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CURRENT POPULATION REPORTS

**Special Studies**

Series P-23, No. 172

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by  
Edward W.  
Fernandez

# The Hispanic Population of the U.S. Southwest Borderland

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## Acknowledgments

This report was prepared in the Population Analysis and Evaluation Staff office of the Population Division, under the general supervision of **J. Gregory Robinson**, Chief. **Yvonne Gist** and **Susan Lapham**, staff statisticians, provided valuable assistance. Important clerical assistance was provided by **Tecora Jimason** and **Gary Smith**. **Rheta Pemberton** provided overall secretarial support.

Sampling review was conducted by **Felipe Kohn**, under the direction of **Richard Griffin**, Chief, Census Design Branch, Statistical Support Division.

The staff of the Administrative and Publications Services Division, **Walter C. Odom**, Chief, provided publication planning, editorial review, design, composition, and printing planning and procurement.

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Issued April 1991

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**The Hispanic  
Population of the  
U.S. Southwest  
Borderland**



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Under Secretary for Economic Affairs  
and Administrator

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**SUGGESTED CITATION**

U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 172,  
*The Hispanic Population of the U.S. Southwest Borderland*,  
U.S. Government Printing Office, Washington, DC, 1991.

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## PREFACE

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The abundance of information generated by the 1980 Census of Population has highlighted many matters of importance to the Nation. Among them is the uniqueness of the U.S. southwest borderland. By specifying the growth levels of the borderland during the 1970-80 decade (and the border metropolitan areas from 1980-1985) and analyzing information on selected social, economic, and demographic characteristics of the U.S. population in the area bordering Mexico, this report attempts to show some of the causes that make the "borderland" area unique.

The southwest borderland, as covered in this report, is unique because of its enormous population growth, especially in Hispanics, that occurred during the 1970-80 decade and, which evidence shows, continued into the 1980's, and the differences in characteristics between the populations in the border areas and those away from the border.

The text and tables in this report compare Hispanic and non-Hispanic population growth in the border and

nonborder regions of the border States, and in the metropolitan areas "close" to the border. The size, distribution, and type of Hispanic population in the border and non-border regions of each border State, and social, economic, and demographic characteristics of Hispanics and non-Hispanics in these regions are also discussed. Some of the compared characteristics include: age, sex, marital status, school enrollment, educational attainment, fertility, type and size of household, labor force status, occupation, family income, and poverty status.

Two conclusions are drawn from this analysis: (1) the distinctiveness of the U.S. southwest borderland area, and (2) the realization that this is caused, at least in part, by the large Hispanic population residing there.

Although most of the data studied below pertain to 1980, we expect that the relationships shown here will motivate more current analysis when 1990 census data become available.

# Contents

	Page
Preface .....	iii
Introduction.....	1
Population growth.....	2
Hispanic population size and distribution.....	3
Population by type of Hispanic origin.....	4
Social and demographic characteristics.....	5
Economic characteristics.....	7
The State border areas.....	8
California.....	8
Arizona.....	9
New Mexico.....	10
Texas.....	11
The border counties of Texas.....	11
Summary .....	13
References.....	14

## FIGURES

1. The Southwest borderland.....	1
2. Growth of the Hispanic population in the States bordering Mexico: 1970-80.....	2
3. Proportion Hispanic of the total population of the border counties, by State: 1980 ...	4
4. Age distribution of the Hispanic population for the border county area: 1980 .....	7
5. Percent high school graduates among the Hispanic population, 25 years and over for the border county area: 1980 .....	7
6. Poverty levels of the Hispanic population in the border county area: 1980 .....	8
7. Percent unemployed Hispanics in the border county area, by State: 1980 .....	11

## TEXT TABLES

A. Growth of the Hispanic and Non-Hispanic Populations in the Border and Non-Border County Areas: 1970-80 .....	2
B. Growth of the Hispanic Population in Selected Metropolitan Statistical Areas (MSA's) Close to the Mexican Border: 1970, 1980, and 1985.....	3
C. Proportion Hispanic of the Populations in the Border and Non-Border County Areas: 1980 .....	4
D. Percent Distribution of the Hispanic Population in the Border County Areas, by Type: 1980 .....	5
E. Selected Social and Economic Characteristics of the Hispanic and Non-Hispanic Populations of the Border and Non-Border County Areas: 1980 .....	6
F. Selected Characteristics of the Population of the Border and Non-Border County Areas, by State: 1980 .....	9
G. Selected Characteristics of the Hispanic Population of the Border and Non-Border County Areas, by Border State: 1980 .....	10

**DETAILED TABLES**

1.	Hispanic and Non-Hispanic Populations in the Border and Non-Border County Areas: 1970-80.....	15
2.	Hispanic and Non-Hispanic Populations in Selected Metropolitan Statistical Areas Close to the Mexican Border: 1970-80 and 1980-85.....	16
3.	Distribution of the Population in the Border and Non-Border County Areas, by Type of Hispanic Origin: 1980.....	17
4.	Distribution of the Hispanic Population in the Border and Non-Border County Areas, by Type of Hispanic Origin: 1980.....	17
5.	Distribution of the Population in the Border County Areas, by Type: 1980.....	18
6.	Social Characteristics of the Hispanic and Non-Hispanic Populations of the Border and Non-Border County Areas: 1980.....	19
7.	Economic Characteristics of the Hispanic and Non-Hispanic Populations in the Border and Non-Border County Areas: 1980.....	21

**APPENDIXES**

A.	Summary Tables.....	23
B.	Accuracy of the Data.....	33
	Introduction.....	33
	Sample design.....	33
	Error in the data.....	33
	Calculation of standard errors.....	34
	Confidence intervals.....	34
	Estimation procedure.....	35
	Control of nonsampling error.....	36
	Editing of unacceptable data.....	37

**APPENDIX TABLES**

A-1.	Growth of the Hispanic and Non-Hispanic Populations in the Border Counties of the Border States: 1970-80.....	23
A-2.	Proportions of Hispanics in the Border County Populations: 1980.....	24
A-3.	Distribution of the Hispanic Population in the Border Counties, by Type of Hispanic Origin: 1980.....	25
A-4.	Selected Social Characteristics of Hispanics, by State and Border County: 1980.....	26
A-5.	Selected Economic Characteristics of Hispanics, by State and County: 1980.....	29
B-1.	Unadjusted Standard ERRors of Estimated Numbers.....	38
B-2.	Unadjusted Standard Error in Percentage Points for Estimated Percentages.....	39

# The Hispanic Population of the U.S. Southwest Borderland

## INTRODUCTION

**The Border States.** Four of the Nation's States share their southernmost boundary with Mexico: California, Arizona, New Mexico, and Texas. Within these States, the populations in the areas adjacent to the border manifest characteristics that often contrast with those of populations away from the border. Why is this so? One explanation is the large number of Hispanic origin persons that form part of these "border" area populations.

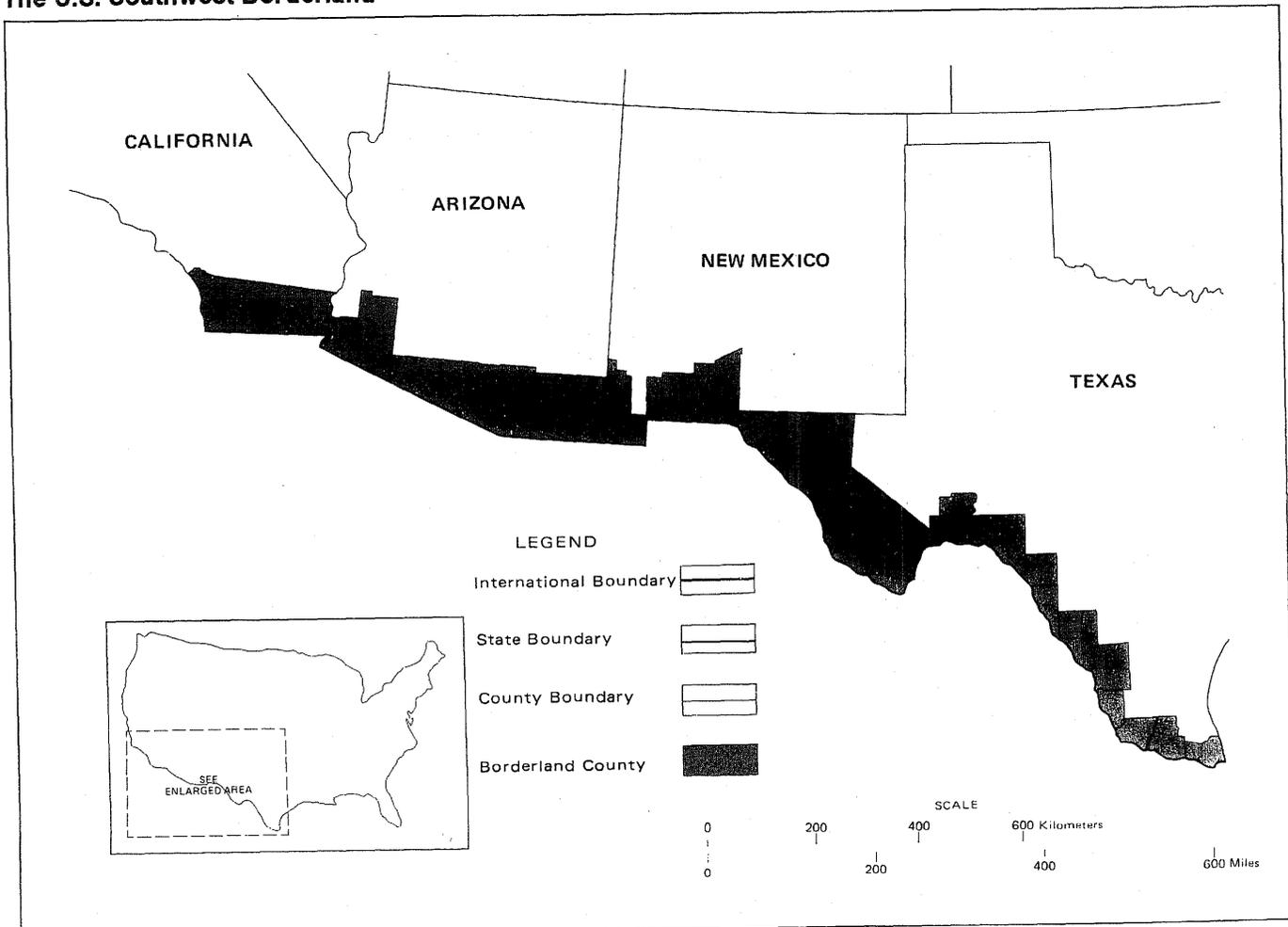
The 1980 census information already emphasizes the social and economic differences that exist between Hispanics and non-Hispanics in the United States, and the U.S. southwest borderland area, being heavily Hispanic, underscores these differences. But before we analyze the nature and scope of these differences, we must define the "borderland".

**Defining the Borderland Area.** In the literature about the U.S. Southwest, there are several definitions on what represents the "borderland" with Mexico. Presently, many scholars and policymakers disagree on how to designate this area (Nowotney, 1985). But for this report we have defined the southwest borderland as the area encompassed by the counties that have a common boundary with Mexico. This definition includes 25 counties of the U.S. Southwest.<sup>1</sup>

Thus, we define the U.S. Southwest borderland as that area which includes the following counties: San Diego, and Imperial counties, in California; Cochise, Pima, Santa Cruz, and Yuma counties, in Arizona; Dona Ana, Hidalgo, and Luna counties, in New Mexico; El

<sup>1</sup>The counties of Culberson and Dimmit in Texas do not actually touch the U.S.-Mexican border, but are close enough to warrant inclusion in this group.

Figure 1.  
The U.S. Southwest Borderland



Paso, Hudspeth, Culberson, Jeff Davis, Presidio, Brewster, Terrell, Valverde, Kinney, Maverick, Dimmit, Webb, Zapata, Starr, Hidalgo, and Cameron counties, in Texas. (See figure 1).

## POPULATION GROWTH

**Growth at the Border, 1970 to 1980.** Review of 1980 census data shows the borderland, as we define it, to be a unique area (Gibson, 1983). From 1970 to 1980, for example, the population growth rate of the four border States, and particularly of the border-county areas of those States, was substantially greater than that of the entire Nation.

In the continuous border-county land strip connecting California, Arizona, New Mexico, and Texas, that we have defined as the borderland, the population growth rate during the 1970-80 decade was also much greater than in the combined non-border areas of these States. In California, border increase was twice that in the non-border area, with Hispanic population growth in the border area reaching 115 percent. In Arizona, the overall non-border population outgrew the border population; but proportionately, Hispanics in both the border and non-border county areas of the State grew more than non-Hispanics. In New Mexico, the border county population increase was 37-percent, compared with 28 percent for the combined non-border counties; and in both these areas the growth rate of Hispanics was over twice that of non-Hispanics. In Texas, the overall border population increase was 42 percent, compared with 26 percent away from the border; and in both border and non-border counties, Hispanics outgrew non-Hispanics

65 percent to 2 percent, and 61 percent to 21 percent, respectively. Thus, in the four border States, and particularly in the border counties of those States, the overall population growth rate during the 1970-80 decade was substantial and much greater than for the remainder of the Nation (table A and figure 2).

Figure 2.  
**Growth of the Hispanic Population  
in the States Bordering Mexico: 1970-80**  
(In percent)

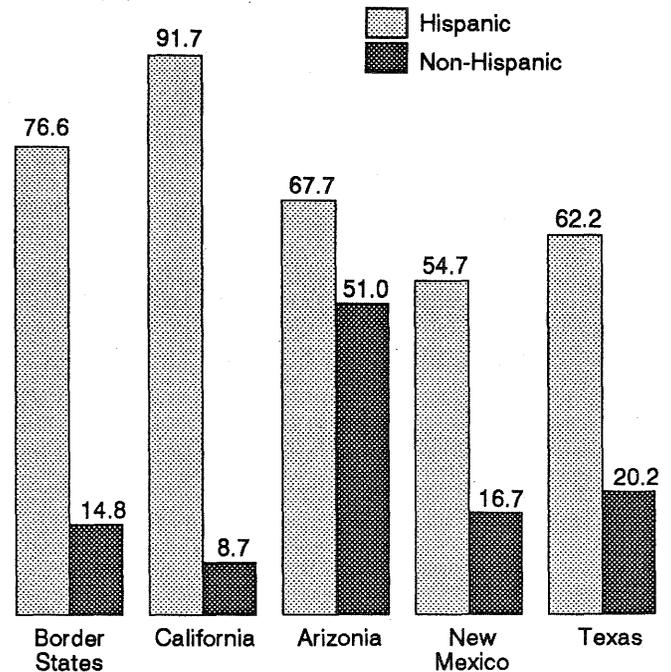


Table A. **Growth of the Hispanic and Non-Hispanic Populations of the Border and Non-Border County Areas: 1970-80**

Geographical area	Percent change, 1970-80		
	Total population	Hispanic population	Non-Hispanic population
United States.....	11.5	61.0	9.2
Non-border States .....	9.1	43.6	8.2
Border States .....	23.5	76.6	14.8
Border county area .....	40.1	73.9	26.2
Non-Border county area .....	22.0	77.1	14.0
California .....	18.6	91.7	8.8
Border county area .....	36.4	115.0	27.1
Non-Border county area .....	17.2	90.1	7.3
Arizona .....	53.5	67.7	51.0
Border county area .....	49.1	68.1	43.8
Non-Border county area .....	55.2	67.5	53.4
New Mexico.....	28.2	54.7	16.7
Border county area .....	36.8	56.0	21.8
Non-Border county area .....	27.4	54.5	16.3
Texas .....	27.1	62.0	20.2
Border county area .....	41.5	64.7	2.1
Non-Border county area .....	25.9	60.9	20.8

**Growth Since 1980.** Although this report focuses more fully on the growth of the borderland area between 1970 and 1980 and describes its socioeconomic makeup based on 1980 census data, it is instructive to note that the 1970-80 growth trends of the borderland have persisted into the 1980's<sup>2</sup> (U.S. Bureau of the Census, 1989). In California, between 1980 and 1988 the total border-county population (i.e. Imperial and San Diego counties combined) grew by 27-percent. In that same time interval, the border-county population in Arizona, which includes the counties of Cochise, Pima, Santa Cruz, and Yuma, grew by one-fifth of what it was in 1980. The border population of New Mexico, including Dona Ana, Hidalgo, and Luna counties, grew by one-third between 1980 and 1988, and in the combined 16 Texas border counties, the total population in 1988 had grown by one-fourth since 1980.

**Growth in the Metropolitan Areas: 1980 to 1985.** In general, Hispanics in the United States are mostly metropolitan area dwellers and more likely than non-Hispanics to live in the central cities of those areas.<sup>3</sup> Between 1980 and 1985, the growth of Hispanics in the metropolitan areas of the Nation was 24 percent, or nearly five times the metropolitan growth for non-Hispanics (U.S. Bureau of the Census, 1989) (table 2).

The border States include seven metropolitan statistical areas (MSA's) close enough to the Mexican border to classify them as areas under border "influence." They are the: Tucson, AZ, MSA; San Diego, CA., MSA;

Las Cruces, NM, MSA; El Paso, TX, MSA; Laredo, TX, MSA; McAllen-Pharr-Edinburgh, TX, MSA; and the Brownsville-Harlingen-San Benito, TX, MSA. (table B).

In several of these areas, from 1980 to 1985, Hispanic growth outpaced non-Hispanic growth by over 2 to 1. In the San Diego, CA, MSA, the largest of the "border" MSA's, the Hispanic population outgrew the non-Hispanic population 31 percent to 12 percent. In the Tucson, AZ, MSA, the growth rates were 18 percent to 8 percent in favor of Hispanics, and in the Las Cruces, NM, MSA, 28 percent and 17 percent. In the El Paso, TX, MSA, the growth was 20 percent for Hispanics and only 3 percent for non-Hispanics; and in the Laredo, Texas, MSA, the Hispanic population growth rate was 20 percent, compared with 14 percent for the non-Hispanic population. However, in the McAllen etc. MSA, non-Hispanics outgrew Hispanics, 47 percent to 21 percent, and similarly, in the Brownsville MSA, non-Hispanics increased faster than Hispanics: 24 percent to 19 percent (table 2).

## HISPANIC POPULATION SIZE AND DISTRIBUTION

In 1980, about 19 percent of the population of the United States lived within the four border States,<sup>4</sup> and one-fifth of them were of Hispanic origin. Furthermore, over one-third of the combined border-county populations of these States was of Hispanic origin or descent (table C)

**California.** In 1980, California was not only the largest in population among the border States, but also the

<sup>2</sup>Hispanic population estimates are available to 1985 only for very large border counties. Estimates of border county total population, however, are available to 1988. See references section.

<sup>3</sup>Experimental annual estimates of the Hispanic populations in the Nation's metropolitan areas are available from 1980 to 1985. (See references.)

<sup>4</sup>In 1980, the four border States included 41.9 million persons, compared with a total U.S. population of 226.5 million persons.

**Table B. Growth of the Hispanic Population in Selected Metropolitan Statistical Areas (MSA'S) Close to the Mexican Border: 1970, 1980, and 1985**

Metropolitan statistical area	Number			Percent change	
	1970	1980 <sup>1</sup>	1985 <sup>2</sup>	1970-80	1980-85
United States .....	9,072,000	14,251,000	17,517,000	57.1	22.9
All metropolitan areas .....	7,500,000	12,687,000	15,699,000	69.2	23.7
Total, selected metropolitan areas .....	686,000	1,225,000	1,501,000	78.6	22.5
Tucson, AZ .....	64,000	112,000	132,000	75.0	17.9
San Diego, CA .....	121,000	274,000	358,000	126.4	30.7
Las Cruces, NM <sup>3</sup> .....	30,000	51,000	65,000	70.0	27.5
El Paso, TX .....	182,000	300,000	360,000	64.8	20.0
Laredo, TX .....	57,000	92,000	110,000	61.4	19.6
McAllen-Pharr-Edinburg, TX .....	132,000	232,000	281,000	75.8	21.1
Brownsville-Harlingen-San Benito, TX .....	100,000	164,000	195,000	64.0	18.9

<sup>1</sup>Shows modified 1980 census counts. See note 2 below.

<sup>2</sup>Estimates of Hispanics for 1985 were derived by using 1980 census counts modified to correct census Hispanic reporting errors. These errors were relatively minor, however, in the above areas. See: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1040-RD-1, Population Estimates by Race and Hispanic Origin, for States, Metropolitan Areas, and Selected Counties: 1980 to 1985, U.S. Government Printing Office, Washington, DC, 1989.

<sup>3</sup>The Las Cruces areas was not a constituted SMSA in 1970; hence, total for that year is for Las Cruces county.

Table C. **Proportion Hispanic of the Populations in the Border and Non-Border County Areas: 1980**

Area	Total population	Hispanic origin	
		Number	Percent
United States.....	226,545,805	14,603,683	6.4
Non-border States.....	184,627,603	6,158,647	3.3
Border States.....	41,918,202	8,445,036	20.1
Border county areas.....	4,009,079	1,449,156	36.1
Non-border county areas.....	37,909,123	6,995,880	18.5
California.....	23,667,902	4,541,300	19.2
Border county areas.....	1,953,956	325,956	16.7
Non-border county areas.....	21,713,946	4,215,344	19.4
Arizona.....	2,718,215	444,102	16.3
Border county areas.....	728,142	178,985	24.6
Non-border county areas.....	1,990,073	265,117	13.3
New Mexico.....	1,302,894	477,051	36.6
Border county areas.....	117,974	59,191	50.2
Non-border county areas.....	1,184,920	417,860	35.3
Texas.....	14,229,191	2,982,583	21.0
Border county areas.....	1,209,007	885,024	73.2
Non-border county areas.....	13,020,184	2,097,559	16.1

largest in number of Hispanics. Seventeen percent of the border-county population was Hispanic, as was 19 percent of the non-border population (table C).

**Arizona.** Of the four border States, Arizona, in 1980, had the lowest proportion of Hispanics (16 percent) among its population, but also the highest proportion of its total population living in the border counties, of which 1 in 4 were of Hispanic origin or descent. Furthermore, Arizona, among the border States, had most of its Hispanic population living in its border counties: about 40 percent of the State's Hispanic population were living there (i.e. 178,985 of 444,102 persons) (table C).

**New Mexico.** Although it is the smallest of the border States, New Mexico had the highest proportion of Hispanics among its population. In 1980, of the State's 1.3 million persons, 37 percent were of Hispanic origin, and although only 9 percent of the total State population (117,974 persons) lived in the counties by the border, half of them were of Hispanic origin (table C).

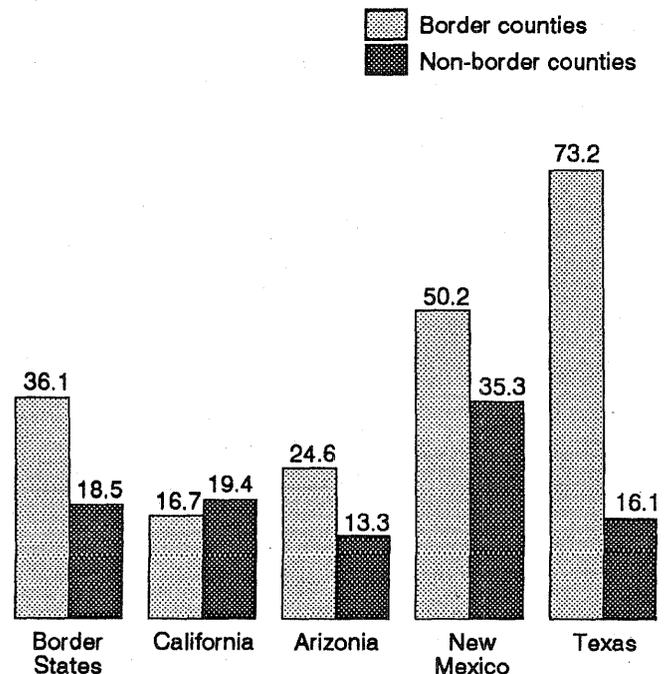
**Texas.** In 1980, Texas was the second largest among the border States and about one-fifth of its population was Hispanic. The State also had the highest concentration of Hispanics at the border: almost three-fourths of the entire border-county population was Hispanic (table C and figure 3).

#### POPULATION BY TYPE OF HISPANIC ORIGIN

The U.S. Hispanic population is composed of a diversity of groups representing about 20 distinct national Spanish cultures, the largest consisting of persons of

Mexican origin. In 1980, Mexican origin persons constituted about 60 percent of all Hispanics in the Nation, and most of them (83 percent) lived within the four border States. This latter proportion is probably understated because post-censal analysis showed that a not insignificant number of persons of Mexican origin, particularly in the Southwest, reported their origin in such

Figure 3.  
**Proportion Hispanic of the Total Population of the Border Counties, by State: 1980**  
(In percent)



general terms as: "Spanish"; "Hispanic"; "Spanish American"; or as "Other" Spanish (Fernandez, 1986) (table D).

Ninety-one percent of all Hispanics living in the 25 Southwest border counties in 1980 were of Mexican origin. But in the non-border counties of the border States, the predominance of Mexicans among Hispanics was somewhat lower: 81-percent were Mexican and 19 percent "other" Spanish (table D).

In the border counties of California, Hispanic persons of Mexican origin constituted 85-percent of all Hispanics; in Arizona, 91percent; in Texas, 94-percent; and in New Mexico, 87-percent. In only one area of the four border States, namely: the non-border counties of New Mexico, were Hispanic persons reporting as "other" Hispanic origin numerically and proportionately greater than those reporting as Mexican, 58 percent to 42 percent, respectively. The probable cause: the relatively large number of Hispanics in that State who reported generally as: "Spanish-American" and not in any specific Hispanic national origin group. (Fernandez, 1986) (table D).

## SOCIAL AND DEMOGRAPHIC CHARACTERISTICS

The abundance of information produced by the 1980 census has underscored the socio-economic differences that exist between the Hispanic and non-Hispanic populations in the United States. But when we contrast the populations of the border and non-border county areas of the four border States, these differences are

often made more manifest. When 1990 census data becomes available, we will know if the pronounced dichotomy between Hispanics and non-Hispanics noted for 1980 still persists.

**Age.** The 1980 population of the four border States was only slightly younger than that of the Nation as a whole; but probably because of higher Hispanic fertility and the strong influence of Hispanic immigration and its predominantly younger population content, Hispanics were younger on the average than non-Hispanics both at the border and away from the border. In the border counties, Hispanics had a median age of 22.1 years, compared with a median of 30.8 years for non-Hispanics; and in the counties away from the border, Hispanic median age was 22.6 years, compared with 31.2 years for non-Hispanics (table E and figure 4).

**Sex.** Similar to the Nation as a whole, the population of the four border States included more women than men. In 1980, the sex ratio in the United States was 94 men per 100 women, and in the combined border States the ratio was 97 men per 100 women (table E).

Specifically, in the borderland area, there were 94 Hispanic men per 100 Hispanic women; but by contrast, non-Hispanics had more men than women (i.e. 102 men per 100 women). In the non-border county areas of the border States, Hispanic men outnumbered Hispanic women (also 102 men per 100 women), but non-Hispanic women were more numerous than non-Hispanic men (i.e. 96 men per 100 women). Predominance of sex-differentiated industries and the availability of jobs for Hispanic women in the border area may have been a causal factor in generating the lower sex ratios among border Hispanics (table 6).

Table D. Percent Distribution of the Hispanic Population in the Border County Areas, by Type: 1980

Area	Hispanic origin (Percent)		
	Total	Mexican	Other
United States.....	100.0	59.4	40.6
Non-border States.....	100.0	27.5	72.5
Border States.....	100.0	82.7	17.3
Border county area.....	100.0	91.2	8.8
Non-border county area.....	100.0	81.0	19.0
California.....	100.0	79.6	20.4
Border county area.....	100.0	84.9	15.1
Non-border county area.....	100.0	79.2	20.8
Arizona.....	100.0	89.6	10.4
Border county area.....	100.0	90.8	9.2
Non-Border county area.....	100.0	88.8	11.2
New Mexico.....	100.0	47.9	52.1
Border county area.....	100.0	86.7	13.3
Non-border county area.....	100.0	42.4	57.6
Texas.....	100.0	92.0	8.0
Border county area.....	100.0	93.8	6.2
Non-border county area.....	100.0	91.2	8.8

Table E. Selected Characteristics of the Hispanic and Non-Hispanic Population of the Border and Non-Border County Areas: 1980

Characteristic	United States	Border States				
		Total	Border county areas		Non-border county areas	
			Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
<b>AGE</b>						
Total persons .....	226,545,805	41,918,202	1,449,156	2,559,923	6,995,880	30,913,243
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 .....	22.6	23.0	34.1	19.0	33.0	20.5
15 to 64 .....	66.1	67.0	60.7	68.8	62.9	68.0
65 and over .....	11.3	10.0	5.3	12.2	4.1	11.4
Median .....	30.0	29.4	22.1	30.8	22.6	31.2
<b>SEX</b>						
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Male .....	48.6	49.3	48.5	50.5	50.6	48.9
Female .....	51.4	50.7	51.5	49.5	49.4	51.1
Ratio (male/female) .....	94.6	97.2	94.2	102.0	102.4	95.7
<b>MARITAL STATUS</b>						
Persons, 15 years and over .....	175,307,629	32,278,897	954,668	2,073,859	4,686,142	24,564,228
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Married .....	60.1	59.6	59.3	59.0	59.3	59.7
Not married .....	39.9	40.4	40.7	41.0	40.7	40.3
<b>YEARS OF SCHOOL COMPLETED</b>						
Persons, 25 years and over .....	132,835,687	24,254,185	642,167	1,555,847	3,123,182	18,932,989
Percent high school graduate .....	66.5	69.7	38.3	80.2	41.8	74.5
<b>LABOR FORCE STATUS</b>						
Persons, 16 years and over .....	171,214,258	31,547,643	919,804	2,035,934	4,535,006	24,056,899
In civilian labor force .....	104,449,817	19,694,657	532,133	1,117,381	2,946,131	15,099,012
Percent unemployed .....	6.5	5.7	9.6	6.3	8.3	5.0
<b>FAMILY INCOME in 1979</b>						
Total families .....	59,190,133	10,719,569	309,307	676,939	1,530,825	8,202,498
Median family income .....	\$19,917	\$20,572	\$12,383	\$20,334	\$15,461	\$21,999
<b>POVERTY</b>						
Families below poverty .....	5,670,215	1,047,619	84,831	49,799	282,308	630,681
Percent of all families .....	9.6	9.8	27.4	7.4	18.4	7.7

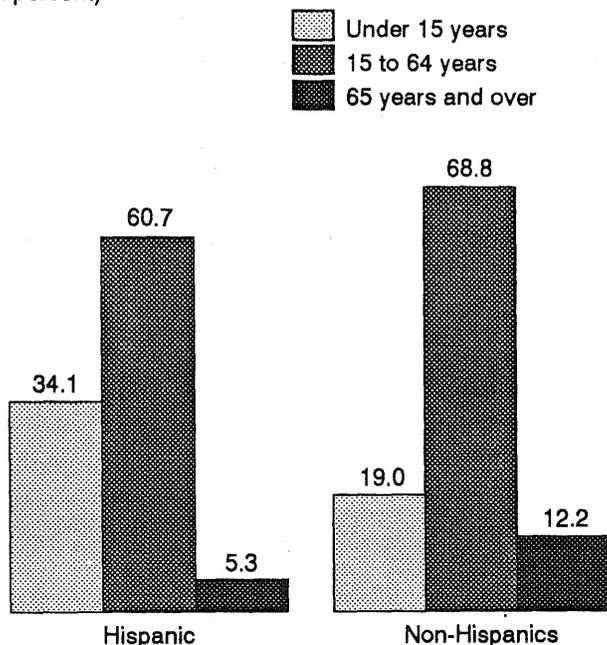
**Marital status.** The proportions married among the population age 15 years and over in the combined four border States was the same as for the Nation as a whole: 60-percent. And the proportions married among Hispanics and non-Hispanics was about 59-percent in both the border and non-border county areas. But differences in marital status did exist; probably because they represent a younger population, both border and non-border Hispanics had higher proportions single than non-Hispanics, and lower proportions widowed or divorced (table 6).

**Educational attainment.** Review of the educational attainment level of the borderland shows differences between Hispanics and non-Hispanics that are often staggering. Only 38-percent of Hispanics in the border county area had graduated from high school, compared with 80-percent of non-Hispanics. In the non-border area of these States, differences were somewhat diminished but still noteworthy: the proportion of high school graduates among Hispanics was 42 percent, compared with that of non-Hispanics, 75-percent (table E and figure 5).

**Fertility.** Fertility, together with immigration, has been a strong contributing factor in Hispanic population growth along the Southwest border. Specifically, the fertility of Hispanic women in the border area was markedly higher than for non-Hispanic women; for example, among the former the ratio of the number of children ever born per woman age 15 to 44 years in 1980 was 1.7 children per woman, and for non-Hispanic women, 1.2 children per woman. In the non-border county-area, fertility was also disproportionately higher for Hispanic women (table 6).

**Household composition.** In the four border States in 1980, about 41 million persons were living in households; and in the border counties of those States, about 1.4 million Hispanics and 2.4 million non-Hispanics were household dwellers. Also, sharp differences in household composition existed between these two groups; an example of this is that about 55 percent of all persons in Hispanic border households were "other relatives" (includes children but excludes spouse) of the householder, compared with only 32-percent of persons in non-Hispanic households. This contrast in household composition

Figure 4.  
Age Distribution of the Hispanic Population  
for the Border County Area: 1980  
(In percent)



between Hispanics and non-Hispanics was repeated, to a lesser extent, in the combined non-border counties (table 6).

**Household size.** Hispanic households are, on the average, larger than non-Hispanic households. And this is generally caused by the high content of "other relatives" in Hispanic households. Specifically, in the border counties, the proportion of small (e.g. one and two person) non-Hispanic households (61 percent) was twice as large as for Hispanic households (30 percent); but, by contrast, the proportion of large (e.g. 5 person and 6 or more person) Hispanic households (34 percent) was more than three times that of non-Hispanic households (10 percent). This dissimilarity in household size was also evident in the non-border county areas of the border States (table 6).

**Place of birth and nativity.** In 1980, one-third of all foreign-born persons in the United States lived in the four border States (i.e. 4.7 million persons), and understandably, because of the proximity of these States to Mexico, most of these persons (51 percent) were of Hispanic origin. In the border-county area, about 70 percent of the foreign born population was of Hispanic origin or descent (table 6).

The 1980 census results also showed an interesting aspect about the native born population (i.e. persons born in the United States) living in the border counties; namely, that 59 percent of non-Hispanic native-born persons were born in a different State from that in which

they were enumerated in 1980. But, by contrast, only 10 percent of native-born Hispanics had been born in another State. Thus, in the border-county area the Hispanic U.S.-born population was residentially more stable than the non-Hispanic American born. This condition also existed, but to a lesser degree, in the non-border counties (table 6).

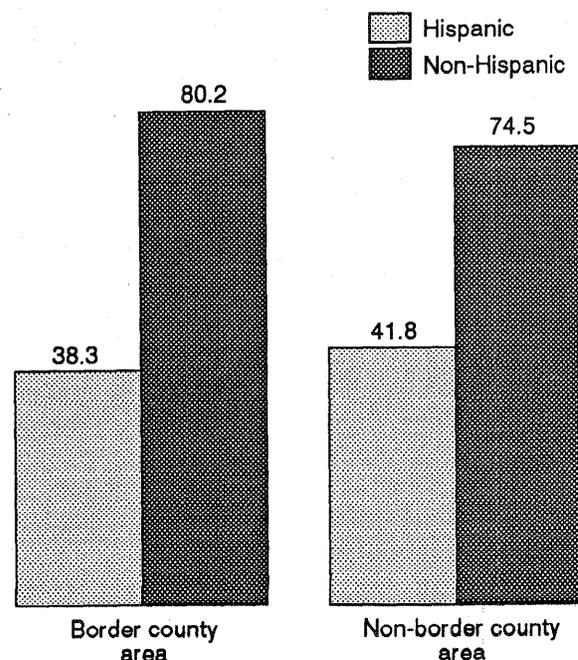
**Language ability.** Most Hispanics 5 years old and over in the border States speak Spanish at home; but in the border-county area in 1980, a larger proportion of them spoke Spanish (89-percent) than in the non-border area (77 percent). Proportionately more Hispanics at the border reported difficulty speaking English; for instance, almost one-fourth reported difficulty with English, compared with one-fifth of non-border Hispanics. The ability to speak English, therefore, was yet another characteristic that differentiated the Hispanic populations in the border and non-border county areas of the border States (table 6).

## ECONOMIC CHARACTERISTICS

The sometimes marked differences in social characteristics noted above between Hispanics and non-Hispanics of the border and non-border areas were replicated for some economic characteristics as well.

**Labor force status.** In both the border and non-border areas of the border States, the unemployment of Hispanics in 1980 was consistently higher than for non-Hispanics; for instance, 9.8 percent of Hispanic males at

Figure 5.  
Percent High School Graduates Among the  
Hispanic Population, 25 Years and Over for  
the Border County Area: 1980



the border were unemployed, compared with 6.3 percent of non-Hispanic males; and for both Hispanic and non-Hispanic males the rate was higher in the border-county area than in the non-border area (table 7).

**Occupation.** In both border and non-border areas, a higher percentage of employed Hispanics than of non-Hispanics were working as machine operators and laborers, in assorted service occupations, or in precision, production, and craft occupations. Much lower proportions of Hispanics were employed in managerial or in professional jobs; in fact, only 13 percent of the entire Hispanic workforce at the border and 11 percent of that away from the border were employed in these latter-type jobs. By contrast, 29 percent of non-Hispanics at the border and 26 percent of those away from the border were working as managers and professionals (table 7).

**Family income.** In the borderland area, non-Hispanic family income in 1979 was noticeably higher than for Hispanic families; for instance, median income of non-Hispanic families was \$20,300, compared with \$12,400 for Hispanic families. This income disparity was evident also in the non-border counties where non-Hispanic median family income was \$22,000, compared with \$15,500 for Hispanic families. It is interesting to note, however, that the median incomes of non-Hispanics, in both the county and non-county areas of the border States, were higher than for the overall U.S. (table E).

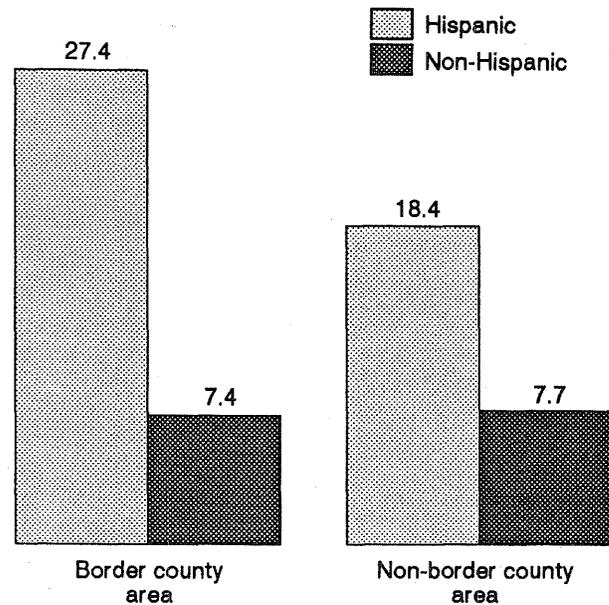
Family income distribution of Hispanic and non-Hispanic families at the border also illustrates the differential between these two groups. In 1979, about 40 percent of Hispanic families were making less than \$10,000, compared with only 19 percent of non-Hispanic families; by contrast, only 15 percent of Hispanic families had incomes over \$25,000, compared with 37 percent of non-Hispanic families (table 7).

**Poverty.** The gap in income between Hispanic and non-Hispanic families is echoed by their poverty status. Although non-Hispanic families at the border (677,000 families) outnumbered Hispanic families (309,000 families) by more than 2 to 1, a greater number of Hispanic families were poor. Specifically, at the border, the proportion poor among Hispanic families was 27 percent, compared with 7 percent for non-Hispanic families; and in the non-border counties, this poverty gap persisted: about 18 percent of Hispanic families were in poverty, compared with 8 percent of non-Hispanic families. (table 7 and figure 6).

## THE STATE BORDER AREAS

We have represented the U.S. borderland with Mexico as an integral geographic unit—an area consisting of connecting counties, crossing State boundaries, and

**Figure 6.**  
**Poverty Levels of the Hispanic Population in the Border County Area: 1980**  
(In percent)



covering a continuous land strip adjacent to Mexico that ranges from California to Texas. Above, we have noted the growth, distribution, and composition of the populations in the border and non-border county areas of the combined border States; and much of the data reveals that the heavy concentration of Hispanics at the border does indeed contribute to the often marked differences between the two areas. But these differences are sometimes highlighted within each individual border State. Below, we focus selectively on each of the four border States and note some differences between the border and non-border areas for the total and the Hispanic population of each State.

In general, for both its total and Hispanic populations, Texas exhibits the greatest disparity between its border and non-border county areas in age, educational attainment level, unemployment, family income, and poverty. Arizona and California show less contrast; and New Mexico, whose border/non-border differences are greater than those in either Arizona or California, still shows less variation than does Texas (tables F and G).

## California

**Total population.** This State does not show substantial population differences between its border and non-border areas, but some differences do exist. Although the population age distributions were almost identical between the areas, as were the proportions of married and single persons, the proportion of high school graduates among the border-county population (77 percent)

Table F. Selected Characteristics of the Population of the Border and Non-Border County Areas, by Border State: 1980

Characteristic	Arizona		California		New Mexico		Texas	
	Border county area	Non-border county area						
<b>AGE</b>								
Total Persons .....	728,142	1,990,073	1,953,956	21,713,946	117,974	1,184,920	1,209,007	13,020,184
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years .....	23.0	23.9	21.0	21.8	26.3	25.9	30.8	24.1
15 to 64 years .....	65.7	64.8	68.9	68.1	65.1	65.2	61.0	66.1
65 years and over .....	11.3	11.3	10.2	10.1	8.6	8.9	8.1	9.7
Median .....	29.2	29.2	28.8	30.1	25.6	27.6	24.7	28.5
<b>SEX</b>								
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male .....	49.2	49.2	50.8	49.2	49.2	49.3	48.5	49.2
Female .....	50.8	50.7	49.2	50.8	50.8	50.7	51.5	50.8
Ratio (Male/Female) .....	96.9	97.0	103.3	96.9	96.9	97.2	94.2	96.9
<b>MARITAL STATUS</b>								
Persons 15 years and over .....	560,871	1,513,753	1,544,528	16,980,977	86,994	877,580	836,134	9,878,060
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married .....	60.7	62.4	57.1	57.5	60.3	61.6	61.7	62.8
Not-Married .....	39.3	37.6	42.9	42.5	39.7	38.4	38.3	37.2
<b>YEARS OF SCHOOL COMPLETED</b>								
Persons 25 years and over .....	418,960	1,139,931	1,121,344	12,922,642	60,110	647,037	597,600	7,346,561
Percent high school graduate .....	71.9	72.5	76.8	73.2	63.6	69.3	49.0	63.7
<b>LABOR FORCE STATUS</b>								
Persons 16 years and over .....	548,224	1,477,881	1,513,261	16,613,622	84,700	854,423	809,553	9,645,979
In civilian labor force .....	308,028	878,804	850,419	10,535,656	45,052	502,022	446,015	6,128,661
Percent unemployment .....	7.0	5.9	7.1	6.5	8.3	7.0	8.1	3.7
<b>FAMILY INCOME IN 1979</b>								
Total families .....	188,835	521,077	484,226	5,493,858	29,353	305,564	283,832	3,412,824
Median family income .....	\$17,927	\$19,420	\$20,133	\$21,662	\$14,364	\$17,165	\$13,365	\$20,160
<b>POVERTY</b>								
Families below poverty .....	18,768	48,809	41,788	479,350	5,348	41,480	68,726	343,350
Percent of all families .....	9.9	9.4	8.6	8.7	18.2	13.6	24.2	10.1

was somewhat higher than in the non-border county area (73 percent). Differences in unemployment, although not high, also were evident: unemployment at the border was 7.1 percent, and in the non-border area, 6.5 percent. Although median family income was lower in the border-county area, there was no difference in the proportions of families below the poverty level.

**Hispanic population.** Similarly to its total population, the State's Hispanic content does not show wide differences between the border and non-border areas. Hispanic age and sex distributions, marital status, and unemployment rates were quite comparable between these areas. However, Hispanics away from the border had generally higher family income levels, and lower poverty levels. For example, median Hispanic family income in 1979 in the border county area reached \$14,800, compared with \$16,200 in the non-border

areas. Similarly, although 16.7-percent of Hispanic families away from the border were below the poverty threshold, about 18.3 percent of Hispanic border families were poor (table G).

### Arizona

**Total population.** In Arizona, both the border and non-border population had the same median age, 29.2 years, and also the same male-to-female population ratio: 97 males per 100 females. The non-border area had slightly higher proportions of married persons; but the proportions of high school graduates were about the same for both areas. However, the border-county area had higher unemployment rates: 7.0-percent versus 5.9-percent; and although the proportions of families below the poverty level were about the same for both

areas, median family income was lower in the border-county area (\$17,900), compared with the non-border area (\$19,400) (table F).

**Hispanic population.** Some differences were evident between the border and non-border Hispanic populations of Arizona. Although the age distributions between the border and non-border areas were similar, the sex composition was not; at the border, there were more Hispanic females than males (i.e. about 95 males per 100 females), but in the non-border area of the State the reverse was true (i.e. about 103 males per 100 females). The Hispanic unemployment rate was higher at the border (9.9 percent vs. 8.1 percent) and border family income of Hispanics (\$14,700) was lower than away from the border (\$16,000). The poverty rate, however, was almost the same for Hispanic families in both the border and non-border areas (18.5 percent and 18.0 percent, respectively) (table G).

## New Mexico

**Total population.** In this State, some differences between the border and non-border areas were evident. For example, the border population was slightly younger than the non-border population, and had a slightly lower proportion of high school graduates. But the border area had noticeably higher unemployment rates (8.3 percent versus 7.0 percent), much lower family income (\$14,400, compared with \$17,200); and a much higher incidence of families in poverty (18.2 percent to 13.6 percent) (table F).

**Hispanic population.** Similarly to its total population, New Mexico's border and non-border Hispanics showed some marked differences; for example, the non-border Hispanic population was slightly older, while the border Hispanic population had proportionally more females. The proportions of married Hispanics in both the border

Table G. **Selected Characteristics of the Hispanic Population of the Border and Non-Border County Areas, by Border State: 1980**

Characteristic	Arizona		California		New Mexico		Texas	
	Border county area	Non-border county area						
<b>AGE</b>								
Total persons .....	178,985	265,117	325,956	4,215,344	59,191	417,860	885,024	2,097,559
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years .....	33.8	35.4	32.3	32.5	32.8	31.2	35.0	34.1
15 to 64 years .....	61.3	60.6	64.1	63.7	62.0	62.4	59.0	61.6
65 years and over .....	4.9	4.0	3.6	3.7	5.1	6.4	6.0	4.4
Median .....	22.4	21.4	22.3	22.9	22.0	23.5	22.0	22.1
<b>SEX</b>								
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Male .....	48.7	50.8	50.6	50.6	48.6	49.6	47.6	50.7
Female .....	51.3	49.2	49.4	49.4	51.4	50.4	52.4	49.3
Ratio (male/female) .....	94.9	103.2	102.4	102.4	94.6	98.4	90.98	102.8
<b>MARITAL STATUS</b>								
Persons 15 years and over .....	118,515	171,161	220,736	2,844,220	39,750	287,474	575,667	1,383,287
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Married .....	59.8	59.5	57.4	57.9	58.8	58.7	59.9	62.5
Not married .....	40.2	40.5	42.6	42.1	41.2	41.3	40.1	37.5
<b>YEARS OF SCHOOL COMPLETED</b>								
Persons 25 years and over .....	80,355	112,354	141,145	1,896,833	25,578	196,498	395,089	917,497
Percent high school graduate .....	44.7	43.5	46.9	43.3	41.5	51.8	33.8	36.2
<b>LABOR FORCE STATUS</b>								
Persons 16 years and over .....	114,332	164,951	213,315	2,756,869	38,272	277,950	553,885	1,335,236
In civilian labor force .....	68,246	103,148	128,069	1,835,130	21,302	162,512	314,516	845,341
Percent unemployed .....	9.9	8.1	9.8	9.6	10.6	9.2	9.5	5.3
<b>FAMILY INCOME IN 1979</b>								
Total families .....	39,336	56,950	66,303	910,171	13,061	99,209	190,607	464,495
Median family income .....	\$14,723	\$15,973	\$14,841	\$16,177	\$11,428	\$13,839	\$11,111	\$14,341
<b>POVERTY</b>								
Families below poverty .....	7,273	10,251	12,137	152,155	3,618	19,640	61,803	100,262
Percent of all families .....	18.5	18.0	18.3	16.7	27.7	19.8	32.4	21.6

and non-border areas were identical, as were their proportions non-married. But non-border Hispanics 25 years old and over were generally better educated, with almost 52-percent being high school graduates, compared with only 42-percent of border Hispanics. Furthermore, unemployment among Hispanics was higher at the border (10.6 percent vs. 9.2 percent). Expectantly, and undoubtedly related to the above differences, the level of affluence of border Hispanics was lower; for example, the median family income of non-border Hispanics was higher at \$13,800 than for border Hispanics, \$11,400. Also, a much higher proportion of Hispanic border families, 27.7-percent, were living in poverty, compared with non-border Hispanic families, 19.8 percent (table G).

## Texas

**Total population.** Generally, Texas displayed notable differences between its border and non-border area populations; in fact, some important population traits were remarkably dissimilar between the two areas. For instance, the overall border-county population was younger, on the average, than the non-border population, and the proportion of high school graduates at the border much lower, 49 percent versus 64 percent. Unemployment was higher in the border county area (8 percent to 4 percent) and annual family income was considerably lower (\$13,400 compared to \$20,200). An eloquent example of these areal differences was represented by the poverty level; in the non-border county area, about 1 in 10 families in the area were living in poverty in 1979 (about the same as for the entire United States); yet, in the border areas almost one-quarter of all families were living in poverty (table F).

**Hispanic population.** Although California had the largest Hispanic population, Texas had the largest Hispanic concentration at the border. And the above-noted differences between the total Texas border and non-border populations were replicated for that State's Hispanic population.

In particular, the border area had more Hispanic females than males, while the reverse was true in the non-border area; also, the border had higher proportions of non-married Hispanics. The educational attainment level of all Hispanics 25 years old and over in the Texas border area was lower than in the non-border area; only 33.8 percent of border Hispanics were high school graduates, compared with 36.2 percent of those not at the border. (Both these rates were lower than for any of the other border States). However, Hispanic unemployment rates in both areas were not significantly different from those in the other States; in fact, border unemployment of Hispanics was lower in Texas than in New Mexico and about the same as in Arizona and

California. In the Texas non-border area, the unemployment rate of Hispanics (5.3 percent) was actually lower than in the non-border area of any other border State.

Similarly to the other border States, median income of Hispanic families in Texas was lower at the border (\$11,100) than away from the border (\$14,300). Correspondingly, poverty among Hispanic families was also higher at the border, 32.4-percent, compared with 21.6 percent away from the border. Furthermore, these Hispanic family poverty rates in Texas were noticeably higher than in the corresponding areas of the other border States (table G).

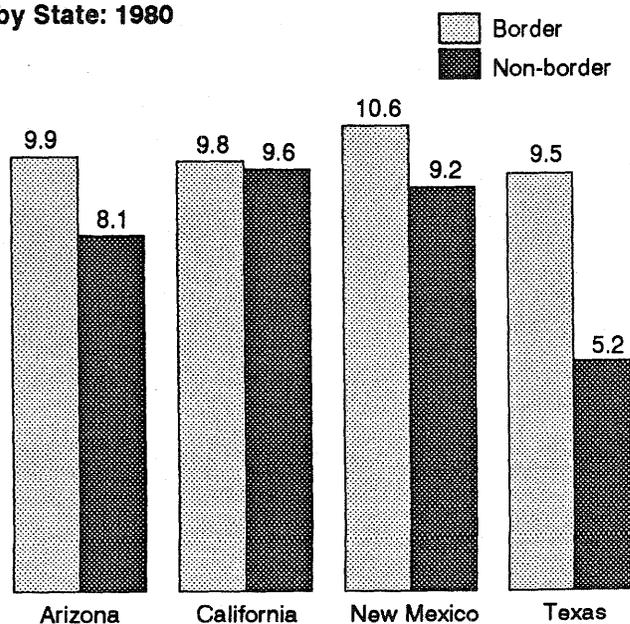
Although, as noted above, the socio-economic and demographic differences between the border and non-border areas of the border States are mostly significant, the differences within Texas are most prominent. Therefore, noting the condition of Hispanics along the entire Texas border, we are led to investigate whether this condition is uniform along the border, or whether the status of Hispanics varies between the individual border counties of the State (figure 7).

## THE BORDER COUNTIES OF TEXAS

Sixteen counties in Texas share a common border with Mexico, and the differences between them in the size and condition of their Hispanic populations are sometimes remarkable. For example, in 1980, the counties ranged in Hispanic population size from about 297,000 persons in El Paso county to less than 800 persons in Jeff Davis and in Terrell counties.

In the border counties, Hispanics mainly included "young" populations with median ages ranging from 20

Figure 7.  
Percent Unemployed Hispanics  
in the Border County Areas,  
by State: 1980



to 23 years; but some counties had much older Hispanic populations: in Jeff Davis and in Terrell counties the median age of Hispanics was about 29.5 years. Sex composition also varied among the counties; the following had significantly more Hispanic women than Hispanic men: El Paso, Presidio, Brewster, Valverde, Maverick, Webb, Hidalgo, and Cameron. In the remaining counties, there were almost equal numbers of Hispanic men and women, but both Hudspeth and Jeff Davis counties had more Hispanic men than women. In some of the border counties such as Hudspeth, Culberson, and Jeff Davis, the proportion of married Hispanics was relatively high; in Jeff Davis county, the proportion reaching 71.5 percent (table A-6).

A characteristic that clearly underscores the differences between the Hispanic populations in the Texas border counties is the educational attainment level. Two border counties ranked highest in proportion of Hispanics age 25 years and over with one or more years of college education: Webb county (19.3 percent) and El Paso county (16.8 percent). And the two counties which ranked lowest were: Kinney county (4.5 percent) and Culberson county (5.7 percent). But for every one of the Texas border counties, the proportion of Hispanics attaining 1 or more years of college education was much lower than for the total U.S. population (31.9 percent), or for the total population of the combined four border States (43.0 percent) (tables 6 and A-6).

In some of the Texas border counties the level of Hispanic fertility was remarkably high. In every county, the average fertility of Hispanics reached levels higher than in the United States as a whole or than the population of the four border States combined. Highest ratios (i.e. children ever born per 1000 women) occurred in Culberson (2,361) and Hudspeth (2,157); lowest ratios occurred in Brewster county (1,478), El Paso (1,628), and Webb county (1,687) (table A-4).

The average size of Hispanic households varied somewhat among the border counties. In particular, Terrell had the lowest number of persons per Hispanic household: 2.87 persons. In some counties, the average Hispanic household contained about 4 persons; for example, Valverde had an average of 3.96 persons per household; Maverick, 4.16 persons; Dimmit, 3.96 persons; Webb, 3.92 persons; Starr, 3.96 persons; Hidalgo, 4.25 persons; and Cameron county, an average of 4.07 persons per Hispanic household.

In all of the Texas border counties, Hispanic households were mostly composed of "other relatives" (excluding spouse) of the family householder. In Hidalgo, 58.5 percent of the content of the average Hispanic household were "other relatives" of the family householder.

As noted above, an important characteristic about any U.S. ethnic population is its English language ability. And in some Texas border counties Hispanics were particularly limited in their ability to speak English. For instance, in 1980, in Maverick, Starr, Hudspeth, and

Presidio counties more than one-third of resident Hispanic persons were deficient in English and in Valverde, Kinney, Dimmit, Webb, Zapata, Hidalgo, and Cameron counties more than one-fourth of Hispanics reported they spoke English not well or not at all. In El Paso and Culberson counties, about one-fourth reported English language difficulty as did about one-fifth of those in Jeff Davis, Brewster, and Terrell counties (table A-4).

In 1980, Hispanic unemployment rates for both males and females varied considerably across the Texas border counties. For instance, Hispanic male unemployment was only 1.1 percent in Hudspeth and Hispanic female unemployment 1.1 percent in Jeff Davis county. By contrast, much higher unemployment rates occurred in Maverick county, which for Hispanic males reached 15.8 percent, and in Kinney county for Hispanic women: 13.8 percent. Clearly, this variation in the employment condition of Hispanics reflects the differing economic opportunities existent for them in these counties (table A-5).

Again exemplifying possible county variation in economic structure, the occupational distribution of Hispanics at the Texas border often varied noticeably between the counties. For instance, Terrell county had the highest proportion of Hispanics working as operators, laborers, and the like; in fact, more than 1 of every 3 Hispanic workers in Terrell were in those occupations. Webb county, on the other hand, had the highest proportion of Hispanics in managerial and professional-type positions, 18.7 percent. In Kinney county more than 1 of every 4 (28.5-percent) employed Hispanics was working in farming, and in similar occupations; and in Hudspeth, an even higher proportion, 38.4 percent, were working as farmers, etc. (table A-5).

There was substantial variation between the Texas border counties in Hispanic family income levels. In 1979, Hispanic families in Terrell county had the highest income level, \$14,100; but that fell below \$10,000 in nine counties, namely: Kinney; Starr; Jeff Davis; Presidio; Hudspeth; Culberson; Valverde; Maverick, and Dimmitt. Hispanic family income in these counties was lower than in any of the border counties of California, Arizona, or New Mexico. In fact, median Hispanic family income in each of these Texas counties was less than one-half the median for all families in the Nation (\$19,900), or for all families in the combined four border States (\$20,600). (tables 7 and A-5).

The poverty level, in 1979, of Hispanic families in some Texas border counties underscored the bleak economic condition of many Hispanics in those areas. In general, from 20 percent to 30 percent of Hispanic families were living below the poverty level in: El Paso, Culberson, Brewster, and Terrell counties. From 30-percent to 40-percent were in poverty in: Hudspeth, Jeff Davis,

Valverde, Maverick, Webb, Zapata, Hidalgo, and Cameron counties. And poverty levels of over 40 percent occurred in: Presidio (45 percent); Kinney (48 percent); Dimmit (42 percent); and Starr (46 percent) (table A-5).

## SUMMARY

Undoubtedly, the U.S. southwest borderland is a singular area. Above, we defined the border region with Mexico (i.e. what we have called the U.S. southwest borderland) as the land mass covered by the 25 U.S. counties adjacent to the Mexican border. Subsequently, we noted several distinctive characteristics of that area; for example: (1) the enormous population growth (particularly of Hispanics) that occurred during the 1970-80 decade and apparently continues; (2) the high concentration of Hispanics in that area; (3) the often notable differences between the Hispanic and non-Hispanic populations there, and (4) the differences, in general, between the border and non-border areas of the border States.

To emphasize the border's uniqueness, we have used three perspectives: Firstly, for the area encompassed by the four border States, we describe and compare the characteristics of Hispanics and non-Hispanics in the border and non-border areas; secondly, we show and compare the characteristics of the total and Hispanic populations of the border and non-border areas of each border State; and thirdly, we compare the characteristics of Hispanics in the individual border counties of Texas.

Our analysis shows that: (1) there is a high concentration of Hispanics at the border, and most of them are of Mexican origin; (2) Hispanics at the border are a

young population with generally more women than men; (3) proportionally fewer Hispanics than non-Hispanics in the border area are enrolled in college; (4) at the border, the educational attainment level of Hispanics, on the average, is notably lower than for non-Hispanics; (5) also along the border, the fertility of Hispanic women is higher than for non-Hispanic women; (6) on the average, compared with border non-Hispanic households, Hispanic households are larger and contain a much higher proportion of "other relatives" of the householder; (7) most Hispanics at the border speak Spanish in the home, and about one-fourth report difficulty with the English language; (8) in both the border and non-border areas of the individual border States the economic condition of Hispanics is inferior to that of non-Hispanics, and this is particularly emphasized by comparing unemployment rates; (9) most Hispanics at the border were working in non-professional occupations and employed as machine operators, laborers, and in similar type occupations; (10) in the border area, Hispanic family income was much lower than for non-Hispanic families; and (11) in both the border and non-border area, a significant proportion of Hispanic families were living in poverty.

In addition to these differences between Hispanics and non-Hispanics over the entire borderland area, we also have noted marked differences in social and economic characteristics between Hispanics in the Texas border counties.

Have the population dichotomies noted above continued into the 1980 to 1990 decade? Forthcoming 1990 census results will answer that question.

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Table 1. Hispanic and Non-Hispanic Populations in the Border and Non-Border County Areas: 1970-80

Area	1970		1980		Percent change, 1970-80	
	Hispanic population	Non-Hispanic population	Hispanic population	Non-Hispanic population	Hispanic population	Non-Hispanic population
United States .....	9,072,602	194,139,324	14,603,683	211,942,122	61.0	9.2
Non-border States.....	4,289,613	164,985,549	6,158,647	178,468,956	43.6	8.2
Border States.....	4,782,989	29,153,775	8,445,036	33,473,166	76.6	14.8
Border county area.....	833,284	2,028,276	1,449,156	2,559,923	73.9	26.2
Non-border county area.....	3,949,705	27,125,499	6,995,880	30,913,243	77.1	14.0
California.....	2,369,231	17,583,903	4,541,300	19,126,602	91.7	8.8
Border county area.....	151,579	1,280,767	325,956	1,628,000	115.0	27.1
Non-border county area.....	2,217,652	16,303,136	4,215,344	17,498,602	90.1	7.3
Arizona.....	264,770	1,506,130	444,102	2,274,113	67.7	51.0
Border county area.....	106,493	381,877	178,985	549,157	68.1	43.8
Non-border county area.....	158,277	1,124,253	265,117	1,724,956	67.5	53.4
New Mexico.....	308,340	707,660	477,051	825,843	54.7	16.7
Border county area.....	37,951	48,262	59,191	58,783	56.0	21.8
Non-border county area.....	270,389	659,398	417,860	767,060	54.5	16.3
Texas.....	1,840,648	9,356,082	2,982,583	11,246,608	62.0	20.2
Border county area.....	537,261	317,370	885,024	323,983	64.7	2.1
Non-border county area.....	1,303,387	9,038,712	2,097,559	10,922,625	60.9	20.8

Table 2. Hispanic and Non-Hispanic Populations in Selected Metropolitan Statistical Areas Close to the Mexican Border: 1970-80 and 1980-85

Metropolitan statistical area	Hispanic origin							Non-Hispanic origin						
	1970	1980 <sup>1</sup>	1985 <sup>2</sup>	Change, 1970-80		Change, 1980-85		1970	1980	1985	Change, 1970-80		Change, 1980-85	
				Number	Per-cent	Number	Per-cent				Number	Per-cent	Number	Per-cent
UNITED STATES .....	9,072,000	14,251,000	17,517,000	5,532,000	57.0	2,914,000	22.9	194,140,000	212,291,000	221,181,000	18,151,000	9.3	8,890,000	4.2
ALL MSA's .....	7,500,000	12,687,000	15,699,000	5,187,000	69.2	3,012,000	23.7	131,919,000	159,768,000	166,982,000	27,849,000	21.1	7,214,000	4.5
Total selected MSA's .....	686,000	1,225,000	1,501,000	539,000	78.6	276,000	22.5	1,847,000	2,337,000	2,608,000	490,000	26.5	271,000	11.6
Tucson, AZ .....	64,000	112,000	132,000	48,000	75.0	20,000	17.9	288,000	419,000	453,000	131,000	45.5	34,000	8.1
San Diego, CA .....	121,000	274,000	358,000	153,000	126.4	84,000	30.7	1,237,000	1,588,000	1,774,000	351,000	28.4	186,000	11.7
Las Cruces, NM <sup>2</sup> .....	30,000	51,000	65,000	21,000	70.0	14,000	27.5	40,000	46,000	54,000	6,000	15.0	8,000	17.4
El Paso, TX .....	182,000	300,000	360,000	118,000	64.8	60,000	20.0	177,000	180,000	186,000	3,000	1.7	6,000	3.3
Laredo, TX .....	57,000	92,000	110,000	35,000	61.4	18,000	19.6	16,000	7,000	8,000	(9,000)	-56.3	1,000	14.3
McAllen-Pharr-Edinburg, TX .....	132,000	232,000	281,000	100,000	75.8	49,000	21.1	50,000	51,000	75,000	1,000	2.0	24,000	47.1
Brownsville-Harlingen-San Benito, TX .....	100,000	164,000	195,000	64,000	64.0	31,000	18.9	40,000	46,000	57,000	6,000	15.0	11,000	23.9

<sup>1</sup>Shows modified 1980 census counts. See note 2 below.

<sup>2</sup>Estimates of Hispanics for 1985 were derived by using 1980 census counts modified to correct census Hispanic reporting errors. These errors were relatively minor, however, in the above areas. See: U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 1040-RD-1, *Population Estimates by Race and Hispanic Origin, for States, Metropolitan Areas, and Selected Counties: 1980 to 1985*, U.S. Government Printing Office, Washington, DC, 1989.

<sup>3</sup>The Las Cruces area was not constituted SMSA in 1970; hence, total for that year is for Las Cruces county.

**Table 3. Distribution of the Population in the Border and Non-Border County Areas, by Type of Hispanic Origin: 1980**

Area	Total population	Hispanic origin			Non-Hispanic origin
		Total	Mexican	Other	
United States .....	100.0	6.4	3.8	2.6	93.6
Non-border States .....	100.0	3.3	0.9	2.4	96.7
Border States .....	100.0	20.1	16.7	3.5	79.9
Border county area .....	100.0	36.1	33.0	3.2	63.9
Non-border county area .....	100.0	18.5	14.9	3.5	81.5
California .....	100.0	19.2	15.3	3.9	80.8
Border county area .....	100.0	16.7	14.2	2.5	83.3
Non-border county area .....	100.0	19.4	15.4	4.0	80.6
Arizona .....	100.0	16.3	14.6	1.7	83.7
Border county area .....	100.0	24.6	22.3	2.3	75.4
Non-border county area .....	100.0	13.3	11.8	1.5	86.7
New Mexico .....	100.0	36.6	17.6	19.1	63.4
Border county area .....	100.0	50.2	43.5	6.7	49.8
Non-border county area .....	100.0	35.3	15.0	20.3	64.7
Texas .....	100.0	21.0	19.3	1.7	79.0
Border county area .....	100.0	73.2	68.7	4.5	26.8
Non-border county area .....	100.0	16.1	14.7	1.4	83.9

**Table 4. Distribution of the Hispanic Population in the Border and Non-Border County Areas, by Type of Hispanic Origin: 1980**

Area	Number			Percent		
	Total	Mexican	Other	Total	Mexican	Other
United States .....	14,603,683	8,678,632	5,925,051	100.0	59.4	40.6
Non-border States .....	6,158,647	1,694,269	4,464,378	100.0	27.5	72.5
Border States .....	8,445,036	6,984,363	1,460,673	100.0	82.7	17.3
Border county area .....	1,449,156	1,321,004	128,152	100.0	91.2	8.8
Non-border county area .....	6,995,880	5,663,359	1,332,521	100.0	81.0	19.0
California .....	4,541,300	3,613,167	928,133	100.0	79.6	20.4
Border county area .....	325,956	276,600	49,356	100.0	84.9	15.1
Non-border county area .....	4,215,344	3,336,567	878,777	100.0	79.2	20.8
Arizona .....	444,102	397,940	46,162	100.0	89.6	10.4
Border county area .....	178,985	162,498	16,487	100.0	90.8	9.2
Non-border county area .....	265,117	235,442	29,675	100.0	88.8	11.2
New Mexico .....	477,051	228,706	248,345	100.0	47.9	52.1
Border county area .....	59,191	51,333	7,858	100.0	86.7	13.3
Non-border county area .....	417,860	177,373	240,487	100.0	42.4	57.6
Texas .....	2,982,583	2,744,550	238,033	100.0	92.0	8.0
Border county area .....	885,024	830,573	54,451	100.0	93.8	6.2
Non-border county area .....	2,097,559	1,913,977	183,582	100.0	91.2	8.8

Table 5. Distribution of the Population in the Border County Areas, by Type: 1980

Area	Total population	Hispanic origin			Non-Hispanic origin
		Total	Mexican	Other	
United States .....	226,545,805	14,603,683	8,678,632	5,925,051	211,942,122
Percent .....	100.0	100.0	100.0	100.0	100.0
Non-border States .....	81.5	42.2	19.5	75.3	84.2
Border States .....	18.5	57.8	80.5	24.7	15.8
Percent .....	100.0	100.0	100.0	100.0	100.0
Border county area .....	9.6	17.2	18.9	8.8	7.6
Non-border county area .....	90.4	82.8	81.1	91.2	92.4
California .....	100.0	100.0	100.0	100.0	100.0
Border county area .....	8.3	7.2	7.7	5.3	8.5
Non-border county area .....	91.7	92.8	92.3	94.7	91.5
Arizona .....	100.0	100.0	100.0	100.0	100.0
Border county area .....	26.8	40.3	40.8	35.7	24.1
Non-border county area .....	73.2	59.7	59.2	64.3	75.9
New Mexico .....	100.0	100.0	100.0	100.0	100.0
Border county area .....	9.1	12.4	22.4	3.2	7.1
Non-Border county area .....	90.9	87.6	77.6	96.8	92.9
Texas .....	100.0	100.0	100.0	100.0	100.0
Border county area .....	8.5	29.7	30.3	22.9	2.9
Non-border county area .....	91.5	70.3	69.7	77.1	97.1

Table 6. Social Characteristics of the Hispanic and Non-Hispanic Populations of the Border and Non-Border County Areas: 1980

Characteristic	United States	Total, border States	Border States			
			Border county area		Non-border county area	
			Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
<b>AGE</b>						
Total persons .....	226,545,805	41,918,202	1,449,156	2,559,923	6,995,880	30,913,243
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Under 15 years .....	22.6	23.0	34.1	19.0	33.0	20.5
15-24 years .....	18.7	19.1	21.6	20.2	22.3	18.2
25-34 years .....	16.4	17.6	15.5	17.7	18.0	17.6
35-44 years .....	11.3	11.6	9.8	11.0	10.3	12.0
45-54 years .....	10.0	9.7	8.2	9.6	7.5	10.3
55-64 years .....	9.6	8.9	5.6	10.3	4.8	9.9
65 years and over .....	11.3	10.0	5.3	12.2	4.1	11.4
Median age .....	30.0	29.4	22.1	30.8	22.6	31.2
<b>SEX</b>						
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Male .....	48.6	49.3	48.5	50.5	50.6	48.9
Female .....	51.4	50.7	51.5	49.5	49.4	51.1
Ratio (Male/Female) .....	94.6	97.2	94.2	102.0	102.4	95.7
<b>MARITAL STATUS</b>						
Persons, 15 years and over .....	175,307,629	32,278,897	954,668	2,073,859	4,686,142	24,564,228
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Single (never married) .....	26.1	26.1	31.0	26.3	31.0	25.0
Married .....	60.1	59.6	59.3	59.0	59.3	59.7
Widowed .....	7.6	6.5	5.0	6.5	4.0	7.1
Divorced .....	6.2	7.7	4.8	8.2	5.7	8.2
<b>SCHOOL ENROLLMENT</b>						
Persons, 3 years and over enrolled in school .....	62,054,304	11,828,637	513,060	687,741	2,257,263	8,370,573
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Nursery school .....	3.9	4.3	2.8	4.1	3.8	4.6
Kindergarten and elementary school .....	51.5	49.9	61.2	43.3	60.5	46.9
High school .....	24.6	23.0	22.9	21.4	22.9	23.2
College .....	19.9	22.8	13.1	31.1	12.9	25.4
<b>YEARS OF SCHOOL COMPLETED</b>						
Persons, 25 years and over .....	132,835,687	24,254,185	642,167	1,555,847	3,123,182	18,932,989
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Elementary, 0 to 8 years .....	18.3	16.5	49.4	8.7	42.5	11.7
High school, 1 to 4 years .....	49.9	44.6	33.3	45.2	39.3	45.9
College, 1 or more years .....	31.9	43.0	17.3	46.1	18.2	42.4
<b>FERTILITY</b>						
Women, 15 to 44 years .....	52,878,032	10,020,561	349,662	586,037	1,718,184	7,366,678
Children ever born per 1000 women .....	1,302	1,303	1,691	1,159	1,659	1,214
<b>TYPE OF HOUSEHOLD</b>						
Persons in households .....	220,807,382	40,936,886	1,442,809	2,439,040	6,896,412	30,176,625
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Family householder .....	26.8	26.2	22.0	27.8	22.2	27.2
Nonfamily householder .....	9.6	10.4	4.2	12.4	4.6	11.9
Spouse .....	22.1	21.6	17.5	22.9	17.7	22.5
Other relative .....	38.7	38.2	54.5	32.4	51.8	34.7
Nonrelative .....	2.7	3.7	1.8	4.6	3.7	3.7

Table 6. **Social Characteristics of the Hispanic and Non-Hispanic Populations of the Border and Non-Border County Areas: 1980—Con.**

Characteristic	United States	Total, border States	Border States			
			Border county area		Non-border county area	
			Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
<b>SIZE OF HOUSEHOLD</b>						
All households .....	80,467,427	14,982,192	359,830	978,992	1,851,446	11,791,924
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
One person .....	22.6	23.3	11.9	24.3	13.3	25.1
Two persons .....	31.2	31.6	17.9	36.4	19.5	33.6
Three persons .....	17.3	16.9	17.7	16.3	18.5	16.7
Four persons .....	15.4	14.8	18.4	13.3	18.8	14.2
Five persons .....	7.9	7.5	14.1	6.1	13.3	6.5
Six or more persons .....	5.5	5.9	20.0	3.7	16.6	4.0
<b>PLACE OF BIRTH</b>						
Total persons .....	226,545,805	41,918,202	1,449,156	2,559,923	6,995,880	30,913,243
Native .....	212,465,899	37,266,745	1,042,295	2,381,013	5,042,762	28,800,675
Percent .....	93.8	88.9	71.9	93.0	72.1	93.2
Born in State .....	63.9	52.4	60.9	32.4	60.1	51.9
Born in different State .....	28.9	35.6	9.5	59.3	10.6	40.5
Born abroad .....	0.9	0.9	1.5	1.3	1.4	0.7
Foreign born .....	14,079,906	4,651,457	406,861	178,910	1,953,118	2,112,568
Percent .....	6.2	11.1	28.1	7.0	27.9	6.8
<b>LANGUAGE ABILITY</b>						
Persons, 5 years and over .....	210,247,455	38,728,052	1,285,922	2,400,611	6,160,352	28,881,167
Percent .....						
Speak only English at home .....	89.0	77.4	10.2	90.5	22.3	91.0
Speak language other than English at home .....	11.0	22.6	89.8	9.5	77.7	9.0
Speak Spanish at home .....	5.3	16.3	89.1	2.8	76.7	1.3
Speak English very well or well .....	4.0	12.2	65.0	2.5	56.8	1.1
Speak English not well or not at all .....	1.3	4.1	24.1	0.3	19.9	0.1

Table 7. Economic Characteristics of the Hispanic and Non-Hispanic Populations in the Border and Non-Border County Areas: 1980

Characteristic	United States	Total, border States	Border States			
			Border county area		Non-border county area	
			Hispanic	Non-Hispanic	Hispanic	Non-Hispanic
<b>LABOR FORCE STATUS</b>						
Males, 16 years and over .....	81,732,090	15,341,158	434,548	1,023,786	2,280,180	11,602,644
In labor force .....	61,416,203	11,793,536	330,473	766,527	1,829,957	8,866,579
Percent of males 16 and over .....	75.1	76.9	76.0	74.9	80.3	76.4
In civilian labor force .....	59,926,488	11,378,554	316,405	629,981	1,806,014	8,626,254
Percent unemployed .....	6.5	5.6	9.8	6.3	7.8	4.9
Females, 16 years and over .....	89,482,168	16,206,485	485,256	1,012,148	2,254,826	12,454,255
In labor force .....	44,668,465	8,356,257	216,328	495,248	1,142,594	6,502,087
Percent of females 16 and over .....	49.9	51.6	44.6	48.9	50.7	52.2
In civilian labor force .....	44,523,329	8,316,003	215,728	487,400	1,140,117	6,472,758
Percent unemployed .....	6.5	5.9	9.4	6.3	9.0	5.1
<b>OCCUPATION</b>						
Employed persons, 16 years and over .....	97,639,355	18,573,758	480,810	1,046,957	2,702,779	14,343,212
Percent .....	100.0	100.0	100.0	100.0	100.0	100.0
Managers and professionals .....	22.7	23.9	13.2	29.0	10.5	26.4
Technical sales and support .....	30.3	32.0	26.4	33.5	23.0	33.8
Service occupations .....	12.9	12.4	15.9	13.0	16.2	11.6
Farming, forestry, fishing .....	2.9	2.8	7.5	2.1	5.9	2.2
Precision, production, craft, and repair .....	12.9	13.4	14.1	12.4	15.6	13.1
Operators, fabricators, and laborers .....	18.3	15.3	22.9	10.1	28.7	12.9
<b>FAMILY INCOME</b>						
Total families .....	59,190,133	10,719,569	309,307	676,939	1,530,825	8,202,498
Percent with income .....	100.0	100.0	100.0	100.0	100.0	100.0
Under \$5,000 .....	7.3	7.1	16.0	5.9	11.3	6.1
\$5,000 to \$9,999 .....	13.1	12.8	23.9	13.1	18.2	11.4
\$10,000 to \$14,999 .....	14.7	14.3	20.0	15.5	18.9	13.1
\$15,000 and \$19,999 .....	15.1	14.0	15.1	14.5	16.3	13.5
\$20,000 and \$24,999 .....	14.3	13.6	10.3	13.7	13.0	13.8
\$25,000 or more .....	35.4	38.1	14.7	37.3	22.3	42.0
Median income (dollars) .....	\$19,917	\$20,572	\$12,383	\$20,334	\$15,461	\$21,999
Mean income (dollars) .....	\$23,092	\$24,327	\$14,897	\$24,217	\$17,764	\$25,916
<b>POVERTY</b>						
Total families .....	59,190,133	10,719,569	309,307	676,939	1,530,825	8,202,498
Families below poverty level .....	5,670,215	1,047,619	84,831	49,799	282,308	630,681
Percent—						
Of total families below poverty level .....	9.6	9.8	27.4	7.4	18.4	7.7
With related children under 18 years .....	74.3	76.3	84.6	72.5	85.8	71.2
Female householder with no husband present .....	43.8	39.1	30.3	42.1	34.6	42.1
Householder, 65 years and over .....	13.8	11.8	11.1	10.9	7.4	13.9

## Appendix A. Summary Tables

Table A-1. Growth of the Hispanic and Non-Hispanic Populations in the Border Counties of the Border States: 1970-80

State and county	1970			1980			Percent change, 1970-80		
	Total	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic	Total	Hispanic	Non-Hispanic
United States .....	203,211,926	9,072,602	194,139,324	226,545,805	14,603,683	211,942,122	11.5	61.0	9.2
Non-border States .....	169,275,162	4,289,613	164,985,549	184,627,603	6,158,647	178,468,956	9.1	43.6	8.2
Border States .....	33,936,764	4,782,989	29,153,775	41,918,202	8,445,036	33,473,166	23.5	76.6	14.8
All Border counties .....	2,861,560	833,284	2,028,276	4,009,079	1,449,156	2,559,923	40.1	73.9	26.2
All Non-border counties .....	31,075,204	3,949,705	27,125,499	37,909,123	6,995,880	30,913,243	22.0	77.1	14.0
California .....	19,953,134	2,369,231	17,583,903	23,667,902	4,541,300	19,126,602	18.6	91.7	8.8
Border counties .....	1,432,346	151,579	1,280,767	1,953,956	325,956	1,628,000	36.4	115.0	27.1
San Diego .....	1,357,854	121,485	1,236,369	1,861,846	274,530	1,587,316	37.1	126.0	28.4
Imperial .....	74,492	30,094	44,398	92,110	51,426	40,684	23.7	70.9	-8.4
Non-Border Counties .....	18,520,788	2,217,652	16,303,136	21,713,946	4,215,344	17,498,602	17.2	90.1	7.3
Arizona .....	1,770,900	264,770	1,506,130	2,718,215	444,102	2,274,113	53.5	67.7	51.0
Border Counties .....	488,370	106,493	381,877	728,142	178,985	549,157	49.1	68.1	43.8
Cochise .....	61,910	18,244	43,666	85,686	22,848	62,838	38.4	25.2	43.9
Pima .....	351,667	64,136	287,531	531,443	111,378	420,065	51.1	73.7	46.1
Santa Cruz .....	13,966	10,208	3,758	20,459	15,229	5,230	46.5	49.2	39.2
Yuma .....	60,827	13,905	46,922	90,554	29,530	61,024	48.9	112.4	30.1
Non-Border Counties .....	1,282,530	158,277	1,124,253	1,990,073	265,117	1,724,956	55.2	67.5	53.4
New Mexico .....	1,016,000	308,340	707,660	1,302,894	477,051	825,843	28.2	54.7	16.7
Border Counties .....	86,213	37,951	48,262	117,974	59,191	58,783	36.8	56.0	21.8
Dona Ana .....	69,773	30,322	39,451	96,340	50,171	46,169	38.1	65.5	17.0
Hidalgo .....	4,734	2,286	2,448	6,049	2,849	3,200	27.8	24.6	30.7
Luna .....	11,706	5,343	6,363	15,585	6,171	9,414	33.1	15.5	47.9
Non-Border Counties .....	929,787	270,389	659,398	1,184,920	417,860	767,060	27.4	54.5	16.3
Texas .....	11,196,730	1,840,648	9,356,082	14,229,191	2,982,583	11,246,608	27.1	62.0	20.2
Border Counties .....	854,631	537,261	317,370	1,209,007	885,024	323,983	41.5	64.7	2.1
El Paso .....	359,291	181,705	177,586	479,899	297,196	182,703	33.6	63.6	2.9
Hudspeth .....	2,392	769	1,623	2,728	1,589	1,139	14.0	106.6	-29.8
Culberson .....	3,429	1,301	2,128	3,315	2,101	1,214	-3.3	61.5	-43.0
Jeff Davis .....	1,527	642	885	1,647	777	870	7.9	21.0	-1.7
Presidio .....	4,842	4,359	483	5,188	3,989	1,199	7.1	-8.5	148.2
Brewster .....	7,780	3,692	4,088	7,573	3,262	4,311	-2.7	-11.6	5.5
Terrell .....	1,940	1,047	893	1,595	691	904	-17.8	-34.0	1.2
Valverde .....	27,471	14,888	12,583	35,910	22,612	13,298	30.7	51.9	5.7
Kinney .....	2,006	1,547	459	2,279	1,310	969	13.6	-15.3	111.1
Maverick .....	18,093	15,505	2,588	31,398	28,366	3,032	73.5	82.9	17.2
Dimmitt .....	9,039	6,842	2,197	11,367	8,869	2,498	25.8	29.6	13.7
Webb .....	72,859	56,530	16,329	99,258	90,823	8,435	36.2	60.7	-48.3
Zapata .....	4,352	2,720	1,632	6,628	5,042	1,586	52.3	85.4	-2.8
Starr .....	17,707	14,314	3,393	27,266	26,409	857	54.0	84.5	-74.7
Hidalgo .....	181,535	131,732	49,803	283,229	230,287	52,942	56.0	74.8	6.3
Cameron .....	140,368	99,668	40,700	209,727	161,701	48,026	49.4	62.2	18.0
Non-Border Counties .....	10,342,099	1,303,387	9,038,712	13,020,184	2,097,559	10,922,625	25.9	60.9	20.8

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Table A-2. Proportions of Hispanics in the Border County Populations: 1980

Area	Total population	Hispanic population	
		Number	Percent
United States.....	226,545,805	14,603,683	6.4
Non-border States.....	184,627,603	6,158,647	3.3
Border States.....	41,918,202	8,445,036	20.1
All border counties.....	4,009,079	1,449,156	36.1
All non-border counties.....	37,909,123	6,995,880	18.5
CALIFORNIA.....	23,667,902	4,541,300	19.2
Border counties.....	1,953,956	325,956	16.7
San Diego.....	1,861,846	274,530	14.7
Imperial.....	92,110	51,426	55.8
Non-border counties.....	21,713,946	4,215,344	19.4
ARIZONA.....	2,718,215	444,102	16.3
Border counties.....	728,142	178,985	24.6
Cochise.....	85,686	22,848	26.7
Pima.....	531,443	111,378	21.0
Santa Cruz.....	20,459	15,229	74.4
Yuma.....	90,554	29,530	32.6
Non-border counties.....	1,990,073	265,117	13.3
NEW MEXICO.....	1,302,894	477,051	36.6
Border counties.....	117,974	59,191	50.2
Dona Ana.....	96,340	50,171	52.1
Hidalgo.....	6,049	2,849	47.1
Luna.....	15,585	6,171	39.6
Non-border counties.....	1,184,920	417,860	35.3
TEXAS.....	14,229,191	2,982,583	21.0
Border counties.....	1,209,007	885,024	73.2
El Paso.....	479,899	297,196	61.9
Hudspeth.....	2,728	1,589	58.2
Culberson.....	3,315	2,101	63.4
Jeff Davis.....	1,647	777	47.2
Presidio.....	5,188	3,989	76.9
Brewster.....	7,573	3,262	43.1
Terrell.....	1,595	691	43.3
Valverde.....	35,910	22,612	63.0
Kinney.....	2,279	1,310	57.5
Maverick.....	31,398	28,366	90.3
Dimmitt.....	11,367	8,869	78.0
Webb.....	99,258	90,823	91.5
Zapata.....	6,628	5,042	76.1
Starr.....	27,266	26,409	96.9
Hidalgo.....	283,229	230,287	81.3
Cameron.....	209,727	161,701	77.1
Non-border counties.....	13,020,184	2,097,559	16.1

Table A-3. Distribution of the Hispanic Population in the Border Counties, by Type of Hispanic Origin: 1980

State and county	All persons	Hispanic origin			Non-Hispanic origin
		Total	Mexican	Other Hispanic	
Total, border States.....	41,918,202	8,445,036	6,984,363	1,460,673	33,473,166
Percent.....	100.0	100.0	100.0	100.0	100.0
All border counties.....	9.6	17.2	18.9	8.8	7.6
All non-border counties.....	90.4	82.8	81.1	91.2	92.4
CALIFORNIA.....	23,667,902	4,541,300	3,613,167	928,133	19,126,602
Percent.....	100.0	100.0	100.0	100.0	100.0
Border counties.....	8.3	7.2	7.7	5.3	8.5
San Diego.....	7.9	6.0	6.3	5.1	8.3
Imperial.....	0.4	1.1	1.4	0.2	0.2
Non-Border counties.....	91.7	92.8	92.3	94.7	91.5
ARIZONA.....	2,718,215	444,102	397,940	46,162	2,274,113
Percent.....	100.0	100.0	100.0	100.0	100.0
Border counties.....	26.8	40.3	40.8	35.7	24.1
Cochise.....	3.2	5.1	5.3	4.2	2.8
Pima.....	19.6	25.1	25.0	25.7	18.5
Santa Cruz.....	0.8	3.4	3.6	2.0	0.2
Yuma.....	3.3	6.6	7.0	3.9	2.7
Non-Border counties.....	73.2	59.7	59.2	64.3	75.9
NEW MEXICO.....	1,302,894	477,051	228,706	248,345	825,843
Percent.....	100.0	100.0	100.0	100.0	100.0
Border counties.....	9.1	12.4	22.4	3.2	7.1
Dona Ana.....	7.4	10.5	18.8	2.8	5.6
Hidalgo.....	0.5	0.6	1.2	0.0	0.4
Luna.....	1.2	1.3	2.4	0.3	1.1
Non-Border counties.....	90.9	87.6	77.6	96.8	92.9
TEXAS.....	14,229,191	2,982,583	2,744,550	238,033	11,246,608
Percent.....	100.0	100.0	100.0	100.0	100.0
Border counties.....	8.5	29.7	30.3	22.9	2.9
El Paso.....	3.4	10.0	10.3	6.3	1.6
Webb.....	0.7	3.0	3.1	1.9	0.1
Hidalgo.....	2.0	7.7	8.1	3.6	0.5
Cameron.....	1.5	5.4	5.0	9.9	0.4
Other counties.....	0.9	3.6	3.8	1.2	0.3
Non-Border counties.....	91.5	70.3	69.7	77.1	97.1

Table A-4. Selected Social Characteristics of Hispanics, by State and Border County: 1980

Characteristic	California			Arizona			New Mexico		
	San Diego	Imperial	Cochise	Pima	Santa Cruz	Yuma	Dona Ana	Hidalgo	Luna
Total, Hispanic origin .....	274,530	51,426	22,848	111,378	15,229	29,530	50,171	2,849	6,171
AGE									
Percent .....									
Under 15 .....	31.8	34.8	33.2	32.8	33.4	38.3	32.4	35.9	35.1
15-64 .....	64.7	60.9	59.9	62.4	60.1	59.2	62.7	58.2	58.3
65 and over .....	3.5	4.3	6.9	4.9	6.5	2.5	4.9	5.9	6.7
Median age .....	22.5	21.3	22.8	22.8	23.6	20.1	22.1	21.2	21.6
SEX									
Percent .....									
Male .....	50.9	48.5	48.6	48.9	46.4	49.4	48.8	47.5	47.9
Female .....	49.1	51.5	51.4	51.1	53.6	50.6	51.2	52.5	52.1
Ratio (Male/Female) .....	103.9	94.0	94.7	95.7	86.5	97.5	95.2	90.3	91.9
MARITAL STATUS									
Persons, 15 year and over .....	187,202	33,534	15,267	74,883	10,143	18,222	33,916	1,826	4,008
Percent .....									
Married .....	56.9	60.3	59.4	58.3	60.3	66.2	58.1	55.9	66.2
Not-Married .....	43.1	39.7	40.6	41.7	39.7	33.8	41.9	44.1	33.8
SCHOOL ENROLLMENT									
Persons, 3 years and over enrolled in school .....	93,761	19,297	7,810	38,485	5,155	10,150	17,925	902	1,828
Percent .....									
Below High School .....	60.6	62.5	63.5	59.5	65.7	75.2	56.5	63.1	70.1
High School .....	22.7	24.4	24.7	23.5	27.1	19.1	24.6	33.7	29.0
College .....	16.7	13.1	11.8	17.0	7.2	5.7	18.9	3.2	0.9
YEARS OF SCHOOL COMPLETED									
Persons, 25 years and over .....	119,113	22,032	10,548	50,471	7,282	12,054	21,659	1,221	2,698
Percent .....									
Elem. School (0 to 8 yrs.) .....	34.9	57.3	47.9	34.2	45.2	57.4	43.6	39.6	49.1
High School (1 to 4 yrs.) .....	41.0	27.7	36.3	45.2	38.5	29.4	41.7	54.7	39.9
College (1 or more yrs.) .....	24.1	15.0	15.8	20.6	16.3	13.1	14.7	5.7	11.0
FERTILITY									
Total women, 15 to 44 yrs. ....	68,414	12,490	5,122	27,514	3,554	7,056	12,641	640	1,410
Children ever born per 1000 women .....	1,530	1,705	1,697	1,544	1,714	1,997	1,640	2,134	2,125
TYPE OF HOUSEHOLD									
Persons, in Households .....	259,874	50,888	22,506	110,133	15,164	29,148	49,145	2,849	6,171
Percent .....									
Family householder .....	21.4	20.8	22.7	22.2	22.6	21.8	22.5	21.6	22.6
Nonfamily householder .....	5.1	3.3	4.4	4.8	3.5	2.5	4.2	7.7	4.3
Spouse .....	17.9	17.7	18.4	18.4	18.0	18.8	18.5	16.6	20.4
Other relative .....	51.2	57.0	53.1	51.6	55.2	55.3	53.0	52.8	51.8
Nonrelative .....	4.4	1.2	1.3	3.1	0.7	1.6	1.8	1.2	0.9
Persons per Household .....	3.50	4.00	3.50	3.52	3.78	3.97	3.68	3.38	3.75
PLACE OF BIRTH									
Total .....	274,530	51,426	22,848	111,378	15,229	29,530	50,171	2,849	6,171
Percent .....									
Native .....	62.5	56.9	73.0	83.6	53.2	60.7	82.6	82.8	81.2
Born in state .....	46.3	49.0	56.2	67.1	45.3	43.1	58.6	64.9	66.6
Born in diff. state .....	13.8	6.6	14.0	15.0	5.2	16.3	23.5	17.9	14.0
Born abroad .....	2.3	1.3	2.7	1.5	2.7	1.3	0.6	0.0	0.6
Foreign born .....	37.5	43.1	27.0	16.4	46.8	39.3	17.4	17.2	18.8
LANGUAGE ABILITY									
Persons, 5 years and over .....	243,434	45,604	20,349	98,507	13,498	26,012	44,856	2,494	5,423
Percent .....									
Speak only English at home .....	26.7	6.5	13.8	19.7	3.6	14.4	10.3	8.1	8.2
Speak Spanish at home .....	70.8	93.1	85.4	79.6	96.1	85.1	88.6	91.9	91.8
Speak English very well .....	52.2	63.8	68.4	69.3	69.6	57.5	70.2	81.5	78.5
Speak English not well at all .....	18.6	29.4	17.1	10.3	26.5	27.6	18.4	10.5	13.4

Table A-4. Selected Social Characteristics of Hispanics, by State and Border County: 1980—Con.

Characteristic	Texas							
	El Paso	Hudspeth	Culberson	Jeff Davis	Presidio	Brewster	Terrell	Valverde
Total, Hispanic origin .....	297,196	1,589	2,101	777	3,989	3,262	691	22,612
AGE								
Percent .....								
Under 15 .....	33.8	37.3	38.4	28.3	31.6	28.5	28.8	36.1
15-64 .....	61.2	56.5	57.1	57.3	55.4	63.2	59.3	57.6
65 and over .....	5.0	6.2	4.5	14.4	13.0	8.4	11.9	6.4
Median .....	22.4	21.4	19.9	29.5	26.0	23.3	29.8	21.7
SEX								
Percent .....								
Male .....	47.3	51.0	49.9	50.5	47.4	48.4	49.9	48.2
Female .....	52.7	49.0	50.1	49.5	52.6	51.6	50.1	51.8
Ratio (Male/Female) .....	89.8	104.0	99.7	101.8	90.1	93.7	99.7	93.2
MARITAL STATUS								
Persons, 15 years and over .....	196,679	996	1,295	557	2,727	2,333	492	14,457
Percent .....								
Married .....	58.6	65.0	65.3	71.5	56.5	51.8	61.6	63.2
Not-Married .....	41.4	35.0	34.7	28.5	43.5	48.2	38.4	36.8
SCHOOL ENROLLMENT								
Persons, 3 years and over enrolled in school .....	107,913	483	652	198	1,375	1,201	187	7,906
Percent .....								
Below High School .....	62.2	76.0	82.2	72.2	71.9	52.2	65.2	70.4
High School .....	22.8	21.3	15.6	20.7	22.3	20.0	31.6	23.8
College .....	14.9	2.7	2.1	7.1	5.8	27.8	3.2	5.8
YEARS OF SCHOOL COMPLETED								
Persons, 25 years and over .....	133,577	709	862	430	2,031	1,493	377	10,168
Percent .....								
Elem. School(0 to 8 yrs.) .....	46.3	71.4	67.3	69.3	66.5	54.8	59.4	58.3
High School(1 to 4 yrs.) .....	36.8	19.9	27.0	23.5	23.4	29.9	31.8	29.3
College(1 or more yrs.) .....	16.8	8.7	5.7	7.2	10.1	15.3	8.8	12.4
FERTILITY								
Total women, 15 to 44 yrs. ....	74,175	331	477	154	787	774	146	5,144
Children ever born per 1000 women .....	1,628	2,157	2,361	1,734	2,023	1,478	1,836	2,061
TYPE OF HOUSEHOLD								
Persons, in Households .....	294,628	1,589	2,097	777	3,985	3,114	691	22,388
Percent .....								
Family householder .....	22.1	22.0	23.8	24.6	22.8	22.7	25.2	22.0
Nonfamily householder .....	3.2	3.1	2.6	5.0	6.5	6.6	9.0	2.8
Spouse .....	17.7	17.9	18.5	24.6	17.7	18.0	20.4	19.3
Other relative .....	55.8	55.4	54.5	44.7	51.9	49.8	43.6	55.4
Nonrelative .....	1.2	1.6	0.6	1.2	1.1	2.7	1.9	0.5
Persons per Household .....	3.85	3.83	3.81	3.39	3.33	3.36	2.87	3.96
PLACE OF BIRTH								
Percent .....	297,196	1,589	2,101	777	3,989	3,262	691	22,612
Native .....	70.7	64.8	82.6	91.9	80.3	91.8	87.6	71.0
Born in state .....	60.0	54.6	80.9	85.3	75.1	89.7	85.2	63.8
Born in diff. state .....	8.9	6.5	1.5	4.5	4.7	1.7	2.0	5.3
Born abroad .....	1.8	3.7	0.2	2.1	0.5	0.4	0.3	1.9
Foreign born .....	29.3	35.2	17.4	8.1	19.7	8.2	12.4	29.0
LANGUAGE ABILITY								
Persons, 5 years and over .....	264,955	1,385	1,855	699	3,679	2,970	622	20,139
Percent .....								
Speak only English at home .....	6.2	0.9	0.2	6.0	2.3	4.7	5.6	2.9
Speak Spanish at home .....	93.6	99.0	99.8	94.0	97.5	95.3	94.4	97.0
Speak English very well or well .....	68.9	59.4	75.8	71.2	63.3	76.2	73.3	68.5
Speak English not well or at all .....	24.7	39.6	23.9	22.7	34.2	19.1	21.1	28.5

Table A-4. Selected Social Characteristics of Hispanics, by State and Border County: 1980—Con.

Characteristic	Texas							
	Kinney	Maverick	Dimmitt	Webb	Zapata	Starr	Hidalgo	Cameron
Total, Hispanic origin.....	1,310	28,366	8,869	90,823	5,042	26,409	230,287	161,701
AGE								
Percent .....								
Under 15.....	31.8	36.1	34.9	33.4	32.7	34.5	36.3	36.0
15-64.....	57.7	57.6	56.5	58.5	57.1	56.9	58.0	57.9
65 years and over.....	10.5	6.3	8.6	8.0	10.2	8.6	5.7	6.1
Median.....	24.1	21.3	22.2	22.9	24.0	22.4	21.3	21.6
SEX								
Percent .....								
Male.....	49.9	47.7	49.2	47.5	48.8	48.5	47.8	47.5
Female.....	50.1	52.3	50.8	52.5	51.2	51.5	52.2	52.5
Ratio (Male/Female).....	99.7	91.3	96.7	90.5	95.4	94.2	91.7	90.6
MARITAL STATUS								
Persons, 15 years and over .....	893	18,118	5,772	60,446	3,392	17,307	146,682	103,522
Percent .....								
Married.....	57.3	60.1	60.6	56.4	64.2	59.9	58.6	57.7
Not-Married.....	42.7	39.9	39.4	43.6	35.8	40.1	41.4	42.3
SCHOOL ENROLLMENT								
Persons, 3 years and over, enrolled in school .....	465	10,088	3,058	31,610	1,583	9,206	84,159	57,663
Percent .....								
Below High School.....	72.9	67.7	71.5	66.4	68.0	70.6	67.5	66.7
High School.....	22.8	24.2	24.3	21.8	27.1	22.8	22.4	22.8
College.....	4.3	8.1	4.2	11.8	4.9	6.6	10.1	10.5
YEARS OF SCHOOL COMPLETED								
Persons, 25 years and over .....	638	12,547	4,034	41,998	2,438	12,149	99,992	71,646
Percent .....								
Elementary School 0 to 8 yrs.).....	73.7	63.9	69.9	51.8	58.8	65.0	62.9	59.2
High School (1 to 4 yrs.).....	21.8	21.6	21.8	28.9	27.9	25.0	22.8	26.7
College(1 or more yrs.).....	4.5	14.5	8.3	19.3	13.3	10.0	14.3	14.1
FERTILITY								
Total women, 15 to 44 yrs.....	257	6,554	1,889	20,774	1,042	5,779	54,475	38,063
Children ever born per 1000 women.....	2,039	1,859	1,900	1,687	1,875	1,887	1,792	1,851
TYPE OF HOUSEHOLD								
Persons, in Households.....	1,310	28,366	8,801	89,841	5,042	26,252	229,387	160,663
Percent .....								
Family householder.....	21.1	21.2	22.7	21.9	23.9	21.9	21.1	21.5
Nonfamily householder.....	6.3	2.6	2.7	3.5	4.3	3.3	2.3	2.7
Spouse.....	18.6	17.6	17.2	17.3	19.4	17.5	17.3	17.2
Other relative.....	53.3	57.9	56.9	56.5	52.2	56.9	58.5	57.5
Nonrelative.....	0.7	0.7	0.5	0.8	0.3	0.3	0.8	1.2
Persons per Household.....	3.60	4.16	3.96	3.92	3.55	3.96	4.25	4.07
PLACE OF BIRTH								
Total, Persons.....	1,310	28,366	8,869	90,823	5,042	26,409	230,287	161,701
Percent .....								
Native.....	75.6	60.1	87.4	77.8	78.1	77.9	76.3	76.5
Born in state.....	70.7	51.2	76.3	72.0	74.4	72.5	69.7	70.7
Born in diff. state.....	3.6	6.6	10.8	4.7	3.7	4.6	5.8	4.7
Born abroad.....	1.4	2.2	0.3	1.2	0.0	0.8	0.9	1.1
Foreign born.....	24.4	39.9	12.6	22.2	21.9	22.1	23.7	23.5
LANGUAGE ABILITY								
Persons, 5 years and over.....	1,198	25,202	7,867	81,178	4,463	23,679	203,304	142,550
Percent .....								
Speak only English at home.....	4.3	1.2	2.2	2.4	2.4	3.1	2.7	3.5
Speak Spanish at home.....	95.4	98.8	97.2	97.5	97.6	96.8	97.2	96.3
Speak English very well or well.....	65.9	60.6	69.0	70.9	65.7	61.7	67.8	68.0
Speak English not well or at all.....	29.5	38.2	28.2	26.6	31.8	35.2	29.4	28.3

Table A-5. Selected Economic Characteristics of Hispanics, by State and Border County: 1980

Characteristic	California			Arizona			New Mexico		
	San Diego	Imperial	Cochise	Pima	Santa Cruz	Yuma	Dona Ana	Hidalgo	Luna
<b>LABOR FORCE STATUS</b>									
Male, 16 years and over .....	92,189	15,229	6,926	34,799	4,323	8,740	15,685	830	1,772
Percent .....									
In labor force .....	82.0	74.9	73.1	77.5	81.2	82.5	73.0	75.3	72.1
In civilian labor force .....	71.4	74.6	67.4	76.0	80.4	78.7	72.0	75.3	72.1
Unemply. in civlf .....	9.3	13.9	14.3	9.4	5.1	10.0	9.3	15.4	14.1
Females, 16 years and over .....	89,142	16,755	7,739	37,497	5,447	8,861	17,019	911	2,055
Percent .....									
In labor force .....	49.0	44.9	41.9	46.1	44.2	44.3	42.0	32.3	32.8
In civilian labor force .....	48.6	44.9	41.5	46.0	44.2	44.1	41.9	32.3	32.8
Unemply. in civlf .....	9.1	11.5	12.1	8.7	6.3	17.5	11.2	3.7	18.2
<b>OCCUPATION</b>									
Total empl, 16 years and over .....	99,102	16,440	6,818	39,705	5,555	9,420	16,585	812	1,648
Percent .....									
Managers & Professionals .....	12.9	10.0	11.0	14.1	16.6	9.0	12.5	10.5	11.6
Tech., sales, and support .....	23.3	26.2	26.6	26.1	33.1	18.6	24.9	20.2	27.0
Service occupations .....	19.1	15.6	19.0	16.2	13.2	12.6	16.6	21.7	17.5
Farm, Forest, Fishing .....	10.0	20.7	5.7	2.2	4.3	28.6	9.4	6.5	9.1
Precision, Production craft and repair ..	14.7	9.1	16.8	19.8	11.5	10.7	14.1	14.0	13.9
Operators, Fabricators, and Laborers ..	20.1	18.5	20.9	21.6	21.3	20.5	22.5	27.1	20.9
<b>FAMILY INCOME</b>									
Total families .....	55,707	10,596	5,099	24,473	3,423	6,341	11,052	616	1,393
Percent .....									
Under \$5,000 .....	10.6	9.7	13.5	11.4	8.3	9.6	16.9	9.4	25.2
\$5,000 to \$24,999 .....	68.3	72.7	75.3	66.5	74.9	76.1	71.3	70.9	63.2
\$25,000 and over .....	21.1	17.5	11.3	22.1	16.9	14.2	11.8	19.6	11.6
Median income (dollars) .....	\$15,004	\$14,130	\$12,694	\$16,144	\$13,507	\$12,700	\$11,451	\$13,150	\$10,139
<b>POVERTY</b>									
Families below poverty level .....	10,109	2,028	1,078	4,191	618	1,386	3,051	121	446
Pct. of all fam. ....	18.1	19.1	21.1	17.1	18.1	21.9	27.6	19.6	32.0

Table A-5. Selected Economic Characteristics of Hispanics, by State and Border County: 1980—Con.

Characteristic	Texas							
	El Paso	Hudspeth	Culberson	Jeff Davis	Presidio	Brewster	Terrell	Valverde
<b>LABOR FORCE STATUS</b>								
Male, 16 years and over .....	86,557	490	613	267	1,194	1,084	237	6,499
In labor force .....	75.4	76.3	82.5	66.3	63.6	69.9	76.4	72.6
In civilian labor force .....	72.8	76.3	82.5	66.3	63.6	69.9	76.4	68.2
Unemply. in civlf .....	9.8	1.1	9.3	5.6	5.7	5.4	2.2	12.9
Females, 16 years and over .....	103,145	468	641	282	1,424	1,173	240	7,351
In labor force .....	44.4	23.1	40.6	31.2	30.8	50.7	35.4	37.4
In civilian labor force .....	44.3	23.1	40.6	31.2	30.8	50.7	35.4	36.8
Unemply. in civlf .....	8.6	8.3	3.1	1.1	4.8	9.4	3.5	10.0
<b>OCCUPATION</b>								
Total empl, 16 years and over .....	98,625	469	711	254	1,134	1,256	259	6,295
Percent .....								
Managers & Professionals .....	13.1	3.8	4.6	5.1	11.4	5.7	3.5	13.7
Tech., sales, and support .....	28.6	11.1	17.7	15.7	25.1	24.2	20.5	24.9
Service occupations .....	14.8	14.5	31.2	31.5	18.6	29.5	23.9	16.2
Farm, Forest, Fishing .....	1.4	38.4	9.8	18.5	13.8	5.3	4.2	5.1
Precision, Production craft and repair ..	14.7	12.8	14.6	9.8	11.9	13.4	12.4	16.7
Operators, Fabricators, and Laborers ..	27.4	19.4	21.9	19.3	19.2	22.0	35.5	23.5
<b>FAMILY INCOME</b>								
Total, families .....	65,038	350	500	191	908	708	174	4,935
Under \$5,000 .....	15.5	16.9	15.6	22.0	33.1	20.3	17.2	20.3
\$5,000 to \$24,999 .....	70.5	79.7	82.6	67.5	61.7	77.7	67.8	73.0
\$25,000 and over .....	14.0	3.4	1.8	10.5	5.2	2.0	14.9	6.7
Median income (dollars) .....	\$12,222	\$8,987	\$9,919	\$8,576	\$8,727	\$11,049	\$14,079	\$9,819
<b>POVERTY</b>								
Families below poverty level .....	17,267	124	124	58	406	185	39	1,804
Percent .....	26.5	35.4	24.8	30.4	44.7	26.1	22.4	36.6

Table A-5. Selected Economic Characteristics of Hispanics, by State and Border County: 1980—Con.

Characteristic	Texas							
	Kinney	Maverick	Dimmett	Webb	Zapata	Starr	Hidalgo	Cameron
<b>LABOR FORCE STATUS</b>								
Male, 16 years and over .....	426	7,938	2,691	26,621	1,592	7,795	64,740	45,311
In labor force .....	68.3	70.9	66.1	72.1	73.0	65.0	74.3	73.8
In civilian labor force .....	68.3	70.9	66.1	71.9	73.0	64.9	74.1	73.5
Unemply. in civlf .....	6.9	15.8	6.5	8.0	10.8	13.0	9.5	9.5
Females, 16 years and over .....	440	9,312	2,906	31,661	1,681	8,793	76,054	54,259
In labor force .....	33.0	40.3	39.0	39.7	31.2	37.1	45.6	44.0
In civilian labor force .....	33.0	40.3	39.0	39.7	31.2	37.1	45.6	44.0
Unemply. in civlf .....	13.8	12.9	11.3	6.3	12.4	12.6	10.2	8.9
<b>OCCUPATION</b>								
Total empl, 16 years and over .....	396	8,007	2,668	29,404	1,493	7,248	74,609	51,897
Percent .....								
Managers & Professionals .....	8.1	15.4	9.2	18.7	12.7	15.2	13.2	12.2
Tech., sales, and support .....	18.7	26.8	22.0	34.7	19.2	22.5	25.8	27.8
Service occupations .....	14.4	12.2	17.8	13.1	17.8	15.1	13.9	16.1
Farm, Forest, Fishing .....	28.5	7.1	9.0	2.3	11.6	18.1	11.4	5.5
Precision, Production craft and repair ..	12.1	11.5	16.0	12.5	17.4	11.3	12.2	13.9
Operators, Fabricators, and Laborers ..	18.2	27.0	25.9	18.6	21.3	17.7	23.4	24.4
<b>FAMILY INCOME</b>								
Total, families .....	277	6,023	1,996	19,661	1,203	5,762	48,303	34,578
Percent .....								
Under \$5,000 .....	30.0	20.5	26.4	18.8	18.6	29.4	20.8	19.3
\$5,000 to \$24,999 .....	67.5	71.4	65.3	66.2	68.4	62.1	68.6	69.8
\$25,000 and over .....	2.5	8.1	8.3	15.0	13.0	8.5	10.6	10.9
Median income (dollars) .....	\$8,125	\$9,882	\$9,328	\$11,346	\$11,332	\$8,415	\$10,418	\$13,781
<b>POVERTY</b>								
Families below poverty level .....	133	2,249	832	6,208	368	2,664	17,688	11,654
Percent .....	48.0	37.3	41.7	31.6	30.6	46.2	36.6	33.7

## Appendix B. Accuracy of the Data

### INTRODUCTION

The data presented in this publication are based on the 1980 census sample. The data are estimates of the actual figures that would have resulted from a complete count. Estimates can be expected to vary from the complete-count result because they are subject to two basic types of error—sampling and nonsampling. The sampling error in the data arises from the selection of persons and housing units to be included in the sample. The nonsampling error, which affects both sample and complete-count data, is the result of all other errors that may occur during the collection and processing phases of the census. A more detailed discussion of both sampling and nonsampling error and a description of the estimation procedure are given in this appendix.

### SAMPLE DESIGN

While every person and housing unit in the United States was enumerated on a questionnaire that requested certain basic demographic information (e.g., age, race, relationship), a sample of persons and housing units was enumerated on a questionnaire that requested additional information. The basic sampling unit for the 1980 census was the housing unit, including all occupants. For persons living in group quarters, the sampling unit was the person.

Two sampling rates were employed. In counties, incorporated places, and minor civil divisions estimated to have fewer than 2,500 persons (based on precensus estimates), one-half of all housing units and persons in group quarters were to be included in the sample. In all other places, one-sixth of the housing units or persons in group quarters were sampled. The purpose of this scheme was to provide relatively more reliable estimates for small places. When both sampling rates were taken into account across the Nation, approximately 19 percent of the Nation's housing units were included in the census sample.

The sample designation method depended on the data collection procedures. In about 95 percent of the country, the census was taken by the mailout/mailback procedure. For these areas, the Bureau of the Census either purchased a commercial mailing list which was updated and corrected by Census Bureau field staff, or prepared a mailing list by canvassing and listing each

address in the area prior to Census Day. These lists were computerized, and every sixth unit (for 1-in-6 areas) or every second unit (for 1-in 2 areas) was designated as a sample unit by computer. Both of these lists were also corrected by the Post Office.

In non-mailout/mailback areas, a blank listing book with designated sample lines (every sixth or every second line) was prepared for the enumerator. Beginning about Census Day, the enumerator systematically canvassed the area and listed all housing units in the listing book in the order they were encountered. Completed questionnaires, including sample information for any housing unit which was listed on a designated sample line, were collected.

In both types of data collection procedure areas, an enumerator was responsible for a small geographic area known as an enumeration district, or ED. An ED usually represented the average workload area for one enumerator.

### ERRORS IN THE DATA

The sample data in this publication may differ somewhat from complete-count figures that would have been obtained if all housing units, persons within those housing units, and persons living in group quarters had been enumerated using the same questionnaires, instructions, enumerators, etc. The deviation of a sample estimate from the average of all possible samples is called the sampling error. The standard error of a survey estimate is a measure of the variation among the estimates from the possible samples and thus is a measure of the precision with which an estimate from a particular sample approximates the average result of all possible samples. The sample estimate and its estimated standard error permit the construction of interval estimates with prescribed confidence that the interval includes the average result of all possible samples. The method of calculating standard errors and confidence intervals for the sample data in this report is given below.

In addition to the variability which arises from the sampling procedures, both sample data and complete-count data are subject to nonsampling error. Nonsampling error may be introduced during each of the many extensive and complex operations used to collect and process census data. For example, operations such as

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editing, reviewing, or handling questionnaires may introduce error into the data. A more detailed discussion of the sources of nonsampling error is given in the section, Control of Nonsampling Error in this appendix.

Nonsampling error may affect the data in two ways. Errors that are introduced randomly will increase the variability of the data, and should therefore be reflected in the standard error. Errors that tend to be consistent in one direction will make both sample and complete-count data biased in that direction. For example, if respondents consistently tend to underreport their income, then the resulting counts of households or families by income category will be skewed toward the lower income categories. Such biases are not reflected in the standard error.

### Calculation of Standard Errors

**Totals and Percentages.** Tables A and B in this appendix, along with information contained in PC80-1-C1, *General Social and Economic Characteristics, U.S. Summary*, are necessary to calculate the standard errors of sample estimates in this report. In order to perform this calculation, it is necessary to know the unadjusted standard error for the characteristic, given in tables B-1 or B-2, that would result under a simple random sample design (of persons) and estimation technique and the appropriate adjustment factor for the particular characteristic estimated. The adjustment factors reflect the effects of the actual sample design and complex ratio estimation procedure used for the 1980 census.

To calculate the approximate standard error of an estimate for a particular geographic area follow the steps given below:

1. Obtain the unadjusted standard error from table B-1 or B-2 (or from the formula given below the table) for the estimated total or percentage, respectively.
2. The standard errors obtained in 1. must be multiplied by an adjustment factor. In order to obtain this adjustment factor, the reader should follow the instructions appearing in the corresponding section of appendix C in the aforementioned census report.

As is evident from the formulas below tables B-1 or B-2, the unadjusted standard errors of zero estimates or of very small estimated totals or percentages approach zero. This is also the case for very large percentages or estimated totals that are close to the size of the tabulation areas to which they correspond. These estimated totals and percentages are, nevertheless, still subject to sampling and nonsampling variability, and an estimated standard error of zero (or a very small standard error) is not appropriate.

For estimated percentages that are less than 2 or greater than 98, use the *unadjusted* standard errors in

table B that appear in the 2 or 98 row. For an estimated total that is less than 50 or within 50 of the total size of the tabulation area use an *unadjusted* standard error of 16.

An illustration of the use of the tables is given in a later section of this appendix.

**Differences.** The standard errors estimated from these tables are not directly applicable to differences between two sample estimates. In order to estimate the standard error of a difference, the tables are to be used somewhat differently in the following three situations.

1. For the difference between a sample estimate and a complete count value, use the standard error of the sample estimate.
2. For the difference between (or sum of) two sample estimates, the appropriate standard error is approximately the square root of the sum of the two individual standard errors squared; that is, for standard errors  $Se_x$  and  $Se_y$  of estimates  $x$  and  $y$ :

Se(

$$x-y) = Se_{(x+y)} = \sqrt{(Se_x)^2 + (Se_y)^2}$$

This method, however, will underestimate (overestimate) the standard error if the two items in a sum are highly positively (negatively) correlated or if the two items in a difference are highly negatively (positively) correlated. This method may also be used for the difference between (or sum of) sample estimates from two censuses or between a census sample and another survey. The standard error for estimates not based on the 1980 census sample must be obtained from an appropriate source outside of this publication.

3. For the difference between two estimates, one of which is a subclass of the other, use the tables directly where the calculated difference is the estimate of interest.

### Confidence Intervals

A sample estimate and its estimated standard error may be used to construct confidence intervals about the estimate. These intervals are ranges that will contain the average value of the estimated characteristic that results over all possible samples, with a known probability. For example, if all possible samples that could result under the 1980 census sample design were independently selected and surveyed under the same conditions, and if the estimate and its estimated standard error were calculated for each of these samples, then:

1. Approximately 68 percent of the intervals from one estimated standard error below the estimate to one estimated standard error above the estimate would contain the average result from all possible sample; and

2. Approximately 95 percent of the intervals from two estimated standard errors below the estimate to two estimated standard errors above the estimate would contain the average result from all possible samples.

The intervals are referred to as 68 percent and 95 percent confidence intervals, respectively.

The average value of the estimated characteristic that could be derived from all possible samples is or is not contained in any particular computed interval. Thus we cannot make the statement that the average value has a certain probability of falling between the limits of the calculated confidence interval. Rather, one can say with a specified probability or confidence that the calculated confidence interval includes the average estimate from all possible samples (approximately the complete-count value).

Confidence intervals may also be constructed for the difference between two sample figures. This is done by computing the difference between these figures, obtaining the standard error of the differences (using the formula given earlier) and then forming a confidence interval for this estimated difference as above. One can then say with specified confidence that this interval includes the difference that would have been obtained by averaging the results from all possible sample.

The estimated standard errors given in this report do not include all portions of the variability due to nonsampling error that may be present in the data. The standard errors reflect the effect of simple response variance, but not the effect of correlated errors introduced by enumerators, coders, or other field or processing personnel. Thus, the calculated standard errors represent a lower bound of the total error. As a result, confidence intervals formed using these estimated standard errors may not meet the stated levels of confidence (i.e., 68- or 95-percent). Thus, some care must be exercised in the interpretation of the sample data in this publication based on the estimated standard errors.

For more information on confidence intervals and nonsampling error, see any standard sampling theory text.

## ESTIMATION PROCEDURE

The sample estimates which appear in this publication were obtained from an iterative ratio estimation procedure which resulted in the assignment of a weight to each sample person. For any given tabulation area, a characteristic total was estimated by summing the weights assigned to the persons in the tabulation area which possessed the characteristic. Estimates of family characteristics were based on the weights assigned to the

family members designated as householders. Each sample person was assigned exactly one weight to be used to produce estimates of all characteristics. For example, if the weight given to a sample person had the value five, all characteristics of that person or housing unit would be tabulated with a weight of five. The estimation procedure, however, did assign weights which vary from person to person.

The estimation procedure used to assign the weights was performed in geographically defined "weighting areas." Weighting areas were generally formed of adjoining portions of geography, which closely agreed with census tabulation areas within counties. Weighting areas were never allowed to cross state or county boundaries. In small counties with a sample count of less than 400 persons, the minimum required sample condition was relaxed to permit the entire county to become a weighting area.

Within a weighting area, the ratio estimation procedure for persons was performed in three stages. For persons, the first stage employed 17 household type groups. The second stage used two groups: householders and nonhouseholders. The third stage could potentially use 160 age-sex-race-Hispanic-origin groups. The stages were as follows:

### Stage 1—Type of Household

<i>Group</i>	<i>Persons in Housing Units With a Family With Own Children Under 18</i>
1	2 persons in housing unit
2	3 persons in housing unit
3	4 persons in housing unit
4	5 to 7 persons in housing unit
5	8 or more persons in housing unit
	<i>Persons in Housing Units With a Family Without Own Children Under 18</i>
6-10	2 persons in housing unit through 8 or more persons in housing unit
	<i>Persons in All Other Housing Units</i>
11	1 person in housing unit
12-16	2 persons in housing unit through 8 or more persons in housing unit
17	<i>Persons in group quarters</i>

### Stage II—Householder/Nonhouseholder

<i>Group</i>	
1	Householder
2	Nonhouseholder (including persons in group quarters)

### Stage III—Age/Sex/Race/Hispanic Origin

<i>Group</i>	<i>White Race</i> <i>Persons of Hispanic Origin</i>
	<i>Male</i>
1	0 to 4 years of age
2	5 to 14 years of age
3	15 to 19 years of age
4	20 to 24 years of age
5	25 to 34 years of age
6	35 to 44 years of age
7	45 to 64 years of age
8	65 years of age or older
	<i>Female</i>
9-16	Same age categories as groups 1 to 8
	<i>Persons Not of Hispanic Origin</i>
17-32	Same age and sex categories as groups 1 to 16
	<i>Black Race</i>
33-64	Same age-sex-Hispanic origin categories as groups 1 to 32
	<i>Asian, Pacific Islander Race</i>
65-96	Same age-sex-Hispanic origin categories as groups 1 to 32
	<i>Indian (American) or Eskimo or Aleut Race</i>
97-128	Same age-sex-Hispanic origin categories as groups 1 to 32
	<i>Other Race (includes those races not listed above)</i>
129-160	Same age-sex-Hispanic origin categories as groups 1 to 32

Within a weighting area, the first step in the estimation procedure was to assign each sample person record an initial weight. This weight was approximately equal to the inverse of the probability of selecting a person for the census sample.

The next step in the estimation procedure was to combine, if necessary, the groups in each of the three stages prior to the repeated ratio estimation in order to increase the reliability of the ratio estimation procedure. For the first and second stages, any group that did not meet certain criteria concerning the unweighted sample count or the ratio of the complete-count to the initially weighted sample count, was combined, or collapsed, with another group in the same stage according to a specified collapsing pattern. At the third stage, the "Other" race category was collapsed with the "White" race category before the above collapsing criteria as well as an additional criterion concerning the number of complete-count persons in each category were applied.

As a final step, the initial weights underwent three stages of ratio adjustment which used the groups listed above. At the first stage, the ratio of the complete

census count to the sum of the initial weights for each sample person was computed for each stage I group. The initial weight assigned to each person in a group was then multiplied by the stage I group ratio to produce an adjusted weight. In stage II, the stage I adjusted weights were again adjusted by the ratio of the complete census count to the sum of the stage I weights for sample persons in each stage II group. Finally, the stage II weights were adjusted at stage III by the ratio of the complete census count and the sum of the stage II weights for sample persons in each stage III group. The three stages of adjustment were performed twice (two iterations) in the order given above. The weights obtained from the second iteration for stage III were assigned to the sample person records. However, to avoid complications in rounding for tabulated data, only whole number weights were assigned. For example, if the final weight for the persons in a particular group was 7.2, the one-fifth of the sample persons in this group were randomly assigned a weight of 8 and the remaining four-fifths received a weight of 7.

The estimates produced by this procedure realize some of the gains in sampling efficiency that would have resulted if the population had been stratified into the ratio estimation groups before sampling, and the sampling rate had been applied independently to each group. The net effect is a reduction in both the standard error and the possible bias of most estimated characteristics to levels below what would have resulted from simply using the initial (unadjusted) weight. A by-product of this estimation procedure is that the estimates from the sample will, for the most part, be consistent with the complete-count figures for the population and housing unit groups used in the estimation procedure.

### CONTROL OF NONSAMPLING ERROR

As mentioned above, nonsampling error is present in both sample and complete-count data. If left unchecked, this error could introduce serious bias into the data, the variability of which could increase dramatically over that which would result purely from sampling. While it is impossible to completely eliminate nonsampling error from an operation as large and complex as the 1980 census, the Bureau of the Census attempted to control the sources of such error during the collection and processing operations. The primary sources of nonsampling error and the programs instituted for control of this error are described below. The success of these programs, however, was contingent upon how well the instructions were actually carried out during the census. To the extent possible, both the effects of these programs and the amount of error remaining after their application will be evaluated.

**Undercoverage.** It is possible for some housing units or persons to be entirely missed by the census. This

undercoverage of persons and housing units can introduce biases into the data. Several extensive programs that were developed to focus on this important problem are explained below.

- The Postal Service reviewed mailing lists and reported housing unit addresses which were missing, undeliverable, or duplicated in the listings.
- The purchased commercial mailing list was updated and corrected by a complete field review of the list of housing units during a prec canvass operation.
- A record check was performed to reduce the undercoverage of individual persons in selected areas. Independent lists of persons, such as driver's license holders, were matched with the household rosters in the census listings. Persons not matched to the census rosters were followed up and added to the census counts if they were found to have been missed.
- A recheck of housing units initially classified as vacant or nonexistent was utilized to further reduce the undercoverage of persons.

More extensive discussions of programs developed to reduce undercoverage will be published as the analyses of those programs are completed.

**Respondent and Enumerator Error.** The person answering the questionnaire or responding to the questions posed by an enumerator could serve as a source of error by offering incorrect or incomplete information. To reduce this source of error, questions were phrased as clearly as possible based on precensus tests and detailed instructions for completing the questionnaire were provided to each housing unit. In addition, respondents' answers were edited for completeness and consistency and followed up as necessary. For example, if labor force items were incomplete for a person 15 years and over, long form field edit procedures would recognize the situation and a followup attempt to obtain the information would be made.

The enumerator may misinterpret or otherwise incorrectly record information given by a respondent; may fail to collect some of the information for a person or housing unit; or may collect data for housing units that were not designated as part of the sample. To control these problems, the work of enumerators was carefully monitored. Field staff were prepared for their tasks by using standardized training packages which included experience in using census materials. A sample of the households interviewed by enumerators for nonresponse was reinterviewed to control for the possibility of data for fabricated persons being submitted by enumerators. Also, the estimation procedure was designed to control for biases that would result from the collection of data from housing units not designated for the sample.

**Processing Error** The many phases of processing the census represent potential sources for the introduction of nonsampling error. The processing of the census questionnaires includes the field editing, followup, and transmittal of completed questionnaires; the manual coding of write-in responses; and the electronic data processing. The various field, coding and computer operations undergo a number of quality control checks to insure their accurate application.

**Nonresponse** Nonresponse to particular questions on the census questionnaire allows for the introduction of bias into the data, since the characteristics of the nonrespondents have not been observed and may differ from those reported by respondents. As a result, any allocation procedure using respondent data may not completely reflect this difference either at the element level (individual person or housing unit) or on the average. Some protection against the introduction of large biases is afforded by minimizing nonresponse. In the census nonresponse was substantially reduced during the field operations by the various edit and followup operations aimed at obtaining a response for every question. Characteristics of the nonresponses remaining after this operation were allocated by computer using reported data for a person or housing unit with similar characteristics. The allocation procedure is described in more detail below.

## EDITING OF UNACCEPTABLE DATA

The objective of the processing operation is to produce a set of statistics that describes the housing unit inventory and population as accurately and clearly as possible. To meet this objective, certain unacceptable entries were edited.

In the field, questionnaires were reviewed for omissions and certain inconsistencies by a census clerk or an enumerator and, if necessary, a followup was made to obtain missing information. In addition, a similar review of questionnaires was done in the central processing offices. As a rule, however, editing was performed by hand only when it could not be done effectively by machine.

As one of the first steps in editing, the configuration of marks on the questionnaire column was scanned electronically to determine whether it contained information for a person or a housing unit or merely spurious marks. If the column contained entries for at least two of the basic characteristics (relationship, sex, race, age, marital status, Hispanic origin), the inference was made that the marks represented a person. In cases in which two or more basic characteristics were available for only a portion of the people in the unit, other information on the questionnaire provided by an enumerator was used to determine the total number of persons. Names were

not used as a criterion of the presence of a person because the electronic scanning did not distinguish any entry in the name space.

If any characteristic for a person or a housing unit was still missing when the questionnaires reached the central processing offices, they were supplied by allocation. Allocations, or assignments of acceptable codes in place of unacceptable entries, were needed most often when there was no entry for a given item or when the information reported for a person or housing unit on that item was inconsistent with other information for the person or housing unit. As in previous censuses, the general procedure for changing unacceptable entries was to assign an entry for a person or housing unit that was consistent with entries for other persons or units with similar characteristics. Thus, a person who was reported as a 20-year-old son of the householder, but for whom marital status was not reported, was assigned the same marital status as that of the last one processed in the same age group. The assignment of acceptable codes in place of blanks or unacceptable entries enhances the usefulness of the data.

The editing process also includes another type of correction; namely, the assignment of a full set of characteristics for a person or a housing unit. When

there was indication that a housing unit was occupied but the questionnaire contained no information for all or most of the people, although persons were known to be present or when there was no information on the housing unit, a previously processed household was selected as a substitute, and the full set of characteristics for each substitute person or a housing unit was duplicated. These duplications fall into two classes: (1) "substitution for mechanical failure," e.g., when the questionnaire page was not properly microfilmed, and (2) "substitution for noninterview," e.g., when a housing unit was indicated as occupied but the occupants or housing unit characteristics were not listed on the questionnaire.

Specific tolerances were established for the number of computer allocations and substitutions that would be permitted. If the number of corrections was beyond tolerance, the questionnaires in which the errors occurred were clerically reviewed. If it was found that the errors resulted from damaged questionnaires, from improper microfilming, from faulty reading by FOSDIC of undamaged questionnaires, or from other types of machine failure, the questionnaires were reprocessed.

**Table B-1. Unadjusted Standard Errors for Estimated Totals**

(Based on a 1-in-6 simple random sample)

Estimated Total <sup>1</sup>	Size of publication area <sup>2</sup>														United States
	500	1,000	2,500	5,000	10,000	25,000	50,000	100,000	250,000	500,000	1,000,000	5,000,000	10,000,000	25,000,000	
50	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
100	20	21	22	22	22	22	22	22	22	22	22	22	22	22	22
250	25	30	35	35	35	35	35	35	35	35	35	35	35	35	35
500	-	35	45	45	50	50	50	50	50	50	50	50	50	50	50
1,000	-	-	55	65	65	70	70	70	70	70	70	70	70	70	70
2,500	-	-	-	80	95	110	110	110	110	110	110	110	110	110	110
5,000	-	-	-	-	110	140	150	150	160	160	160	160	160	160	160
10,000	-	-	-	-	-	170	200	210	220	220	220	220	220	220	220
15,000	-	-	-	-	-	170	230	250	270	270	270	270	270	270	270
25,000	-	-	-	-	-	-	250	310	340	350	350	350	350	350	350
75,000	-	-	-	-	-	-	-	310	510	570	590	610	610	610	610
100,000	-	-	-	-	-	-	-	-	550	630	670	700	700	710	710
250,000	-	-	-	-	-	-	-	-	-	790	970	1,090	1,100	1,100	1,120
500,000	-	-	-	-	-	-	-	-	-	-	1,120	1,500	1,540	1,570	1,580
1,000,000	-	-	-	-	-	-	-	-	-	-	-	2,000	2,120	2,190	2,230
5,000,000	-	-	-	-	-	-	-	-	-	-	-	-	3,540	4,470	4,940
10,000,000	-	-	-	-	-	-	-	-	-	-	-	-	-	5,480	6,910

<sup>1</sup>For estimated totals larger than 10,000,000, the standard error is somewhat larger than the table values. The formulas given below should be used to calculate the standard error.

$$Se(\hat{Y}) = \sqrt{5\hat{Y}\left(1 - \frac{\hat{Y}}{N}\right)}$$

N = Size of area  
Y = Estimate of characteristic total

<sup>2</sup>Total count of persons in area if the estimated total is a person characteristic, or the total count of households in area if the estimated total is a household or family characteristic.

**Table B-2. Unadjusted Standard Error in Percentage Points for Estimated Percentages**

(Based on a 1-in-6 simple random sample)

Estimated Percentage	Base of percentage <sup>1</sup>												
	500	750	1,000	1,500	2,500	5,000	7,500	10,000	25,000	50,000	100,000	250,000	500,000
2 or 98 .....	1.4	1.1	1.0	0.8	0.6	0.4	0.4	0.3	0.2	0.1	0.1	0.1	0.1
5 or 95 .....	2.2	1.8	1.5	1.3	1.0	0.7	0.6	0.5	0.3	0.2	0.2	0.1	0.1
10 or 90 .....	3.0	2.4	2.1	1.7	1.3	0.9	0.8	0.7	0.4	0.3	0.2	0.1	0.1
15 or 85 .....	3.6	2.9	2.5	2.1	1.6	1.1	0.9	0.8	0.5	0.4	0.3	0.2	0.1
20 or 80 .....	4.0	3.3	2.8	2.3	1.8	1.3	1.0	0.9	0.6	0.4	0.3	0.2	0.1
25 or 75 .....	4.3	3.5	3.1	2.5	1.9	1.4	1.1	1.0	0.6	0.4	0.3	0.2	0.1
30 or 70 .....	4.6	3.7	3.2	2.6	2.0	1.4	1.2	1.0	0.6	0.5	0.3	0.2	0.1
35 or 65 .....	4.8	3.9	3.4	2.8	2.1	1.5	1.2	1.1	0.7	0.5	0.3	0.2	0.2
50 .....	5.0	4.1	3.5	2.9	2.2	1.6	1.3	1.1	0.7	0.5	0.4	0.2	0.2

<sup>1</sup>For a percentage and/or base of percentage not shown in the table, the formula given below may be used to calculate the standard error.

$$Se(\hat{p}) = \sqrt{\frac{5}{B} \hat{p}(100 - \hat{p})}$$

B = Base of estimated percentage

$\hat{p}$  = Estimated percentage

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