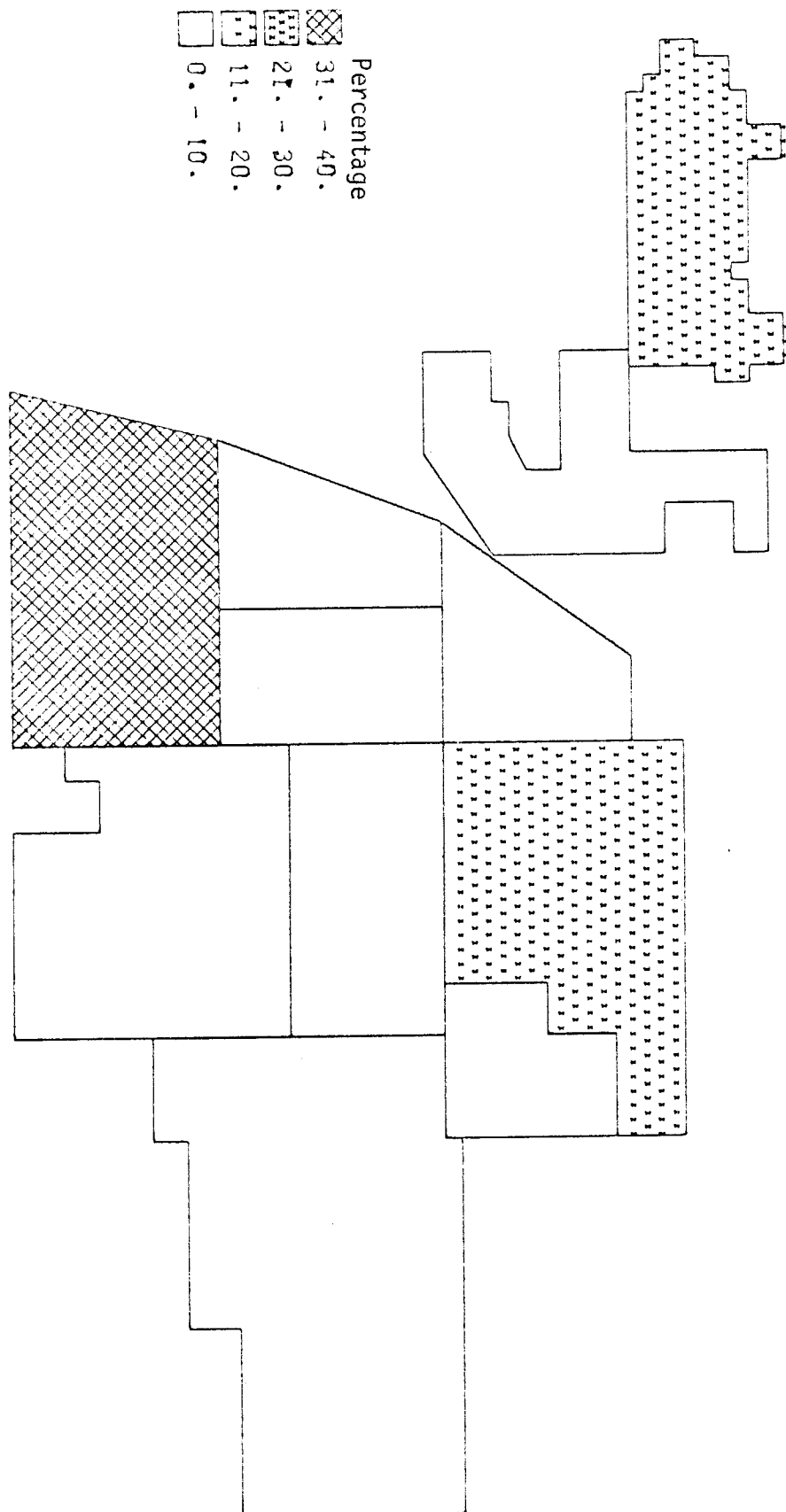
DOUGLAS URBAN AREA

BY N.E.E.O.S. NEIGHBORHOODS



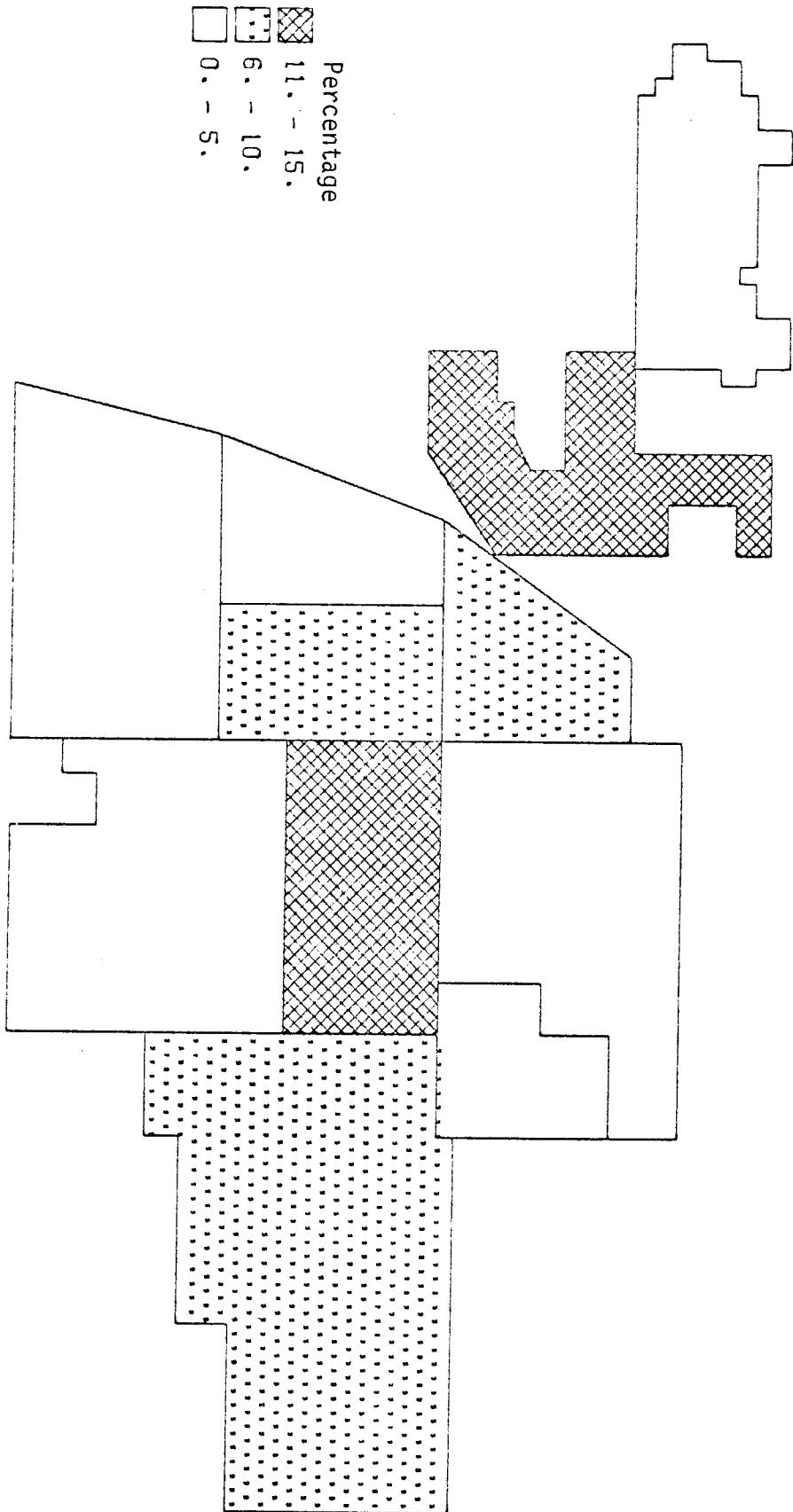
MAP 2

PERCENTAGE OF JUVENILES, AGE 14-19, PER
NEIGHBORHOOD



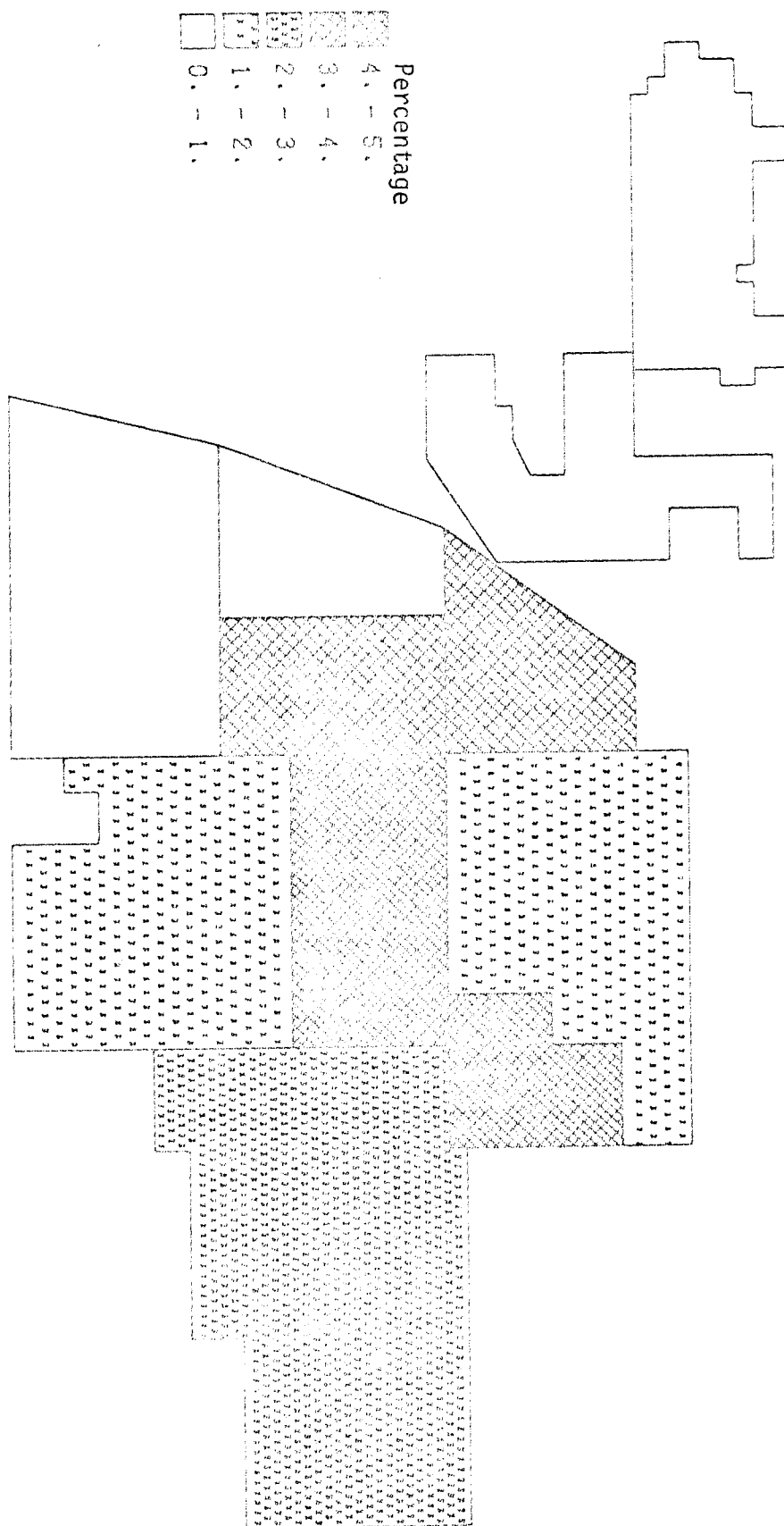
MAP 3

PERCENTAGE OF HIGH SCHOOL DROP-OUTS
PER NEIGHBORHOOD ADJUSTED FOR JUVENILE
POPULATION, AGES 14-19



MAP 4

PERCENTAGE OF HIGH SCHOOL HONOR STUDENTS
ADJUSTED TO JUVENILE POPULATION, AGES 14-19



drop-outs and honor students even though the percentage of juveniles is low, compared to other neighborhoods (See Maps 2-4). The neighborhood with the highest number of juveniles and the highest percentage of Mexican Americans is the Original Townsite. This neighborhood is in the lowest category of drop-outs and also honor students. The neighborhoods with the next highest proportion of juveniles (Pirtleville and Sunnyside) are also in the lowest category of drop-outs and honor students except for Sunnyside with a higher number of honor students.

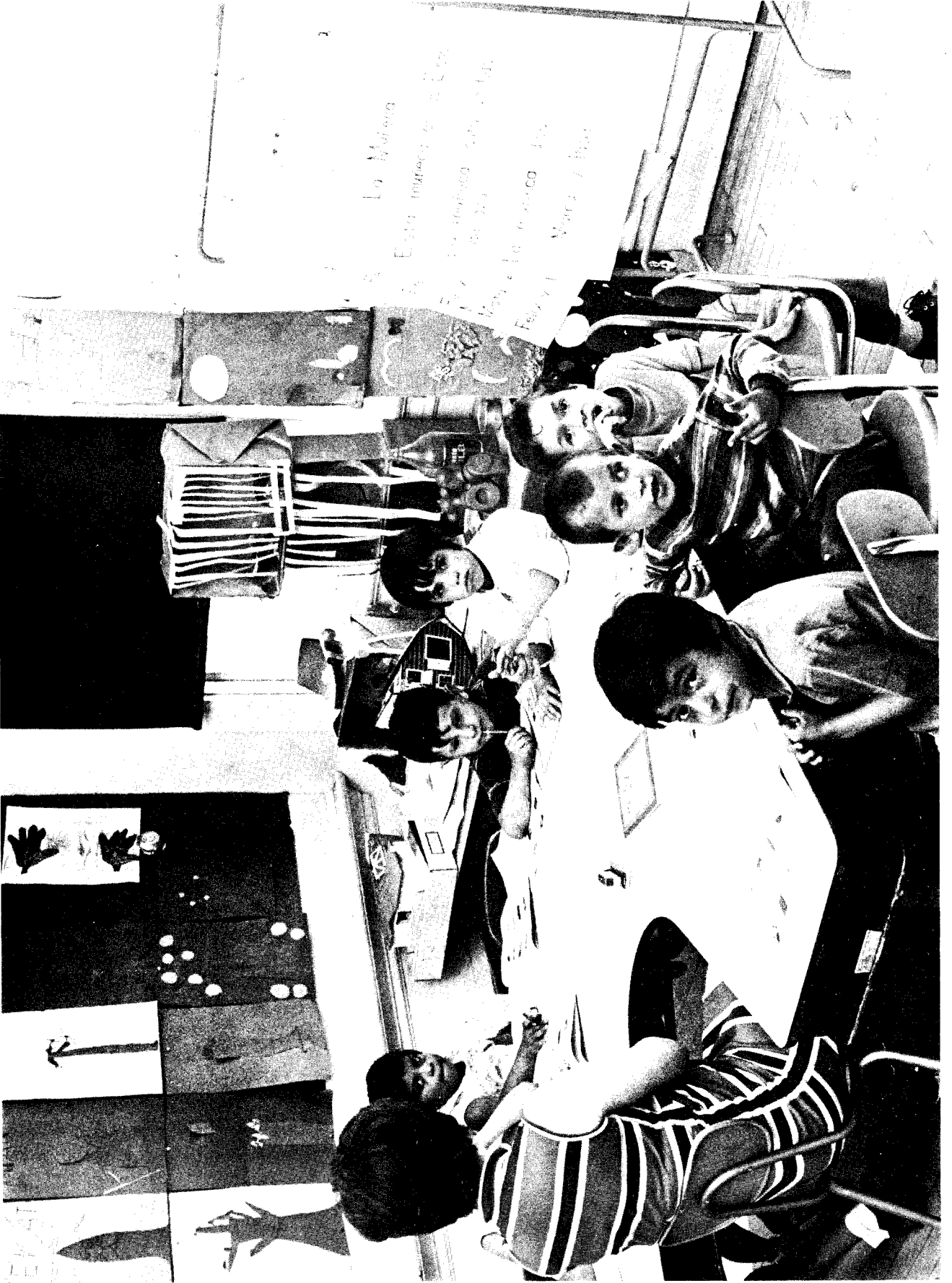
A comparison of the average income of neighborhoods collected in the questionnaire, to the number of drop-outs per hundred juveniles, showed no significant relation between average neighborhood income and drop-outs. Although there may be a relationship between the two, it is not apparent with these particular neighborhood boundaries. The result of all these comparisons tells us that using these neighborhood boundaries, there is no correlation between drop-outs or honor students with ethnic identity of neighborhoods, their economic standing, nor proportion of juveniles in neighborhoods. This information would appear to contradict the finding that the majority of drop-outs are Mexican Americans, especially at the junior high school level. However, it should be remembered that 70 percent of Douglas is Mexican American and the discussion on ethnicity of neighborhoods is relative, i.e. some neighborhoods have more or fewer Mexican Americans.

Douglas Students and Higher Education

Many Douglas students continue their education outside of the area either directly from Douglas High School or from Cochise Junior College. Looking at one Douglas High School graduating class, it is possible to make some generalizations about the student educational careers for four years after graduation. In the class of 1968 a majority of the students (165 or 70.5 percent) entered college. Sixty-three percent were Spanish surnamed students. The majority went to Cochise College but others went to the state universities and a few attended out-of-state colleges. Although a high percentage entered college, half (80) did not complete two years. For example, of the 106 students who entered Cochise College, sixty did not complete two years. Little is known about these students or why they dropped out. Perhaps Douglas High School is not adequately preparing students to stay in college or perhaps the problems are more related to reasons other than academic concerns, such as personal and cultural adjustments.

An Alternative Educational Approach: Bilingual Education

The Douglas school system is experimenting with an alternative to the traditional education described above, although this has been only on a limited basis so far. The bilingual program was initiated at Sarah Marley, an elementary school which is 99 percent Mexican American. The school has 450 students in kindergarten through fifth grade. However, only two kindergartens and five first grades were involved in the bilingual program for the first year. Second grades will be added during the 1973-74 year and third, fourth and fifth grades will follow in the next three years.



The goal of the program is to allow students to be bilingual in English and Spanish by the fifth grade. This is a gradual process with children speaking only Spanish the first year, 75 percent Spanish in the first and second grades, half English and half Spanish in the third grade, 25 percent Spanish in the fourth, and finally reaching full bilingualism in the fifth grade. The program is federally funded under Title VII money. Each year funds are requested and it is rare for a bilingual program to be funded through the fifth grade. At that point it is up to the community whether it will continue funding a program and whether to encourage bilingualism in higher grades also.

During the 1972-73 school year there were eleven teachers involved in the bilingual program and four more were to be added the next year. These teachers were specially trained not only in language instruction, but also in communicating a pride in the children's Mexican American cultural heritage. Because bilingual texts and materials (books, filmstrips, etc.) were not always available or published, the teachers prepared many of their own materials for classes.

It is not known yet if the children are learning better under the bilingual program. Tests given at the end of the first year were inconclusive because of the inconsistent conditions under which they were given. It is perhaps significant, however, that the teachers and students were enthusiastic at Sarah Marley. One of the interesting "spin-offs" of the bilingual program has been the increased participation not only of parents of the students, but also the entire Sarah Marley neighborhood community in the activities of the school. This

participation started when, under federal guidelines, parents were required to be involved in the decision-making processes of the school. The same kind of participation is required for the Head Start program from parents who live in the same neighborhood. At the Sarah Marley school, sixty or seventy parents attend the monthly meetings. A planning committee rotates its members from the larger group.

This community participation at Sarah Marley is in direct contrast to what is happening at the other schools in Douglas. There is no Parents-Teachers Association in the elementary and junior high schools. A high school P.T.A. has only recently been revived with little response from parents. There are only one or two open houses during the year at the high school, which are poorly attended by parents. Teachers have conferences with parents only infrequently. In many of these cases the reason for the lack of meetings is because most of the teachers do not speak enough Spanish to communicate with the parents. Consequently, many parents feel that they cannot contribute to their children's education.

The participation at Sarah Marley School has been so enthusiastic that it has generated interest in other activities. For example, many in the community supported La Raza Unida when it collected donations for a children's Christmas party. On another occasion, when the credentials of a Sarah Marley administrator were questioned, more than four hundred people came out in support of him, and probably as a consequence, the school board took no action. From these experiences, some people have been talking about the political potential for Mexican Americans in Douglas. The majority of Douglas is Mexican American and

yet the town has traditionally been run by Anglos. Perhaps the political consciousness of the Sarah Marley community is the beginning of a power base which will be utilized in the future.

A separate program that serves mainly the Sarah Marley community is the federally funded Head Start Program. Head Start is a pre-school for three and four year olds of low income families. During the 1972-73 school year, thirty-nine of the forty children were Mexican-American. The program has been successful in two of its goals: most children become bilingual after a year and the health of a majority of the young participants is improved by the free meals and medical care.

Another area of successful community participation in education has been the "Community School." During its short three year history, 1400 people, mostly adults, have taken advantage of its classes. In the 1971-72 school year there were 813 students, 65 percent of whom were Mexican Americans. The average age of the students was 45. About one-fourth of the students were in classes to learn English. Others were earning their high school diploma (G.E.D.) or simply taking "enrichment" classes such as painting, ceramics, auto mechanics, plumbing, and electric work. Fees were \$10 per ten-week class; students who could not pay the full fee paid partial fees or applied for scholarships. The language classes are free since they are funded by the federal government.

CONCLUSION

Educational Setting: Douglas, the Small Town

The fact that Douglas is a small town has been seen here as influential primarily in the problem of obtaining sufficient funds for the schools. These funds are needed for salary increases, building upkeep and school expansion. Even though the faculty salaries are among the lowest in the state, the teachers are only slightly less qualified than Arizona teachers as a whole. It was also seen from the questionnaire, that even with the schools' financial problems, the adult population viewed Douglas schools as adequate.

Educational Setting: Douglas, the One Company Town

The role of Phelps-Dodge has been decreasing in recent years, as seen, for example, in the fact there are fewer Phelps-Dodge employees on the school board. The tax revenue from the company and its employees living in town is still important, but perhaps more influential is the relationship between Phelps-Dodge and job opportunities in Douglas. Although this role is also decreasing, the lack of jobs with the company or other businesses has maintained an outmigration of Douglas High School and Cochise College students. This means the schools are educating people to take jobs elsewhere in the state and country. Another important factor is that if Phelps-Dodge were to close, the loss of students in the school system would be significant, up to 400 in the high school alone.

Educational Setting: Douglas, the Border Town

The view of education in a border town is similar to that of the multi-ethnic town except for slightly different emphasis. For example,

what happens to immigrant children once they are in Douglas schools is fairly well known. However, there is no reliable information on school aged immigrants. How many reside in Douglas and never attend school? Is there a transient school-aged population that moves on to other towns when their parents look for jobs? The job opportunities in Douglas, of course, affect this movement. Therefore, the multi-ethnic and border characteristics blend with and affect the factors of Douglas as a small one company town.

Educational Setting: Douglas, the Multi-ethnic Town

After reviewing both educational approaches in Douglas, the traditional and bilingual, it can be seen that the traditional method of teaching has not been as successful with Mexican American children as it has with Anglo students. Even though the majority of students in Douglas are Mexican American, under the traditional system, the recognition of cultural pluralism is denied. The educational institutions do practice "cultural exclusion" in that there is little education about the ethnic heritage of Mexican Americans or their language. Although it is too early to judge the bilingual approach in Douglas, it at least offers an alternative to the present situation.

Under the traditional system now, the lack of sensitivity on the part of teachers and administrators may account for many of the problems within the schools. The first are language and reading "problems." Mexican American (Spanish surname) students score consistently lower on achievement tests from elementary school through high school. For many students who have used Spanish as a first language at home, there is a difficult transition to English in the schools. Many start with this

disadvantage and never catch up with their bilingual and English speaking peers. Some parents can do little to help at home since they also may not speak much English and may never have attended Douglas schools.

The majority of Mexican American students need help now in reading and language comprehension. The "1 C" English classes at the elementary level are inadequate since many students subsequently fall behind in grade level compared to their age mates. The special English classes at the junior and senior highs are inadequate also if only because they handle too many students. By the time of junior and senior high school, there is a snowballing effect and problems which begin with inadequate English lead to problems in all academic areas. This is reflected in National Achievement Tests. Equal to the language consideration is the accumulation of problems that accompany the neglect of the student's personal identity. Many students drop out because they appear to have little reason to stay in school by the secondary level. The majority of Douglas students are bound not only to a Mexican American identity, which has a rich ongoing culture, but also to the larger American culture. The combination in the Douglas setting offers a unique identity to these students, an identity to be aware of with pride. An incorporation of identity awareness into the classroom may help not only to keep students in school but also enrich the lives of everyone there.

Recommendations

Although not meant as an official evaluation, our exposure to the educational problems of the city places us in a unique position to make some fruitful suggestions. We recommend that there be:

- a) positive recruitment for Mexican American teachers and bilingual teachers
- b) positive inducement for non-Spanish speaking teachers to learn Spanish
- c) inclusion of more instruction and texts and materials into curricula on Mexican American heritage
- d) a study to prepare grant proposals or other fund sources to extend bilingual education to elementary schools other than Sarah Marley
- e) initiative to incorporate both Spanish and English into the education of children from Sarah Marley when the bilingual program ends at fifth grade
- f) emphasis on language and reading comprehension of English for all students, not just new immigrants, and positive inducement for higher level students to learn Spanish
- g) a study of the number of children who would be eligible for a Head Start program extension and possible sources for more funds
- h) a study into the need of public child care facilities in Douglas
- i) an intensive program to work with potential drop-outs in junior and senior high schools
- j) expansion of free breakfasts to all schools where there are free lunches
- k) a program to include parents in active participation in the schools

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Chapter 8

HEALTH

Thomas Weaver and Glee Hubbard

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HEALTH

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The level of physical and mental well-being, the health, of a community can be assessed from various perspectives. Two approaches will be used in the present discussion of health in Douglas. The first approach might be termed ecological in that it focuses on the relationship between health and factors of the objective physical and social environment in Douglas. Topics to be discussed include:

- health in a small town
- health in a one-company town
- health in a border town
- health in a multi-ethnic town.

The second perspective will focus on the more subjective aspects of health through examination of the perceptions, attitudes, and opinions of the medical community and the residents of Douglas on questions relating to health conditions and services in Douglas. Data for such an assessment were obtained by two methods:

1. Structured and unstructured interviews were conducted with volunteer informants selected from all levels of the medical community.
2. Residents of Douglas surveyed were asked the following question:

We are trying to find out about the health needs of this community. You can help by telling us about the health problems you have had in the past year. We are interested in problems serious enough to have kept you from working, or problems that have made it very difficult for you to do what you do every day.

Interviewers mentioned no specific illnesses, although they used classes of illnesses, e.g., accidents, skin problems, digestion problems, etc., to assist the informant in remembering. Only the specific illnesses or conditions volunteered by the respondent were recorded. It will be noted that information was requested only on "serious" illnesses during the year preceding the survey. Thus, data on minor health problems or even chronic illnesses were not included.

Health in a Small Town

Size alone contributes to some of the health problems typical of Douglas, in that it is not large enough or wealthy enough to attract or support diversified health care services. Douglas is one of the poorest towns in Arizona, and even in the United States. Median income in Douglas is \$7,565, compared to a median for the state of \$9,187. Only Nogales had a lower median income (\$6,593). Douglas has 18.9 percent of its households below the poverty level, a percentage again only exceeded by Nogales where 26.5 percent were below the poverty line. The percentage for the state as a whole is 11.5 percent. Of the families below the poverty level, 46.4 percent are female-headed households, a figure which exceeds Nogales by 12 percent, the state figure by 17.3 percent, and is only exceeded by Sierra Vista with a percentage of 53.2 percent. Many of these poor families are multi-problem families, since the low wages which prevail in the area are directly related in a causal sense to health and other social problems.

Due to the high costs and complexity of modern medical care services, smaller towns and communities throughout the United States struggle with inadequate medical services and facilities. Douglas is no exception. Health services are relatively limited and those which do exist have problems in inadequate funding and facilities.

Local Health Services not related to the Phelps-Dodge Corporation include the County Hospital, a branch of the County Health Department, a Family Guidance Center (located in Bisbee but with services in Douglas), resident health professionals and visiting physicians. Phelps-Dodge also operates a hospital in Douglas and another small hospital in Bisbee (about twenty miles distant). There are only two small private hospitals in the County, in Benson and Wilcox respectively.

The County Hospital is operated by the Hospital Association on contract from the County Board of Supervisors. The Hospital Association is a non-profit corporation which was formed in 1966. The County Hospital is located about five miles outside of town between Douglas and Bisbee. The physical plant of the present facility is a conglomeration of old buildings some in excess of sixty years old. The original building was a tuberculosis sanitarium constructed on the site in 1906. Additions have been made to the hospital in 1928, 1958, 1965, and 1971.

At present, the hospital has 146 beds, of which 64 are for chronic and long term care, four for intensive care, six for pediatric patients, and the remaining 72 for general medical and surgical care. The hospital provides cardiac and intensive care, physical therapy, respiratory therapy, with appropriately trained nurses and technicians for each service. In addition, the staff includes a full time dietitian, a radiologist, a nurse with a master's degree in charge of personnel education, a college trained hospital administrator, a director of social services, and two full time pharmacists. X-ray facilities, laboratories and a small cafeteria complete the hospital facility.

The County Hospital is responsible for the complete health care and treatment (including glasses and prescriptions) for approximately 2,500

indigent patients, prisoners, mentally ill patients, transients, and private patients as well. Indigent care is available to any person who has lived in the state one year and who has not exceeded a level of income or assets amounting to \$150 per month for a single person, and \$250 per month for a couple, with an allowance of \$25 per child. Resident aliens who qualify under these standards are also eligible for health care at the hospital.

Major problems of the County Hospital have to do with present limitations on expansion. For instance, the hospital does not have emergency or maternity care facilities, but rather obtains these services on contract from the Phelps-Dodge Hospital in Douglas. They cannot build these facilities until the Phelps-Dodge hospital closes at some undetermined future date. The County Hospital administration expects to be notified in advance of such a closure but finds the uncertainty creates difficulties in planning.

Another problem which the Hospital Association faces is finding adequate funding for the changes and additions needed. In recent years they had top priority in the state for Hillburton funds, but were not provided the grant when it was found that the hospital was not accredited. After making the necessary safety and fire prevention changes needed for accreditation, they discovered the next year that they had been placed at the bottom of the funding list. This process has been repeated with other sources of funds. The Board of Directors finds it a very frustrating problem.

The County Health Department also provides health services in Douglas. The local branch has adequate facilities in the new City Administration

Building. The present acting health officer is a sanitarian who is located in Bisbee but who visits Douglas several times a week. The County Health Department staff includes one registered nurse, two licensed practical nurses, one secretary, and one sanitarian. Present levels of staffing are inadequate according to the head nurse; more physician time and two more nurses are needed. The lack of staff has contributed to major community health problems in the past. For instance, the schools had to assume responsibility for immunization programs. With the institution of the immunization clinic by the Health Department, this problem will be solved.

In addition to the immunization clinic, several other clinics are operated in Douglas by the County Health Department. The complete list, including the number of patients per week, appears in Table 1 on the next page.

Not having a physician as county health officer has created problems in the delivery of health care in that by law certain health care services can not be provided except under the direct supervision of a physician. For instance, the health department can not provide care or treatment for V.D. patients because the nurses are not permitted to administer penicillin. Such patients must therefore seek care and treatment from a private physician.

The Family Guidance Center in Bisbee provides some mental health services for Douglas. A psychiatrist visits Bisbee once a month from Tucson, and two psychologists "moon light" from Ft. Huachuca. There are no facilities for treatment or rehabilitation for drug and alcohol related problems. Under present circumstances only minimal care can be offered.

Table 1

Clinics Operated in Douglas by the County Health Department
Including the Number of Patients Per Week

<u>Clinic</u>	<u>Average Number of Patients Per Week</u>	<u>Physical Care</u>
Well-child	13-26	Few hours-1 day per week
Pre-natal	7-10	Few hours-1 day per week
Immunization	16-20	Few hours-1 day per week
Skin Test	10-12	Few hours 1-day per week
Chest	35	1 day, 7 of 12 months
Home Health Care	37	-----

Even though the facilities and services for health care in Douglas are limited due to the size of the community, Douglas experiences many of the same problems common to larger communities. Lack of public transportation makes it difficult for residents to use the facilities which are available, e.g., the County Hospital is five miles outside of town. The medically indigent frequently do not have private transportation available and local taxi service is not only expensive, but is said to be unreliable.

Douglas also has its share of transients who place additional pressure on existing services. Typical examples include relatives of servicemen stationed at Ft. Huachuca, people who come for religious cures at Miracle Valley (a religious curing sect located approximately 50 miles from Douglas), and traveling indigents who on occasion have drug-related or other health problems.

Many health services needed are simply not available in a city as small as Douglas. Patients who can not be cared for locally are sent to Tucson or Phoenix. Specialists also visit at regular intervals from Tucson. Of the 12 doctors permanently located in Douglas, nine are in general practice, two in internal medicine, and one in surgery. There are also four dentists who practice in the city, an optometrist, 63 registered nurses and 27 licensed practical nurses. There are no pediatricians, gynecologists or psychiatrists.

Health in a One-Company Town

Douglas is essentially a one-company town. The copper operations of the Phelps-Dodge Corporation is the only major industry and thus is of primary importance for all the residents either directly by providing

employment (15 percent of the households in Douglas derive some portion of income from Phelps-Dodge employment) or indirectly in terms of the benefits and services provided to the town by the company. Health care facilities are one such community benefit. The Phelps-Dodge Corporation established a community hospital in Douglas in 1939, primarily for the use of its employees. At present, they also have a clinic in the community. The hospital has a capacity of 35 beds, of which 20 percent are reserved for Phelps-Dodge employees and their families, with the remainder utilized by private patients. Facilities include a three-bed pediatric ward, one large and one small surgical room, one examining room, an emergency room, X-ray facilities and laboratories. The Phelps-Dodge Hospital is the exclusive source in the community for hospital, gynecological, maternal and emergency services, providing these services for Phelps-Dodge employees and also, by contract, to County patients as well.

Four company doctors practice at the hospital and take care of the clinic. Eight other physicians have hospital privileges, as do two dentists. A neurologist, an orthopedic specialist, and a urologist visit the hospital one day each month from Tucson.

The hospital is primarily oriented to caring for Phelps-Dodge employees and their families. The head nurse reported that occupationally related accidents are for the most part minor, and that a vigorous occupational safety program keeps such accidents to a minimum. During the summers the hospital takes care of some heat prostration cases from extra help at the smelter. Regular, year-round employees, who know how to take care of themselves, rarely suffer such problems.

In spite of the presence of the smelter and accompanying air pollution, hospital staff reported no unusual or smelter-related bronchial or respiratory problems among Phelps-Dodge employees. However, chest and breathing-related illnesses serious enough to have interfered with work or everyday activities were reported by 27.2 percent (N=257) of the respondents in the survey. Anglos seemed to suffer more from such illnesses than Mexican heritage respondents. Of 83 Anglo respondents, 37.3 percent reported such illnesses within the last year, as opposed to only 22.4 percent of the 174 Mexican heritage respondents. Children also were slightly more prone to chest and breathing related illnesses than were adults. Of the 101 children for whom health data was gathered, 28.7 percent had experienced chest and breathing related illnesses while only 25.9 percent of the 156 adults reported such illnesses.

The Phelps-Dodge Hospital has had staffing problems attributable to the on-going possibility of the shut-down of the smelter operations in Douglas. Related to the planned shut-down, plans had been made to close the hospital on July 1, 1973, but this was postponed indefinitely. The future of the hospital is at present uncertain. Rumors developing from this situation are thought to be associated with the difficulty in keeping nursing staff in Douglas. There is a continual outflow of nurses to jobs elsewhere, and the uncertainty of continued operations has made it difficult to attract replacements for what would appear to be short-term jobs.

The presence of the Phelps-Dodge Hospital in Douglas has not been an unmixed blessing. While they provide health care services unavailable elsewhere in the community, their presence has created difficulties for the County Hospital. The County can not replace services presently

obtained on contract from Phelps-Dodge, nor build lacking facilities to provide these services until Phelps-Dodge actually closes. The County is to receive two-months advance notice of any such closing of operations, but the continued uncertainty makes planning difficult.

Health in a Border Town

The proximity of Douglas to the Mexican border and the resulting bi-cultural nature of the community results in special health considerations not present in non-border communities.

There are medical services available and accessible across the border in Agua Prieta (across town, so to speak). Health personnel in Douglas believe that health professionals in Agua Prieta are generally not as well trained as those in Douglas. They believe that loose licensing procedures in Mexico foster health and medical care practices there which would not be acceptable in the United States. An outstanding exception to this generally negative opinion of Mexican medical practice is in the field of preventive medicine. An internationally known specialist in preventive medicine is located in Agua Prieta and the city is thought to have a superior program in this field. Cochise College sends its nursing students to Agua Prieta for training in preventive medicine on the basis of the outstanding reputation.

While concrete data is lacking on the utilization of Agua Prieta medical care services by Douglas residents, the survey indicates that very few Douglas residents (9.3 percent) customarily depend on Mexican medical practitioners for advice or care during times of health crisis. A large majority of respondents of all ethnic groups (90.5 percent)

indicated primary reliance on facilities and services in Douglas. An exception appears to be in cases of terminal illness among the aged. Examination of mortality data in Douglas shows an unusually low death rate for the elderly of Mexican heritage. One plausible explanation is that in cases of terminal illness or advancing age, Mexican heritage individuals return to Mexico where lower medical costs, socialized medicine, and language facility make medical care more accessible, available, and acceptable.

There are some indications that Mexican citizens utilize medical care facilities in Douglas as private patients. This is best shown in data relating to hospital births to non-residents. Forty percent of such non-resident births were to parents living in Mexico, which strongly suggests that Mexican mothers intentionally come to Douglas for delivery. It can be speculated that considerations of citizenship options for the child underlie the choice of a U.S. birthplace, but it is also possible that factors associated with hospital rather than home delivery also affect such choices by expectant mothers. Another indication that Mexican citizens utilize medical care facilities in Douglas is the doctors' report that they occasionally treat critically ill patients from the nearby regions of northern Mexico.

Other health problems identified by health professionals which are thought to be associated with proximity to the border are venereal disease, especially gonorrhea, which is thought to originate in the brothels in Agua Prieta. Careless or improper abortions which are performed in Agua Prieta were also mentioned.

Health in a Multi-Ethnic Community

In spite of the several ethnic groups represented in the population of Douglas, the town is primarily a bicultural community. Approximately 65 percent of the population is Mexican heritage and this subgroup is growing at the rate of three percent per year. Anglos presently represent approximately 29 percent of the population which is a sharp reduction from the 1960 figure of 46 percent. The present discussion will focus on health problems specific to the Mexican heritage segment of the population.

The first health problem can be related to poverty. In a community characterized by low income levels, the Mexican heritage segment of the population in Douglas is disproportionately represented at the lower end of the income scale. Over 77.3 percent of the Mexican heritage households have annual incomes below \$10,000, and 37 percent are below \$5,000 per year. Comparable figures for Anglo households are: 54.8 percent with incomes less than \$10,000 and 21.7 percent below \$5,000.

The relationship between low income and inadequate health care is well established. The poor of all ethnic groups tend to seek health care services less frequently and rely more on home remedies and traditional treatments in all but the most obvious and severe cases of illness. Mexican heritage families are not exceptional. They tend to go without health care or rely on the folk curers which are available in Agua Prieta.

The persistence of folk medical concepts and practices among this ethnic group has been identified as a health problem by medical professionals in Douglas. The Douglas medical community believes that the use of such services inhibits the development of scientific health concepts and tends to

interfere with good health practices. Instances were cited by medical personnel in Douglas of critically ill patients finally brought to the doctor after receiving extended but inappropriate treatment by folk practitioners. The case of the malnourished and dehydrated child was mentioned by a number of health professionals. In such cases, dehydration is associated with a long-standing intestinal problem of some type. The major symptoms are diarrhea and a depressed fontanelle -- the soft spot on the child's head falls slightly. This condition is recognized in the folk system as mollera callida and one method of folk treatment is the application of pressure to the child's palette (by insertion of the thumb or forefinger into the mouth). At worst, this treatment can result in a fractured palette and has been known to lead to meningitis.

Other folk practices were mentioned by medical personnel in Douglas. One doctor, for instance, indicated that some parents prefer not to wash a baby's navel or clip the fingernails until after baptism. As this may be delayed for some time after birth, such practices associated with the folk concepts can create health problems for the infant.

In spite of the concern of the medical community, none of the residents of Douglas surveyed indicated customary use or reliance on curanderos or folk curers. There is however, a well-documented reticence among Mexican heritage people to talk freely with "outsiders" about such beliefs or practices (Padilla and Ruiz 1973:17), which may make this data less than reliable.

Another problem associated with ethnicity is the language barrier between the medical personnel in Douglas and Spanish speaking residents.

The medical community is primarily English-speaking Anglos and many Mexican heritage residents of Douglas speak Spanish only or have limited facility in English. In such cases, encounters between health practitioners and Spanish speaking patients must be facilitated by a third person who translates. As health problems are often delicate in nature and symptoms are often vague and difficult to describe, specifically, accuracy and privacy are lost or impaired by reliance on translation. Language differences also contribute to the lack of current and scientific health information in the Spanish speaking community. Many sources of health information which Anglo's rely upon -- newspapers, popular magazines, radio and television -- are largely unavailable to those who speak, read and write only in Spanish.

Cultural differences contribute in other ways to the special health problems of the Mexican heritage residents of Douglas. While the majority of this group are American citizens and many trace their ancestry to several generations in the United States, the community retains many of the cultural attributes of Mexican culture. The persistence of folk beliefs and practices, discussed above, is only one attribute of such differences. Other aspects of Mexican culture which have relevance for health include the tendency of Mexican heritage families to rely on family counsel in time of health crisis, a reluctance to discuss perceived problems outside the family, standards of good manners and courtesy which stress tact, indirection, and at least the appearance of harmony and agreement. For instance, among the culturally conservative, it is customarily

thought to be bad manners to openly express disagreement, especially with those perceived to be social superiors. Very often the direct, even blunt approach favored in Anglo professional settings is perceived as rudeness and hostility by Spanish speaking people.

The survey indicates interesting differences in the incidence of serious illnesses between Anglo and Mexican heritage respondents. As can be seen in Table 2, for most categories the Mexican heritage respondents consistently reported fewer serious illnesses during the year preceding the survey. This is in spite of the fact that they are numerically dominant in the survey and in the population. While it might be suggested that the Mexican heritage group simply enjoys better health than Anglos in Douglas, it seems more plausible that the factors discussed above, i.e., poverty and the related persistence of folk medical concepts, language difficulties, and cultural differences serve to make it less expedient for Mexican heritage individuals to define any given health problem as an illness.

Other Health Problems in Douglas

The major causes of death in Douglas reported by state health agencies are heart disease (30 percent), cancer (15 percent), and respiratory disease (8 percent). The institution of the cardiac care unit at the County Hospital has drastically reduced deaths from cardiac arrest to well below the 30 percent level of 1969.

Practically all children are born in the hospital and are attended by a physician, but about 4.5 percent of mothers do not get pre-natal care and some seek medical care only during the last month of pregnancy.

Table 2

Type of Health Problem By Ethnicity

Type of Health Problem Experienced By Respondent in Year Preceding Survey	Percent Anglo Respondents (N=83)	Percent Mexican Heritage Respondents (N=174)	Percent of Total (N=257)
Accidents	3.6	5.7	5.1
Skin	7.2	1.7	3.5
Bone or Joint	27.7	10.3	16.0
Chest or Breathing	37.3	22.4	27.2
Digestion	8.4	5.7	6.6
Blood and Circulation	15.7	5.7	8.9
Urinary Tract	6.0	3.4	4.3
Tumors and Cancer	1.2	1.7	1.6
Glands and Allergies	12.0	5.7	7.8
Nervousness	18.1	8.6	11.7
Mouth and Head	9.6	4.6	6.2
Childhood Diseases	9.6	8.6	8.9
Other	9.6	12.1	11.3
Never been sick	42.2	50.0	47.5

Other health problems and conditions in Douglas have been identified by the present study, however data is insufficient to provide more than a listing.

1. Geriatric problems: 60 of the 146 beds in the County Hospital are occupied by geriatric cases, with 17 being very old patients who have been hospitalized for a long time. In spite of the preponderance of Mexican heritage population in Douglas, only about 20 percent of the county's aged patients are of this ethnic group. The impression is that the Mexican heritage ethnic group is conscientious about caring for their aged at home.

2. Summer diarrhea is a continuing problem, usually more severe in Douglas than in other cities in the state.

3. There is an unusual number of commitments of mentally ill persons to the state mental hospital from Douglas.

4. Malnutrition is a feature of some health problems in Douglas. This is thought to be related to poverty, an inadequate preventive program, and poor health education.

5. The unusually high fertility of Douglas women of all ethnic groups suggests the need for an adequate and comprehensive family planning service.

Recommendations

Based on the foregoing discussion of health in Douglas, the following are identified as community health needs.

1. County Hospital facilities: modernization and expansion needed.
2. County Health Department:

- a. Medical health officer is needed.
- b. Preventive medical program needs improvement.
- 3. A nursing home for geriatric patients is needed.
- 4. Public transportation services are needed so that residents without private transportation can avail themselves of the services which do presently exist.
- 5. Medical specialties are needed.
 - a. Surgical skills are lacking. Minor surgical problems are presently attended by general practitioners.
 - b. An ear, nose, and throat specialist is needed. It is understood that such that such a specialist is presently considering Douglas as a possible location.
- 6. Mental health facilities are needed.
- 7. Treatment services and rehabilitation facilities are needed for drug and alcohol related problems.

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Chapter 9

CRIME AND DELINQUENCY

Ruth H. Gartell

CHAPTER 9

CRIME AND DELINQUENCY

Ruth H. Cartell

The law enforcement situation in Douglas, Arizona is considerably more complex than one would normally expect in a small town. The city's border location has tremendous implications for law enforcement, and involves two federal enforcement agencies, the U.S. Border Patrol and the U.S. Department of Customs. The rapidly growing Mexican community of Agua Prieta just across the border adds 23,272 people to the population of the area. Because of the great amount of interaction between these two communities, the Douglas Police Department in effect serves and deals with citizens of both communities. In addition the Department deals with an additional 2,195 persons living in the neighborhoods of Sunnyside, Fairview and the small community of Pirtleville even though these areas are officially under the jurisdiction of the county sheriff's department. Another branch of law enforcement in Douglas deals with juvenile offenders. The one juvenile probation officer in Douglas must handle not only youthful Douglas offenders, but the increasing number of Mexican juveniles who are getting into trouble on this side of the border.

In this chapter we shall focus on three of the four characteristics of Douglas that we have emphasized repeatedly throughout this study. We shall examine the effect of Douglas' location on the Mexican border, detailing the kinds of crimes which Mexican residents, adult and juvenile, most often commit in Douglas and the problems of enforcement which arise due to jurisdictional entanglements and legal ambiguities in dealing with Mexican citizens who break the law while in the United States.

We shall examine the crime and delinquency as it exists among Douglas residents, stressing the effects that a small town environment and a multi-ethnic cultural heritage have on the kinds of crimes committed and the type of persons arrested. We also emphasize the role of the border, and the constant influx of Mexican immigrants, who constantly renew the mixed cultural heritage of the town.

This chapter shall be divided into two sections. In the first section we shall discuss the law enforcement situation in regard to adults, and in the second part we shall focus on the law in regard to juveniles. Much of our data for the first section we owe to the kind cooperation of the Douglas Police Department. Chief of Police Joseph Borane permitted myself and two assistants, Joan Donnelly and Aileen Alden, to code a random sample of 10 percent of the records for persons arrested between 1961 and 1973.¹ This was just one method of data procurement; interviews with the Chief of Police, members of his staff, Border Patrol officials and others were most useful in aiding us in understanding the workings of law and order in the town of Douglas.

General Characteristics of Arrests and
Persons Arrested in Douglas (1961-72)

Over the past 11 years the vast majority of arrests in Douglas have been for a relatively few types of crimes. These include: drunk in public, 25 percent; drunk driving, 15 percent; illegal entry, 11.2 percent; driving without a license, 10.6 percent; shoplifting, 6.4 percent; disturbing the peace, 3.4 percent; reckless driving, 2.2 percent; illegal consumption of alcohol, 1.6 percent; smuggling marijuana, 1.2 percent and various other crimes, 23.4 percent.

Although several of these crimes have been predominant throughout the entire 11 year period - drunk driving, drunk in public, and driving without a license - some crimes have receded in importance while others have increased tremendously. Among the most significant trends is the increase in illegal entry - from three percent of the arrests in 1961 to 23 percent in 1973. Shoplifting was not even a measurable percentage of our sample for 1961, but constitutes seven percent of the arrests in 1972. Smuggling marijuana, almost non-existent in 1961, made up six percent of the arrests for the first six months in 1973; possession of marijuana, also negligible in 1961, comprises nine percent of the arrests for the first six months of 1973.

Thus there is considerable contrast between the major arrests in 1962 and 1972. In 1962 the most frequent arrests were drunk in public, 46.1 percent; driving without a license, 23 percent; drunk driving, 15.4 percent. Notably these arrests involved alcohol or the automobile, often both. By contrast, in 1972 the most frequent arrests were for illegal entry, 23 percent, drunk driving, 14 percent; drunk in public, 11.5 percent; shoplifting and smuggling marijuana, each seven percent. In these arrests

we can see that the presence of the border has begun to make a considerable impact on law enforcement in Douglas in recent years.

As significant as the changing trends in the type of crime committed is the increase in actual number of arrests. Our data indicate that the number of arrests have increased 67 percent over the 11 year period from 1961 to 1972, whereas the population has remained relatively stable, at least on the Douglas side of the border.

Other generalizations can be made about arrests in Douglas for the 11 year period. Almost two-thirds (63.5 percent) of all arrests were the first arrest for the individual involved. The majority of arrests were of Douglas residents (54 percent) but a sizeable portion were of Mexican residents (25 percent) and U.S. citizens not residing in Douglas (21 percent). In other words almost half of the arrests made by Douglas police did not involve Douglas residents.

A striking 43 percent of the crimes took place in the Downtown section; this is perhaps understandable as virtually all shoplifting offenses take place there, and because of the concentration of bars and taverns, many of the alcohol related offenses also take place in this neighborhood. The residential neighborhood with the greatest amount of crime is the Original Town Site (28 percent), the densely populated neighborhood bounded on the south by the Mexican border, and on the north by Downtown. The neighborhood in which the fewest crimes took place was Applewhite (four percent). Almost all arrests took place in the same neighborhood in which the crime was committed.

Significantly, fully half of all arrests (49.9 percent) were of persons between 18 and 30; 26 percent of the arrests were of persons between the ages of 18-21. A large proportion of arrests for which we

have data were of person who were unemployed (36 percent), and retired or disabled (four percent). The majority of arrests were of unmarried person (50 percent) and persons whose marriages had been disrupted by separation, death or divorce (nine percent). But still, 41 percent of those arrested were married. Males comprise 85 percent of the individuals arrested by Douglas police; nearly half were born in Mexico (46 percent), only 14.3 percent were born in Douglas. The majority of persons who were arrested had a Spanish surname (60 percent).

Thus the statistical profile of the persons arrested in Douglas in many respects differs very little from that of the individual who tends to be arrested in the United States generally: male, young, unmarried and often unemployed. But the Douglas arrestee unlike his counterpart in the rest of the U.S. is likely to have been born in Mexico, and to have a Spanish surname. He is most frequently arrested for offenses related to abuse of alcohol or misuse of the automobile; but increasingly his illegal presence in the United States may be his only crime, or he may be involved in offenses related to the border such as smuggling marijuana or illegally transporting aliens. However, the number of women who are being arrested is increasing most often for shoplifting - an offense committed by women far more often than by males, and in Douglas more often by residents of Mexico.

The Effect of the Border

The fact that Douglas is a border town has immense implications for law enforcement in the community; 25.5 percent of the arrests coded over the 11 year period of our sample were of persons who reside in Mexico, and most of these were of residents of Agua Prieta (18.9 percent). More than half of these Mexican citizens (57.5 percent) were in the United States illegally. In recent years, the number of Mexican residents arrested in Douglas, especially for illegal entry, has increased dramatically. The problem is even more apparent with juveniles; fully half (51.5 percent) of the juveniles contacted by the police over the sample period were Mexican nationals.

From interviews conducted with members of the staff of the Douglas Police Department, it is obvious that the presence of the border greatly complicates their duties and responsibilities. While the U.S. Border Patrol is the agency officially responsible for patrolling the border, the huge increase of illegal immigrants in recent years has left this agency hopelessly understaffed. Figures for the Arizona area alone reveal the extent of increase. In 1963, 1,330 persons were caught crossing the Arizona - Mexico border illegally; in 1972, 39,414 persons crossed illegally. In the single month of January in 1973 twice as many persons entered illegally as in all twelve months of 1963. This is an incredible increase of 3,000 percent. This tremendous influx seems to have begun in 1969, with 10,594 illegal entrants, more than twice the number that had entered in 1968. One Border Patrol official related this upsurge to the phasing out of the bracero program in 1967, a program which had allowed Mexicans to enter the country legally for temporary work, usually as farm laborers. Today they continue to enter the country and work as laborers, but are now committing a crime in doing so. The Border

Patrol staff has not increased in proportion to the increased illegal entries. In Douglas, the Border Patrol office is small; in 1973 it was staffed by less than a dozen persons. These few men have 70 miles of open border to patrol, day and night. Guarding the border between Douglas and Aqua Prieta are a few miles of chain link fence. At any given time a large number of gaps may be found in this fence, some literally large enough to drive a truck through. When questioned on this matter a Border Patrol official simply commented, "Yes, the fence gets repaired once or twice a month but holes reappear immediately." Certainly patching holes in a fence is no deterrant to anyone determined to cross the border. Thus the Border Patrol in Douglas is forced to tolerate much of the daily illegal traffic across the border, and concentrate its efforts on trying to control the increasingly professional business of smuggling aliens.

There is a disagreement in principle in this matter between the Border Patrol and the Douglas Police Department. The Douglas police hold that much of the daily illegal traffic into Douglas is very disruptive to the town in terms of increased incidents of burglaries and shoplifting; but aliens commonly sought by the Border Patrol are those persons entering in order to find work and, at least in terms of law and order, are not disruptive. Thus, the Douglas Police Department increasingly has been forced to assume responsibility for arrests of illegal aliens in Douglas.

It is not until 1967 that we begin to find illegal entry arrests occurring with some frequency, but it is only quite recently, since 1971, that illegal entry has become a major problem to the Douglas Police Department. In 1972, there were 402 arrests for illegal entry alone, compared to 50 in 1970, and these statistics reflect only a part of the problem, as no statistics were available from the Border Patrol in Douglas.

Technically the Border Patrol should report each illegal entry to the Douglas police, who would then book the person for a misdemeanor. But much

of the time this simply does not happen; it would be far too time-consuming for both agencies. Only in the case of someone who has previously been deported are penalties regarding illegal entry strictly enforced; for in this case, illegal entry is a felony, a far more serious offense.

Crimes by Residents of Mexico

The vast majority of Mexican residents who cross the border into Douglas cross legally and commit no crime; instead they make a tremendously significant contribution to the economic and social well-being of Douglas. But the number who are entering illegally, and the number who do commit offenses has increased dramatically in the past decade. The increase in burglaries and shoplifting in Douglas is largely attributable to this influx.

Thirty-two percent of the individuals arrested in Douglas between 1961 and 1973 were residents of Mexico. Over this time span there has been a gradual and significant increase in the proportion of Mexican residents arrested, rising from nine percent in 1961 to 42 percent in 1972. Because the vast majority (94 percent) of Mexican residents arrested in Douglas are arrested only once, they have accounted for only 25 percent of all arrests over this time period.

Mexican residents tend to be arrested for a few specific offenses. Forty-two percent of all the charges against Mexican residents were for illegal entry, 20 percent were for shoplifting, 15 percent were alcohol related, and 11 percent related to driver's license irregularities.

Mexican residents were responsible for fully 78 percent of all shoplifting offenses in Douglas, 53 percent of all burglaries and 33 percent of all border related offenses; by contrast they accounted for only 14 percent of the drug arrests, nine percent of the alcohol arrests and seven percent of the assaults.

Mexican residents arrested in Douglas are characterized by having crossed the border illegally in the first place. They are largely male,

but a far higher proportion are women (26 percent) than is characteristic of Douglas residents arrested (13 percent are women); this is almost certainly related to the fact that shoplifting is largely a female

Almost 60 percent of the Mexicans arrested in Douglas were unemployed; in 57 percent they were single. Unemployment is associated especially strongly with burglary. All burglaries committed by Mexicans in Douglas were by unemployed individuals. The association with shoplifting was also high, 77 percent of the offenses were committed while the individual was unemployed. For alcohol and drug related offenses the percent of arrests associated with unemployment were 41 percent and 50 percent respectively. Although in most categories of arrest the individual involved was most often single, in 55 percent of the shoplifting cases the individual was married. Shoplifting is also the only arrest category which reflects any degree of marital disruption. In 11.8 percent of the cases the individual was either separated, divorced or widowed.

Most Mexican residents arrested were under 30; in 58 percent of the arrests the individual involved was between the ages of 18 and 29. Mexican residents account for 29 percent of all arrests of persons in this age group. Certain crimes were more significantly associated with youth than others; in burglaries by Mexican residents 89 percent were under the age of 30, for illegal entry 66 percent, for shoplifting and alcohol 49 percent each. Thus burglary, as far as Mexican residents are concerned, is very much a crime of youth; while shoplifting and alcohol related offenses are committed by persons over a wide range of ages.

Douglas Residents

When we consider the kinds of crimes that Douglas residents are arrested for and the types of persons arrested, we find a different crime profile.

Douglas residents are much more likely to be arrested more than once by the Douglas Police Department than are Mexican residents. While Douglas residents represent only 40 percent of the arrest population, they account for 51 percent of all arrests. Over the last 11 years, 36 percent of Douglas residents arrested have been arrested more than once; this contrasts sharply with six percent of Mexican residents arrested more than once. However, the proportion of Douglas residents arrested is decreasing as the proportion of Mexican and other non-Douglas residents arrested is increasing. In 1962, 67 percent of the persons arrested were Douglas residents and they accounted for 92 percent of the arrests in that year. By contrast, in 1972, 35 percent of the persons arrested by the Douglas Police Department were Douglas residents who accounted for only 43 percent of the arrests that year.

The adult Douglas resident who is arrested most commonly is male (89 percent) and of Mexican heritage (56 percent), has a Spanish surname (31 percent) and was born in Mexico. His age at the time of arrest is not as young as his Mexican resident counterpart. In fact for 58 percent of the complaints against Douglas residents, the individual was age 30 and over, compared to the 58 percent of Mexican resident arrests of adults under 30. Only 33 percent of the arrests for alcohol related offenses were of residents under 30; only 25 percent of the Douglas residents arrested for shoplifting were under 30 at the time of arrest. Grand

theft and petty theft arrests, however, showed up only in the 18-29 age group of our sample. Drug related arrests, police related arrests and burglary were also strongly correlated with youth, with 91 percent, 80 percent and 67 percent respectively under 30. In 48 percent of the arrests of Douglas residents the individual was single (a lower proportion than single Mexican residents arrested); and in 32 percent of the cases unemployed (about half the proportion for Mexican residents arrested).

Douglas residents are more frequently arrested for alcohol related offenses, accounting for 55 percent of all arrests of Douglas residents over the 11 year period of the sample. Second in frequency were arrests related to driver's license irregularities (12 percent). Nuisance arrests (disturbing the peace, disorderly conduct, public nuisance, violating curfew, obscene language) comprised seven percent of the arrests of Douglas residents. Of about equal frequency were arrests for various forms of assault, four percent; vehicle related offenses, three percent; court related offenses (failure to appear, obstructing justice, contempt of court, disobedience of court order, violation of probation), two percent; police related charges (resisting arrest, disobeying a police officer), two percent; and drug related offenses, two percent.

Thus the types of crimes most frequently committed by Douglas residents contrasts quite sharply with those committed by Mexican residents. They also contrast, although to a lesser degree, with crimes committed by U.S. citizens who are outsiders to Douglas. Although these outsiders are also most frequently arrested for alcohol related offenses (52 percent)

and license irregularities (7 percent), they are also frequently arrested for drug related offenses (13 percent). These outsiders in fact account for slightly over 67 percent or two-thirds of all drug related arrests made by the Douglas Police Department.

Thus, a case may be argued that Douglas residents are largely arrested for offenses typical of any small town in the U.S.; the more serious and less characteristic offenses seem, if the arrest records are a true reflection of reality, to be committed more frequently by persons not residing in Douglas: burglary and shoplifting by residents of Mexico and drug offenses by outsiders who reside elsewhere in Arizona or the United States.

Douglas as a Small Town

As we have seen, the offenses committed by Douglas residents are largely typical of the offenses most commonly found in small towns across the United States. Homicides are rare; and burglary and theft, although increasing, are infrequently committed by Douglas residents.

Certainly the relatively small proportion of Douglas residents actually arrested by the Douglas Police Department would indicate that the great majority of Douglas residents are law abiding citizens, with only about one percent of the citizenry being arrested for anything more serious than a common traffic offense. Another small town pattern, and one of the real advantages of small town life, is the feeling of security that comes from low crime rates and adequate police protection. Of the people we interviewed in Douglas, 90 percent felt that the police protection was adequate. The only neighborhoods in which a significant number of people complained about inadequate police protection were Pirtleville and two neighborhoods (Sunnyside and Fairview) which, not being within the city limits of Douglas, are under county jurisdiction and thus not entitled to the protection of the Douglas Police Department. This jurisdiction conflict presents a serious problem to residents when these neighborhoods find themselves in need of prompt police protection, and to the Douglas Police Department, which must weigh a feeling of moral responsibility to answer all calls against the possible official recriminations for going beyond their jurisdiction.

As might be expected in a small town, most of the citizens do not seem to feel that crime is a serious problem. When asked about a variety of crime problems and public nuisances, more Douglas citizens (25 percent)

identified "noisy animals" as being a problem than anything else. The only crimes cited by a significant number of Douglas residents (22 percent) as a problem in the past year were stealing and burglary. Vandalism was second with 17 percent of those surveyed identifying it. Certainly it is clear that for a great majority of Douglas residents crime is not a major problem, and in this, Douglas is very much like many other small towns.

Douglas as a Multi-Ethnic Community

Perhaps the most unique characteristic of Douglas, which separates it from other small towns, is the fact that it is situated on the Mexican border. To some extent, we have already examined the impact of this fact upon local law enforcement, but we have only examined the impact in terms of the illegal actions of residents of Mexico. But in order to understand Douglas, and the nature of its law and order situation, we must continually keep in mind that the citizenry of Douglas is primarily composed of persons of Mexican heritage--persons who themselves have immigrated to the United States or whose parents or grandparents or great-grandparents did. Forty one percent of the population over 18 in Douglas today was born in Mexico, 67 percent have a Spanish surname. According to our survey, fully 74 percent of the residents of Douglas are of Mexican heritage, while the 1970 U.S. Census classified around 70 percent as Mexican heritage. This difference can be explained by the annual rate of increase discussed in the chapter on population.

Our survey of Douglas indicates that there are a number of differences between the Mexican American and the Anglo American segments of the population. Mexican Americans tend to live in different neighborhoods than Anglos, are generally poorer, and have had, at least until recently, less political power in the community than Anglos.

With this in mind, it is significant to examine any difference between the arrest profile of Anglo residents and Mexican American residents, between Mexican American residents of Douglas who were born in Mexico (first generation) and those who were born in the United States (second generation). It should be noted that we are somewhat handicapped in trying to make such comparisons

because it is difficult to determine which persons should be classified as Anglos and which as Mexican Americans. Surname and place of birth were the only information available for such purposes in our arrest sample. Using the surname as an indicator, numerous individuals will be misclassified, thus skewing some of our results. Place of birth is of course a much more accurate indicator of cultural heritage in most cases, but in this case is limited to identifying only those of the first generation.

In fact, there are a number of distinct differences in the personal background and crime profile of Douglas' Anglo and Mexican American arrestees. Persons of Spanish surname who are arrested, are more frequently unemployed (41 percent) than persons with a non-Spanish surname (31 percent). Similarly, arrestees with Spanish surnames were younger than arrestees with non-Spanish surnames. Slightly more than half of all Spanish surnamed persons who were arrested, were younger than 30 years of age (18-29); whereas in the non-Spanish group, 40 percent of the arrestees were under 30 years of age. However, we find very little difference in the relationship of marital status to crime for these two groups; 42 percent of the arrests in both groups between 18 and 40 years of age were of married persons. However, marital disruption was considerably more frequent among the Anglo arrest population (17.5 percent) than among the Spanish surname (4.0 percent) group.

Perhaps the outstanding difference between the two groups is the fact that one group, the Anglo minority, are arrested much out of proportion to their actual numbers in the town. While they account for only 30-33

percent of the population, they account for 44 percent of the arrest population. Yet in an interesting reversal, since they are less likely to be arrested repeatedly than Spanish surname persons, they account for a smaller proportion of the total arrests (41 percent). Spanish surname persons, by contrast, account for only 56 percent of the persons arrested, but 59 percent of all arrests.

Offenses committed by each group varied more in relative frequency than in type. The top crimes for both groups were similar: alcohol related, license related, shoplifting, assault, nuisance related, and burglary. Within these categories, however, the relative frequency of the offense varied considerably. Alcohol related offenses were more frequent for the Spanish surname group, comprising 58 percent of their arrests compared to 47 percent for the Anglo group.

Although the top crimes were similar for both groups, there is considerable difference between the groups for other crimes. For example, grand theft and burglary comprised almost seven percent of the arrests of Anglos, the only crime in the category of theft and fraud for Spanish surname persons was petty theft (three percent).

These findings would lead one to believe that there are some concrete differences between the life patterns because the crimes committed by each of the two major ethnic groups in Douglas are also different. But the differences hardly seem major and in fact, raise many questions. Why are persons of Mexican heritage arrested less frequently, relative to their number in the population, than others? Considering the lower economic status of persons of Mexican heritage in Douglas, why do we find more theft, more shoplifting, among Anglos? When we examine data regarding the immigration patterns of

persons into Douglas, and the birthplace of persons arrested, a much clearer picture of cultural and social influences which affect crime patterns in Douglas emerges.

In fact, it would appear that whether one is a Douglas native, or a relative newcomer is of as much significance in determining an individual's arrest profile as his ethnic heritage. For example, when we examine the correlation of place of birth to crime, we find that all persons born in Douglas, whether of Mexican or Anglo heritage, are very similar, whereas persons of Spanish surname born in Mexico, differ remarkably from Mexican Americans born in Douglas (See Table I). For all groups alcohol related arrests were the most frequent, but accounted for the heaviest proportion of arrests among those residents born in Mexico (74 percent). Persons born in the United States, but not in Douglas, had the second highest proportion of alcohol related arrests, with very little difference in frequency between the Anglo (62.3 percent) and Spanish surname groups (64.3 percent). The lowest proportion of alcohol related arrests was found for individuals born in Douglas, with a proportion of 50 percent for the Spanish surname and 46 percent for the Anglos.

While persons born in Douglas, regardless of heritage, committed very similar crimes at similar frequencies, among residents with Spanish surnames there were considerable differences associated with the place of birth (See Table 1).

Table 1

Percentage and Ranking by Surname, Birthplace, and Crime

Crime	<u>Anglo Surname</u>				<u>Spanish Surname</u>			
	Born In United States Rank	In Percent	Born In Douglas Rank	Percent	Born In United States Rank	In Percent	Born In Douglas Rank	In Mexico Percent
Alcohol	1.	62.3	1.	45.8	1.	64.3	1.	50.0
Shoplifting	2.	4.9	5.	4.2			6.	4.5
Theft and Fraud	3.	4.9					3.	6.8
Nuisance	4.	4.9	3.	12.5				
Grand Theft	5.	3.3					4.	6.8
Assault	6.	3.3	4.	8.3				
Party to Crime	7.	3.3						
Burglary	8.	1.6	6.	4.2				
Sex Related	9.	1.6						
Vandalism	10.	1.6						
Police Related	11.	1.6			3.	7.1	7.	4.5
Fighting	12.	1.6						
Gun	13.	1.6						
Vehicle	14.	1.6	8.	4.2			5.	6.8
Financial Response	15.	1.6						
License			2.	12.5	4.	7.1	2.	6.8
Drug Related			7.	4.2			10.	2.3
Location					2.	14.3		
Malicious Mischief					5.	7.1	12.	2.3
Petty Theft							8.	4.5
Accident							9.	2.3
Court							11.	2.3

Source: Douglas Police Department Records

When we compare the number of individuals arrested with the number of crimes committed, by place of birth, we find that the surname is not significant as our earlier findings might indicate. Of all residents of Douglas arrested, regardless of surname, only those born in Mexico accounted for a higher proportion of arrests to individuals arrested (See Table 2).

However, in seeming contradiction, persons born in Douglas had the lowest proportion of single arrests. Examination of Table 3 will make clear that Douglas born individuals, regardless of heritage, are more likely to be arrested repeatedly, even though the actual number of arrests of Mexican born individuals may be greater. For example one person in Mexico has been arrested 53 times; several persons, born in Douglas, have been arrested eight times: in terms of the number of persons repeatedly arrested, more were born in Douglas, although the actual number of arrests does not add up to that of the one high arrest Mexican born resident. (See Table 3).

We find an equally strong association of place of birth with personal statistics in the arrest profile. Perhaps surprisingly, arrestees born in Douglas were most frequently unemployed. Anglo arrestees born in Douglas were more frequently unemployed (46 percent) than arrestees born in Mexico (27 percent).

Thus we find many differences in the kinds of crimes committed and the types of people who commit them. Many of these differences seem related to where the person was born or what his ethnic heritage is; in a deeper sense we may say that they are related to his adjustment to his environment.

Table 2

Comparison of Individuals Arrested
With the Number of Arrests Per Group

	<u>Anglo</u>				<u>Spanish</u>					
	<u>Douglas</u>		<u>U.S.</u>		<u>Douglas</u>		<u>U.S.</u>		<u>Mexico</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Persons	24	11.6	61	29.5	44	21.3	14	6.8	61	29.5
Arrests	50	10.5	134	28.2	98	20.6	32	6.7	157	33.1

Source: Douglas Police Department Records

Table 3

Total Number of Arrests by
Surname and Place of Birth

<u>Number of arrests</u>	<u>Anglo Surname</u>		<u>Spanish Surname</u>		
	<u>Douglas</u>	<u>U.S.</u>	<u>Douglas</u>	<u>U.S.</u>	<u>Mexico</u>
1 arrest	13	39	23	9	38
2-5 arrests	9	20	18	3	20
6 or more arrests	<u>2</u>	<u>2</u>	<u>3</u>	<u>2</u>	<u>3</u>
TOTAL	24	61	44	14	61

Source: Douglas Police Department Records

The values a child learns as he grows up play an extremely important part in adjusting him to the role as an adult in his community. Different communities and cultures teach different values which we may see reflected in the differing life styles of Douglas citizens; we may also see these values reflected in the kinds of crimes committed and the motives that prompt them.

For example we have seen that unemployment is far more strongly associated with arrests for persons born in Douglas than for persons born in Mexico. This could be a simple reflection of a real situation: namely that more persons born in Mexico are employed than persons born in Douglas. Unfortunately we do not have the data to verify this, although it does seem unlikely and in fact, we would expect the opposite. On the other hand, it is quite conceivable that the emphasis on the work ethic in America, plus the emphasis on having money to buy material goods, causes the pressure and frustration which lead to crime, especially theft and burglary which are more common among Anglos than persons of Mexican heritage. For the individual socialized in Mexico, unemployment, while undesirable may not be the source of such extreme pressure, while indeed other factors, of small concern to an Anglo, might trigger disruptive behavior.

In fact, the data that we have suggest that the different socialization process experienced by Douglas residents has great significance for predicting circumstances which might lead to trouble and the offenses they might commit.

Arrests for alcohol related offenses show a continuum with those born and socialized in Douglas least often arrested; while residents who have

come to Douglas from elsewhere in the United States have a somewhat higher frequency of drinking arrests, and those furthest removed from the shared cultural and social values learned by most United States citizens--those born in Mexico--have a far higher proportion of alcohol related arrests than either group. It may be that there are certain rules regarding how to drink acceptably in Douglas that must be learned by all newcomers; or it may be that increased drinking offenses are a reflection of the frustration of a newcomer.

Law and order functions in a community only because the citizens in that community share common values which support and uphold the laws; in fact these shared ideals provide a far better enforcement of law through pressure of the group against "law breakers" than through any formal enforcement agency. The homogeneity of opinion and experience in small towns, often a function of everyone knowing everyone else, is a major reason for the much lower rate of serious crime found in small towns.

One reason that persons born in Douglas are more frequently arrested than others could be because they are better known, and that the town is harder on its own people when it comes to transgressing the rules. But as we have seen, for a number of reasons, Douglas is not the typical small town. The constant influx of immigrants, both legal and illegal, causes it to resemble much larger communities in some ways.

The profile of the typical arrestee reflects the immigration process but perhaps even more clearly we can see the effect of the town as newcomers are "socialized" into it, as they learn the values and behaviors which are

expected of Douglas citizens. Thus Anglos and Mexican Americans born in Douglas as a group have more in common because of this experience; and Douglas born Anglos differ from Anglo newcomers in much the same way that Douglas born Mexican Americans differ from Mexican immigrants.

Relation of Crime to Neighborhood

One of the major aims in this study has been to determine if there are any significant relationships between social and environmental problems. Indeed our data indicate that there is a relationship between neighborhood and the type and frequency of crimes (See Tables 4 and 5). If this were not the case we would be able to predict the number of arrests of residents from each neighborhood solely on the basis of the adult population of that neighborhood. Thus, the expected proportion of arrests from each neighborhood would be ranked accordingly: Old Town Site, 21 percent; Church, 11 percent; Foothills, 10.5 percent; Sunnyside and North Douglas, 10 percent each; Fairview, 8 percent; Country Club, 7.5 percent; Clawson, 7 percent; Downtown, 6 percent; Pirtleville, 4.5 percent; and Applewhite, 4 percent. But in fact the proportions of arrests of residents of these neighborhoods are quite different.

All Douglas residents committed most offenses in the Downtown neighborhood (35 percent) and in the Old Town Site (26 percent), with only 39 percent of their offenses taking place in other neighborhoods.

Other than these two neighborhoods Douglas residents most often committed offenses in Church (11 percent) and North Douglas (10 percent). Pirtleville and Applewhite are the neighborhoods showing the lowest number of offenses by Douglas residents.

Table 4

Percent of Arrests of Persons From Each Douglas Neighborhood

<u>Neighborhood</u>	<u>% of Arrests N of Residents</u>		<u>N % of Total Adult Population</u>	
	N	% of Arrests of Residents	N	% of Total Adult Population
Pirtleville	18	3.8	390	4.7
Fairview	6	1.2	656	7.9
North Douglas	58	12.0	828	10.0
Sunyside	84	17.5	866	10.4
Applewhite	2	0.4	354	4.3
Downtown	69	14.4	517	6.2
Church	40	8.3	895	10.8
Country Club	31	6.5	627	7.5
Foothills	19	4.0	875	10.5
Old Town Site	116	24.2	1733	20.8
Clawson	37	7.7	574	6.9
TOTAL	480	100.0	8315	100.0

Source: Douglas Police Department Records

Table 5

Proportion of Persons Arrested from Each Douglas Neighborhood

<u>Neighborhood</u>	<u>% of Persons</u>		<u>% of Adult</u>	
	<u>N</u>	<u>Arrested</u>	<u>N</u>	<u>Population</u>
Pirtleville	8	3.7	390	4.7
Fairview	6	2.7	656	7.9
North Douglas	27	12.4	828	10.0
Sunnyside	20	9.2	866	10.4
Applewhite	2	0.9	354	4.3
Downtown	31	14.2	517	6.2
Church	18	8.3	895	10.8
Country Club	12	5.5	627	7.5
Foothills	12	5.5	875	10.5
Old Town Site	58	26.6	1733	20.8
Clawson	<u>24</u>	<u>11.0</u>	<u>574</u>	<u>6.9</u>
TOTAL	218	100.0	8315	100.00

Source: Douglas Police Department Records

Large discrepancies occur in five neighborhoods in the percentage of arrests of residents; residents of Downtown are arrested more than twice as much as we would expect, and Clawson and North Douglas considerably more frequently than expected, whereas arrests of residents of the Foothills, Fairview, and Applewhite occurred with considerably less frequency than we would expect. Arrests of residents in neighborhoods such as Old Town Site (six percent greater), Country Club, Church, and Pirtleville, by contrast, fairly closely reflect the number of persons actually living in these neighborhoods. Considered in these terms Downtown has a much worse crime problem among its residents than Old Town Site, despite the fact that in actual numbers more arrests are of Old Town Site residents.

Residents of different neighborhoods also tend to vary somewhat in the types of crimes committed (See Table 6). Residents of Applewhite, for example, were less frequently arrested for alcohol related arrests (0.3 percent) than residents of any other neighborhood. On the other hand, North Douglas residents were arrested for assault (38.1 percent) and theft and burglary (28.6 percent) more than residents of any other neighborhood. The majority of arrests of residents from all other Douglas neighborhoods were for alcohol related matters with this offense most common among residents of Old Town Site. Cases of shoplifting, petty theft, theft and fraud and burglary were least often found among residents of Pirtleville, Applewhite and Country Club. Drug arrests were small in total number (11) with most occurring in Foothills (3) and Clawson (3).

Table 6

Crimes Characteristic of Residents by Neighborhood

<u>Neighborhood</u>	<u>Alcohol Related</u>		<u>License Related</u>		<u>Nuisance</u>		<u>Assault</u>		<u>Burglary & Theft</u>		<u>Drugs</u>	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Pittsville	14	4.4	1	1.5	1	2.7	1	4.8	0	0	0	0
Fairview	3	0.9	1	1.5	0	0	0	0	1	3.6	0	0
North Douglas	23	7.3	9	13.4	7	18.9	8	38.1	8	28.6	1	9.1
Sunnyside	67	21.3	6	8.9	4	10.8	2	9.5	3	10.7	0	0
Applewhite	1	0.3	1	1.5	0	0	0	0	0	0	0	0
Downtown	49	15.5	8	11.9	7	18.9	4	19.0	4	14.3	1	9.1
Church	25	7.9	7	10.4	6	16.2	2	9.5	2	7.1	0	0
Country Club	21	6.7	8	11.9	2	5.4	0	0	0	0	1	9.1
Footfalls	14	4.4	2	3.0	1	2.7	1	4.8	1	3.6	2	18.2
Old Town Site	79	25.3	19	28.3	7	18.9	3	14.3	5	17.8	3	27.3
Clawson	19	6.0	5	7.7	2	5.5	0	0	3	14.3	3	27.2
TOTAL		100.00		100.00		100.00		100.00		100.00		100.00

Source: Douglas Police Department Records

Juvenile Arrests in Douglas

Perhaps the best introduction to juvenile delinquency in Douglas, is to look at some basic facts about the juvenile arrestee; these facts add up to a profile of the typical youth who gets into trouble.

The youth is most likely to be male (77.3 percent), of Mexican origin (86.1 percent), and of Mexican birth (57.8 percent). This youth is most likely to have only one contact with the police (71 percent). His or her age at the time of the first contact with the police is between 12-15 years, (55.8 percent), with the single most frequent age for first contact 13 years (15.5 percent). The age at which the youth has the most contact with police is also 13 years; 20.9 percent of all police contact with juveniles occurs when they are at this age. Thirteen and 14 year olds constitute 42.4 percent of all police contacts with juveniles. After the age of 14, the amount of delinquent activity drops rapidly, with 17 year olds constituting only 4.7 percent of the juvenile contacts.

Statistics indicate that most youths who get into trouble in Douglas do not attend school (63.7 percent). Of those who do attend Douglas schools, the majority (64.6 percent) are in high school or one of the junior high schools at the time of their first contact. Of the elementary schools, Carlson has the highest number of juvenile delinquents (ten percent). The juvenile youth is most likely to come into contact with the law between sixth and seventh grades (51.9 percent), with seventh grade the peak year.

The average delinquent youth lives in Douglas (58.3 percent), and is most likely to reside in the neighborhood surrounding the Downtown

section: Old Town Site, 22 percent, Downtown 13.5 percent, North Douglas, 12 percent and Church, 11 percent. The youth resides with his or her parents (71.5 percent) and has never been detained in the juvenile detention center (30.9 percent).

Douglas Neighborhoods

The crime profile also varies by the Douglas neighborhood in which the youth resides. In the Old Town Site, Downtown and North Douglas neighborhoods, truancy is the most common complaint against juveniles. Nearly 41 percent of the juveniles referred from the Old Town Site, and 21 percent from Downtown were born in Mexico. For youths residing in the neighborhoods of Pirtleville, Fairview, Sunnyside, Church and the Foothills, breaking curfew was the most frequent referral, while for youths in Clawson, Country Club and Applewhite, malicious mischief was the most common form of offense.

The Effect of the Border

The influx of Mexican juveniles across the border into Douglas is currently a problem of major concern to the Douglas Police and Juvenile Probation officers of Cochise County. For the 11 year time span sampled in this study, nearly 41 percent of all juveniles arrested were residents of Mexico; these juveniles, however, represented a smaller proportion of the total referrals (35.1 percent) indicating that they are somewhat less likely to be arrested repeatedly than youths residing in the Douglas area. Problems with Mexican juveniles have been increasingly evident in the past few years. Figures indicate that by far the most common reason Mexican juveniles are picked up is simply for illegal entry (59.5 percent). This would not be such a problem except that a substantial number also engage in shoplifting, burglary and theft. In 30 percent of all cases of illegal entry, another crime was involved: 28 percent of all arrests of juvenile residents of Mexico involve shoplifting; whereas 6.6 percent are related to burglary or theft. In fact, 69 percent of all juvenile arrests for shoplifting, 42 percent of all juvenile arrests for prowling or trespassing, 30 percent of all burglary and 22 percent of all theft arrests are of Mexico residents. Thus it can be seen that juvenile residents of Mexico are a major problem in Douglas, and constitute a significant proportion of the arrests for burglary and theft--crimes which are more serious than the majority of those committed by Douglas juveniles.

That the crimes committed by these youths are of a fairly serious nature is compounded by the fact that the state law provides no clear cut method for effectively dealing with these youngsters. The actual

number of arrests of juveniles by Douglas Police has risen tremendously in the past few years. In the period from June of 1969 to July of 1970, Douglas police arrested 354 juveniles. For the same period of 1970-71 this figure had shot up by more than half to 573 and the following year, 1971-72, the arrests numbered 931, almost doubling the 1970-71 figure.

This rise in juvenile arrests is largely due to the rapidly increasing numbers of Mexican juveniles who cross the border illegally. Because of their special status as juveniles and non-citizens, they experience relative immunity from the law.

Mexican juveniles are not prosecuted in Cochise County. When they are picked up by the Douglas police, whether for shoplifting, burglary, or simple illegal entry, the usual procedure is to hold them in the Douglas jail until they are picked up by the Border Patrol and returned to the other side of the border. Only after a great many arrests will the juvenile be detained for a few days in the Juvenile Detention Center in Bisbee, and this is a stop-gap measure at best. Perhaps because of this immunity, shoplifting and burglary by Mexican juveniles is on the rise in Douglas. Some of the shoplifting is by organized "gangs" or youths, who are almost professional in their skill; these same youths are arrested over and over. One local merchant, describing the increasing problem he has been having with shoplifters, told of a day in which 13 Mexican youths were apprehended in his store with a total of \$400 worth of goods. In some cases, parents are reported to take advantage of their child's status instructing the child to shoplift since the child cannot be fined.

According to this same merchant, some tension has been generated between Douglas and Agua Prieta over the issue of how these young offenders

should be dealt with. According to one of the police sergeants, there are some problems of cooperation with the Agua Prieta Police Department over this matter. For one thing, the Mexican police take little action against those Mexican juveniles who are a particular problem in Douglas; they have little concern about crimes committed on the United States side of the border. Moreover, the Mexican government will not return stolen merchandise recovered in Mexico.

A conversation with a juvenile probation officer heightened the impression that this is a serious problem. He noted 300 referrals of Mexican American youths for shoplifting in the last year alone, and most were from Douglas. According to this authority, the Mexican juvenile who commits a crime in the United States is really subject to the same process of hearings, detentions, trials and depositions as the United States juvenile. Informal methods have been used for so long because the Department of Corrections has been reluctant to use the United States taxpayers' money to pay the costs of handling Mexican juveniles in our legal system. Indeed, it would be expensive, but it may be the only solution to this growing problem unless new legislation is enacted to deal with this question.

Other, more informal, methods have been used by other communities along the border to control crime by juvenile aliens, but the fairness and legality of these methods is questionable. In Nogales, for example, the parents of juvenile offenders have sometimes been penalized by having their crossing-cards temporarily taken from them. Another informal approach has been taken by a concerned group of Mexicans who have organized a sort of "vigilante" group which disciplines particularly troublesome

juveniles. Both of these methods, according to our source have proven somewhat effective.

As we have seen, almost half of the juveniles contacted in the Douglas area are from Mexico, and these comprise much of the juvenile load for the entire county. Yet the number of juvenile officers hired by the county is determined on the basis of the number of juveniles on probation. Since Mexican juveniles do not go through the probation process, the limited number of juvenile officers really cannot keep up with the extra load imposed by their additional contacts with Mexican juveniles. Records are kept of all contacts with Mexican juveniles, and this is a time consuming process. Besides dealing with a great number of Mexican juveniles the probation officer in Douglas is also asked to act as a social worker in adoption investigations and hearings. Despite the high demands on the juvenile officer, the salary is extremely low, only \$410 a month--a salary so low that it is almost impossible to hire anyone with professional training in probation work.

The Relation of Ethnicity and Place of Birth to Delinquency

According to the 1970 U.S. Census information for Douglas the proportion of Mexican Americans under the age of 20 is considerably higher than the proportion of Mexican Americans in the population as a whole, with Mexican American juveniles making up an average of 80 percent of the juvenile (17 and under) population. Whereas juveniles of Mexican heritage constitute only 77.1 percent of Douglas juveniles contacted, 83.1 percent of all referrals were for juveniles of Mexican heritage; in contrast Anglo youths represented 21.6 percent of all Douglas juveniles contacted, but only 14.7 percent of all referrals. Only 27.3 percent of the Anglos who were contacted were referred more than once, whereas 42.3 percent of the Mexican heritage juveniles were referred more than once. Predictably, 84.1 percent of all Douglas juveniles in the detention center were of Mexican heritage. Of the Douglas juveniles of Mexican heritage, those born in Mexico are far more likely to get into trouble than those born in Douglas. This fact suggests the hypothesis that the cultural adjustment that must be made to the style of life in the United States by youths born in Mexico may be a factor in the increased arrest rates of these youths. To a lesser degree, it appears that Anglo youth born outside Douglas have adjustment problems which lead to greater arrest rates than for Anglos born in Douglas.

Fully 48 percent of Mexican born juveniles get in to trouble a second time; this is in comparison to a figure of 36.6 percent for Douglas born youths of Mexican heritage. Similarly whereas juveniles born in Mexico represent only 16.3 percent of the Douglas juveniles contacted, they represent 26 percent of the referrals. When we compare the proportion

of Douglas born youths of Mexican heritage who are contacted (60.8 percent) with the percent of referrals for this group (57.4 percent) we see that these youths are arrested much less frequently than those actually born in Mexico.

Mexican American juveniles born in Douglas are not arrested out of proportion to their numbers in the population, and that it is quite misleading to group all youths of Mexican heritage together. In effect we seem to have a continuum of arrest rates based on ethnicity and place of birth. Anglos have fewer referrals (14.7 percent) than would be expected from their proportions in the general population, but Anglos born outside of Douglas tend to get in trouble more frequently than Anglos born in Douglas. Persons of Mexican heritage have slightly more referrals than their proportions in the population, but those born in Douglas have a slightly lower number of arrests and persons born in Mexico have a much higher number of arrests than expected.

This continuum is also reflected when we look at the type of referral that characterizes each group. Anglo juveniles as a whole are most frequently arrested for the following:

	<u>Percent</u>
Curfew	31.8
Alcohol	13.6
Drugs	11.4
Runaway	9.1
Malicious mischief	6.8

Juveniles of Mexican heritage, by contrast, are most frequently arrested for the following:

	<u>Percent</u>
Truancy	12.1
Malicious mischief	11.1
Curfew	9.8
Shoplifting	7.7
Alcohol offenses	7.7
Theft	6.7

Besides the different arrest profile for the two groups, we also find that Anglos were referred for far fewer types of offenses (only 13 offenses showed up in our sample for Anglos) than were juveniles of Mexican heritage.

But once again, going deeper in our analysis we find considerable differences within each group based on place of birth. Thus the offense profiles vary in a way similar to the arrest rate continuum already described (See Table 7).

Table 7

A Comparison of Juvenile Arrests by Place of Birth and Surname

<u>Offense</u>	<u>Anglo</u>		<u>Other U.S.</u>		<u>Spanish Surname</u>			
	<u>Douglas</u>				<u>Douglas</u>		<u>Mexico</u>	
	Rank	%	Rank	%	Rank	%	Rank	%
Curfew	1.	27.3	1.	36.4	1.	11.2	6.	5.4
Malicious mischief			2.	13.6	3.	10.7	2.	14.0
Alcohol	4.	13.6	3.	13.6	2.	11.2		
Shoplifting			4.	9.1	5.	8.9	5.	6.4
Truancy					4.	9.5	1.	17.2
Burglary			5.	9.1			4.	6.4
Runaway	2.	18.2					7.	5.4
Drugs	3.	22.7						
Disorderly conduct			6.	9.1				
Vandalism					6.	7.1		
Theft					7.	6.5	3.	7.5
Total Percentages		81.8		90.9		65.1		55.9

Source: Douglas Police Department Records

The types of arrests for Douglas born Anglo youths contrast most sharply with those of the Mexican born residents of Douglas. The frequent Anglo offenses, breaking curfew and running away (45.5 percent) are low on the list of offenses committed by Mexican born juveniles, comprising only a combined total of 10.8 percent of their offenses. Neither the offenses of misusing drugs nor alcohol were significant for Mexican born youths, although they were a predominant cause of arrest for Anglo youths born in Douglas. Truancy was the single most frequent complaint against youths born in Mexico (17.2 percent), showing up considerably less frequently among Douglas born youths of Mexican heritage (9.5 percent), and not at all in either of the Anglo groups. This fact has significance for the finding described in the Education chapter, that a large proportion of school age youths of Mexican heritage are not attending school.

Previously reported is that alcohol is not a significant problem for the group of juveniles born in Mexico. Likewise it is only in the group of Anglos born in Douglas that theft and stealing do not appear as a problem. Referrals for theft, shoplifting and burglary are most common among youths born in Mexico; this may be related to the generally lower socioeconomic status of the families of these youths.

There is little evidence that persons of Mexican origin are treated differently by the police. We note in our questionnaire survey that 80.4 percent of those interviewed who expressed an opinion on this question felt that the police treated them fairly; there was no correlation with ethnicity on this question.

Given this evidence, it would be wrong to suggest that there is any discrimination on the basis of ethnicity by police in Douglas. We would

suggest, however, that Douglas citizens born in Mexico are more likely to be arrested than Douglas citizens born in the United States. Once again we would not attribute this to discrimination, but to the increased likelihood of recent United States residents getting into trouble. We suggest that this likelihood is increased due to an unfamiliarity with the customs and laws of the United States, an initial inability to speak and understand English, and to other problems of the immigrant in a new country. Often a lack of empathy on the part of established residents, an attitude that each person must solve his or her own problems, compounds the situation.

One example of how the language barrier is a problem can be illustrated by a case from the juvenile court. In this instance the juveniles involved had an adequate understanding of English, but their parents did not. Although the juvenile probation officer, a fluent Spanish speaker, frequently and conscientiously asked the parents in Spanish if they had any questions, the fact that very little of the proceedings were translated provided them with little basis for asking intelligent questions. It is evidently not part of established procedure to translate court proceedings into Spanish, even when those concerned are primarily Spanish speakers. In this particular case parts of the proceedings were translated only at the direct request of the parents. Such translations greatly prolong the time involved in hearing cases; thus in crowded courts, understanding is sacrificed to efficiency and to saving the taxpayer's money. It would be unfair to blame the individuals involved in this situation, as they perform their roles to the best of their abilities within the limitations of the system.

Footnotes

¹In this period we randomly sampled 10 percent of the population whose records were on file for one or more arrests and because we assumed, perhaps too casually, that simple traffic arrests are not a very important indicator of social misadjustment. We coded the three more serious traffic related violations: driving while intoxicated, reckless driving, and driving without a license. Many of the individuals in the 10 percent sample population were guilty of only minor traffic violations; in this case we simply made the notation "t" next to their sample number and continued on to the next number. Altogether 1,400 such individuals accounted for nearly 67 percent of our sample population of 2,100. Fifty five individuals of our sample could not be used, either because they were juveniles, or because records were missing from the folders; this number constituted two percent of our total sample. Thus our information on adults arrested in Douglas over this 12 year period is limited to 645 individuals guilty of 1017 non-traffic arrests, all of which were coded. F.B.I. annual reports for Douglas for the years 1971, 1970, 1969, and 1968 average 30.2 percent non-traffic related arrests; an independent indication that ours is a valid representation of the arrest population.

Chapter 10

HOUSING AND NEIGHBORHOOD CONDITIONS

Theodore E. Downing and Olivia Villegas

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HOUSING AND NEIGHBORHOOD CONDITIONS

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What do variations in housing and in neighborhood environments reveal about the quality of life of Douglasites? This question is important to government officials, public representatives, and community members who wish to improve the quality of life in the community. To act, they need information about the specific problems which require their attention. This chapter illustrates a methodology designed by the Public Health Service and the Bureau of Ethnic Research which provides a comprehensive view of the relationship of a community's housing and neighborhood environments to socioeconomic conditions and attitudes.

Environmental Surveys

Those who are active in community affairs know that for any specific problem, the information available may be unintelligible, out of date, or tangentially related to the decision maker's interest. One source of information which many communities have is the housing and environmental survey. Environmental surveys consist of mapping and evaluation of characteristics which provide needed information on the quality of housing and related factors.

In the early fifties, the Center for Disease Control of the U.S. Public Health Service designed a survey technique to locate danger zones for communicable diseases by mapping the environmental conditions of a city's

housing and neighborhoods. Sometimes conducted from an automobile, this survey became known as the "windshield survey" among some Public Health Service employees. In 1965, a task force from the Public Health Service Bureau of Community and Environmental Management revised the windshield survey. They sensed that the survey might provide a community with more information than only the potential danger zones for communicable diseases. Might not the revised survey also provide the city with a snapshot of socioeconomic conditions and a reflection of community attitudes?

The NEEDS Survey

In the late 1960's, the Public Health Service survey was modified into a comprehensive system to determine the effects of the quality of an urban environment on man's health, safety, and well being. This system was called the "Neighborhood Environmental Evaluation and Decision System," or, more simply, "NEEDS" survey. Public Health Service recognized that most communities had been using a variety of techniques for gathering planning data: household surveys, street condition reports, questionnaires, and so forth. Most of these surveys provide useful information about one element of a community, but it was difficult, if not impossible, to integrate the divergent information on health, housing, attitudes and other environmental conditions into a comprehensive picture. It was hoped that a single, wide ranging survey of the physical, social, and economic environment might provide a more useful data base for planning and program design.

The present NEEDS system has three phases. NEEDS I was an exterior survey of environmental conditions conducted by walking the streets of a city and using secondary information previously collected on the urban area. NEEDS II consisted of a detailed survey of socioeconomic conditions and attitudes. NEEDS III is an integration of the two surveys into a comprehensive picture of housing and socioeconomic conditions in the area.

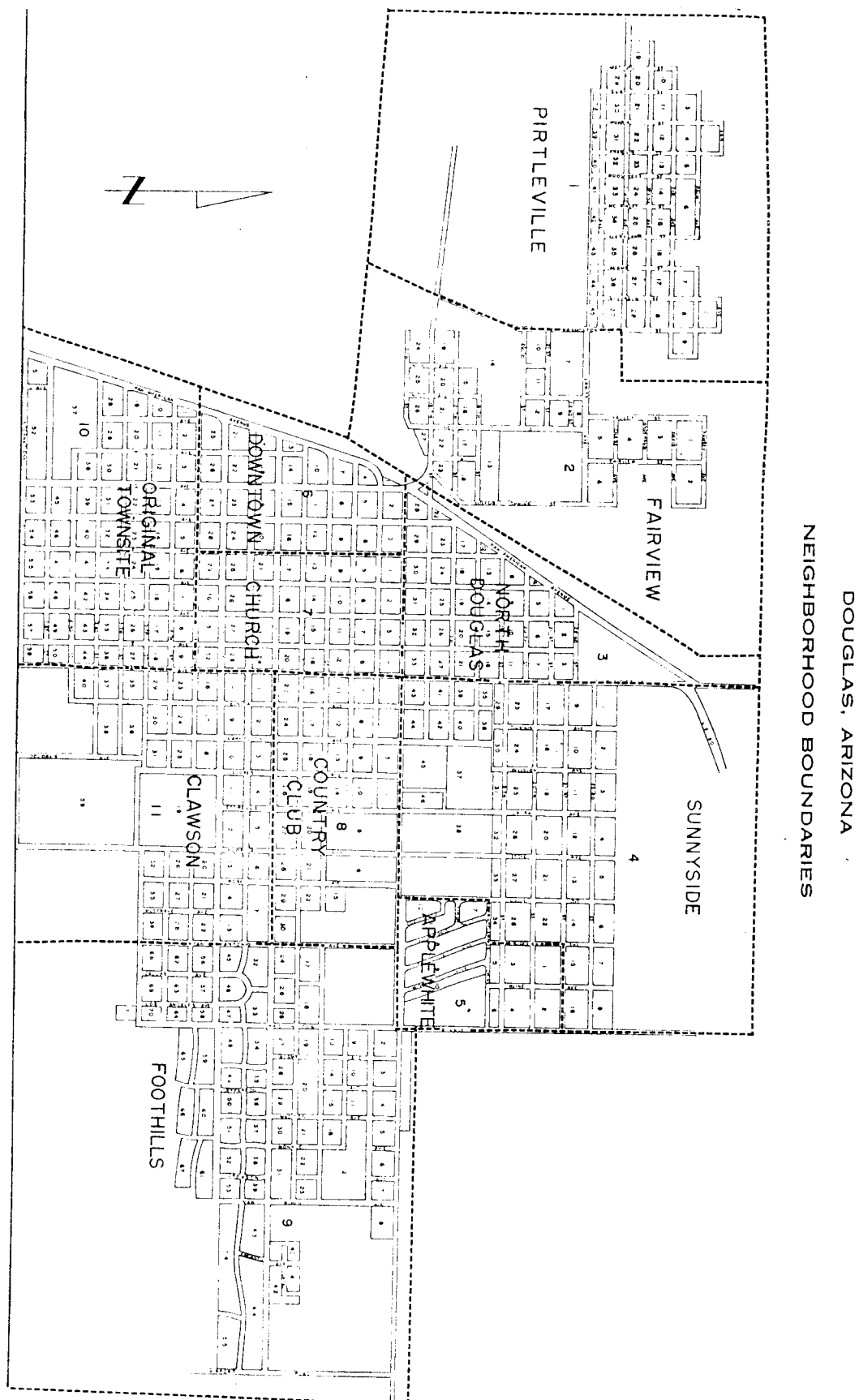
NEEDS I - Methodology

The first step of the NEEDS I survey was mapping the community. The community was divided into neighborhoods, as determined by a city agency along such logical boundaries as the easily recognized landmarks of main streets or railroads (Figure 1). Next, other information was collected from city agencies or by the field engineer on street types, street lighting, city water lines, safety hazards, air pollution, natural deficiencies, availability of shopping facilities, public transportation, availability to parks and playgrounds, and airport data (environmental stress).

This information was coded and recorded on an overlay of the base line map. For example, street lighting was based on data obtained from the city engineer's office and light meter readings taken from the darkest area of each block. Shopping facilities were defined as "necessary services for meeting daily needs," such as drugstores, laundries, and retail grocery stores. These were located in the yellow pages of a telephone book and plotted on a city map. Circles with a radius representing 1/4, 1/2 and one mile were drawn around each business to determine the accessibility of different areas of Douglas to these services. The same procedure was used for making

Figure 1

Neighborhood Boundaries as Defined by NEEDS I Survey



ESTADOS UNIDOS MEXICANOS

a map of recreational facilities in the city. For the purpose of this survey, areas had to meet the following criteria to be considered a park or playground:

1. be sanctioned by the city recreation department,
2. be free,
3. may be public or private; indoor or outdoor, and
4. may be seasonal or year round

If the recreational facility covered more than one block in area, these radii should be extended to include the distance from the midpoint to the edge of the facility. Environmental stress was determined by plotting the exact locations of runways, flight paths, and the aircraft operations information for each airport.

In the sidewalk survey, data was recorded for each premise and block in the community. In order to limit the time and work spent in the field, as much of the information as was known was recorded on the forms in the office. The neighborhood, block, and census tract numbers and the environmental information previously coded on the maps were recorded on the block analysis form. (See Appendix III at the end of this chapter.) Population density figures were calculated by the NEEDS I survey team from U.S. Census data. The instructions for arriving at these figures were as follows:

1. A copy of the U.S. Census of Housing was obtained.
2. Number and census tract was selected to correspond to the block for which the density is being determined.
3. The population and occupied housing units for the block was selected. If block data was not given, the density was calculated from population and occupied housing unit information for the entire Census Tract.

4. The total block population was divided by the total occupied housing units. This value was recorded on the mark-sense form.

The main task in the Stage I of NEEDS took place in the field, where data on every block and premise in the community was recorded. The field worker began with a block analysis form, which he checked to see if the neighborhood, block, census tract numbers, and street names have been recorded in the office. He walked around the block starting at the northeast corner making a small sketch of the block in the diagram space provided on the form. He indicated all premises, premise lines, street addresses and assigned each premise a number. As the field worker walked around the block a second time, he also evaluated the following conditions of pavement, curbs and gutters, sidewalks, offstreet loading, onstreet parking, and street width. The fieldworker also evaluated each block for environmental stress: noise, odors, vibrations, glare and various safety hazards. Street pavement was marked as "absent," or "inadequate" if the surface hindered travel under normal conditions or if the driver must reduce speed because of surface roughness. Curbs and gutters were also marked as "absent," or "inadequate" when 1) missing on a portion of the frontage and 2) were in a state of disrepair such that they were unable to serve intended functions under normal conditions. Sidewalk condition, offstreet parking, and the remaining conditions were evaluated in a similar manner.

Following this, the field worker evaluated each premise on the block. For each premise, the field worker also listed number of stories, and "for sale" signs. Land use of the premise was noted as either "residential," "commercial," "industrial," "public," or "vacant." The number of dwelling

units on the premise was estimated by counting the number of mailboxes, doorbells, or gas, light and water meters.

A large portion of the premise analysis consisted of an assessment of the following items of main structure: roof, paint, chimneys and cornices, outside walls, doors and windows, outside porches and stairs, foundation, and other conditions. Main structure evaluations included "condemned," "outside well," "pit privy," "faulty fire escapes," and "lacks electricity."

The premise was assessed on the basis of the following items: unacceptable fence or retaining wall, abandoned motor vehicles, rubbish accumulations, uncollectable discards, refuse storage, landscaping, and other premise conditions. A wall or fence was considered unacceptable if it was in need of repairs. A vehicle was considered abandoned if it had an expired or no license. Rubbish was defined as non-decomposable solid wastes excluding ashes. Uncollectable discards were large or non-disposable items. Under the refuse storage category, it was determined whether approved refuse containers are present. Refuse was defined as all putresible and non-putresible solids, including garbage, rubbish, ashes, and dead animals. Under the category landscaping, the general condition of the yard was assessed. Other premise conditions evaluated include the following: livestock, poultry, rodents, mosquitos, abandoned refrigerators, overflowing septic tank, flies, excessive animals, safety hazards, and other insects or pests.

Finally, the evaluator recorded information on any auxiliary structures on the premises, such as storage sheds, outhouses, and detached garages. Auxiliary structures were rated as "good," "fair," or "poor" on the basis of a composite assessment of roof, walls, paint, foundation, doors and windows.

NEEDS I - Analysis

After the survey was completed, the information was keypunched and processed by a computer programmer to provide a weighted profile of Douglas neighborhoods. The information was grouped into ten general categories for composing the neighborhood profiles. The neighborhoods were rated according to a system of points which were assigned to each of the categories. In general, these values were considered to be average values per premises. In the original NEEDS Stage I, a table listed the "maximum possible penalty points" for each category. It was determined after the survey had been completed and analyzed in Douglas that a separate table should be set up since the maximum possible penalty points in some of the categories were lower than for other communities. The environmental quality categories and their maximum penalty points for Douglas appear in Table 1.

This information was used by Public Health Service to compare environmental conditions in Douglas. Since there is no public transportation in Douglas, all neighborhoods received an equal penalty and this variable was effectively excluded from further analysis. For reasons uncertain to us, natural deficiencies and availability of playgrounds and parks were also excluded from the NEEDS I analysis in Douglas. With these exceptions, penalty points were assigned to houses, premises, blocks and neighborhoods, and it became possible to obtain a numerical rating of any level of analysis and compare it to a similar level. Neighborhoods could be compared with neighborhoods, blocks with blocks, and houses with houses.

NEEDS I Results¹

The NEEDS I survey provided a general overview of the environmental conditions in Douglas. Neighborhoods differed in degree of population

Table 1
Environmental Quality Categories
and Their Maximum Penalty Points

<u>Category</u>	<u>Maximum Possible Penalty Points</u>
Population crowding	138
Housing conditions - Main structure	234
Housing conditions - Auxiliary structure	24
Premise conditions	150
Environmental stresses	274
Street deficiencies	122
Natural deficiencies	5
Availability of transportation	5
Availability of shopping	3
Availability of parks and playgrounds	<u>3</u>
	1,082

crowding, conditions of main structure and premises, environmental stress and street conditions (Table 2.).

Population crowding referred to the ratio of total population to the amount of living space in a block. Overall, population crowding appeared to be a problem isolated to a few specific areas of Douglas (Figure 2). The most severe crowding occurred in Fairview, a neighborhood west of the railroad tracks and north of the Bisbee-Douglas highway, western Pirtleville, and the public housing area in the west-central portion of Sunnyside neighborhood. The lowest levels of population crowding were in central and southwestern Douglas, including the more affluent neighborhoods of Church, Clawson, Country Club, Applewhite, and the Foothills.

Housing condition referred to the exterior condition of the main structure of a premise. Like population crowding, housing conditions appeared to be most seriously deficient in northwestern Douglas and improved toward the southeastern corner of Douglas, corresponding to an increasing value of houses (Figure 3). Pirtleville and North Douglas had the most serious housing problem as revealed by the exterior evaluation. The Original Townsite, Downtown and Fairview had housing near the average for Douglas, with Sunnyside, Church, Country Club and Clawson receiving a better than average evaluation. The Foothills and Applewhite neighborhoods with more recent home developments, were evaluated as neighborhoods having the least serious housing problems.

Assessment of environmental stress involved an evaluation of blocks and neighborhoods by the relative degree of air pollution, odor, safety hazards, noise, vibration and glare. Heavy weighting was assigned to air

Table 2

Percent of Maximum Possible Penalty Points Attained by Each Neighborhood

<u>Neighborhood</u>	<u>Population</u> <u>Crowding</u>	<u>Houses (Main</u> <u>Structure)</u>	<u>Auxiliary</u> <u>Structure</u>	<u>Premises</u> <u>Cond.</u>	<u>Envir.</u> <u>Stresses</u>	<u>Street</u> <u>Def.</u>	<u>Availability</u> <u>of Shopping</u> <u>Facilities</u>	<u>Overall severity</u> <u>of environmental</u> <u>problems, 1 =</u> <u>highest level</u>
Firtleville	44	13	25	21	9	39	95	2
Fairview	61	5	25	16	12	35	52	1
North Douglas	36	10	18	15	13	20	51	4
Sunnyside	48	3	17	11	10	25	60	5
Applewhite	13	0	3	6	10	25	42	9
Downtown	31	5	16	10	20	23	0	3
Church	8	2	12	8	13	17	28	8
Country Club	10	1	7	5	11	14	37	11
Foothills	4	0	6	6	8	29	51	10
Original Townsite	36	5	20	18	11	15	38	6
Clawson	14	2	9	9	11	22	34	7

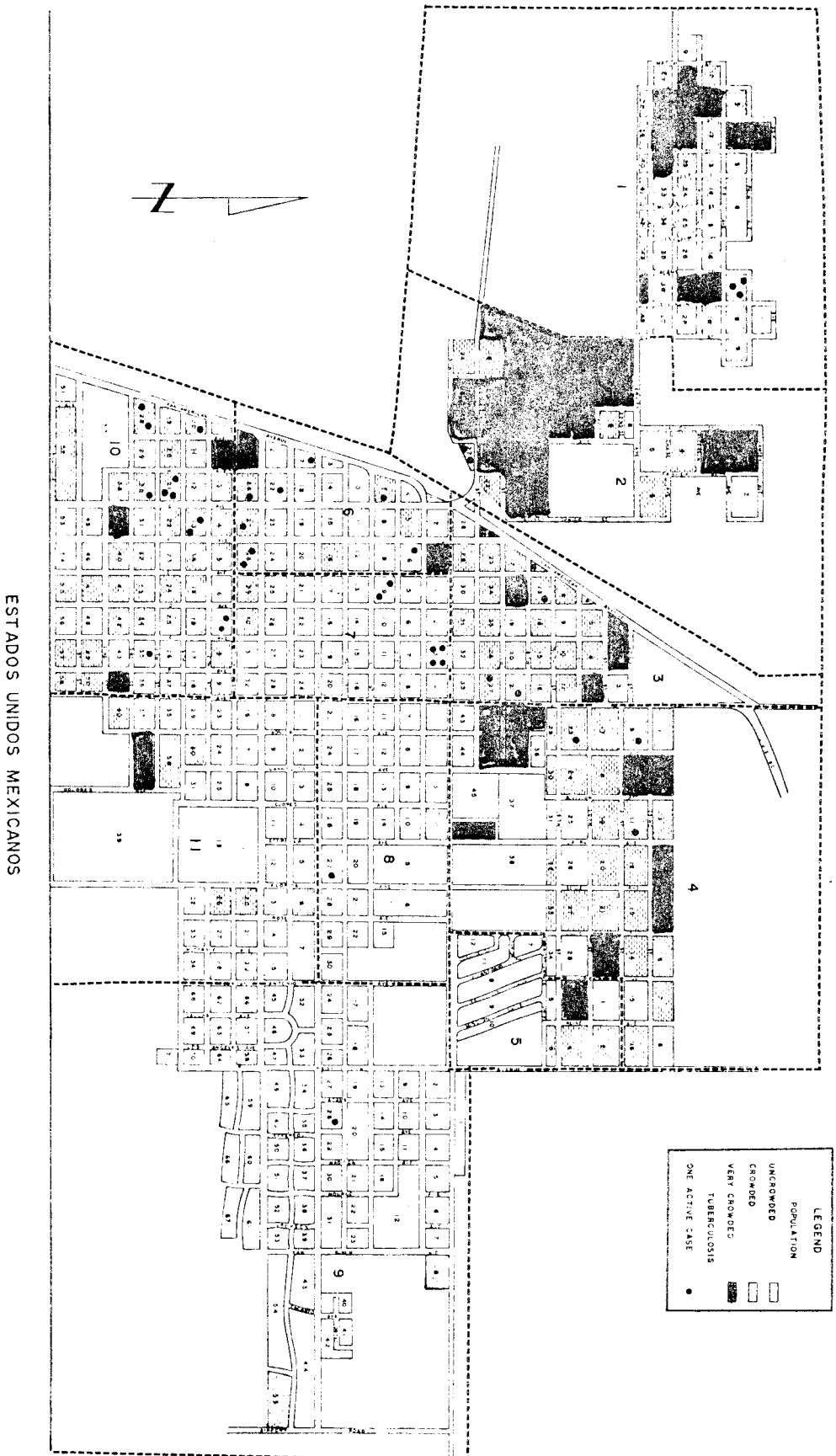
*From Douglas NEEDS Survey, Oct. 1970, p. 30

Figure 2

NEEDS I Survey Results on Population Crowding

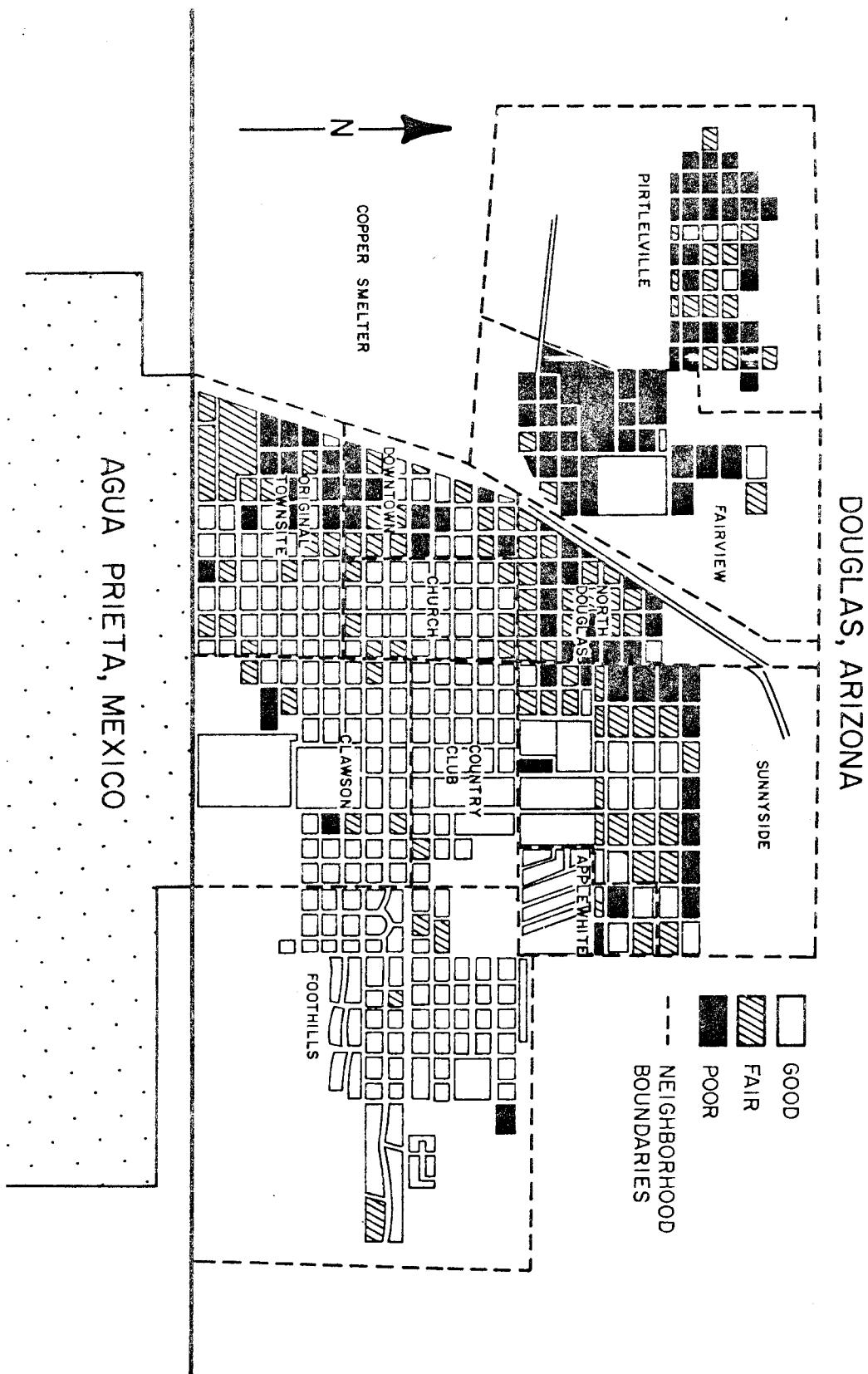
DOUGLAS, ARIZONA

POPULATION CROWDING



Source: Douglas NEEDS Survey, October, 1970, p. 10

Figure 3
Overall Penalty Points for Housing Conditions



pollution and safety hazards such as traffic accidents, scattered strands of barbed wire holes and uneven sidewalks. The NEEDS I results showed the Downtown area to be the neighborhood with most serious problems of environmental stress, as might be expected in any small city. Otherwise, the degree of environmental stress was uniformly low throughout the city with the exception of Pirtleville and the Foothills.

In terms of overall environmental conditions, Pirtleville and Fairview proved to be the neighborhoods with most serious environmental problems followed closely by Downtown, North Douglas, Sunnyside and the Original Townsite, all of which have environmental conditions worse than the city average. The remaining neighborhoods proved better than average.

NEEDS II

The NEEDS I environmental survey gave a detailed picture of the physical environment. Without further analysis, this information provided Douglas with an inexpensive data base to assist in establishing community goals and plans. But did the environmental survey tell the city about social welfare and socioeconomic patterns? If it is assumed that the environmental conditions reflect the socioeconomic conditions and attitudes of people, then it could be assumed that the NEEDS I survey did reflect social welfare. Many community developments, urban renewal, and other governmental activities indicate that many people believe this assumption is true. However, the designers of the NEEDS survey did not assume they were describing social welfare with an environmental survey. Instead, they considered the association between environmental conditions and socioeconomic

conditions to be problematic -- worthy of a more detailed investigation. Thus, Public Health Service decided to compare the environmental NEEDS I survey to a social and economic survey, called NEEDS II. This study was to be designed to discover what the people were doing who were living in the physical environment which had just been described. In the summer of 1972, the Bureau of Ethnic Research at the University of Arizona was awarded a Public Health Service contract to design and conduct the NEEDS II social survey of Douglas, Arizona.

NEEDS II - Methodology

The Bureau drew a five percent sample of Douglas households. The sample was weighted for proportionate representation of the variations in 1) housing conditions discovered by the NEEDS I survey and 2) population size of census tracts. (A technical description of the sampling and interviewing procedure is in the appendix of this report).

The survey questionnaire specified several dimensions of social and economic relations. The following characteristics were chosen as indicators of the socioeconomic condition of a household: the number of 1) people living in a house, 2) working adults, 3) rooms, 4) cars owned by its occupants, 5) years the occupants of the house have been residents of Douglas, and 6) relatives the occupants of a house have in Agua Prieta. In addition, economic conditions included 7) total income of the household members, 8) per capita expenditures of the household members and 9) per capita expenditures of the household for food, housing, loan payments, cigarettes, liquors and snacks, utilities,

car payments, health expenses, recreations and hobbies, domestic help and child care, donations to churches and charities, and support for other family members not living in the household.

Furthermore, we wished to compare the socioeconomic conditions of neighborhoods to the NEEDS I environmental survey. To achieve this goal, we rank ordered the Douglas neighborhoods along 23 different dimensions. Most of this information represented an aggregation of data for each neighborhood, data which was collected in the NEEDS II social survey. Other data sources included the arrest records collected by Gartell in her study of law enforcement in Douglas, data supplied by the Public Health Service on venereal disease rates, case load data on Aid to Dependent Children and data from the U.S. Census. All 23 of these dimensions, including their definitions and data sources are described in Appendix I.

Satisfaction Indices

We also measured respondent's attitudes about their community, neighborhood, and house. An overall measure of the respondent's personal satisfaction with his or her environment was measured by a cumulative index. The more residents tended to agree with a list of statements, the more satisfied they were with their personal environment (Table 3). Thus, a person's score on the personal satisfaction index could range from a high score of "12," indicating strong satisfaction, to a low of "0," indicating high dissatisfaction, i.e., disagreement with every statement.

This approach could be biased because the wording of the question might have influenced the response of the informant. To reduce the possibility

Table 3

Components of Satisfaction with Personal Environment Index

	<u>Weight</u>
My relatives help me when I get in trouble.	1
My opinions on what this town needs are listened to.	1
I would rather live in Douglas than Agua Prieta.	1
I prefer living in Douglas rather than a larger town.	1
People with my background in this town are not discriminated against.	1
I trust local community leaders.	1
I find it easy to get credit or loans when I need them.	1
The smelter's smoke doesn't effect my health.	1
If the smelter, closes, I will probably stay in this town.	1
I would like to become more involved in community affairs.	1
Crime is not a problem in Douglas.	1
The city is doing enough for my neighborhood.	1
<hr/>	
Index Maximum =	12
Index Minimum =	0

of bias, survey questions were administered to half the sample using a positive wording and half using negative statements. Then, a statistical test was used to eliminate questions in which the positive or negative wording changed the response patterns to the question. The list on Table 3 represents only those questions surviving the test for word bias.

A neighborhood satisfaction index was developed to measure the respondent's satisfaction with community services received in the neighborhood. Neighborhood was defined by the interviewer as the area within two or three blocks of the respondent's dwelling. Respondent's were asked to rate community services as adequate, inadequate and they were given the option of offering no opinion. Those feeling the greatest dissatisfaction with these services were given lower scores, depending on how many of the services they felt were inadequate. The list of the 18 services is presented in Table 4.

The personal satisfaction index and neighborhood satisfaction index were then combined to create a third index which we call the general satisfaction index - this index provides an overall measure of the respondent's feelings about his or her personal and community environments.

In addition to three attitudinal indices, the Bureau asked numerous questions of the respondents to discover the perception of the quality of their housing. We hoped these questions would reveal whether the respondent's opinions of his household and neighborhood environment coincided with that of the Public Health Service evaluations. Several of these attitudinal questions were aggregated to form profiles of opinion for the 11 Douglas

Table 4

Neighborhood Satisfaction Index

	<u>Weight</u>
Playgrounds and parks	1
Schools	1
Street maintenance	1
Flood and water control	
Housing inspection	1
Fire protection	1
Police protection	1
Street lighting	1
Water, light and power service	1
Trash and garbage collection	1
Dog control	1
Telephone service	1
Services for elderly	1
Recreation for adults	1
Recreation for teenagers	1
Recreation for children	1
Grocery stores	1
Neighborhood zoning laws	1

Index Maximum = 18

Index Minimum = 0

neighborhoods. A complete listing of the socioeconomic variables and their definitions is provided in Appendix II of this chapter.

Results

Attitudes

Did the NEEDS I evaluation of the condition of a house correspond to the occupant's evaluation? The Bureau asked respondents "in general, how do you feel about your housing? Would you say it is adequate or inadequate?" Eight out of ten respondents stated that their housing was adequate, suggesting that most Douglasites do not consider housing a major problem. This observation was supported by responses to another question: "Does this place seem large enough for your family?" Once again, eight out of ten respondents felt their house was large enough. The respondent's evaluations tended to agree with that of the NEEDS I surveyors. Statistically, those living in housing which the Public Health Service survey had evaluated as "poor" were more likely to agree that their housing was inadequate and too small for their families than people in houses which had been evaluated as "good."

However, caution must be taken not to assume that the exterior Public Health Service survey can indicate the occupant's evaluation of his house. The NEEDS I evaluation system is relative, that is, it compares houses in a community with one another and a proportion of houses will always be ranked in the lowest category, poor housing. Inspection of Tables 5a and 5b reveal that many houses which Public Health Service rated "fair" and "poor" had occupant's who felt the dwellings were adequate and large enough



Table 5a

Respondents' Feelings About Their Housing Compared to NEEDS I Survey

		OCCUPANT'S EVALUATION	
		House is: Adequate?	
		Yes	No
PUBLIC HEALTH SERVICE EVALUATION	Good	67	7
	Fair	30	6
	Poor	22	16

N=148

Raw Chi Square = 17.2

Significance = .0002

Table 5b

Respondents' Feelings About Their Housing Compared to NEEDS I Survey

		OCCUPANT'S EVALUATION	
		House is: Large Enough?	
		Yes	No
PUBLIC HEALTH SERVICE EVALUATION	Good	55	5
	Fair	31	7
	Poor	34	17

N = 149

Raw Chi Square = 11.0

Significance = .004

for their needs. In other words, "an objective," system for determining if occupants perceive a house as substandard can only be made by a direct social survey of the occupant's attitudes about the house.

This general satisfaction with housing was also apparent with responses to queries about interior conditions. Although over 28 percent of the households felt their houses needed repairs, most of these repairs were minor maintenance problems such as painting, drains backing up, or lack of closet space. Table 6 lists the frequency of interior problems reported by occupants and does not suggest that any occupants perceive glaring structural or environmental difficulties with their homes.

Comparing the frequencies of interior problems in different neighborhoods failed to reveal any statistically significant relationship between neighborhoods, as defined by NEEDS I, and interior problems. However, the feeling that some repairs were needed did show a significant difference across neighborhoods (Figure 4). Most people feeling house repairs were needed lived in Downtown, North Douglas, Original Townsite, Sunnyside or Applewhite. The ordering of feelings about house repair did not correspond to the NEEDS I evaluation of houses needing exterior repair. For example, the neighborhood with the fewest exterior problems, Applewhite, as rated by the NEEDS I survey, was where more people felt their houses needed repairs than the neighborhood, Pirtleville, that was given the worst rating by the Public Health Service survey.

Overall Happiness

This pattern of general satisfaction of the Douglasites with their environment was strongly apparent in other responses. Most Douglasites

Table 6

Interior Problems of Houses Reported by Occupants (Percent)

<u>Problem</u>	<u>Frequency of Problem</u>	
	<u>Have</u>	<u>Don't Have</u>
Fuses blowing or circuit breakers overloading	10	90
Broken fences	12	88
Drains backing up	11	89
Septic tank or cesspool trouble	1	99
Plumbing leaks	9	91
Roof leaks	10	90
Overall house repairs needed	28	72
Painting needed	37	63
House too cold in winter	13	87
House too hot in summer	14	86
Not enough hot water	5	95
Furniture old or lacking	10	90
Not enough closet space	20	80
Odors inside house	3	97
Noise inside house	3	97
Lack of privacy inside house	6	94
None of above	26	74

N = 174 Households

Occupant's Opinion About House Repairs



preferred Douglas to a larger town (80 percent yes, 18 percent no, and 2 percent undecided) and planned to remain in Douglas even if its economic mainstay, the copper smelter, closed (70 percent yes, 22 percent no, and 8 percent undecided). Likewise, only a very small percentage of the respondents desired to move to another town (21 percent) or move to another neighborhood inside Douglas (25 percent). But, the general level of satisfaction was most apparent in the responses people gave to how adequate they felt community services were in their neighborhood (Table 7). Those issues which were the main concern of residents were mostly related to recreational activities, street conditions, and dog control. All major community services, such as the schools, fire protection, police protection, utilities and garbage and trash collection received very high public esteem.

For those issues such as dog control, street maintenance, and recreation for teenagers, the feelings of public dissatisfaction did not cluster in particular neighborhoods, but seemed to be a general concern of people throughout the community. The concern about inadequate police protection, however, did cluster in five specific neighborhoods, including Pirtleville, Sunnyside and Fairview. As the accompanying chapter on law enforcement points out, these areas are not part of the incorporated area of Douglas and are under the jurisdiction of the country rather than the city. The two neighborhoods within Douglas proper which show any concern about the adequacy of police protection were both areas of the highest frequency of offenses, Downtown and the Original Townsite (Figure 5).

Table 7

Opinions About Neighborhood Services

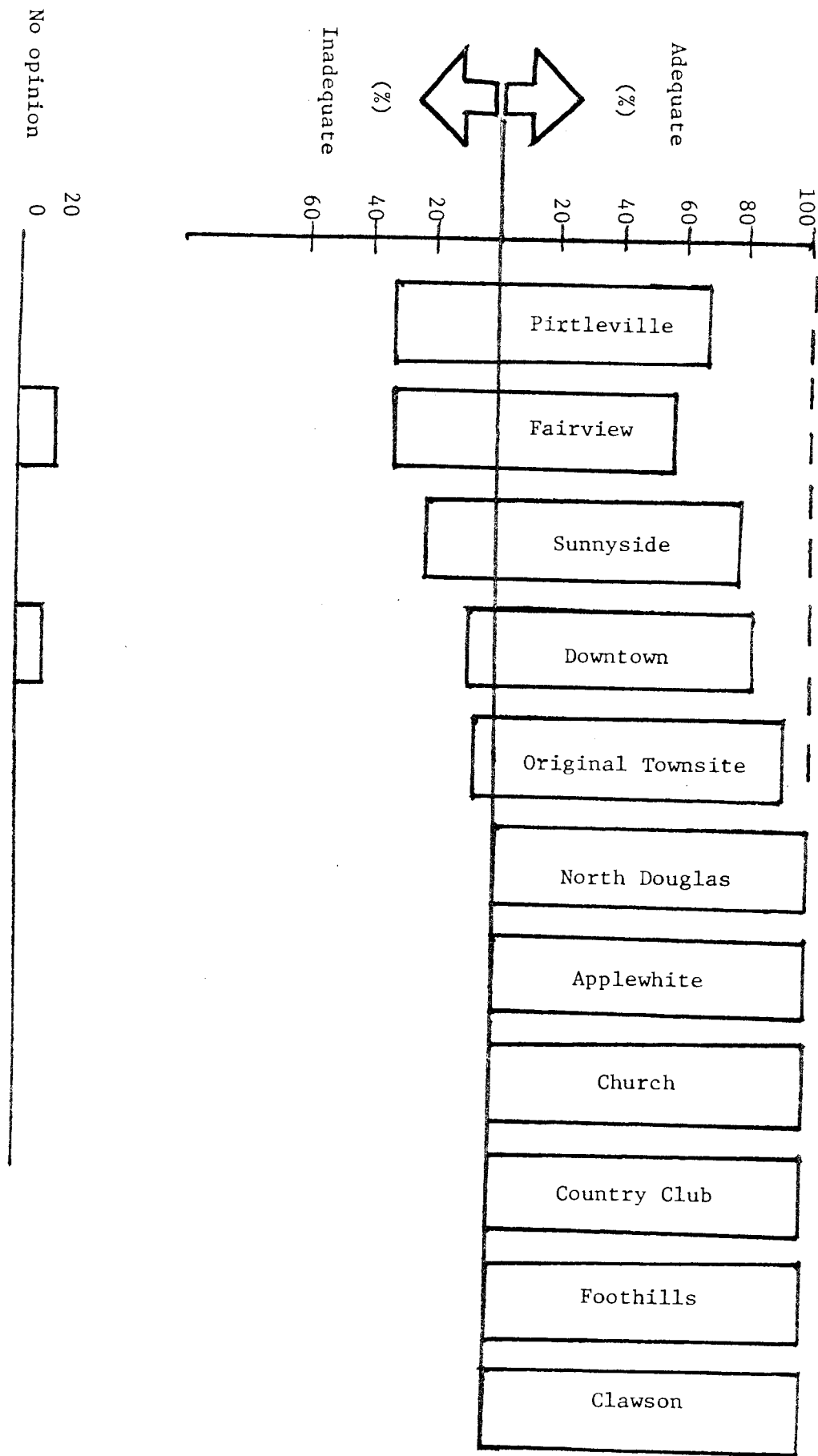
<u>Item</u>	Percent Stating Services Were:		
	<u>Adequate</u>	<u>Inadequate</u>	<u>No Opinion</u>
Playgrounds and parks	56	34	10
Schools	79	13	8
Street maintenance	48	49	3
Flood and water control	70	20	10
Housing inspection	49	26	25
Fire protection	88	6	6
* Police protection	90	9	1
Street lighting	78	20	2
Water, light and power service	87	12	1
Trash and garbage collection	78	22	0
Dog control	55	43	2
Telephone service	85	3	12
Services for elderly	35	30	35
* Recreation for adults	38	48	14
Recreation for teenagers	36	51	13
* Recreation for children	46	41	13
* Grocery stores	82	15	3
Neighborhood zoning laws	53	13	34

N=170

For *these items there was significant difference in the distribution of opinions between neighborhoods.

Figure 5

Feelings of Different Neighborhoods about Police Protection



Recreation for adults and children also received considerable attention by the respondents and was of more concern to some neighborhoods than others (Figures 6 and 8). Neighborhoods showing heavy concern for recreational activity included Sunnyside, Fariview, Pirtleville, Clawson, the Original Townsite and Downtown, although the issue was considered serious by at least a quarter of all the neighborhoods. Further survey work is necessary to ascertain exactly what kind of recreation the Douglas people desire.

Although the majority of Douglasites are relatively content with their environment (see Figure 7) a minority showed a reasonably high level of discontentment with their personal environment and community services. Although more complicated tests would be necessary to completely analyze the spatial distribution of those which ranked high and low on our satisfaction indices, a mapping of those respondents who ranked the highest and lowest on the indices shows that discontented persons do not cluster in any particular neighborhood or part of Douglas, nor do people with the fewest dissatisfactions cluster in certain areas (Figure 8). More detailed tests were conducted to determine if discontented persons lived in housing which was rated poor by the NEEDS I survey and vice versa. All such tests proved negative and we must conclude that the environmental dimensions measured by the NEEDS I survey do not reveal either the individual or the neighborhood most likely to have negative or positive attitudes about housing conditions in the neighborhood or community.

Perhaps the most elaborate test the Bureau performed to test the relationship of the NEEDS I neighborhood evaluation and peoples attitudes

Figure 6

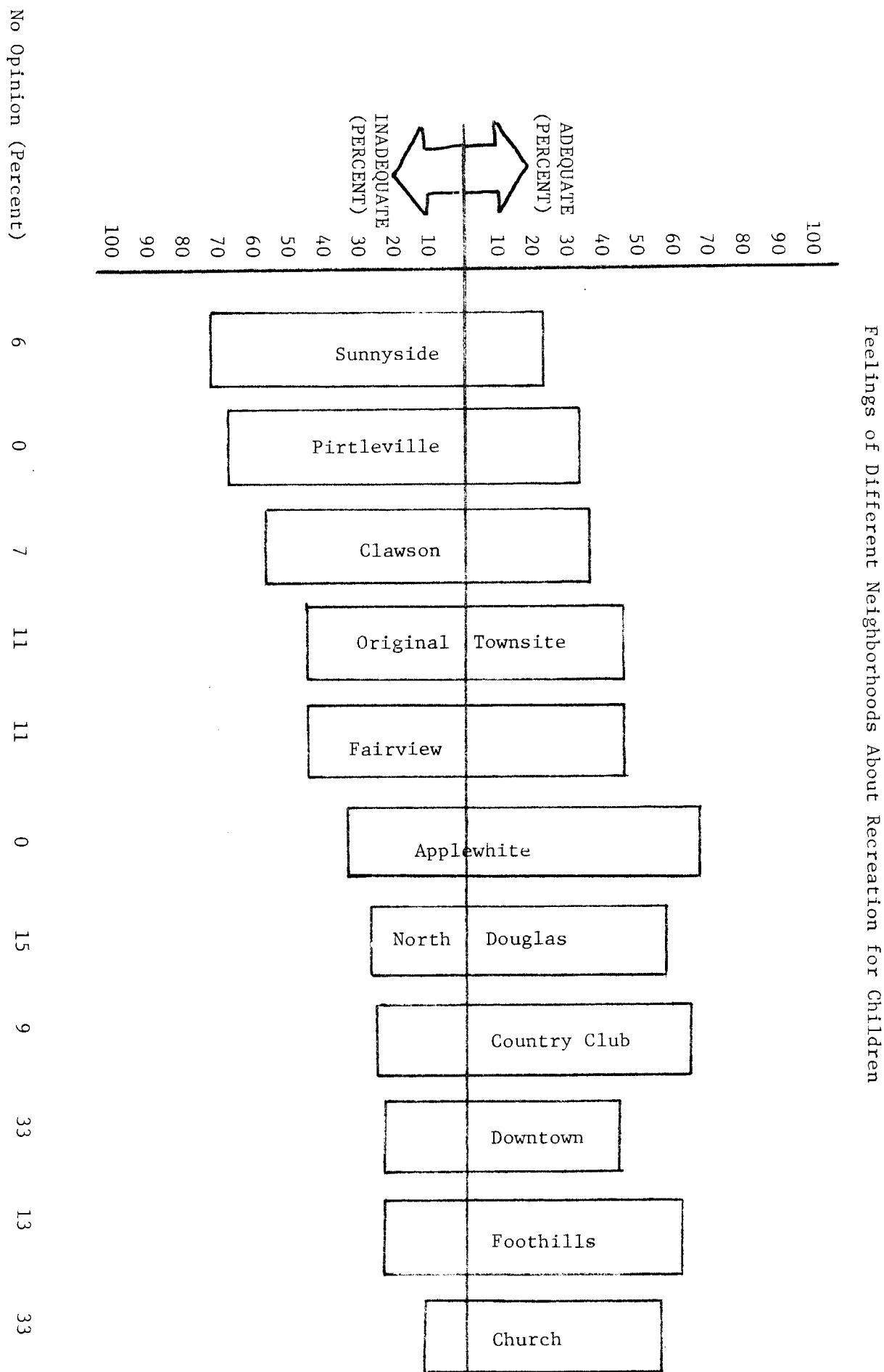


Figure 7
Distribution of Highly Satisfied and Dissatisfied People

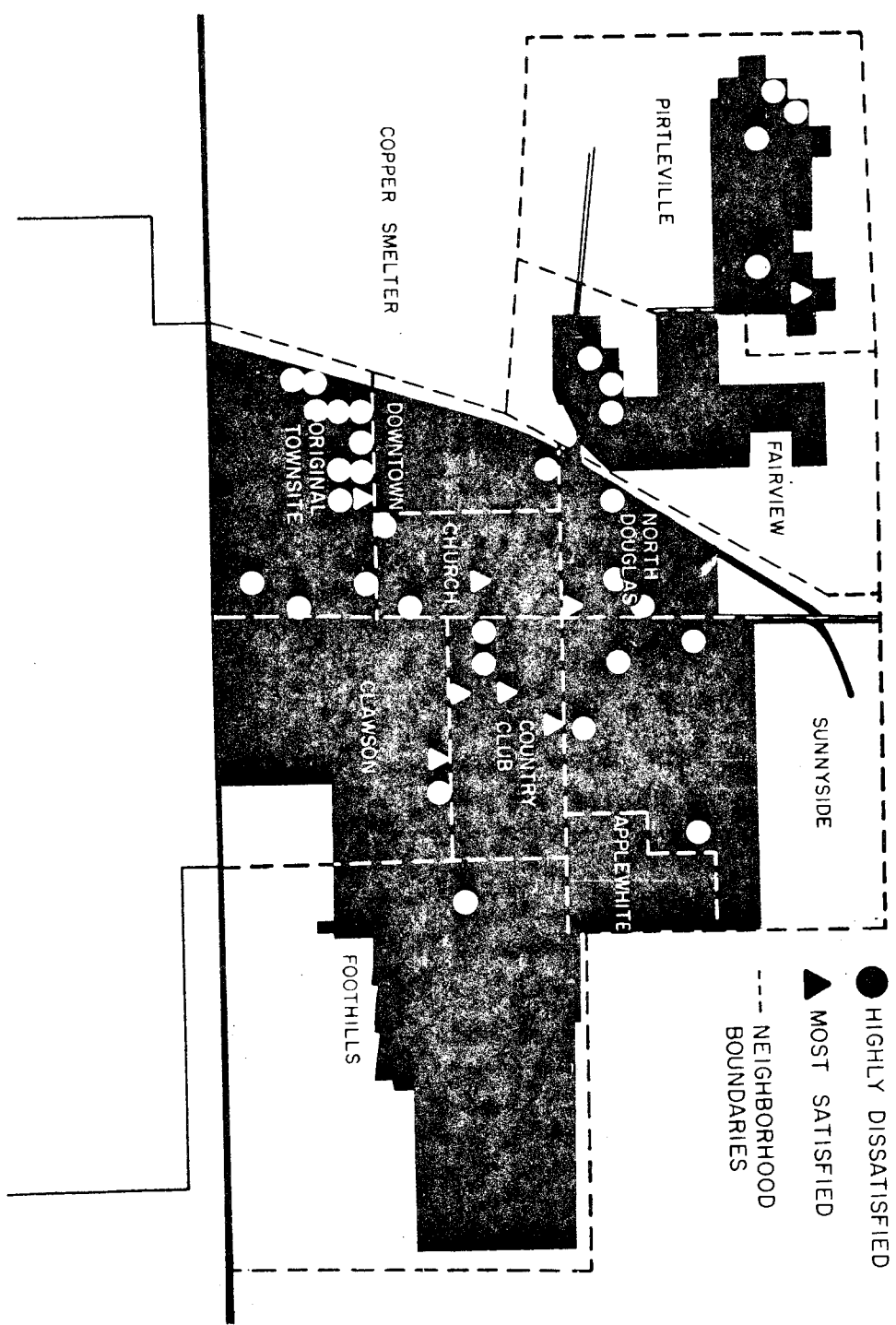
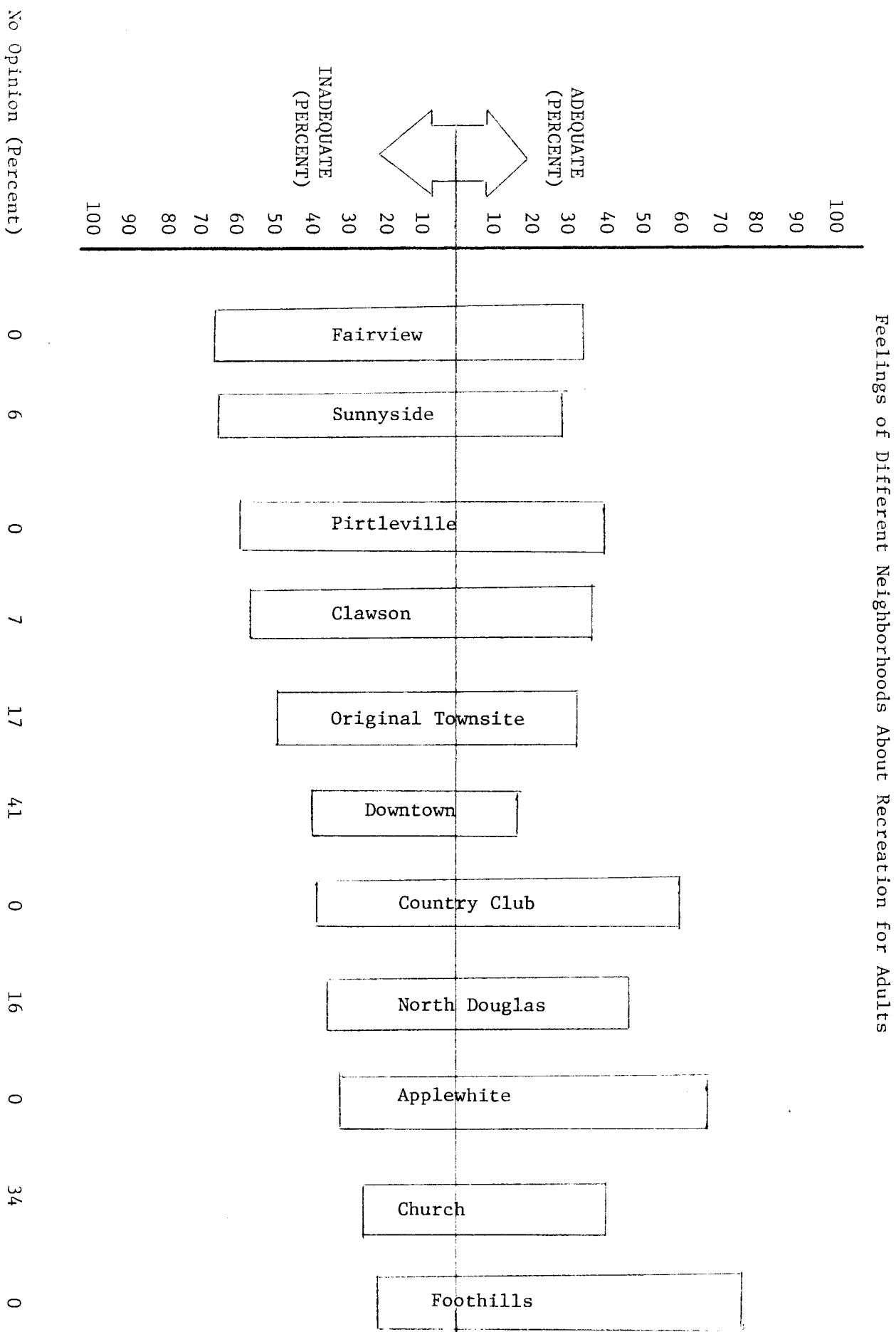


Figure 8



was a comparison of neighborhoods which were rank ordered on each of the environmental measures used in the NEEDS I survey according to the attitude questions used in the socioeconomic survey neighborhood satisfaction indices (18 questions). Fourteen of these attitudes were related to at least one of the NEEDS I environmental measures (Table 8). Overall penalty points corresponded in a significant way with feelings of inadequate police protection and inadequate adult recreation. That is, neighborhoods which received high overall penalty points were also likely to be neighborhoods in which a greater percentage of the people complained about police protection and adult recreation. House and premise penalty points show a significant relation to feelings about inadequacy of playgrounds, police protection, housing inspection, street lighting, adult recreation, lack of grocery stores and traffic accidents. Ironically, the feelings toward inadequate street conditions proved the reverse of what some would expect -- those areas where housing was believed most environmentally sound by the Public Health Service evaluators were also areas where the most complaints were registered about street conditions. Street condition was also one of the environmental conditions which was separately evaluated by Public Health Service, but the Public Health Service evaluation turned out to be unrelated to any of the attitudes expressed by residents, including feelings about the need for street repairs.

The condition of auxiliary structures shows a positive relation to higher frequencies of complaints about playgrounds, police protection, housing inspection, street lighting, adult recreation.

Table 8
Comparison of NEEDS II Attitude Survey to NEEDS I
Evaluation of Neighborhoods*

NEEDS II Feelings About Problems With:

NEEDS I Environmental Condition	Complaints About Flies	Playgrounds	Streets	Police Protection	Housing Inspection	Street Lighting	Elderly Services	Adult Recreation	Child Recreation	Grocery Stores	Shopping Centers	Zoning Laws	Traffic Accidents	Smells
Overall Penalty Points	0	0	0	+	0	0	0	+	0	0	0	0	0	+
House	0	+	-	+	0	0	0	0	0	0	+	0	+	0
Auxiliary Structure	0	+	0	+	+	+	0	+	0	+	+	0	+	+
Premise	0	+	0	+	0	0	0	0	0	0	+	0	0	0
Stress	-	0	0	0	0	0	-	0	0	0	0	0	0	0
Streets	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shopping	0	0	0	0	0	0	0	0	0	0	0	+	0	0
Population Crowding**	0	+	0	+	0	+	0	+	+	+	+	0	0	+

*Pearson's rank order correlation is significant at $\geq .01$ level. If "+," it is positive; "-" it is negative; and "0" indicates no relation.

**Population Crowding is derived from U.S. Census material, not collected by NEEDS I environmental survey.

grocery stores, shopping centers, traffic accidents and smells. In this way, the presence of auxiliary structures offers a better indicator of high levels of dissatisfaction with neighborhood services than do any of the other Public Health Service environmental indices. Environmental stress, streets and shopping center evaluations proved the least useful in predicting areas of community dissatisfaction. In sum, none of the Public Health Service environmental dimensions were highly related to attitudes.

Population density proved a better indicator of high dissatisfaction than any other environmental measures. In Douglas, areas of highest population density were also areas showing greatest concern about inadequate playgrounds, police protection, street lighting, adult and child recreation, grocery stores and shopping centers and services for the elderly. Thus, the best method the Bureau can suggest for concentrating program efforts to reach the greatest number of people who are dissatisfied is to concentrate programs in areas of the heaviest population density within the town. Further investigation might clarify the policy implications of such a strategy for public investment.

Satisfaction, Ethnicity, and Poverty

Neither satisfaction with personal environment nor satisfaction with neighborhood services was related to income. Rich, poor, and in-between all seem to have unrelated levels of satisfaction and dissatisfaction (Tables 9a and 9b). Anglos in Douglas, however, were definitely more likely to be satisfied with their personal and neighborhood environment than were Mexican Americans (Tables 10a and 10b). This indicates that either the Mexican American community feels most neglected by community services in their neighborhood

Table 9a

Income and Satisfaction: General Satisfaction

		INCOME	
		Less Than \$10,000 Per Year	Greater Than \$10,000 Per Year
SATISFACTION	High	62 (55%)	31 (69%)
	Low	51 (45%)	14 (31%)
Total		113 (100%)	45 (100%)

Chi-Square = 2.06 No Significant Relation

Table 9b

Satisfaction with Personal Environment

		INCOME	
		Less Than \$10,000 Per Year	Greater Than \$10,000 Per Year
SATISFACTION	High	86 (76%)	35 (78%)
	Low	27 (24%)	10 (22%)
Total		113 (100%)	45 (100%)

Chi-Square = .00025 No Significant Relation

Table 10a

Ethnicity and Satisfaction: General Satisfaction

		ETHNICITY	
		Anglo	Mexican Heritage
SATISFACTION	High	43 (80%)	51 (52%)
	Low	11 (20%)	48 (48%)
Total		54 (100%)	99 (100%)

Chi-Square = 10.5 Sig. \leq .0001, N = 153 Respondents

Table 10b

Satisfaction with Personal Environment

		ETHNICITY	
		Anglo	Mexican Heritage
SATISFACTION	High	49 (91%)	71 (72%)
	Low	5 (9%)	28 (28%)
Total		54 (100%)	99 (100%)

Chi-Square = 6.39, Sig. \leq .01, N = 153 Respondents

or that they are more likely to be critical of community services. The high proportion of "no opinion" answers by persons of Mexican heritage erodes the latter interpretation and we must conclude that the perceived environment of the person of Mexican heritage is less pleasant and supportive of individual and neighborhood wants than that of Anglos.

Ethnicity and Housing Evaluation

Earlier in this report, we noted the strong correspondence of ethnicity to poverty, that is, the bottom of the Douglas income category is overly packed with people of Mexican heritage. Comparing the objective measures of housing conditions to the ethnicity of occupant revealed that Mexican Americans are more likely to live in substandard dwellings than their Anglo counterparts (Table 11). Thus, the housing problems, as viewed by the NEEDS I survey technique cluster among those classified as being of Mexican heritage.

Further investigations revealed that the occupant's place of birth was also related to the condition of his premise, but not his house. Since the distinction between the premise condition and house condition is primarily that of a yard excluding the main structure, this finding may be interpreted as indicating the relationship of a person's birth place to the environmental condition of the yard. Those people born in Mexico tended to have a disproportionately larger share of their yards in substandard conditions, while those born outside Douglas in other parts of the United States had yards in better physical condition. The people born in Agua Prieta and Douglas occupy an intermediate

Table 11

Housing Condition and Ethnicity

		ETHNICITY	
		Anglo	Mexican Heritage
HOUSING CONDITION (From NEEDS I Survey)	Good	34 (63%)	28 (28%)
	Fair	11 (20%)	27 (27%)
	Poor	9 (17%)	44 (45%)
	Total	54 (100%)	99 (100%)

Chi-Square = 18.8 Significance \leq .0001 N = 153 Respondents

position, their premise conditions being poorer than would be expected if they were born in the United States but in a little better condition than the yard of their neighbors from the interior parts of Mexico (Table 12).

Neighborhood Environment and Socioeconomic Conditions

The Public Health Service NEEDS I Survey hardly proved indicative of the socioeconomic conditions of neighborhoods. Eleven Douglas neighborhoods were ranked by the Public Health Service environmental scales previously listed on Table 1. These same neighborhoods were then ranked by 23 socioeconomic indicators and the rank orderings compared for any possible associations. Out of 414 possible relations between the environmental scales and socioeconomic measures, only 14 significant relations were found, all listed in Table 13. To summarize: overall penalty points and penalty points for housing in a neighborhood indicate areas of town with high case loads of Aid to Dependent Children, venereal disease, and low numbers of honor students. Venereal disease rates are also statistically associated with poor yard and auxillary building condition. But, the most revealing association is between all four of these environmental scales (overall penalty points, house,premise and auxillary building condition) and the size of the monthly rent or mortgage payment. What this says is that areas with more people more heavily in debt for housing were given higher ratings by NEEDS I evaluators. This might be suggestive that the NEEDS I survey was actually measuring economic status but several more direct indicators of economic status, such as income, failed to be significantly related to the Public Health Service neighborhood evaluation.

Table 12
Place of Birth and Yard Conditions in Douglas

		Place of Birth		
		Other U.S.	Douglas Agua Prieta	Other Mexico
YARD CONDITION	Good	39 (57%)	13 (28%)	13 (25%)
	Fair	16 (23%)	12 (26%)	18 (35%)
	Poor	14 (20%)	22 (46%)	21 (40%)
	Total	69 (100%)	47 (100%)	52 (100%)

N=168

Raw Chi-Square = 17.85 at 4 degrees of freedom. Sig. \geq .01

Table 13
Comparison of Socio-Economic Survey To
NEEDS I Evaluation of Neighborhoods*

NEEDS I Environmental Condition	Number of Honor Students	Aid To Dependent Children	Venereal Disease	Unemployment Rates	Crime Indices	Size of Rent or Mortgage Payment
Overall	-	+	+	0	0	-
House	-	+	+	0	0	-
Auxiliary Structure	0	0	+	0	0	-
Premise	0	0	+	0	0	-
Stress	0	0	0	+	+	0
Streets	0	0	0	0	0	0
Shopping	0	0	0	0	0	0
Population Crowding**	0	0	0	0	0	0

*Pearson's rank order correlation is significant at $\geq .01$ level. If "+," it is positive; "-" it is negative; and "0" indicates no relation.

**Population Crowding data derived from U.S. Census materials not collected by NEEDS I environmental survey.

The NEEDS I environmental scale to evaluate stress also turned in a dismal preformance when related to the socioeconomic survey. Areas of high unemployment and crime were positively related to stress, but other variables which might be expected to be related were not. These unrelated variables included problems with pests in the neighborhood, school dropouts, TB rates, nervousness, health status, and percentage in the neighborhood complaining about problems with flies (Table 14).

A Quandary and Further Tests

This lack of association between neighborhood conditions as measured by the NEEDS I technique and the socioeconomic survey may be given several interpretations. One would be that the exterior condition of a neighborhood tells very little about the people living in that neighborhood. In response, one might argue that the internal heterogeneity of Douglas neighborhoods was too great for any pattern to emerge. That is, neighborhoods were not significant units for environmental analysis. If this is true and there is a relationship between environmental conditions and socioeconomic indices, then a more direct test would be a comparison of housing and socioeconomic conditions on a house by house basis. Fortunately, we had the NEEDS I evaluation of each house and premise where we conducted an interview. Thus, we were able to compare the penalty points assigned the house and premise with numerous social and economic indicators, ignoring the concept of neighborhoods altogether. Table 15 lists 22 variables compared to the NEEDS I evaluation of houses. Not one of these variables had any significant relationship to the environmental rating of the house.

Table 14

Indicators Unrelated to All of the NEEDS I Environmental Indicators*

Incidence of renting vs. owning

Incidence of relatives in Agua Prieta

Degree of problems with pests in the neighborhood

School dropouts

TB (rates per 1,000 population over three years)

Unemployment (rates per 1,000 population over three years)

Chest problems (percentages of each neighborhood reporting problem)

Nervousness (percentage of people responding in a neighborhood with self-defined nervous problems)

Health Status (percentage of people in a neighborhood reporting they were not sick within the past year)

Mean number of rooms in the house of each neighborhood

Absolute indebtedness as measured by monthly loan repayments

Percentage of neighborhood saying they have problems with flies

*Rejection of null hypothesis based on significance test of .01 or less using Kendall: tau and N-11 neighborhoods.

Table 15

Socioeconomic Indicators That Were Unrelated to Housing Condition*

Adults per household

Working adults per household

People per household

Rooms per household

Years' residence in Douglas

Relatives in Agua Prieta

Cars per household

Interior condition as evaluated by occupant

Pest problems as evaluated by occupant

Income of all members of the household

Per Capita expenditures on:

Food

Housing (rent or mortgage, including insurance)

Loan payments

Cigarettes, liquors and snacks

Utilities (including phone)

Car payments

Health expenses (dentist, doctors, hospital bills, and insurance)

Educational expenses

Recreation and hobbies

Domestic help and child care

Donations to church and charities

Support to other family members not in this household

*Unrelated means the null hypothesis was accepted at .05 level for Pearson's r coefficient of correlation (N = 151-154).

These negative results may be interpreted as a challenge to the utility of the NEEDS I housing survey technique for discovering socioeconomic conditions or as a demonstration that environmental surveys must be supplemented by social surveys if a picture of the general welfare of the community is desired.

However, since the social survey had shown that Anglos live in better housing than peoples of Mexican heritage and knowing the strong impact that ethnicity had on other analyses in the Douglas project, we wondered if the lack of an association between housing and social conditions might result from a patterned difference between the two ethnic groups. Splitting the sample into two groups, Anglos and peoples of Mexican heritage, we found that a poor exterior on an Anglo house indicates a poor interior ($r = .54$, $N = 52$) and problems with household pests ($r = .36$, $N = 52$). Furthermore, Anglos living in houses in poor conditions spent less, per capita, on recreation and donations to churches or charities than Anglos in better housing ($r = .326$, $N = 47$ in both cases). There was also a significant correlation between poor housing and larger families ($r = .36$, $N = 52$).

In sharp contrast, the exterior conditions of houses occupied by persons of Mexican heritage reveal nothing about their social situation including the interior conditions of the houses, strongly suggesting that Douglasites of Mexican heritage follow a housing pattern common to Mexico in which the inhabitant avoids overt display of his social and economic station to outsiders. Subjective reactions of the interviewers supported this impression. Houses were sometimes in excellent repair and well furnished on the inside, but delapidated on the outside.

Ironically, the number of operative cars owned by a household tells more about the social condition of peoples of Mexican heritage than the

exterior conditions of their houses: the greater the number of operative cars, the larger the family, its total income, and length of residence in Douglas.

Implications for NEEDS Technique

The comparison of the NEEDS I environmental survey with the NEEDS II socioeconomic survey supports the validity of the overall NEEDS approach. The two surveys are necessary for a holistic, comprehensive evaluation of the quality of life in a community. The Bureau was surprised how little could be discovered about the socioeconomic conditions and attitudes of people from an objective environmental survey, however, after the lack of correspondence is known, it should be obvious what is happening.

The quality of a house, neighborhood or an entire community can be evaluated in many ways. The NEEDS I environmental survey evaluated Douglas from a physical viewpoint, comparing the conditions to objective traits common to all structures -- roofs, painting, auxiliary structure conditions, etc. The occupant, in contrast, may evaluate his house using other criteria including qualities which he does not share with other home owners in his neighborhood or community. The house or neighborhood environmental condition is only one component of the occupant's evaluation. And there are other viewpoints -- neighbors, health inspectors, firemen, dog catchers, border patrolmen and others will each evaluate these same environments in different ways. The NEEDS II social survey allowed us to see that, overall, the occupants of Douglas housing are highly satisfied with their personal and neighborhood environments. We discovered happiness, and

like good news, this is not of great interest to those who make a living solving other people's problems.

Douglasites are concerned about improving the quality of their lives and this involves solutions to what might seem some rather mundane problems -- dog control, recreation for children, teenagers and adults and the like. But, the people have spoken -- through this survey. Who will listen?

Footnote

1. A detailed summary of the environmental survey has already been published and presented to Douglas city officials. However, the general conclusions merit repeating in this report since the Public Health Service publication has received only limited distribution.

Appendix I

Neighborhood Socioeconomic Characteristics Used in Housing Chapter

<u>Variable</u>	<u>Source</u>
Incidence of renting (percentage of renting versus owning)	Question 54 of Bureau Social Survey
Incidence of relatives in Agua Prieta (percentage of within neighborhood)	Question 141
Degree of pest problems (percentage)	Question 74-83 combined
Dropouts (actual number)	Chapter 7
Honor students (actual number)	Chapter 7
Aid to dependent children (rates per 1,000 population for 3 years)	Public Health Service Records of 1969-71 counts
TB (rates per 1,000 population over 3 years)	Public Health Service Records of 1969-71 counts
VD (rates per 1,000 population over 3 years)	Public Health Service Records of 1969-71 counts
Unemployment (rates/1,000 population over 3 years)	Public Health Service Records of 1969-71 counts
Chest problems (percentage of people responding in neighborhood with problem - excluded no response)	Question 161-173 combined
Nervousness (Percentage of people responding in a neighborhood with a problem)	Question 206-213 combined
Health status (percentage of people responding in each neighborhood that they have never been sick)	Question 224
Adult criminals arrested	Arrest records
Arrest location of adult criminals	Arrest records
Crimes location for adult offenses	Arrest records
Adult criminal's home neighborhood	Arrest records
Adult criminal's arrest location	Arrest records
Juvenile criminal's neighborhood	Arrest records

<u>Variable</u>	<u>Source</u>
Presence of household problems (percentage reporting some problem in each neighborhood)	Question 72
Mean number of rooms in houses of each neighborhood	Question 52
Mean number of dollars on rent or mortgage payment per month	Question 529
Mean dollars spent on loan repayments per month	Question 534
Problem with flies (percentage experiencing this in each neighborhood)	Question 76

Appendix II

Neighborhood Attitude Characteristics

<u>Variable</u>	<u>Source</u>
Degree to which relatives help out (percentage experiencing help in a neighborhood)	Question 389
Degree to which opinions are ignored (percentage stating this opinion in each neighborhood)	Question 391
Preference to live in Douglas (percentage stating this opinion in each neighborhood)	Question 394
City is not doing enough for neighborhood (percentage stating this opinion in each neighborhood)	Question 407
Playgrounds inadequate (percentage stating facilities inadequate in their neighborhood)	Question 540
Dissatisfaction with schools (percentage stating facilities inadequate in their neighborhood)	Question 541
Street maintenance inadequate (percentage stating facilities inadequate in their neighborhood)	Question 542
Flood control inadequate (percentage stating facilities inadequate in their neighborhood)	Question 543
Housing inspection inadequate (percentage stating services inadequate in their neighborhood)	Question 544
Desires to move elsewhere in Douglas (percentage of total neighborhood)	Question 142
Desires to leave Douglas (percentage of total neighborhood)	Question 144
Police protection inadequate (percentage stating services inadequate in their neighborhood)	Question 546
Street lighting inadequate (percentage stating facilities inadequate in their neighborhood)	Question 547
Inadequate trash collection (percentage stating these service inadequate in their neighborhood)	Question 549
Inadequate dog control (percentage stating these services inadequate in neighborhood)	Question 550

<u>Variable</u>	<u>Source</u>
Inadequate services for elderly (percentage stating these services inadequate in their neighborhood)	Question 552
Inadequate recreation for adults (percentage stating these facilities inadequate in neighborhood)	Question 553
Inadequate recreation for teenagers (percentage stating facilities inadequate in neighborhood)	Question 554
Inadequate recreation for children (percentage stating facilities inadequate in neighborhood)	Question 555
Inadequate grocery stores (percentage stating facilities inadequate in neighborhood)	Question 556
Inadequate zoning laws (percentage stating these services inadequate in neighborhood)	Question 557
Inadequate public health service (percentage stating these services inadequate in community)	Question 559
Inadequate welfare services (percentage stating these services inadequate in community)	Question 560
Inadequate day care (percentage stating these services inadequate in community)	Question 561
Inadequate shopping centers (percentage stating these facilities inadequate in community)	Question 562
Inadequate employment services (percentage feeling these services inadequate in community)	Question 563
Inadequate legal services (percentage feeling these services inadequate in community)	Question 564
Inadequage public housing (percentage feeling these facilities inadequate in community)	Question 565
Inadequate food stamps (percentage feeling these services inadequate in the community)	Question 566
Vandalism problem (percentage of neighborhood feeling it is a problem)	Question 568
Burglary (percentage of neighborhood feeling it is a problem)	Question 569

<u>Variable</u>	<u>Source</u>
Drug misuse (percentage of neighborhood feeling it is a problem)	Question 572
Drunkenness (percentage of neighborhood feeling it is a problem)	Question 573
Fighting (percentage of neighborhood feeling it is a problem)	Question 574
Traffic accidents (percentage of neighborhood feeling it is problem)	Question 575
Traffic noise (percentage of neighborhood feeling it is a problem)	Question 576
Noisy animals (percentage of neighborhood feeling it is a problem)	Question 577
Noisy neighbors (percentage of neighborhood feeling this is a problem)	Question 578
Odors and smells (percentage of neighborhood feeling this is a problem)	Question 580
Air pollution (percentage of a neighborhood feeling this is a problem)	Question 582

Appendix III NEEDS I Survey Forms SAMPLE SURVEY FORMS

NEIGHBORHOOD ENVIRONMENTAL EVALUATION AND DECISION SYSTEM
BLOCK ANALYSIS (SIDE ONE)

FORM APPROVED
BUDGET BUREAU NO. 88-00044

NEIGHBORHOOD NUMBER											
00	01	02	03	04	TENS	05	06	07	08	09	
00	01	02	03	04	UNITS	05	06	07	08	09	
BLOCK NUMBER											
00	01	02	03	04	HUNDREDS	05	06	07	08	09	
00	01	02	03	04	TENS	05	06	07	08	09	
00	01	02	03	04	UNITS	05	06	07	08	09	
STREET NAME (WRITE IN NAME)					STREET NUMBER (FROM DIRECTORY)		CODED STREET NUMBER				
1. _____ NORTH FRONTAGE							00 01 02 03 04 HUNDREDS 05 06 07 08 09				
							00 01 02 03 04 TENS 05 06 07 08 09				
							00 01 02 03 04 UNITS 05 06 07 08 09				
2. _____ EAST FRONTAGE							00 01 02 03 04 HUNDREDS 05 06 07 08 09				
							00 01 02 03 04 TENS 05 06 07 08 09				
							00 01 02 03 04 UNITS 05 06 07 08 09				
3. _____ SOUTH FRONTAGE							00 01 02 03 04 HUNDREDS 05 06 07 08 09				
							00 01 02 03 04 TENS 05 06 07 08 09				
							00 01 02 03 04 UNITS 05 06 07 08 09				
4. _____ WEST FRONTAGE							00 01 02 03 04 HUNDREDS 05 06 07 08 09				
							00 01 02 03 04 TENS 05 06 07 08 09				
							00 01 02 03 04 UNITS 05 06 07 08 09				
CENSUS TRACT NUMBER					SKETCH DIAGRAM OF BLOCK IN SPACE BELOW						
00 01 02 03 04 HUNDREDS 05 06 07 08 09					<div style="display: flex; justify-content: space-between; align-items: center; height: 150px;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">WEST</div> <div style="text-align: center;">NORTH</div> <div style="writing-mode: vertical-rl;">EAST</div> </div>						
00 01 02 03 04 TENS 05 06 07 08 09											
00 01 02 03 04 UNITS 05 06 07 08 09											
PART 00 01 02 03 04 05 06 07 08 09											
NUMBER PREMISES ON BLOCK											
00 01 02 03 04 TENS 05 06 07 08 09											
00 01 02 03 04 UNITS 05 06 07 08 09											
ADDITIONAL COMMENTS											

NEIGHBORHOOD ENVIRONMENTAL EVALUATION AND DECISION SYSTEM BLOCK ANALYSIS (SIDE TWO)

NEIGHBORHOOD NUMBER										BLOCK NUMBER									
:1:: :2:: :3:: :4:: TENS :5:: :6:: :7:: :8:: :9::					:0:: :1:: :2:: :3:: :4:: UNITS :5:: :6:: :7:: :8:: :9::					:1:: :2:: :3:: :4:: HUNDREDS :5:: :6:: :7:: :8:: :9::					:0:: :1:: :2:: :3:: :4:: TENS :5:: :6:: :7:: :8:: :9::				
:0:: :1:: :2:: :3:: :4:: UNITS :5:: :6:: :7:: :8:: :9::					:0:: :1:: :2:: :3:: :4:: (1/10) :5:: :6:: :7:: :8:: :9::					:0:: :1:: :2:: :3:: :4:: UNITS :5:: :6:: :7:: :8:: :9::					:0:: :1:: :2:: :3:: :4:: (1/100) :5:: :6:: :7:: :8:: :9::				
STREET ANALYSIS										FRONTAGE 1		FRONTAGE 2		FRONTAGE 3		FRONTAGE 4			
SHADED AREA FOR CATEGORY CHECKS	TYPE OF STREET		LOCAL		OTHER		LOCAL		OTHER		LOCAL		OTHER		LOCAL		OTHER		
	STREET PAVEMENT CONDITION		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	CURBS AND GUTTERS		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	SIDEWALK CONDITION		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	STREET LIGHTING		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	OFFSTREET LOADING		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	ONSTREET PARKING		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	CITY WATER LINES		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	STREET WIDTH		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		ABSENT		INADEQUATE		
	ENVIRONMENTAL STRESSES		FRONTAGE 1		FRONTAGE 2		FRONTAGE 3		FRONTAGE 4		FRONTAGE 1		FRONTAGE 2		FRONTAGE 3		FRONTAGE 4		
NOISE		MOD		CONS		EXT		MOD		CONS		EXT		MOD		CONS		EXT	
VIBRATION		MOD		CONS		EXT		MOD		CONS		EXT		MOD		CONS		EXT	
GLARE		MOD		CONS		EXT		MOD		CONS		EXT		MOD		CONS		EXT	
ODOR		MOD		CONS		EXT		MOD		CONS		EXT		MOD		CONS		EXT	
SAFETY HAZARDS		MOD		CONS		EXT		MOD		CONS		EXT		MOD		CONS		EXT	
AIR POLLUTION LEVEL										MODERATE		CONSIDERABLE		EXTREME					
NATURAL DEFICIENCIES																			
BLOCK SUBJECT TO FREQUENT FLOODING										BLOCK WITHIN 1,000 FEET OF STAGNANT AND/OR POLLUTED BODY OF WATER.									
BLOCK WITHIN 2,000 FEET OF STAGNANT AND/OR POLLUTED BODY OF WATER.										MODERATE TOPOGRAPHY ON THE BLOCK.									
SEVERE TOPOGRAPHY ON THE BLOCK																			
AVAILABILITY OF SHOPPING FACILITIES																			
SHOPPING FACILITIES LOCATED WITHIN 1/4 MILE OF BLOCK (No Penalty).																			
SHOPPING FACILITIES LOCATED MORE THAN 1/4 MILE, BUT LESS THAN 1/2 MILE OF BLOCK.										SHOPPING FACILITIES LOCATED MORE THAN 1/2 MILE, BUT LESS THAN 1 MILE OF BLOCK.									
SHOPPING FACILITIES LOCATED AT 1 MILE OR BEYOND.																			
AVAILABILITY OF PUBLIC TRANSPORTATION																			
LOCATED WITHIN 1/4 MILE (No Penalty).										LOCATED WITHIN 1/4 TO 1/2 MILE OF BLOCK.									
LOCATED OVER 1/2 MILE OR NOT AVAILABLE.										FREQUENCY OF SERVICE GREATER THAN 2 BUSES PER HOUR (No Penalty)									
FREQUENCY OF SERVICE IS 2 BUSES PER HOUR.										FREQUENCY OF SERVICE IS 1 BUS PER HOUR OR LESS.									
AVAILABILITY TO PARKS AND PLAYGROUNDS																			
PARK OR PLAYGROUND LOCATED WITHIN 1/4 MILE OF BLOCK (No Penalty)																			
PARK OR PLAYGROUND LOCATED MORE THAN 1/4 MILE, BUT LESS THAN 1/2 MILE OF BLOCK										PARK OR PLAYGROUND LOCATED AT 1/2 MILE OR BEYOND.									
AIRCRAFT STRESSES																			
DESCRIBE CONDITION																			
SELECT PENALTY POINTS FROM TABLE																			

NEIGHBORHOOD ENVIRONMENTAL EVALUATION AND DECISION SYSTEM

EXTERIOR PREMISE ANALYSIS (SIDE ONE)

FORM APPROVED
BUDGET BUREAU NO. 85-00044

NEIGHBORHOOD NUMBER										BLOCK NUMBER									
:1: :2: :3: :4: TENS :5: :6: :7: :8: :9:										:1: :2: :3: :4: HUNDREDS :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: TENS :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:									
PREMISE NUMBER										STUDY CODE NUMBER									
:1: :2: :3: :4: TENS :5: :6: :7: :8: :9:										:1: :2: :3: :4: HUNDREDS :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: TENS :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:									
CENSUS TRACT										WORKER NUMBER									
:1: :2: :3: :4: HUNDREDS :5: :6: :7: :8: :9:										:1: :2: :3: :4: TENS :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: TENS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:									
PART :1: :2: :3: :4: :5: :6: :7: :8: :9:										DATE									
ADDRESS										BUILDING IDENTIFICATION									
:1: :2: :3: :4: TEN THOUSANDS :5: :6: :7: :8: :9:										:1: :2: :3: :4: :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: THOUSANDS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: HUNDREDS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: TENS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: :5: :6: :7: :8: :9:									
FRONTAGE :N: :E: :S: :W:										NUMBER OF STORIES									
WRITE IN STREET ADDRESS										:1: :2: :3: :4: :5: TENS :6: :7: :8: :9:									
										:0: :1: :2: :3: :4: :5: UNITS :6: :7: :8: :9:									
										HALF STORY									
										:1: :2: :3: :4: :5: :6: :7: :8: :9:									
										:0: :1: :2: :3: :4: :5: :6: :7: :8: :9:									
TYPE SURFACE MATERIAL: MASONRY :WOOD: STUCCO :OTHER:																			
FOR SALE SIGN OBSERVED (MARK ONLY IF YES) :																			
PRESENT LAND USE: RESIDENTIAL :COMMERCIAL: INDUSTRIAL :PUBLIC: VACANT (Lot or Non-Residential) :																			
IF MULTIPLE USE, WHAT PERCENTAGE OF TOTAL FLOOR AREA IS RESIDENTIAL? % :																			
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:																			
NUMBER OCCUPIED DWELLING UNITS										VACANT DWELLING UNITS									
:1: :2: :3: :4: TENS :5: :6: :7: :8: :9:										:1: :2: :3: :4: :5: :6: :7: :8: :9:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										:0: :1: :2: :3: :4: :5: :6: :7: :8: :9:									
NUMBER OF ON-PREMISE PARKING SPACES										MAIN STRUCTURE									
:1: :2: :3: :4: TENS :5: :6: :7: :8: :9:										ROOF: LOOSE OR MISSING MATERIALS :SAGGING:									
:0: :1: :2: :3: :4: UNITS :5: :6: :7: :8: :9:										PAINT: NEGLECTED :									
										CHIMNEYS AND CORNICES: CRACKS, ROTTED OR MISSING MATERIAL :LEANING:									
										OUTSIDE WALLS: LOOSE OR MISSING MATERIAL :ROTTED OR OPEN CRACKS: LEANING:									
										DOORS AND WINDOWS: BREAKS, CRACKS IN PANES :LOOSE OR ROTTING OF FRAMES: SCREENS (MISSING, OR TORN) :									
										OUTSIDE PORCHES & STAIRS: ROTTED, MISSING OR BROKEN MATERIALS, OPEN CRACKS :SAGGING:									
										FOUNDATION: LOOSE OR MISSING MATERIAL :OPEN CRACKS (LARGER THAN PENCIL WIDTH) :SAGGING OR LEANING:									
										OTHER: CONDEMNED :PIT PRIVY: LACKS ELECTRICITY:									
										OUTSIDE WELL OR CISTERN :FAULTY FIRE ESCAPES: SPECIAL COMMUNITY PROB.									
										:1: :2: :3: :4:									

(ECA 47-1111
17-86)

12M 461289

NEIGHBORHOOD ENVIRONMENTAL EVALUATION AND DECISION SYSTEM

EXTERIOR PREMISE ANALYSIS (SIDE TWO)

NEIGHBORHOOD NUMBER										BLOCK NUMBER														
TENS					UNITS					HUNDREDS					TENS					UNITS				
PREMISE NUMBER																								
TENS										UNITS														
PREMISE CONDITIONS																								
UNACCEPTABLE FENCE OR RETAINING WALL (NEEDS REPAIRS OR IS UNSIGHTLY):																								
ABANDONED MOTOR VEHICLES:										ONE					TWO OR THREE					MORE THAN THREE				
(MARK ONE, ONLY)																								
RUBBISH ACCUMULATIONS:										ACCUMULATION DETRACTS FROM THE PREMISE														
(MARK ONE, ONLY)										ACCUMULATION DETRACTS FROM PREMISE AND ADJACENT PROPERTY														
										ACCUMULATION DETRACTS FROM ENTIRE BLOCK FRONTAGE														
UNCOLLECTABLE DISCARDS:										ONE					TWO OR THREE					MORE THAN THREE				
(MARK ONE, ONLY)																								
REFUSE STORAGE:										LIDS NOT TIGHT FITTING OR ABSENT					TYPE CONTAINER USED NOT PROPER OR IS ABSENT									
										PUTRESCIBLE REFUSE ON THE GROUND														
LANDSCAPING (MARK ONE, ONLY):										NEGLECTED					NEEDS MAINTENANCE									
OTHER:										LIVESTOCK					POULTRY					RODENTS				
MOSQUITOES										ABANDONED REFRIGERATOR (WITH DOORS ON)					OVERFLOWING SEPTIC TANK					FLIES				
EXCESSIVE ANIMALS										SAFETY HAZARD					OTHER INSECTS OR PESTS									
AUXILIARY STRUCTURE CONDITION:										GOOD														
(MARK NUMBER OF EACH TYPE)										FAIR														
										POOR														
DIMENSIONS (IN FEET)										LOT WIDTH					THOUSANDS					CALC.				
															HUNDREDS									
															TENS									
															UNITS									
										LOT LENGTH					THOUSANDS									
															HUNDREDS									
															TENS									
															UNITS									
										MAIN STRUCTURE WIDTH					THOUSANDS					CALC.				
															HUNDREDS									
															TENS									
															UNITS									
MAIN STRUCTURE LENGTH					THOUSANDS																			
					HUNDREDS																			
					TENS																			
					UNITS																			
AUXILIARY STRUCTURE WIDTH					THOUSANDS					CALC.														
					HUNDREDS																			
					TENS																			
					UNITS																			
AUXILIARY STRUCTURE LENGTH					THOUSANDS																			
					HUNDREDS																			
					TENS																			
					UNITS																			

12M 661334

Appendix A

DOUGLAS QUESTIONNAIRE SAMPLING PROCEDURE

David Ruppert, Thomas McGuire and Peteris Dajevskis

APPENDIX A

DOUGLAS QUESTIONNAIRE SAMPLING PROCEDURE

Dave Ruppert, Tom McGuire, and
Peteris Dajevskis

The basic steps used in constructing the weighted sample for the questionnaire were:

1. Consult NEEDS environmental survey for distribution of housing conditions over entire city and U.S. Census maps for enumeration districts.
2. Identify by number all city blocks color-coded by "structural condition of housing": Blue (good), Yellow (fair), Red (poor).
3. Determine average household size in each enumeration district.
4. From this information, construct a random sample of 219 premises, (5 percent of total) with the sample designed to represent proportionally the estimated distribution of the population over the three housing condition types so that if, e.g., 50 percent of the houses in the pilot survey are "blues," then 50 percent of the random sample must be "blues."
5. Use this stratified sample for the entire survey.

The questionnaire was administered by research assistants and resident interviewers to the households selected by the above method. The following section, A, discusses the sampling method more deeply and section B discusses problems which arose during the administration of the questionnaires and the methods used to rectify them.

A. Explanation of Douglas Sample Weighting.

The U.S. Public Health NEEDS Survey assigned to each block in Douglas a designation of good, fair, and poor based on housing conditions within each block. Since this information was available on computer tape, the Bureau staff decided to draw a random sample of homes in Douglas from the list of addresses stored on this tape.

Two sources of information were used in the determination of sample weighting: The 1970 U.S. Census data (1st count) and the housing conditions (by blocks) supplied by the NEEDS survey. The Census materials provided an aggregate population and housing count for each of the eighteen (18) enumeration districts comprising Douglas, with each such district containing approximately 200 to 500 housing units.

The sample drawn was based upon the relative sizes of households in "good," "fair" and "poor" housing conditions. A problem was encountered here since the two sources of data used in weighting variables varied in both content and form. While each source of data provided necessary information, the census materials gave aggregate area counts much larger than the block statistics provided by the NEEDS survey. This simply meant that it was impossible to gain as accurate a description of household size by blocks as one would like. The figures for average household size in the larger ED had to be relied upon to make any inferences about the average household size in NEEDS neighborhoods designated "good," "fair" and "poor."

In order to gain an approximation of relative household size the following technique was employed. Three enumeration districts were chosen from the U.S. Census maps which by and large contained "poor"

housing. The total population and house counts were taken for these three districts to obtain an average household size for those houses designated as "poor." The same procedure was followed for determining the average household size of houses in the "good" category. An aerial map was used to eliminate parks, vacant lots, industry and other non-residential areas. Blocks containing housing determined to be "fair" by the NEEDS survey were distributed without discernable pattern. Only one ED showed a relatively large (50%) number of "fair" housing conditions. The average household size for that ED was then used as the weighting factor for "fair" housing. It was noted that the housing judged as fair by the NEEDS survey may be transitional (shifting from "good" to "poor" housing) and that perhaps the household size should be considered transitional in the same sense. With this view it would be expected that the average household size of "fair" housing falls between values obtained for "good" and "poor" housing. As it turned out, by using ED #34 as representative of fair housing the average household size in this district indeed did fall between values obtained for the districts used to determine the average household size of "good" and "poor" housing.

B. Solutions to Additional Problems.

During the administration of the questionnaires, it was discovered that the staff had been following a set of informal rules to substitute a new address when the original address turned out to be non-existent or impossible to find. To alleviate this problem all previous address reassignments were not used and purged from the sample and formal rules were written to eliminate future problems. New addresses had been drawn when addresses yielded business or commercial establishments (including

churches and clubs), vacant houses, vacant blocks, no such addresses, or extended absences (situations where the designated person was not contacted after six visits).

The original, informal rules for reassignment were:

1. vacant blocks: draw a new random number for the NEEDS Survey tape dump;
2. extended absences: draw new random number;
3. businesses, vacant houses, no such address, more than six attempts at an address: "southwest corner method" and the "logical position method".

The "southwest corner method" consisted of moving in a counter-clockwise direction from the southwest corner of the block on which the original address was located, and assigning the next housing unit as the new address. The "logical position method" involved choosing the most logical corresponding address on the same block when the original address did not correspond to the existing numbering system. After reassessment, it was decided that vacant houses, businesses, and extended absences should be counted as complete interviews, and therefore not reassigned. Reassignments were to be made only in two circumstances:

1. vacant blocks: a new random number should be drawn;
2. no such address; use "southwest corner" or "logical position method"

To be consistent, all previous changes were reconstructed following these rules. (The information was recorded on forms - see attached sample form.) As a result, 18 completed interviews that were reassigned according

to the original informal reassignment rules were labeled "unusable".

These 18 interviews fell into the following classes:

1. business establishments reassigned to residential addresses;
2. vacant houses reassigned;
3. a few cases in which the southwest corner method was used incorrectly;
4. cases where there was no apparent reason for reassignment (e.g. where the original address was in fact occupied, and therefore should have been interviewed); and
5. two cases where reassignments were made by drawing a new random number.

For each of the remaining 16 "usable" interviews, the following was done:

1. new questionnaire covers were made with the original addresses for those cases where reassignments were incorrectly done;
2. those questionnaires in which the original address was a business, a vacant house, a refusal or an extended absence were filed as "completed,"
3. new covers were made for cases in which an original address was incomplete or contained errors in information from the NEEDS computer tape.

Appendix B

INTERVIEWING IN DOUGLAS: COMMENTS AND CRITIQUE

Barbara W. Curran and Anna Bennett Howells

APPENDIX B

INTERVIEWING IN DOUGLAS: COMMENTS AND CRITIQUE

Barbara W. Curran and Anna Bennett Howells

This chapter chronicles the preparation and administration of a structured questionnaire to a random sample of the population of Douglas, Arizona, in accordance with the requirements of a U.S. Public Health Service contract with the Bureau of Ethnic Research. Construction of the questionnaire, training of the interviewers, questionnaire revision on the basis of field experience, and administrative problems and procedures in the field will be discussed. Finally, recommendations for future field workers will be made.

Plans for the interviewing phase of the project began in July, 1972, but the authors of this report did not join the research staff until January, 1973. Therefore, the first few weeks of January were spent reviewing arrangements for volunteer interviewers that had been made with the ACTION Program at Cochise College. The project director had secured a promise from the coordinator of the University Year for Action Program (ACTION) for services of students enrolled in that program in exchange for professional training in interviewing techniques; upon completion of training, the students were to act as resident interviewers. Relevant background materials, including a second draft of the questionnaire then in preparation, were also studied.

Questionnaire Preparation

At the mid-January staff meeting all members of the research staff pooled their suggested revisions of the questionnaire and reached a consensus regarding a future draft. The combined total of these recommendations produced an unwieldy instrument, necessitating a period of intensive editing. Additionally, programming-related problems were dealt with. We attempted to resolve as many problems as possible in the English version before beginning a final Spanish translation.

Some of the specific editing problems centered around the arrangement and sequence of questions. We felt it important that the entire interview flow easily, that it begin and end on a comfortable note. Questions that we felt might be sensitive, such as those regarding family income, common-law marriages, and local power structure, were interwoven in the middle third of the questionnaire. Questions were both objective and subjective. For example, a health history of the respondent was requested (objective) and data was also solicited about the same respondent's perception of community health needs (subjective).

A particularly time-consuming exercise, necessitated by the on-going rearrangement of questions, was that of numbering and re-numbering individual question items. Close communication with our computer consultant permitted us to build in responses so that final coding would be facilitated.

Originally, the intent had been to collect information about households only; however, some of our research interests demanded information about individuals. Separate criteria had to be established which permitted us to function with our original basic unit, the household, and also provided

us with the ability to extract data about individual household members. For example, questions about general housing conditions and family income were based on the collective household unit, while occupations and membership in voluntary associations were limited to specific individuals.

Considerable effort and thought went to achieve a simple and clear style in the wording of questions and anticipated responses and to avoid implicit duplication of elicited information. Directions for interviewers were appended at logical points in the questionnaire. By early February, the questionnaire was ready for pre-testing.

Interviewer Training

Completion of the testing instrument was essential to our plan for interviewer training, since we had decided to use the questionnaire itself as the fundamental training tool. Our attention turned to consolidating arrangements with the ACTION volunteers at Cochise College. In December, the Project Director had learned that 15 to 20 ACTION volunteers would be available for training and interviewing. Upon rechecking the availability of the volunteers in late January, however, we found that unanticipated changes in the college administration and in the funding of the ACTION Program had created difficulties which had to be resolved before we could actually begin our training. Following a conference with the Field Director of the ACTION Program, we decided to conduct our training program in Douglas between February 14th and 23rd.

The training program was to be conducted with 21 students enrolled in the ACTION Program. Although we had hoped to use primarily female interviewers, 12 of these were males, nine females and all but three spoke Spanish and English. Sixteen of these resided in Douglas, while five commuted from Bisbee and Wilcox. The first training session met at Cochise College. In addition to the volunteers and their Field Director, the Project Director and several members of our research staff were present. It was anticipated that the presence of the graduate students who were research staff would provide role models for the ACTION volunteers and that the attendance of the professors would convey the importance of this University of Arizona project to the volunteers. A holistic description of the project and its goals was supplied by the Director and his Associate. Following the

introduction, other pertinent topics were reviewed. Among these were the mechanics of basic science including field data collection and sampling procedures. A contrast between basic scientific data collection, such as our project entailed, and applied programs was emphasized. The value of basic data, once collected, as a potential reservoir for community use in documenting needs and formulating action programs was described to provide incentive for those "action oriented" volunteers. We spoke at length about the reasons for and nature of confidential treatment of all elicited information. Beginning our formal instruction in interviewing techniques, the Project Director stressed the importance of determination and self-salesmanship in effective interviewing.

Following the initial presentation, a trial meeting was held at the Douglas field house. We found that this location provided an ambience more favorable to the intensive teaching methodologies we had designed. We began each session with a demonstration, using role playing, of how questioning should proceed. We then requested that interviewers form teams of two and repeat the questioning using the same techniques. Approximately a day was spent in intensively working through each section of the questionnaire. It was broken down into the following sections: (1) housing, (2) demographic, including education and migration, (3) health, (4) income, employment, and cognition of neighborhood and city, and (5) household decision making, voluntary association, and friendships.

Since a further revision of the questionnaire was anticipated, we looked forward during the training sessions to input from the trainees as "native informants." We were not disappointed. We received many useful ideas from

these exhaustive discussions. Occasionally, we found ourselves the targets of filibustering attacks on minutiae. The previous year's ACTION volunteers, some of whom had reenlisted for this session, had performed a survey on a limited number of barrio residents. The difficulties they had encountered oversensitized them to problems of survey research, and their occasional negativism was a problem we had to counter by inspiring confidence in our project.

As the students spent more and more time in their own role playing, each becoming in turn interviewer and interviewee, our function became a supervisory one, passing from day to day instructing, correcting, and explaining. This intensive interaction with a large number of individuals continuing over a two week period was extremely taxing. The last few days of the training program were spent in assessing the competence of prospective interviewers on an individual basis. This meant a personal interview with the trainers assuming the role of the interviewees. Again, this procedure proved intensely demanding.

Among the training devices used was that of photography. For our own convenience of rapidly learning the names and faces of 21 volunteers, we took Polaroid photographs of groups of two or three and affixed names, so that we could identify the trainees in our post- and pre-session discussions. As another example of the use of photography, a tedious attempt at describing certain kinds of housing--the contrast between an apartment and a row house -- was successfully resolved by photographing actual examples of such houses.

Final Preparations

We returned to Tucson with a new list of revisions, supplied by the combined experience of the ACTION volunteers and the trainers, for the incorporation in the final draft. It was our expectation that the revisions could be accomplished within a week to ten days. Working from the latest revision of the questionnaire, Spanish translation was begun. Our original printing arrangements proved unsatisfactory, and we were faced with a delay while finding a new printer.

During this hiatus, we began to work on the public relations aspects of the survey. A letter introducing our survey to the selected households was drafted in both Spanish and English. Preliminary contacts were made with the Douglas Dispatch to run an article describing the survey.

New questionnaire in hand, we reconvened the training program during the third week of March. The previously high morale of the volunteers had diminished, partly because during the interim they had begun to assume responsibility for their ACTION jobs. These commitments were with community organizations, such as elementary and junior high schools, Department of Employment, et al, involving up to 35 hours a week of work. ACTION workers were also required to enroll in two classes at Cochise College. The resulting conflicts in the students' schedules caused erratic attendance at the continued training session. However, the students seemed generally pleased with the questionnaire, which they had helped to revise. We directed them in rehearsing with the new instrument. Photographs were taken of each volunteer to make interviewer identification cards. During the last week in March, the interviewers were given the opportunity to try

out the questionnaire in the field. These field tests were conducted in both Benson and in Bisbee, with the idea of overcoming the interviewers' initial anxiety before beginning the actual survey in Douglas. The trainers reviewed the completed interviews in the presence of the interviewers; any difficulties with the questionnaire were resolved on an individual point-for-point basis.

On March 30, a front-page story appeared in the Douglas Dispatch, including a large group photograph of the interviewers, the Project Director, and the trainers. Thus, we felt the Douglas community at large was adequately informed of the inception of our survey. In addition, on March 28, letters to the selected sample households were mailed.

A kit was prepared for each interviewer containing: pencils, pre-addressed interviews in English, color-coded Spanish versions to use as needed, and extra unaddressed interviews for large families. Each interview accommodated only eight household members; for larger families two schedules were used. Plastic folders containing duplicate copies of the letters sent, interviewer identification cards, and a copy of the newspaper article were also included. Experience showed us that the copies of the letter and the newspaper article by themselves effectively introduced our interviewers; in practice, the identification cards were superfluous. Another essential interviewer's tool was the set of show cards. When the interviewee was asked to choose from several responses, a card showing the possible responses (a duplication of the responses as they appeared in the questionnaire) was presented. This technique was used only for "forced choice" questions where specific answers were desired. Cards were bound into sturdy booklets and printed in both English and Spanish. Each kit contained a set.

Into the Field

Interviewing began April 2. Interviews were distributed in packages of about ten for each interviewer. Results for the first several days were discouraging. Address after address led the interviewers to vacant lots, non-existent blocks, and abandoned buildings. These discouraging findings prompted a close investigation of the original data tapes by the sampling team in Tucson. Errors were discovered in the original data, which were rapidly corrected. This necessitated, however, generation of a new series of addresses. We mailed letters to the additionally drawn sample. This second delay further disheartened the ACTION volunteers.

Repeated efforts were made to revive the flagging enthusiasm of the volunteers. After some days of minimal performance, the ACTION Field Director firmly committed the students to work during the Easter break, a time when they had no other duties. This time period coincided with the delivery of the newly redrawn sample. Despite our efforts to facilitate interviewing, results from the volunteers were disappointing.

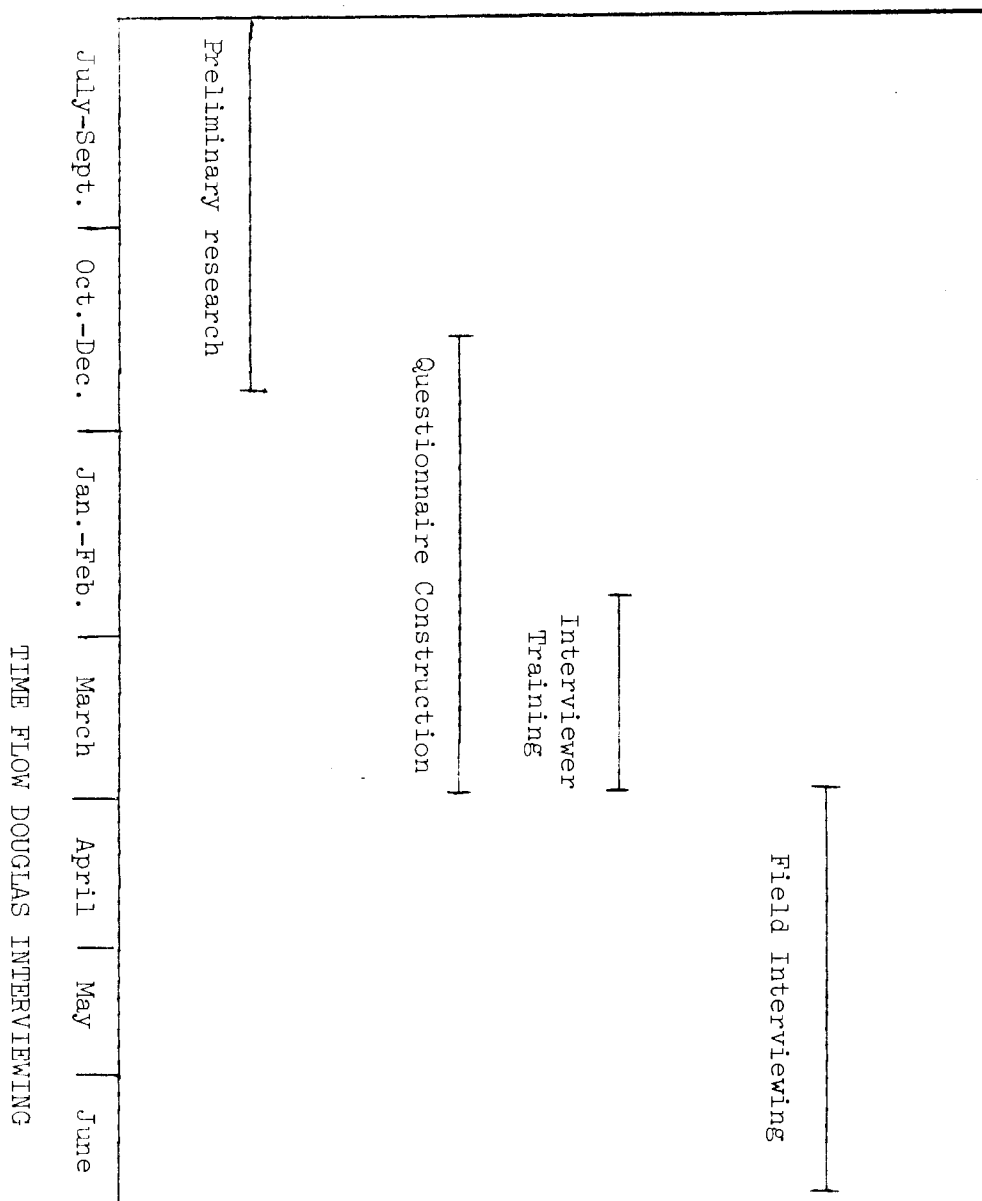
Day after day, field supervisors waited for volunteers to return completed interviews and pick up new ones according to the schedules they had been given. The interviewers did not come. Attempts to reach them by telephone became difficult. Appointments were made but not kept. It became evident that we could not complete the survey on time using their services.

At this point, we communicated our dismay to the Project Director. After much discussion, a decision was made to utilize all available research personnel from the Bureau of Ethnic Research to substitute for the errant

volunteers. Eight persons were recruited, two of whom were competent in the Spanish language. These additional interviewers started to work in early May with minimal preparation. Ultimately more than 90 percent of all interviews were done by these Bureau staff members. Early in June, further adjustments in the sample were required. The interviewing phase of the project approached completion by late June, when intensive efforts were made to contact elusive Douglas residents. Editing and coding of the completed interviews continued apace, and the optical scanning crew was able to commence work before the end of the month.

The time span of each stage of the survey may be seen on Table 1.

Table 1
Time Span of Douglas Survey



Recommendations and Conclusions

We should like to discuss the questionnaire, from beginning to end. As participants in the construction of the questionnaire, and as principle leaders of the field training session, we interviewed a significant number of respondents. We were also involved in editing the interviews. From these experiences, we feel particularly qualified to discuss the questionnaire.

None of the topics that we had anticipated as "sensitive" (family income, common-law marriages, et al.), in fact, proved uniformly difficult to obtain. Of course, certain respondents were sensitive about some topics, but no consistent pattern of refusal to answer particular questions developed. If any pattern were discernable, it would be that of interviewer sensitivity to certain topics. It was our general impression that the respondents were most cooperative in providing information.

We shall now turn to some comments on specific items in the questionnaire:

Health History (#146-224): Although the instructions were to elicit only disabling illnesses, diseases listed often referred to chronic sub-clinical conditions. For example, rashes, coughs, and varicose veins are rarely disabling.

Sources of Health Advice (#225-308): We had hoped to elicit sources of non-professional medical advice. In fact we did not. This information might best be obtained by open-ended health histories.

Desired Public Health Services (#370-387): The forced-choice aspect of this question presented difficulties for many respondents. Often they resisted being limited to only two responses.

Employment (#411-444): This section was cumbersome. Were it to be rewritten, more clarity would be achieved by initially distinguishing between earned and non-earned income. For example, many respondents were subsisting on retirement income, public assistance, or property rental; therefore, the questions about employment did not correspond to the actual situation.

Household Decision-Making (#454-526): This was a refreshing series of questions, often sparking the respondent's interest. They should be particularly helpful in identifying different family types within this multi-ethnic community.

Budget (#527-539): The deficiencies in these questions emerged both in field administration and in our editing. The questions were often difficult to answer, sometimes because the respondent did not handle the family budget. In the editing process, we often found inconsistencies, for example, a family owning several cars with no maintenance expenses for them. These data should be interpreted with caution.

Membership in Voluntary Associations and Churches (#614-768): Surprisingly few people admitted to membership in voluntary associations. Had we asked about the memberships of each individual in the household, rather than only the respondent's, we feel that more meaningful data would have been available to illuminate this interesting question.

Interviewer Comments No provision was made for interviewer comments. Occasionally, major problems in the household were not

revealed in the coded data. For example, a seriously ill family member whose health history was not reflected because of our sampling procedure may explain huge medical expenditures that could not otherwise be accounted for. As another example, the fact that a respondent appeared drunk may account for aberrant data. We feel that the interviewer should specifically be asked to comment on the interview.

The ACTION interviewers and their training were a central issue in the survey phase of the project. The original plan to exchange our professional training for their services seemed sound at the outset, but once in the field it became apparent that we had little control over the interviewers. The ACTION volunteers received a stipend for their participation in the ACTION program. In return they were expected to work in community agencies and attend classes. We were competing with other community agencies for the services of the volunteers. A major administrative change in the ACTION program and an incomplete understanding of what agreements had been made on both sides put us at a disadvantage in the contest for their services. We did secure their full-time attendance during the initial training session, but when we returned several weeks later, ready to begin interviewing, we found their efforts devoted to other full-time community work. In retrospect, we feel that direct payment for interviewer services is the best plan. A survey of this magnitude is a major responsibility; it cannot adequately be carried out as a voluntary or part-time activity.

Finally, we were pleased with our experience in using a sophisticated sampling technique insuring random selection of individuals within the household. This technique, fully described in the chapter on sampling, gives an equal probability for selection of female and male, old and young respondents. Our field experience showed that although it was sometimes inconvenient to make several callbacks to find the right person, the inconvenience was more than repaid by the knowledge that we secured a truly representative sample, not one biased towards persons at home during the day.