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# At the Cross Roads: US / Mexico Border Counties in Transition

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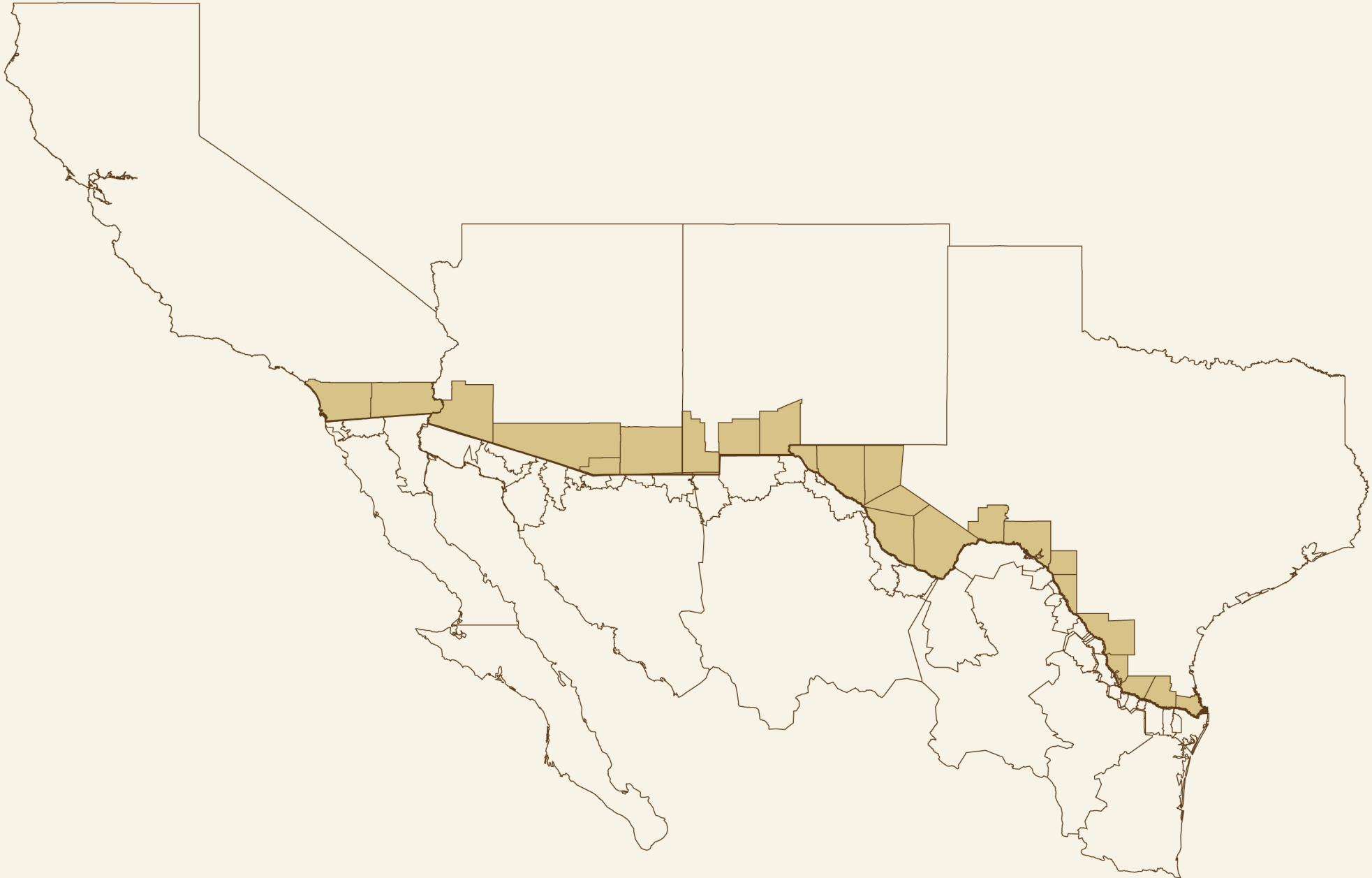
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# AT THE CROSS ROADS

US/MEXICO BORDER COUNTIES IN TRANSITION

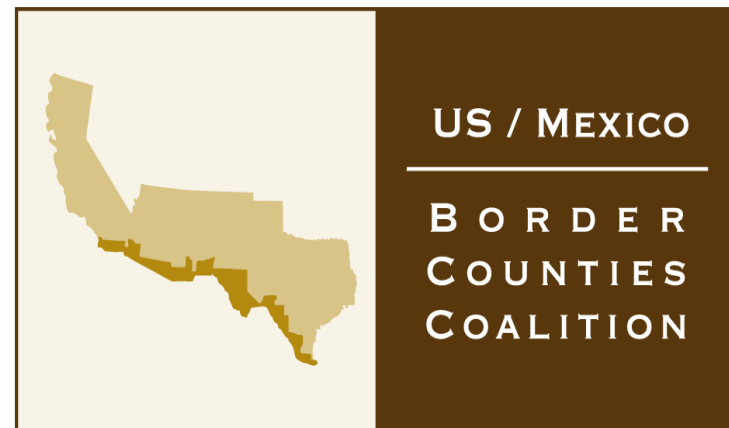


US / MEXICO  
BORDER  
COUNTIES  
COALITION



# *At the Cross Roads: US / Mexico Border Counties in Transition*

Prepared for the US / Mexico Border Counties Coalition  
March 2006



# *At the Cross Roads: US / Mexico Border Counties in Transition*

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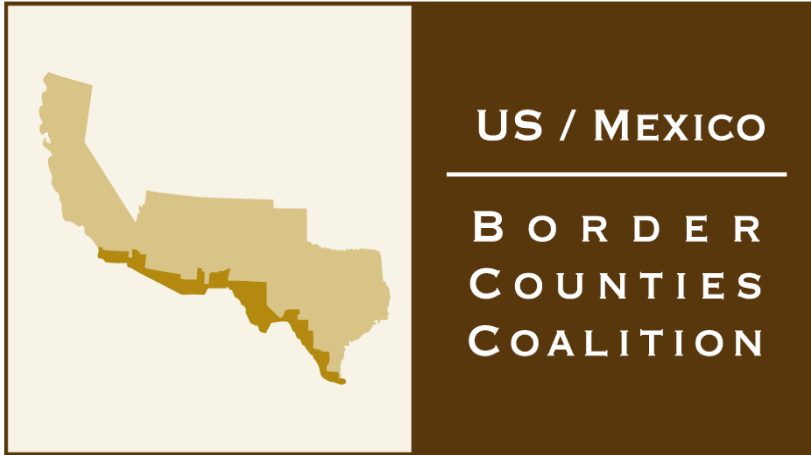
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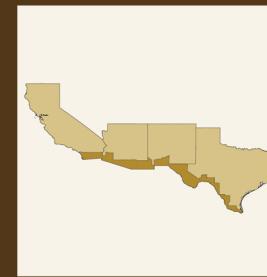
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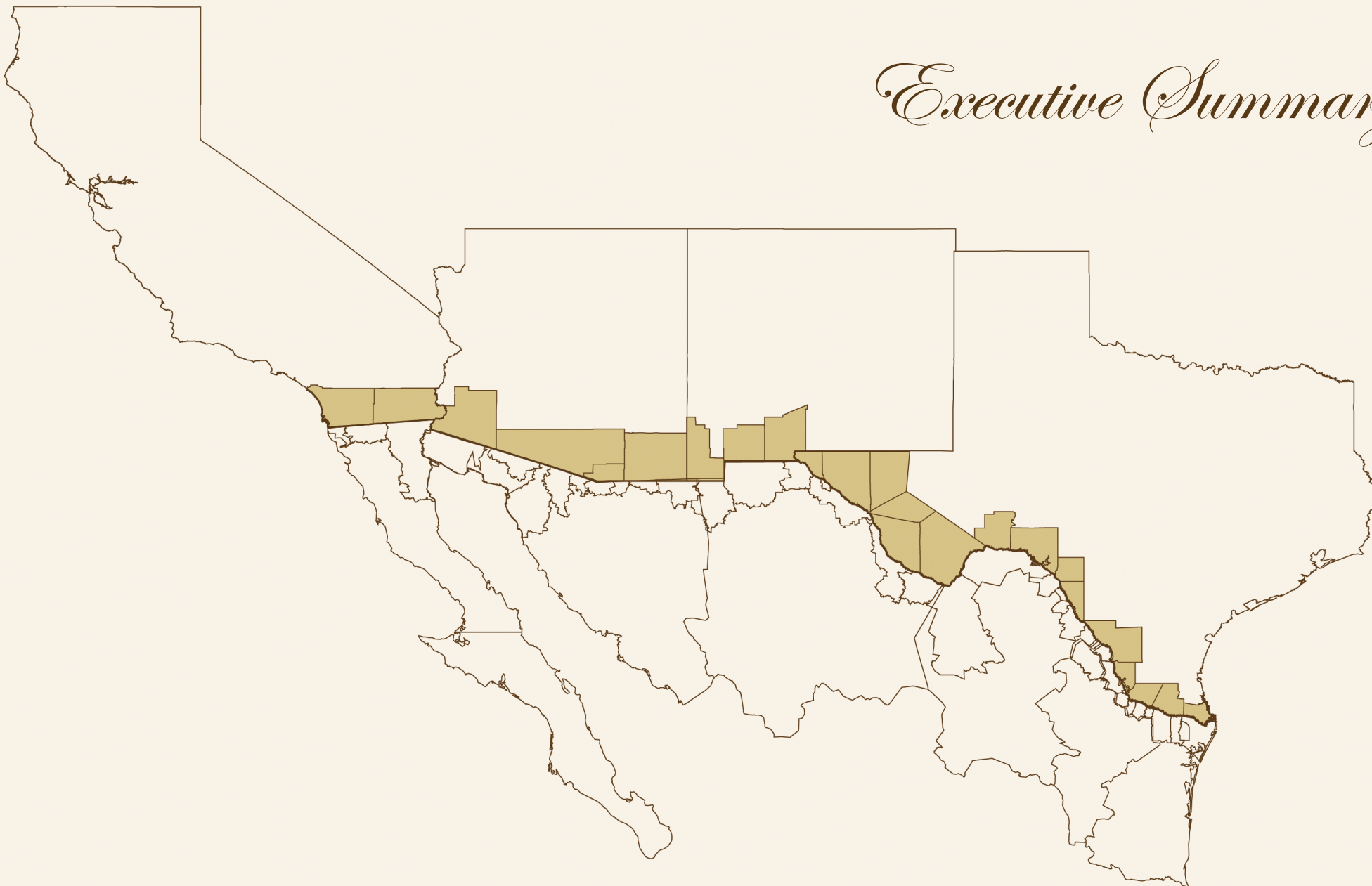
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# AT THE CROSS ROADS

US/MEXICO BORDER COUNTIES IN TRANSITION



US / MEXICO  
BORDER  
COUNTIES  
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## *Executive Summary*





## ***Executive Summary***

### ***At the Cross Roads: US / Mexico Border Counties in Transition***

#### ***If the 24 southwest border counties were a 51<sup>st</sup> state, how would they compare to the other 50 states?***

In 1998, former Texas Comptroller John Sharp published *Bordering the Future: Challenge and Opportunity in the Texas Border Region*, which provided an assessment of the economic, political, and social condition of the Texas border counties. This report, commissioned by the US / Mexico Border Counties Coalition, extends those findings to all of the 24 U.S. counties that are contiguous with Mexico. As a region, if these 24 counties were the 51<sup>st</sup> state, how would they compare with the rest of the nation?

#### **Population**

With 6.7 million residents, the border region would rank 13<sup>th</sup> in population.

Since 1990, the border region has experienced a growth rate of nearly 30 percent, which would rank it 15<sup>th</sup> in population change.

It would be the 2<sup>nd</sup> youngest state with almost 29 percent of its population under the age of 18.

It would have the 3<sup>rd</sup> highest concentration of Hispanics of all states, almost 3.36 million or more than 50 percent of its population.

#### **Income**

Border counties would rank last in per capita income if San Diego County is not included, and with San Diego the border counties rank 39<sup>th</sup> in per capita income.

Between 1993 and 2003, total personal income in border counties increased 41.4 percent compared with 29.3 percent growth in non-border counties in the same states.

More than 21 percent of the region's personal income, not including San Diego, is comprised of transfer receipts, such as government assistance, which would rank border counties 2<sup>nd</sup> among all states in recipients of these benefits.

More than half a million, or 27.2 percent, of the border counties' children and youth ages 0 through 17 live in poverty.

San Diego County's per capita income would rank it greater than 45 states, making it an anomaly among border counties.

San Diego's income is greater than the collective incomes of the remaining 23 southwest border counties.

Nineteen border counties had a per capita income less than \$21,000.

## Labor Force, Labor Pool and Unemployment

Since 1990, border counties have managed to narrow the unemployment rate gap with the rest of the nation.

However, if border counties were the 51<sup>st</sup> state, they would rank 5<sup>th</sup> in unemployment, between Michigan and South Carolina if Pima County is excluded, and fall to last place without the San Diego County work force.

Collectively, in 22 of the 24 border counties, the unemployment rate is double the national average and their labor force participation rates are less than 58 percent compared to 65 percent nationwide.

In 2003, the labor force participation rate for all border counties was 61.7 percent. Removing San Diego and Pima counties, the rate falls to 57.3 percent compared to the remaining U.S. rate of 64.9 percent.

Women are less likely to participate in the workforce than men in border counties when compared to the nation. The female participation rate in the labor force is significantly lower than the male participation rate along the border regardless of household type, marital status, or number of children in households.

Nine border counties, including two large population bases, had unemployment rates greater than 10 percent, meaning that more than one in ten persons who actively sought work could not find a job.

Border counties have significant "underemployment" among their populations, individuals with skills exceeding the jobs they perform. Underemployment in border counties and "temp" work far exceed national standards.

## Employment

Throughout the 1990s, employment growth in U.S. border counties outpaced the nation.

Within the 10 year period of 1993 to 2003, total full-time and part-

time jobs increased by nearly 800,000 to almost 3.5 million, with half of the actual job gains accounted for by San Diego, and another quarter accounted for by Pima and El Paso counties.

Border counties would rank 12<sup>th</sup> as a 51<sup>st</sup> state in government and government enterprise employment; 10<sup>th</sup> in employment of federal civilians; and 4<sup>th</sup> in military employment.

With San Diego, the border economy mirrors the non-border economy in many aspects; only without San Diego do the industrial differences become more apparent, seen, for example, by the decline from 20<sup>th</sup> in management of companies and enterprises with San Diego to 43<sup>rd</sup> without San Diego.

Other than San Diego, border counties have an extremely low percentage of private jobs in the higher paying professional, scientific, and technical sector. Without San Diego, border counties fall as a 51<sup>st</sup> state from 15<sup>th</sup> to 35<sup>th</sup> in this sector.

Border counties without San Diego have a higher percentage than the rest of the nation in employment in health services, as a result of several state and federal assistance programs and increasing retiree services in areas like Pima and Doña Ana.

As a result of border counties' proximity to Mexico and sales to customers of Mexican origin, retail trade along the border plays an important role in the economy when compared to the rest of the United States. Border counties would rank 19<sup>th</sup> as a 51<sup>st</sup> state in this sector; without San Diego, the rank falls to 31<sup>st</sup>.

From a national perspective, manufacturing is weak at a 25<sup>th</sup> place ranking and drops 11 places to 36<sup>th</sup> without San Diego if considered a 51<sup>st</sup> state.

Mexican maquiladoras also create employment in U.S. border counties in transportation and professional services, such as logistics, finance, accounting, and legal entities. As a 51<sup>st</sup> state, border counties would rank 22<sup>nd</sup> in transportation related employment; without San Diego, that rank would fall to 29<sup>th</sup>.

While San Diego's salary and wage earnings are above the national average, the salary and wages of the remaining 23 border counties range from as low as 40.1 percent of the national level in Jeff Davis County to 83.1 percent in El Paso County.

While San Diego accounts for 52.3 percent of total jobs along the border, it accounts for 60.7 percent of all wages and salary disbursements.

## Public and Higher Education

In 2000, 73 percent of border residents above the age of 25 had completed high school, compared with 80.4 percent nationally, ranking border counties 50<sup>th</sup> if considered a 51<sup>st</sup> state. Without San Diego, that ranking would drop to last.

Border counties would rank 27<sup>th</sup> among the states in the percentage of adults with a four year college degree. Excluding San Diego, the ranking would drop to 46<sup>th</sup>.

There is a high demand for education in border counties due to the fact that the region would rank 2<sup>nd</sup> as a 51<sup>st</sup> state in the percentage of its population that is under the age of 18.

## Environment

Given that much of the region is arid, water supplies will be the fundamental limiting factor in regional growth in California, Arizona, New Mexico, and the Upper Rio Grande area in Texas.

The middle and lower reaches of the Rio Grande will remain dependent on important agriculture water from the Rio Concho and a complex set of relationships with Mexico.

Overall, the set of environmental problems impacting the border region are localized in the major urban areas.

The arid ecosystem that lies across a large portion of the southwest border is extremely fragile. The value of this natural system may

lead to decisions that will limit development in some places to save unique natural features.

At the human level, colonias have created pockets of environmental concerns that may have deleterious long and short term effects on the health of residents that are yet undetermined.

The need for colonia infrastructure is an expensive, yet perhaps unavoidable cost, which border counties will need to address in the near future to eliminate areas of environmental blight and improve quality of life for more than 1.5 million residents.

Agriculture may decline in the southwestern border counties, mirroring a trend nationwide as a result of urban sprawl but at a rate less rapid than other regions in the country during the last 20 years.

## Health and Health Care

As a 51<sup>st</sup> state, southwest border counties would rank last in the presence of health care professionals.

Many southwest border counties are unable to provide basic health services to residents; as a result, the federal government has designated many border counties as "health professional shortage areas."

Hospitals in border counties spend more than \$800 million annually to provide emergency health care to uninsured populations. This is approximately 3 percent of all uncompensated costs in U.S. hospitals per year.

Rates of uninsured persons in the four border states range from 17 percent in Arizona to 25 percent in Texas. Border counties would rank as the 50<sup>th</sup> state out of 51 in insurance coverage for adults and children.

In all 24 border counties there are fewer Health Care and Social Assistance personnel per 100,000 residents than for the United States resulting in a 46<sup>th</sup> place ranking if viewed as a 51<sup>st</sup> state.

Arizona, New Mexico, and Texas border counties have slightly increased rates of adult diabetes than their respective states. Collectively the border would rank 7<sup>th</sup> as a 51<sup>st</sup> state, with only six states reporting higher incidence of adult diabetes.

Deaths related to diabetes as a 51<sup>st</sup> state would result in a 5<sup>th</sup> place ranking for the region and 3<sup>rd</sup> for deaths due to hepatitis, resulting in only a handful of states exceeding mortality rates from these diseases.

The AIDS rate per 100,000 persons in all border counties is slightly higher (16.1 percent) than the national rate (15.2 percent), which would rank border counties 12<sup>th</sup> as a 51<sup>st</sup> state.

The prevalence of tuberculosis (TB) per 100,000 persons among residents of all border counties (10.4) is *twice* that of the United States (5.1) as a whole, ranking southwest border counties 2<sup>nd</sup> in rate of incidence.

The percentage of births by teens per 1,000 mothers of all border counties is almost 3 percent lower than the nation, placing the southwest border 42<sup>nd</sup> among states in teen pregnancy.

The infant mortality rate in border counties is significantly lower than the national rate. As a 51<sup>st</sup> state, border counties would rank 39<sup>th</sup>.

Low birth weight babies in border counties occur at a far lower rate than the nation, resulting in a 37<sup>th</sup> place ranking, if viewed as a 51<sup>st</sup> state.

### **Trade and Border Traffic**

Southwest border counties would rank 13<sup>th</sup> in population if considered a 51<sup>st</sup> state, but would rank 22<sup>nd</sup> in U.S. state rankings on the allocation of federal highway planning and construction expenditures between 1993 and 2003.

On any given day, about 132,000 persons, 250,000 vehicles, 523,000 vehicle passengers, 12,000 commercial trucks, and 2,000 rail containers cross from Mexico into the United States.

Seven ports of entry, and their respective border counties, are at the center of cross-border trade and crossings between the United States and Mexico. These crossings handle 90 percent of all southwest border trade and northbound commercial truck traffic. In addition, the region's top ports, Laredo, El Paso, and San Diego, are also the second, fifth, and sixth busiest land gateways by trade value in the nation, respectively.

Regional mobility issues are growing as congestion and traffic delays increase; however, compared to the nation, southwest border counties' urban areas are relatively free of the commuting issues facing other regions.

### **Immigration**

Almost 5 percent of the nation's foreign born persons reside in the border counties, and close to 72 percent of the total foreign born population in border counties was born in Mexico.

Exact population counts of unauthorized persons are unavailable and estimates vary dramatically.

### **Housing**

As a 51<sup>st</sup> state, southwest border counties would rank 22<sup>nd</sup> in homeownership rates, but the case could be made that this is a rate that is forced lower by the inclusion of California counties, which record lower home ownership.

The median price of a home places the region 37<sup>th</sup>, as a 51<sup>st</sup> state, a ranking that falls to 45<sup>th</sup> without San Diego.

Low housing costs also are passed to the rental market, which makes housing more affordable than much of the nation.

Low median housing values provide southwest border counties an excellent opportunity to attract in-migration for those seeking to lessen the financial burden of housing; for attracting industries that are looking at housing as a key factor in relocation; and, for retirees, flocking to the sunbelt for, among other reasons, affordable housing.

## Crime and Law Enforcement

Since 1990, crime in southwest border counties has dropped a dramatic 30 percent. Property crimes were down 40 percent between 1990 and 2000 and violent crimes, among the lowest in the nation making up only 12 percent of all crimes, dropped 29 percent in the same decade.

Border county crime rates place the region as 16<sup>th</sup>, as a 51<sup>st</sup> state, for both violent crimes and the federal crime index.

Border counties report the largest number of federal offenses creating a 1<sup>st</sup> ranking as a 51<sup>st</sup> state, primarily as a result of drug and immigration arrests by federal agencies.

Border prosecutors accept many cases from federal prosecutors, but are not fully funded to handle these cases.

Federal arrests in U.S. District Courts in border counties are two times more likely to involve immigration offenses than other crimes.

## Fiscal Balance of Payments

If border counties were the 51<sup>st</sup> state, it would rank 29<sup>th</sup> in receipt of total federal government expenditures.

The inclusion of San Diego County in the analysis affects the overall fiscal health of border counties. For the most part, when San Diego County is incorporated into the analysis, border counties appear to be fiscally healthy. When San Diego is excluded, the fiscal health of border counties is dramatically weaker. Out of the total and all types of federal expenditures to border counties, half are disbursed to San Diego County.

Excluding San Diego, the remaining border counties would rank 29<sup>th</sup> in receipt of combined federal funds in the following categories: Total Amounts, Retirement and Disability Payments, Other Direct Payments, and Grants.

Border counties would rank 22<sup>nd</sup>, when considered as the 51<sup>st</sup> state, when disbursement amounts of federal funds for Procurement Contracts and Salaries and Wages are evaluated.

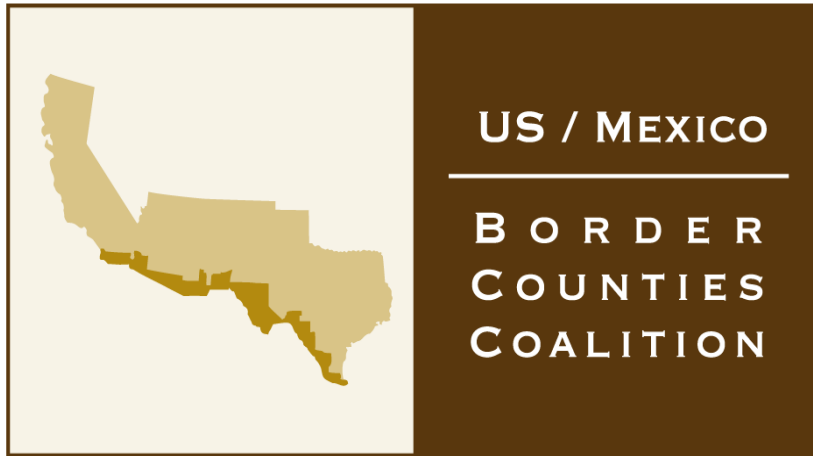
If border counties composed the 51<sup>st</sup> state and per capita values are examined for each of the federal funds categories, the border counties without San Diego are ranked 31<sup>st</sup> overall.

When San Diego is excluded, using national average federal expenditures per capita, the southwest border counties receive \$1.9 billion less in federal funds coming to the region.



**This project was conducted by the Institute for Policy and Economic Development at the University of Texas El Paso. For a full copy see: [iped.utep.edu/bcc/bcc.pdf](http://iped.utep.edu/bcc/bcc.pdf) or [www.bordercounties.org](http://www.bordercounties.org).**

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## Chapter 1 Introduction

Former Texas Comptroller John Sharp's 1998 publication *Bordering the Future: Challenge and Opportunity in the Texas Border Region*, provided a succinct and well-documented assessment of the economic, political, and social condition of the Texas border counties. The "Sharp Report," as it is often referred to, made it very clear that border problems, such as high rates of unemployment and chronic illness, have significant consequences for the southwest border region and the United States. At the same time, the "Sharp Report" provided a single source of substantive Texas border county data that allowed for region-wide discussion of border issues. To follow-up on the report, the United States/Mexico Border Counties Coalition commissioned this report to further examine critical economic, political, and social issues facing the 24 counties that make up the U. S. southwest border (See Map 1.1).

The role of the United States' border with Mexico has never been more critical to the economic and political stability of the United States. Often overlooked by policy makers, the southwestern border remains a strategic and relatively secure resource in support of international trade and homeland security. This has become more important since September 11<sup>th</sup>, as cross-border trade provides a critical and continual flow of goods and services into the United States. Cross-border activity results in more than Mexico's dependency on

the United States for trade and investment capital for industrial development. American industry and manufacturing require a stable and constant flow of components and parts to build a range of products, making the southwestern border a strategic resource in the calculus of the U.S. economy. These considerations and other concerns provided the basis for this report.

A variety of key policy issues exerting influence on the political, social, and economic conditions of the border for the next five to ten years are examined in this report. These include:

- U.S. Border Populations
- Mexico Border Populations and Policy Linkages
- Income
- Labor Force, Labor Pool, and Unemployment
- Employment
- Public and Higher Education
- The Environment
- Health and Health Care
- Trade and Border Traffic
- Immigration
- Housing
- Crime and Law Enforcement
- Fiscal Balance of Payments and Taxation



**Map 1.1**  
**24 Counties in the U.S./Mexico Border Counties Coalition**



The United States – Mexico (U.S.-Mexico) border region constitutes a highly integrated social and economic system stretching 1951 miles, according to the International Boundary and Water Commission, from the shores of the Pacific Ocean in San Diego County in California to Cameron County, Texas and the mouth of the Rio Grande flowing into the Gulf of Mexico. The two sides of the border have developed complex and deep symbiotic relationships. These relationships exist because the residents of the region share a range of concerns from low income and education levels to environmental and health impacts that require coordinated cross border solutions. Over the course of the 20th century this symbiosis developed and matured as the once relatively empty corridor began to fill with people. Even without the North American Free Trade Agreement (NAFTA), integration across the border would have continued because of the common issues that local governments face on both sides of the border and the increasing ability of Mexican local governments to make and implement administrative decisions that historically have only been made in the nation’s capital, the Distrito Federal. In addition, border communities have been at the periphery of both nations’ national economic and political concerns. The U.S. government has historically treated its southwestern border region with benign neglect in terms of economic development, education, and social programs. What attention usually is granted by the United States and state governments comes in the forms of efforts to police movement of persons and enforce trade policies. While well-intended, these efforts to control trade and people have sometimes been counterproductive to the border region’s economic and social development.

In response to the political, social, and economic challenges facing the southwest border, this report examines the border’s importance to the nation’s future. In doing so, bi-partisan

“policy issues” are highlighted that can serve as the steps for enhancing the quality of life and the economic well-being of this diverse region. The pace of change in the southwest border region, demonstrated in the data presented, is formidable. The findings indicate that change and growth in the region are inseparable and likely to accelerate. As a result, substantial demographic and economic changes are underway that will require policy and decision makers to adapt at all levels of government.

In the chapters that follow, a wide variety of issues that characterize the state of human and economic capital on the border are discussed. Due to the diverse nature of the border counties in a chain from the Pacific Ocean to the Gulf of Mexico, from affluence to grinding poverty, the purpose is not to advocate an all-encompassing solution to the challenges. Policies cannot and should not be identical for both affluent and low income counties. Instead, the intent is to draw the attention of government, business, and civic leaders from a wide range of industries and professions, and direct them toward promising avenues of policy making that strengthen the southwest border region as a strategic and enduring resource.

In addition to the focus on border counties, it is also imperative to recognize the influences of Mexico on the United States. Unlike any other region of the United States, the demands placed on border counties are a function of proximity to Mexico. Local and state officials know all too well that demand for federal resources is multiplied as a result of externalities created from bi-national activity. To incorporate this demand, this report also includes a chapter on Mexico and the cross-border issues that must be addressed by border counties.

The southwestern border counties provide an important set of functions and, in the many rural counties along the U.S.-

Mexico border, provide the majority of services to citizens. Increasingly, regardless of the area of the country, county governments are becoming more important, especially as state and federal governments have rolled back funding in areas ranging from health care to criminal justice. Counties, more than any other level of government, have been called upon to fill the gap. At the same time, the number of counties that are expanding services to run airports, maintain transportation systems, and provide municipal-type services in unincorporated areas has grown. Many counties are leaders in regional economic development. Counties, perhaps even more than states, deal with all levels of government on a daily basis, but as legal entities under state law, more often than not, are overshadowed by major cities. In the southwestern border region, counties are the prevailing government jurisdiction that residents depend upon to meet their demands and solve their problems. As a result, the findings from this report clearly support the fact that demands in counties are growing and that counties are going to have to take the lead in meeting the needs of the residents of the southwestern border.

### **At the Cross Roads: Key Terms**

#### **Border Counties**

The use of the term “border counties” throughout this report refers to three geographical groupings:

1. “Border Counties” refers to the 24 border counties that make up the U.S.-Mexico border in the U.S. states of Arizona, California, New Mexico, and Texas.
2. “Non-Border Counties” refers to all other counties within the border states of Arizona, California, New Mexico, and Texas.
3. “Non-Border Counties Nation-Wide” refers to all other U.S. counties except for the 24 border counties that

comprise the U.S.-Mexico border in the states of Arizona, California, New Mexico, and Texas.

#### **Municipios**

The use of the term “municipios” in this report refers to two geographical groupings:

1. “Border Municipios” refers to the 25 municipios in the Mexican states of Baja California, Coahuila, Chihuahua, Nuevo Leon, Sonora, and Tamaulipas that abut the U.S.-Mexico border.
2. “Non-Border Municipios Nation-Wide” refers to all other municipios except for the 25 that are along the U.S.-Mexico border in the Mexican states of Baja California, Coahuila, Chihuahua, Nuevo Leon, Sonora, and Tamaulipas.

#### **Colonia(s)**

Based on the U.S. Department of Agriculture definition, a colonia is any identifiable community designated in writing by the state or county in which it is located and has been determined to be a colonia on the basis of objective criteria including lack of potable water supply, lack of adequate sewage systems, and lack of decent, safe, and sanitary housing, inadequate roads and drainage; and existed and was generally recognized as a colonia before October 1, 1989.

#### **Hispanic or Latino Origin**

From the Census 2000, American Community Survey: people who identify with the terms "Hispanic" or "Latino" are those who classify themselves in one of the specific Hispanic or Latino categories listed on the Census 2000 or American Community Survey questionnaire – "Mexican," "Puerto Rican,"

or "Cuban" – as well as those who indicate they are "other Spanish, Hispanic, or Latino." Origin can be viewed as the heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. People who identify their origin as Spanish, Hispanic, or Latino may be of any race. In this report, the Hispanic designation is used.

### **Maquiladora**

A maquiladora is a Mexican corporation operating under a special U.S. Customs and Border Protection status that allows it to temporarily import from the United States into Mexico duty-free, raw materials, equipment, machinery, replacement parts, and other tools needed for the assembly or manufacture of intermediate or finished goods for subsequent export to the United States or sale in the domestic market (the latter requires payment of import tariffs on the U.S. raw material used in the production process). A maquiladora is also referred to as "maquila" and "twin-plant," and is associated with in-bond manufacturing.

### **Metropolitan Statistical Areas**

The general concept of a metropolitan statistical area is that of a core area containing a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that core. The federal Office of Management and Budget designates and defines them following a set of official standards. A metropolitan statistical area (MSA) consists of one or more counties that contain a city of 50,000 or more inhabitants, or contain a Census-defined urbanized area and have a total population of at least 100,000.

### **Proprietor's Income**

Proprietor's income is the income earned by persons from running their own businesses and from partnerships and can be disaggregated into income earned by farm and non-farm proprietors. Proprietor's income covers a broad range of the economy, from larger firms to one-person companies to persons operating out of a home office.

## Chapter 2 U.S. Border Populations

U.S.-Mexico border counties, from San Diego County in California to Cameron County in Texas, are currently home to 6.7 million persons, which, if they were a state, would make it the 13<sup>th</sup> largest in the Union. The combination of geographic proximity and economic integration between two very different nations has resulted in unique population characteristics in the southwest border region. Population growth in the border region has grown at a far faster rate than that of the population as a whole in both the United States and Mexico. In the United States, the four southwest border states have accounted for more than one-third of the nation's population growth since 2000, a pace far faster than any of the four U.S. Census Bureau's regions.<sup>1</sup> Population is affected by the two national economies of the United States and Mexico that create distinct economic challenges. Mexico's population growth rate is strikingly higher than that of the United States.

Mexico must generate one million new jobs annually to support its population of more than 106 million people.<sup>2</sup> At the same time, the United States must generate 2.1 million new jobs each year to maintain employment rates for more than 293 million people based on 2004 Census estimates. The international boundary defines not only the political jurisdictions of the two countries, but also distinguishes two nations with a blend of social, cultural, and political features. Some of the defining characteristics shared by border communities include: the expanding interrelationship between communities on both sides of the border; the rapidly growing population; and, the constant transboundary movement of people, goods, and resources. As a result of this, there are heavy demands on governments for more public goods and services, demands that are expected to extend well into the future.

### Measuring Population

Population totals are based on mid-year estimates and include births, deaths, special populations (military and their dependents, prisoners, and college students), and three types of migrants (economic, international, and retired). Economic migrant values can be negative if more people are moving out of a region than moving in as they respond to economic and amenity factors (i.e., real wages). Migration for the college population includes only non-local students since those attending college from within the region are counted as part of the base population.

- In the last ten years the population of the collective southwest border counties has increased by 29.3 percent.
- Even by removing San Diego, the most populous border county (Map 2.1), the border is still home to 3.8 million residents and would rank between Kentucky and Oregon in population as a U.S. state (Table 2.1).

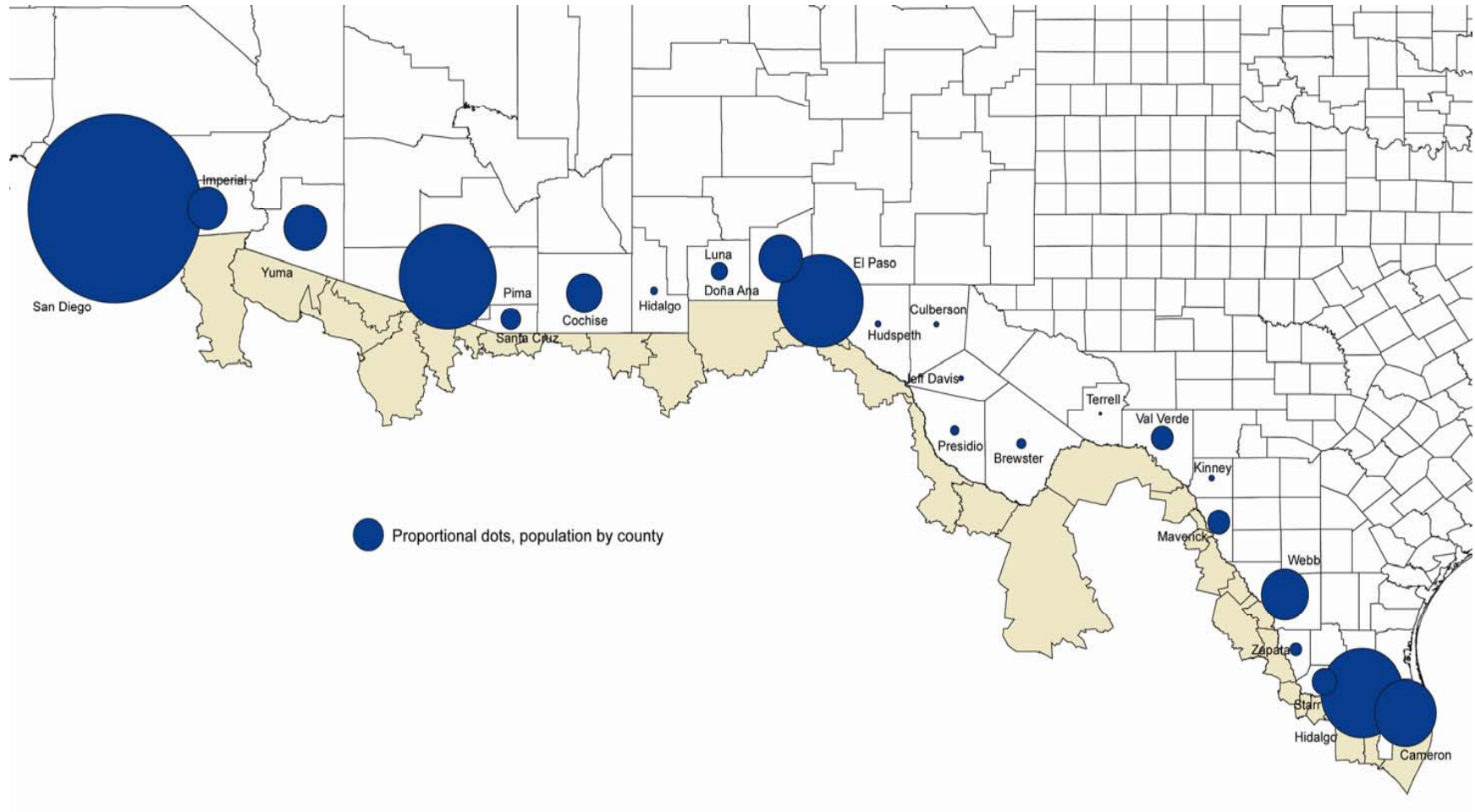
- In 2003, border states accounted for 27.2 percent of the nation's population under the age of 18 (more than one in four) (Table 2.2).
- Border counties accounted for 2.6 percent of the nation's population under age 18 and 10.7 percent of the cohort in border states.
- In 2003, over half (55.3 percent; 22.08 million) of the Hispanics living in the United States lived in southwest border states, and one in 12 (8.4 percent; 3.36 million) lived in southwest border counties (Appendix 2.1).
- Nationwide, Hispanics comprise 12.5 percent of the population in 2000, an increase of 57.9 percent over 1990.
- There were 6.7 million persons living in southwest border counties in 2004 (Table 2.3). They accounted for 2.3 percent of the U.S. population and for 10.2 percent of the population of southwest border states.
- Southwest border states account for 35.6 percent of the U.S. population growth since 2000, while southwest border counties account for 3.5 percent of the U.S. increase and for 9.8 percent of the increase in border states.
- One in ten people living in border states reside in border counties.
- Sixty-six million persons resided in U.S.-Mexico border states in 2004, accounting for more than one in five (22.5 %) people living in the United States (Appendix 2.1).

## Policy Issues

Population growth and demographic change are central to understanding the challenges and opportunities facing the border region. High growth rates, the large share of young residents and Hispanics, and the role of women in the workforce are some of the demographic shifts that characterize border populations. These characteristics have made the southwest border region a model of what other parts of the country will look like by the middle of the century according to Texas State Demographer Steve Murdoch. As a result, policy and decision makers need to be leaders in addressing the issues of a larger national demographic shift towards a minority-majority. Given the growing population and diversity along the border, the challenge for policy makers is to:

- Narrow the socioeconomic differences between demographic groups, thus insuring that all residents are able to compete in the global economy.
- Examine the consequences of a potential influx of "baby boomers" to the border region as they retire and look for affordable lifestyles and create new demands for health and other services that may limit services to the existing younger population.
- Recognize much of the region's population growth is driven by immigration to gain access to jobs. Population will be closely linked to labor mobility and streamlined immigration procedures to increase labor mobility between the United States and Mexico which could provide valuable additions to the labor pool.

**Map 2.1**  
**2004 Population Density by County**



**Table 2.1**  
**2004, 2000, and 1990 U.S. State Population Rankings**

2004			2000			1990		
1	California	35,893,799	1	California	33,871,653	1	California	29,760,021
2	Texas	22,490,022	2	Texas	20,851,790	2	New York	17,990,455
3	New York	19,227,088	3	New York	18,976,821	3	Texas	16,986,510
4	Florida	17,397,161	4	Florida	15,982,824	4	Florida	12,937,926
5	Illinois	12,713,634	5	Illinois	12,419,647	5	Pennsylvania	11,881,643
6	Pennsylvania	12,406,292	6	Pennsylvania	12,281,054	6	Illinois	11,430,602
7	Ohio	11,459,011	7	Ohio	11,353,145	7	Ohio	10,847,115
8	Michigan	10,112,620	8	Michigan	9,938,480	8	Michigan	9,295,297
9	Georgia	8,829,383	9	New Jersey	8,414,347	9	New Jersey	7,730,188
10	New Jersey	8,698,879	10	Georgia	8,186,816	10	North Carolina	6,628,637
11	North Carolina	8,541,221	11	North Carolina	8,046,491	11	Georgia	6,478,216
12	Virginia	7,459,827	12	Virginia	7,079,030	12	Virginia	6,187,358
<b>13</b>	<b>Border Counties</b>	<b>6,712,445</b>	<b>13</b>	<b>Massachusetts</b>	<b>6,349,105</b>	<b>13</b>	<b>Massachusetts</b>	<b>6,016,425</b>
14	Massachusetts	6,416,505	<b>14</b>	<b>Border Counties</b>	<b>6,286,249</b>	14	Indiana	5,544,159
15	Indiana	6,237,569	15	Indiana	6,080,517	<b>15</b>	<b>Border Counties</b>	<b>5,189,497</b>
16	Washington	6,203,788	16	Washington	5,894,140	16	Missouri	5,117,073
17	Tennessee	5,900,962	17	Tennessee	5,689,262	17	Wisconsin	4,891,769
18	Missouri	5,754,618	18	Missouri	5,596,683	18	Tennessee	4,877,185
19	Arizona	5,743,834	19	Wisconsin	5,363,715	19	Washington	4,866,692
20	Maryland	5,558,058	20	Maryland	5,296,506	20	Maryland	4,781,468
21	Wisconsin	5,509,026	21	Arizona	5,130,632	21	Minnesota	4,375,099
22	Minnesota	5,100,958	22	Minnesota	4,919,492	22	Louisiana	4,219,973
23	Colorado	4,601,403	23	Louisiana	4,468,958	23	Alabama	4,040,587
24	Alabama	4,530,182	24	Alabama	4,447,351	24	Kentucky	3,685,296
25	Louisiana	4,515,770	25	Colorado	4,302,015	25	Arizona	3,665,228
26	South Carolina	4,198,068	26	Kentucky	4,042,285	26	South Carolina	3,486,703
27	Kentucky	4,145,922	27	South Carolina	4,011,816	27	Colorado	3,294,394
	<b>Border Counties Non-San Diego</b>	<b>3,780,731</b>		<b>Border Counties Non-San Diego</b>	<b>3,472,416</b>	28	Connecticut	3,287,116
28	Oregon	3,594,586	28	Oklahoma	3,450,654	29	Oklahoma	3,145,585
29	Oklahoma	3,523,553	29	Oregon	3,421,436	30	Oregon	2,842,321
30	Connecticut	3,503,604	30	Connecticut	3,405,602	31	Iowa	2,776,755
31	Iowa	2,954,451	31	Iowa	2,926,382		<b>Border Counties Non-San Diego</b>	<b>2,691,481</b>
32	Mississippi	2,902,966	32	Mississippi	2,844,656	32	Mississippi	2,573,216
33	Arkansas	2,752,629	33	Kansas	2,688,824	33	Kansas	2,477,574
34	Kansas	2,735,502	34	Arkansas	2,673,398	34	Arkansas	2,350,725
35	Utah	2,389,039	35	Utah	2,233,198	35	West Virginia	1,793,477
36	Nevada	2,334,771	36	Nevada	1,998,257	36	Utah	1,722,850
37	New Mexico	1,903,289	37	New Mexico	1,819,046	37	Nebraska	1,578,385
38	West Virginia	1,815,354	38	West Virginia	1,808,350	38	New Mexico	1,515,069
39	Nebraska	1,747,214	39	Nebraska	1,711,265	39	Maine	1,227,928
40	Idaho	1,393,262	40	Idaho	1,293,956	40	Nevada	1,201,833
41	Maine	1,317,253	41	Maine	1,274,923	41	New Hampshire	1,109,252
42	New Hampshire	1,299,500	42	New Hampshire	1,235,786	42	Hawaii	1,108,229
43	Hawaii	1,262,840	43	Hawaii	1,211,537	43	Idaho	1,006,749
44	Rhode Island	1,080,632	44	Rhode Island	1,048,319	44	Rhode Island	1,003,464
45	Montana	926,865	45	Montana	902,195	45	Montana	799,065
46	Delaware	830,364	46	Delaware	783,600	46	South Dakota	696,004
47	South Dakota	770,883	47	South Dakota	754,840	47	Delaware	666,168
48	Alaska	655,435	48	North Dakota	642,204	48	North Dakota	638,800
49	North Dakota	634,366	49	Alaska	626,931	49	Vermont	562,758
50	Vermont	621,394	50	Vermont	608,827	50	Alaska	550,043
51	Wyoming	506,529	51	Wyoming	493,782	51	Wyoming	453,588

Source: U.S. Census Bureau. 2004 population is the July 1 mid-year estimate; 2000 population is the April 1 estimate base reflecting changes to the Census 2000 population from the Count Question Resolution program and geographic program revisions; 1990 population is the April 1 Census 1990 level.



- Provide the necessary education and skills training for border residents that are of critical importance, not only to increase their income, but also to reduce government costs spent on programs.

The future consequences of failing to meet the goal of education and training far outweigh the increased costs. A 2002 report by the Texas State Demographer to the Texas Legislative Council summarizes this issue for the southwest border counties:<sup>3</sup>

[Texas] will be poorer in the future if the 2000 differentials in income and related socioeconomic resources among population subgroups do not change. If these differentials change, the State's socioeconomic resources could be increased significantly... If differentials in the socioeconomic characteristics of the labor force do not change, the future labor force of Texas will be less educated, less skilled, earn lower salaries and wages, and thus be in greater need of labor force training (with substantial associated costs).

### **Population Characteristics Unique to Border Counties**

Relative to the nation, border counties have a larger share of their residents under the age of 18, and a smaller share of their residents over 64 years old. Hispanics also constitute the largest ethnic group along the border, due in large part to the residing foreign-born population, particularly from Mexico, and to the higher birth rates among Hispanics, both immigrants and U.S. citizens alike. There is a clear relationship between age and ethnic status. In non-border counties nationwide, persons under the age of 18 average 25 percent of the total

population. By comparison, 17 of the 24 border counties, 11 located in Texas, had a significantly larger share of their population younger than the age of 18:

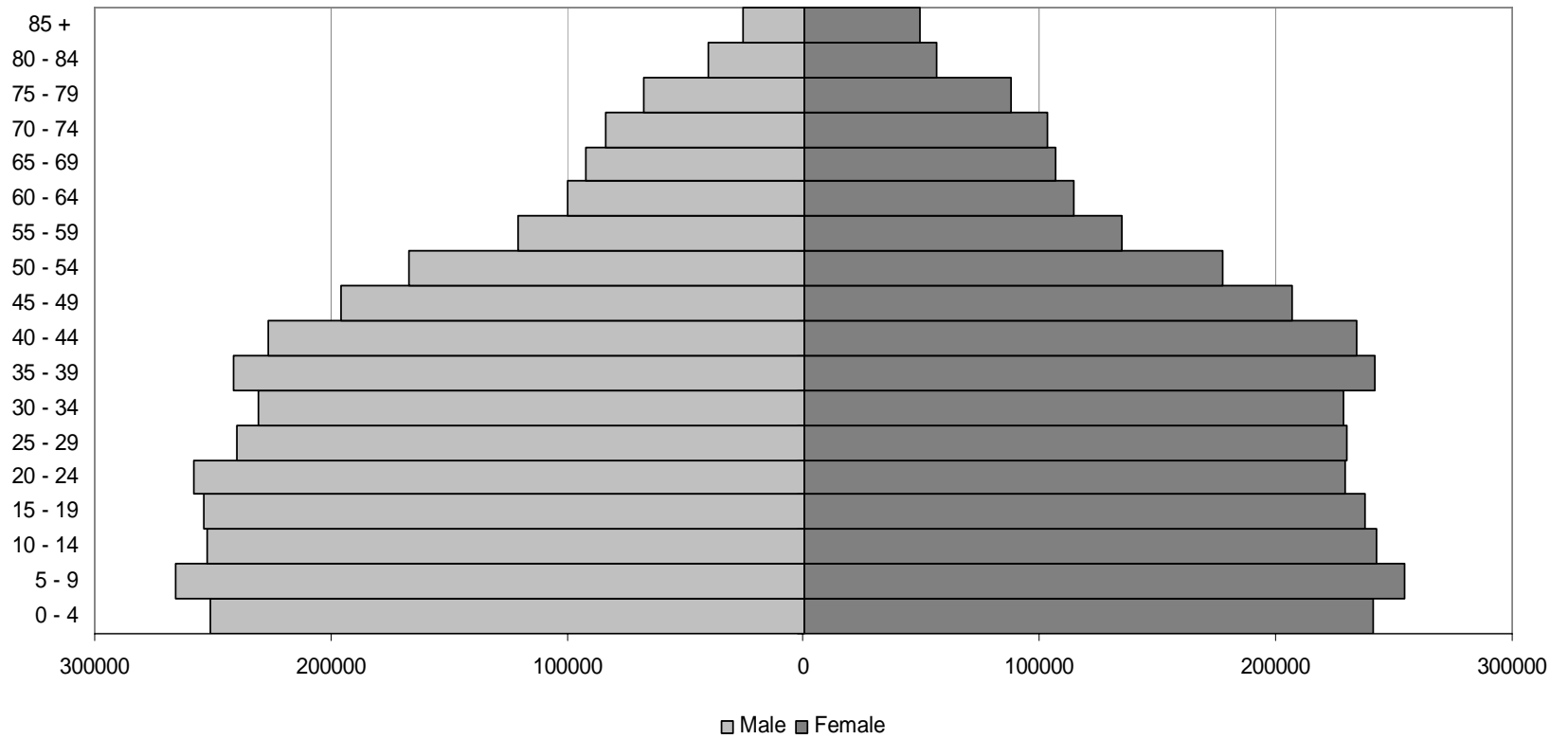
- Hidalgo (TX), Maverick, Starr, and Webb had between 35 and 38 percent of their residents younger than 18 years.
- Santa Cruz, Cameron, El Paso, Hudspeth, Presidio, and Zapata had between 32 and 35 percent of their residents under 18 years.
- Yuma, Imperial, Doña Ana, Hidalgo (NM), Luna, Culberson, and Val Verde had between 28 and 32 percent of their residents under 18 years.

The age and ethnic demographics have implications for development of the region. The two population pyramids (Figure 2.1 and Figure 2.2) illustrate the distribution of age in the border region population. Regional economic development theory suggests that regions with “middle-centered” population distributions tend to have more diversified and vibrant economies.

Overcoming the challenges of a population that is young and Hispanic will be central to regional development strategies across a number of issue areas. The implications of a younger and predominantly Hispanic resident base include, among others, increased costs in health care, education, and human services program demands. Border county populations already face increased health care costs as a result of high birth rates, diabetes, hepatitis, and higher rates of uninsured residents. Additionally, the regions' increased migration rates mean greater demands for education at all levels.

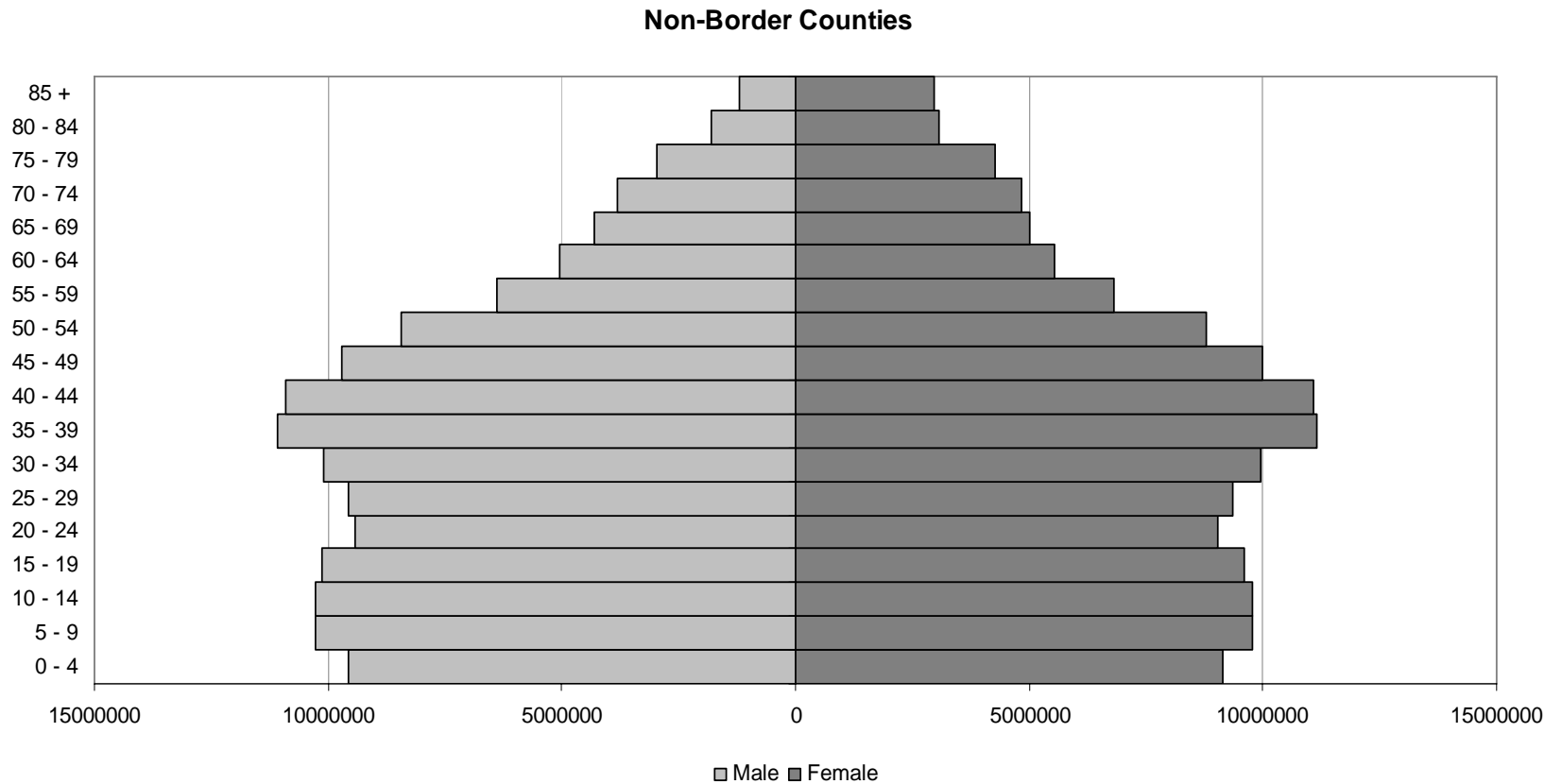
**Figure 2.1**  
**2000 Age Distributions for Border Counties**

**Border Counties**



Source: U.S. Census, 2000.

**Figure 2.2**  
**2000 Age Distributions for Non-Border Counties**



Source: U.S. Census, 2000.

Two major components are driving population growth in border counties. The first component is natural increase, measured by the excess of births over deaths. The increase in the fertility of the population, both from native and foreign-born

citizens, is responsible for the large share of young residents and smaller share of older age groups. The border is unique in this demographic trend within the United States. The second component is international migration, the difference between

the migration of the foreign born over the emigration of natives. Internal migration is negative in border counties as immigration of retirees from other regions of the United States to the border is far outweighed by individuals choosing to migrate out of the border region, such as younger workers seeking employment opportunity elsewhere in the United States (economic migrants). High growth rates along the border are also forecasted to continue into the foreseeable future.

### **Demographics of U.S. Southwest Border Residents: 1990 to 2003**

Hispanics constitute the country's largest minority. From 2000 to 2003,<sup>4</sup> the Hispanic population grew 13 percent to an estimated 39.9 million (Table 2.2). While the Hispanic population has spread nationwide in recent years, overall it remains geographically concentrated. As a result of historic, social, cultural, and economic ties, the U.S.-Mexico border is an established region of residence for Hispanics. Eighteen border counties record a majority Hispanic population:

- Maverick, Starr, and Webb have Hispanic populations more than 90 percent.
- Santa Cruz, Cameron, El Paso, Hidalgo (TX), Presidio, and Zapata have Hispanic populations between 80 and 90 percent.
- Imperial, Culberson, Hudspeth, and Val Verde have Hispanic populations between 70 and 80 percent.
- Yuma, Doña Ana, Hidalgo (NM), Luna, and Kinney have a Hispanic population between 50 and 70 percent.

Hispanic population growth is forecast to account for a disproportionate share of the total nationwide population growth. While non-Hispanic populations are stable in size and aging, the Hispanic base is younger and expanding. This

dynamic can be witnessed in border counties where Hispanics, within a period of three years (2000-2003), surpassed non-Hispanics to constitute the population majority (Figure 2.3). As noted by the Pew Hispanic Center, the Hispanic population also shows signs of becoming less immigrant-based:<sup>5</sup>

Latino immigrants ... have proved highly fertile, with birth rates twice as high as those of non-Hispanics. Consequently, Latino population growth in the next few decades will be driven primarily by increases in the second generation. These native-born, English-speaking, U.S. educated Hispanics will have a very different impact on the country than their immigrant parents had. That impact is still to be fully felt, as half of the offspring of Latino immigrants are 11 or younger. Their youth, coupled with the expected increase in their numbers, signals a growing presence of Latinos in the school-age population and in the pool of new entrants to the labor force.

### **U.S. Southwest Border Population Estimates and Growth: 1990 to 2004**

The majority of the population change along the border, and at the national level, resulted from natural increase (births over deaths), followed by positive net international migration. Net internal migration was negative along southwest border counties, in part due to economic migration as more people moved out of than into the region in response to economic and amenity factors (i.e., real wages).

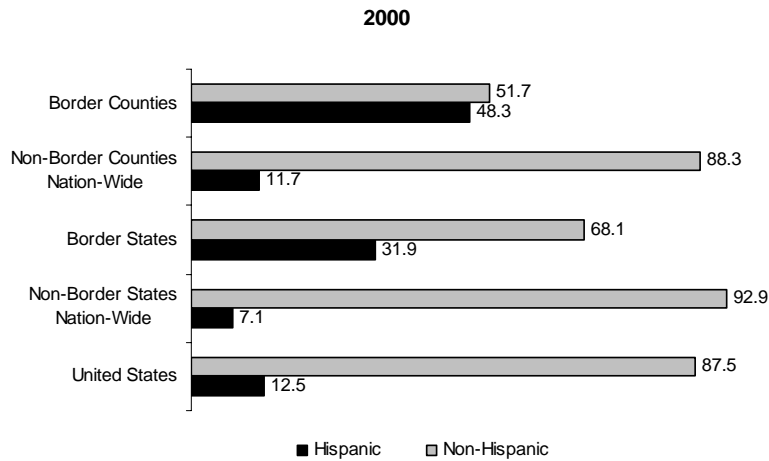
From 1990 to 2004,<sup>6</sup> the population of the border states increased by 14.1 million, close to one-third of the total population increase of the United States during this period.

**Table 2.2**  
**2003 U.S. Population Demographics Along the U.S.-Mexico Border**

	Total	Gender				Ethnicity				Age Cohort							
		Male	Female	% Male	% Female	Hispanic	Non-Hispanic	% Hispanic	% Non-Hispanic	0-17	18-24	25-64	65+	% 0-17	% 18-24	% 25-64	% 65+
<b>United States</b>	290,788,976	143,027,029	147,761,947	49.2	50.8	39,896,035	250,892,941	13.7	86.3	73,038,281	28,897,504	152,936,586	35,916,605	25.1	9.9	52.6	12.4
<b>Arizona</b>	5,579,222	2,789,393	2,789,829	50.0	50.0	1,549,448	4,029,774	27.8	72.2	1,512,635	553,898	2,797,174	715,515	27.1	9.9	50.1	12.8
Cochise	121,736	60,865	60,871	50.0	50.0	40,050	81,686	32.9	67.1	32,403	12,347	58,036	18,950	26.6	10.1	47.7	15.6
Pima	890,987	435,993	454,994	48.9	51.1	284,007	606,980	31.9	68.1	222,182	92,613	449,518	126,674	24.9	10.4	50.5	14.2
Santa Cruz	40,185	19,119	21,066	47.6	52.4	32,895	7,290	81.9	18.1	13,274	3,816	18,596	4,499	33.0	9.5	46.3	11.2
Yuma	170,604	85,562	85,042	50.2	49.8	92,797	77,807	54.4	45.6	51,481	17,567	72,479	29,077	30.2	10.3	42.5	17.0
<b>AZ Border Counties</b>	1,223,512	601,539	621,973	49.2	50.8	449,749	773,763	36.8	63.2	319,340	126,343	598,630	179,199	26.1	10.3	48.9	14.6
<b>AZ Border Counties % of AZ</b>	21.9	21.6	22.3			29.0	19.2			21.1	22.8	21.4	25.0				
<b>California</b>	35,462,712	17,694,855	17,767,857	49.9	50.1	12,168,627	23,294,085	34.3	65.7	9,472,980	3,561,114	18,662,915	3,765,703	26.7	10.0	52.6	10.6
Imperial	148,924	77,463	71,461	52.0	48.0	111,271	37,653	74.7	25.3	44,717	17,422	71,410	15,375	30.0	11.7	48.0	10.3
San Diego	2,918,829	1,469,787	1,449,042	50.4	49.6	837,416	2,081,413	28.7	71.3	745,863	313,841	1,538,730	320,396	25.6	10.8	52.7	11.0
<b>CA Border Counties</b>	3,067,753	1,547,249	1,520,504	50.4	49.6	948,687	2,119,066	30.9	69.1	790,580	331,263	1,610,140	335,771	25.8	10.8	52.5	10.9
<b>CA Border Counties % of CA</b>	8.7	8.7	8.6			7.8	9.1			8.3	9.3	8.6	8.9				
<b>New Mexico</b>	1,878,562	923,705	954,857	49.2	50.8	811,766	1,066,796	43.2	56.8	497,829	199,974	955,668	225,091	26.5	10.6	50.9	12.0
Dona Ana	182,551	89,897	92,654	49.2	50.8	118,512	64,039	64.9	35.1	52,128	24,011	85,841	20,571	28.6	13.2	47.0	11.3
Hidalgo	5,255	2,639	2,616	50.2	49.8	2,960	2,295	56.3	43.7	1,501	515	2,417	822	28.6	9.8	46.0	15.6
Luna	25,692	12,525	13,167	48.8	51.2	15,176	10,516	59.1	40.9	7,328	2,465	10,953	4,946	28.5	9.6	42.6	19.3
<b>NM Border Counties</b>	213,498	105,061	108,437	49.2	50.8	136,648	76,850	64.0	36.0	60,957	26,991	99,210	26,340	28.6	12.6	46.5	12.3
<b>NM Border Counties % of NM</b>	11.4	11.4	11.4			16.8	7.2			12.2	13.5	10.4	11.7				
<b>Texas</b>	22,103,374	11,002,670	11,100,704	49.8	50.2	7,551,698	14,551,676	34.2	65.8	6,210,087	2,356,745	11,357,424	2,179,118	28.1	10.7	51.4	9.9
Brewster	9,273	4,609	4,664	49.7	50.3	4,142	5,131	44.7	55.3	2,008	1,361	4,588	1,317	21.7	14.7	49.5	14.2
Cameron	362,372	173,548	188,824	47.9	52.1	310,651	51,721	85.7	14.3	124,062	39,526	159,193	39,591	34.2	10.9	43.9	10.9
Culberson	2,777	1,404	1,373	50.5	49.5	1,990	787	71.7	28.3	854	284	1,293	346	30.8	10.2	46.6	12.5
El Paso	702,609	337,467	365,142	48.0	52.0	571,036	131,573	81.3	18.7	225,068	76,229	330,602	70,709	32.0	10.8	47.1	10.1
Hidalgo	635,389	308,839	326,550	48.6	51.4	566,834	68,555	89.2	10.8	226,663	73,059	275,786	59,881	35.7	11.5	43.4	9.4
Hudspeth	3,257	1,614	1,643	49.5	50.5	2,555	702	78.5	21.5	1,055	364	1,511	327	32.4	11.2	46.4	10.1
Jeff Davis	2,245	1,140	1,105	50.8	49.2	796	1,449	35.5	64.5	515	175	1,175	381	22.9	7.8	52.3	16.9
Kinney	3,335	1,670	1,665	50.1	49.9	1,696	1,639	50.9	49.1	800	274	1,439	822	24.0	8.2	43.2	24.6
Maverick	49,873	23,856	26,017	47.8	52.2	47,650	2,223	95.5	4.5	18,185	5,210	21,532	4,946	36.5	10.4	43.2	9.9
Presidio	7,605	3,637	3,968	47.8	52.2	6,453	1,152	84.9	15.1	2,454	790	3,285	1,076	32.3	10.4	43.2	14.1
Starr	58,069	28,003	30,066	48.2	51.8	56,683	1,386	97.6	2.4	21,720	6,777	24,640	4,932	37.4	11.7	42.4	8.5
Terrell	1,013	508	505	50.2	49.8	482	531	47.6	52.4	234	72	493	215	23.1	7.1	48.6	21.2
Val Verde	46,709	22,818	23,891	48.9	51.1	36,734	9,975	78.6	21.4	14,779	4,611	21,438	5,881	31.6	9.9	45.9	12.6
Webb	212,706	102,523	110,183	48.2	51.8	202,387	10,319	95.1	4.9	79,315	23,665	93,584	16,142	37.3	11.1	44.0	7.6
Zapata	12,923	6,359	6,564	49.2	50.8	11,216	1,707	86.8	13.2	4,282	1,400	5,552	1,689	33.1	10.8	43.0	13.1
<b>TX Border Counties</b>	2,110,155	1,017,994	1,092,161	48.2	51.8	1,821,305	288,850	86.3	13.7	721,993	233,796	946,111	208,255	34.2	11.1	44.8	9.9
<b>TX Border Counties % of TX</b>	9.5	9.3	9.8			24.1	2.0			11.6	9.9	8.3	9.6				
<b>Border States</b>	65,023,870	32,410,623	32,613,247	49.8	50.2	22,081,539	42,942,331	34.0	66.0	17,693,531	6,671,731	33,773,181	6,885,427	27.2	10.3	51.9	10.6
<b>Non-Border States</b>	225,765,106	110,616,406	115,148,700	49.0	51.0	17,814,497	207,950,609	7.9	92.1	55,344,750	22,225,773	119,163,405	29,031,178	24.5	9.8	52.8	12.9
<b>Border Counties</b>	6,614,918	3,271,843	3,343,075	49.5	50.5	3,356,388	3,258,530	50.7	49.3	1,892,870	718,393	3,254,090	749,564	28.6	10.9	49.2	11.3
<b>Non-Border Counties</b>	284,174,058	139,755,186	144,418,872	49.2	50.8	36,539,647	247,634,411	12.9	87.1	71,145,411	28,179,111	149,682,496	35,167,040	25.0	9.9	52.7	12.4

Source: 2003 mid-year intercensal population estimates, Census.

**Figure 2.3**  
**2000 vs. 2003 Percent Share of Hispanics**

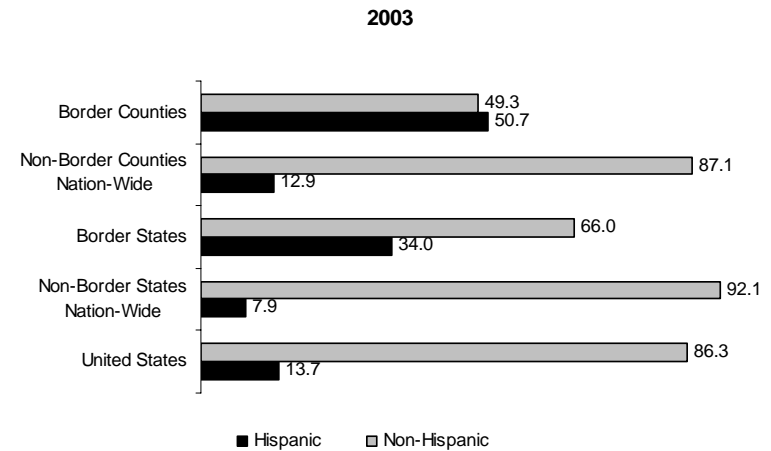


Source: U.S. Census, 2000.

California and Texas are primarily responsible for this trend and are expected to sustain it in the future.

Collectively, the 24 border counties grew by 1.5 million persons between 1990 and 2004, an increase of 29.3 percent. At the state level in 2004, population data shows that:

- Arizona’s border counties accounted for 21.7 percent of that state’s residents (more than one in five people in Arizona live in border counties).
- California, New Mexico, and Texas border counties accounted for 8.6, 11.4, and 9.6 percent of their respective state’s population.



Source: 2003 Mid-year intercensal population estimates, U.S. Census.

The five most populated southwest border counties are San Diego, Pima, El Paso, Hidalgo (TX), and Cameron (Appendix 2.1 and Map 2.1). These five counties alone accounted for 83.2 percent of the total population and had the greatest population densities on the U.S.-Mexico border. Between 2000 and 2004:

- The greatest population gains occurred in San Diego (117,881), Hidalgo, TX (88,785), and Pima (63,313).
- Based on a minimum population increase of 10,000, growth rates were greatest in Hidalgo, TX (15.6%), Webb (13.6%), and Cameron (10.9%).

- San Diego and El Paso lost 60,546 and 30,972 persons to negative internal U.S. migration, respectively.
- Pima and Hidalgo (TX) gained 27,550 and 12,249 persons to positive internal U.S. migration, respectively. Pima's gain is in part due to non-

economic migration as an older population moved into the region to make the Tucson area its retirement home.

- Population count declines were recorded in Hidalgo, NM (-746), Culbertson (-248), Terrell (-124), Hudspeth (-44), and Kinney (-42).

**Table 2.3**  
**2004 Southwest Border County Populations**

<b>Top 5</b>		<b>Upper Middle 6-10</b>		<b>Lower Middle 11-15</b>		<b>Bottom 9</b>	
San Diego	2,931,714	Webb	219,464	Starr	59,832	Zapata	13,154
Pima	907,059	Dona Ana	186,095	Maverick	50,436	Brewster	9,226
El Paso	713,126	Yuma	176,083	Val Verde	47,410	Presidio	7,639
Hidalgo, TX	658,248	Imperial	152,448	Santa Cruz	40,784	Hidalgo, NM	5,186
Cameron	371,825	Cochise	124,013	Luna	26,129	Kinney	3,337
						Hudspeth	3,300
						Culbertson	2,727
						Jeff Davis	2,253
						Terrell	957

Source: 2004 Mid-year intercensal population estimates, U.S. Census.

### Appendix 2.1 2000 (April 1 ) to 2004 (July 1) Annual Population and Components of Population Change Along the U.S.-Mexico Border

	Population Estimates					April 1, 2000		Total Population Change	Natural Increase			Net Migration		
	July 1, 2004	July 1, 2003	July 1, 2002	July 1, 2001	July 1, 2000	Estimates Base	Census		Total (Births less Deaths)	Births	Deaths	Total (Int. less Internal)	Net International Migration	Net Internal Migration
<b>United States</b>	293,655,404	290,788,976	287,941,220	285,102,075	282,192,162	281,424,602	281,421,906	12,230,802 (4.3%)	6,901,163	17,198,187	10,297,024	5,329,639	5,329,639	-
<b>Arizona</b>	5,743,834	5,579,222	5,439,091	5,296,845	5,165,944	5,130,632	5,130,632	613,202 (12.0%)	193,305	371,351	178,046	422,800	141,175	281,625
Cochise	124,013	121,736	120,044	118,773	118,035	117,755	117,755	6,258 (5.3%)	2,755	7,311	4,556	3,572	1,482	2,090
Pima	907,059	890,987	877,529	861,408	848,554	843,746	843,746	63,313 (7.5%)	21,014	53,048	32,034	42,810	15,260	27,550
Santa Cruz	40,784	40,185	39,615	39,045	38,564	38,381	38,381	2,403 (6.3%)	2,355	3,220	865	70	1,264	-1,194
Yuma	176,083	170,604	166,715	163,477	160,750	160,026	160,026	16,057 (10.0%)	8,621	13,159	4,538	7,546	5,118	2,428
<b>AZ Border Counties</b>	1,247,939	1,223,512	1,203,903	1,182,703	1,165,903	1,159,908	1,159,908	88,031 (7.6%)	34,745	76,738	41,993	53,998	23,124	30,874
<b>AZ Border Counties % of AZ</b>	21.7	21.9	22.1	22.3	22.6	22.6	22.6	14.4	18.0	20.7	23.6	12.8	16.4	11.0
<b>California</b>	35,893,799	35,462,712	34,988,261	34,532,163	34,002,467	33,871,653	33,871,648	2,022,146 (6.0%)	1,260,527	2,244,263	983,736	777,117	1,192,430	-415,313
Imperial	152,448	148,924	145,702	143,715	142,533	142,361	142,361	10,087 (7.1%)	7,829	11,298	3,469	2,307	5,179	-2,872
San Diego	2,931,714	2,918,829	2,896,098	2,858,891	2,824,591	2,813,833	2,813,833	117,881 (4.2%)	104,021	186,709	82,688	15,108	75,654	-60,546
<b>CA Border Counties</b>	3,084,162	3,067,753	3,041,800	3,002,606	2,967,124	2,956,194	2,956,194	127,968 (4.3%)	111,850	198,007	86,157	17,415	80,833	-63,418
<b>CA Border Counties % of CA</b>	8.6	8.7	8.7	8.7	8.7	8.7	8.7	6.3	8.9	8.8	8.8	2.2	6.8	15.3
<b>New Mexico</b>	1,903,289	1,878,562	1,855,143	1,832,335	1,821,496	1,819,046	1,819,046	84,243 (4.6%)	57,808	115,818	58,010	27,252	23,267	3,985
Dona Ana	186,095	182,551	178,590	176,635	174,991	174,682	174,682	11,413 (6.5%)	8,467	12,883	4,416	3,008	3,645	-637
Hidalgo	5,186	5,255	5,351	5,500	5,764	5,932	5,932	-746 (-12.6%)	62	267	205	-801	88	-889
Luna	26,129	25,692	25,253	24,979	24,993	25,016	25,016	1,113 (4.4%)	617	1,671	1,054	509	748	-239
<b>NM Border Counties</b>	217,410	213,498	209,194	207,114	205,748	205,630	205,630	11,780 (5.7%)	9,146	14,821	5,675	2,716	4,481	-1,765
<b>NM Border Counties % of NM</b>	11.4	11.4	11.3	11.3	11.3	11.3	11.3	14.0	15.8	12.8	9.8	10.0	19.3	-44.3
<b>Texas</b>	22,490,022	22,103,374	21,723,220	21,334,855	20,949,136	20,851,790	20,851,820	1,638,232 (7.9%)	930,519	1,570,403	639,884	715,897	558,004	157,893
Brewster	9,226	9,273	9,076	8,939	8,873	8,866	8,866	360 (4.1%)	180	491	311	186	151	35
Cameron	371,825	362,372	353,086	344,262	336,826	335,227	335,227	36,598 (10.9%)	28,301	36,124	7,823	8,476	10,043	-1,567
Culberson	2,727	2,777	2,828	2,861	2,944	2,975	2,975	-248 (-8.3%)	133	222	89	-377	12	-389
El Paso	713,126	702,609	693,570	687,543	681,502	679,622	679,622	33,504 (4.9%)	43,769	59,844	16,075	-10,042	20,930	-30,972
Hidalgo	658,248	635,389	612,791	591,289	574,023	569,463	569,463	88,785 (15.6%)	54,340	65,709	11,369	34,695	22,446	12,249
Hudspeth	3,300	3,257	3,336	3,359	3,343	3,344	3,344	-44 (-1.3%)	163	242	79	-205	132	-337
Jeff Davis	2,253	2,245	2,212	2,238	2,229	2,207	2,207	46 (2.1%)	-36	64	100	84	59	25
Kinney	3,337	3,335	3,413	3,417	3,381	3,379	3,379	-42 (-1.2%)	33	172	139	-71	32	-103
Maverick	50,436	49,873	48,810	47,871	47,387	47,297	47,297	3,139 (6.6%)	3,299	4,235	936	-144	1,388	-1,532
Presidio	7,639	7,605	7,506	7,391	7,343	7,304	7,304	335 (4.6%)	530	683	153	-190	446	-636
Starr	59,832	58,069	56,216	54,745	53,849	53,597	53,597	6,235 (11.6%)	5,301	6,296	995	945	2,265	-1,320
Terrell	957	1,013	1,021	1,029	1,060	1,081	1,081	-124 (-11.5%)	-15	22	37	-107	22	-129
Val Verde	47,410	46,709	45,850	45,318	45,019	44,856	44,856	2,554 (5.7%)	2,565	3,755	1,190	15	1,048	-1,033
Webb	219,464	212,706	206,729	200,824	194,673	193,117	193,117	26,347 (13.6%)	21,553	25,186	3,633	4,862	7,807	-2,945
Zapata	13,154	12,923	12,728	12,423	12,224	12,182	12,182	972 (8.0%)	780	1,093	313	205	289	-84
<b>TX Border Counties</b>	2,162,934	2,110,155	2,059,172	2,013,509	1,974,676	1,964,517	1,964,517	198,417 (10.1%)	160,896	204,138	43,242	38,332	67,070	-28,738
<b>TX Border Counties % of TX</b>	9.6	9.5	9.5	9.4	9.4	9.4	9.4	12.1	17.3	13.0	6.8	5.4	12.0	-18.2
<b>Border States</b>	66,030,944	65,023,870	64,005,715	62,996,198	61,939,043	61,673,121	61,673,146	4,357,823 (7.1%)	2,442,159	4,301,835	1,859,676	1,943,066	1,914,876	28,190
<b>Non-Border States</b>	227,624,460	225,765,106	223,935,505	222,105,877	220,253,119	219,751,481	219,748,760	7,872,979 (3.6%)	4,459,004	12,896,352	8,437,348	3,386,573	3,414,763	-28,190
<b>Border Counties</b>	6,712,445	6,614,918	6,514,069	6,405,932	6,313,451	6,286,249	6,286,249	426,196 (6.8%)	316,637	493,704	177,067	112,461	175,508	-63,047
<b>Non-Border Counties</b>	286,942,959	284,174,058	281,427,151	278,696,143	275,878,711	275,138,353	275,135,657	11,804,606 (4.3%)	6,584,526	16,704,483	10,119,957	5,217,178	5,154,131	63,047

Source: IPED tabulations from the Population Division, U.S. Census Bureau. April 1, 2000 population estimates base reflecting changes to the Census 2000 population from the Count Question Resolution program and geographic program revisions. There were no changes at the selected border counties, but there were changes for the United States, California, and Texas (due to differences in some non-border counties).

Note: Total population change based on April 1, 2000 estimates base.



## Endnotes to Chapter Two

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1. The U.S. Census Bureau defines four regions as Northeast, Midwest, South and West. The south contains the state of Texas and the West the states of Arizona, California, and New Mexico.
2. Consejo Nacional de Población, mid-year 2005.
3. Murdock, et al. 2002. "The Texas Challenge in the Twenty-First Century: Implications of Population Change for the Future of Texas." Center for Demographic and Socioeconomic Research and Education, College Station, Texas.
4. At the time of this report, 2003 is the most current year data that provides the desired demographic and geographic breakdown for this analysis. Geographic updates and estimates for population totals and demographic components are produced by the Census Bureau at different times of the year. Hence, data is interpolated where applicable (IPED calculations) to correspond to the most recent 2003 updated population totals and 2000 population estimates base.
5. [www.pewhispanic.org](http://www.pewhispanic.org). Pew Hispanic Center, 1/24/2005. "Hispanics – A People in Motion."
6. Projected trends related to birth rates, mortality, and migration are applied to the estimated base population to obtain mid-year population estimates for years between the decennial, or ten year, Census counts. The Census level population estimate has an adjustment applied to it to make up for net undercounts to obtain the estimated base population. Non-citizens who are living in the United States are included in the estimates, regardless of their immigration status. Special populations (military and dependents, prisoners, and college students) also play a role in determining demographic changes.

## Chapter 3

### Mexico Border Populations and Policy Linkages

U.S.-Mexico border communities are inherently tied together by history, culture, and socio-economics. Terms such as “border pairs,” “sister cities,” and “borderplex regions” are commonly used to describe U.S.-Mexico border communities. Given the importance of population to economic activity, an understanding of Mexico’s border population is important, inasmuch as it provides the context for the southwest border region’s past and future development. In addition, policy makers at all levels of government are unlikely to be successful if they do not engage in 360 degree thinking; incorporating the impacts of Mexico’s proximity, whether positive or negative, into their policy deliberations. Similar to the United States, Mexico’s border populations are concentrated primarily in the same regions as their U.S. counterparts, the exception being the Middle Rio Grande on the Mexico side which has a substantial population not matched by a U.S. counterpart. There are 35 border municipios in Mexico; three in Baja California, six in Coahuila, six in Chihuahua, one in Nuevo León, ten in Sonora, and nine in Tamaulipas.<sup>1</sup> A municipio in Mexico is equivalent to a county in the United States. Only one of Nuevo León’s municipios is actually on the boundary line with the United States while Monterrey is about 150 miles from the border.

In general, between 2000 and 2004 at the municipio level:

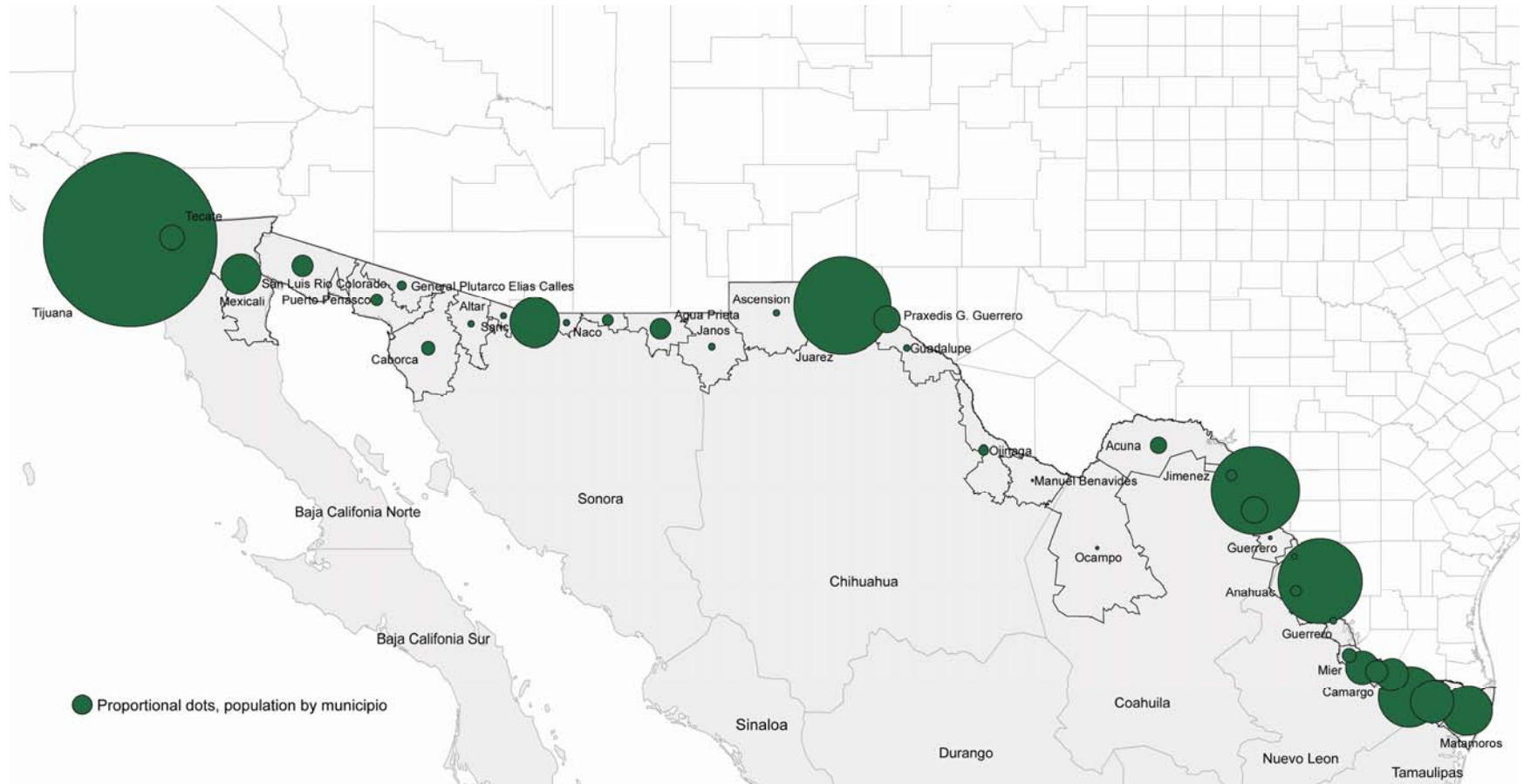
- The greatest population gains occurred in Ciudad Juárez (201.4 thousand), Tijuana (196.7 thousand), and Mexicali (101.2 thousand).

- Based on a minimum increase of 10,000 persons, growth rates were greatest in Acuña (24.8%), Reynosa (20%), Agua Prieta, 17.8%), and Nogales (17.7%).
- Ocampo declined in population by 4,319.

In four of the six Mexican border states, their respective municipios have critical concentrations of their respective population. In 2004:

- Baja California’s municipios comprised 82.5 percent of that state’s residents (more than four in five people in Northern Baja live along the border).
- Tamaulipas and Chihuahua border municipios accounted for 51.5 and 44.6 percent of their respective state’s population.
- Sonora and Coahuila border municipios accounted for 24.4 and 12.2 percent of their respective state’s population.
- Less than 1 percent of Nuevo León’s total population lives in its sole border municipio. However, Monterrey, 150 miles into the interior of Mexico, has a major impact on the border as an extensive and complex logistical and manufacturing hub, although it technically is not on the international boundary.

**Map 3.1**  
**2004 Population Density by Municipio**



**Table 3.1  
2004 Border Municipio Populations**

Top 6						Upper Middle 7 - 14							
Juarez	Tijuana	Mexicali	Reynosa	Matamoros	Nuevo Laredo	Nogales	San Luis Rio	Piedras Negras	Acuña	Rio Bravo	Tecate	Caborca	Agua Prieta
1,420,262	1,407,528	865,822	504,748	486,941	363,919	188,113	170,359	145,559	137,930	116,130	91,316	75,888	73,000

Lower Middle 15 - 22								Bottom 13												
Valle Hermoso	Puerto Peñasco	Cananea	Miguel Aleman	Ojinaga	Ascension	Anahuac	Camargo	Guadalupe	Jimenez	Janos	P.G. Guerrero	Altar	Mier	Ocampo	Naco	Guerrero	Saric	Guerrero	Santa Cruz	Hidalgo
65,094	36,417	35,406	29,969	26,722	24,619	19,515	19,512	11,364	11,005	10,584	9,837	7,949	7,754	7,734	6,108	5,152	2,482	2,298	1,819	1,695

Source: CONOPO Proyecciones (2000-2030).

- Tijuana nearly *doubled* its population between 1990 and 2004 (660,000 new residents), a 50 percent numeral increase than San Diego County, its northern counterpart with a 1990 base population four times greater than Tijuana.
- In only four years, between 2000 and 2004, Ciudad Juárez added 201.4 thousand new residents – more than a quarter of the population of El Paso, its borderplex neighbor.
- In 2004, there were an estimated 105.35 million persons living in Mexico, marking an increase of 24.1 million (29.7 %) over 1990 (Appendix 3.1).
- Border states accounted for 21.7 percent of this 14 year rise, while border municipios accounted for 10.6 percent.
- Between 2000 and 2004, Mexico’s population increased by 7.87 million. Population growth in border states and border municipios were responsible for 23.4 and 11.2 percent of this latter increase, respectively (Table 3.1).
- The two most important border economies with the largest concentration of maquiladora employment are split between Tijuana, Baja California and Ciudad Juárez, Chihuahua.
- Nuevo León’s capital, Monterrey, has become the industrial center of Mexico, surpassing even Mexico City’s industrial base, shifting economic development focus to the north.

- One in ten of Mexico's new residents come from a border municipio.
- Two northern border municipios surpassed 1.4 million residents, Ciudad Juárez and Tijuana. Collectively they accounted for 44.2 percent of the entire border municipios' population.
- Mexicali, Reynosa, Matamoros, and Nuevo Laredo combined account for 34.8 percent of the total border municipio population.
- The age distribution in border municipios for adults age 20 to 29 is second only to children ages 0 through 9.
- Adults ranging from age 30 to 44 make up a larger percentage of the population along the border than in the non-border municipios.
- Most unauthorized migration into the United States from Mexico is by adult males.
- Mexico's border area has relatively more employment opportunity than most of the nation's non-border regions.

**Gender**

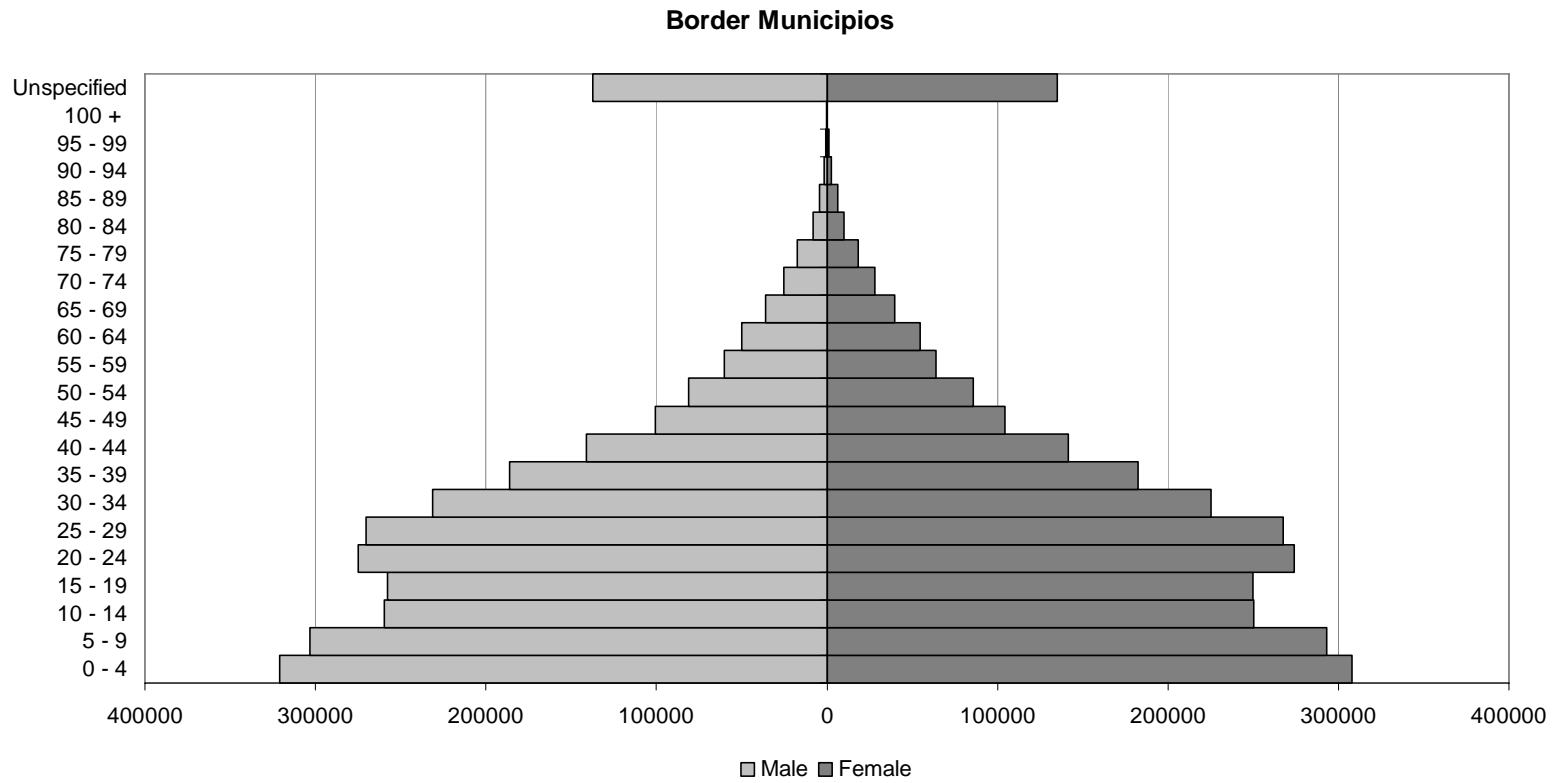
In the United States, there are slightly more females than males in border counties, similar to the national trend. By

comparison, in Mexico, there are more males than females in border areas, diverging from the Mexican national pattern (Table 3.1). Gender distribution plays a key role in both migration and economic patterns. As evidence, the northern border in Mexico is typically viewed as being more developed relative to the rest of Mexico, with greater employment, educational, and income opportunities in part due to the make-up of the population.<sup>2</sup> This greater opportunity to find work on the northern border of Mexico leads to internal migration from southern Mexico, especially by younger adult males. By contrast, the case is reversed along the U.S. southwest border where income, educational, and employment levels are lower relative to the rest of the United States. Furthermore, the northern border of Mexico acts as a stepping stone to access the U.S. job market either legally or illegally.<sup>3</sup>

**Age Groups**

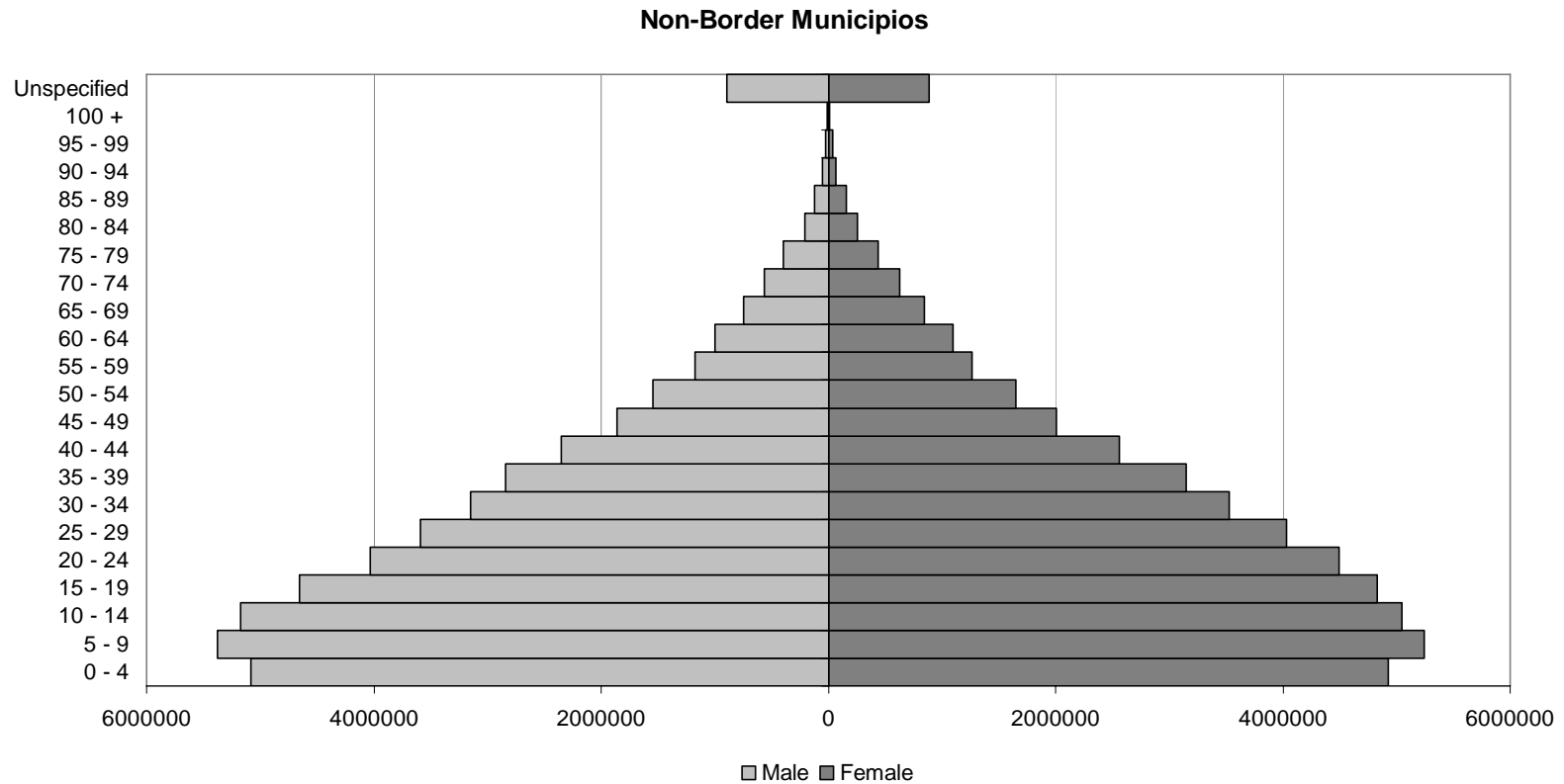
The age distribution of a nation's population has been suggested as a correlate to economic development.<sup>4</sup> The rationale is that a population weighted heavily on the middle years of life is more productive. Also, a larger working-age population can support the young and the old who are not in the workplace. Figure 3.1 shows that Mexico has a relatively young population. Comparing border municipios with non-border municipios shows that the northern border has a greater working-age population. The share of the age group comprising young workers has dramatically increased along Mexico's northern border since 1990.

**Figure 3.1**  
**2000 Mexico Age Distribution of Border Municipios**



Source: XII Censo 2000, INEGI.

**Figure 3.2**  
**2000 Mexico Age Distribution of Non-Border Municipios**



Source: XII Censo 2000, INEGI.

**U.S.-Mexico Policy Linkages**

Mexico’s population dynamics are only part of the story. Geographic proximity, in combination with generations of social and cultural integration, has created a “border context” or “border fabric.” For leaders in the border region, some knowledge of Mexico’s population patterns is only a starting

point for understanding the context within which policy options must be addressed. Border counties must make demands on a variety of state and federal programs to insure the well-being of their populations. More often than not, these demands are, in part, in response to externalities or spillovers heightened by a shared boundary. In this report a variety of policy linkages brought about by ties to Mexico emerge. These include:

- **The Economy** - Northern Mexico is more affluent than the rest of Mexico, but border counties are among the poorest in the United States. Nevertheless, wage differences favor employment in the United States.
- **Labor** – A quest for employment in the United States by Mexicans places a downward pressure on wages, thereby raising unemployment in the United States and creating a huge undocumented economic effect.
- **Income** – Lower income levels have resulted in lower investment rates, high dependency on low skill and low income jobs, and are directly related to lower education levels.
- **Education** – The region is not in the mainstream of the high technology/high knowledge economy although maquiladora presence in Mexico has enhanced the service industry in the United States.
- **Environment** - Shared airshed and water resources have created an environmental dependency that requires binational intervention and management.
- **Health** – Infectious disease knows no boundary and any health concern in one nation requires a policy response in the other.
- **Trade and Traffic** – NAFTA has created more integration, more border crossings, and greater

pressures on an already stressed infrastructure.

- **Immigration** – Immigrants seek jobs and, in turn, public services, education for their children, and health services over and above the capacity of most local jurisdictions in border counties.
- **Housing** – In a low income region, affordable housing is in excess demand but is taxable at a low rate that may exceed the cost of providing services (health, education) that are sought in U.S. border communities by immigrants from Mexico.
- **Crime** – The immigration and drug related crime problems require border communities to disproportionately funnel response to activities aimed at inland markets.
- **Public Funding and Taxation** – Lower incomes and lower property values result in border communities being major recipients of state and local funding, creating a well-documented dependency on the federal government in the United States.

Each of these policy areas are directly linked to Mexico, its economy, the growth of its population, its political climate; and, the fact that movement through border counties requires a policy response and, in turn, an investment. No other region of the United States has the same demands by outside factors as those suffered by U.S.-Mexico border counties. The ability to continually respond to regional growth along the U.S. southwest border is a major challenge, a challenge multiplied by the interactions with Mexico.



**Appendix 3.1**  
**1990, 2000, and 2004 Mexico Populations Along the U.S.-Mexico Border**

	1990	2000										2004	
		Total	Age Cohort					% Cohort					
			0-14	15-24	25-64	65+	Unspecified	% 0-14	% 15-24	% 25-64	% 65+		% Unspecified
<b>Mexico</b>	81,249,645	97,483,412	32,586,973	19,063,269	39,029,058	4,750,311	2,053,801	33.4	19.6	40.0	4.9	2.1	105,349,837
<b>Baja California</b>	1,660,855	2,487,367	755,771	452,673	984,826	86,281	207,816	30.4	18.2	39.6	3.5	8.4	2,867,630
Mexicali	601,938	764,602	229,808	138,062	317,226	33,207	46,299	30.1	18.1	41.5	4.3	6.1	865,822
Tecate	51,557	77,795	24,393	14,163	28,567	2,763	7,909	31.4	18.2	36.7	3.6	10.2	91,316
Tijuana	747,381	1,210,820	367,735	223,271	474,713	34,595	110,506	30.4	18.4	39.2	2.9	9.1	1,407,528
<b>BC Border Municipios</b>	1,400,876	2,053,217	621,936	375,496	820,506	70,565	164,714	30.3	18.3	40.0	3.4	8.0	2,364,666
<b>BC Border Municipios % of BC</b>	84.3	82.5	82.3	83.0	83.3	81.8	79.3						82.5
<b>Coahuila</b>	1,972,340	2,298,070	745,058	449,273	969,528	107,365	26,846	32.4	19.6	42.2	4.7	1.2	2,511,114
Acuña	56,336	110,487	37,524	24,482	43,046	3,166	2,269	34.0	22.2	39.0	2.9	2.1	137,930
Guerrero	2,374	2,050	618	373	824	144	91	30.1	18.2	40.2	7.0	4.4	2,298
Hidalgo	1,220	1,441	477	310	553	57	44	33.1	21.5	38.4	4.0	3.1	1,695
Jimenez	8,253	9,724	3,370	1,810	3,846	585	113	34.7	18.6	39.6	6.0	1.2	11,005
Ocampo	7,857	12,053	4,405	2,138	4,687	536	287	36.5	17.7	38.9	4.4	2.4	7,734
Piedras Negras	98,185	128,130	43,226	23,410	52,936	5,427	3,131	33.7	18.3	41.3	4.2	2.4	145,559
<b>CO Border Municipios</b>	174,225	263,885	89,620	52,523	105,892	9,915	5,935	34.0	19.9	40.1	3.8	2.2	306,221
<b>CO Border Municipios % of CO</b>	8.8	11.5	12.0	11.7	10.9	9.2	22.1						12.2
<b>Chihuahua</b>	2,441,873	3,052,907	983,121	570,952	1,262,890	138,615	97,329	32.2	18.7	41.4	4.5	3.2	3,373,391
Ascension	16,361	21,939	8,199	4,119	8,421	842	358	37.4	18.8	38.4	3.8	1.6	24,619
Guadalupe	9,054	10,032	3,547	1,879	4,006	471	129	35.4	18.7	39.9	4.7	1.3	11,364
Janos	10,898	10,214	3,915	1,910	3,766	529	94	38.3	18.7	36.9	5.2	0.9	10,584
Juarez	798,499	1,218,817	375,318	233,006	492,019	39,608	78,866	30.8	19.1	40.4	3.2	6.5	1,420,262
Ojinaga	23,910	24,307	7,647	4,309	10,320	1,704	327	31.5	17.7	42.5	7.0	1.3	26,722
P. G. Guerrero	8,442	8,905	3,102	1,683	3,519	495	106	34.8	18.9	39.5	5.6	1.2	9,837
<b>CH Border Municipios</b>	867,164	1,294,214	401,728	246,906	522,051	43,649	79,880	31.0	19.1	40.3	3.4	6.2	1,503,388
<b>CH Border Municipios % of CH</b>	35.5	42.4	40.9	43.2	41.3	31.5	82.1						44.6
<b>Nuevo Leon</b>	3,098,736	3,834,141	1,137,528	765,042	1,703,771	182,247	45,553	29.7	20.0	44.4	4.8	1.2	4,178,145
Anahuac	17,316	18,524	5,998	3,304	7,567	1,117	538	32.4	17.8	40.8	6.0	2.9	19,515
<b>NL Border Municipios % of NL</b>	0.6	0.5	0.5	0.4	0.4	0.6	1.2						0.5
<b>Sonora</b>	1,823,606	2,216,969	719,168	429,168	947,570	105,330	15,733	32.4	19.4	42.7	4.8	0.7	2,448,839
Agua Prieta	39,120	61,944	21,986	12,377	25,117	2,005	453	35.5	20.0	40.5	3.2	0.7	73,000
Altar	6,458	7,253	2,414	1,501	2,884	366	88	33.3	20.7	39.8	5.0	1.2	7,949
Caborca	59,160	69,516	23,088	14,242	28,927	2,829	430	33.2	20.5	41.6	4.1	0.6	75,888
Cananea	26,931	32,061	10,456	5,571	14,056	1,756	222	32.6	17.4	43.8	5.5	0.7	35,406
Naco	4,645	5,370	1,999	950	2,140	219	62	37.2	17.7	39.9	4.1	1.2	6,108
Nogales	107,936	159,787	53,441	33,786	67,160	4,383	1,017	33.4	21.1	42.0	2.7	0.6	188,113
Puerto Peñasco	26,625	31,157	10,480	6,135	13,088	1,050	404	33.6	19.7	42.0	3.4	1.3	36,417
San Luis Rio Colorado	110,530	145,006	49,148	27,424	60,952	6,340	1,142	33.9	18.9	42.0	4.4	0.8	170,359
Santa Cruz	1,476	1,628	570	260	683	102	13	35.0	16.0	42.0	6.3	0.8	1,819
Saric	2,112	2,257	753	399	937	139	29	33.4	17.7	41.5	6.2	1.3	2,482
<b>SO Border Municipios</b>	384,993	515,979	174,335	102,645	215,944	19,189	3,866	33.8	19.9	41.9	3.7	0.7	597,541
<b>SO Border Municipios % of SO</b>	21.1	23.3	24.2	23.9	22.8	18.2	24.6						24.4
<b>Tamaulipas</b>	2,249,581	2,753,222	861,175	543,703	1,181,016	137,729	29,599	31.3	19.7	42.9	5.0	1.1	3,106,529
Camargo	15,043	16,787	5,187	3,253	6,888	1,152	307	30.9	19.4	41.0	6.9	1.8	19,512
Guerrero	4,510	4,366	1,387	815	1,810	265	89	31.8	18.7	41.5	6.1	2.0	5,152
Matamoros	303,293	418,141	137,224	82,840	175,937	16,543	5,597	32.8	19.8	42.1	4.0	1.3	486,941
Mier	6,244	6,788	2,079	1,183	2,884	534	108	30.6	17.4	42.5	7.9	1.6	7,754
Miguel Aleman	21,322	25,704	8,248	4,933	10,828	1,344	351	32.1	19.2	42.1	5.2	1.4	29,969
Nuevo Laredo	219,468	310,915	101,414	62,141	130,824	12,613	3,923	32.6	20.0	42.1	4.1	1.3	363,919
Reynosa	282,667	420,463	132,151	89,445	177,879	15,531	5,457	31.4	21.3	42.3	3.7	1.3	504,748
Rio Bravo	94,009	104,229	34,608	20,133	42,913	5,396	1,179	33.2	19.3	41.2	5.2	1.1	116,130
Valle Hermoso	51,306	58,573	19,055	11,370	24,349	3,251	548	32.5	19.4	41.6	5.6	0.9	65,094
<b>TA Border Municipios</b>	997,862	1,365,966	441,353	276,113	574,312	56,629	17,559	32.3	20.2	42.0	4.1	1.3	1,599,219
<b>TA Border Municipios % of TA</b>	44.4	49.6	51.3	50.8	48.6	41.1	59.3						51.5
<b>Border States</b>	13,246,991	16,642,676	5,201,821	3,210,811	7,049,601	757,567	422,876	31.3	19.3	42.4	4.6	2.5	18,485,648
<b>Non-Border States</b>	68,002,654	80,840,736	27,385,152	15,852,458	31,979,457	3,992,744	1,630,925	33.9	19.6	39.6	4.9	2.0	86,864,189
<b>Border Municipios</b>	3,842,436	5,511,785	1,734,970	1,056,987	2,246,272	201,064	272,492	31.5	19.2	40.8	3.6	4.9	6,390,550
<b>Non-Border Municipios</b>	77,407,209	91,971,627	30,852,003	18,006,282	36,782,786	4,549,247	1,781,309	33.5	19.6	40.0	4.9	1.9	98,959,287

Source: XI Censo 1990 and XII Censo 2000, INEGI and CONAPO Proyecciones (2000-2030).

### Endnotes for Chapter 3

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1. The concept of municipios is similar to that of a U.S. county. Within municipios are localidades, which themselves are similar to the concept of cities.
2. Garza, G. & Rivera, S.. 1994. "Dinamica Macroeconomica de las Ciudades en Mexico." INEGI, COLMEX, IIS\_UNAM. Mexico.
3. [www.pewhispanic.org](http://www.pewhispanic.org). Pew Hispanic Center, June 2005. "Unauthorized Migrants: Numbers and Characteristics."
4. Todaro, M. P. 1996. *Economic Development*. 6th Edition. Addison-Wesley Publishing Co. MA.

## Chapter 4 Income

Economic development of the U.S.-Mexico border county region is a paradox of growth without progress. Throughout the 1990s, border counties witnessed economic gains, best captured by lower unemployment rates and growth in jobs and income,<sup>1</sup> yet would rank 39<sup>th</sup> if considered a 51<sup>st</sup> state based on per capita income. Income and employment rates both grew at a faster pace than the national average, as seen in Figures 4.1 and 4.2.

Similarly, during this time period total full-time and part-time employment in border counties grew by 29.9 percent; while by comparison, non-border counties grew by only 17.7 percent. While the southwest border states are among the U.S. states with the lowest per capita income, one of the clear findings in this chapter is that San Diego is an anomaly when compared to the other U.S.-Mexico border counties.

### Measuring Income

Personal income is the sum of wage and salary disbursements, other labor income, proprietor's income,<sup>2</sup> rental income, personal dividend income, personal interest income, and transfer payments (entitlements, social, and family assistance), less personal contributions for social insurance. A net residence adjustment is also applied and is used to convert place-of-work income to a place-of-residence basis, allowing for estimation of the net commuter flow in and out of the region. A negative residence adjustment indicates more non-residents commute into the area and take income out than flow of income into the area by residents who commute. Disposable income is the amount available for consumption and savings after taxes.

- In 2003, border counties, if considered a state of their own, would rank 39<sup>th</sup> as a 51<sup>st</sup> state in per capita income (Table 4.1).
- In viewing the border region as the 51<sup>st</sup> state, border counties, without San Diego, would rank last in per capita income.
- San Diego County's per capita income alone is greater than that of 45 of the U.S. states.
- Nineteen border counties had a per capita income less than \$21,000.
- San Diego led all border counties with per capita income of \$35,481.
- Between 1993 and 2003, total personal income in border counties increased 41.4 percent; non-border counties had a 29.3 percent growth.

- San Diego’s impact is significant since, as the largest border county economy, total personal income for border counties decreases 40 percent from \$178.7 billion to \$104.6 billion without San Diego.
- San Diego’s income is greater than the collective incomes of the remaining 23 southwest border counties.
- Transfer receipts in the form of income maintenance, such as supplemental social security payments, food stamps, and other general family assistance, account for a larger share of total income along the border when compared to non-border areas. As the 51<sup>st</sup> state, the border region would rank 2<sup>nd</sup> among states receiving these benefits.
- More than one in five personal income dollars along the non-San Diego County border counties originates from transfer payments.
- In 2002, 16 border counties had more than 20 percent of their population living in poverty; non-border counties had 12 percent. Of that population, more than two out of five are younger than 18 years old.
- In 2002, 1.19 million people, or 18.3 percent of all border county residents, lived below the poverty line, compared to 12 percent of non-border residents (Table 4.7).
- In border counties, 43.2 percent of the total population living in poverty is between 0 and 17 years old. By

comparison, in non-border counties this share is only 34.8 percent.

- More than half a million, or 27.2 percent, of the border counties’ children and youth ages 0 through 17 live in poverty.

### Policy Issues

In his 1998 report, *Bordering the Future*, John Sharp, Comptroller of Public Accounts for Texas, listed factors of low educational attainment and inadequate training as contributing to the Texas border counties’ poor economic performance.<sup>3</sup> Eight years later, strong growth in employment and income has done little to move the collective border counties’ income levels closer to state and national averages. The same factors present in the 1990s persist today with the primary means of achieving opportunities for growth and prosperity closely associated with the literacy, education, and training of the border populations.

Throughout the 1990s, above average growth rates were not sufficient to tackle the chronic problems of low income and poverty, especially with population growth along the border outpacing income and job gains. Continuous training and skill upgrades are crucial to upward mobility, particularly to lower income earners and the large share of the work force that has migrated to the United States having limited English fluency. These workers are the most susceptible to job loss in times of economic structural change. Thus, educational and specialized training are crucial in enabling border residents to work in today’s globally competitive economy.<sup>4</sup>

**Table 4.1**  
**2003, 1990, and 1970 U.S. State Per Capita Income Rankings (Adjusted for Inflation, in 2003 Real Dollars)**

2003		1990		1970				
1	Connecticut	42,972	1	Connecticut	37,312	1	Alaska	24,959
2	New Jersey	39,577	2	New Jersey	34,593	2	Hawaii	24,157
3	Massachusetts	39,504	3	New York	33,116	3	Connecticut	24,081
4	Maryland	37,446	4	Massachusetts	32,440	4	Nevada	23,408
5	New York	36,112	5	Maryland	32,171	5	New York	23,114
6	New Hampshire	35,140	6	Alaska	32,104	6	New Jersey	22,862
7	Colorado	34,561	7	Hawaii	31,234	7	California	22,810
8	Delaware	34,199	8	California	30,462	8	Delaware	21,800
9	Minnesota	34,031	9	Delaware	30,158	9	Illinois	21,672
10	Virginia	33,730	10	Illinois	29,316	10	Maryland	21,615
11	California	33,415	11	New Hampshire	28,877	11	Massachusetts	21,260
12	Washington	33,254	12	Virginia	28,788	12	Michigan	19,908
13	Alaska	33,213	13	Nevada	28,643	13	Washington	19,875
14	Illinois	32,965	14	Rhode Island	28,165	14	Rhode Island	19,462
15	Wyoming	32,433	15	Minnesota	28,003	15	Ohio	19,377
16	Rhode Island	32,038	16	Washington	27,966	16	Pennsylvania	19,306
17	Pennsylvania	31,911	17	Pennsylvania	27,715	17	Colorado	19,197
18	Nevada	31,910	18	Colorado	27,558	18	Minnesota	19,154
19	Michigan	31,178	19	Florida	27,542	19	Florida	18,988
20	Vermont	30,888	20	Michigan	26,638	20	Wisconsin	18,869
21	Wisconsin	30,685	21	Ohio	26,386	21	Oregon	18,609
22	Hawaii	30,441	22	Kansas	25,460	22	Wyoming	18,514
23	Nebraska	30,179	23	Wisconsin	25,442	23	New Hampshire	18,428
24	Ohio	30,129	24	Oregon	25,355	24	Iowa	18,329
25	Florida	30,098	25	Wyoming	25,343	25	Missouri	18,258
26	Missouri	29,464	26	Nebraska	25,317	26	Arizona	18,187
27	Kansas	29,438	27	Vermont	25,166	27	Kansas	18,106
28	Maine	29,164	28	Missouri	24,815	28	Nebraska	17,983
29	Texas	29,074	29	Georgia	24,782	29	Virginia	17,968
30	Georgia	29,000	30	Indiana	24,624	30	Indiana	17,935
31	North Dakota	28,922	31	Texas	24,525	<b>31</b>	<b>Border Counties</b>	<b>17,791</b>
32	South Dakota	28,856	32	Iowa	24,480	<b>32</b>	Texas	17,229
33	Indiana	28,838	33	Maine	24,462	<b>33</b>	Vermont	17,153
34	Oregon	28,734	34	North Carolina	24,279	<b>34</b>	Montana	17,124
35	Tennessee	28,641	35	Arizona	23,940	<b>35</b>	Idaho	16,693
36	Iowa	28,340	36	Tennessee	23,499	<b>36</b>	Oklahoma	16,479
37	North Carolina	28,071	<b>37</b>	<b>Border Counties</b>	<b>23,220</b>	<b>37</b>	Maine	16,176
38	Arizona	27,232	38	Oklahoma	22,788	<b>38</b>	Utah	16,072
<b>39</b>	<b>Border Counties</b>	<b>27,012</b>	39	South Dakota	22,767	<b>39</b>	Georgia	16,019
40	Oklahoma	26,719	40	North Dakota	22,445	<b>40</b>	North Carolina	15,493
41	Kentucky	26,575	41	South Carolina	22,376	<b>41</b>	South Dakota	15,484
42	Alabama	26,505	42	Idaho	22,136	<b>42</b>	North Dakota	15,318
43	Louisiana	26,312	43	Alabama	22,135	<b>43</b>	New Mexico	15,118
44	South Carolina	26,144	44	Montana	21,748	<b>44</b>	Tennessee	15,033
45	Idaho	25,902	45	Kentucky	21,732	<b>45</b>	Kentucky	15,014
46	Utah	25,407	46	Louisiana	21,361	<b>46</b>	West Virginia	14,739
47	Montana	25,406	47	New Mexico	21,010	<b>47</b>	Louisiana	14,654
48	New Mexico	24,995	48	Utah	20,995	<b>48</b>	South Carolina	14,469
49	West Virginia	24,542	49	West Virginia	20,403	<b>Border Counties w/out San Diego</b>	<b>14,138</b>	
50	Arkansas	24,384	50	Arkansas	20,357	49	Alabama	14,023
51	Mississippi	23,466	51	Mississippi	18,427	50	Arkansas	13,411
<b>Border Counties w/out San I</b>	<b>20,039</b>	<b>Border Counties w/out San I</b>	<b>17,530</b>	51	Mississippi		Mississippi	12,411

Source: Regional Economic Information System (REIS), U.S. Bureau of Economic Analysis (BEA) and the Consumer Price Index from the Federal Reserve Bank of Dallas.

The major ongoing challenge to policy makers is to facilitate personal development by improving schools and workforce training. Given the high rates of population growth, the earnings gap between border and non-border residents can be narrowed only through income growth that far exceeds the state and national averages. The ideal situation for economic growth to offset the low income and poverty levels that characterize the border region is for earnings, dividends, interest, and rent to become the primary drivers of income growth. These categories are considered principal drivers for economic development as they are a measure of gains in earnings from wage and salary, proprietor's income, and returns on investments. They are the best measures of how income accumulation translates into regional wealth. Personal transfers account for a major share of growth of personal income along the border. While transfer payments provide persons with the monetary means to support themselves, the best outcome is for these underemployed or unemployed persons to move into the workforce where they can assist in the productivity and development of the region's economy. Consequently, the border is caught in a paradox of strong income and employment growth without significant gains in per capita income. Various other factors, including high population growth rates, lower participation rates in the job market, high percentages of migrant workers, and high levels of underemployment contribute to the low levels of income in the border region. As future chapters will document, these factors combined with low education levels, compound an already complex problem.

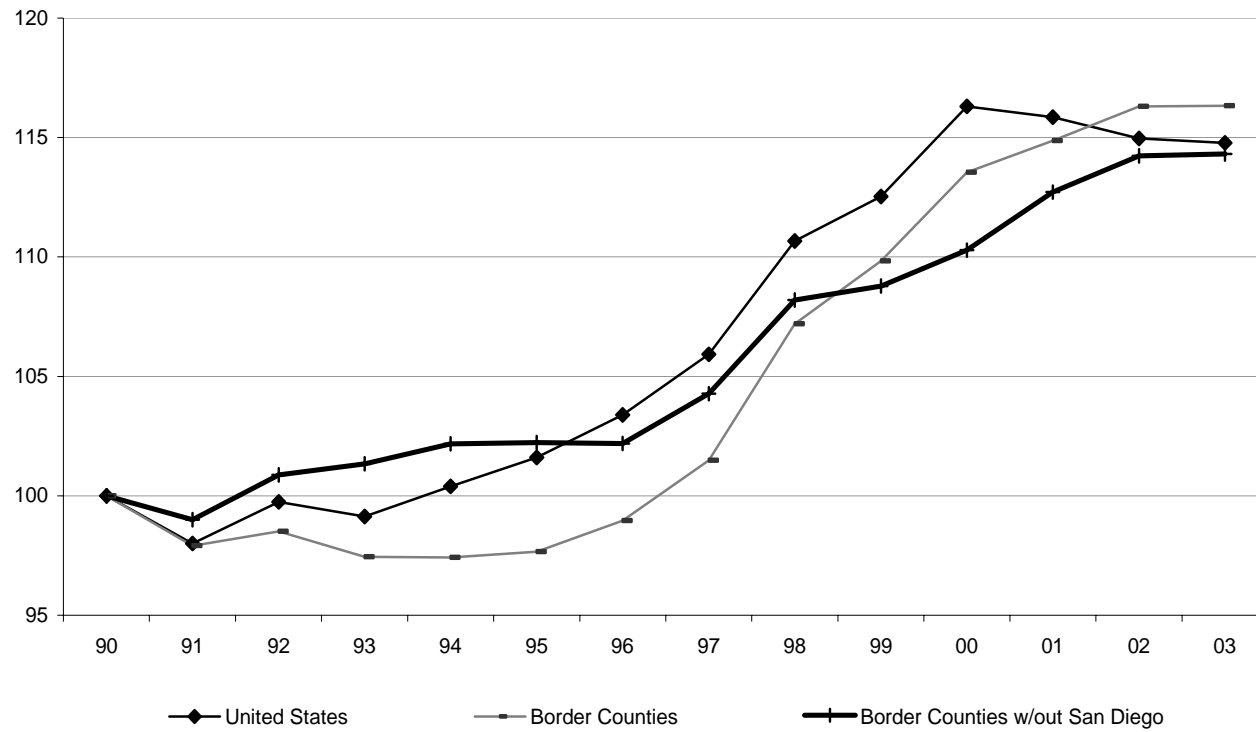
One reason for the seeming paradox between solid employment growth and stagnating income is the rapid population growth from both legal and undocumented immigration, and high birth rates.<sup>5</sup> Statistically, border residents are younger on average and many have not entered the workforce, thereby driving down per capita income. In

addition, the border region houses a large population of migrant workers, a group primarily made up of those who travel to the Southeast, Northwest, and Midwest during the agricultural growing and harvesting seasons. Migrant workers and their out-of-state earnings are not captured by the border county income statistics, contributing to a downward bias in measured income.<sup>6</sup>

Transfer payments as a major source of income growth are an added point of concern. Personal income is comprised of three general components: 1) net earnings, 2) dividends, interest, and rent, and 3) transfer payments. The first two categories are considered "positive" income contributors in regional development since they capture the employment of labor and rental of capital assets, and thereby indicate real progress towards wealth in a region. The third category is not considered "positive" income contribution because productive services are not rendered in exchange for the transfer of benefits. Consequently, regions are better off when earnings, dividends, interest, and rent are the primary drivers of their economy and reliance on transfer payments is minimized.

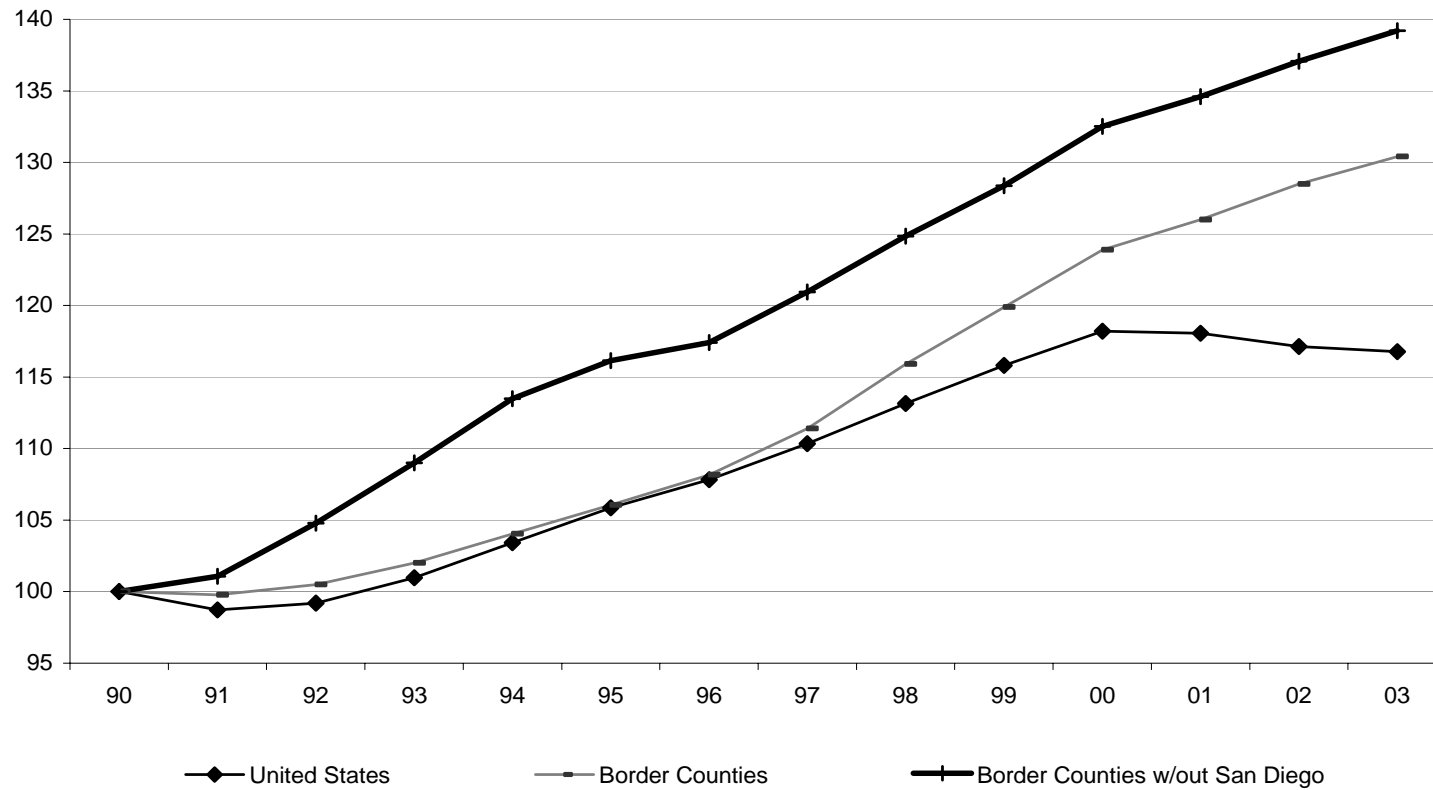
Despite growth in income and employment, the lack of progress in narrowing the income gap between border counties and the respective non-border counties in the same state is disturbing. If per capita income is used as a measure of the economic condition facing the border, then a widening differential in this category relative to the nation means that the border region is by all accounts getting poorer. While surging population growth rates in border counties eclipse growth rates in non-border counties, the region, if considered its own state, without income rich San Diego County, has not only fallen in per capita income to last on the list, but the gap is also widening. When individual border counties are analyzed, all counties, except for San Diego, fall below the national per capita income average. The average national per capita

**Figure 4.1**  
**1990-2003 Per Capita Personal Income Growth (Real Index, 1990 = 100)**



Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA) and the Consumer Price Index from the Federal Reserve Bank of Dallas.

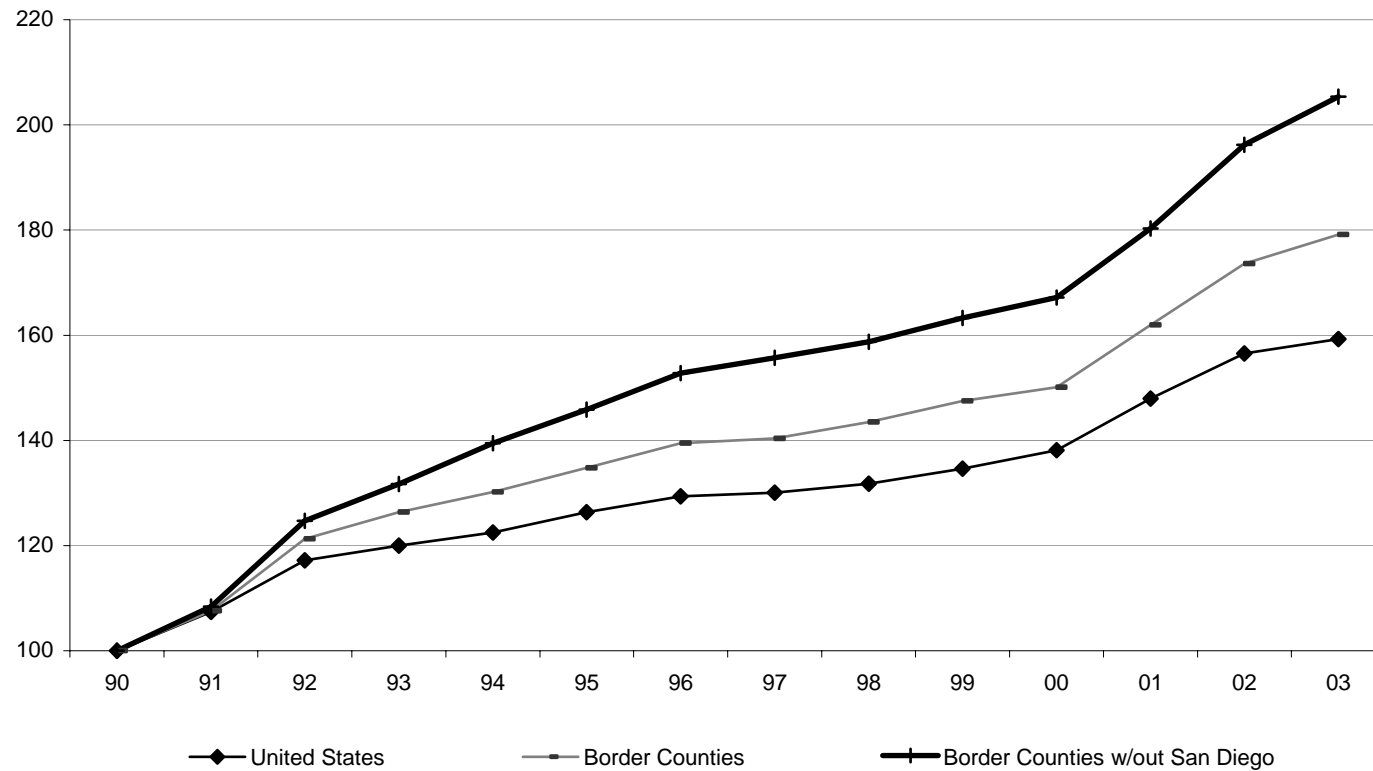
**Figure 4.2**  
**1990-2003 Wage and Salary Jobs Growth (Real Index, 1990 = 100)**



Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA) and the Consumer Price Index from the Federal Reserve Bank of Dallas.

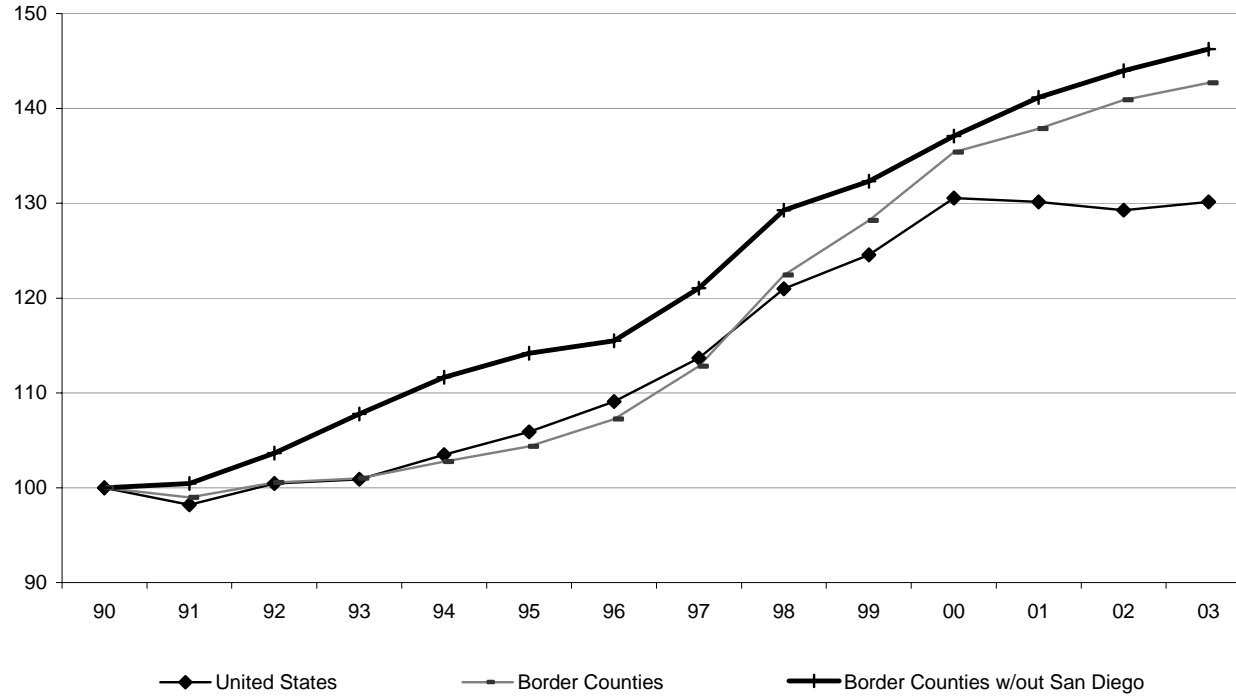


**Figure 4.3**  
**1990-2003 Personal Transfers Growth (Real Index, 1990=100)**



Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA) and the Consumer Price Index from the Federal Reserve Bank of Dallas.

**Figure 4.4**  
**1990-2003 Net Earnings and Dividends, Interest, and Rent Growth Index (Real Index, 1990=100)**



Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA) and the Consumer Price Index from the Federal Reserve Bank of Dallas.

**Table 4.2**  
**2003 Personal Income and Components Along the U.S.-Mexico Border<sup>7</sup>**

	Personal Income (in millions of dollars)										Per Capita			
	Total Personal Income	Net Earnings				Personal Transfers				Dividends, Interest & Rent	Personal Income	Net Earnings	Personal Transfers	Dividends, Interest & Rent
		Total	Work Earnings	Government Insurance	Residence Adjustments	Total	Income Maintenance	Unemployment Benefits	Retirement & Other					
<b>United States</b>	9,151,694.0	6,340,842.0	7,113,751.0	-771,715.0	-1,194.0	1,335,323.0	130,464.0	53,512.0	1,151,347.0	1,475,529.0	31,472	21,806	4,592	5,074
<b>Arizona</b>	151,933.0	102,615.2	114,693.5	-12,648.2	569.8	23,290.3	2,090.3	510.8	20,689.2	26,027.6	27,232	18,392	4,174	4,665
Cochise	2,826.3	1,688.4	1,874.6	-197.6	11.4	648.6	57.3	9.3	582.0	489.4	23,217	13,869	5,328	4,020
Pima	23,081.7	14,232.2	15,916.0	-1,792.1	108.3	4,226.3	353.6	60.0	3,812.8	4,623.2	25,906	15,974	4,743	5,189
Santa Cruz	748.3	444.4	559.8	-60.9	-54.5	161.9	25.2	3.7	133.0	142.1	18,621	11,058	4,028	3,536
Yuma	3,268.4	2,145.7	2,412.9	-254.2	-13.0	693.9	90.3	60.0	543.6	428.8	19,158	12,577	4,067	2,514
<b>AZ Border Counties</b>	29,924.8	18,510.7	20,763.4	-2,304.8	52.1	5,730.6	526.3	133.1	5,071.3	5,683.5	24,458	15,129	4,684	4,645
<b>AZ Border Counties % of AZ</b>	19.7	18.0	18.1	18.2	9.2	24.6	25.2	26.1	24.5	21.8				
<b>California</b>	1,184,996.9	837,941.7	938,456.2	-100,231.5	-283.1	153,116.2	20,620.8	7,281.0	125,214.4	193,939.1	33,415	23,629	4,318	5,469
Imperial	3,078.8	2,027.7	2,265.4	-226.4	-11.3	725.9	145.5	61.8	518.5	325.2	20,674	13,616	4,874	2,184
San Diego	104,614.3	74,309.5	83,136.6	-8,848.0	20.9	11,875.3	1,290.0	398.0	10,187.2	18,429.5	35,841	25,459	4,069	6,314
<b>CA Border Counties</b>	107,693.1	76,337.2	85,402.0	-9,074.5	9.6	12,601.1	1,435.6	458.8	10,705.8	18,754.8	35,105	24,884	4,108	6,114
<b>CA Border Counties % of CA</b>	9.1	9.1	9.1	9.1	-3.4	8.2	7.0	6.3	8.5	9.7				
<b>New Mexico</b>	46,955.4	31,678.8	35,116.5	-3,700.9	263.2	8,375.2	941.7	180.0	7,253.5	6,901.4	24,995	16,863	4,458	3,674
Dona Ana	3,789.1	2,470.6	2,503.9	-254.4	221.0	794.9	119.6	15.4	659.9	523.6	20,756	13,534	4,355	2,868
Hidalgo	91.3	49.2	52.2	-5.6	2.6	28.6	3.7	0.3	24.6	13.5	17,370	9,364	5,437	2,569
Luna	440.5	232.0	258.7	-28.1	1.4	143.0	19.3	6.6	117.0	65.6	17,145	9,029	5,564	2,552
<b>NM Border Counties</b>	4,320.9	2,751.7	2,814.8	-288.1	225.0	966.4	142.7	22.3	801.5	602.7	20,239	12,889	4,527	2,823
<b>NM Border Counties % of NM</b>	9.2	8.7	8.0	7.8	85.5	11.5	15.1	12.4	11.1	8.7				
<b>Texas</b>	642,630.0	477,363.4	531,093.7	-52,274.5	-1,455.8	82,044.8	9,552.7	3,000.7	69,491.4	83,221.9	29,074	21,597	3,712	3,765
Brewster	217.4	132.9	152.4	-16.5	-3.1	38.9	4.4	0.3	34.2	45.5	23,440	14,333	4,195	4,912
Cameron	5,909.6	3,596.7	4,007.8	-405.7	-5.4	1,590.5	347.8	39.1	1,203.5	722.4	16,308	9,926	4,389	1,993
Culberson	43.1	24.5	29.2	-3.1	-1.6	12.8	2.6	0.2	10.0	5.8	15,522	8,813	4,615	2,094
El Paso	14,667.1	10,102.3	11,797.0	-1,127.4	-567.4	2,880.5	564.6	21.3	2,294.6	1,684.3	20,875	14,378	4,100	2,397
Hidalgo	9,647.6	6,055.0	6,734.3	-644.9	-34.4	2,569.5	647.9	64.4	1,857.3	1,023.2	15,184	9,530	4,044	1,610
Hudspeth	53.7	33.2	37.1	-3.0	-0.9	12.7	3.3	0.1	9.3	7.9	16,482	10,179	3,889	2,414
Jeff Davis	45.2	25.8	23.4	-3.0	5.3	8.9	0.9	0.1	7.9	10.6	20,154	11,471	3,966	4,717
Kinney	64.8	29.4	25.2	-3.0	7.2	17.6	2.1	0.2	15.4	17.7	19,419	8,817	5,284	5,319
Maverick	637.1	355.5	409.3	-41.5	-12.4	233.7	54.2	7.5	172.0	47.9	12,774	7,128	4,686	961
Presidio	110.0	57.5	63.4	-6.8	0.8	35.2	9.7	2.2	23.4	17.3	14,465	7,556	4,634	2,276
Starr	627.4	322.2	338.3	-32.0	15.8	255.3	71.4	4.8	179.1	49.9	10,805	5,548	4,397	860
Terrell	27.4	14.3	13.6	-1.7	2.4	5.8	0.4	0.1	5.3	7.3	27,007	14,071	5,741	7,194
Val Verde	882.5	599.3	669.8	-68.2	-2.3	183.4	34.6	3.8	144.9	99.9	18,894	12,830	3,926	2,138
Webb	3,628.8	2,528.0	2,892.4	-289.1	-75.4	765.3	172.0	13.3	579.9	335.6	17,060	11,885	3,598	1,578
Zapata	178.9	93.8	116.1	-12.0	-10.3	54.6	11.3	1.0	42.3	30.5	13,847	7,258	4,225	2,363
<b>TX Border Counties</b>	36,740.6	23,970.1	27,309.5	-2,657.8	-681.6	8,664.7	1,927.1	158.5	6,579.1	4,105.8	17,411	11,359	4,106	1,946
<b>TX Border Counties % of TX</b>	5.7	5.0	5.1	5.1	46.8	10.6	20.2	5.3	9.5	4.9				
<b>Border States</b>	2,026,515.4	1,449,599.0	1,619,359.9	-168,855.1	-905.8	266,826.5	33,205.5	10,972.5	222,648.5	310,090.0	31,166	22,293	4,104	4,769
<b>Non-Border States</b>	7,125,178.6	4,891,243.0	5,494,391.1	-602,859.9	-288.2	1,068,496.5	97,258.5	42,539.5	928,698.5	1,165,439.0	31,560	21,665	4,733	5,162
<b>Border Counties</b>	178,679.4	121,569.7	136,289.7	-14,325.2	-394.8	27,962.9	4,031.6	773.7	23,157.6	29,146.8	27,012	18,378	4,227	4,406
<b>Non-Border Counties</b>	8,973,014.6	6,219,272.3	6,977,461.3	-757,389.8	-799.2	1,307,360.1	126,432.4	52,738.3	1,128,189.4	1,446,382.2	31,576	21,885	4,601	5,090

Source: Regional Economic Information Systems (REIS) and U.S. Bureau of Economic Analysis (BEA).

income level was \$31,472, while the border counties averaged \$27,012 per capita income with San Diego and \$20,039 in per capita income without San Diego in 2003 (Table 4.1).

### Personal Income

It follows that increased income is linked to better jobs and higher skill levels, both being a function of more education whether it be high school graduation or college.<sup>8</sup> Overall, this is a critical key theme that is fundamental to directing regional development in the southwest border region.<sup>9</sup> Personal income is a key indicator regarding the well-being of an economy. As depicted in Table 4.2, personal income in 2003 totaled more than \$2 trillion in border states (22.1% of the U.S. total) and almost \$178.7 billion in border counties; (2% of the U.S. total and 8.8% of the total personal income of the border states). For border counties, this marked an increase of more than \$52.3 billion since 1993 when adjusted for inflation (41.4% growth versus 29.3% for non-border counties). (See Appendix 4.1 for 1993 data.) In 2003, data show:

- Arizona's border counties accounted for 19.7 percent of that state's total personal income, almost one in five dollars.
- California and New Mexico border counties accounted for 9.1 and 9.2 percent of their respective state's personal income.
- Texas' border counties accounted for 9.5 percent of Texas' total population, but only accounted for 5.7 percent of the state's personal income, creating a remarkable disparity in per capita income between Texas border and non-border counties.

Personal transfer receipts, and/or benefits received by persons from government and business, account for a substantial share of personal income, as illustrated in Figure 4.5. Transfers comprise 15.6 percent of total personal income along the border, versus 14.6 percent in non-border counties. Conversely, net earnings are lower along the border as a component share of income. When San Diego County is excluded, the percent share of income comprised by personal transfers rise from 15.6 to 21.7 (Figure 4.5). The data shows that without San Diego County, 17 percent of personal transfers originate from income maintenance, consisting largely of supplemental security income, family assistance, general assistance payments, food stamps, and other assistance and emergency payments. When San Diego County is included, this number falls to 14.4 percent. By comparison, income maintenance in non-border counties accounts for 9.7 percent of personal transfers. The border's high personal transfer receipt and income maintenance percentages have a direct correlation with low educational attainment and high poverty levels that result in qualification for entitlement programs. (See Tables 4.3 and 4.4 for county analysis.)

### Per Capita Personal Income

Per capita income is calculated by dividing an area's total personal income by the area's mid-year population. The resident population, in combination with the age composition of an area, substantially influences per capita income. A larger young population will reduce per capita income in a given area by comparison to a population with a large middle age work force. Per capita income offers the advantage of local, state, and national comparisons and is often viewed as a measure of the standards of living.

**Table 4.3**  
**2003 Personal Transfers as a Percent of Total Personal Income**

Top 5								
San Diego	Brewster	Pima	El Paso	Jeff Davis				
11.4%	17.9%	18.3%	19.6%	19.7%				
Upper Middle 6 - 10								
Val Verde	Dona Ana	Webb	Yuma	Terrell				
20.8%	21.0%	21.1%	21.2%	21.3%				
Lower Middle 11 - 15								
Santa Cruz	Cochise	Imperial	Hudspeth	Hidalgo (TX)				
21.6%	22.9%	23.6%	23.6%	26.6%				
Bottom 9								
Cameron	Kinney	Culberson	Zapata	Hidalgo (NM)	Presidio	Luna	Maverick	Starr
26.9%	27.2%	29.7%	30.5%	31.3%	32.0%	32.5%	36.7%	40.7%

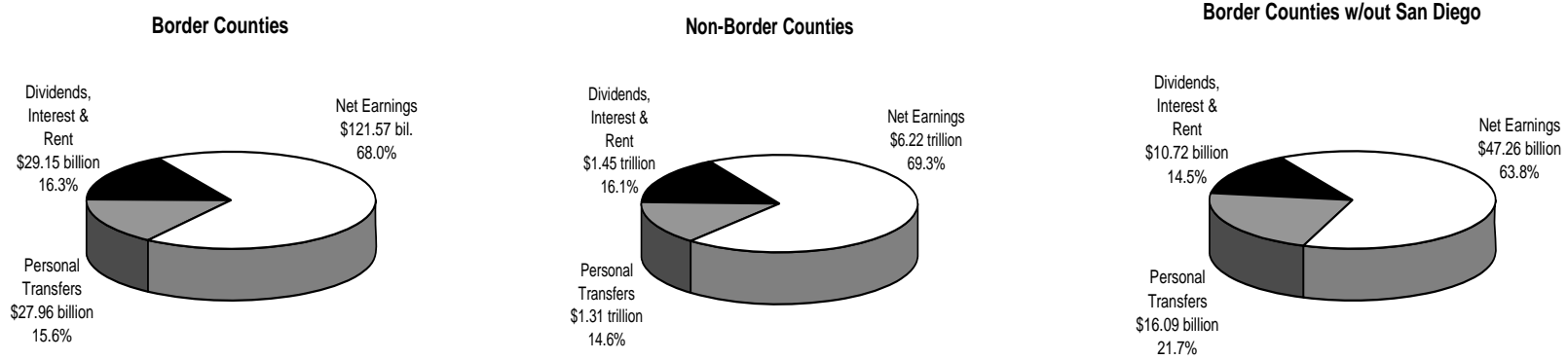
Source: Regional Economic Information Systems (REIS) and U.S. Bureau of Economic Analysis (BEA).

**Table 4.4**  
**2003 Income Maintenance as a Percent of Personal Transfers**

<b>Top 5</b>								
<b>Terrell</b>	<b>Pima</b>	<b>Cochise</b>	<b>Jeff Davis</b>	<b>San Diego</b>				
7.6%	8.4%	8.8%	9.7%	10.9%				
<b>Upper Middle 6 - 10</b>								
<b>Brewster</b>	<b>Kinney</b>	<b>Hidalgo (NM)</b>	<b>Yuma</b>	<b>Luna</b>				
11.3%	11.7%	12.9%	13.0%	13.5%				
<b>Lower Middle 11 - 15</b>								
<b>Dona Ana</b>	<b>Santa Cruz</b>	<b>Val Verde</b>	<b>El Paso</b>	<b>Imperial</b>				
15.0%	15.6%	18.9%	19.6%	20.0%				
<b>Bottom 9</b>								
<b>Culberson</b>	<b>Zapata</b>	<b>Cameron</b>	<b>Webb</b>	<b>Maverick</b>	<b>Hidalgo (TX)</b>	<b>Hudspeth</b>	<b>Presidio</b>	<b>Starr</b>
20.4%	20.7%	21.9%	22.5%	23.2%	25.2%	25.7%	27.5%	28.0%

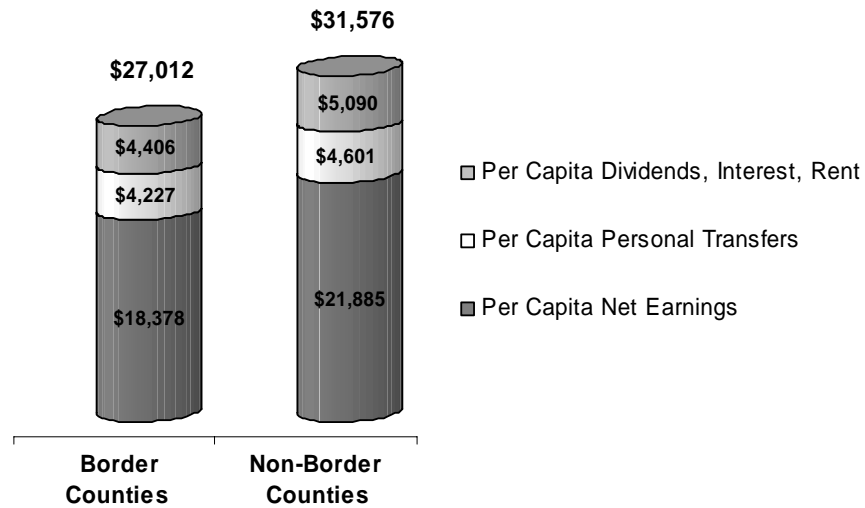
Source: Regional Economic Information Systems (REIS) and U.S. Bureau of Economic Analysis (BEA).

**Figure 4.5**  
**2003 Personal Income Components Share**



Source: Regional Economic Information Systems (REIS) and U.S. Bureau of Economic Analysis (BEA).

**Figure 4.6**  
**2003 Per Capita Personal Income**



Source: Regional Economic Information Systems, U.S. Bureau of Economic Analysis; Consumer Price Index, Federal Reserve Bank of Dallas.

In 2003, per capita personal income for non-border counties was \$31,576 and \$27,012 for border counties, a difference of \$4,564 (Figure 4.6). Since 1969, per capita income levels have progressively deteriorated along southwest border counties.

Figure 4.7 shows that when adjusted for inflation, the per capita income differential in 2003 between the nation and border counties, excluding San Diego, was \$11,433, versus \$5,455 in 1969, a near doubling in 35 years.

Border county calculations are provided in Table 4.5 for 2003 and in Table 4.6 for 1993 to provide 10-year comparisons. In 2003:

- Only San Diego's per capita personal income was above the national per capita income average of \$31,472.
- Nineteen border counties' per capita income was less than two-thirds the national level (under \$21,000).
- Six border counties had less than half the U.S. per capita income.

Since 1993, some border counties have narrowed the per capita income disparity relative to the United States (Pima, Val Verde, Zapata, Maverick, and Starr). However, the remaining border counties' per capita income shows little dollar growth and is rapidly falling behind the gains of the nation. Hidalgo

(NM), Imperial and Yuma, in that order, record the biggest drops in this economic indicator from 1993 to 2003.

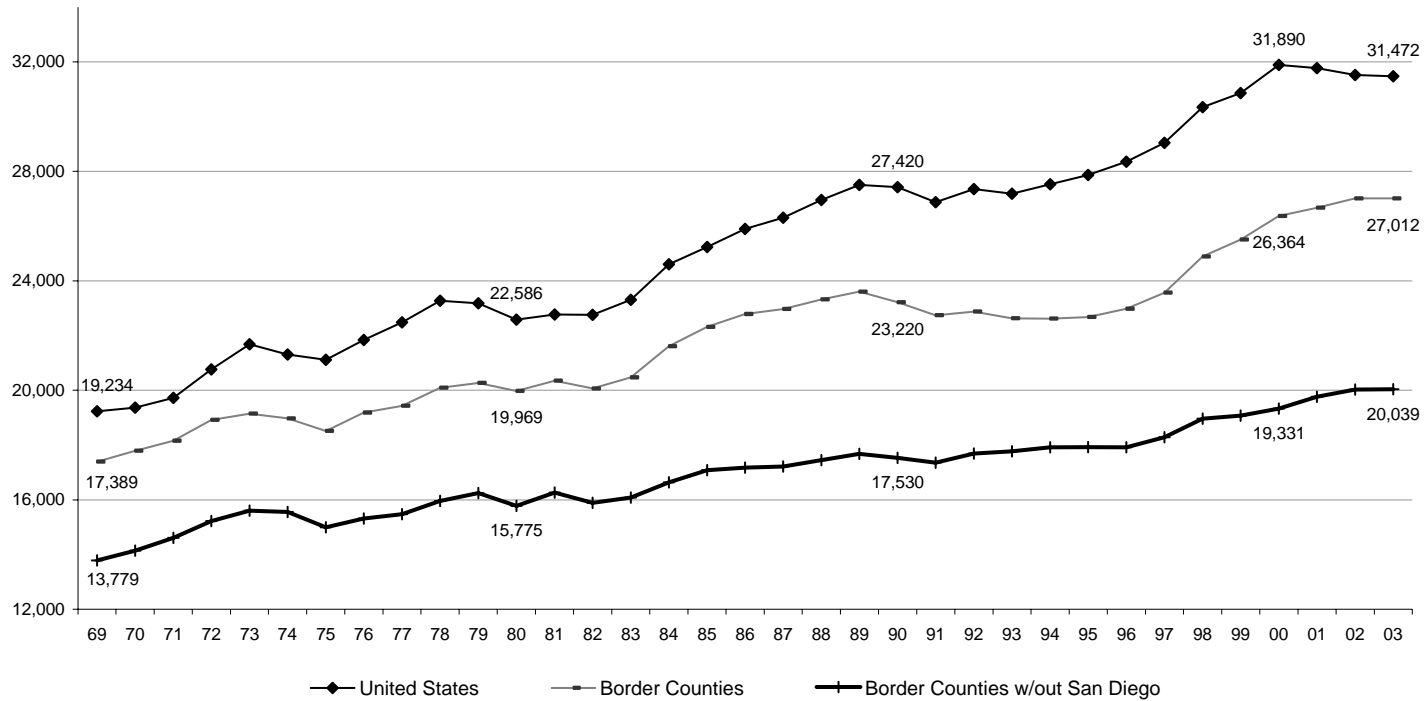
### Poverty

Poverty<sup>10</sup> thresholds are the dollar amounts used to determine poverty status.<sup>11</sup> In 2002, the poverty level for all ages in the non-San Diego border counties jumped 5.9 percentage points to 24.2 percent; for ages 0 to 17, it increased 7.9 percentage points to 35 percent. Removing Pima, which, like San Diego, has a low poverty level and a large population compared to the other border counties, further increases the percent of those living in poverty to 27.4 percent for all ages, and to 38.3 percent for ages 0 to 17. The statistics provided by Table 4.7 are alarming. Considering all border counties:

- Sixteen border counties had more than one in five people living in poverty (more than 20 percent).
- Twelve border counties had more than one in four people living in poverty (more than 25 percent).
- Nineteen border counties had more than one in four of the 0-17 age group living in poverty (more than 25 percent).
- Thirteen border counties had more than one in three of the 0-17 age group living in poverty (more than 33 percent).



**Figure 4.7**  
**1969-2003 Widening Differential in Per Capita Personal Income (in 2003 Real Dollars)**



Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA); Consumer Price Index, Federal Reserve Bank of Dallas.

**Table 4.5**  
**2003 Per Capita Personal Income and Percent of U.S. Per Capita Personal Income**

Top 5								
San Diego	Terrell	Pima	Brewster	Cochise				
\$35,841	\$27,007	\$25,906	\$23,440	\$23,217				
113.9%	85.8%	82.3%	74.5%	73.8%				
Upper Middle 6 - 10								
El Paso	Dona Ana	Imperial	Jeff Davis	Kinney				
\$20,875	\$20,756	\$20,674	\$20,154	\$19,419				
66.3%	66.0%	65.7%	64.0%	61.7%				
Lower Middle 11 - 15								
Yuma	Val Verde	Santa Cruz	Hidalgo (NM)	Luna				
\$19,158	\$18,894	\$18,621	\$17,370	\$17,145				
60.9%	60.0%	59.2%	55.2%	54.5%				
Bottom 9								
Webb	Hudspeth	Cameron	Culberson	Hidalgo (TX)	Presidio	Zapata	Maverick	Starr
\$17,060	\$16,482	\$16,308	\$15,522	\$15,184	\$14,465	\$13,847	\$12,774	\$10,805
54.2%	52.4%	51.8%	49.3%	48.2%	46.0%	44.0%	40.6%	34.3%

Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA); Consumer Price Index, Federal Reserve Bank of Dallas.

**Table 4.6**  
**1993 Per Capita Personal Income and Percent of U.S. Per Capita Personal Income (in 2003 Real Dollars)**

Top 5								
San Diego	Pima	Terrell	Imperial	Hidalgo (NM)				
\$28,214	\$22,838	\$22,569	\$20,734	\$20,490				
103.8%	84.0%	83.0%	76.3%	75.4%				
Upper Middle 6 - 10								
Cochise	Yuma	Brewster	Jeff Davis	Dona Ana				
\$19,652	\$19,359	\$18,532	\$18,082	\$17,865				
72.3%	71.2%	68.2%	66.5%	65.7%				
Lower Middle 11 - 15								
El Paso	Santa Cruz	Val Verde	Luna	Kinney				
\$17,506	\$16,456	\$16,047	\$15,909	\$15,647				
64.4%	60.5%	59.0%	58.5%	57.6%				
Bottom 9								
Cameron	Webb	Culberson	Presidio	Hidalgo (TX)	Hudspeth	Zapata	Maverick	Starr
\$14,766	\$14,670	\$13,515	\$13,386	\$13,333	\$12,891	\$11,551	\$10,305	\$9,013
54.3%	54.0%	49.7%	49.2%	49.1%	47.4%	42.5%	37.9%	33.2%

Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA); Consumer Price Index, Federal Reserve Bank of Dallas.

Table 4.7

1999 and 2002 Median Household Income and Poverty Levels Along the U.S.-Mexico Border

<b>United States</b>	42,409	34,569,951	12,132,645	11.9	12.1	17.1	16.7
<b>Arizona</b>	40,724	746,145	302,013	12.8	13.6	18.8	20.1
Cochise	33,300	19,483	8,115	17.0	16.7	24.7	25.2
Pima	36,936	122,981	46,956	13.5	14.1	20.0	21.3
Santa Cruz	30,795	7,800	4,041	23.1	19.4	29.0	30.3
Yuma	32,252	32,564	15,934	21.9	19.7	29.5	30.9
<b>AZ Border Counties</b>		182,828	75,046	15.3	15.3	22.4	23.6
<b>AZ Border Counties % of AZ</b>		24.5	24.8				
<b>California</b>	47,323	4,646,661	1,795,674	13.7	13.3	20.2	19.2
Imperial	31,412	30,374	14,699	28.3	21.9	33.4	32.7
San Diego	47,867	311,688	113,069	12.2	10.9	18.2	15.2
<b>CA Border Counties</b>		342,062	127,768	12.9	11.4	19.1	16.2
<b>CA Border Counties % of CA</b>		7.4	7.1				
<b>New Mexico</b>	34,827	327,444	126,361	18.2	17.7	26.4	25.2
Dona Ana	28,977	44,400	18,134	24.9	25.0	33.8	34.9
Hidalgo	22,701	1,292	506	25.5	25.0	36.1	33.6
Luna	21,483	7,507	3,072	29.8	29.4	41.4	41.9
<b>NM Border Counties</b>		53,199	21,712	25.5	25.5	34.8	35.7
<b>NM Border Counties % of NM</b>		16.2	17.2				
<b>Texas</b>	40,063	3,341,247	1,325,620	15.1	15.4	21.8	21.3
Brewster	28,548	1,644	492	18.8	18.7	27.9	24.6
Cameron	25,587	110,250	51,278	31.8	30.6	39.8	41.4
Culberson	24,451	655	284	28.4	23.7	37.9	33.3
El Paso	29,831	178,326	83,705	27.0	25.7	34.0	37.1
Hidalgo	24,449	208,148	97,906	33.6	33.0	40.6	43.1
Hudspeth	21,857	960	427	32.5	30.3	41.9	41.3
Jeff Davis	32,787	353	113	14.1	16.2	23.3	24.9
Kinney	28,500	662	216	23.5	20.1	37.2	27.0
Maverick	22,312	15,111	7,950	35.9	30.1	41.5	43.2
Presidio	20,396	1,881	973	36.2	25.0	43.7	39.5
Starr	17,828	22,437	11,120	44.9	39.0	50.5	51.3
Terrell	27,032	180	53	19.9	17.4	31.2	22.1
Val Verde	28,989	10,211	4,587	25.9	22.2	34.5	31.1
Webb	27,619	58,168	29,303	30.2	27.5	37.1	36.8
Zapata	24,334	3,806	1,567	31.6	29.5	41.4	36.4
<b>TX Border Counties</b>		612,792	289,974	30.8	29.3	38.1	40.1
<b>TX Border Counties % of TX</b>		18.3	21.9				
<b>Border States</b>		9,061,497	3,549,668	14.2	14.2	20.8	20.2
<b>Non-Border States Nation-Wide</b>		25,508,454	8,582,977	11.2	11.5	16.0	15.6
<b>Border Counties</b>		1,190,881	514,500	19.4	18.3	27.2	27.2
<b>Non-Border Counties Nation-Wide</b>		33,379,070	11,618,145	11.7	12.0	16.8	16.4

Source: Small Area Income and Poverty Estimates (SAIPE), Census Bureau.

**Appendix 4.1  
1993 Personal Income and Components Along the U.S.-Mexico Border (in 2003 Real Dollars)**

	Personal Income (in millions of dollars)									
	Total Personal Income	Net Earnings				Personal Transfers				Dividends, Interest & Rent
		Total	Work Earnings	Government Insurance	Residence Adjustments	Total	Income Maintenance	Unemployment Benefits	Retirement & Other	
<b>United States</b>	7,064,735.4	4,789,935.1	5,397,813.8	-606,862.6	-1,016.1	1,005,945.2	114,967.5	44,380.3	846,597.4	1,268,855.1
<b>Arizona</b>	94,699.1	60,951.1	68,663.2	-8,053.4	341.2	14,745.7	1,495.0	380.4	12,870.3	19,002.3
Cochise	2,051.8	1,287.8	1,457.4	-153.9	-15.8	404.4	44.8	14.0	345.6	359.5
Pima	16,433.5	9,739.2	10,906.9	-1,298.1	130.4	2,762.1	257.6	44.3	2,460.1	3,932.2
Santa Cruz	547.1	336.4	404.4	-47.0	-20.9	100.7	15.7	4.6	80.4	109.9
Yuma	2,417.8	1,659.0	1,851.3	-184.9	-7.4	427.6	55.3	49.2	323.1	331.2
<b>AZ Border Counties</b>	21,450.1	13,022.4	14,620.0	-1,683.9	86.3	3,694.9	373.5	112.1	3,209.2	4,732.8
<b>AZ Border Counties % of AZ</b>	22.7	21.4	21.3	20.9	25.3	25.1	25.0	29.5	24.9	24.9
<b>California</b>	901,416.7	619,240.9	695,866.1	-76,620.9	-4.3	119,132.8	20,806.0	7,414.4	90,912.5	163,042.9
Imperial	2,752.5	1,894.2	2,162.6	-183.0	-85.4	577.5	131.9	74.3	371.3	280.8
San Diego	73,349.7	48,943.6	54,564.2	-5,985.0	364.4	9,398.7	1,441.5	501.0	7,456.2	15,007.5
<b>CA Border Counties</b>	76,102.2	50,837.7	56,726.8	-6,168.0	278.9	9,976.2	1,573.4	575.3	7,827.5	15,288.3
<b>CA Border Counties % of CA</b>	8.4	8.2	8.2	8.1	-6,490.5	8.4	7.6	7.8	8.6	9.4
<b>New Mexico</b>	35,339.1	23,786.7	26,419.5	-2,759.3	126.5	5,215.1	756.3	132.1	4,326.7	6,337.2
Dona Ana	2,734.3	1,818.0	1,868.1	-177.6	127.5	439.2	84.9	9.1	345.2	477.2
Hidalgo	123.6	90.2	102.6	-10.7	-1.8	20.1	3.2	0.3	16.6	13.3
Luna	337.9	184.0	196.4	-19.6	7.2	89.3	13.6	2.4	73.3	64.6
<b>NM Border Counties</b>	3,195.8	2,092.1	2,167.1	-207.9	132.9	548.6	101.7	11.8	435.1	555.1
<b>NM Border Counties % of NM</b>	9.0	8.8	8.2	7.5	105.0	10.5	13.5	9.0	10.1	8.8
<b>Texas</b>	451,039.0	324,838.0	362,292.7	-36,649.1	-805.6	56,201.9	7,120.5	2,316.0	46,765.4	69,999.0
Brewster	158.8	91.3	100.8	-9.3	-0.2	28.2	3.0	0.3	25.0	39.2
Cameron	4,256.9	2,568.1	2,902.3	-294.4	-39.8	1,056.6	239.3	34.6	782.6	632.2
Culberson	43.4	28.7	44.2	-4.8	-10.7	9.0	1.8	0.2	6.9	5.8
El Paso	11,099.7	7,604.0	8,965.7	-929.4	-432.2	1,915.6	378.4	32.2	1,505.0	1,580.1
Hidalgo	5,966.9	3,580.0	3,966.2	-382.5	-3.7	1,506.6	395.9	65.6	1,045.1	880.2
Hudspeth	37.5	22.8	24.9	-2.1	0.1	7.2	1.3	L	5.9	7.5
Jeff Davis	35.5	18.2	18.8	-1.8	1.2	6.5	0.6	0.2	5.7	10.8
Kinney	48.8	20.8	19.6	-1.9	3.1	12.9	1.9	0.2	10.8	15.1
Maverick	425.7	233.7	257.7	-25.8	1.9	152.8	44.9	7.0	100.9	39.2
Presidio	89.7	45.2	48.0	-4.7	1.9	25.0	6.2	2.7	16.0	19.5
Starr	417.6	230.5	246.2	-19.3	3.6	149.6	50.1	5.6	93.9	37.5
Terrell	30.7	15.8	18.5	-2.9	0.3	4.9	0.4	0.1	4.4	9.9
Val Verde	649.0	417.6	471.2	-45.2	-8.3	130.6	30.1	5.4	95.1	100.8
Webb	2,267.1	1,572.0	1,817.0	-183.4	-61.6	456.6	113.5	13.0	330.1	238.5
Zapata	120.2	55.5	57.9	-5.6	3.2	37.0	7.5	1.2	28.3	27.7
<b>TX Border Counties</b>	25,647.5	16,504.4	18,958.8	-1,913.2	-541.2	5,499.0	1,275.0	168.3	4,055.7	3,644.0
<b>TX Border Counties % of TX</b>	5.7	5.1	5.2	5.2	67.2	9.8	17.9	7.3	8.7	5.2
<b>Border States</b>	1,482,493.8	1,028,816.7	1,153,241.6	-124,082.7	-342.1	195,295.5	30,177.8	10,242.9	154,874.8	258,381.6
<b>Non-Border States</b>	5,582,241.6	3,761,118.4	4,244,572.2	-482,779.8	-674.0	810,649.7	84,789.7	34,137.4	691,722.6	1,010,473.5
<b>Border Counties</b>	126,395.6	82,456.7	92,472.8	-9,973.0	-43.1	19,718.7	3,323.6	867.6	15,527.5	24,220.2
<b>Non-Border Counties</b>	6,938,339.8	4,707,478.4	5,305,341.1	-596,889.5	-973.1	986,226.5	111,644.0	43,512.7	831,069.9	1,244,634.8

Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA).

**Appendix 4.2**  
**1993 Per Capita Personal Income and Components Along the U.S.-Mexico Border (in 2003 Real Dollars)**

	Personal Income	Net Earnings	Personal Transfers	Dividends, Interest & Rent
<b>United States</b>	27,181.1	18,428.0	3,869.7	4,882.0
<b>Arizona</b>	23,294	14,992	3,627	4,674
Cochise	19,652	12,335	3,874	3,443
Pima	22,838	13,535	3,838	5,464
Santa Cruz	16,456	10,119	3,029	3,307
Yuma	19,359	13,284	3,424	2,651
<b>AZ Border Counties</b>	21,840	13,259	3,762	4,819
<b>AZ Border Counties % of AZ</b>				
<b>California</b>	28,822	19,799	3,809	5,213
Imperial	20,734	14,268	4,350	2,115
San Diego	28,214	18,827	3,615	5,772
<b>CA Border Counties</b>	27,850	18,605	3,651	5,595
<b>CA Border Counties % of CA</b>				
<b>New Mexico</b>	21,595	14,535	3,187	3,872
Dona Ana	17,865	11,878	2,870	3,117
Hidalgo	20,490	14,952	3,337	2,200
Luna	15,909	8,661	4,205	3,043
<b>NM Border Counties</b>	17,723	11,602	3,043	3,078
<b>NM Border Counties % of NM</b>				
<b>Texas</b>	24,834	17,886	3,094	3,854
Brewster	18,532	10,661	3,294	4,578
Cameron	14,766	8,908	3,665	2,193
Culberson	13,515	8,929	2,795	1,792
El Paso	17,506	11,992	3,022	2,492
Hidalgo	13,333	8,000	3,367	1,967
Hudspeth	12,891	7,850	2,472	2,571
Jeff Davis	18,082	9,270	3,322	5,489
Kinney	15,647	6,681	4,127	4,839
Maverick	10,305	5,658	3,699	949
Presidio	13,386	6,744	3,727	2,915
Starr	9,013	4,974	3,229	809
Terrell	22,569	11,647	3,624	7,298
Val Verde	16,047	10,327	3,229	2,492
Webb	14,670	10,173	2,954	1,543
Zapata	11,551	5,332	3,553	2,666
<b>TX Border Counties</b>	15,170	9,762	3,252	2,155
<b>TX Border Counties % of TX</b>				
<b>Border States</b>	26,887	18,659	3,542	4,686
<b>Non-Border States</b>	27,260	18,367	3,959	4,934
<b>Border Counties</b>	22,628	14,762	3,530	4,336
<b>Non-Border Counties</b>	27,281	18,509	3,878	4,894

Source: Regional Economic Information Systems (REIS), U.S. Bureau of Economic Analysis (BEA).

## Endnotes for Chapter 4

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1. Orrenius, P.M. and A. L. Berman. 2002. "Growth on the Border or Bordering on Growth?" *Southwest Economy*, Federal Reserve Bank of Dallas. The authors point out that a large share of the income differential can be explained by the demographic characteristics of the border population. If instead of comparing the average border income with the national average, the average border income is compared to the average income of Hispanics nationwide, the income differences disappear and, hence, border per capita income is not markedly lower than elsewhere once socio-demographic factors are held constant. But the authors also stress that explaining income differences by simply stratifying on ethnic origin does not get to the underlying reasons why border incomes are lower.
2. Proprietor's income is the income earned by persons from running their own businesses and from partnerships and can be disaggregated into income earned by farm and non-farm proprietors. Proprietor's income covers a broad range of the economy, from larger firms to one-person companies to persons operating out of a home office.
3. Sharp, J., et al. 1998. *Bordering the Future – Challenge and Opportunity in the Texas Border Region*. Texas Comptroller of Public Accounts.
4. A prime example of poor preparedness follows the structural loss of the garment industry in El Paso that led to a massive displacement of low-skilled workers who, for the most part, were Spanish-speaking females in their 40s. NAFTA-displacement funds were allocated specifically to training programs aimed to situate former garment workers into other industries of the El Paso economy. However, basic training of English and technical skills has left them competing for high school equivalent employment, which provides pay much less than their previous work in apparel manufacturing.
5. Gilmer, R. W., M. Gurch, M. and T. Wang. 2001. "Texas Border Cities: An Income Growth Perspective." *The Border Economy*, Federal Reserve Bank of Dallas.
6. Orrenius, P.M. and A.L. Berman. 2002.
7. For states and counties, a net residence adjustment is applied to convert place-of-work income to a place-of-residence basis to estimate the net inflow of the earnings of inter-area commuters. A negative residence adjustment indicates more non-residents commute into an area and take income out than the flow of income into an area by residents who outward commute – for example, a person who lives in Doña Ana County but works in El Paso County is a negative adjustment for El Paso County, and vice versa. At the national level, the measure consists of adjustments for border workers – wage and salary disbursements to U.S. residents commuting to Mexico less wage and salary disbursements to Mexican residents commuting into the United States. There is no source data for wage and salary disbursements of U.S. residents commuting to Mexico (e.g., U.S. residents who work in maquiladoras in Mexican border cities) and hence are not counted. It is noteworthy that the residence adjustment factor along the border is ambiguous because of the bidirectional flow of incomes – Mexican nationals work in the United States and to a lesser

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degree U.S. resident's work in Mexico. However, border economies are regionalized (e.g., the El Paso, Las Cruces, and Cd. Juárez borderplex economy), so the displacement of income between areas is not as problematic as the data may indicate since monies, and their multiplier effect, remain within the region.

8. The Bureau of Economic Analysis (BEA) is responsible for estimating personal income for the nation. Personal income is the income of all residents of an area from all sources. It consists of the sum of wage and salary disbursements, supplements to wages and salaries (employer contributions to employee pensions and insurance funds and to government social insurance), proprietors' income, personal dividends, interest and rent income, and personal transfer payments, less personal contributions for government social insurance.

9. To understand the linkage between education and income in the southwest border region and the decline in income offset by a rise in transfer payments see C. Brenner, "Educational Trends and Income in El Paso: A Longitudinal Perspective," Institute for Policy and Economic Development, Technical Report 2001-7. This report examines the decline in income and education within Texas but underscores the associated decline in income and rise in transfer payments in the southwest border region. See [iped.utep.edu/reports](http://iped.utep.edu/reports).

10. The Small Area Income and Poverty Estimates program administered by the Census Bureau provides the most accurate sub-national estimates of median household income and poverty. The program's "poverty universe" is less than the total population because it does not include persons whose poverty status cannot be determined. This results in the exclusion from data those persons who are institutionalized, in college dormitories, in military barracks, or living in situations without conventional housing (and who are not in shelters), as well as, unrelated individuals under age 15, such as foster children.

11. Each person or family is assigned one out of 48 possible poverty thresholds. Thresholds vary according to the size of the family and ages of the family members. For example, in 2002, if the aggregate income for a household of four persons with two related children was strictly less than \$18,244, that family was considered to be in poverty (all family members have the same poverty status). Thresholds do not vary geographically throughout the United States and are updated annually for inflation using the Consumer Price Index for All Urban Consumers (CPI-U). The before taxes money income used to calculate poverty includes earnings and other sources of income, such as unemployment, workers' compensation or Social Security, but does not include noncash benefits, such as food stamps and housing subsidies. Poverty thresholds reflect the needs of families and are intended for use as a statistical yardstick, not as a complete description of what people and families need to live.



## Chapter 5

# Labor Force, Labor Pool, and Unemployment

One of the factors contributing to the labor market, as well as to lower overall income levels along the border, is low labor force participation rates which measure adults 16 years and older in the labor force. In 2003, the participation rate for all border counties was 61.7 percent. Removing San Diego and Pima counties, the rate falls to 57.3 percent compared to the remaining U.S. rate of 64.9 percent. Rates of participation also varied widely among individual border counties, with Hidalgo (NM) reporting a low of 44.9 percent, a percentage of more than 20 points from the top five counties (Jeff Davis, Terrell, Brewster, Presidio, and San Diego).

Gender also plays a crucial role in the southwest border region. While the participation rate for both genders in the border area is lower than the national rate, the female participation rate is significantly lower than the male participation rate along the border regardless of household type, marital status, or number of children in a household. In addition, Hispanics have been documented by the Pew Hispanic Center as the most likely of all racial or ethnic groups to seek work. However, the southwest border experience, where Hispanics constitute the majority of the increase in the labor force, is contrary to this trend.<sup>1</sup>

- Since 1990, border counties have managed to narrow the unemployment rate gap with the rest of the nation. However, if border counties were the 51<sup>st</sup> state, they would rank 5<sup>th</sup> in unemployment, and higher overall without Pima and San Diego counties (Table 5.1).
- Without the stronger economies of San Diego and Pima, the unemployment rate for the remaining 22 border counties is more than double the rate of the rest of the United States (11.2 % versus 5.5 %).
- The ability of individual border counties to provide work for its residents varies widely, from unemployment rates of 1.3 percent in Jeff Davis to 23.4 percent in Yuma (2004).
- Nine border counties, including two large population bases, had unemployment rates greater than 10 percent, meaning that more than one in ten persons who actively sought work could not find a job.
- Underemployment in border counties and “temp” work far exceed national standards (Table 5.4).

### Measuring Labor Force, Labor Pool, and Workforce

**Labor Force:** The labor force includes all persons classified as employed or unemployed based on Department of Labor's Bureau of Labor Statistics definitions.<sup>2</sup>

**Labor Pool:** The source of trained people from which workers can be hired.

**Workforce:** The total number of people employed or seeking employment in a country or region.

### Policy Issues

The nation's workforce is aging as college-educated baby boomers begin their retirement.<sup>3</sup> The border, conversely, has a higher proportion of young people, but with educational attainment rates that usually fall below those of the nation, which is discussed in Chapter 7: Public and Higher Education. The Bureau of Labor Statistics projects there will be a 22 percent increase in jobs that require some college-level education by the year 2010.<sup>4</sup> The demand for a skilled workforce becomes more important when the skills requirements continue to grow; at the same time, a smaller segment of the border population, many with no college-level education, is not able to fill the need. Border counties can rely on their young population for a potential large pool of workers, an important resource in any economy, but the skills gap has serious repercussions for the ability to increase the economic well-being of the region's residents.

Since labor is responsive to economic conditions, it is essential that higher wages and greater employment opportunities develop and expand to encourage higher participation rates among both genders; and, to encourage professionals not to leave the region, but to relocate to it. This also addresses the problem of hidden unemployment (the

underemployed and discouraged workers), which acts as an agent of depressed wages and limits the productivity potential of labor. Improvement of the skill level of the border's labor force creates an environment for businesses where they have an evolving, diverse, and more productive talent pool from which to hire. Increasing productivity, the primary driver of economic progress, also has been shown to be the key to higher living standards.<sup>5</sup>

Identifying these necessary skill ladders is crucial to the development of workforce training programs that will support the progress of the border counties and their residents. Training providers, however, also must develop programs that deal with the dichotomy present in the border's labor force. On the one hand, there are workers who are simply victims of a poor and changing job market, attributable to slowdowns or structural adjustments in the economy. For this workforce, their skill sets can be changed and enhanced, even for workers whose skills have become obsolete and displaced by automation and lower wages off-shore. Similar to the young, they can climb the income ladder as they become better educated, develop skills and/or gain experience. On the other hand are the workers whose skills not only have become obsolete, but who are older with limited English skills in many cases resulting in work-related literacy problems. For this

workforce, even basic education may not be enough, and increasing a skill set may be unattainable. Workforce training for specific jobs with specific technical requirements and where little or no education is required may be one solution since minimal training will provide wages to support their families or new competitive skills for upward mobility. This group of workers cannot be ignored by workforce providers and policy makers if the southwestern border region wants to break the cycle of low skill/low income jobs and the cycle of generational poverty that occurs. While there always will be some lower earning percentage of laborers in a workforce, it does not mean that the same individuals must remain in the same position year after year, generation after generation. This becomes the major challenge for policy makers and workforce agencies: to work with all education and training providers to provide all border residents with tangible skills demanded by the local labor market or skills that will draw employers to the region.

Higher education and advanced training alone are inadequate for workers if they hold degrees in disciplines not demanded by employers, lack the experience related to a degree, or have skill sets that do not mirror the demands of employers. In order to identify the types of experience and training programs needed, border counties must first identify their own current and future gaps between the skill set of their labor force and the skill needs of their employers, a first step that often has been overlooked.

### **Labor Force**

The labor force<sup>6</sup> consists of the number of persons 16 years and over in the civilian non-institutionalized population who are

employed or seeking work.<sup>7</sup> Its size is dependent on the size and demographic characteristics of the population and the labor force participation rate. High growth rates in the border's labor force correlate to the similar expansion in its population base. In 2004, the labor force for border counties reached almost 3.1 million people, marking an annual growth rate of 2.7 percent since 1990 (See Appendix 5.1). The top five border counties, San Diego, Pima, El Paso, Hidalgo, and Cameron, accounted for 84.8 percent of the total labor force in 2004, a slightly larger share than what they accounted for of the population total (Table 5.2).

The populations of Hidalgo (NM), Culberson, Terrell, Hudspeth, and Kinney have declined (Figure 5.1) and, with the exception of Kinney, the labor force in these counties also has contracted in varying years (Figure 5.2):

- Population in Hidalgo (NM) peaked in 1999 and has fallen since; it is now pre-1980 levels. Its labor force declined starting in 1994 and by 2004 had lost 1,451 persons (44%).
- Culberson's population has steadily declined since 1990. Its labor force contracted 31 percent, losing 502 persons from 1990 to 2004.
- Hudspeth's population peaked in 2001. Its labor force peaked in 1994 and by 2004 lost 10 percent of its labor force.
- Terrell's population has fallen since 1970 and in 2004 was fewer than 1,000. Its labor force has been more stable, peaking in 2000 and decreasing 16 percent by 2004.

**Table 5.1**  
**2004 and 1990 U.S. State Unemployment Rate**

2004		1990	
<b>Border Counties w/out San Diego and Pima</b>	<b>11.2</b>	<b>Border Counties w/out San Diego and Pima</b>	<b>15.7</b>
<b>Border Counties w/out San Diego</b>	<b>9.2</b>	<b>Border Counties w/out San Diego</b>	<b>12.8</b>
1 Alaska	7.5	<b>Border Counties w/out Pima</b>	<b>9.3</b>
2 Oregon	7.4	1 West Virginia	8.6
3 Michigan	7.1	<b>2 Border Counties</b>	<b>8.6</b>
<b>Border Counties w/out Pima</b>	<b>7.1</b>	3 Michigan	7.7
4 South Carolina	6.8	4 Mississippi	7.7
<b>5 Border Counties</b>	<b>6.6</b>	5 Alaska	7.0
6 California	6.2	6 Arkansas	6.8
7 Illinois	6.2	7 New Mexico	6.8
8 Mississippi	6.2	8 Texas	6.4
9 Washington	6.2	9 Alabama	6.3
10 Ohio	6.1	10 Florida	6.3
11 Texas	6.1	11 Illinois	6.3
12 New York	5.8	12 Massachusetts	6.3
13 Arkansas	5.7	13 Kentucky	6.1
14 Louisiana	5.7	14 Rhode Island	6.1
15 Missouri	5.7	15 Montana	6.0
16 New Mexico	5.7	16 Louisiana	5.9
17 Alabama	5.6	17 California	5.8
18 Colorado	5.5	18 Missouri	5.8
19 Kansas	5.5	19 Ohio	5.7
20 North Carolina	5.5	20 Oklahoma	5.7
21 Pennsylvania	5.5	21 New Hampshire	5.6
22 Tennessee	5.4	22 Idaho	5.5
23 Kentucky	5.3	23 Tennessee	5.5
24 West Virginia	5.3	24 Oregon	5.4
25 Indiana	5.2	25 Pennsylvania	5.4
26 Rhode Island	5.2	26 Arizona	5.3
27 Utah	5.2	27 Maine	5.3
28 Massachusetts	5.1	28 New York	5.3
29 Arizona	5.0	29 Wyoming	5.3
30 Connecticut	4.9	30 Georgia	5.2
31 Wisconsin	4.9	31 Colorado	5.1
32 Florida	4.8	32 Nevada	5.1
33 Iowa	4.8	33 New Jersey	5.1
34 New Jersey	4.8	34 Washington	5.1
35 Oklahoma	4.8	35 Indiana	5.0
36 Idaho	4.7	36 Connecticut	4.9
37 Minnesota	4.7	37 South Carolina	4.9
38 Georgia	4.6	38 Vermont	4.9
39 Maine	4.6	39 Minnesota	4.8
40 Montana	4.4	40 Maryland	4.6
41 Nevada	4.3	41 Iowa	4.5
42 Maryland	4.2	42 Utah	4.4
43 Delaware	4.1	43 Virginia	4.4
44 Wyoming	3.9	44 Kansas	4.3
45 Nebraska	3.8	45 Wisconsin	4.3
46 New Hampshire	3.8	46 Delaware	4.2
47 Vermont	3.7	47 North Carolina	4.2
48 Virginia	3.7	48 North Dakota	4.0
49 South Dakota	3.5	49 South Dakota	3.7
50 North Dakota	3.4	50 Hawaii	2.4
51 Hawaii	3.3	51 Nebraska	2.3

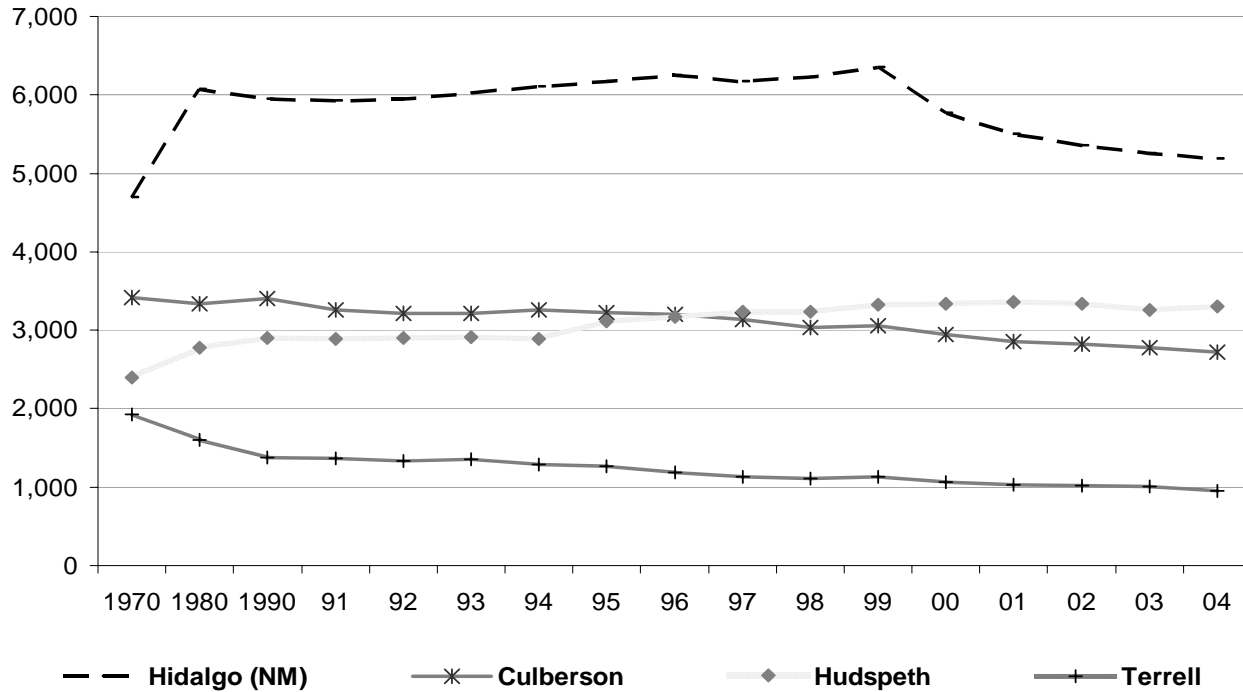
Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS).

**Table 5.2**  
**2004 Border County Labor Forces**

Top 5					Upper Middle 6 - 10					Lower Middle 11 - 15					Bottom 9								
San Diego	Pima	El Paso	Hidalgo (TX)	Cameron	Webb	Dona Ana	Yuma	Imperial	Cochise	Starr	Maverick	Val Verde	Santa Cruz	Luna	Brewster	Zapata	Presidio	Hidalgo (NM)	Jeff Davis	Hudspeth	Kinney	Culberson	Terrell
1,504,457	436,902	299,520	238,320	145,253	88,094	80,242	76,716	59,973	47,149	24,632	20,703	20,241	15,249	12,915	6,058	5,364	3,809	1,816	1,717	1,440	1,295	1,108	613

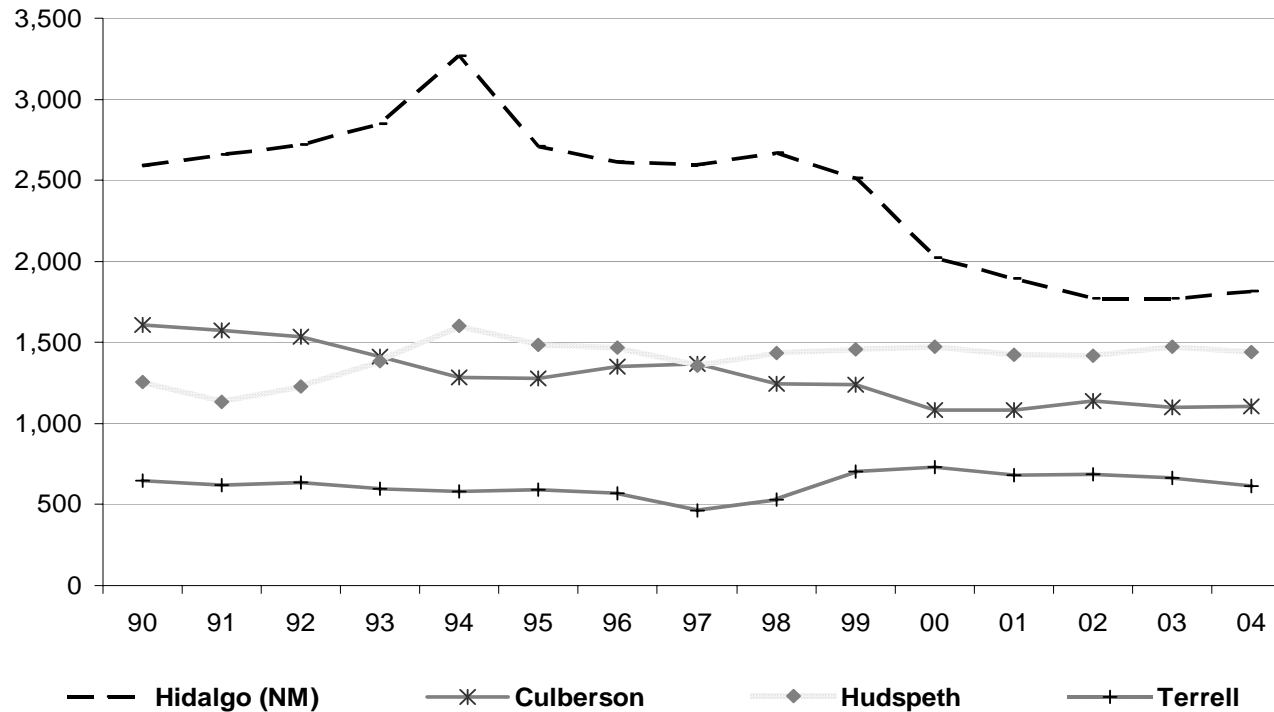
Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS).

**Figure 5.1**  
**1970-2004 Population Declines**



Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS), and IPED calculations.

**Figure 5.2**  
**1990-2004 Labor Force Declines**



Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS), and IPED calculations.

**Unemployment Rate**

The unemployment rate<sup>8</sup> is based on the proportion of the labor force that is unemployed. The unemployment rate for the collective border counties in 2004 was only 1.1 percentage points above that for non-border counties (6.6% versus 5.5%; Figure 5.3). However, calculating an unemployment rate for the border without San Diego and Pima, the counties with the largest labor force and lowest unemployment rates, the gap

between the remaining border counties and non-border counties is more than double (11.2% versus 5.5%). While the gap has narrowed over time, employment opportunity remains a critical impasse along the U.S.-Mexico border. Individually in 2004 (Table 5.3; see also Appendix 5.2):

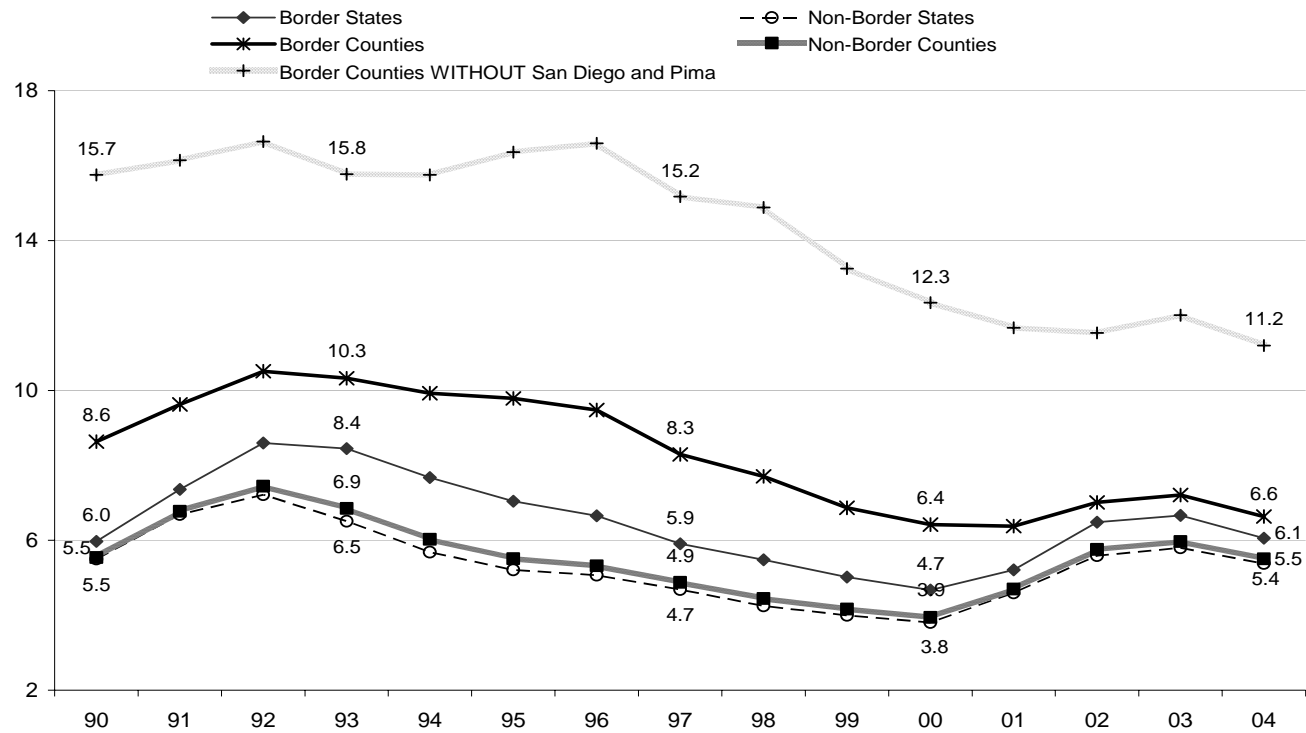
- Jeff Davis, Brewster, Terrell, Pima, San Diego, and Cochise had official unemployment rates below 5 percent.

- Hudspeth, Kinney, Webb, Doña Ana, Zapata, Val Verde, Hidalgo (NM), Culberson, and El Paso had rates between 6 and 8 percent.
- Cameron, Hidalgo (TX), Santa Cruz, Starr, Maverick, and

Presidio had unemployment rates between 10 and 20 percent.

- Luna, Imperial, and Yuma had jobless rates higher than 20 percent (more than one in five persons actively seeking employment could not find work).

**Figure 5.3**  
**1990-2004 Unemployment Rates (in Percents)**



Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS), and IPED calculations.

**Table 5.3**  
**2004 Border County Unemployment Rates (in Percents)**

Top 5					Upper Middle 6 - 10					Lower Middle 11 - 15					Bottom 9								
Jeff Davis	Brewster	Terrell	Pima	San Diego	Cochise	Hudspeth	Kinney	Webb	Dona Ana	Zapata	Val Verde	Hidalgo (NM)	Culberson	El Paso	Cameron	Hidalgo (TX)	Santa Cruz	Starr	Maverick	Presidio	Luna	Imperial	Yuma
1.3	2.6	2.6	3.9	3.9	4.4	6.0	6.2	6.8	6.9	7.0	7.5	7.9	7.9	8.0	10.1	12.2	13.2	17.7	19.7	19.9	21.5	22.1	23.4

Source: Quarterly Covered Employment and Wages (QCEW), BLS.

Persons categorized as employed include part-time workers. Although some part-time workers work less than a full week by choice, others do so because they cannot find suitable full-time work. Some workers are forced to work temporary full-time jobs at decreased pay, such as for temporary staffing agencies where long-term employment and skills acquisition are insecure. Along the border, temporary staffing employment in San Diego and El Paso is more prevalent (as a share of private employment) when compared to the nation (Table 5.4). One reason is that both have industries that are inherently tied to maquiladora production in their respective cross-border Mexican cities. Warehousing and light manufacturing operations have a significant number of “temps” with minimal skill sets. While these jobs pay low hourly wages, along the border wages are even lower relative to the nation, with the exception of Pima and San Diego (Table 5.4). Nevertheless, involuntary part-time and full-time temporary

workers are counted as employed, although the argument could be made that the proper designation may be “underemployed.”

Similarly, so-called discouraged workers (those who give up looking for jobs after a period of time) are also victims of a poor job market, just like the officially unemployed. Underemployed and discouraged workers are examples of “hidden” unemployment which, ironically, decreases the official unemployment statistics and underestimates the lack of employment opportunity in a region. While the jobless rate for many border counties is already troubling, “hidden” unemployment and the depressed wages that accompany it must also be recognized as causes for the widening income gap between border counties and their respective states and the nation, an often immeasurable phenomenon with which border communities must contend.

**Table 5.4**  
**2003 Employment Services (NAICS 5613) Work as a Percent of Total Private Employment – Top 9 Border Economies**

	U.S.	Pima	Yuma	Imperial	San Diego	Dona Ana	Cameron	El Paso	Hidalgo (TX)	Webb
Employment Services Jobs (NAICS 5613)	3,227,265	8,264	938	432	34,431	720	1,543	7,165	2,297	1,077
Average Weekly Wages	\$435	\$435	\$238	\$356	\$528	\$250	\$327	\$307	\$306	\$252
% Share of Private Employment	3.0	3.1	2.0	1.2	<b>3.3</b>	1.6	1.7	<b>3.7</b>	1.7	1.9

Source: Quarterly Covered Employment and Wages (QCEW), BLS. <sup>9</sup>



### Labor Force Participation Rate

The willingness of individuals to participate in the labor force is responsive to economic conditions.<sup>10</sup> A saturated or poor labor market and low wages act as deterrents to participation rates. On the other hand, higher wage rates and greater employment opportunities encourage higher participation rates. The extent to which the rates change, in response to these economic factors, however, differs substantially for different population groups. For example, some research suggests the willingness of men to enter the labor force may be more influenced by wages, while women may be more sensitive to opportunities provided by employment ranging from career options to benefits, among others.<sup>11</sup> Since the labor force is dependent on the population structure of the region, age, gender, ethnicity, and immigration status all play a crucial role in the participation rate for border counties, a rate which is below that of non-border counties (Table 5.5). In 2003:

- The participation rate for all border counties was 61.7

percent versus 64.9 percent for non-border counties.

- Removing San Diego and Pima counties, the adjusted participation rate for border counties falls to 57.3 percent.
- Using 64.9 percent as a benchmark (the rate for the rest of the United States), five border counties performed better, while one tied at 64.9 percent. Only San Diego clearly shows both a high participation rate and a big labor market that sustains its employment base.
- Of the larger economies, Yuma, Pima, and Webb were within 5 percentage points of the 64.9 percent benchmark; El Paso was 5.4 percentage points below at 59.5 percent.
- Other large populations in Cameron, Doña Ana, Hidalgo (TX), Imperial, and Cochise had participation rates between 49 and 58 percent.

**Table 5.5**  
**2003 Border County Labor Force Participation Rates (in Percents)**

Top 5					Upper Middle 6 - 10					Lower Middle 11 - 15				
Jeff Davis	Terrell	Brewster	Presidio	San Diego	Luna	Hudspeth	Starr	Pima	Maverick	Val Verde	Yuma	Webb	El Paso	Zapata
87.9	81.1	78.9	69.0	65.6	64.9	63.6	62.4	61.9	61.8	60.4	60.1	59.9	59.5	57.9

Bottom 9									Border Counties	Border Counties (w/out San Diego & Pima)	Non-Border Counties
Cameron	Dona Ana	Culberson	Hidalgo (TX)	Imperial	Santa Cruz	Cochise	Kinney	Hidalgo (NM)			
57.6	57.3	54.4	54.0	52.4	52.2	49.7	48.5	44.9	61.7	57.3	64.9

Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS), and IPED calculations.

In the southwest border region, gender plays an integral part in the low participation rates in many counties.<sup>12</sup> Using analysis of the top five labor markets, San Diego, Pima, El Paso, Hidalgo, and Cameron, the following assessments are made with regard to how females participate in the labor force:<sup>13</sup>

- The female participation rate is lower than that of the male participation rate along the border and nationwide. However, the difference between gender rates on the border is significantly greater than at the national level; the participation rate for both genders in the border area is lower than the national level, but the female rate is even lower than that for males.
- For households, whether or not a husband is in the labor force, the rate of border females not participating in the

labor force is greater than the national level. This may be indicative of stay-at-home mothers and tied to the Hispanic culture's reverence of the housewife role in the family.

- Females, in general, are less likely to seek work as their children grow up, particularly when their children are over the age of 18. Along the border, this statistic is greater than nationwide.

Nationwide, the gap between the genders has declined as the participation rate for females has increased at the same time the rate for males has fallen.<sup>14</sup> When assessing the border's labor supply, an untouched potential of labor is to develop a greater female participation rate using a variety of policy mechanisms. The extent to which the gap between the genders diminishes in border counties may be one of the most crucial long term issues of regional development.

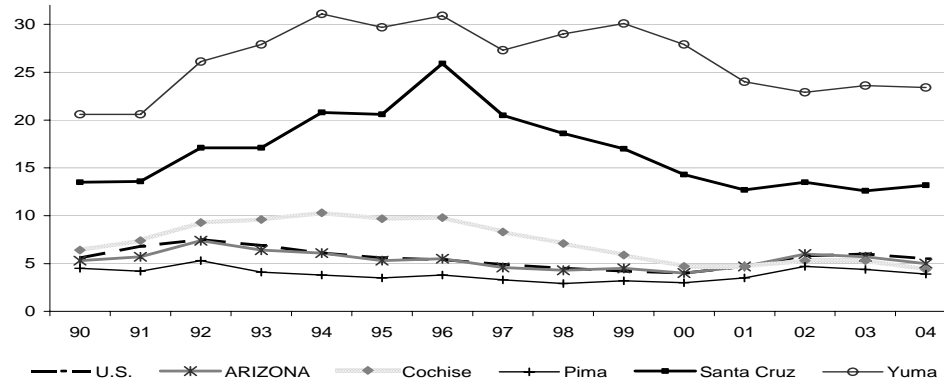
### Appendix 5.1 1990, 2000, and 2004 Labor Force Along the U.S.-Mexico Border

	1990	2000	2004	90 - 00 Change		00 - 04 Change	
				labor	%	labor	%
<b>United States</b>	125,840,000	142,583,000	147,401,000	16,743,000	13.3	4,818,000	3.4
<b>Arizona</b>	1,788,243	2,506,638	2,774,244	718,395	40.2	267,606	10.7
Cochise	36,866	41,967	47,149	5,101	13.8	5,182	12.3
Pima	314,596	410,516	436,902	95,920	30.5	26,386	6.4
Santa Cruz	12,820	14,110	15,249	1,290	10.1	1,139	8.1
Yuma	47,002	70,826	76,716	23,824	50.7	5,890	8.3
<b>AZ Border Counties</b>	411,284	537,419	576,016	126,135	30.7	38,597	7.2
<b>AZ Border Counties % of AZ</b>	23.0	21.4	20.8				
<b>California</b>	15,168,531	16,869,744	17,552,240	1,701,213	11.2	682,496	4.0
Imperial	47,368	57,820	59,973	10,452	22.1	2,153	3.7
San Diego	1,215,650	1,387,676	1,504,457	172,026	14.2	116,781	8.4
<b>CA Border Counties</b>	1,263,018	1,445,496	1,564,430	182,478	14.4	118,934	8.2
<b>CA Border Counties % of CA</b>	8.3	8.6	8.9				
<b>New Mexico</b>	711,891	850,846	911,940	138,955	19.5	61,094	7.2
Dona Ana	60,163	72,523	80,242	12,360	20.5	7,719	10.6
Hidalgo	2,591	2,018	1,816	-573	-22.1	-202	-10.0
Luna	7,551	11,476	12,915	3,925	52.0	1,439	12.5
<b>NM Border Counties</b>	70,305	86,017	94,973	15,712	22.3	8,956	10.4
<b>NM Border Counties % of NM</b>	9.9	10.1	10.4				
<b>Texas</b>	8,593,724	10,364,854	11,035,379	1,771,130	20.6	670,525	6.5
Brewster	4,239	5,457	6,058	1,218	28.7	601	11.0
Cameron	103,949	131,056	145,253	27,107	26.1	14,197	10.8
Culberson	1,610	1,084	1,108	-526	-32.7	24	2.2
El Paso	259,202	286,887	299,520	27,685	10.7	12,633	4.4
Hidalgo	165,699	205,199	238,320	39,500	23.8	33,121	16.1
Hudspeth	1,256	1,473	1,440	217	17.3	-33	-2.2
Jeff Davis	860	1,330	1,717	470	54.7	387	29.1
Kinney	1,039	1,152	1,295	113	10.9	143	12.4
Maverick	15,630	18,779	20,703	3,149	20.1	1,924	10.2
Presidio	3,110	3,646	3,809	536	17.2	163	4.5
Starr	18,552	21,397	24,632	2,845	15.3	3,235	15.1
Terrell	648	733	613	85	13.1	-120	-16.4
Val Verde	15,104	18,068	20,241	2,964	19.6	2,173	12.0
Webb	55,340	74,414	88,094	19,074	34.5	13,680	18.4
Zapata	2,993	4,552	5,364	1,559	52.1	812	17.8
<b>TX Border Counties</b>	649,231	775,227	858,167	125,996	19.4	82,940	10.7
<b>TX Border Counties % of TX</b>	7.6	7.5	7.8				
<b>Border States</b>	26,262,389	30,592,082	32,273,803	4,329,693	16.5	1,681,721	5.5
<b>Non-Border States</b>	99,577,611	111,990,918	115,127,197	12,413,307	12.5	3,136,279	2.8
<b>Border Counties</b>	2,393,838	2,844,159	3,093,586	450,321	18.8	249,427	8.8
<b>Non-Border Counties</b>	123,446,162	139,738,841	144,307,414	16,292,679	13.2	4,568,573	3.3

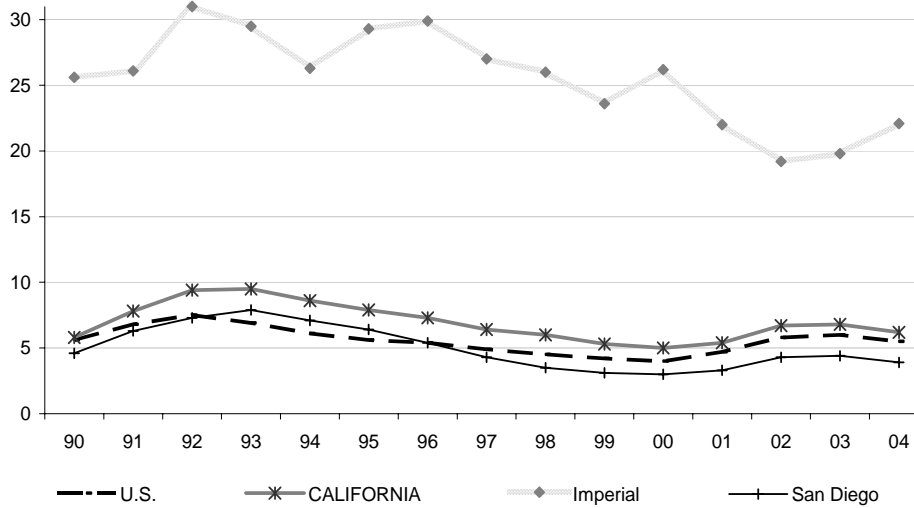
Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS).

### Appendix 5.2 1990-2004 Unemployment Rates (in Percents) Along the U.S.-Mexico Border

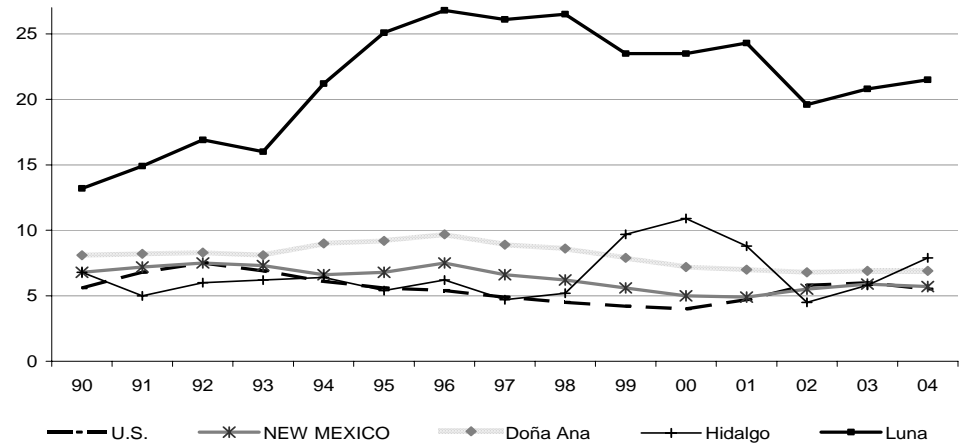
#### Arizona



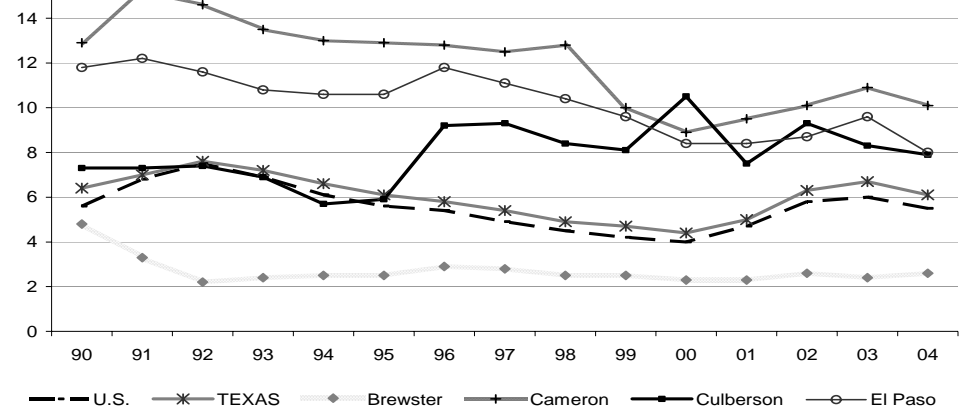
#### California



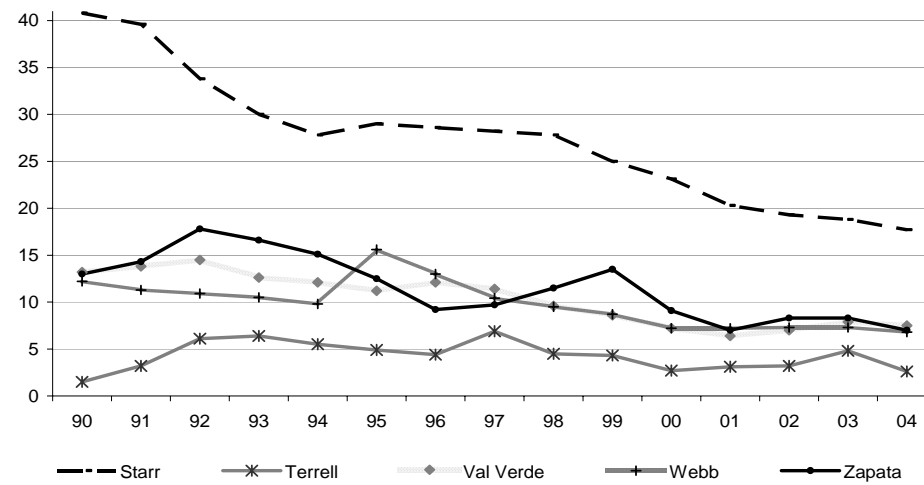
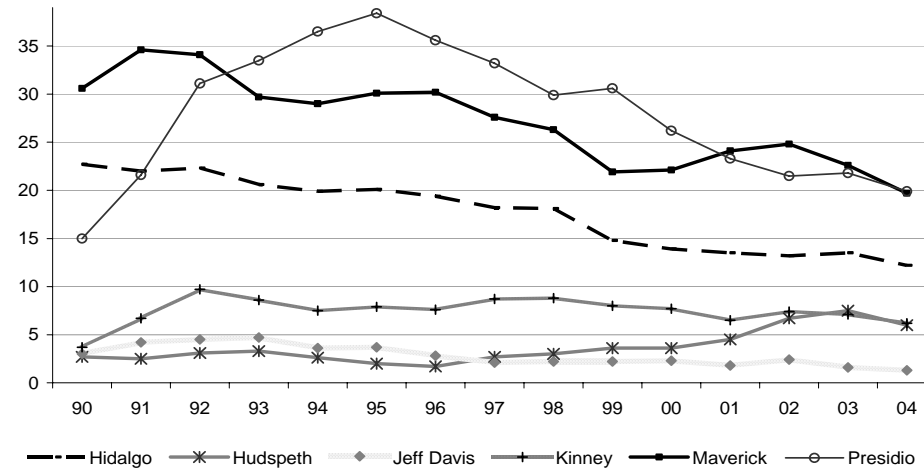
### New Mexico



### Texas



**Texas**



Source: Local Area Unemployment Statistics (LAUS), U.S. Bureau of Labor Statistics (BLS).

## Endnotes for Chapter 5

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1. [www.pewhispanic.org](http://www.pewhispanic.org). Pew Hispanic Center, 2005. "Hispanics – A People in Motion." January 14.
2. Persons 16 years and over in the civilian non-institutional population who, during the reference week, (a) did any work at all (at least 1 hour) as paid employees; worked in their own business, profession, or on their own farm, or worked 15 hours or more as unpaid workers in an enterprise operated by a member of the family; and (b) all those who were not working but who had jobs or businesses from which they were temporarily absent because of vacation, illness, bad weather, childcare problems, maternity or paternity leave, labor-management dispute, job training, or other family or personal reasons, whether or not they were paid for the time off or were seeking other jobs. Each employed person is counted only once, even if he or she holds more than one job. Excluded are persons whose only activity consisted of work around their own house (painting, repairing, or own home housework) or volunteer work for religious, charitable, and other organizations.
3. Occupational Outlook, Winter 2003-04. Bureau of Labor Statistics.
4. Reich, R. January 28, 2003. "Transforming American High Schools: Early Lessons and New Challenges," Draft, Stanford University, Aspen Institute, p. 6.
5. 2003 Annual Report. "A Better Way: Productivity and Reorganization in the American Economy," Federal Reserve Bank of Dallas.
6. The BLS is responsible for measuring the nation's labor force, employed and unemployed. Monthly estimates are obtained through the Local Area Unemployment Statistics (LAUS) program, a federal-state cooperative effort whereby state workforce agencies prepare the estimates under agreement with the BLS and using BLS methodologies. Concepts and definitions underlying LAUS data come from the Current Population Survey (CPS), administered by the Census each month, on behalf of the BLS, using a scientifically selected sample of some 60,000 households where several questions about the employment status of each household member are asked. With the release of data for January 2005, BLS introduced several changes to the LAUS program's methodology for sub-state areas, including revisions to reflect Census population estimates. Historical data from 1990 forward were updated to reflect these changes. Data from 2000 to present are expected to change again as the redesign method and improvements are further implemented.
7. It does not include full-time members of the U.S. Armed Forces or institutionalized persons, such as prison inmates and those in long-term care hospitals or nursing homes. Full-time students are treated the same as non-students.
8. Unemployed persons are those who have been temporarily laid off from a job to which they expect to return, and those who had no employment during the reference week but were actively seeking work during the 4-week period ending with the reference week.

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There are three types of unemployment for people actively seeking work: 1) frictional unemployment is due to normal turnover in the labor market where persons are between jobs because they are moving, changing occupations or seeking better pay; 2) structural unemployment refers to workers who have been displaced by automation or labor wage differentials at home or abroad; and 3) cyclical unemployment is attributable to slowdowns in the national economy which trickle down to state and regional economies.

9. Quarterly Covered Employment and Wages (QCEW) are obtained from unemployment insurance records that represent 95 percent of all U.S. jobs. Types of employment not covered include agricultural workers on small farms, military, self-employed, proprietors, domestic workers, unpaid family workers, railroad workers, and most student workers.

10. To determine the participation rate, labor force provided by the BLS (numerator) is taken as a proportion of the population estimates for the age cohort 16 years and older (denominator) provided by the Census. 2003 data is utilized since it provides the age cohorts necessary. In general, this method provides a low or conservative estimate since the age cohort utilized includes older persons who are retired and generally would not be considered in the labor force equation, as well as persons in the institutionalized population. This greater denominator lowers the participation proportion.

11. Treyz, F. and G. Treyz. 2002. "The REMI Economic Geography Forecasting and Policy Analysis Model," Regional Economic Models, Inc.: Amherst, MA.

12. American Factfinder, Census 2000 Summary File 3, Detailed Tables pp. 43-45.

13. The reasons behind lower female participation rates are a topic for other inquiry to accurately measure, with statistical confidence, the causes. For example, it is easy to determine that lower wages in Mexico, Central America, and Asia displaced older, Spanish-speaking women who worked in El Paso's garment industry and pushed them out of the labor market since their skills and English-deficiency discouraged them from participating (many went into training programs which effectively took them out of labor participation). But this is one scenario in one economy whose validity is not applicable across the border. Furthermore, the official statistics fail to capture the universe of informal workers who are paid cash by employers in jobs, such as construction, domestic help, etc. It could be argued that along the border, relative to non-border regions, this informal economy is more prevalent.

14. Occupational Outlook, Winter 2003-04. Bureau of Labor Statistics.



## Chapter 6 Employment

Throughout the 1990s, employment growth in U.S. border counties outpaced the nation. Within the 10 year period of 1993 to 2003, total full-time and part-time jobs increased by nearly 800,000 to almost 3.5 million, with half of the actual job gains accounted for by San Diego, and another quarter accounted for by Pima and El Paso counties. Aggregate border employment, like income and the labor force, is population dependent; but, the growth in employment in the

region would rank it 7<sup>th</sup> when including San Diego, and place between 4<sup>th</sup> and 5<sup>th</sup> without San Diego when viewed as a 51<sup>st</sup> state. Not surprisingly, the five largest border county populations – San Diego, Pima, El Paso, Hidalgo (TX), and Cameron – accounted for 86.2 percent of the entire job market along the border in 2003. Meanwhile, eight of the smaller border counties had less than 5,000 jobs each.

### Measuring Employment

Employment is based on place of work and includes both full-time and part-time employees along with those who are self employed. Individuals may have more than one job and therefore may be counted more than once.

Employment in the border region is skewed across some sectors by the size and characteristics of San Diego. Areas that have substantial labor intensity, such as fishing and accommodation, both associated with industries with higher concentrations in San Diego, result in significant shifts when that county is excluded. San Diego's impact, due to its size, results in a shift in rankings across the board; but, a review of the make up of employment across sectors in Table 6.1 provides clear evidence of the importance of government, including government enterprise, federal civilian employees, and the military.<sup>1</sup>

- The border counties rank 12<sup>th</sup> as a 51<sup>st</sup> state in government and government enterprise

employment, 10<sup>th</sup> in employment of federal civilians, and 4<sup>th</sup> in military employment.

- Government employment is an integral part of the border's employment base, due in large part to the public programs that address the region's economic and educational disadvantages and to a strong presence of law enforcement agencies associated with homeland security.
- The military presence is greatest in San Diego and El Paso, with smaller military bases scattered in other border counties. El Paso is also designated to be a recipient of more than

20,000 troops in the next three to five years, an increase in deployment that is estimated to put the border 2<sup>nd</sup> or 3<sup>rd</sup> as a 51<sup>st</sup> state depending on the final troop assignments to Fort Bliss.

- Within the private sector, the San Diego economy has considerable influence on the border counties' commercial and industrial makeup. Including San Diego, the border economy mirrors the non-border economy in many aspects; only without San Diego do the industrial differences become more apparent, seen, for example, by the decline from 20<sup>th</sup> in management of companies and enterprises to 43<sup>rd</sup> without San Diego.
- Other than San Diego, border counties have an extremely low percentage of their private jobs in the higher paying professional, scientific, and technical sector. Without San Diego, border counties fall as a 51<sup>st</sup> state from 15<sup>th</sup> to 35<sup>th</sup> in this sector.
- Border counties without San Diego have a higher percentage than the rest of the nation in employment in health services as a result of several state and federal assistance programs and increasing retiree services in areas like Pima and Doña Ana.
- The retail trade sector along the border plays an important role in the economy when compared to the rest of the United States, as a result of proximity to Mexico and sales to customers of Mexican origin, but San Diego's presence changes the ranking from 31<sup>st</sup> to 19<sup>th</sup>

as a 51<sup>st</sup> state because of its larger population base.

- Retail sales resulting from purchases by Mexican nationals and military personnel where present can be significant, and in some cases, this border employment sector is highly dependent on their disposable income.
- The border's manufacturing base is very low. In 2003 for example, 9.3 percent of non-farm employment in non-border counties was in the manufacturing sector; by comparison, the manufacturing share in border counties was only 6.1 percent and falls to 5.8 percent if San Diego is excluded.
- From a national perspective, manufacturing is weak at a 25<sup>th</sup> place ranking and drops 11 places to 36<sup>th</sup> without San Diego if considered a 51<sup>st</sup> state.
- Mexican maquiladoras also create employment in U.S. border cities as well, with direct linkages in transportation and in an assortment of professional services, such as in logistics, finance, accounting, and legal entities. Despite San Diego's size, its removal from the transportation sector would result in a smaller shift than in other sectors as a 51<sup>st</sup> state dropping from 22<sup>nd</sup> to 29<sup>th</sup>.<sup>2</sup>
- With the exception of San Diego, the border region lags substantially in occupational wages and in critical high paying professions. While San Diego recorded earnings above the

national average, the remaining 23 border counties performed at levels ranging from as low as 40.1 percent of the national level in Jeff Davis to 83.1 percent in El Paso.

- The differences between San Diego and the

rest of the border counties are exemplified by the following: while San Diego accounts for 52.3 percent of total jobs along the border, it accounts for 60.7 percent of all wages and salary disbursements, the principal and most important component of personal income.

**Table 6.1**  
**2003 Summary of Employment in Border Counties**

<b>Sector</b>	<b>Number Employed</b>	<b>% of National Employment in Sector</b>	<b>Rank as 51st State</b>	<b>Rank without San Diego</b>
Farm	44,142	1.5%	28	34
Forestry, Fishing and Related Activities	16,159	1.6%	15	26
Mining	6,468	0.8%	30	33
Utilities	12,041	2.0%	18	32
Construction	200,851	2.0%	21	32
Manufacturing	210,371	1.4%	25	36
Wholesale	93,008	1.5%	23	35
Retail Trade	381,882	2.1%	19	31
Transportation	89,871	1.7%	22	29
Information	66,628	1.9%	18	33
Finance and Insurance	130,345	1.6%	24	35
Real Estate, Rental and Leasing	141,123	2.4%	15	32
Professional and Technical Services	233,123	2.2%	15	35
Management of Companies & Enterprises	26,671	1.5%	20	43
Administrative and Waster Services	205,610	2.1%	16	30
Educational Services	44,031	1.3%	22	40
Healthcare and Social Assistance	320,159	1.9%	20	29
Arts, Entertainment, and Recreation	64,377	1.9%	20	34
Accommodation and Food Services	245,134	2.2%	15	31
Other Services	204,462	2.2%	16	31
Government and Government Enterprises	692,569	3.0%	12	27
Federal, Civilian	82,926	3.2%	10	22
Military	160,937	7.7%	4	18

Source: www.bea.gov, Bureau of Economic Analysis (BEA).

## Policy Issues

The border region remains an economically disadvantaged area of the United States as high job growth rates have done little to improve the living standards of border residents. Behind the employment question is the concern of whether per capita income parity with the United States is attainable, and more importantly, whether the growth rate necessary for border counties, excluding San Diego, is possible to reach parity with the nation.

To answer this question, the issue of government transfers must first be addressed. Since 1969 the percent share of personal income comprised from 1) net earnings and 2) dividends, interest, and rent (the “positive income” that captures the real wealth of a region) has decreased across the United States. At the same time it has decreased even more in border counties (Figure 6.1). As discussed in the income chapter of this report, the result has been that government transfers have accounted for a larger share of border counties’ income over time. By 2003 “positive income” averaged 85.4 percent nationwide, but only 78.3 percent in border counties not including San Diego, a difference of more than 7 percent. In order to address this issue, it should be pointed out that per capita income growth itself is not the goal. Growth must be driven by “positive” income to effectively reduce government transfers to a level that approaches the rest of the nation. Since wages and salaries (work earnings) constitute the majority of this “positive income,” it is not only the quantity, but the quality of jobs and occupations (the industry-occupation employment mix) that will successfully close the income gap.

Unfortunately, simply stating the problem disguises how difficult closing the income gap actually will be. For example, consider the objective of closing the income gap with

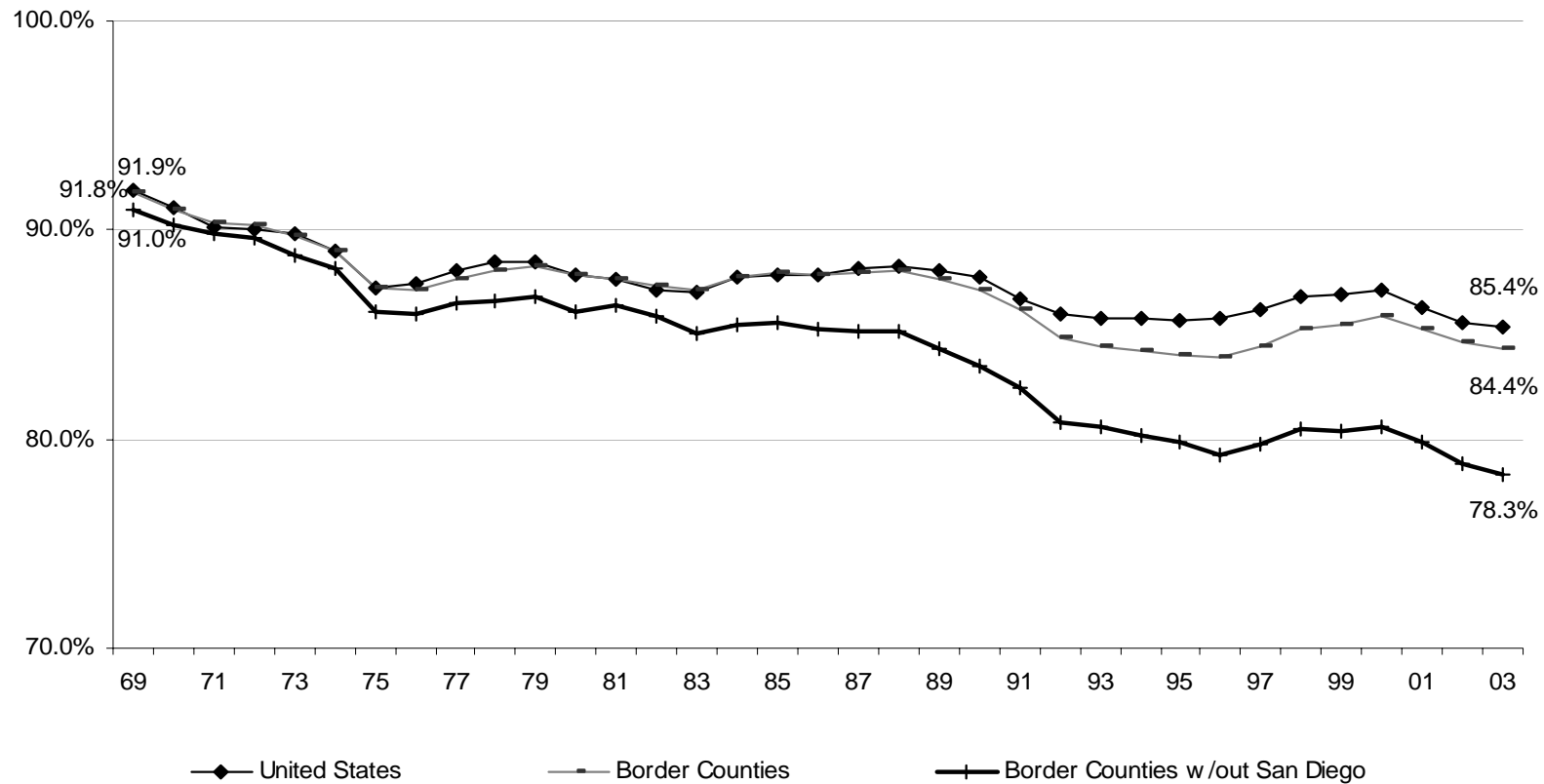
employment earnings (wages and salaries) as the primary components of growth. Assuming that real per capita income across the nation grows on average, as it has done since 1969 (1.87 percent), and using 2003 as the base year with 2050 as the target year, the parity per capita national income level can be calculated at \$59,154 (Figure 6.2). To catch up, the border counties’ per capita income would have to grow by 4.15 percent per year for 47 years, 2.28 percent more annually than the nation. Furthermore, using the national average of 85.4 percent as the target share that border counties should replicate as “positive income,” the border would have to grow by 222.1 percent in 47 years to reach parity, an average of 4.73 percent per year, and almost 2.86 percent more annually than the nation. Such high growth rates are likely to be unachievable. The magnitude of this gap, shown in Figure 6.3, is staggering and illustrates the challenge policy makers, academia, and industry face to develop the U.S.-Mexico border region.

The southwestern border counties are undertaking a variety of strategies to create higher paying jobs and attract employers seeking high skill workers. Promoting the value-added in each step of the production process as a regional activity (i.e., suppliers being near manufacturers versus being outside the region) and development of high technology activities that export product out of the region are means of diversifying the economic base that border counties are pursuing. By diversifying the economy, border counties are less vulnerable to economic shocks, such as recession and technological or wage displacement of workers (i.e., loss of jobs off-shore). By creating a stronger geographic grouping of suppliers and producers, as well as customers, competitive clusters emerge. The stronger or more concentrated the clusters the more likely productivity and efficiency will increase.<sup>3</sup> The result is creation of better-paying jobs that subsequently attract money into the

region, and further drive the expansion of local sectors that provide support services via forward and backward linkages, also known as the supply chain from raw materials to customer delivery and their supply chains.<sup>4</sup> Significant gains can be achieved through developing the industry-occupation employment mix associated with cluster strategies,<sup>5</sup> helping to identify the areas where an increase in the share of

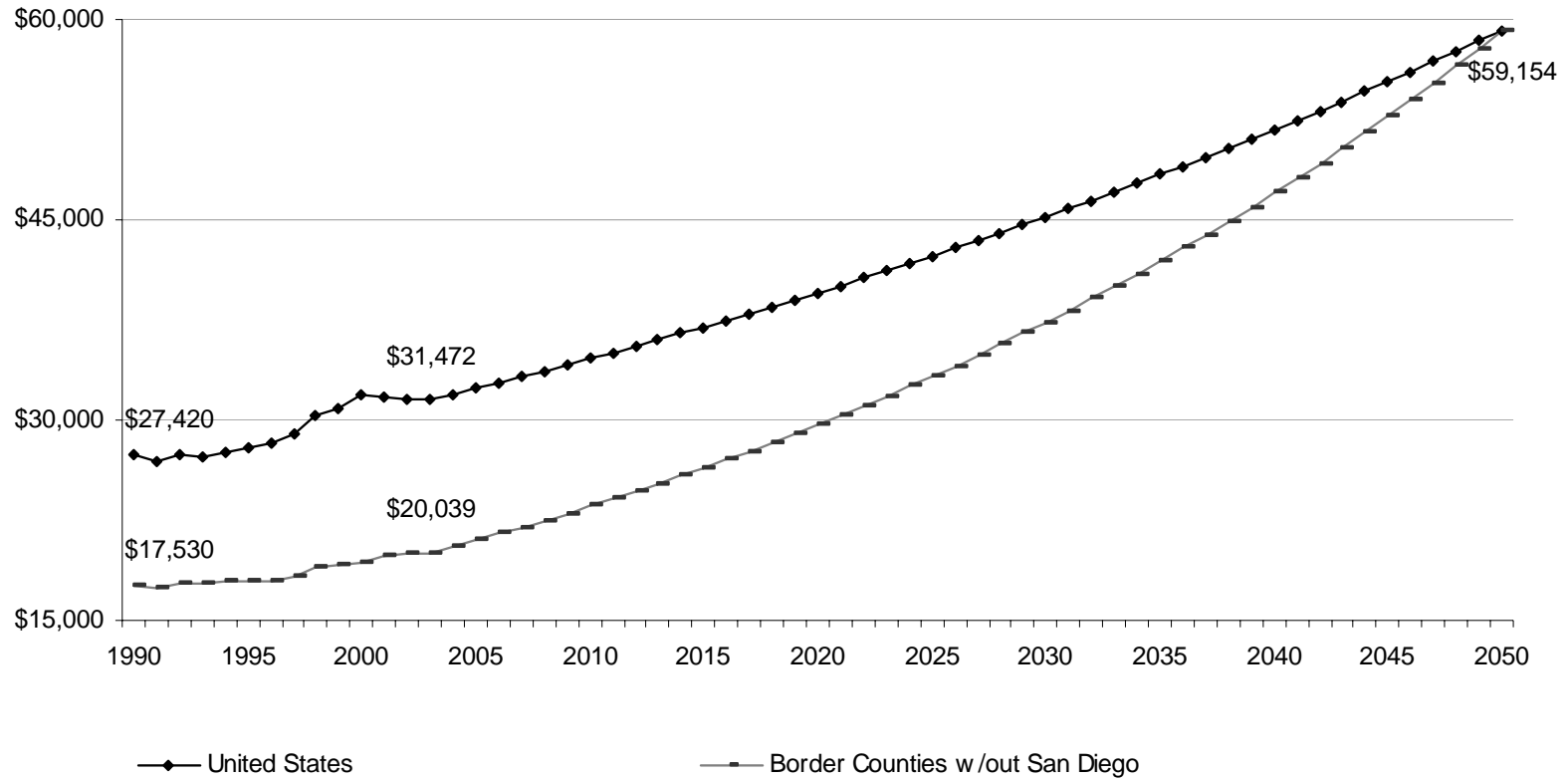
manufacturing and higher paying professional and technical jobs that the border desperately needs are likely to occur. Developing a better understanding of these industry clusters is important for policy makers and industry in order to match work force and employment strategies to business and industry growth.<sup>6</sup>

**Figure 6.1**  
**1969-2003 Declining Earnings and Dividends, Interest, and Rent Share of Personal Income**



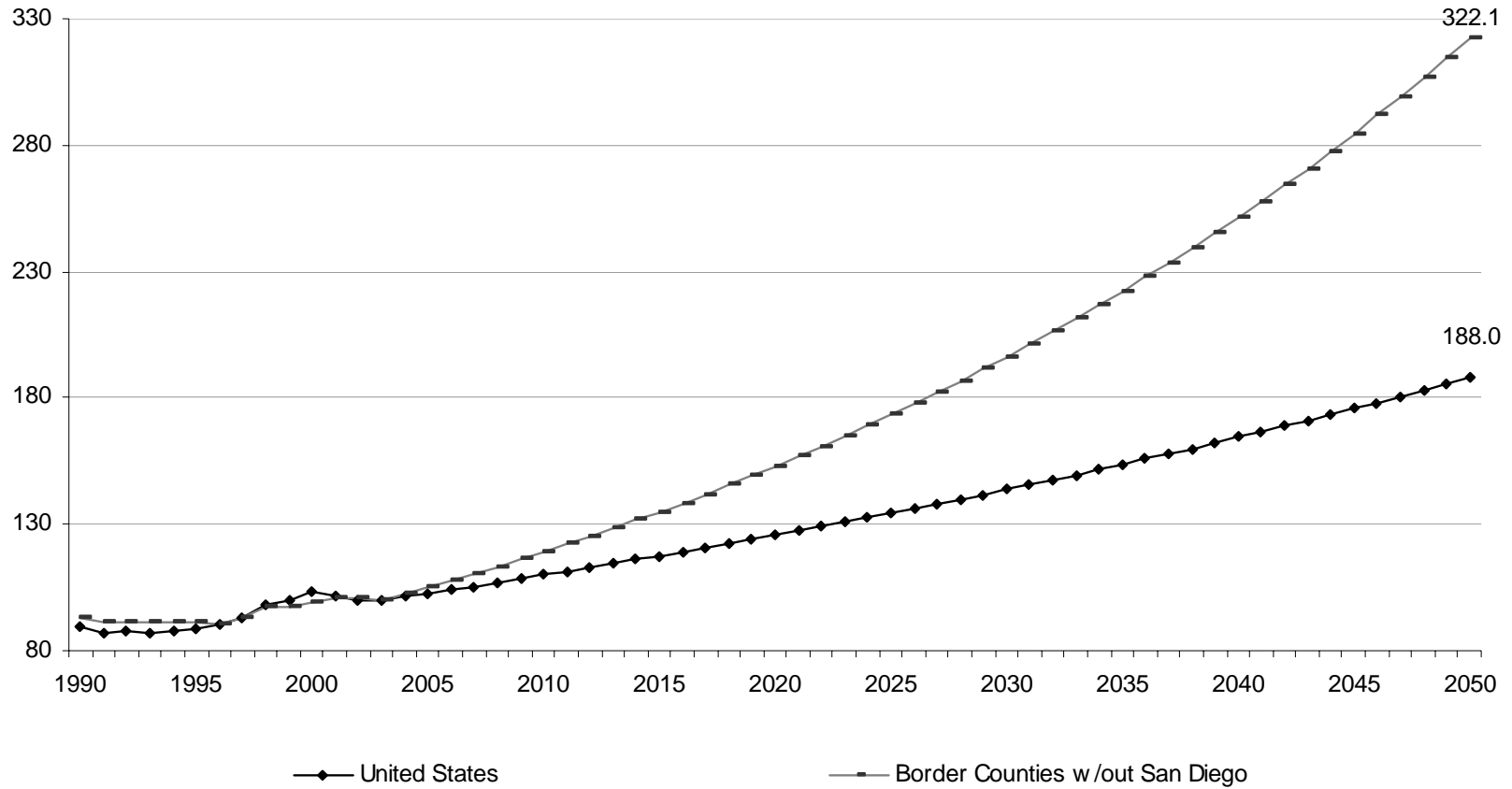
Source: Regional Economic Information System (REIS), Bureau of Economic Analysis (BEA).

**Figure 6.2**  
**1990-2050 Reaching Parity with the National Per Capita Income Average by 2050 (in 2003 Real Dollars)**



Source: Institute for Policy and Economic Development (IPED).

**Figure 6.3**  
**1990-2050 Growth in Net Earnings and Dividends, Interest, and Rent for Parity with National Per Capita Income by 2050 (Index: 2003=100)**



Source: Institute for Policy and Economic Development (IPED).

**Table 6.2**  
**2003 Employment by Type and Earnings Along the U.S.-Mexico Border**

	Full- & Part-Time Employment				Earnings by Place of Work (\$ millions)					Average (\$)			
	Total Employment	Wage & Salary Jobs	Non-Farm Proprietors	Farm Proprietors	Total Work Earnings	Wage & Salary Disbursements	Supplements to Wages & Salaries	Non-Farm Proprietors	Farm Proprietors	Earnings per Job	Wage & Salary Disbursements	Non-Farm Proprietor's Income	Farm Proprietor's Income
<b>United States</b>	167,174,400	137,321,000	27,655,400	2,198,000	7,113,751.0	5,098,695.0	1,177,630.0	812,267.0	25,159.0	42,553	37,130	29,371	11,446
<b>Arizona</b>	2,926,467	2,412,217	503,733	10,517	114,693.5	83,720.9	17,834.4	12,683.5	454.7	39,192	34,707	25,179	43,239
Cochise	54,191	42,205	10,617	1,369	1,874.6	1,299.9	415.0	144.1	15.7	34,593	30,800	13,572	11,432
Pima	451,239	363,201	87,362	676	15,916.0	11,807.5	2,709.1	1,378.8	20.7	35,272	32,510	15,783	30,567
Santa Cruz	16,392	13,153	2,989	250	559.8	390.9	101.6	67.0	0.2	34,148	29,722	22,401	944
Yuma	77,858	68,857	8,195	806	2,412.9	1,752.5	409.9	199.0	51.5	30,991	25,451	24,282	63,909
<b>AZ Border Counties</b>	599,680	487,416	109,163	3,101	20,763.4	15,250.8	3,635.6	1,788.9	88.1	34,624	31,289	16,387	28,398
<b>AZ Border Counties % of AZ</b>	20.5	20.2	21.7	29.5	18.1	18.2	20.4	14.1	19.4				
<b>California</b>	19,746,205	15,754,323	3,908,787	83,095	938,456.2	658,457.7	146,142.7	130,066.0	3,789.8	47,526	41,795	33,275	45,608
Imperial	66,672	57,532	8,568	572	2,265.4	1,579.5	364.9	183.2	137.8	33,979	27,455	21,383	240,958
San Diego	1,816,527	1,471,765	338,432	6,330	83,136.6	57,839.4	14,340.8	10,844.6	111.9	45,767	39,299	32,044	17,670
<b>CA Border Counties</b>	1,883,199	1,529,297	347,000	6,902	85,402.0	59,418.9	14,705.7	11,027.8	249.7	45,349	38,854	31,780	36,175
<b>CA Border Counties % of CA</b>	9.5	9.7	8.9	8.3	9.1	9.0	10.1	8.5	6.6				
<b>New Mexico</b>	1,006,363	821,242	167,674	17,447	35,116.5	25,012.7	5,968.0	3,712.6	423.1	34,894	30,457	22,142	24,251
Dona Ana	81,195	67,764	11,856	1,575	2,503.9	1,734.5	432.6	241.3	95.5	30,839	25,597	20,349	60,638
Hidalgo	2,352	1,744	425	183	52.2	38.9	9.6	3.2	0.5	22,210	22,314	7,482	2,984
Luna	10,003	8,214	1,546	243	258.7	177.9	42.6	25.3	12.8	25,860	21,664	16,365	52,675
<b>NM Border Counties</b>	93,550	77,722	13,827	2,001	2,814.8	1,951.4	484.9	269.7	108.9	30,089	25,107	19,508	54,398
<b>NM Border Counties % of NM</b>	9.3	9.5	8.2	11.5	8.0	7.8	8.1	7.3	25.7				
<b>Texas</b>	12,383,600	9,913,015	2,230,734	239,851	531,093.7	360,199.9	82,359.3	85,750.3	2,784.2	42,887	36,336	38,440	11,608
Brewster	6,073	4,765	1,153	155	152.4	119.0	29.4	11.8	-7.7	25,101	24,969	10,273	-49,948
Cameron	150,891	125,586	24,199	1,106	4,007.8	2,911.2	656.1	387.8	52.8	26,561	23,181	16,024	47,737
Culberson	1,480	1,050	310	120	29.2	22.5	5.9	2.0	-1.1	19,753	21,394	6,458	-9,008
El Paso	333,658	281,511	51,666	481	11,797.0	7,665.1	1,958.3	2,163.1	10.5	35,357	27,228	41,866	21,892
Hidalgo	241,926	196,908	43,375	1,643	6,734.3	4,628.1	985.2	1,067.9	53.0	27,836	23,504	24,620	32,273
Hudspeth	1,399	946	274	179	37.1	25.0	7.0	2.5	2.7	26,543	26,414	9,066	14,888
Jeff Davis	1,371	916	354	101	23.4	23.7	5.4	2.2	-7.9	17,069	25,881	6,254	-78,020
Kinney	1,247	810	271	166	25.2	20.0	6.3	1.2	-2.4	20,198	24,688	4,554	-14,392
Maverick	16,766	13,453	3,096	217	409.3	294.5	72.6	41.8	0.5	24,415	21,892	13,500	2,194
Presidio	2,716	1,913	624	179	63.4	47.2	13.6	2.9	-0.4	23,337	24,688	4,644	-2,179
Starr	18,822	12,959	5,100	763	338.3	243.7	58.9	32.7	3.1	17,976	18,802	6,413	4,042
Terrell	763	475	181	107	13.6	12.2	3.6	0.9	-3.2	17,793	25,787	4,829	-29,505
Val Verde	21,457	17,484	3,648	325	669.8	476.7	157.6	42.8	-7.3	31,215	27,265	11,728	-22,455
Webb	95,074	82,213	12,254	607	2,892.4	2,051.3	457.0	392.3	-8.1	30,423	24,951	32,014	-13,362
Zapata	4,567	3,383	757	427	116.1	88.0	19.6	10.5	-2.0	25,422	26,010	13,923	-4,703
<b>TX Border Counties</b>	898,210	744,372	147,262	6,576	27,309.5	18,628.2	4,436.4	4,162.4	82.5	30,404	25,025	28,265	-12,549
<b>TX Border Counties % of TX</b>	7.3	7.5	6.6	2.7	5.1	5.2	5.4	4.9	3.0				
<b>Border States</b>	36,062,635	28,900,797	6,810,928	350,910	1,619,359.9	1,127,391.2	252,304.4	232,212.4	7,451.9	44,904	39,009	34,094	21,236
<b>Non-Border States</b>	131,111,765	108,420,203	20,844,472	1,847,090	5,494,391.1	3,971,303.8	925,325.6	580,054.6	17,707.1	41,906	36,629	27,828	9,586
<b>Border Counties</b>	3,474,639	2,838,807	617,252	18,580	136,289.7	95,249.3	23,262.5	17,248.7	529.1	39,224	33,553	27,944	28,478
<b>Non-Border Counties</b>	163,699,761	134,482,193	27,038,148	2,179,420	6,977,461.3	5,003,445.7	1,154,367.5	795,018.3	24,629.9	42,624	37,205	29,404	11,301

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).



**Table 6.3**  
**1993 – 2003 Employment Growth (in Percents)**

	1993	2003	93-03 % Change
United States	141,779,400	167,174,400	17.9%
1 Nevada	828,586	1,347,456	62.6%
2 Arizona	2,026,075	2,926,467	44.4%
3 Utah	1,032,287	1,405,167	36.1%
4 Florida	7,061,114	9,346,807	32.4%
<b>Border Counties w/out San Diego</b>	<b>1,259,490</b>	<b>1,658,112</b>	<b>31.6%</b>
5 Idaho	615,875	809,640	31.5%
6 Colorado	2,249,227	2,928,209	30.2%
<b>7 Border Counties</b>	<b>2,675,123</b>	<b>3,474,639</b>	<b>29.9%</b>
8 Georgia	3,891,098	4,896,337	25.8%
9 Texas	9,843,872	12,383,600	25.8%
10 New Hampshire	646,500	799,815	23.7%
11 Montana	473,255	584,005	23.4%
12 Oregon	1,709,016	2,094,696	22.6%
13 New Mexico	831,296	1,006,363	21.1%
14 Washington	2,971,891	3,562,494	19.9%
15 California	16,483,694	19,746,205	19.8%
16 Wyoming	286,387	342,363	19.5%
17 Delaware	423,416	505,429	19.4%
18 Virginia	3,757,707	4,480,896	19.2%
19 Maryland	2,678,732	3,187,107	19.0%
20 Minnesota	2,835,254	3,367,625	18.8%
21 North Carolina	4,112,595	4,880,264	18.7%
22 South Dakota	445,285	523,687	17.6%
23 Tennessee	2,960,390	3,475,998	17.4%
24 Vermont	351,767	411,945	17.1%
25 South Carolina	1,944,096	2,273,945	17.0%
26 Alaska	360,585	418,501	16.1%
27 Louisiana	2,099,605	2,432,070	15.8%
28 Maine	696,972	806,429	15.7%
29 Nebraska	1,027,120	1,184,678	15.3%
30 Wisconsin	2,968,843	3,423,882	15.3%
31 Kansas	1,533,739	1,764,294	15.0%
32 Kentucky	2,005,576	2,306,036	15.0%
33 Oklahoma	1,726,069	1,983,869	14.9%
34 Arkansas	1,308,923	1,502,090	14.8%
35 North Dakota	399,599	456,695	14.3%
36 Mississippi	1,294,478	1,475,366	14.0%
37 New Jersey	4,228,287	4,817,363	13.9%
38 Missouri	3,061,330	3,479,817	13.7%
39 Massachusetts	3,576,453	4,028,088	12.6%
40 Michigan	4,842,702	5,443,898	12.4%
41 Iowa	1,701,765	1,912,399	12.4%
42 Indiana	3,215,960	3,594,332	11.8%
43 Illinois	6,486,512	7,248,916	11.8%
44 Ohio	5,997,913	6,674,406	11.3%
45 Rhode Island	538,038	596,990	11.0%
46 Pennsylvania	6,302,009	6,969,379	10.6%
47 Alabama	2,171,836	2,390,193	10.1%
48 West Virginia	806,219	883,895	9.6%
49 New York	9,515,679	10,420,195	9.5%
50 Connecticut	1,937,852	2,107,611	8.8%
51 Hawaii	748,657	789,729	5.5%

Source: www.bea.gov, Bureau of Economic Analysis (BEA).

**Table 6.4**  
**2003 Full-Time and Part-Time Employment**

Top 5								
San Diego	Pima	El Paso	Hidalgo (TX)	Cameron				
1,816,527	451,239	333,658	241,926	150,891				
Upper Middle 6 – 10								
Webb	Dona Ana	Yuma	Imperial	Cochise				
95,074	81,195	77,858	66,672	54,191				
Lower Middle 11 – 15								
Val Verde	Starr	Maverick	Santa Cruz	Luna				
21,457	18,822	16,766	16,392	10,003				
Bottom 9								
Brewster	Zapata	Presidio	Hidalgo (NM)	Culberson	Hudspeth	Jeff Davis	Kinney	Terrell
6,073	4,567	2,716	2,352	1,480	1,399	1,371	1,247	763

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Employment**

There are three general employment sectors in an economy – farm, private, and government.<sup>7</sup> Economic growth and development is closely tied to private sector jobs, although government allocation of dollars and personnel can also play a critical role, especially where large government programs (i.e., homeland security) or key establishments (i.e., military bases or test facilities) are present. Military realignment of soldiers and capital, for example, can influence high-tech suppliers to relocate into the receiving economy and place demands on a variety of private sector service providers.

In 2003, there were 167.2 million full-time and part-time jobs in the United States (Table 6.2).<sup>8</sup> More than one in five of these jobs were located in southwest border states, primarily in California and Texas. From 1993 to 2003, the nation added

25.4 million new jobs, with 27.1 percent (6.9 million) of those jobs created in the border states (to draw comparisons see Appendix 6.1 for 1993 Employment by Type and Earnings).

Border counties themselves employed almost 3.5 million full-time and part-time workers in 2003. This marked an increase of almost 800,000 workers, or 29.9 percent, since 1993, a rate that is 7<sup>th</sup> fastest in the nation if considered a 51<sup>st</sup> state, and 5<sup>th</sup> with the exclusion of San Diego (Table 6.3). Thus, the rate of percentage growth is greater outside of San Diego. By comparison, employment in non-border counties grew by only 17.7 percent. The largest border populations, not surprisingly, are also the top employment markets (Table 6.4). As a result, in 2003, in these larger border counties:

- Arizona’s border counties accounted for 20.5 percent of that state’s total employment.

- California, New Mexico and Texas border counties constituted 9.5, 9.3 and 7.3 percent of their respective states' employment.
- San Diego accounted for 52.3 percent of the border counties' employment (more than one in two jobs).
- Pima, El Paso, Hidalgo (TX), and Cameron represented another 33.9 percent of the border counties' jobs.

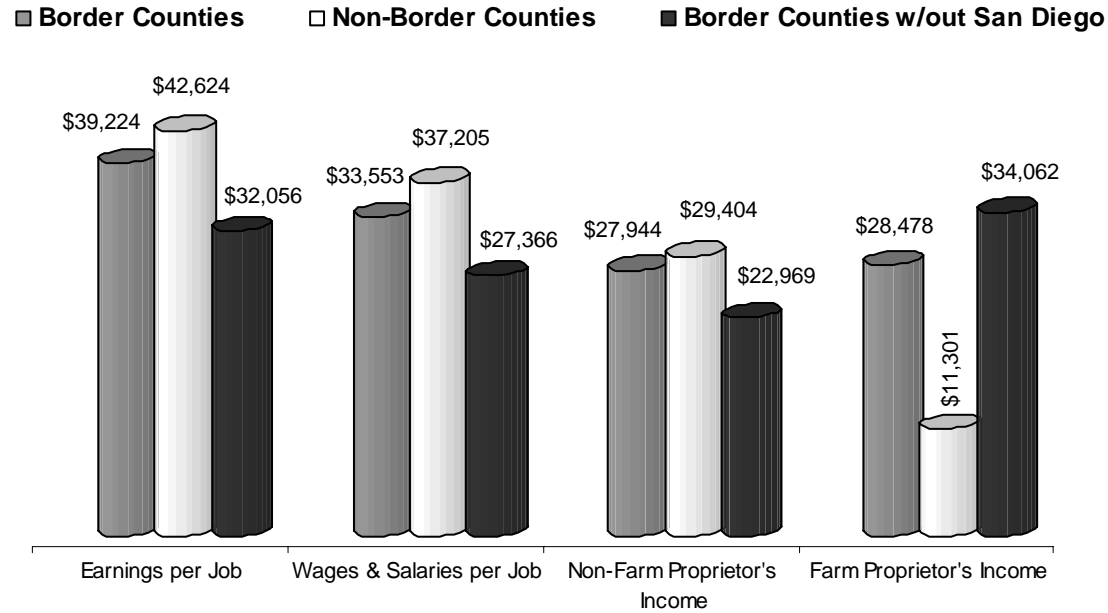
### Work Earnings

Border residents earn less on average per job than non-border residents, as shown in Figure 6.4. While the difference between collective border counties' earnings and their non-border counterparts in 2003 was only \$3,400, the difference when San Diego is excluded jumps to \$10,568 or only 75 percent of the national scale. Similar to per capita income, the lower levels of education and limited labor market experience become more apparent by analyzing average earnings in individual counties (Tables 6.5 and 6.6).

As components of total work earnings on average, wages and salaries and non-farm proprietors' income are lower along the border, while farm proprietors' earnings are greater (Figure 6.4). Ten border counties account for the high farm earnings – Imperial, Yuma, Doña Ana, Luna, Cameron, Hidalgo (TX), Pima, El Paso, San Diego, and Hudspeth. In addition:

- While El Paso's per capita personal income was only 66.3 percent of the national average in 2003, it was second highest along the border at 83.1 percent of the national level in average earnings per job. The difference lay primarily in the fact that El Paso had an average non-farm proprietors' income of \$41,866, the highest of all border counties, and was 142.5 percent of the average U.S. non-farm proprietors' income level.
- In 1993 (Table 6.5), Imperial had the greatest average earnings in the southwestern border, greater than San Diego. This was due to an average farm proprietors' income of an astounding \$462,941 among its 715 farm proprietors. By 2003, Imperial fell to 6<sup>th</sup> place in average total earnings, in part due to a decrease in average farm proprietors' income to \$240,958, though this is still the highest of the entire border.
- The majority of the border counties do substantially better in average wage and salary disbursements when compared to per capita income with the United States as the benchmark. This indicates that on a per job basis, border counties fare slightly better, although still much lower than the nation, than the per capita income measure alone suggests. One reason is, once again, the younger border populations, which effectively do not generate income, but are still included in the per capita calculation.

**Figure 6.4**  
**2003 Average Earnings and Average Components Breakdowns**



Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Employment by Type and Industry**

Employment can be disaggregated into types of jobs and jobs by industry. The difference in types of jobs between border and non-border counties is that, as a share of total employment, there are more non-farm proprietors, defined as non-farm sole proprietors and partnerships, along the border while non-border counties report greater shares of wage and salary employment, as well as farm proprietor's income (Figure 6.5). Jobs by industry in Figure 6.6 show that the border has lower private employment and a larger share of government employment. The importance of government

employment along the border results from a larger percentage of local and county governments, federal civilian, and federal military jobs. San Diego alone accounted for 5.6 percent of the entire U.S. military in 2003, and El Paso also has a substantial and growing military presence in development as a result of Base Realignment and Closure decisions. Greater federal civilian jobs also result from the role of the federal government at two levels: border crossings enforcements pertaining to people, and the trade of goods between the United States and Mexico at international crossings. In addition, the border's relatively young population increases local government demand for educators at all levels.

**Table 6.5**  
**2003 and 1993 Average Earnings Per Job and Percent of U.S. Average Earnings**  
**2003**

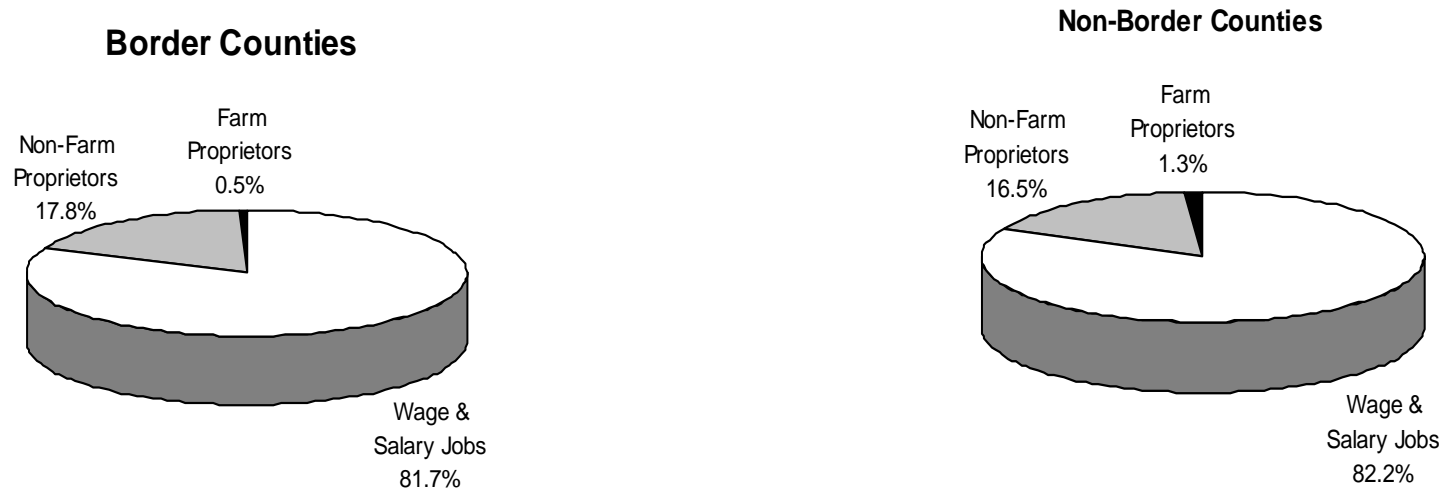
San Diego	El Paso	Top 5 Pima	Cochise	Santa Cruz					
\$45,767	\$35,357	\$35,272	\$34,593	\$34,148					
107.6%	83.1%	82.9%	81.3%	80.2%					
Upper Middle 6 – 10									
Imperial	Val Verde	Yuma	Dona Ana	Webb					
\$33,979	\$31,215	\$30,991	\$30,839	\$30,423					
79.9%	73.4%	72.8%	72.5%	71.5%					
Lower Middle 11 – 15									
Hidalgo (TX)	Cameron	Hudspeth	Luna	Zapata					
\$27,836	\$26,561	\$26,543	\$25,860	\$25,422					
65.4%	62.4%	62.4%	60.8%	59.7%					
Bottom 9									
Brewster	Maverick	Presidio	Hidalgo (NM)	Kinney	Culberson	Starr	Terrell	Jeff Davis	
\$25,101	\$24,415	\$23,337	\$22,210	\$20,198	\$19,753	\$17,976	\$17,793	\$17,069	
59.0%	57.4%	54.8%	52.2%	47.5%	46.4%	42.2%	41.8%	40.1%	

**1993**

Imperial	San Diego	Top 5 Cochise	Yuma	Hidalgo (NM)					
\$30,385	\$30,270	\$26,806	\$25,854	\$25,082					
101.6%	101.2%	89.7%	86.5%	83.9%					
Upper Middle 6 – 10									
Pima	El Paso	Dona Ana	Culberson	Val Verde					
\$24,700	\$24,324	\$23,600	\$22,966	\$22,704					
82.6%	81.4%	78.9%	76.8%	75.9%					
Lower Middle 11 – 15									
Santa Cruz	Webb	Hidalgo (TX)	Cameron	Terrell					
\$21,900	\$21,684	\$20,873	\$20,610	\$20,296					
73.2%	72.5%	69.8%	68.9%	67.9%					
Bottom 9									
Luna	Brewster	Maverick	Presidio	Hudspeth	Starr	Zapata	Jeff Davis	Kinney	
\$19,608	\$18,789	\$17,986	\$17,536	\$16,097	\$15,264	\$15,166	\$14,800	\$14,609	
65.6%	62.8%	60.2%	58.7%	53.8%	51.1%	50.7%	49.5%	48.9%	

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Figure 6.5**  
**2003 Employment by Type**



Source: [www.bea.gov](http://www.bea.gov), Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Figure 6.6**  
**2003 Employment by Industry**



Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

Figure 6.7 provides a breakdown of non-farm (private and government) employment (see Appendix 6.2 for detailed industry employment type). The border is assessed both with and without San Diego, since its large jobs base skews the data in key sectors. Industry estimates are provided using the North American Industry Classification System (NAICS) and show that on average in 2003:

- The retail trade sector is not only the border region’s largest employer, excluding government, but it creates a 19<sup>th</sup> place ranking if a 51<sup>st</sup> state.
- Without San Diego, retail trade along the border would place the region 31<sup>st</sup> driven primarily by the Lower Rio

Grande region and El Paso where it is a much more important component of total employment than in non-border areas.

- Purchases in the United States by Mexican nationals play a critical role in the retail trade sector and provide important support for this sector.
- The border’s manufacturing base with San Diego, 25<sup>th</sup> as a 51<sup>st</sup> state, or without San Diego, 36<sup>th</sup> as a 51<sup>st</sup> state, is low. The lack of a manufacturing base in several border counties is troubling since low manufacturing activity indicates that most of the border fails to satisfy its own consumption needs and looks to

manufacturers outside the region. As a result, the region is importing goods and, in turn, is exporting income through its purchases to producing regions.

- An exception is El Paso, with the loss of more than 17,000 garment industry jobs since 1993, which has managed to retain a manufacturing base that performs production sharing with the maquiladora presence in Cd. Juárez.
- Without San Diego, the rest of the border surpasses the non-border's share of employment in the health services sector and would rank 29<sup>th</sup> as a 51<sup>st</sup> state. This partially results from a high percentage of retirees in Pima and Doña Ana, and from high demand for a variety of federal and state assistance programs in many southwest border counties (See also Table 6.7).
- While the health needs of retirees are self-evident, the high supply in lower Texas results from the area serving as a regional center for medical needs for adjacent Texas non-border rural counties and Mexican border areas. Furthermore, because many border counties are among the poorest in the nation, there are a proportionally large number of persons eligible for U.S. social assistance programs and, thus, somewhat larger numbers employed in providing them.
- Most border counties have a lower percentage of their private jobs in the higher paying professional and technical sector placing the region 35<sup>th</sup> without San Diego if considered a 51<sup>st</sup> state, and 15<sup>th</sup> with San

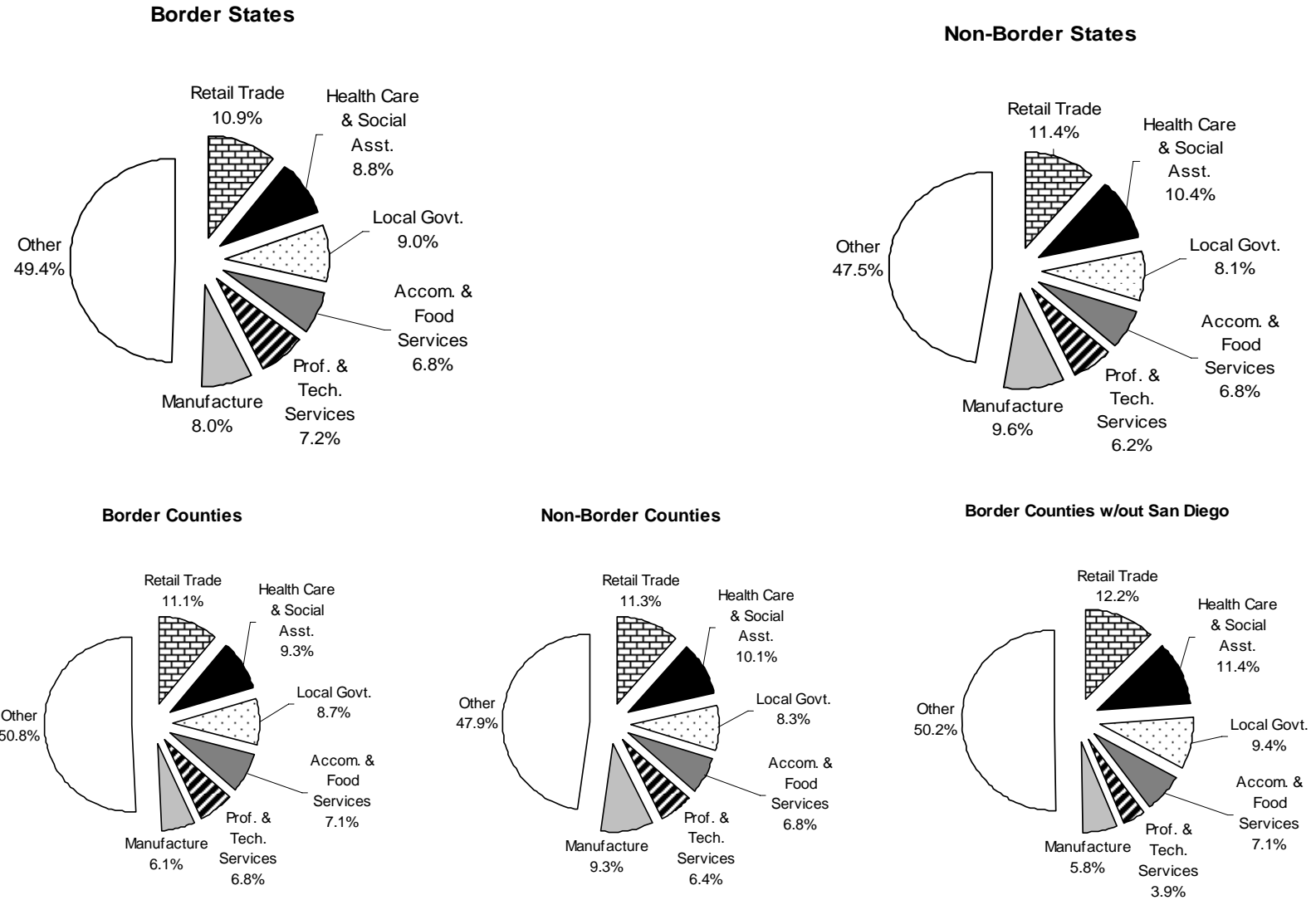
Diego, evidence of the concentration and clustering that has occurred (see also Table 6.19).

Tables 6.6 through 6.9 present four key industrial sectors and are ranked according to their percent shares of total private employment.<sup>9</sup> Manufacturing is selected because it is the most productive sector with forward and backward linkages throughout the economy; that is, this sector makes substantial purchases from other sectors and sells to other sectors in the economy. Health care and social services, whose services are delivered by trained professionals defined by their training or educational background, is selected due to its importance to the well-being of an area's population. Transportation and warehousing is selected because it acts as a measure to the areas with large logistical services resulting from trade between the United States and Mexico. Professional, scientific, and technical is also selected since it includes high-paying jobs whose activities require a high degree of expertise and training, including engineering, computer systems, and research services.

Tables 6.10 and 6.11 rank border counties by the number of farm and military jobs and also provide their respective percentage of total employment. California and western Arizona, with their fertile agricultural lands, have the largest number of farm workers, both proprietors and wage and salary. They account for 59 percent of all farm jobs. Hudspeth, Terrell, Kinney, Hidalgo (NM), Jeff Davis, Culberson, Presidio, Zapata, and Imperial all had a substantial farm base in 2003 and are, compared to other areas of the nation, not impacted by urban sprawl at the same rate.



**Figure 6.7**  
**2003 Non-Farm Employment by Industry Breakdown**



Source: [www.bea.gov](http://www.bea.gov), Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Table 6.6**  
**2003 Manufacturing Employment and**  
**Percent of Private Employment**

Top 5				
Luna	El Paso	Pima	Cameron	San Diego
1,495	28,248	30,969	9,800	116,080
19.5%	10.8%	8.4%	8.0%	8.0%
Upper Middle 6 – 10				
Santa Cruz	Imperial	Dona Ana	Hidalgo (TX)	Yuma
976	2,703	3,387	10,305	2,740
7.7%	6.1%	5.8%	5.4%	4.8%
Lower Middle 11 – 15				
Val Verde	Maverick	Cochise	Brewster	Starr
668	385	1,108	101	208
4.5%	3.2%	3.2%	2.3%	1.7%
Bottom 4				
Hudspeth	Zapata	Presidio	Webb	
10	45	24	1,129	
1.6%	1.5%	1.5%	1.5%	

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Table 6.7**  
**2003 Health Care and Social Assistance Employment and**  
**Percent of Private Employment**

Top 5					
Cameron	Hidalgo	Val Verde	Dona Ana	Webb	
26,635	37,464	3,136	11,085	11,051	
17.9%	15.7%	14.9%	14.1%	11.7%	
Middle 5					
Pima	Hidalgo	El Paso	Yuma	Cochise	
50,638	227	31,152	6,236	4,352	
11.3%	11.2%	9.4%	8.4%	8.4%	
Bottom 6					
San Diego	Zapata	Imperial	Santa Cruz	Kinney	Culberson
133,816	305	3,297	728	23	14
7.4%	7.4%	5.4%	4.5%	2.3%	1.1%

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Table 6.8**  
**2003 Transportation and Warehousing Employment and Percent of Private Employment**

Top 5				
Webb	Maverick	Val Verde	Santa Cruz	El Paso
13,124	1,311	1,375	1,162	15,133
17.3%	11.1%	9.3%	9.2%	5.8%
Upper Middle 6 – 10				
Imperial	Cameron	Culberson	Starr	Hidalgo (TX)
2,460	5,471	39	503	7,635
5.5%	4.5%	4.2%	4.0%	4.0%
Lower Middle 11 – 15				
Dona Ana	Luna	Brewster	Pima	Yuma
1,923	241	113	8,503	1,321
3.3%	3.1%	2.6%	2.3%	2.3%
Bottom 4				
Cochise	Jeff Davis	San Diego	Zapata	
768	18	28,713	58	
2.2%	2.1%	2.0%	2.0%	

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Table 6.9**  
**2003 Professional, Scientific, and Technical Employment and Percent of Private Employment**

Top 5				
San Diego	Terrell	Cochise	Pima	Dona Ana
170,321	29	2,797	27,402	4,008
11.7%	8.7%	8.1%	7.5%	6.9%
Upper Middle 6 – 10				
Brewster	El Paso	Hidalgo (TX)	Webb	Imperial
238	10,620	6,849	2,666	1,501
5.4%	4.1%	3.6%	3.5%	3.4%
Lower Middle 11 – 15				
Cameron	Hidalgo (NM)	Yuma	Kinney	Maverick
4,100	48	1,652	19	314
3.4%	3.2%	2.9%	2.8%	2.6%
Bottom 4				
Luna	Starr	Zapata	Culberson	
202	288	53	16	
2.6%	2.3%	1.8%	1.7%	

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Table 6.10**  
**2003 Farm Employment and Percent of Total Employment**

Top 5								
San Diego	Imperial	Yuma	Hidalgo (TX)	Dona Ana				
16,524	5,815	3,856	3,227	2,759				
0.9%	8.7%	5.0%	1.3%	3.4%				
Upper Middle 6 - 10								
Cochise	Cameron	Starr	Pima	El Paso				
2,118	1,794	1,275	1,155	1,040				
3.9%	1.2%	6.8%	0.3%	0.3%				
Lower Middle 11 - 15								
Webb	Luna	Zapata	Val Verde	Maverick				
773	516	460	430	406				
0.8%	5.2%	10.1%	2.0%	2.4%				
Bottom 9								
Hudspeth	Hidalgo (NM)	Presidio	Santa Cruz	Kinney	Brewster	Jeff Davis	Culberson	Terrell
357	331	318	279	227	225	182	176	169
25.5%	14.1%	11.7%	1.7%	18.2%	3.7%	13.3%	11.9%	22.1%

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Table 6.11**  
**2003 Military Employment and Percent of Total Employment**

Top 5				
San Diego	El Paso	Pima	Cochise	Yuma
122,160	13,046	8,783	6,030	4,507
6.8%	3.9%	2.0%	11.6%	6.1%
Upper Middle 6 – 10				
Val Verde	Hidalgo (TX)	Cameron	Dona Ana	Imperial
1,585	1,572	997	629	572
7.5%	0.7%	0.7%	0.8%	0.9%
Lower Middle 11 – 15				
Webb	Starr	Maverick	Santa Cruz	Luna
529	142	123	91	80
0.6%	0.8%	0.8%	0.6%	0.8%
Bottom 4				
Zapata	Brewster	Presidio	Hidalgo (NM)	
32	24	19	16	
0.8%	0.4%	0.8%	0.8%	

Source: www.bea.gov, Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Occupations**

Standard Occupational Classifications (SOC) estimates<sup>10</sup> are only available for metropolitan statistical areas<sup>11</sup> (MSAs) and not for counties.<sup>12</sup> There are eight border MSAs; these

include: 1) Tucson; 2) Yuma; 3) San Diego; 4) Las Cruces; 5) Brownsville-Harlingen-San Benito; 6) El Paso; 7) Laredo; and, 8) McAllen-Edinburg-Mission. Table 6.12 provides the top 20 occupations based on number of individuals employed in border MSAs. The data indicate that the top eight are paid at

just above the minimum wage.<sup>13</sup> Not surprisingly, occupations with the highest levels of employment are similar to the national and state levels because retailers, cashiers, hand laborers, etc., are service-related occupations that can be found throughout the economy. While these top occupations along the border do not differ significantly from those for the entire United States, the discrepancy in work pay is evident in the lower and upper bounds of hourly median wages per occupation. For example, registered nurses were paid \$21.80 per hour in the Las Cruces MSA on the low end of the scale, and \$28.23 per hour in San Diego at the high end. By comparison, the U.S. median hourly wage for registered nurses was \$24.53, greater than the Las Cruces pay by \$2.73 per hour. In sum:

- The top border occupations resemble the top occupations for the nation because they are universally needed.
- San Diego is once again an exception to the border, with occupations that pay higher than the national median.
- In the remaining border MSAs, these same occupations pay significantly less than the national median wage.

Location quotients (LQ) for the top 50 paying occupations in the United States were measured to examine whether there is a substantial share of these top paying professions relative to southwest border region MSAs' employment base. The location quotient used in this analysis compares the share of occupations in a local border economy to the share of occupations in the United States. By doing so, the LQ identifies areas of specialization or deficiency generally

resulting from either geographic location, competitive advantage, or from the labor force.<sup>14</sup> If the LQ is less than 1, the occupation employs a smaller share of the local workforce than does the United States on average; if it is greater than 1, the occupation employs a greater share than nationally indicating higher demand, and, in general, higher wages may be anticipated. If the LQ equals 1, the occupation's share of the local workforce matches the national level, suggesting it sufficiently meets local demand for this profession.

Because some border MSAs do not have some occupations reported elsewhere in the nation, the top 50 list was truncated in Table 6.13.<sup>15</sup> If at least four of the border MSAs reported an occupation, then that occupation remained on the list. Engineer categories were kept because the number of engineers is an indicator of technology levels in regional industries and economies and a steady demand for engineers also has been evident in the region for some time. The numbers in front of the respective occupation in Table 6.13 reflect the ranking in median hourly wages paid at the national level before the list of 50 was truncated to 23. Analysis of these occupations shows that much of the border has a very low representation in high-skill, high-paying professions. Specifically:

- San Diego and Tucson both have a diversified number of high paying occupations.
- Las Cruces shows robust health related and engineering occupations. The high engineer concentration is due to the location of White Sands Missile Range (research military base), which has roughly 5,000 employees of which less than 10 percent are military and the remainder are professionals (e.g., "rocket scientists").

**Table 6.12**  
**2003 Top 20 Occupation Employment and Median Hourly Wages**

	Border MSAs					Median Hourly Wage				
	Employment	Lower Bound Median Hourly Wage	MSA of Lower Bound	Upper Bound Median Hourly Wage	MSA of Upper Bound	U.S.	Arizona	California	New Mexico	Texas
All Occupations	2,318,370	\$8.71	Brownsville	\$14.64	San Diego	\$13.65	\$12.92	\$15.14	\$12.11	\$12.53
<b>1</b> Retail salespersons	82,140	\$6.86	Brownsville	\$9.66	San Diego	\$8.82	\$9.09	\$9.48	\$8.49	\$8.47
<b>2</b> Cashiers	63,780	\$6.59	Las Cruces	\$8.42	San Diego	\$7.68	\$8.14	\$8.50	\$7.22	\$7.31
<b>3</b> Office clerks, general	58,670	\$7.77	Brownsville	\$11.25	San Diego	\$10.79	\$10.35	\$11.66	\$9.46	\$9.92
<b>4</b> Combined food preparation & serving workers	44,340	\$6.13	Las Cruces	\$7.73	San Diego	\$7.05	\$6.59	\$7.82	\$6.39	\$6.47
<b>5</b> Waiters & waitresses	42,800	\$6.16	Las Cruces	\$7.84	San Diego	\$6.79	\$6.34	\$7.68	\$6.31	\$6.44
<b>6</b> Laborers & freight, stock, & material movers, hand	37,680	\$6.97	Laredo	\$8.69	San Diego	\$9.61	\$9.03	\$9.19	\$8.23	\$8.58
<b>7</b> Customer service representatives	37,120	\$8.20	McAllen	\$13.40	San Diego	\$12.79	\$11.59	\$14.32	\$11.26	\$11.63
<b>8</b> Janitors & cleaners, except maids & housekeeping	33,060	\$6.77	El Paso	\$8.98	San Diego	\$8.98	\$8.34	\$9.61	\$8.13	\$7.45
<b>9</b> Registered nurses	32,770	\$21.80	Las Cruces	\$28.23	San Diego	\$24.53	\$24.36	\$30.84	\$23.86	\$23.86
<b>10</b> General & operations managers	32,490	\$25.39	Las Cruces	\$41.63	San Diego	\$35.86	\$35.44	\$43.53	\$28.72	\$33.44
<b>11</b> Bookkeeping, accounting, & auditing clerks	29,490	\$9.76	McAllen	\$15.36	San Diego	\$13.45	\$12.90	\$15.56	\$11.77	\$12.97
<b>12</b> Personal & home care aides	28,890	\$6.19	Brownsville	\$8.58	Tucson	\$8.05	\$8.80	\$8.66	\$8.92	\$6.35
<b>13</b> Secretaries, except legal, medical, & executive	28,030	\$8.60	Laredo	\$14.38	San Diego	\$12.29	\$11.52	\$14.61	\$11.05	\$11.02
<b>14</b> Executive secretaries & administrative assistants	27,040	\$12.45	Brownsville	\$18.26	San Diego	\$16.51	\$15.19	\$19.07	\$13.98	\$15.15
<b>15</b> Elementary school teachers, except special education	25,860	\$37,940 *	Tucson	\$49,250 *	San Diego	\$42,590	\$33,720	\$49,800	\$35,850	\$40,840
<b>16</b> First-line supervisors/mgrs. of office & admin. support	25,600	\$12.82	Las Cruces	\$20.17	San Diego	\$19.19	\$18.85	\$21.19	\$15.61	\$18.06
<b>17</b> Stock clerks & order fillers	24,890	\$7.37	Brownsville	\$10.36	San Diego	\$9.55	\$9.58	\$10.34	\$9.14	\$9.61
<b>18</b> Teacher assistants	24,550	\$13,520 *	Las Cruces	\$20,920 *	San Diego	\$19,080	\$17,710	\$24,450	\$13,950	\$15,780
<b>19</b> Receptionists & information clerks	22,450	\$7.97	Brownsville	\$10.68	San Diego	\$10.31	\$10.10	\$11.00	\$8.68	\$9.86
<b>20</b> Security guards	21,850	\$6.76	Laredo	\$9.47	San Diego	\$9.60	\$9.53	\$9.60	\$9.20	\$9.07

Source: Occupational Employment Statistics (OES), U.S. Bureau of Labor Statistics (BLS).

\* Denotes that the median annual salary is provided because different contracts in the field of education do not allow for consistent calculations of hourly wages.

- For medical professionals, Las Cruces has become a preferred retirement destination. While the demand for professionals in many medical specialties is quite high in Las Cruces, the relative pay, however, remains below the national averages.
- El Paso, the 3<sup>rd</sup> largest border economy, records low

ratios of resident engineers.

- The overall low LQs of high paying professions in Yuma, Brownsville, El Paso, Laredo, and McAllen indicate that regional needs are not being met, in part because they lack the critical mass needed to support professional practices.

**Table 6.13**  
**2003 Occupation Employment Location Quotients (Based on U. S. Values)**

	Tucson	Yuma	San Diego	Las Cruces	Brownsville	El Paso	Laredo	McAllen
1 Family & general practitioners	-	-	0.41	1.95	0.50	0.18	-	-
3 Chief executives	1.10	0.77	0.96	0.47	0.63	0.77	0.90	0.70
5 Dentists	0.86	1.44	-	1.10	0.68	1.02	-	-
7 Engineering managers	2.04	0.76	1.69	2.30	-	0.54	-	0.26
9 Lawyers	1.01	0.60	0.82	0.55	0.44	0.66	0.36	0.56
11 Computer & info. systems managers	1.24	-	1.14	0.84	0.22	0.47	0.32	0.33
15 Marketing managers	1.07	-	1.42	0.37	-	0.52	0.28	0.32
20 Pharmacists	0.98	0.54	0.78	1.48	1.07	0.67	0.61	0.77
21 Sales managers	1.06	0.61	1.09	0.84	0.61	0.62	0.65	0.48
23 Financial managers	1.12	0.56	1.06	0.72	0.48	0.76	0.43	0.41
24 Computer hardware engineers	-	-	2.06	1.85	-	0.29	-	-
27 Computer software engineers	-	-	1.32	-	-	0.31	-	-
30 General & operations managers	0.73	0.58	1.04	1.18	0.96	0.95	0.94	1.00
31 Electronics engineers, exc. computer	-	-	3.42	4.95	-	0.42	-	-
32 Computer software engineers, apps.	1.42	-	1.63	-	-	0.34	-	-
33 Industrial production managers	0.67	-	0.92	-	0.63	0.82	-	0.40
36 Electrical engineers	-	-	1.42	1.45	-	0.51	-	-
38 Human resources managers	1.16	0.60	1.00	0.55	0.49	0.73	0.53	0.58
41 Physician assistants	0.81	-	0.48	3.50	-	0.98	-	-
42 Purchasing managers	1.09	-	1.17	0.77	0.40	0.60	-	0.42
43 Public relations managers	0.85	-	0.99	-	-	0.74	-	0.52
46 Construction managers	0.55	0.61	1.03	0.78	0.46	0.99	-	0.51
49 Medical & health services managers	1.18	0.64	0.75	0.48	1.05	0.81	-	1.04

Source: Office of Employment Statistics (OES), U.S. Bureau of Labor Statistics (BLS).



## Retail Trade

Retail trade employment and sales are important economic components in the border region. While U.S. border disposable income is the primary determinant of border retail sales, employment in this sector is also highly dependent on purchases by Mexican nationals. One distinct characteristic of southwest border counties is that communities on the U.S. side fulfill demands of Mexican residents for a broad range of goods and services they cannot obtain in either the quantity or quality they desire, ranging from clothing to financial and health services to automobiles and home furnishings. Direct anomalies in border retail sales can be attributed to specific Mexican impacts. For example, in 1995, the year after the massive peso devaluation that crippled the Mexican economy, retail sales witnessed almost no growth borderwide, and fell in Texas border counties (Figure 6.8; see also Appendix 6.3 for detailed Taxable Retail Trade Sales). The drop in the value of the peso versus the dollar in 1995 had a greater effect by reducing border counties' retail sales than did the 2001 recession that affected both sides of the border. In general, currency stability plays an important role along the border, reducing Mexican consumer uncertainty at one level, but benefiting U.S. retail trade sale at another, and in both cases, with effects on border counties.

Because none of the traditional sources of data break down services and trade economic activity into activity generated by U.S. residents versus non-U.S. residents, the full impact on trade and services to the U.S.-Mexico border economy cannot be accurately quantified.<sup>16</sup> However, the impact of purchases from Mexican nationals on southwest border economies is substantial by all accounts and is more important to some regions than others. For example, the Texas border MSAs of

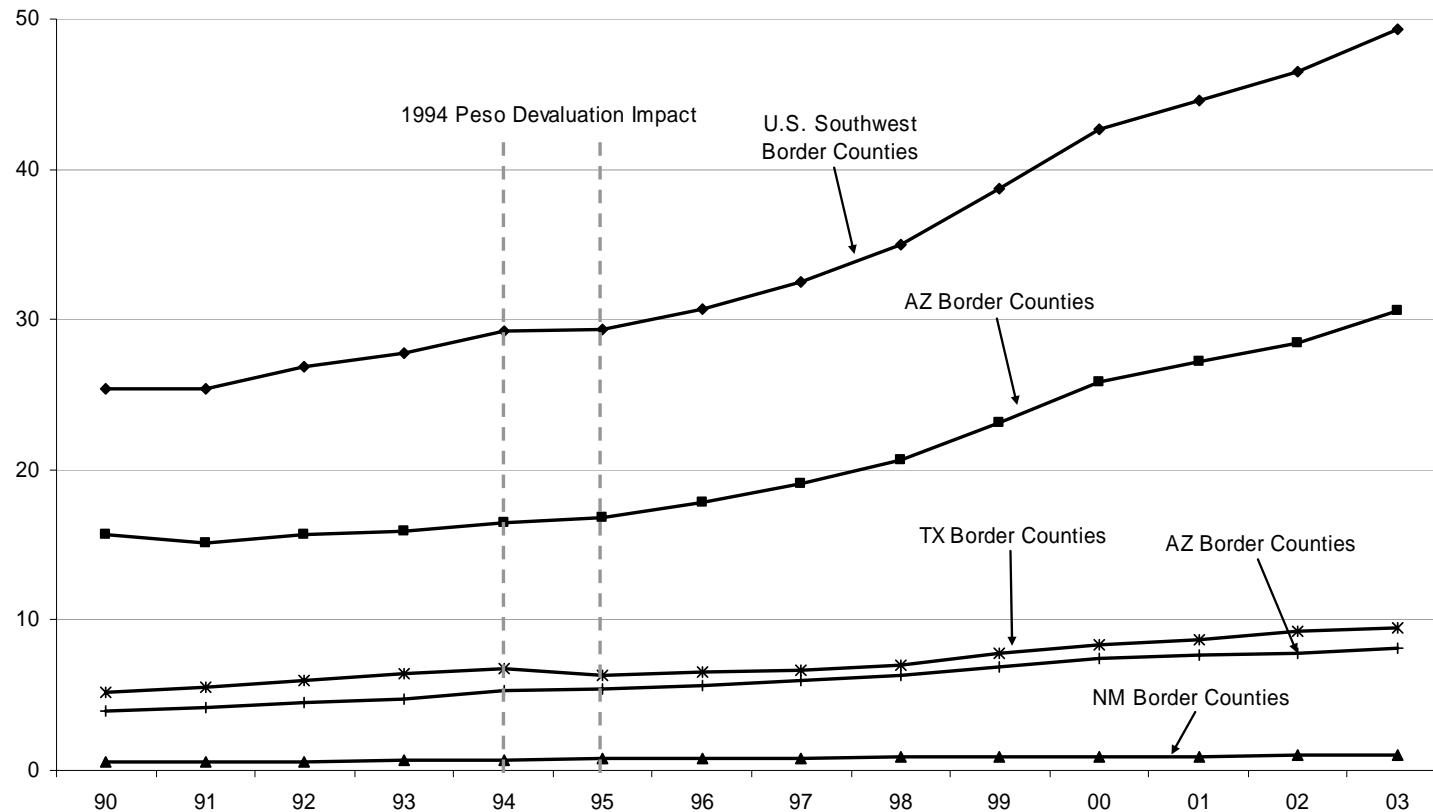
Brownsville, McAllen, and Laredo move closely with the business cycles in Mexico, while the larger, more diversified economy of El Paso has become more aligned with cycles in Texas and the United States. San Diego County, CA and Pima County, AZ, also are prone to align with national trends. Overall, these observations support the belief that retail trade in the Texas Lower Rio Grande region is more tied to movements in the Mexican peso.<sup>17</sup>

Since retail trade activity is directly linked to population growth on both sides of the border and to disposable income, county taxable retail sales resemble previously described population and personal income rankings of earlier chapters (Table 6.14). A caveat should be mentioned for San Diego and El Paso counties because military troops and their families have a substantial impact on retail sales and employment. These military expenditures are proportional, reducing (increasing) retail trade activity as base populations are removed from (brought into) the regional economy, a pattern that will be evident in base realignments in the next 2 to 5 years.<sup>18</sup>

## Cross-Border Maquiladora Employment

Maquiladoras<sup>19</sup> have been critical to the social and economic development of Mexican border cities.<sup>20</sup> Maquiladora activities are key employment drivers across various industries in border economies, particularly for those whose manufacturing base is not diversified away from maquiladora production for the North American market. For example, several U.S. border cities have developed a concentration of economic activity closely linked to maquiladora export production – in manufacturing, retail trade, transportation, and warehousing.<sup>21</sup>

**Figure 6.8**  
**1990-2003 Taxable Retail Trade Sales (in Billions of Dollars)**



Sources: AZ Department of Revenue, CA Board of Equalization, NM Taxation and Revenue, and TX Comptroller of Public Accounts.

Maquiladora employment has grown at a phenomenal rate. Consider, that between 1990 and 2000, maquiladoras added 844,600 new jobs in Mexico, an increase of 289.2 percent. Mexican border states accounted for more than three-fourths

of this increase, and border municipios for half of the rise. While the growth rate for maquiladora employment has risen faster in non-border areas, border states and municipios continue to drive the path of this industry in actual job gains.

**Table 6.14**  
**2003 Taxable Retail Trade Sales (in Millions of Dollars)**

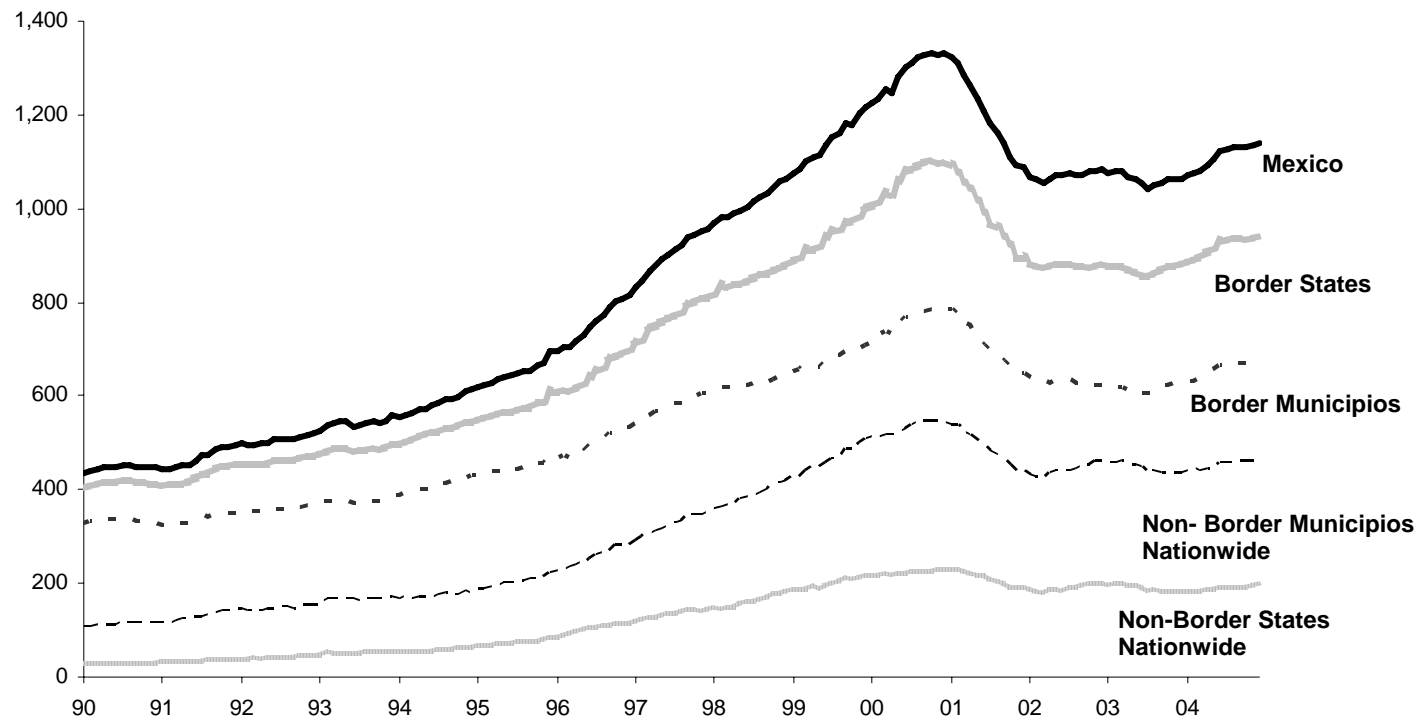
Top 5								
San Diego	Pima	El Paso	Hidalgo	Cameron				
\$29,520.55	\$6,216.10	\$3,221.55	\$2,789.93	\$1,620.54				
Upper Middle 6 – 10								
Webb	Imperial	Yuma	Dona Ana	Cochise				
\$1,214.61	\$1,106.82	\$966.67	\$932.51	\$659.80				
Lower Middle 11 – 15								
Santa Cruz	Maverick	Val Verde	Starr	Luna				
\$286.85	\$211.85	\$199.70	\$151.27	\$106.94				
Bottom 9								
Brewster	Zapata	Hidalgo	Presidio	Culberson	Jeff Davis	Kinney	Hudspeth	Terrell
\$41.86	\$30.03	\$20.57	\$18.46	\$16.03	\$4.85	\$3.89	\$2.73	\$1.32

Sources: AZ Department of Revenue, CA Board of Equalization, NM Taxation and Revenue, and TX Comptroller of Public Accounts.

The impact of the recent U.S. recession can be seen in Figures 6.9 and 6.10, and while the downturn officially started in March 2001, maquiladora employment, coinciding with the fall in U.S. industrial production, started to decline in the fourth quarter of 2000 and was further impacted in the post-September 11 period. Since maquiladora output is predominantly exported to the United States, consumption north of the border drives these manufacturing activities. As a

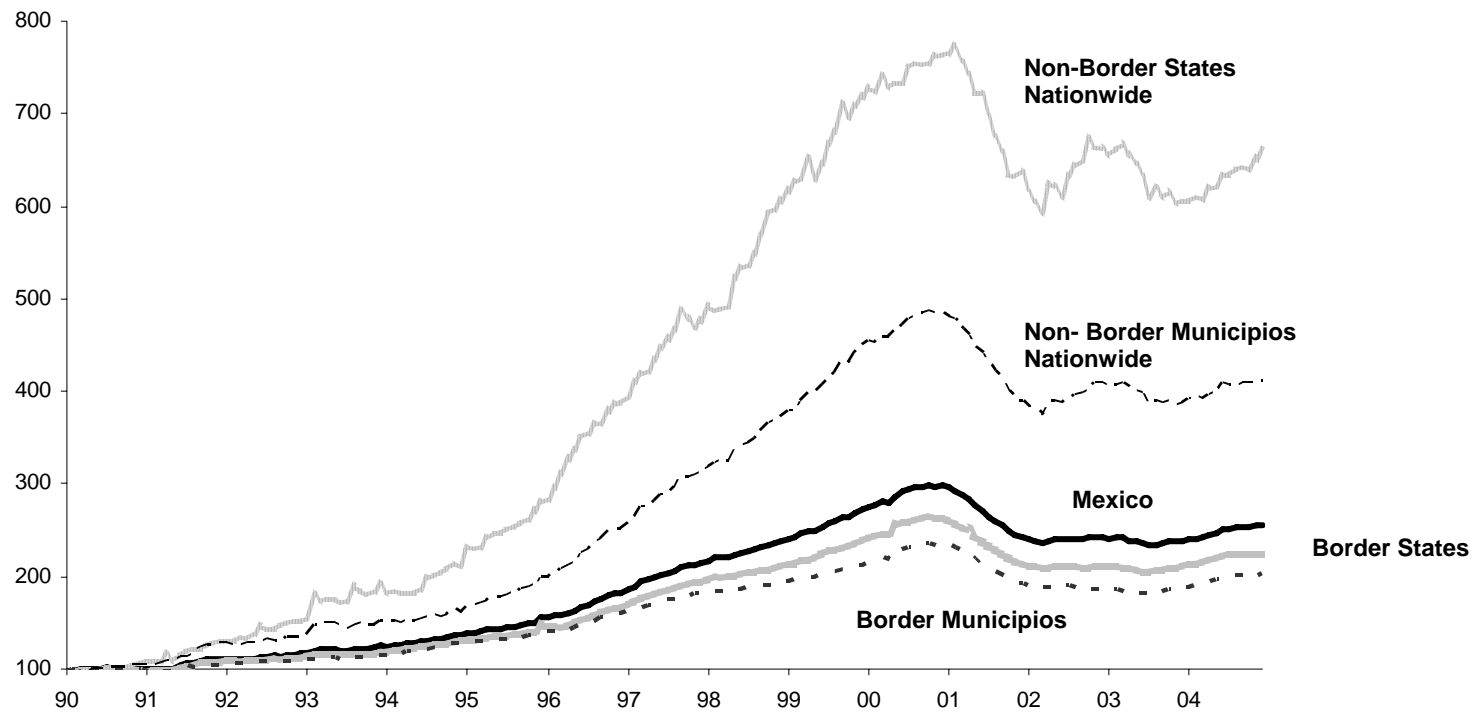
result, southwest border counties are impacted by these cycles to a much larger degree than interior U.S. counties.<sup>22</sup> The first impact comes from national and state business cycles and a second shock results from the reactionary change in manufacturing activity in Mexican border cities since economic activity ranging from trucking to retail sales on the U.S. side of the border are linked either directly to maquiladora export production which, in turn, is tied to maquiladora employment.

**Figure 6.9**  
**1990-2004 Maquiladora Employment**



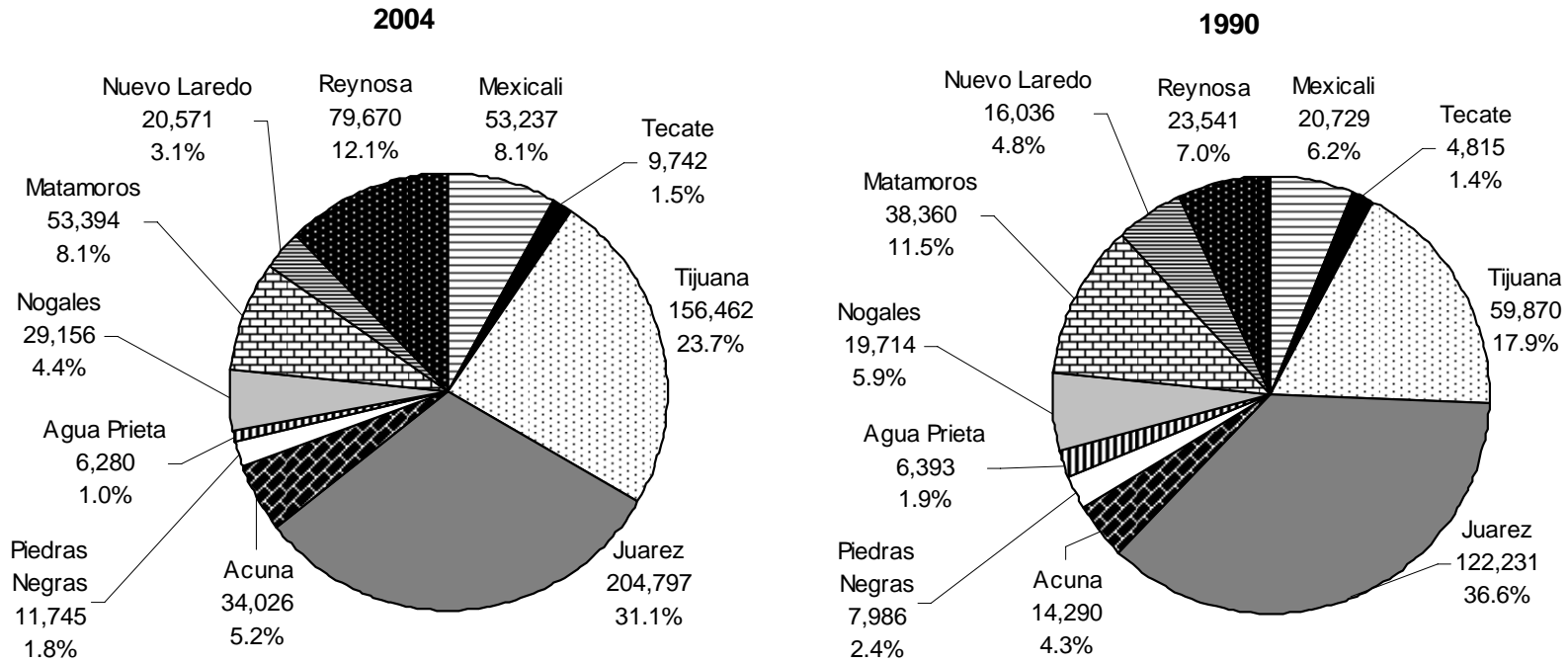
Source: Industria Maquiladora de exportación, Instituto de Estadística Geografía e Informática (INEGI), seasonally adjusted by IPED.

**Figure 6.10**  
**1990-2004 Maquiladora Employment Growth (Index, 1990=100)**



Source: Industria Maquiladora de exportación, Instituto de Estadística Geografía e Informática (INEGI), seasonally adjusted by IPED.

**Figure 6.11**  
**1990-2004 Maquiladora Employment (in Percents)**



Source: Industria Maquiladora de Exportación, Instituto de Estadística Geografía e Informática (INEGI), seasonally adjusted by IPED.

### Appendix 6.1 1993 Employment by Type and Earnings Along the U.S.-Mexico Border (Earnings in 2003 Real Dollars)

	Full- & Part-Time Employment				Earnings by Place of Work (\$ millions)					Average (\$)			
	Total Employment	Wage & Salary Jobs	Non-Farm Proprietors	Farm Proprietors	Total Work Earnings	Wage & Salary Disbursements	Supplements to Wages & Salaries	Non-Farm Proprietors	Farm Proprietors	Earnings per Job	Wage & Salary Disbursements	Non-Farm Proprietor's Income	Farm Proprietor's Income
<b>United States</b>	141,779,400	118,722,000	20,784,400	2,273,000	5,397,813.8	3,917,195.7	900,391.6	538,131.9	42,094.6	38,072	32,995	25,891	18,519
<b>Arizona</b>	2,026,075	1,710,146	308,015	7,914	68,663.2	50,922.9	11,037.6	5,945.6	757.1	33,890	29,777	19,303	95,669
Cochise	42,698	34,989	6,718	991	1,457.4	1,004.3	335.5	90.0	27.6	34,134	28,705	13,398	27,883
Pima	346,773	289,284	57,005	484	10,906.9	8,059.1	1,792.9	1,029.5	25.3	31,452	27,859	18,060	52,239
Santa Cruz	14,500	12,082	2,231	187	404.4	288.7	63.9	52.8	-1.0	27,886	23,893	23,645	-5,482
Yuma	56,235	49,922	5,684	629	1,851.3	1,169.4	299.5	161.6	220.8	32,921	23,425	28,424	351,074
<b>AZ Border Counties</b>	460,206	386,277	71,638	2,291	14,620.0	10,521.6	2,491.9	1,333.8	272.7	31,768	27,238	18,619	119,038
<b>AZ Border Counties % of AZ</b>	22.7	22.6	23.3	28.9	21.3	20.7	22.6	22.4	36.0				
<b>California</b>	16,483,694	13,310,401	3,083,882	89,411	695,866.1	488,686.7	113,836.0	87,439.7	5,903.8	42,215	36,715	28,354	66,029
Imperial	55,896	47,922	7,259	715	2,162.6	1,192.1	292.4	256.7	421.5	38,690	24,875	35,357	589,489
San Diego	1,415,633	1,149,933	258,585	7,115	54,564.2	38,090.5	10,119.5	6,223.6	130.6	38,544	33,124	24,068	18,361
<b>CA Border Counties</b>	1,471,529	1,197,855	265,844	7,830	56,726.8	39,282.5	10,412.0	6,480.2	552.1	38,550	32,794	24,376	70,514
<b>CA Border Counties % of CA</b>	8.9	9.0	8.6	8.8	8.2	8.0	9.1	7.4	9.4				
<b>New Mexico</b>	831,296	683,120	133,232	14,944	26,419.5	18,839.7	4,620.9	2,428.3	530.6	31,781	27,579	18,226	35,508
Dona Ana	62,164	51,523	9,299	1,342	1,868.1	1,248.4	328.2	206.4	85.1	30,052	24,231	22,192	63,428
Hidalgo	3,214	2,723	336	155	102.6	67.9	18.8	6.2	9.7	31,938	24,944	18,585	62,468
Luna	7,865	6,483	1,180	202	196.4	122.7	29.0	21.6	23.1	24,967	18,924	18,304	114,218
<b>NM Border Counties</b>	73,243	60,729	10,815	1,699	2,167.1	1,439.0	376.0	234.2	117.9	29,588	23,696	21,656	69,379
<b>NM Border Counties % of NM</b>	8.8	8.9	8.1	11.4	8.2	7.6	8.1	9.6	22.2				
<b>Texas</b>	9,843,872	7,986,963	1,631,038	225,871	362,292.7	254,506.6	55,079.1	48,582.4	4,124.7	36,804	31,865	29,786	18,261
Brewster	4,214	3,326	722	166	100.8	67.7	16.4	17.9	-1.1	23,925	20,356	24,742	-6,697
Cameron	110,589	94,932	14,589	1,068	2,902.3	2,105.0	445.9	292.6	58.8	26,244	22,174	20,055	55,026
Culberson	1,511	1,271	137	103	44.2	35.6	8.0	3.1	-2.5	29,243	27,978	22,911	-24,503
El Paso	289,462	254,150	34,791	521	8,965.7	6,519.0	1,626.9	818.5	1.2	30,974	25,650	23,528	2,322
Hidalgo	149,224	125,886	21,528	1,810	3,966.2	2,756.3	576.7	551.0	82.3	26,579	21,895	25,593	45,464
Hudspeth	1,214	920	126	168	24.9	18.7	4.5	3.4	-1.6	20,497	20,295	26,680	-9,611
Jeff Davis	1,000	671	209	120	18.8	14.3	3.0	3.2	-1.7	18,846	21,288	15,311	-13,943
Kinney	1,052	697	189	166	19.6	12.9	3.3	2.8	0.5	18,603	18,529	14,708	3,206
Maverick	11,251	9,418	1,586	247	257.7	189.0	42.9	27.5	-1.8	22,902	20,073	17,363	-7,238
Presidio	2,148	1,528	432	188	48.0	34.7	9.0	5.0	-0.6	22,329	22,684	11,466	-3,339
Starr	12,669	8,788	3,045	836	246.2	152.8	35.5	34.2	23.8	19,437	17,382	11,229	28,474
Terrell	714	473	120	121	18.5	12.8	3.7	1.6	0.3	25,843	26,964	13,604	2,789
Val Verde	16,297	13,584	2,405	308	471.2	330.3	100.7	37.7	2.4	28,911	24,314	15,693	7,859
Webb	65,803	57,797	7,465	541	1,817.0	1,307.2	278.7	235.9	-4.9	27,612	22,617	31,603	-9,090
Zapata	2,997	2,012	558	427	57.9	40.1	9.2	9.1	-0.5	19,312	19,943	16,293	-1,247
<b>TX Border Counties</b>	670,145	575,453	87,902	6,790	18,958.8	13,596.3	3,164.4	2,043.5	154.6	28,291	23,627	23,248	22,765
<b>TX Border Counties % of TX</b>	6.8	7.2	5.4	3.0	5.2	5.3	5.7	4.2	3.7				
<b>Border States</b>	29,184,937	23,690,630	5,156,167	338,140	1,153,241.6	812,955.9	184,573.5	144,396.0	11,316.2	39,515	34,316	28,005	33,466
<b>Non-Border States</b>	112,594,463	95,031,370	15,628,233	1,934,860	4,244,572.2	3,104,239.8	715,818.1	393,735.9	30,778.4	37,698	32,665	25,194	15,907
<b>Border Counties</b>	2,675,123	2,220,314	436,199	18,610	92,472.8	64,839.5	16,444.3	10,091.8	1,097.3	34,568	29,203	23,136	58,962
<b>Non-Border Counties</b>	139,104,277	116,501,686	20,348,201	2,254,390	5,305,341.1	3,852,356.3	883,947.3	528,040.1	40,997.3	38,139	33,067	25,950	18,186

Source: Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).

**Appendix 6.2  
2003 Employment by Industry Along the U.S.-Mexico Border**

	U.S.		Border States		Non-Border States		Border Counties		Non-Border Counties	
	Emp.	% of Totals	Emp.	% of Totals	Emp.	% of Totals	Emp.	% of Totals	Emp.	% of Totals
<b>Total employment</b>	167,174,400	100.0	36,062,635	100.0	131,111,765	100.0	3,474,639	100.0	163,699,761	100.0
<b>By type</b>										
<b>Wage and salary employment</b>	137,321,000	82.1	28,900,797	80.1	108,420,203	82.7	2,838,807	81.7	134,482,193	82.2
<b>Proprietors employment</b>	29,853,400	17.9	7,161,838	19.9	22,691,562	17.3	635,832	18.3	29,217,568	17.8
Farm proprietors employment	2,198,000	7.4	350,910	4.9	1,847,090	8.1	18,580	2.9	2,179,420	7.5
Nonfarm proprietors employment	27,655,400	92.6	6,810,928	95.1	20,844,472	91.9	617,252	97.1	27,038,148	92.5
<b>By industry</b>										
<b>Farm employment</b>	3,034,000	1.8	646,551	1.8	2,387,449	1.8	44,412	1.3	2,989,588	1.8
<b>Nonfarm employment</b>	164,140,400	98.2	35,416,084	98.2	128,724,316	98.2	3,430,227	98.7	160,710,173	98.2
<b>Private employment</b>	140,479,400	85.6	30,301,076	85.6	110,178,324	85.6	2,737,658	79.8	137,741,742	85.7
Forestry, fishing, related, & other	1,075,700	0.7	343,663	1.0	732,037	0.6	16,159	0.5	1,059,541	0.7
Mining	718,800	0.4	272,275	0.8	446,525	0.3	6,468	0.2	712,332	0.4
Utilities	585,800	0.4	121,296	0.3	464,504	0.4	12,041	0.4	573,759	0.4
Construction	9,708,100	5.9	2,180,745	6.2	7,527,355	5.8	200,851	5.9	9,507,249	5.9
Manufacturing	15,120,300	9.2	2,821,309	8.0	12,298,991	9.6	210,371	6.1	14,909,929	9.3
Wholesale trade	6,105,000	3.7	1,359,231	3.8	4,745,769	3.7	93,008	2.7	6,011,992	3.7
Retail Trade	18,465,300	11.2	3,849,323	10.9	14,615,977	11.4	381,882	11.1	18,083,418	11.3
Transportation and warehousing	5,304,400	3.2	1,093,260	3.1	4,211,140	3.3	89,871	2.6	5,214,529	3.2
Information	3,537,100	2.2	871,715	2.5	2,665,385	2.1	66,628	1.9	3,470,472	2.2
Finance and insurance	8,037,100	4.9	1,706,683	4.8	6,330,417	4.9	130,345	3.8	7,906,755	4.9
Real estate and rental and leasing	5,821,900	3.5	1,494,836	4.2	4,327,064	3.4	141,123	4.1	5,680,777	3.5
Professional and technical services	10,577,000	6.4	2,560,007	7.2	8,016,993	6.2	233,123	6.8	10,343,877	6.4
Mgmt. of companies and enterprises	1,802,800	1.1	364,212	1.0	1,438,588	1.1	26,671	0.8	1,776,129	1.1
Administrative and waste services	9,703,800	5.9	2,272,505	6.4	7,431,295	5.8	205,610	6.0	9,498,190	5.9
Educational services	3,311,200	2.0	575,149	1.6	2,736,051	2.1	44,031	1.3	3,267,169	2.0
Health care and social assistance	16,505,300	10.1	3,103,990	8.8	13,401,310	10.4	320,159	9.3	16,185,141	10.1
Arts, entertainment, and recreation	3,387,700	2.1	762,102	2.2	2,625,598	2.0	64,377	1.9	3,323,323	2.1
Accommodation and food services	11,131,000	6.8	2,411,782	6.8	8,719,218	6.8	245,134	7.1	10,885,866	6.8
Other services, except public admin.	9,581,100	5.8	2,136,993	6.0	7,444,107	5.8	204,462	6.0	9,376,638	5.8
<b>Government and govt. enterprises</b>	23,661,000	14.4	5,115,008	14.4	18,545,992	14.4	692,569	20.2	22,968,431	14.3
Federal, civilian	2,755,000	1.7	503,668	1.4	2,251,332	1.7	82,926	2.4	2,672,074	1.7
Military	2,187,000	1.3	479,891	1.4	1,707,109	1.3	160,937	4.7	2,026,063	1.3
State and local	18,719,000	11.4	4,131,449	11.7	14,587,551	11.3	448,675	13.1	18,270,325	11.4
State government	5,058,000	3.1	961,352	2.7	4,096,648	3.2	75,789	2.2	4,982,211	3.1
Local government	13,661,000	8.3	3,170,097	9.0	10,490,903	8.1	297,942	8.7	13,363,058	8.3

Source: Regional Economic Information Systems (REIS), Bureau of Economic Analysis (BEA).<sup>23</sup>



**Appendix 6.3**  
**1990-2003 Taxable Retail Trade Sales Along the U.S.-Mexico Border (in Millions of Dollars)**

	1990	1995	2000	2001	2002	2003
<b>Arizona</b>	17,666.88	26,002.67	37,639.93	38,456.27	38,700.39	40,572.00
Cochise	297.29	378.33	528.36	585.57	600.82	659.80
Pima	3,067.03	4,271.45	5,816.32	5,944.79	6,012.02	6,216.10
Santa Cruz	179.00	171.62	241.95	262.13	272.27	286.85
Yuma	460.20	626.04	843.25	866.26	893.50	966.67
<b>AZ Border Counties</b>	4,003.53	5,447.44	7,429.88	7,658.76	7,778.61	8,129.42
<b>AZ Border Counties % AZ</b>	22.7	20.9	19.7	19.9	20.1	20.0
<b>California</b>	181,654.64	194,378.11	287,067.70	293,956.52	301,612.31	320,217.10
Imperial	587.34	659.14	940.01	967.28	1,037.70	1,106.82
San Diego	15,099.33	16,181.28	24,953.09	26,263.34	27,421.60	29,520.55
<b>CA Border Counties</b>	15,686.67	16,840.43	25,893.10	27,230.62	28,459.30	30,627.37
<b>CA Border Counties % CA</b>	8.6	8.7	9.0	9.3	9.4	9.6
<b>New Mexico</b>	7,359.10	9,994.39	12,596.67	12,875.42	12,845.13	13,570.94
Dona Ana	473.89	641.95	832.77	832.24	880.42	932.51
Hidalgo	16.12	20.78	22.87	23.60	21.64	20.57
Luna	69.77	80.41	103.45	96.38	102.33	106.94
<b>NM Border Counties</b>	559.79	743.14	959.08	952.22	1,004.39	1,060.02
<b>NM Border Counties % NM</b>	7.6	7.4	7.6	7.4	7.8	7.8
<b>Texas</b>	67,687.35	90,504.79	122,848.78	127,145.20	128,294.66	130,426.45
Brewster	23.66	35.58	41.38	41.43	41.97	41.86
Cameron	872.93	1,043.78	1,403.42	1,475.07	1,554.01	1,620.54
Culberson	8.55	11.22	15.29	15.70	16.24	16.03
El Paso	1,967.51	2,429.39	2,964.25	3,020.55	3,130.65	3,221.55
Hidalgo	1,341.92	1,635.42	2,362.35	2,492.41	2,687.01	2,789.93
Hudspeth	1.89	2.15	3.42	3.14	3.04	2.73
Jeff Davis	2.16	4.08	4.80	4.80	4.86	4.85
Kinney	3.59	3.25	3.91	4.06	4.15	3.89
Maverick	120.24	138.82	201.50	207.52	214.09	211.85
Presidio	11.57	10.98	16.06	16.95	18.25	18.46
Starr	68.14	97.91	128.22	137.97	150.13	151.27
Terrell	1.61	1.56	1.74	1.42	1.44	1.32
Val Verde	113.34	145.36	177.34	180.51	199.08	199.70
Webb	597.77	689.11	1,041.89	1,102.12	1,176.35	1,214.61
Zapata	13.42	17.34	24.60	26.38	26.72	30.03
<b>TX Border Counties</b>	5,148.31	6,265.96	8,390.15	8,730.04	9,227.98	9,528.65
<b>TX Border Counties % of TX</b>	7.6	6.9	6.8	6.9	7.2	7.3
<b>Border States</b>	274,367.96	320,879.96	460,153.08	472,433.41	481,452.48	504,786.50
<b>Border Counties</b>	25,398.30	29,296.97	42,672.20	44,571.64	46,470.28	49,345.46

Sources: Arizona Department of Revenue, California State Board of Equalization, New Mexico Taxation and Revenue Department, and Texas Comptroller of Public Accounts.<sup>24</sup>

## Endnotes to Chapter 6

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1. The definitions of what is included in each sector's employment are available at [www.bea.gov](http://www.bea.gov).
2. G.H. Hanson, 2001. "U.S.-México Integration and Regional Economies: Evidence from Border City Pairs," *Journal of Urban Economics*, v50, pp. 250-287.
3. Examples of well-known clusters include the Silicon Valley in California in the field of computer technology; Bangalore, India, for software outsourcing; Paris, France, for haute couture; Toulouse, France, for aerospace; Cambridge, England, for biotechnology and electronics; Antwerp, Denmark, the diamond center; Rotterdam, Holland, the main container port; Albany Tech Valley, in New York, in nano technology.
4. Feser, E.J. and E. M. Bergman. 2000. "National Industry Cluster Templates: A Framework for Applied Regional Cluster Analysis," *Regional Studies* 34 (1): 1-20. See also San Diego Workforce Partnership, 2002. "A Path to Prosperity: Preparing Our Workforce," Summary.
5. For a full discussion of clusters and cluster strategies, see: Michael Porter, *1985 Competitive Advantage: Creating and Sustaining Superior Performance*, New York, NY The Free Press.
6. See, for example, McElroy, M., C. Olmedo, E.J. Feser, K. Poole, and M. White. 2006. "Upper Rio Grande Workforce Development Board Industry Cluster Study and Targeted Occupation List." Institute for Policy and Economic Development TR-2006-01, University of Texas at El Paso.
7. The BEA provides the most internally consistent measure for wage and salary disbursements and employment in the United States. The estimates are primarily derived from the Quarterly Census of Employment and Wages (QCEW) program administered by the BLS, but they also are based on supplemental data from other agencies for industries that are either not covered or not fully covered by the unemployment insurance programs used to collect the QCEW data (QCEW data accounts for about 95 percent of the BEA wage and salary employment). The drawback for BEA data is the time lag necessary to assure accuracy – county data have, for example, a lag of 18 months.
8. Employment estimates measure the number of full-time and part-time jobs instead of the number of workers who perform them. Employment data across agencies are based on differing methodologies and collection "universes" so care must be taken when interpreting them. For example, the number employed that is used to calculate the unemployment rate in the labor force section is based on a place-of-residence survey (civilian employment). The number employed in this employment section is obtained from a place-of-work survey (industry employment). Therefore, industry employment levels are greater than the labor force employed

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(civilian employment) since workers may have more than one job. It is possible that household and workplace survey results diverge due to these differences in design.

9. In these figures to focus on the private sector, government employment of all types and military is placed in “other.”

10. Occupational employment is the estimate of total wage and salary employment in an occupation across the industries in which that occupation was reported. The occupation total employment differs from the BEA level due to methodological differences and are not as reliable. Nonetheless, the data are important in measuring occupation densities and their respective hourly wages between regions.

11. A metropolitan statistical area (MSA) consists of one or more counties that contain a city of 50,000 or more inhabitants, or contain a Census-defined urbanized area and have a total population of at least 100,000. The general concept of a metropolitan area is that of a core area containing a large population nucleus, together with adjacent communities that have a high degree of economic and social integration with that core. The Federal Office of Management and Budget designates and defines them following a set of official standards.

12. SOC employment and wage estimates for specific occupations are produced by the BLS in cooperation with State Workforce Agencies via the Occupational Employment Statistics (OES) program. The program semi-annually surveys about 200,000 non-farm establishments and takes three years to fully collect the sample of 1.2 million (it excludes the self-employed). Since data are collected on a three-year cycle, each year represents one-third of the sample plus the previous two years adjusted by the BLS Employment Cost Index (wage updating). Comparing one year with the previous year is really comparing at least one year or more of the same data, so over-the-year comparisons are discouraged.

13. Median wages are analyzed instead of average wages because outliers may potentially skew the average data in either direction.

14. The location quotient (LQ) is the most basic and commonly utilized economic base analysis method. To calculate LQs divide the employment number for a specific occupation by the total employed for all occupations within a respective MSA. The same is done for the United States for the same occupation. The MSA’s result is then divided by the U.S.’s result and the LQ for that occupation is obtained.

15. Because the OES program does not report an employment number does not necessarily mean that jobs in these professions do not exist; it could also be due to data constraints. For example, in 2003 the occupation “Elementary school teachers, except special education” was not listed for the Laredo MSA. It is safe to assume that teachers at this level must exist in this economy but the data was not collected and/or not reported.

16. Survey instruments performed for the Sonora, Mexico-Arizona, U.S. region have been conducted since the late 1970s to assess these activities (A. H. Charney and V. K. Pavlovich, 2002. “The Economic Impacts of Mexican Visitors to Arizona: 2001,” Economic

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and Business Research Program, University of Arizona.). While restricted to being performed only once per decade, the Arizona exit interviews have provided insight as to what percentage Mexican visitor spending accounts for as a percent of taxable sales by county. Results showed extreme variation, from as little as 3.8 percent to as much as 47.3 percent, dependent on the port and border county under analysis. Other survey-style studies along the San Diego region have also tried to measure the extent of retail sales purchases by Mexican nationals (*San Diego Dialogue*, April 1994. "Who Crosses the Border: A View of the San Diego/Tijuana Metropolitan Region"). Similarly, empirical models have tried to assess the effect and extent of retail sales activity captured by Mexican nationals along Texas' border. Again, results differ by region and by model parameters and initial conditions. Under one Federal Reserve study, exported retail sales in Texas ranged from 6 percent to 22 percent of all retail sales along the border counties (K. R. Phillips and C. Manzanares, 2001. "Transportation Infrastructure and the Border Economy," *The Border Economy*, Federal Reserve Bank of Dallas). Another impact study on the El Paso region quantified the percent of total retail sales to Mexican nationals at 33 percent (S. Peña Medina, 2003. "Comercio Transfronterizo y su Impacto en la Región El Paso-Juárez: Una Propuesta de Financiamiento de la Planeación Binacional," *Frontera Norte*, v14, #29).

17. Phillips, K.R. and J. Cañas, 2004. "Business Cycle Coordination Along the Texas-Mexico Border," Federal Reserve Bank of Dallas Working Paper No. 0502.

18. Schauer, D. and D.L. Soden, 2002. "The Economic Impact of Fort Bliss Texas," Institute for Policy and Economic Development, University of Texas at El Paso, El Paso, TX: Technical Report 2002-08.

19. A maquiladora is a Mexican corporation operating under a special customs status that allows it to temporarily import from the United States into Mexico duty-free, raw materials, equipment, machinery, replacement parts, and other tools needed for the assembly or manufacture of intermediate or finished goods for subsequent export to the United States or sale in the domestic market (the latter requires payment of import tariffs on the U.S. raw material used in the production process). Maquiladora is often referred to as a maquila or a twin-plant, and is associated with in-bond manufacturing.

20. Olmedo, C. 2002. "Regional Econometric Modeling Analysis for Chihuahua, Chihuahua Maquiladora Activities," Masters Thesis, Department of Economics, University of Texas at El Paso, pp. 4-10.

21. Analysis of employment for four large southwest border cities, San Diego, El Paso, McAllen, and Brownsville, estimate the elasticity between maquiladora output and U.S. border city manufacturing employment to be between 0.13 and 0.21, for retail employment between 0.12 and 0.14, and for transport between 0.04 and 0.10. In other words, a 10 percent rise in export manufacturing in a Mexican border city leads up to a 2.1 percent, 1.4 percent, and 1.0 percent rise in employment, respectively, in the neighboring U.S. border city. (G.H. Hanson, 2001. "U.S.-México Integration and Regional Economies: Evidence from Border City Pairs," *Journal of Urban Economics*, v50, pp. 250-287).

22. Fullerton, T.M. 2001. "Specification of a Borderplex Econometric Forecasting Model," *International Regional Science Review*, v24, n2, pp. 245-260.

23. Industry employment numbers may not always add up to a respective total due to non-disclosure data or a low employment number not reported by the BEA for respective industries. However, these unreported data are included in the aggregate totals. ND – not shown to avoid disclosure of confidential information, but the estimates for this item are included in the totals. L – Less than 10 jobs, but the estimates for this item are included in the totals.

24. Taxable sales on Appendix 6.3 are based on the SIC with the exception of New Mexico and its counties for the fourth quarter of 2003, which are based on the NAICS. The authors converted the 2003 fourth quarter NAICS-based sales data into SIC-based data using a variant of the basic random walk method (assuming that the best forecast for the period in question is a similar last observed historical value). The most recently observed quarterly percent ratio between SIC 2002:Q4 and NAICS 2002:Q4 is applied to NAICS 2003:Q4 to obtain SIC 2003:Q4 sales.

## Chapter 7

# Public and Higher Education

It is generally agreed that education is perhaps the most important component of regional economic growth. As an example, one need only compare San Diego County to Cameron County, the counties at the opposite ends of the southwestern border. In San Diego County, 30 percent (29.6%) of the population has earned a four-year college degree or higher. By contrast, Cameron County reports a rate that is less than half of San Diego (13.3%). The same trend holds for high school graduation rates and emphasizes what has been promoted for decades – education matters! Over the course of a work life, individuals with a college degree will earn one million dollars more than their high school graduate counterparts, and the gap widens for non-high school graduates.<sup>1</sup> These education disparities highlight the problems border counties are facing in the educational arena. The root of these problems lie in the fact that the education shortfall in the region exists at all levels of the education system, from pre-kindergarten through college, and prevails among all age groups. Unless these trends change significantly, the simple fact is the border will never catch up with the U.S. mainstream.

- The level of change necessary is made abundantly clear by ranking the border counties as a 51<sup>st</sup> state (Table 7.1).
- When including San Diego, in terms of population

above the age of 25 who completed high school in 2000, 73 percent of border residents had completed high school compared with 80.4 percent for the United States, ranking border counties 50<sup>th</sup>, exceeding only Mississippi.

- Removing San Diego moves the border to a ranking of last in terms of population above the age of 25 who completed high school.
- The college completion story is only slightly better. With San Diego included, the border ranks 26<sup>th</sup> among the states in the percentage of adults with a four year college degree.
- Excluding San Diego, the ranking drops to 48<sup>th</sup>.
- Border counties have high demands for education as a result of being 2<sup>nd</sup> if considered a 51<sup>st</sup> state in the percentage of the population under 18 years of age, creating a higher demand for education.
- Improvements have clearly taken place since 1990, but without greater concerted effort over the long term, the education gap between the southwestern border counties and the United States may never be bridged.

**Table 7.1  
2000 Census Educational Attainment Rates**

High School & Above			College & Above		
Rank	Geography	Percent	Rank	Geography	Percent
1	Alaska	88.3%	1	Massachusetts	33.2%
2	Minnesota	87.9%	2	Colorado	32.7%
3	Wyoming	87.9%	3	Maryland	31.4%
4	Utah	87.7%	4	Connecticut	31.4%
5	New Hampshire	87.4%	5	New Jersey	29.8%
6	Montana	87.2%	6	Virginia	29.5%
7	Washington	87.1%	7	Vermont	29.4%
8	Colorado	86.9%	8	New Hampshire	28.7%
9	Nebraska	86.6%	9	Washington	27.7%
10	Vermont	86.4%	10	Minnesota	27.4%
11	Iowa	86.1%	11	New York	27.4%
12	Kansas	86.0%	12	California	26.6%
13	Maine	85.4%	13	Hawaii	26.2%
14	Oregon	85.1%	14	Utah	26.1%
15	Wisconsin	85.1%	15	Illinois	26.1%
16	Massachusetts	84.8%	16	Kansas	25.8%
17	Idaho	84.7%	17	Rhode Island	25.6%
18	South Dakota	84.6%	18	Oregon	25.1%
19	Hawaii	84.6%	19	Delaware	25.0%
20	Connecticut	84.0%	20	Alaska	24.7%
21	North Dakota	83.9%	21	Montana	24.4%
22	Maryland	83.8%	22	Georgia	24.3%
23	Michigan	83.4%	23	Nebraska	23.7%
24	Ohio	83.0%	24	Arizona	23.5%
25	Delaware	82.6%	25	New Mexico	23.5%
26	Indiana	82.1%	26	Border Counties	23.3%
27	New Jersey	82.1%	27	Texas	23.2%
28	Pennsylvania	81.9%	28	Maine	22.9%
29	Virginia	81.5%	29	North Carolina	22.5%
30	Illinois	81.4%	30	Wisconsin	22.4%
31	Missouri	81.3%	31	Pennsylvania	22.4%
32	Arizona	81.0%	32	Florida	22.3%
33	Nevada	80.7%	33	North Dakota	22.0%
34	Oklahoma	80.6%	34	Wyoming	21.9%
35	Florida	79.9%	35	Michigan	21.8%
36	New York	79.1%	36	Idaho	21.7%
37	New Mexico	78.9%	37	Missouri	21.6%
38	Georgia	78.6%	38	South Dakota	21.5%
39	North Carolina	78.1%	39	Iowa	21.2%
40	Rhode Island	78.0%	40	Ohio	21.1%
41	California	76.8%	41	South Carolina	20.4%
42	South Carolina	76.3%	42	Oklahoma	20.3%
43	Tennessee	75.9%	43	Tennessee	19.6%
44	Texas	75.7%	44	Indiana	19.4%
45	Arkansas	75.3%	45	Alabama	19.0%
46	Alabama	75.3%	46	Louisiana	18.7%
47	West Virginia	75.2%	47	Nevada	18.2%
48	Louisiana	74.8%		Border Counties (w/o San Diego)	17.9%
49	Kentucky	74.1%	48	Kentucky	17.1%
50	Border Counties	73.8%	49	Mississippi	16.9%
51	Mississippi	72.9%	50	Arkansas	16.7%
	Border Counties (w/o San Diego)	66.1%	51	West Virginia	14.8%

Source: U.S. Census 2000, Summary File 3.

## Policy Issues

Robert M. Solow, in his acceptance speech for the Nobel Prize in Economics, pointed out, “that education per worker accounts for 30 percent of the increase in output per worker and the advance of knowledge accounts for 64 percent...Thus [while] technology remains the dominant engine of growth...human capital investment [is] in second place.”<sup>2</sup> While the border has seen modest improvements in the overall education level of its population, in the last ten years college graduation rates in the United States improved 4 percentage points from 13.1 percent to 17.1 percent among the population 25 and above. At the same time, most border counties failed to improve by more than 2 percentage points. The rest of the United States not only is ahead of the southwestern border region in this critical area, but is pulling away at an ever increasing rate. In the long run, if this pattern is left unchanged, the border region will be hampered by an inability to attract high skill-high wage jobs that foster economic growth and may be faced with an economic base devoid of large scale technical innovation that is attracted to areas with high education levels among their workforce.

As a result of proximity to Mexico, the majority of border counties experience greater movement of students in-and-out of their school systems, due in part to the cyclical nature of farm worker employment. Also, the value of the peso often is a factor in education decisions, especially as it relates to higher education.<sup>3</sup> The one policy issue that impacts the region like no other place in the country is the need to determine ways to align U.S. and Mexican school curricula. For example, creating compatible transfer credits would lead to increased high school completion rates by eliminating duplication in classes taken when students transfer in and out of the border county school systems.

Students in border counties, compared to their counterparts in non-border counties, disproportionately face the choice between education and work based on family and personal income needs. One result is that completion of college takes longer since the role of full-time student is an unaffordable luxury. Federal support of programs to keep students in college in border counties may be necessary to accelerate the regional demand for a college educated work force.

Education may be the greatest challenge facing the southwest border counties, regardless of level. It may be the area that also requires the most innovation to develop educational strategies that will reduce drop out rates, enhance completion at all levels, and support “catching-up” remedial activities in community colleges and universities that have proven to be a key factor in college completion.<sup>4</sup>

## Educational Attainment

Understanding the challenges facing educators from pre-kindergarten through college logically begins with an understanding of how the region currently fares with respect to the national population. Overall, 28.5 percent of the border population is under the age of 18, 3 percentage points higher than non-border counties in the same states (Map 7.1). The highest proportion of children is in Maverick, Texas (36.9%), where more than one third of the population is under age 18. Several of the major population centers in the border counties also have a substantial proportion of young people. El Paso (32%) and Hidalgo (35.3%), Texas; Yuma, Arizona (28.9%); and Imperial, California (31.4%) have populations well over 100,000 and exceed the border average of people under 18 years, although the border average of those under 18 would undoubtedly be higher were it not for San Diego's 2.8 million residents. Only 25.7 percent of San Diego's residents were



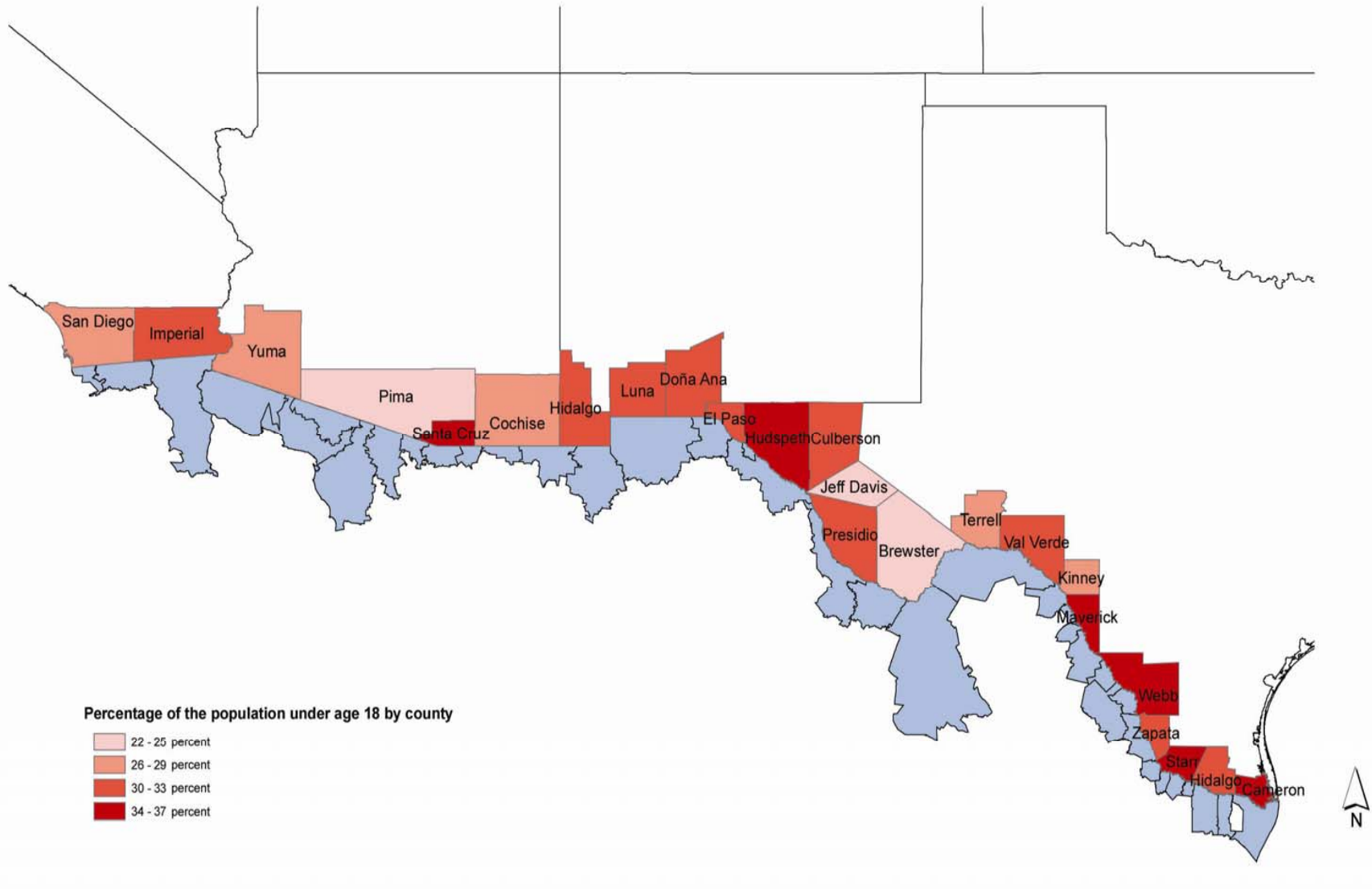
under age 18 in 2000. In this regard, San Diego is the only large metro area along the U.S.-Mexico border that approaches the national population rate (also 25.7%) for those under age 18 (Figure 7.1). To put this in perspective, the border counties would rank 2<sup>nd</sup> as a 51<sup>st</sup> state in percent of population under the age of 18. The reality is this is a young region with great demands for education.

A young population alone does not imply low education or income levels; Utah, for example, exceeds the United States for both the percentage of the population over 25 with a high school diploma (87.7%) and the percentage over 25 with a college degree (26.1%), all while having 32.2 percent of its population below age 18. However, education increases clearly result in income increases,<sup>5</sup> and a young population is not necessarily the cause of slow economic growth. Of the border counties, Pima, Arizona has the smallest percentage of its population without a high school diploma (16.6%), 3 percentage points lower than the United States average (19.6%). The second lowest is San Diego, with only 17.4 percent of its population lacking a high school diploma. The real challenge faces counties like Webb, El Paso, and Hidalgo, Texas and Imperial, California, where 47 percent, 34.2 percent, and 41 percent of the population above 25, respectively, have not completed high school (Map 7.2). To understand the magnitude of this challenge, researchers estimate that the impact of this education gap as an income loss to Texas border counties, alone, is \$3.593 billion

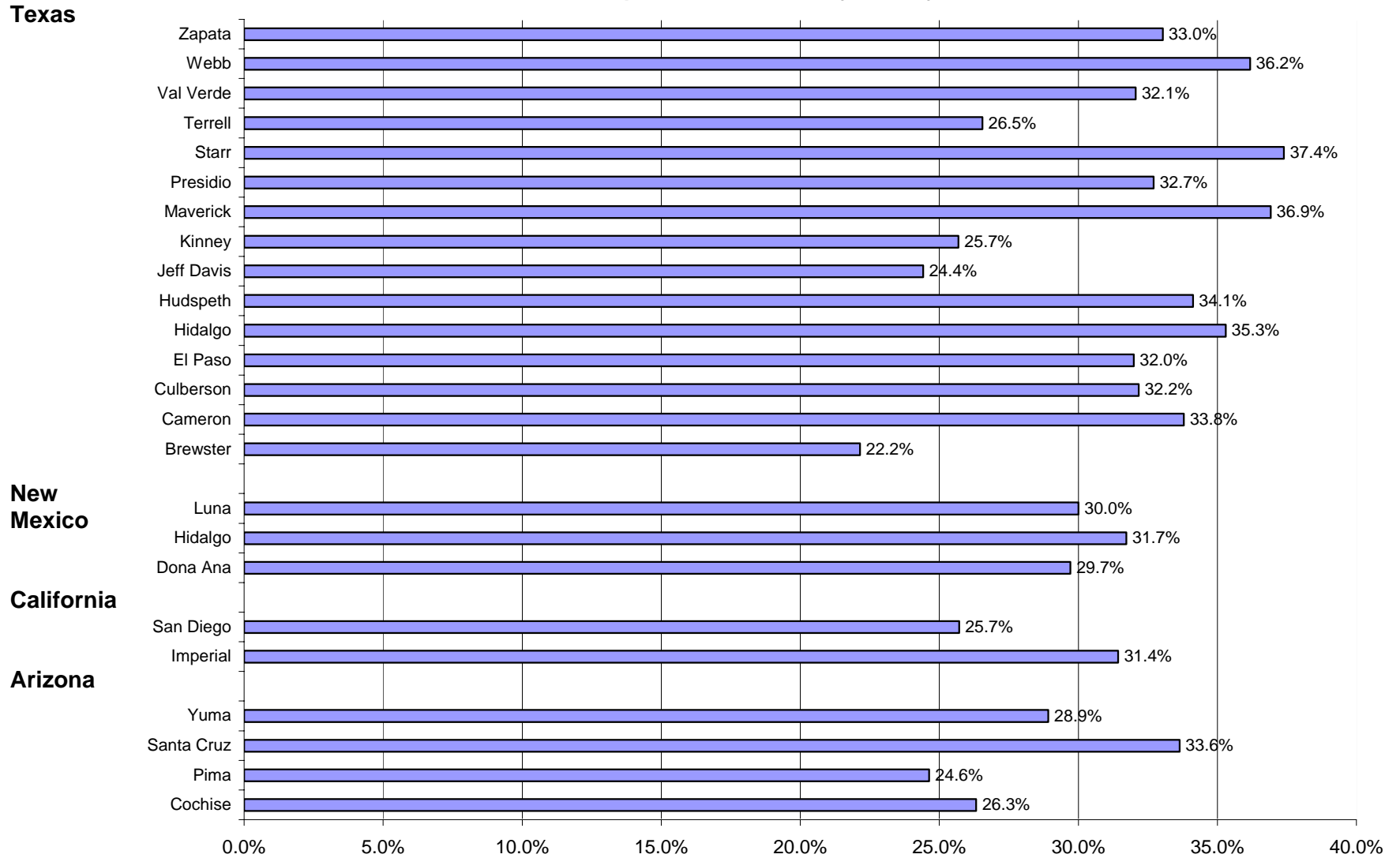
annually.<sup>6</sup>

College graduation rates by county tell a similar story (Table 7.2). Aside from the fact that Jeff Davis, Texas had the highest percentage of its population with a bachelor's degree (21.5%) of all border counties, the remaining border counties lag behind San Diego, which had 18.7 percent of its 2000 population with a bachelor's degree. The high number of college graduates is driven by San Diego's diversified and technology oriented economy, which includes some of the largest biotechnology and software clusters in the United States.<sup>7</sup> The remaining large border counties, with a population of 100,000 or more, all trail the United States with an average of 17.1 percent of this population reporting college graduation. For example, Webb County lags behind the United States average in educational attainment by as much as 9 percentage points. El Paso, Texas and Pima, Arizona counties fare better (11% and 15.9%, respectively), but the percentage gains from 1990 to 2000 suggest that the gap in educational attainment between border and non-border counties will increase. Income losses resulting from the gap in college graduation rates over the last ten years between border counties (excluding San Diego) and the rest of the United States are enormous. Over the long run, the difference in graduation rates between the border and the rest of the United States will continue to increase unless they are addressed systematically through regional development strategies in border counties.

**Map 7.1**  
**2000 Census Percentage of Population Under 18 by County**

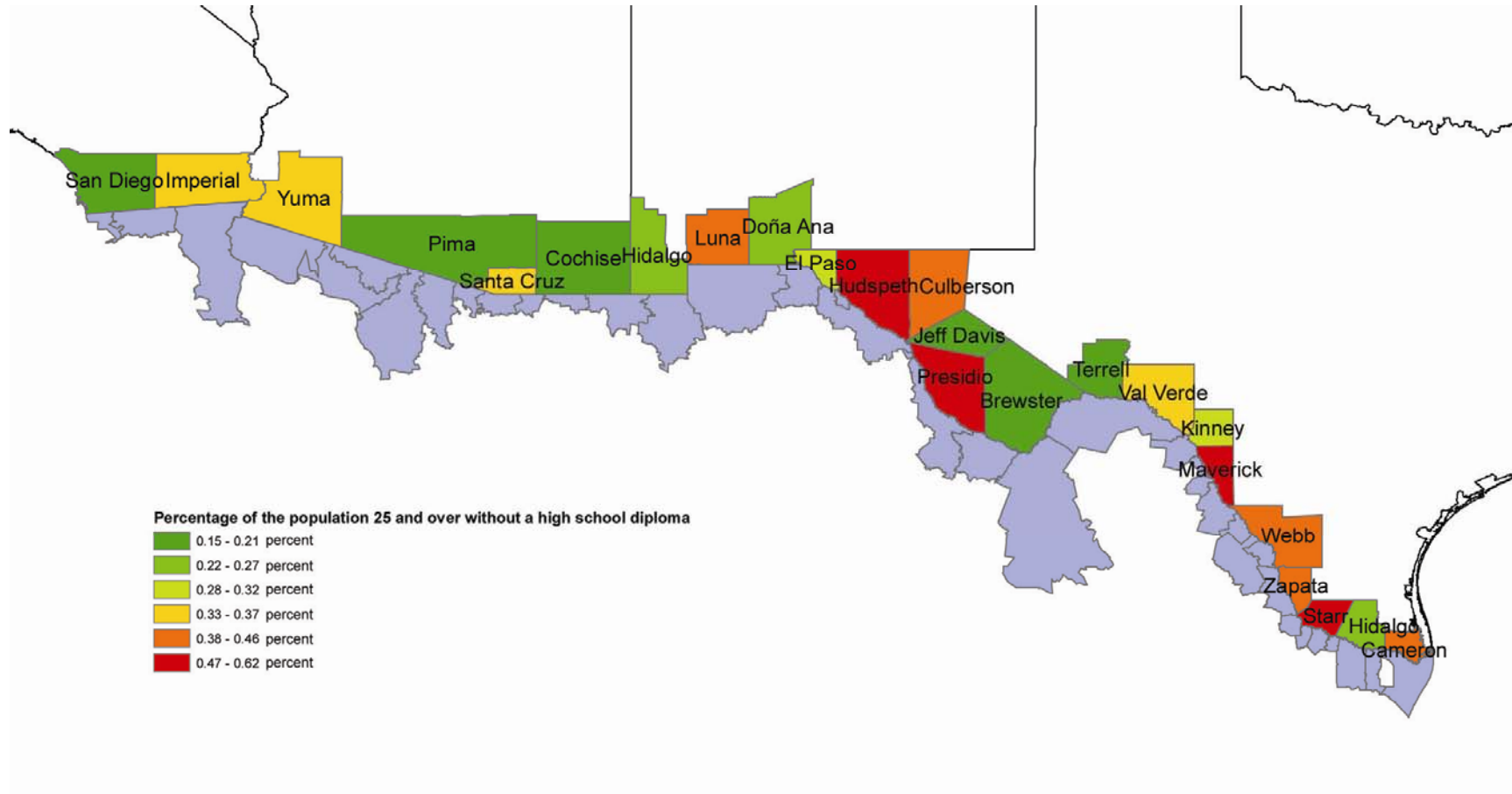


**Figure 7.1**  
**2000 Census Population Under 18 by County**



Source: U.S. Census 2000, Summary File 3.

**Map 7.2**  
**2000 Census Percentage of the Population 25 and Over Without a High School Diploma**



**Table 7.2  
2000 Census Educational Attainment**

	ARIZONA				CALIFORNIA		NEW MEXICO								
	Cochise	Pima	Santa Cruz	Yuma	Imperial	San Diego	Dona Ana	Hidalgo	Luna						
<b>Total 25 &amp; Over</b>	75,774	546,200	22,445	97,680	83,632	1,773,327	99,893	3,596	15,777						
<b>No HS Diploma</b>	15,563	90,483	8,830	33,397	34,258	308,849	29,922	1,122	6,335						
<b>HS Diploma or GED</b>	18,670	127,343	5,124	25,134	18,378	352,040	22,404	1,328	4,719						
<b>Some College</b>	20,742	145,579	4,191	22,800	17,246	454,254	19,905	696	2,615						
<b>Associate Degree</b>	6,552	36,687	898	4,780	5,109	134,673	5,393	94	468						
<b>Bachelor Degree</b>	9,390	86,752	2,008	7,017	5,551	330,993	13,040	224	991						
<b>Grad. Or Prof. Degree</b>	4,857	59,356	1,394	4,552	3,090	192,518	9,229	132	649						
<b>% No HS Diploma</b>	20.5%	16.6%	39.3%	34.2%	41.0%	17.4%	30.0%	31.2%	40.2%						
<b>% HS Diploma or GED</b>	24.6%	23.3%	22.8%	25.7%	22.0%	19.9%	22.4%	36.9%	29.9%						
<b>% Some College</b>	27.4%	26.7%	18.7%	23.3%	20.6%	25.6%	19.9%	19.4%	16.6%						
<b>% Associate Degree</b>	8.6%	6.7%	4.0%	4.9%	6.1%	7.6%	5.4%	2.6%	3.0%						
<b>% Bachelor Degree</b>	12.4%	15.9%	8.9%	7.2%	6.6%	18.7%	13.1%	6.2%	6.3%						
<b>% Grad. Or Prof. Degree</b>	6.4%	10.9%	6.2%	4.7%	3.7%	10.9%	9.2%	3.7%	4.1%						
	TEXAS														
	Brewster	Cameron	Culberson	El Paso	Hidalgo	Hudspeth	Jeff Davis	Kinney	Maverick	Presidio	Starr	Terrell	Val Verde	Webb	Zapata
<b>Total 25 &amp; Over</b>	5,519	187,064	1,781	391,540	304,670	1,910	1,560	2,335	25,468	4,303	27,716	736	26,281	101,182	6,945
<b>No HS Diploma</b>	1,182	83,716	781	134,008	150,961	1,029	395	774	14,738	2,380	18,098	214	10,864	47,566	3,256
<b>HS Diploma or GED</b>	1,163	37,615	492	88,256	61,598	393	296	637	4,792	857	4,683	202	6,507	18,152	1,926
<b>Some College</b>	1,423	32,734	215	84,712	44,068	250	249	414	2,760	430	2,568	164	4,263	16,128	1,045
<b>Associate Degree</b>	224	8,014	46	19,538	8,710	52	73	96	860	133	446	16	932	5,244	115
<b>Bachelor Degree</b>	961	15,785	183	43,262	25,507	123	335	301	1,456	291	1,039	112	2,327	8,710	395
<b>Grad. Or Prof. Degree</b>	566	9,200	64	21,764	13,826	63	212	113	862	212	882	28	1,388	5,382	208
<b>% No HS Diploma</b>	21.4%	44.8%	43.9%	34.2%	49.5%	53.9%	25.3%	33.1%	57.9%	55.3%	65.3%	29.1%	41.3%	47.0%	46.9%
<b>% HS Diploma or GED</b>	21.1%	20.1%	27.6%	22.5%	20.2%	20.6%	19.0%	27.3%	18.8%	19.9%	16.9%	27.4%	24.8%	17.9%	27.7%
<b>% Some College</b>	25.8%	17.5%	12.1%	21.6%	14.5%	13.1%	16.0%	17.7%	10.8%	10.0%	9.3%	22.3%	16.2%	15.9%	15.0%
<b>% Associate Degree</b>	4.1%	4.3%	2.6%	5.0%	2.9%	2.7%	4.7%	4.1%	3.4%	3.1%	1.6%	2.2%	3.5%	5.2%	1.7%
<b>% Bachelor Degree</b>	17.4%	8.4%	10.3%	11.0%	8.4%	6.4%	21.5%	12.9%	5.7%	6.8%	3.7%	15.2%	8.9%	8.6%	5.7%
<b>% Grad. Or Prof. Degree</b>	10.3%	4.9%	3.6%	5.6%	4.5%	3.3%	13.6%	4.8%	3.4%	4.9%	3.2%	3.8%	5.3%	5.3%	3.0%

Source: U.S. Census 2000, Summary File 3.

## Graduation and Dropout Rates

Many of the challenges facing the southwest border states in the area of educational attainment can be attributed to dropout rates.<sup>8</sup> Within-state comparisons show that border counties, aside from those in California, typically trail their respective states, with a larger share of their youth dropping out of high school. Many would argue, and accurately so, that schools along the U.S.-Mexico border have a more difficult job keeping students enrolled. This is true due to a variety of factors ranging from language acquisition and income issues to migration back and forth between Mexico and the United States. However, as long as the percentage of dropouts is higher in border counties than their states as a whole, compounded growth over time will create a condition in which border counties will fall further and further behind in their respective states, as well as nationally.

In 2000 (Table 7.3), seven of the 15 border counties in Texas had dropout rates higher than that of the state (7.2%). This includes the two counties with the largest student populations used to calculate the dropout rate, El Paso, Texas (7.48%) and Hidalgo, Texas (8.5%). In 2002, the most recent year for data available from the Texas Education Agency (TEA), El Paso and Hidalgo still surpass the state by .1 percentage points (5.1% versus 5%, respectively). In New Mexico, the largest of the state's border school districts, Las Cruces, had a dropout rate above that of the state in both 2000 (5.4% versus 5.3%) and 2002 (7.1% versus 4.5%).<sup>9</sup> In Arizona, a cohort

method is used to calculate the dropout rate.<sup>10</sup> The largest Arizona county, Pima, has done extremely well in reducing its dropout rate. In 2000, it had a dropout rate roughly 4 percent higher than that of the state (25.3% versus 21.8%, respectively); but, by 2003, the border county with the state's largest student population had a dropout rate of only 3.6 percent, nearly half that of Arizona (6.5%) for the same year. In fact, in most cases from 2000 to 2003, Arizona border counties tended to outperform the rest of the state. Among the border counties, California is the exception in dropout performance, as San Diego and Imperial outperformed all of California from 2000 to 2003 in all years but one, when San Diego exceeded the state dropout rate by slightly less than one percent (4.3% versus 3.32%).

Measuring change in educational attainment is a two stage process – one that relies first, and most commonly, on Census data, and second, on local school district data. Unfortunately, the two data sets tell a similar story. Aside from San Diego, far too much of the border region lags the nation in the growth of high school and college educated residents. If dropout rates are any indication, this trend is likely to go unchanged, since the dropout rate in the great majority of counties (except for isolated exceptions, such as Pima) exceeds that of their respective states. In the long run, high dropout rates mean lower educational attainment levels as measured by the Census Bureau. By 2010 and the next Census, it should come as little surprise that the border will fall further behind the nation unless current dropout trends are dramatically changed.

**Table 7.3**  
**2000-2003 Dropout Rates Along the U.S.-Mexico Border**

Arizona												
County	2000			2001			2002			2003		
	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#
Cochise	1,417	22.7%	185	1,560	9.7%	82	1,511	5.6%	85	1,578	5.7%	90
Pima	9,175	25.3%	3	9,463	6.6%	1	8,859	4.9%	434	9,043	3.6%	326
Santa Cruz	676	14.5%	87	672	10.6%	66	616	13.3%	82	612	9.8%	60
Yuma	1,982	14.5%	383	1,962	7.9%	217	1,839	4.2%	77	1,890	3.7%	70
Arizona	57,585	21.8%	42	60,367	11.2%	23	59,753	7.2%	4302	62,045	6.5%	4,033
California												
County	2000			2001			2002			2003		
	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#
Imperial	10,059	1.0%	97	10,270	1.4%	144	10,577	1.3%	140	10,934	1.0%	108
San Diego	140,589	2.0%	2750	143,846	2.3%	3316	147,683	2.7%	3935	149,970	4.3%	6,452
California	1,735,576	2.8%	47731	1,772,417	2.7%	47871	1,830,903	3.2%	58189	1,876,927	3.3%	62,288
New Mexico												
School District	2000			2001			2002					
	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#			
Animas	126	0.8%	1	NA	NA	NA	108	0.0%	0			
Deming	1,497	1.6%	24	NA	NA	NA	1,517	0.3%	5			
Lordsburg	228	3.1%	7	NA	NA	NA	207	3.9%	8			
Hatch Valley	448	7.6%	34	NA	NA	NA	455	5.5%	25			
Gadsen	3,553	4.8%	172	NA	NA	NA	3,578	4.4%	159			
Las Cruces	6,625	5.4%	361	NA	NA	NA	6,936	7.1%	491			
New Mexico	95,427	5.3%	5095	NA	NA	NA	95,767	4.5%	4296			
Texas												
County	2000			2001			2002					
	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#	Class Size	Dropout Rate	#			
Brewster	123	5.69%	7	96	4.2%	4	94	0.0%	0			
Cameron	5,054	5.30%	268	4,953	4.9%	245	5,126	4.5%	233			
Culberson	54	0.00%	0	52	1.9%	1	49	0.0%	0			
El Paso	9,749	7.48%	729	10,171	6.3%	645	10,346	5.1%	529			
Hidalgo	8,201	8.50%	697	8,168	7.2%	589	8,426	5.1%	428			
Hudspeth	55	1.82%	1	48	6.3%	3	60	8.3%	5			
Jeff Davis	30	0.00%	0	34	11.8%	4	51	0.0%	0			
Kinney	57	5.26%	3	46	0.0%	0	52	0.0%	0			
Maverick	684	5.70%	39	709	3.7%	26	700	9.0%	63			
Presidio	137	15.33%	21	139	12.2%	17	133	15.0%	20			
Starr	816	12.62%	103	850	12.4%	105	888	14.6%	130			
Terrell	13	7.69%	1	14	0.0%	0	24	0.0%	0			
Val Verde	602	8.31%	50	625	10.7%	67	648	9.3%	60			
Webb	2,644	5.64%	149	2,749	5.0%	137	2,906	4.7%	137			
Zapata	193	14.51%	28	204	8.3%	17	208	10.1%	21			
Texas	1,116,572	7.2%	80,393	1,142,355	6.2%	70,826	1,174,367	5.0%	58,718			

Source: Texas, New Mexico, Arizona, and California Departments of Education.

## Endnotes to Chapter 7

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1. Day, J. C. and Eric C. Newburger. 2002. "The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings." *Current Population Reports*. U.S. Census Bureau. July 2002.
2. Solow, R. M. Prize Lecture to the memory of Alfred Nobel, December 8, 1987.
3. Recent research suggests that the value of the Mexican peso is the best predictor of enrollment at the University of Texas at El Paso. Preliminary investigations indicate a similar pattern exists in other areas of the southwest border as well. While this work is in progress, analysis is available by request from [iped@utep.edu](mailto:iped@utep.edu).
4. See, C. Brenner and E. Dalton, "Closing the Gaps By Plugging Leaks in the Education Pipeline," Special Report 2003-2, Institute for Policy and Economic Development, University of Texas at El Paso.
5. Day, J. C. and Eric C. Newburger. 2002.
6. Fullerton, T.M. 2001. "Educational Attainment and Border Income Performance." *Economic and Financial Review*, 3: 2-10.
7. Genetic Engineering News. 2005. Online edition, breaking news. [www.genengnews.com](http://www.genengnews.com).
8. While the individual counties are not directly comparable to the two variations in how the official dropout rate is calculated, each of the counties is directly comparable to the state in which it resides.
9. 2001 is not reported by the New Mexico Public Education Department.
10. This is opposed to Texas, which uses a method for 7<sup>th</sup> through 12<sup>th</sup> grades, 9<sup>th</sup> through 12<sup>th</sup> grades, and a cohort method.



## Chapter 8 The Environment

Environmental issues impacting border counties relate to pollution levels, water quality and use, air quality, land use, and the existence of colonias. Environmental factors are viewed by many as key to the quality of life in a region, and may become aggravated by a lack of fiscal and capital resources necessary to address clean-up, remediation, and other issues. In many cases, there are critical environmental needs in the border area that include some form of near-term intervention requiring substantial investments of both time and funding.

- Given that much of the region is arid, water supplies will be the fundamental limiting factor in regional growth in California, Arizona, New Mexico, and the Upper Rio Grande area in Texas.
- The middle and lower reaches of the Rio Grande will remain dependent on important agriculture water from the Rio Concho and a complex set of relationships with Mexico.
- Overall, the set of environmental problems impacting the border region are localized in the major urban areas.
- While the border is far from pristine, it does not have environmental degradation at levels that are experienced in the nation's most polluted cities.
- The environmental conditions of the border counties are largely related to the population density in each county.
- In light of population growth in the region that is expected to continue for some time, new demands will be generated that will be factors in determining environmental quality.
- The arid ecosystem that lies across a large portion of the southwest border is extremely fragile. The value of this natural system may lead to decisions that will limit development in some places to save unique natural features.
- At the human level, colonias have created pockets of environmental concerns that may have harmful long and short term effects on the health of residents that are yet undeterminable.
- The need for colonia infrastructure is an expensive yet perhaps unavoidable cost that border counties will need to address in the near future to eliminate areas of environmental blight and improve quality of life for more than 1.5 million residents.
- Agriculture may decline in the southwestern border counties, mirroring a trend nationwide as a result of urban sprawl but at a rate less rapid than other regions in the country during the last 20 years.

## Policy Issues

As the border region continues to grow, environmental demands are likely to increase and are likely to be highly politicized. The southwest border region will also be the queue for federal support, especially in light of huge recent national demands as a result of catastrophic events. Hurricanes, floods, tornados, and other severe and unpredictable disasters will divert funds for environmental programs away from the border to areas, such as the Gulf Coast. As a result, the federal role is likely to weaken even further in the short-term. Local jurisdictions will subsequently have to accept a greater burden for environmental monitoring and enforcement, a burden they are unprepared to bear in many cases. Few communities in the region are likely to forego an opportunity to create more jobs and expand their tax bases. As a result, for many locales, economic development will likely win out over environmental protection due to a lack of a federal presence that can buffer demands to expand cities and draw on the resource base.

Support to protect and improve colonias is unlikely to come from federal agencies. They are likely to remain a local development problem except when immigration issues attract federal attention. Despite this likelihood, colonias will require a federal effort to coordinate health care responses, a demand which local jurisdictions have not been able to meet. Air quality and water planning are both closely linked to Mexico's border communities. Many minor air quality issues can be addressed by city to city agreements related to roads, elimination of high polluting "clunkers,"<sup>1</sup> and accelerated port of entry practices to reduce substantial queues. Federal air quality standards may provide an avenue for drawing federal funds through *de facto* entitlements that can be tied to

cooperative programs with Mexico's border cities, and where relevant, the development of state-of-the-art industries. Overall, the region's water demands may be the deciding factor in the growth of the border counties, requiring the most in-depth planning and implementation, with state cooperation being a key factor versus a predominantly federal role. Bi-national opportunities will, however, require a strong federal hand that both nations are capable of providing through the International Boundary and Water Commission (IBWC) and the Comision Internacional de Limites y Aguas (CILA). Both are the designated agencies in their respective countries for addressing international water issues between the U.S. and Mexico.

As agriculture declines in most of the nation, it remains stable in many parts of the border, especially in parts of Mexico. Water and agriculture will be an environmental friction point as domestic demand for water supplies competes with the agriculture sector. Agriculture practices also add to water quality problems through the use of fertilizers and chemicals that run-off into the region's water systems. As policy makers in the border region think about its future, a strong link between national agriculture policies and federal funding should be evaluated. Agriculture may provide an arena where federal funding in decline in other regions, as agriculture is over taken by urban sprawl, can be diverted southward to address concerns associated with protecting food supplies, water usage, soil, and water conservation.

The border counties experience a range of environmental issues but are positioned to limit long term impacts if policy and decision makers can obtain the resources that allow for the region to pursue a more sustainable path of development than in the past. The environmental policy area also provides

opportunities to examine new means for addressing problems that many regions of the nation may not view as positive levers for economic growth. Among these are water technologies related to desalination and advancing technology in the agriculture sector. While scant federal investment in environmental programs presently exists in the region, and demands from other areas in need of rebuilding infrastructure is high, the area of environmental policy and regulation is quite broad and border counties may be in a position to establish an agenda that will raise environmental quality in the future, or at least, minimize decline as population pressure increases. Unlike interior areas of the nation, the southwest border counties are only beginning to experience levels of air pollution and water quality concerns that many metropolitan, and some rural areas, have experienced for decades. Policy and decision makers have an opportunity to learn from the lessons of other regions and to take the steps necessary to preserve the unique natural treasures of the region and undertake development that will create fewer negative externalities.

### **Federal Efforts**

If considered a state, the border counties would rank 51<sup>st</sup> in receipt of grants from the Environmental Protection Agency (EPA). Federal EPA expenditures in the region suggest from one perspective that the low level of agency presence may be neglect by EPA as it focuses its attention on other areas at the expense of the border. From another perspective, it may be that the federal government may not see the border region as

severely impacted as other areas. Undoubtedly, the border has some severe issues. The extent to which regional offices of EPA are responding within southwest border counties is, however, difficult to gauge. EPA procurements and contracts within the region resulted in a 39<sup>th</sup> placing as a 51<sup>st</sup> state without San Diego (See Appendix 8.1).

These data, however, need to be put into perspective from two dimensions. First, considerable EPA funding goes towards addressing historical environmental problems associated with air and water pollution. Large states and many areas of the industrial midwest have significant long term problems the border can avoid. Second, larger states with high urban concentrations, such as Los Angeles in California, Houston in Texas, Chicago in Illinois, have major air quality management programs under EPA. This is not to say, of course, that air and water quality issues are not important, but by comparison the border does not have a history of environmental degradation on the same scale.

A review of Table 8.1 indicates that two border counties, El Paso and San Diego, receive more than 80 percent of EPA grants to the southwestern border counties and absorb 89 percent of EPA contracts. Pima, El Paso, and San Diego counties also account for all EPA wages spent in the region, evidence of regional office locations in those counties, but also suggests that EPA may not be as fully engaged region-wide as they possibly should be, especially with programs that are aimed at protecting resources and avoiding environmental problems.

**Table 8.1**  
**2003 (Fiscal Year) Federal Government Expenditures for the Environment Protection Agency**  
**Border Counties (In Thousands of Dollars)**

	<b>Grants</b>	<b>Procurement Contracts</b>	<b>Salaries and Wages</b>	<b>Total</b>
<b>Arizona</b>				
Cochise	\$20,000	\$0	\$0	\$20,000
Pima	\$1,850,899	\$375,713	\$76,000	\$2,302,612
Santa Cruz	\$10,000	\$0	\$0	\$10,000
Yuma	\$146,102	\$0	\$0	\$146,102
<b>California</b>				
San Diego	\$10,618,274	\$2,880,054	\$485,000	\$13,983,328
Imperial	\$0	\$0	\$0	\$146,102
<b>New Mexico</b>				
Dona Ana	\$901,755	\$0	\$0	\$901,755
Hidalgo	\$0	\$0	\$0	\$901,755
Luna	\$0	\$0	\$0	\$0
<b>Texas</b>				
Brewster	\$0	\$0	\$0	\$0
Cameron	\$2,062,500	\$0	\$0	\$2,062,500
Culberson	\$0	\$0	\$0	\$2,062,500
El Paso	\$10,803,462	\$0	\$419,000	\$11,222,462
Hidalgo	\$40,000	\$0	\$0	\$40,000
Hudspeth	\$0	\$0	\$0	\$40,000
Jeff Davis	\$0	\$0	\$0	\$0
Kinney	\$0	\$0	\$0	\$0
Maverick	-\$108,667	\$0	\$0	-\$108,667
Presidio	\$0	\$0	\$0	-\$108,667
Starr	-\$2,134	\$0	\$0	-\$2,134
Terrell	\$0	\$0	\$0	\$2,134
Val Verde	\$0	\$0	\$0	\$0
Webb	\$0	\$0	\$0	\$0
Zapata	\$0	\$0	\$0	\$0
<b>Border Counties Total</b>	<b>\$26,342,191</b>	<b>\$3,255,767</b>	<b>\$980,000</b>	<b>\$30,577,958</b>

Source: U.S. Census, 2003.

## Air Quality

In the border region we find that several areas do not meet the air quality standards that are monitored by the EPA. As Map 8.1 shows, all California border counties and all Arizona border counties, along with Doña Ana County in New Mexico and El Paso County in Texas, do not meet attainment standards for at least one EPA standard. In the case of Imperial County in California, it fails on three air quality standards. As non-attainment areas, these counties do not meet the national primary or secondary ambient air quality standard for one or more pollutants. In most rural areas of the border, attainment standards are met, especially in the middle and lower Rio Grande Valley. Because of the mix of pollutants that are measured and the differences in the severity or risks associated with each, obtaining a ranking for the border as a 51<sup>st</sup> state in air quality is not possible. Map 8.1 shows that the entire region is far better off than many areas of the nation, but it must be recognized that population increases are directly linked to greater air pollution, and as such, this is an area that requires careful monitoring.

Yet, it remains that the southwest border has several air quality concerns. While on a national scale air quality has been improving over the past 20 years, the border counties include air sheds where air quality has not dramatically improved, resulting in visibility problems and extended health impacts on residents, ranging from allergies and asthma to more critical respiratory effects. In urban areas like El Paso, Laredo, and the Imperial Valley, a large amount of vehicular traffic on the U. S. side mixes its output of carbon monoxide with older higher emission emitting vehicles on the Mexico side, a.k.a. “clunkers,” in the shared air shed.

When specific emissions are considered, we find that the border contributes significant percentages to state totals. In more populated counties, such as Pima County in Arizona, a

larger portion of emissions are created. Population is a key variable in creating emissions, thus more populated counties are larger emissions contributors (Table 8.2). Throughout the region there are significant air quality issues to be addressed, regardless of attainment status or percentage of contribution. These emissions originate from a variety of sources, for which no systematic data is collected, such as household burning of heating fuels (i.e., wood and waste), a common practice among low-income border residents on both sides. Breaking total air pollution down to its elements, it is clear that in Arizona, a more heavily populated border region and a geographically smaller area, airborne pollutants are dramatically elevated. By contrast, large and unpopulated areas in Texas, not surprisingly, have less air borne pollutants.

Carbon monoxide (CO) is one of the more familiar air pollutants with which the border must contend. Motor vehicles are responsible for approximately 56 percent of all CO emissions nationwide.<sup>2</sup> Carbon monoxide is correlated closely with heavy traffic. Urbanization accounts for 85 percent of all CO emissions in cities and reaches highest levels in colder months when inversion layers, prevalent in areas, such as El Paso, create a condition that holds CO closer to the ground. In California, San Diego and Imperial counties account for more than 8 percent of the state’s carbon monoxide, with the larger urban areas north of the border serving as the major sources of CO. However, this 8 percent contribution of CO mirrors the 8.7 percent of California’s population in the border counties. In Arizona, Pima County adds dramatically to the total border CO and results in 21 percent of the total state CO emanating from the border, matching the 21.9 percent of the state’s population in the border counties. New Mexico, with the urban area of Doña Ana County (Las Cruces) finds 12 percent of its CO emissions coming from a source in the border region aligned to the border counties’ 11.4 percent of the state’s population. In Texas, 7 percent of the CO emissions are from the border, with the larger border counties

reporting a much greater volume as a function of increased automobile usage and trucking for trade purposes with Mexico. This is a slightly lower rate of CO than the other border counties, respective to their state, based on 9.5 percent of the population residing in border counties.

Sulfur dioxide (SO<sub>2</sub>) is created when fuel containing sulfur (mainly coal and oil) is burned at power plants or during metal smelting and other industrial processes. The highest monitored concentrations of SO<sub>2</sub> are recorded near large industrial facilities. High concentrations of SO<sub>2</sub> can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Short-term exposures of asthmatic individuals to elevated SO<sub>2</sub> levels during moderate activity may result in breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other effects that have been associated with long-term exposures to high concentrations of SO<sub>2</sub>, in conjunction with high levels of particulate matter (PM) include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. At risk groups of the population potentially effected under these conditions consist of individuals with heart or lung disease, as well as the elderly and children, plus those living in colonias that lack paved roads and other infrastructure.

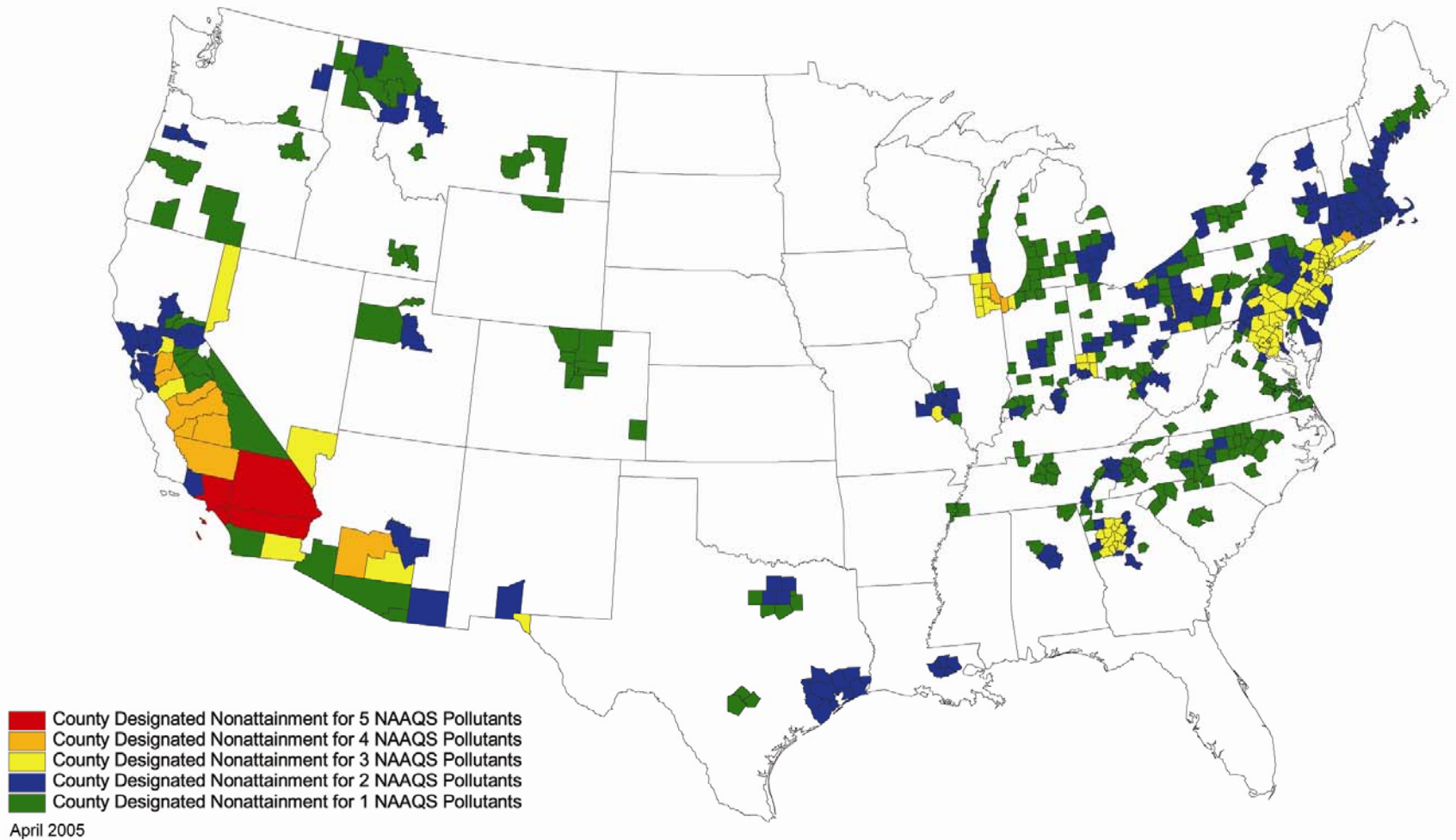
In the border region, SO<sub>2</sub> concentrations are a small portion of state totals, with highest percent of concentrations in Arizona and New Mexico. However, when SO<sub>2</sub> combines with nitrogen oxides (NOx) emissions, health and visibility problems increase. NOx refers to a group of highly reactive gases that contain nitrogen and oxygen in varying amounts and play a major role in the formation of ozone, PM, haze, and acid rain. The major sources of human-made NOx emissions are high-

temperature combustion processes, such as those that occur in automobiles and power plants. Home heaters and gas stoves can also produce substantial amounts in indoor settings. In the border region, increasing population and vehicles result in the output of more NOx. These concentrations combine with inversion layers and warm winters to create a longer season of high emissions that will continue to escalate until emission standards are dramatically altered.

Particulate matter (PM) is a non-point source that is associated with serious health effects that lead to increased hospital admissions and emergency room visits for people with heart and lung disease. PM is especially prevalent during windy periods and has deleterious environmental impacts by changing soil and chemical balances, causing erosion, and combining with fuel consumption to produce combined pollution impacts. In the border region, and especially around colonias, PM sources include vehicles, unpaved roads, agricultural activities, urban fringe construction, and the burning of wood for heat. Across the four states, particulate rates at both the 10 and 25 parts per million are frequent. Mitigation of PM in an arid region is particularly difficult and is likely to remain problematic. In addition, PM management is a local versus state or federal issue, creating an additional issue which counties are left to address.

Volatile Organic Compounds (VOCs) are leftovers emitted into the air when fossil fuels do not burn completely. VOCs also get into the air when gasoline, paints, and other products evaporate. When VOCs mix with nitrogen oxides and oxygen in the air and are baked by sunlight, a new chemical combination is formed—ozone. Ozone is the major ingredient of smog. VOCs are emitted by vehicles, manufacturing, and

**Map 8.1**  
**2005 Counties Designed as "Nonattainment"<sup>3</sup>**



Source: [www.epa.gov](http://www.epa.gov).

**Table 8.2**  
**2001 Emissions Inventory for Border Counties (in Tons per Year)**

	<b>CO</b>	<b>% CO from Border</b>	<b>NOX</b>	<b>% NOX from Border</b>	<b>PM 10-PRI</b>	<b>% PM10 from Border</b>	<b>PM25-PRI</b>	<b>% PM25 from Border</b>	<b>SO<sup>2</sup></b>	<b>% SO<sup>2</sup> from Border</b>
<b>Total, U.S.</b>	106,294,712	1.58%	21,546,518	1.23%	22,887,304	1.74%	6,631,701	1.35%	15,931,608	0.27%
<b>Arizona</b>	1,721,563	21.66%	381,368	17.89%	258,972	20.84%	74,395	19.19%	121,109	10.34%
Cochise	62,876		17,120		12,468		3,863		6,693	
Pima	235,581		38,634		26,563		6,932		5,183	
Santa Cruz	19,248		2,194		3,619		877		106	
Yuma	55,255		10,282		11,318		2,601		546	
<b>California</b>	7,787,478	8.49%	1,269,006	7.33%	1,119,402	7.88%	365,558	6.72%	75,315	3.02%
Imperial	56,082		16,683		16,191		5,232		264	
San Diego	605,178		76,343		72,011		19,316		2,007	
<b>New Mexico</b>	1,053,734	11.46%	307,475	7.69%	877,569	10.34%	168,828	9.65%	154,306	14.42%
Dona Ana	84,461		13,553		67,849		11,534		1,362	
Hidalgo	13,533		2,586		7,749		1,973		20,634	
Luna	22,801		7,494		15,141		2,784		248	
<b>Texas</b>	7,362,185	7.17%	1,815,480	4.44%	2,546,948	6.46%	554,715	6.26%	921,555	0.61%
Brewster	6,795		838		2,697		790		80	
Cameron	84,925		11,828		36,346		6,789		985	
Coleman	4,102		877		3,487		751		63	
El Paso	146,871		24,391		13,991		4,569		1,991	
Hidalgo	149,569		19,739		61,517		11,598		1,202	
Hudspeth	18,846		3,724		2,548		680		163	
Jeff Davis	4,878		1,003		1,564		463		68	
Kinney	2,680		608		1,984		444		44	
Maverick	14,065		1,714		8,524		1,543		109	
Presidio	4,880		900		2,518		669		74	
Starr	17,474		3,395		12,645		2,260		172	
Terrell	3,868		2,537		1,249		373		62	
Val Verde	14,146		1,905		3,649		912		152	
Webb	48,700		6,250		9,980		2,416		401	
Zapata	5,892		899		1,829		477		40	
<b>Total Border</b>	1,682,707		265,495		397,437		89,846		42,647	

Source: www.epa.gov.



consumer products including hair sprays, engine degreasers, anti-perspirants and deodorants, air fresheners, windshield washer fluids, charcoal lighter fluid, and household cleaners used by nearly every individual living in the border region. Strikingly, nationwide consumer products account for new emissions equal to 20 million new cars driving 10,000 miles each year.<sup>4</sup>

VOCs are a major ingredient of ozone and result in lung damage and contribute to hundreds of millions of dollars of crop and ecological damage each year. In the border region, VOCs are high in Arizona, but the largest contributor is San Diego County, nearly matching the totals for all the border counties analyzed in the three other border states.

With improvements being reported nationwide in air quality, the border region, while lagging in some respects, also has the potential to make progress. Perhaps the biggest in-roads will be through bi-national activities to reduce the most manageable pollution sources while making incremental progress in contending with other pollution sources. Regardless, a high concentration of non-attainment status in the region points out the need to address the air quality problem, and is a key indicator of environmental quality in the region. Federal resources to address these programs come in a variety of forms ranging from Congestion Mitigation and Air Quality under the Federal Highway Administration to the National Air Quality Program of the Department of Agriculture. Individual counties will have different needs and meet the requirements of different programs. Because of a variety of options, the concerns associated with air quality have the advantage of being more likely to be systematically addressed than in other policy areas.

## Water

The recurrence of drought conditions is one of the factors that exacerbate the problems associated with population growth in the southwest. Water resources data collected by the U.S. Geological Survey (USGS) is indicative of the problems that droughts create. For example in 2002, four rivers in southern Arizona all recorded yearly discharge below their median discharges for the period 1950-2002.<sup>5</sup> As reported in *Water Resources Data*, 2004, Texas suffered similar drops below the mean flows in the Guadalupe, Nueces, and Rio Grande Basins.<sup>6</sup>

Successful economic development in the border region will be a function of available water sources and the creation of new sources. However, there is no federal willingness to make the massive federal investment that drove water development for more than 50 years, for both environmental reasons and economics.<sup>7</sup> As a consequence, trans-basin diversions, such as those from the Colorado River via the All America Canal to Imperial and San Diego counties in California, and the Central Arizona Project in Arizona, are highly unlikely in the future. In its wake, conservation and new alternatives to meet the water consumption needs of the region must be pursued. Desalination and new practices in regeneration of groundwater are likely to emerge. Besides being approaches that are of interest to numerous federal agencies (EPA, USDA, and DOD), these technology-driven approaches to water development may provide opportunities for investments that will add to the economic base of the region.

Table 8.3 provides an overview of how water is employed in border counties, while Appendix 8.2 gives greater detail by

county. Given the combination of high agriculture output, especially in Imperial County and the counties of the Rio Grande Basin, it is no surprise that irrigation usage accounts for the largest share (58%) of water withdrawals. Domestic use, provided via public supply systems, ranks as the second highest use, but is less than 10 percent of the total withdrawals of freshwater. Lesser or limited users account for the remainder. Domestic self-supplied (i.e., well water) and mining, a traditional border region industry, each account for less than one-half of one percent (.38%) of water withdrawals.<sup>8</sup> An area of potential increased water to meet demand may rest in geothermal electric generation, which has proved its potential in the Imperial County area and to a lesser degree in other areas of the border, but remains less than .2 percent of all uses. It is important to note that saline water is a potential source for conversion to water suitable for industrial

uses. San Diego County dominates saline use, and as a total of all use, accounts for more than 30 percent of saline withdrawals. As desalination becomes both financially feasible and an option that is openly sought as a source of water, the border region can soon expect this use to increase dramatically. The development of a new desalination plant at Fort Bliss in El Paso County bodes well for this type of water development, a local alternative for developing new water supplies that received major federal funding. It serves as an example of federal willingness to explore new options that can serve as a new source of water on a smaller scale than the large water projects that were built in the past to serve multiple regions. Industrial self-supplied water may also remain limited at only .11 percent, but may be underestimated due to shared aquifers with Mexico and withdrawals by maquiladoras and agriculture that are not reported by U.S data sources.

**Table 8.3**  
**2000 Summary of Major Water Uses in Border Counties (in Mgal/day)**

	Public supply of freshwater	Domestic, self-supplied freshwater	Industrial, self-supplied freshwater	Irrigation, freshwater	Livestock use, freshwater	Mining freshwater	Geothermal-electric, freshwater	Total Freshwater	Total withdrawals saline	Total withdrawals
<b>Total</b>	1062.01	43.32	12.72	6646.94	20.8	43.04	21.75	7850.58	3598.11	11460.58
<b>% Total</b>	9.28%	0.38%	0.11%	58.06%	0.18%	0.38%	0.19%	68.57%	31.43	100%

Source: www.usgs.gov.

**Shared Aquifers**

Overall, water projections, as may be expected in a growing region, indicate a continued demand in southwestern border counties that adds to the problems of droughts and aridity. Each state has a rigorous water demand forecast project in place which, with federal assistance in infrastructure development, can be used to maximize opportunities in water

resource management. In time, developing alternatives to current supplies through a variety of technological opportunities (i.e., desalination) may hold the key to a variety of future development issues. As border counties prepare for more residents, water planning will require a major effort and a high degree of cooperation between states, regional, and local entities that will need to provide a substantial, enduring, and expensive infrastructure. *The United States-Mexico*

*Transboundary Aquifer Assessment Act*, S. 214, introduced in the 109<sup>th</sup> Congress by Senator Jeff Bingaman, (D-NM) would provide one step in better understanding the aquifer issue by authorizing the Secretary of the Interior, and thus the USGS, to “systematically assess priority transboundary aquifers; and, provide the scientific foundation necessary for state and local officials to address pressing water resource challenges in the United States-Mexico border region.” The importance of these proposed studies is key to the southwest border counties and their future. In addition, to provide this critical public service there will be an unprecedented need for cross-border cooperation at a level that may be more intense and deliberative than ever before.

### **Agriculture**

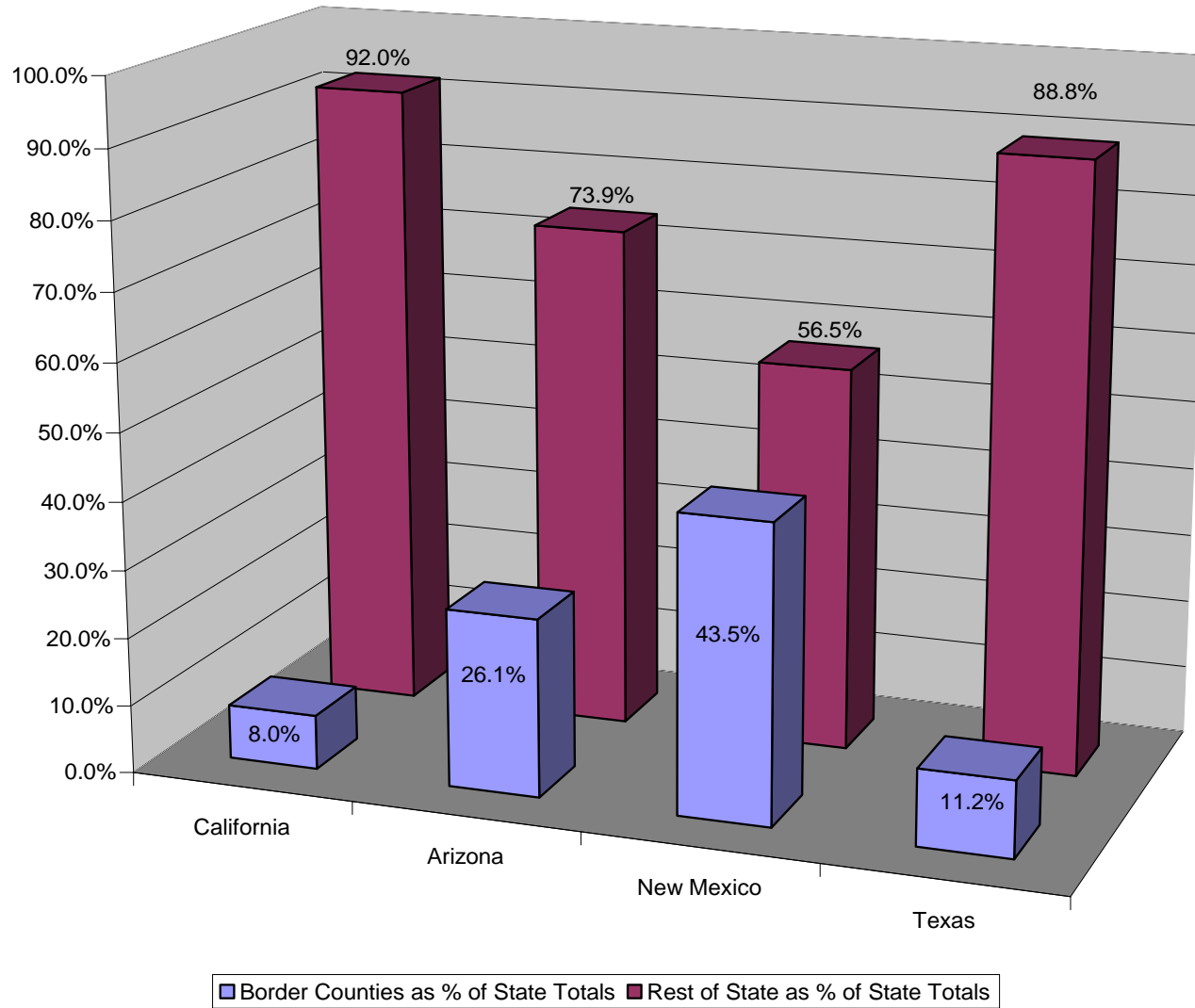
Agriculture is an environmental measure related to soil quality, as well as water availability and climate. As a 51<sup>st</sup> state, the southwestern border counties would rank 29<sup>nd</sup> following Mississippi and Kentucky in agriculture crop value. In each respective state of the southwest border, cash receipts for crops from border counties make up a range of 8 to over 50 percent of state totals (Figure 8.1). In Texas (8.4%) and California (7.99%) agriculture in border counties is a relatively small component of state totals. However, California is the nation’s leading agriculture producer, and Texas is second, and in their respective border counties agriculture is a billion dollar contribution to their state economy. In New Mexico and Arizona the contributions are larger, 43.5 percent and 53 percent, respectively. Yet these are much smaller states in terms of agriculture production with total state agricultural outputs not equal to border counties in the agriculture rich states of Texas and California. In the border area, alternative water users (domestic and municipal) will continue to put environmental pressure on agriculture water users.

Agriculture run-off also raises a host of environmental concerns ranging from phosphates and nitrogen, and in this area the need to control to avoid irreversible pollution of soil and water is of great importance. Agriculture in southwest border counties can also be looked to for more sophisticated water technologies so that agriculture production can remain stable, a development that may also provide economic expansion in this sector.<sup>9</sup>

The largest counties for agriculture production share the same concern over the development of water resources that occurred in the first half of the twentieth century. San Diego and Imperial counties rank 1<sup>st</sup> and 2<sup>nd</sup> followed by Yuma County in Arizona among southwest border counties in sales of crops (Table 8.4). The Colorado River is the source of water for these agricultural behemoths that are national leaders in their production areas. For the 4<sup>th</sup> ranked producer, Hidalgo County in Texas, the dollar volume declines significantly to less than one-third of the three larger agriculture producing counties.

Many counties have seen a decline in agricultural activity as urbanization is encroaching on agriculture in areas like El Paso, Imperial, Webb, and others. In southwest border counties, agriculture decline will be less drastic than in other parts of the nation and will be off-set in part by Mexican agriculture, which many expect will absorb some of the loss from U.S. production that yields to urbanization. As agriculture declines nationwide, policy leaders in the border region may look to this labor-intensive and increasingly technologically oriented sector for stability and some growth, with potential investment from federal agencies that support a variety of agriculture programs that may be beneficial to the region for both environmental and economic reasons.

**Figure 8.1**  
**2003 Percentage of Cash Receipts for Crops in Each State and Border Counties**



Source: [www.usda.gov](http://www.usda.gov).

**Table 8.4**  
**2003 Agriculture – Cash Receipts for Crops (in Thousands of Dollars)**

State	Cash Receipts	Rank Among Border Counties	State	Cash Receipts	Rank Among Border Counties
<b>Arizona</b>	<b>\$1,327,419,000</b>		<b>Texas</b>	<b>\$3,731,751,000</b>	
<i>Cochise</i>	\$46,598,000	9	<i>El Paso</i>	\$29,030,000	10
<i>Pima</i>	\$47,096,000	8	<i>Hudspeth</i>	\$21,671,000	11
<i>Santa Cruz</i>	\$222,000	20	<i>Jeff Davis</i>	\$146,000	21
<i>Yuma</i>	\$607,580,000	3	<i>Presidio</i>	NA	22
<b>Arizona Border Counties</b>	<b>\$701,496,000</b>		<i>Brewster</i>	\$502,000	19
<b>California</b>	<b>\$19,152,722,000</b>		<i>Terrell</i>	NA	22
<i>Imperial</i>	\$649,063,000	2	<i>Val Verde</i>	\$691,000	17
<i>San Diego</i>	\$881,930,000	1	<i>Kinney</i>	\$681,000	18
<b>California Border Counties</b>	<b>\$1,530,993,000</b>		<i>Maverick</i>	\$4,164,000	14
<b>New Mexico</b>	<b>\$542,790,000</b>		<i>Webb</i>	\$1,265,000	16
<i>Hidalgo</i>	\$10,863,000	12	<i>Zapata</i>	NA	22
<i>Luna</i>	\$52,428,000	7	<i>Starr</i>	\$10,714,000	13
<i>Dona Ana</i>	\$172,927,000	5	<i>Hidalgo</i>	\$182,431,000	4
<b>New Mexico Border Counties</b>	<b>\$236,218,000</b>		<i>Cameron</i>	\$62,306,000	6
			<i>Culberson</i>	\$3,488,000	15
<b>All Border Counties</b>	<b>\$2,785,796,000</b>		<b>Texas Border Counties</b>	<b>\$317,089,000</b>	

Source: www.usda.gov.

**Colonias**

In many ways colonias may become the number one environmental issue facing the border region, primarily due to a lack of funding for basic services. In Texas alone, 1,624 colonias are reported providing housing to a total of more than 1 million residents as measured by Census 2000 and the State

of Texas. In most cases, these colonias, totaling 1,869 in the border counties (Table 8.5), are not serviced with basic utilities. As a result, colonias are measures of land ownership that cannot be tracked through traditional markets and require a substantial investment in infrastructure to meet minimum standards in many areas. Colonias are areas that require sewer lines or septic systems, water delivery, roads, and flood

control. In addition, they get lost due to a lack of political clout stemming from isolation geographically and from many governmental institutions, compounded by lower socio-economic status. The relationship between socio-economic factors is well established by researchers. Colonia residents, being among the poorest, least educated, and who are often unauthorized immigrants, lack political participation and representation.<sup>10</sup> However, recent legislative proposals and establishment of colonia initiatives in border states and counties, such as Texas's Colonias Initiatives Program, or legislative proposals, such as H.R. 1319, *The Border Economic Recovery Act for Health and the Environment*, introduced by Congressman Silvestre Reyes (D-TX)<sup>11</sup> are helping to bring attention to the complex issue of colonias.<sup>12</sup> Among the estimated 1.5 million colonia residents in the border region, a lack of basic public services exacerbates an

already meager existence. In Texas, more than 100,000 colonia residents have no access to water supplies or sewers, while another 433,000 have water, but no sewer systems as shown in Table 8.6. As a result, raw sewage is openly disposed and contaminated water is routinely used for drinking water and hygiene. The consequences are numerous, with disproportionate environmental health effects being borne by children. Colonias present numerous environmental and health concerns, but most border counties find themselves unable to provide basic needs due to funding shortages. No other levels of government are approaching colonias systematically or with substantial resources, leaving border counties and their sub-units as the primary administrative bodies charged with addressing colonia issues for some time to come.

**Table 8.5**  
**2004 Number of Colonias and Population Residing in Colonias by State**

State	# of Colonias	Population	State	# of Colonias	Population
<b>Arizona</b>	86	<b>190,697</b>	<b>Texas</b>	1624	<b>1,041,428</b>
<i>Cochise</i>	18	33,105	<i>Brewster</i>	3	720
<i>Pima</i>	12	31,824	<i>Cameron</i>	156	41992
<i>Santa Cruz</i>	7	22,328	<i>Culberson</i>	NA	
<i>Yuma</i>	16	103,440	<i>El Paso</i>	286	66604
<b>California</b>		<b>244,491</b>	<i>Hidalgo</i>	716	117172
<i>Imperial</i>	16	244,491	<i>Hudspeth</i>	5	1231
<i>San Diego</i>	NA		<i>Jeff Davis</i>	1	200
<b>New Mexico</b>	143	<b>42, 984</b>	<i>Kinney</i>	1	66
<i>Dona Ana</i>	40	37,697	<i>Maverick</i>	64	219301
<i>Hidalgo</i>	7	3,522	<i>Presidio</i>	7	825
<i>Luna</i>	5	1,765	<i>Starr</i>	285	23953
			<i>Terrell</i>	1	1128
			<i>Val Verde</i>	15	109510
			<i>Webb</i>	55	453740
			<i>Zapata</i>	29	4986

Source: www.census.gov. NA = data not available.

**Table 8.6**  
**2003 Colonia Population Without Access to Water and Sewer in Texas**

<b>County</b>	<b>No Water or Sewers</b>	<b>Water but No Sewer</b>
Brewster	0	180
Cameron	2577	28558
El Paso	7558	44151
Hidalgo	5535	108634
Hudspeth	95	1136
Jeff Davis	0	200
Kinney	0	66
Maverick	24996	148749
Presidio	505	
Starr	148	21699
Terrell	0	1128
Val Verde	12498	74234
Webb	50566	
Zapata	45	4881
<b>Texas Total</b>	<b>104,523</b>	<b>433,616</b>

Source: Texas Water Development Board.

**Appendix 8.1**

**2003 Federal Government Expenditures by the Environmental Protection Agency by State (in Thousands of Dollars)**

	Grants	Rank	Procurement Contracts	Rank	Salaries and Wages	Rank
Alabama	\$48,658	31	\$1,553	29	\$2,753	23
Alaska	\$87,086	15	n/a		\$2,200	25
<b>Arizona</b>	\$53,361	28	\$376	38	\$262	36
Arkansas	\$22,453	48	\$70	46	n/a	
<b>Border Counties (w/o San Diego)</b>	<b>\$15,724</b>	<b>51</b>	<b>\$376</b>	<b>39</b>	<b>\$495</b>	<b>34</b>
California	\$340,020	1	\$34,466	9	\$72,229	5
Colorado	\$52,504	29	\$34,431	10	\$56,035	10
Connecticut	\$39,778	37	\$1,853	28	\$619	31
Delaware	\$21,713	49	\$11,525	18	n/a	
Florida	\$123,753	9	\$5,023	23	\$6,864	19
Georgia	\$73,687	21	\$25,524	11	\$84,635	4
Hawaii	\$28,341	44	n/a		\$538	32
Idaho	\$51,085	30	\$40	47	\$1,836	28
Illinois	\$154,123	4	\$13,441	16	\$95,662	3
Indiana	\$74,604	20	\$3,322	26	\$110	41
Iowa	\$76,735	19	\$99	45	\$385	35
Kansas	\$37,294	39	\$15,015	14	\$41,188	12
Kentucky	\$44,535	32	\$14,279	15	\$200	37
Louisiana	\$70,881	22	\$377	37	\$946	29
Maine	\$40,783	34	\$602	34	n/a	
Maryland	\$100,713	11	\$83,302	4	\$7,027	18
Massachusetts	\$135,951	7	\$90,055	3	\$57,544	9
Michigan	\$147,258	5	\$36,711	7	\$25,795	14
Minnesota	\$83,607	18	\$2,686	27	\$6,466	20
Mississippi	\$64,039	24	\$452	36	\$2,133	26
Missouri	\$87,186	14	\$18,908	13	\$677	30
Montana	\$29,188	43	\$165	42	\$2,528	24
Nebraska	\$31,930	42	\$123	44	\$87	42
Nevada	\$31,990	41	\$3,858	25	\$12,283	16
New Hampshire	\$37,640	38	\$1,445	30	n/a	
New Jersey	\$88,364	13	\$35,507	8	\$18,000	15
<b>New Mexico</b>	\$40,346	35	\$984	31	\$150	38
New York	\$124,927	8	\$20,209	12	\$58,391	8
North Carolina	\$85,574	16	\$60,236	6	\$95,818	2
North Dakota	\$16,445	50	\$472	35	n/a	
Ohio	\$170,525	3	\$96,689	2	\$42,345	11
Oklahoma	\$57,505	27	\$6,478	22	\$4,195	22
Oregon	\$62,239	25	\$4,522	24	\$9,244	17
Pennsylvania	\$139,724	6	\$82,508	5	\$67,993	6
Rhode Island	\$32,868	40	\$7,049	21	\$5,846	21
South Carolina	\$44,243	33	\$663	33	n/a	
South Dakota	\$25,877	46	\$225	41	\$67	43
Tennessee	\$64,344	23	\$141	43	\$495	33
<b>Texas</b>	\$302,301	2	\$10,800	19	\$67,339	7
Utah	\$40,288	36	\$334	40	\$129	40
Vermont	\$27,758	45	\$807	32	n/a	
Virginia	\$94,426	12	\$195,609	1	\$106,208	1
Washington	\$117,287	10	\$9,486	20	\$41,012	13
West Virginia	\$58,183	26	\$1	48	\$2,027	27
Wisconsin	\$85,540	17	\$13,203	17	\$144	39
Wyoming	\$22,926	47	n/a		n/a	
United States, Total	\$3,996,749		\$1,011,180		\$1,424,863	

Source: Consolidated Federal Funds Report 2003, U.S. Census Bureau.



**Appendix 8.2**  
**2000 Major Water Use in Border Counties (in Mgal/day)**

	Public supply of freshwater	Domestic, self-supplied freshwater	Industrial, self-supplied freshwater	Irrigation, freshwater	Livestock use, freshwater	Mining freshwater	Geothermo-electric, freshwater	Total Freshwater	Total withdrawals saline	Total withdrawals
<b>Arizona</b>										
Cochise	10.93	2.49	0.06	214.17		0.26		227.91	0	233.27
Pima	169.81	2.82	0.04	88.85		35.95	2.91	300.38	0	300.38
Santa Cruz	8.77	0.77	0	13.1		0.02	0	22.66	0	22.66
Yuma	28.75	2.23	0	1431.72		0.06	0.52	1463.28	0.08	1463.36
<b>California</b>										
Imperial	31.15	0.4	0	2834.89	7.26	1	5.41	2880.11	0	2886.61
San Diego	438.17	32.92	0.53	329.43	2.68	0	0	803.73	3590.11	4393.87
<b>New Mexico</b>										
Dona Ana	34.07	0.88	0.07	456.24			2.48	493.74	0	493.74
Hidalgo	0.81	0.17	0.01	37.41			0	38.4	0	38.4
Luna	3.92	0.64	0.05	85.28			0	89.89	0	89.89
<b>Texas</b>										
Brewster	1.92		0	0.29	0.66	0.62	0	3.49	0	3.49
Cameron	51.09		0.94	187.59	1.13	0.01	2.43	243.19	3.56	246.75
Culberson	0.99		0	10.45	0.34	1.96	0	13.74	0.15	13.89
El Paso	128.85		8.17	216.23	1.6	0.08	5.08	360.01	0.01	360.02
Hidalgo	78.21		1.7	310.13	0.68	1.26	1.17	393.15	1.12	394.27
Hudspeth	0.19		0	266.92	0.59	0	0	267.7	0	267.7
Jeff Davis	0.48		0.25	0.23	0.53	0	0	1.49	0	1.49
Kinney	0.96		0	3.89	0.36	0	0	5.21	0	5.21
Maverick	6.16		0.07	98.7	0.41	0.36	0	105.7	0.55	106.25
Presidio	1.41		0.28	19.82	0.61	0.01	0	22.13	0	22.13
Starr	8.95		0.32	29.46	1.06	0.87	0	40.66	0.62	41.28
Terrell	0.17		0	0.44	0.32	0.02	0	0.95	0.03	0.98
Val Verde	12.94		0.06	1.43	0.65	0.17	0	15.25	0	15.25
Webb	41.43		0.17	6.41	1.46	0.37	1.75	51.59	1.16	52.75
Zapata	1.88		0	3.86	0.46	0.02	0	6.22	0.72	6.94
<b>Total</b>	<b>1062.01</b>	<b>43.32</b>	<b>12.72</b>	<b>6646.94</b>	<b>20.8</b>	<b>43.04</b>	<b>21.75</b>	<b>7850.58</b>	<b>3598.11</b>	<b>11460.58</b>
<b>% Total</b>	<b>9.28%</b>	<b>0.38%</b>	<b>0.11%</b>	<b>58.06%</b>	<b>0.18%</b>	<b>0.38%</b>	<b>0.19%</b>	<b>68.57%</b>	<b>31.43</b>	<b>100%</b>

Source: www.usgs.gov.

## Endnotes to Chapter 8

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1. These are older vehicles without state-of-the-art emission reducing technology, such as catalytic converters.
2. [www.epa.gov](http://www.epa.gov). Date accessed May, 2005.
3. For Clean Air Act's National Ambient Air Quality Standards (NAAQS). These are health standards for lead, carbon monoxide, sulfur dioxide, ground level ozone (1-hour and 8-hour), and particulate matter (PM-10). There are no nitrogen dioxide nonattainment areas.
4. Placer County Air Pollution Control District, *Clean-Air-Primer*. [www.placer.ca.gov/airpollution/cleanairprimer/bigpicture/IIIA3a1voc.html](http://www.placer.ca.gov/airpollution/cleanairprimer/bigpicture/IIIA3a1voc.html). Date accessed May, 2005.
5. Water Resources Data for Arizona, Water Year 2002. (2002). U.S. Department of Interior U.S. Geological Survey and State of Arizona, p. 3.
6. Long, S., B. Reece and D. Eames. 2004. Water Resources Data – Texas Water Year 2004. Water Data Report TX-04-5. U.S. Department of Interior, U.S. Geological Survey, p. 5.
7. Shindler, B. and M. Brunson, "Changing Natural Resource Paradigms in the United States," in D. L. Soden and B. S. Steel, *Handbook of Global Environmental Policy and Administration*, New York, Marcel Dekker, 1999.
8. In Texas self-supplied domestic use is not reported by state agencies and, indeed would inflate this number.
9. Cattle and dairy industry activities are not included because they are reported in other economic measures.
10. An excellent discussion of this issue was written by N. Goswami and J. Jozwiak, "Political and Environmental Challenges of Border Communities: The Case of Colonias in South Texas." It can be viewed at <http://www.tamuk.edu/geo/Urbana>.
11. H.R. 1319, 109th Congress, *The Border Economic Recovery Act for Health and the Environment*, introduced by Congressman Silvestre Reyes, D-TX.
12. For an informative view of the social justice issues related to the lack of political power of colonia residents, as well as the border more broadly, see K. Staudt and I. Coronado, *Fronteras No Mas: Toward Social Justice at the U.S.-Mexico Border*, New York, Palgrave McMillan, 2002.

## Chapter 9

# Health and Health Care

The U.S.-Mexico border counties health and health care systems face a much different set of issues than the rest of the nation. As a starting point, if considered a 51<sup>st</sup> state, the southwestern border counties would rank last in the presence of health care professionals.<sup>1</sup> With many southwestern border counties unable to provide basic health services to residents there are several “health professional shortage areas” (HPSAs) designated by the federal government. This human resource problem in border counties leads to basic health maintenance challenges which are compounded by lack of insurance, lack of access to health care facilities, and low per-capita income. The result of this mix of factors is well documented and leads to uncompensated care to hospitals soaring past \$800 million dollars annually in the southwest border counties, approximately 3 percent of all uncompensated costs in U.S. hospitals per year, according to the American Hospital Association.<sup>2</sup>

This has led numerous scholars to examine the issue of who contributes to this problem. Some studies point out that undocumented immigrants are far less likely than any other group to have health insurance.<sup>3</sup> In this regard, the National Association of Counties has taken the stance that the federal government, not the counties, should support the treatment of undocumented immigrants, who make up nearly 25 percent of the uncompensated costs incurred by border-county hospitals.<sup>4</sup> By contrast, lobbying groups, such as the League of United Latin American Citizens, take the position that the immigrant population is paying its share of the health care system costs and positively contributing far more than they

receive in exchange for services,<sup>5</sup> a position contrasted by studies reaching obviously different conclusions.<sup>6</sup> While much of this debate is part of a larger national discussion, the existence of a large immigrant population in the southwest border counties draws policy makers to it.

In addition to addressing health care needs of both a poor, often uninsured population, and unauthorized immigrants, the entire vector of health care and disease control in a bi-national area generates additional complexity. For example, border county populations suffer higher rates of diseases, such as adult diabetes, asthma, and hepatitis, which are compounded by the low socioeconomic status characteristic of the population and a large migrating population between the United States and Mexico that relies heavily on public and charity health programs in southwest border counties. As a significant segment of the population moves back and forth across the U.S.-Mexico border, they become transfer agents of contagions and potential illnesses.

While the health indicators used in this chapter cannot present a complete picture of health and health care in the 24 border counties, they are indicative of the range of conditions border inhabitants must face over their lifetimes. For example:

- Rates of uninsured persons among the four border states range from 17 percent in Arizona to 25 percent in Texas. Border counties would rank as the 50<sup>th</sup> state out of 51 in insurance coverage for adults and children, with only New Mexico faring worse.

- In all 24 border counties there are fewer Health Care and Social Assistance (HCSA) personnel per 100,000 residents (4,177) than for the United States (5,124) resulting in a 46<sup>th</sup> place ranking if viewed as a 51<sup>st</sup> state; thus, placing it between the sparsely populated states of Alaska and Maine.
- Arizona, New Mexico, and Texas border counties all have slightly increased rates of adult diabetes than their respective states. The border would rank 7<sup>th</sup> as a 51<sup>st</sup> state. However, the incidence of diabetes among Hispanics is far greater than all other ethnic groups, which creates an important health concern that requires extensive long term monitoring in the Hispanic majority southwest border region.
- Deaths related to diabetes as a 51<sup>st</sup> state would result in a 5<sup>th</sup> place ranking for the region and 3<sup>rd</sup> for death due to hepatitis.
- The AIDS rate per 100,000 persons in all border counties is slightly higher persons (16.1) than the national rate (15.2) giving the border as a 51<sup>st</sup> state a rate that would be 12<sup>th</sup> nationally.
- The prevalence of tuberculosis (TB) per 100,000 persons among residents of all border counties (10.4) is *twice* that of the United States (5.1) as a whole, ranking the southwestern border counties 2<sup>nd</sup> in rate of incidence.
- These series of health factors occur in a region that would be last as a 51<sup>st</sup> state in primary health care professionals per capita.

In contrast, consistent patterns of relative advantage appear for border counties in relation to the states they are in for the following areas:

- The percentage of births by teens per 1,000 mothers of all border counties is nearly 3 percent lower (9%) than the nation (11.9%), placing the southwestern border 42<sup>nd</sup> among states in teen pregnancy.
- The infant mortality rate in border counties (5.7 infant deaths per 1,000 births) is significantly lower than the national rate (6.8 infant deaths per 1,000 births). As a 51<sup>st</sup> state, border counties would rank 39<sup>h</sup>, tied with Nevada and ahead of the states of Colorado and New York.<sup>7</sup>
- In terms of low birth weight babies per 1,000 births, the border counties fare better (68 per 1000) than the United States (78 per 1000) resulting in a 37<sup>th</sup> place ranking if viewed as a 51<sup>st</sup> state.

### Policy Issues

It can be argued that the public health problems in the border counties are rooted in socioeconomic deprivation. Health care providers go where there are job demands and higher pay, both prevalent factors in the current period of a national health professional shortage. The border counties have high demand for health care services but, unfortunately, lack the financial rewards available in other locales. Any solution to the public health care problems at the border must address the demand and income gap in order to draw health care professionals to the region. A critical mass of health care and social services

providers is necessary to promote three functions: 1) prevention education, such as promotion of safe infant care practices; 2) prevention pretreatment, such as immunization; and, 3) while not a traditional health concern, bioterrorism preparedness, such as detection and response to pathogens, that is likely to fall into the field of health activities. If the number of health care and social assistance providers remains below critical mass, the public health care system can do little more than be reactive, responding to those already suffering and new immediate threats. In a series of important steps, in contrast to a reactive model, the U.S. Department of Health and Human Services (HHS) has an active model for “Eliminating Minority Health Disparities” with the mandate to “launch programs that attack health disparities directly. HHS has launched programs that engage racial and ethnic minority communities in the fight against specific diseases and conditions that have a major impact.”<sup>8</sup>

Despite best efforts, many individuals are falling through the health care gap. Border counties are faced with a monumental task as a result of health professional shortages. Not only must they try to contend with higher salaries in other parts of the nation, the entire nation also faces a shortage and a bidding war is already occurring. However, unlike other regions, proximity to Mexico may afford southwest border counties an opportunity to explore the training of health care professionals in Mexico and work to develop certifications that will attract more immigrant health care professionals. In addition, counties will also be faced with continued pressure to keep their public hospitals in state-of-the-art conditions, often involving expensive equipment necessary to remain competitive. Coupled with demands from increasing retirement in the region, some areas will also face bimodal demands brought about from an influx of baby-boomer retirees and the earlier documented youthfulness of the region creating demands for health care at ends of the life cycle.

## **The Problems of Tracking for Infectious Diseases**

The porous nature of the southwestern border creates an unusual environment for tracking and controlling a variety of health conditions. As an example, one of the most startling findings concerning health in the southern border counties is that the TB rate is twice the rate of the United States. To track and diagnose TB numbers is difficult because patients are only counted as a morbidity case if they are living in and diagnosed in a county and continue to receive treatment for three months in the same county. In addition, health care professionals report that many patients diagnosed are Mexican nationals, 90 percent in El Paso, as an example. Thus, many diagnosed in border counties consequently receive services before returning to their country of origin and are not counted as morbidity cases. Unfortunately, funding to track TB cases has not increased, but rather decreased since 2001. Any decrease in funding for TB tracking results in an under reporting of cases and a decline in federal funding linked to reporting data. The disproportionate load of TB cases in the foreign born population, undocumented, and non-morbidity patients is gaining national attention. Recovering costs for treating all suspected cases of TB, not just cases resulting in morbidity, is one example of how disease and illness, ranging from TB and the West Nile virus to flu and common colds, fail to respect the national boundaries that divide the southwest border. The ability of disease and illness to cross the border with ease adds to an already stressed health care provider network unlike any other place in the nation.

## **Health Insurance**

The border counties are the principal contact points between health care infrastructures and health care practices of the United States and Mexico. The presence on the U.S. side of a significant number of low income immigrants who are not

aware of the need for acquiring private insurance due to their history with the Mexican universal coverage system, has resulted in a continuous borderland crisis of “uninsurance.”<sup>9</sup> Issues of relatively high levels of uninsurance among residents of the border counties combine with personnel shortages in the health system putting the region’s residents at greater risk. Nationwide, in Table 9.1, we find that 14.2 percent of the population is uninsured and 11.9 percent of those are under 18. On the border uninsurance ranges from 39 percent in Hudspeth County to a low of 17.5 percent in San Diego for all ages. Uninsurance among the young is typically found to be at a lower rate in California, Arizona, and New Mexico, but at higher rates in Texas. Unlike other areas covered by this report, the impact of San Diego and Pima Counties have little bearing on overall rates of uninsurance whether it is for all age groups or those under 18 years of age. Overall, we also find that the border counties as a state would fall at 50<sup>th</sup> only surpassed by New Mexico in uninsured residences. The uninsured have become a national crisis, heightened in the border by low incomes and high unemployment that eliminates employer provided insurance. When combined with rising health care costs, now accounting for 16 percent of the economy, the lack of a financial backstop through insurance puts a severe strain on all forms of medical providers.

The US / Mexico Border Counties Coalition's report entitled "Medical Emergency: Who Pays the Price for Uncompensated Emergency Medical Care Along the Southwest Border?" reports that, in 2000, border hospitals spent more than \$200 million to provide emergency health care to undocumented immigrants - \$79 million in California; \$74 million in Texas; \$31

million in Arizona; and, \$6 million in New Mexico. In addition, emergency transportation providers spent more than \$13 million in 2000.<sup>10</sup> Regardless of the location, southwestern border counties are bearing a significant burden as a result of the high percentage of health care recipients who have no insurance or ability to pay.

Beyond these emergency costs, the American Hospital Association annual survey reports a total of uncompensated costs for citizens, non-citizens, and undocumented immigrants of \$831,564,000, largely concentrated in the major urban areas that have large public hospitals and serve as regional medical centers, as seen in Table 9.2. While the burden is less in New Mexico, reporting only 3 percent of uncompensated costs, Texas and California account for 81 percent of the uncompensated costs in southwestern border counties.

The degree to which this uncompensated cost is passed along through other taxes, notably property tax, creates a further dilemma for policy makers who must address the equitable means to cover these expenses. However, federal laws, the Emergency Medical Treatment and Active Labor Act (EMTALA) and the Personal Responsibility and Work Reconciliation Act of 1996 (PRWORA), require hospitals to provide emergency health care to anyone who needs it, regardless of citizenship or ability to pay. This has impacted southwest border counties in the area of undocumented immigrants more than other parts of the country. (For an overview of relevant legislation see Appendix 9.1).

**Table 9.1**  
**2000 Percentage of Residents that are Uninsured**

	<b>All Ages</b>		<b>Under 18</b>	
	<b>Number uninsured</b>	<b>Percent uninsured</b>	<b>Number uninsured</b>	<b>Percent uninsured</b>
United States	39,803,537	14.2	8,617,432	11.9
<b>Arizona</b>				
Cochise	23,944	21.1	5,669	17.7
Pima	149,746	17.8	30,965	14.3
Santa Cruz	11,544	29.5	3,420	26.0
Yuma	45,336	28.6	12,294	25.6
<b>California</b>				
Imperial	43,126	32.1	12,516	27.8
San Diego	488,866	17.5	109,927	14.5
<b>New Mexico</b>				
Dona Ana	49,613	28.9	13,064	25.3
Hidalgo	1,491	27.6	397	24.0
Luna	8,282	33.4	2,285	31.0
<b>Texas</b>				
Brewster	1,937	23.1	472	24.2
Cameron	104,791	30.8	37,829	32.3
Culberson	856	30.1	282	31.0
El Paso	185,007	27.4	63,279	28.5
Hidalgo	192,253	32.8	72,294	34.3
Hudspeth	1,265	38.0	450	39.6
Jeff Davis	492	22.7	114	24.0
Kinney	814	24.0	225	26.3
Maverick	17,347	36.3	6,613	37.5
Presidio	2,342	31.9	807	33.1
Starr	20,668	37.9	8,042	39.0
Terrell	261	25.7	71	26.6
Val Verde	11,793	26.6	4,051	27.7
Webb	62,201	31.3	24,311	32.9
Zapata	3,605	29.0	1,267	30.6
<b>All Border Counties</b>	1,427,580	22.8%	410,644	22.1%
<b>w/o San Diego</b>	938,714	27.0%	300,717	27.3%
<b>w/o San Diego and Pima</b>	788,968	29.9%	269,752	30.4%

Source: U.S. Census Bureau.

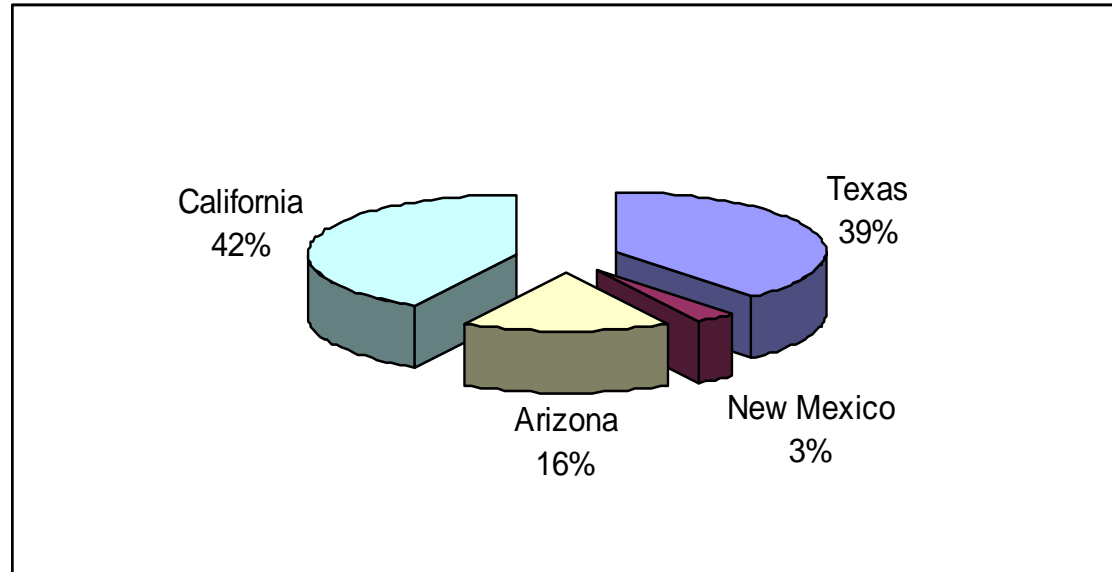
**Table 9.2**  
**2000 Estimated Uncompensated Costs by Border County**

<b>County</b>	<b>Net Patient Revenue (\$000)</b>	<b>Total Uncompensated Costs (\$000)</b>	<b>Estimated Amount Uncompensated Costs due to Undocumented Immigrants (\$000)</b>
San Diego, CA	2,178,568	284,451	76,185
Imperial, CA	81,182	10,995	2,839
Pima, AZ	704,887	75,934	24,650
Santa Cruz, AZ	11,014	1,612	385
Yuma, AZ	117,373	13,952	4,105
Cochise, AZ	48,542	5,925	1,698
Dona Ana, NM	155,981	43,678	5,455
Luna, NM	16,103	1,752	563
El Paso, TX	860,783	185,393	30,102
Culberson, TX	1,758	905	61
Brewster, TX	9,486	1,599	332
Val Verde, TX	28,414	5,342	994
Maverick, TX	25,765	4,625	901
Webb, TX	180,737	46,357	6,320
Starr, TX	11,608	1,942	406
Hidalgo, TX	562,354	91,055	19,666
Cameron, TX	426,160	56,047	14,903
<b>Totals</b>	<b>\$5,420,715</b>	<b>\$831,564</b>	<b>\$189,565</b>

Source: "Medical Emergency: Costs of Uncompensated Care in Southwest Border Counties" U S / Mexico Border Counties Coalition, Washington, D.C., 2002, p. 30.



**Figure 9.1**  
**2000 Percent of Total Estimated Uncompensated Health Care Costs in Border Counties by State**



Source: "Medical Emergency: Costs of Uncompensated Care in Southwest Border Counties" US / Mexico Border Counties Coalition, Washington, D.C., 2002, p. 31.

**Health Professionals**

As Table 9.3 demonstrates, there are fewer Health Care and Social Assistance (HCSA) personnel per 100,000 residents in the 24 border counties (4,177) than for counties nationwide (5,124). As a result, the border counties have been designated as a "medically underserved area." When comparing HCSA personnel to county population served in the southwestern border area, each records to have lower rates of HCSAs to residents than the rest of the country. Among Texas counties, the range of provision is quite wide. For

example, Presidio County has only 132 HCSAs per 100,000 residents, while Cameron County has 5,942 HSCAs per 100,000 residents. Relative to each state, Arizona border county residents fare best, receiving approximately 1.11 times as many HCSA's per border county resident when compared to HCSA's per state resident, probably as a result of a growing retirement segment in the population that has helped to attract health professionals. By contrast, New Mexico border county residents fare worst, receiving 8 percent fewer HCSAs per 100,000 border county residents than the state as a whole.

**Table 9.3**  
**2002 Health Care and Social Assistance (HCSA) Personnel Rates by County**

	HCSA Personnel (2002)	Rate per 100,000 Residents
<b>United States</b>	14,900,148	5124
<b>All Border Counties</b>	277,085	4177
<b>Arizona</b>	214,185	3838
<b>Arizona Border Counties</b>	52,414	4274
<i>Cochise</i>	4,118	3371
<i>Pima</i>	42,503	4761
<i>Santa Cruz</i>	664	1649
<i>Yuma</i>	5,129	2997
<b>California</b>	1,431,453	4034
<b>California Border Counties</b>	122,558	3979
<i>Imperial</i>	3,505	2349
<i>San Diego</i>	119,053	4062
<b>New Mexico</b>	83,019	4429
<b>New Mexico Border Counties</b>	8,668	4067
<i>Dona Ana</i>	7,933	4355
<i>Hidalgo</i>	129	2465
<i>Luna</i>	606	2355
<b>Texas</b>	983,838	4448
<b>Texas Border Counties</b>	93,445	4419
<i>Brewster</i>	344	3720
<i>Cameron</i>	21,585	5945
<i>Culberson</i> <sup>1</sup>	60	2174
<i>El Paso</i>	28,939	4102
<i>Hidalgo</i>	25,543	4019
<i>Hudspeth</i> <sup>2</sup>	10	313
<i>Jeff Davis</i>	95	4249
<i>Kinney</i> <sup>2</sup>	10	302
<i>Maverick</i>	1,778	3543
<i>Presidio</i> <sup>2</sup>	10	132
<i>Starr</i>	2,730	4733
<i>Terrell</i>	10	967
<i>Val Verde</i>	2,253	4838
<i>Webb</i>	9,961	4663
<i>Zapata</i>	117	907

Source: State and County Quickfacts <http://quickfacts.census.gov> and County Business Patterns Economic Profile 2002.

### Teen Pregnancy and Low Birth Weight Rates

Given the high levels of uninsured residents in the southwestern border counties, both teen pregnancy and low-birth weight babies potentially increase secondary problems for the health care system. Typically, public insurance programs provide primary and preventive health care services to women and children; however, in the absence of such programs, public care expenditures at the point of treatment escalate.

As Table 9.4 shows, the percentage of births by teens (ages 15-19) comprises 11 percent of the births in the United States, while the percentage of births by teens in border counties is slightly lower (9%), a rate that would make the border counties as a 51<sup>st</sup> state 42<sup>nd</sup> in percentage of teen births (See Map 9.1). New Mexico border counties report the highest percentage of births by teens (20%), while Arizona and Texas border counties report birth by teens at 14 percent and 7 percent, respectively. Contrary to popular perception, the percentage of pregnancies in border counties by teens is not substantially higher than their respective state percentages, and it is lower than the national percentage. In addition, low birth weight babies rates are reported nationwide as a dire consequence of birth by teenagers, yet the border counties fare better than the rest of the country. Per 1,000 births in the United States, 78 are considered low birth weight babies; whereas per 1,000 births in the border counties, 68 are considered low birth weight babies, a rate consistent with a 37<sup>th</sup> place rank if viewed from the perspective of a 51<sup>st</sup> state (See Map 7.2). Among the southwest border counties, those in New Mexico record the highest rate of low birth weight babies (79 per 1,000 births) while California border counties have the lowest rate (61 per 1,000 births).

### Chronic Illness: Diabetes and Asthma

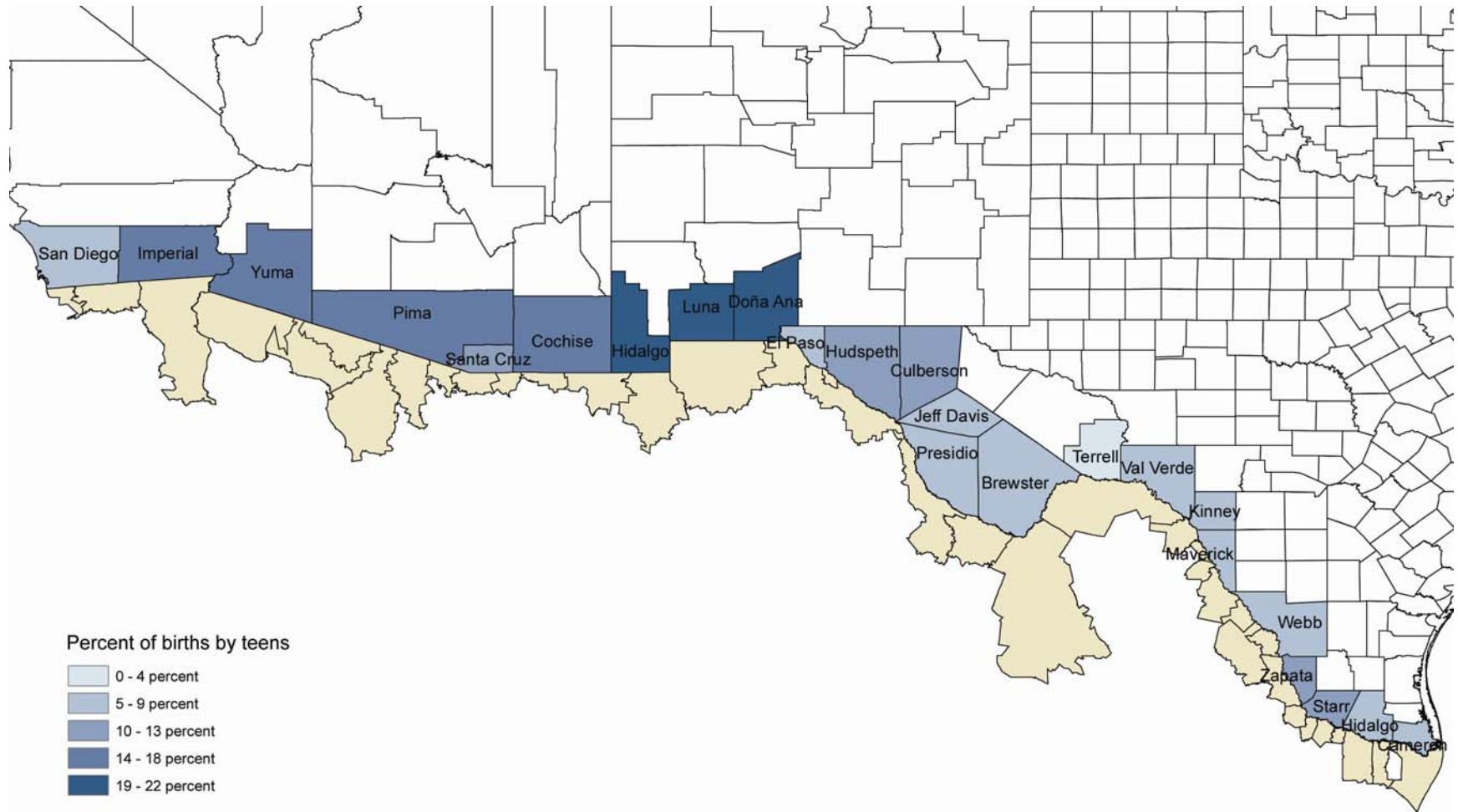
The Center for Disease Control reports that Hispanic women born in 2000 have a 52.5 percent risk of developing diabetes in their lifetime while Hispanic men have a 45.4 percent risk. This rate compares to a 31.2 percent risk for non-Hispanic white females and 26.7 percent risk among non-Hispanic white males and a 49.0 percent and a 40.2 percent risk among African-American women and men, respectively.<sup>11</sup> In addition, a recent study warns “death rates from diabetes in U.S. counties along the border soar as high as 83 percent above the national average.”<sup>12</sup> Even this gloomy statistic does not capture the full extent of the problem since data collection and analysis may be incomplete and understate the prevalence of diabetes along the border, yet the border counties as a 51<sup>st</sup> state would rank 5<sup>th</sup> in the incidence of diabetes mortality.<sup>13</sup> Non-communicable diseases, such as diabetes, are especially challenging in the border area because Hispanics, who comprise well over 50 percent of the population of the U.S. border counties, is the nation’s most susceptible group. As Table 9.5 illustrates, for every 100 persons over the age of 18 in the United States, almost 6.7 have been diagnosed with adult diabetes. Compare this to the rate for border county adults with diabetes where rates per 100 persons over the age of 18 are at a high in the state of New Mexico (8.9 per 100), with the states of Arizona and California sharing the lowest rate of adult diabetes (6.6 per 100). Overall, in the southwest border counties, slightly increased rates of adult diabetes are reported over their respective states. While the California border area has slightly lower rates of adult diabetes as compared to the state rate, Imperial County has the highest rate per 100 persons over 18 with adult diabetes (11.2), significantly higher than both nearby San Diego County (6.1) and the U.S. rate (6.7).

**Table 9.4**  
**2002 Teenage Pregnancy Rates, Birth Rates, and Low Birth Weight Rates by County**

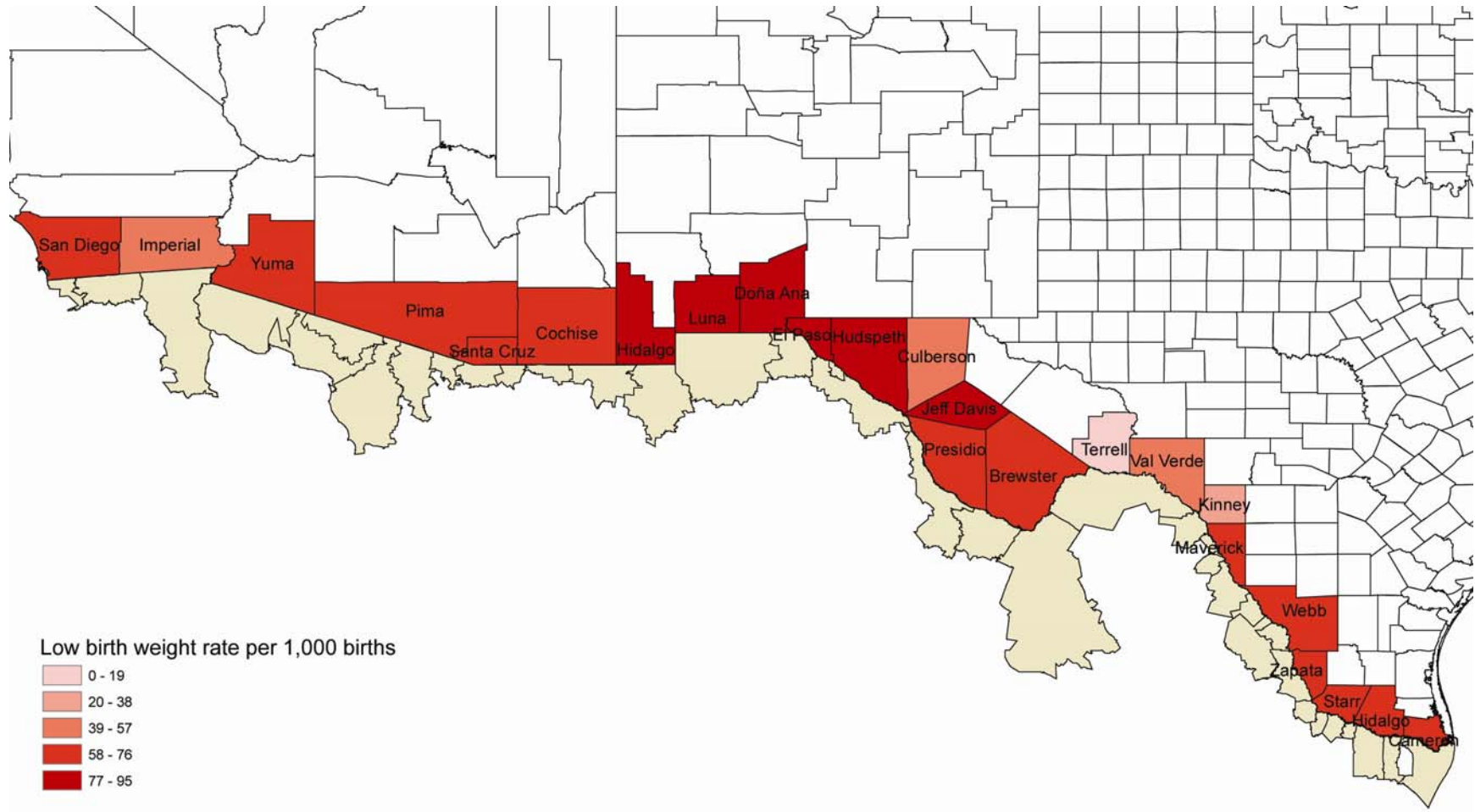
	Teenage Pregnancies (Ages 15-19)	% of Births by Teens	Low Birth Weight Rate <sup>1</sup>	Low Birth Rate per 1,000 births
<b>United States (2002)</b>	424,670	11	313,504	78
<b>All Border Counties</b>	10,728	9	8,074	68
<b>Arizona (2003)</b>	11,698	13	6,419	71
<b>Arizona Border Counties</b>	2,599	14	1,365	74
<i>Cochise</i>	266	15	131	75
<i>Pima</i>	1,732	14	970	76
<i>Santa Cruz</i>	103	13	60	76
<i>Yuma</i>	498	16	204	64
<b>California (2003)</b>	49,330	9	35,659	66
<b>California Border Counties</b>	4,118	9	2,943	61
<i>Imperial</i>	426	15	161	55
<i>San Diego</i>	3,692	8	2,782	61
<b>New Mexico (2002)</b>	4,592	17	2,224	80
<b>New Mexico Border Counties</b>	698	20	281	79
<i>Dona Ana</i>	596	19	240	78
<i>Hidalgo</i>	13	21	3	49
<i>Luna</i>	89	22	38	95
<b>Texas (2002)<sup>2</sup></b>	19,730	5	28,649	77
<b>Texas Border Counties</b>	3,313	7	3,485	72
<i>Brewster</i>	7	6	9	76
<i>Cameron</i>	562	7	594	69
<i>Culberson</i>	5	9	3	53
<i>El Paso</i>	939	7	1,124	80
<i>Hidalgo</i>	1,063	7	1,089	69
<i>Hudspeth</i>	8	11	6	86
<i>Jeff Davis</i>	1	8	1	77
<i>Kinney</i>	2	5	1	23
<i>Maverick</i>	70	7	72	73
<i>Presidio</i>	13	8	12	74
<i>Starr</i>	132	9	103	68
<i>Terrell</i>	0	0	0	0
<i>Val Verde</i>	54	6	48	53
<i>Webb</i>	431	7	403	68
<i>Zapata</i>	26	10	20	75

Sources: National Data <http://usgovinfo.about.com/gi/dynamic/offsite.html>.<sup>14</sup>

**Map 9.1**  
**2002 Percentage of Births by Teens by County**



**Map 9.2**  
**2002 Low Birth Weight Rate by County**



**Table 9.5**  
**2001-2003 Diabetes Rates by County**

	<b>Adult Diabetes</b>	<b>Rate per 100 persons over 18</b>
<b>United States (2002)</b>	14,055,189	6.7
<b>All Border Counties</b>	322,685	7.0
<b>Arizona (2001)</b>	257,942	6.6
<b>Arizona Border Counties</b>	60,858	7.0
<i>Cochise</i>	6,355	7.3
<i>Pima</i>	44,235	7.0
<i>Santa Cruz</i>	1,746	6.7
<i>Yuma</i>	8,522	7.3
<b>California (2003)</b>	1,702,615	6.6
<b>California Border Counties</b>	144,302	6.3
<i>Imperial</i>	11,466	11.2
<i>San Diego</i>	132,837	6.1
<b>New Mexico (2002)</b>	120,555	8.9
<b>New Mexico Border Counties</b>	14,392	9.6
<i>Dona Ana</i>	12,409	9.7
<i>Hidalgo</i>	344	9.1
<i>Luna</i>	1,639	9.1
<b>Texas (2001)</b>	1,055,002	6.9
<b>Texas Border Counties</b>	103,133	7.7
<i>Brewster</i>	479	6.9
<i>Cameron</i>	17,531	7.7
<i>Culberson</i>	154	7.4
<i>El Paso</i>	36,151	7.7
<i>Hidalgo</i>	29,618	7.8
<i>Hudspeth</i>	169	7.5
<i>Jeff Davis</i>	114	6.7
<i>Kinney</i>	177	7.0
<i>Maverick</i>	2,422	7.9
<i>Presidio</i>	386	7.7
<i>Starr</i>	2,763	8.0
<i>Terrell</i>	56	6.9
<i>Val Verde</i>	2,334	7.5
<i>Webb</i>	10,141	8.0
<i>Zapata</i>	638	7.7

Source: State and County Quickfacts <http://quickfacts.census.gov> for AZ & CA population counts.<sup>15</sup>

As evident in Table 9.6, asthma discharge rates in the United States were 7.7 per 10,000 adults over the age of 18. In contrast to the nation, all of the border states have higher asthma rates. The State of Texas has the highest rate of reported asthma (11.7 adult asthma cases per 10,000) while the State of Arizona has the lowest rate of adult asthma at (8.9 per 10,000). In the southwestern border counties, Arizona has higher rates of adult asthma. Border wide, adult asthma rates per 10,000 persons vary from a low of 5.1 per 10,000 adults in

Santa Cruz County, Arizona to a high of 22.6 per 10,000 adults from Brownsville (MSA) in Cameron County, Texas.

Because data on asthma incidence is not kept systematically by counties it is difficult to state the degree to which these high rates impact the southwestern border counties; however, with rates exceeding the nation in areas of the region, there is clearly a larger health concern than in many other parts of the country.

**Table 9.6  
1998-2003 Asthma Rates by County**

	<b>Asthma Discharges</b>	<b>Rate per 10,000 Persons</b>
<b>United States (2003)<sup>1</sup></b>	16,152,978	7.7
<b>Arizona (2001)</b>	4,743	8.9
<b>Arizona Border Counties</b>	1,137	9.6
<i>Cochise</i>	106	8.9
<i>Pima</i>	872	10.1
<i>Santa Cruz</i>	20	5.1
<i>Yuma</i>	139	8.4
<b>California (2000)</b>	37,096	11.0
<b>California Border Counties</b>	2,773	9.4
<i>Imperial</i>	310	21.8
<i>San Diego</i>	2,463	8.8
<b>New Mexico (1998-2000)<sup>2</sup></b>	4,936	9.4
<b>New Mexico Border Counties</b>	479	7.8
<i>Dona Ana</i>	353	6.9
<i>Hidalgo</i>	14	7.8
<i>Luna</i>	112	15.3
<b>Texas (1999-2003)<sup>3</sup></b>	120,632	11.7
<b>Texas Border Counties</b>	Not Available	Not Available
<i>Brownsville MSA</i>	2,038	22.6
<i>El Paso MSA</i>	3,942	22.5

Source: State and County Quickfacts <http://quickfacts.census.gov>.<sup>16</sup>



### **Contagious, Sexually Transmitted, and Waterborne Illnesses**

Human Immunodeficiency Virus (HIV), the virus that causes Acquired Immune Deficiency Syndrome (AIDS), remains a social stigma. Although inroads have been made in HIV/AIDS awareness on the side of prevention and treatment, the healthcare delivery system has shortfalls often resulting in a lack of care in the underserved border counties. Hepatitis A (HEPA) is two to three times more prevalent along the border than in the United States as a whole. According to the University of Maryland, Hepatitis A is the hepatitis strain people are most likely to encounter in the course of international travel, a fact of life in the border region. In fact, even with the availability of a vaccine, the increase in travel to underdeveloped countries has kept the incidence of Hepatitis A steady in Western nations, and the incidence may even be increasing.<sup>17</sup>

As Table 9.7 shows, AIDS and TB rates per 100,000 persons are higher in many border counties than the rate of the United States. While some counties report no cases, the fact is the county of treatment maintains records, and in many cases, residents of border counties, especially rural counties with limited health care, travel to a neighboring county that has a regional medical concentration or large public hospital. The AIDS rate is slightly higher, 16.1 per 100,000 in southwest border versus 15.2 nationally. The State of Arizona has the highest rate of AIDS (28.0 per 100,000), almost six times higher than the state of New Mexico (4.9 per 100,000), with the highest Arizona rate in Pima County (34.7). California reports a rate higher than the nation, led by rates of 20.2 per 100,000 in San Diego County. Texas also falls below the

national rate at 14 cases per 100,000 with El Paso leading the state at 17.6 cases per 100,000. While there is no definitive answer to the HIV/AIDS problem, border counties, as well as the entire nation, must continue to service demands for treatment primarily through the public health system.

Sadly, TB in the border counties remains at twice the rate of the United States, only New Mexico falls below the national rate. Rates exceeding the national rate exist in the counties of Yuma, Arizona, Imperial, California, Cameron, Maverick, and Starr in Texas. TB has made a recurrence in several areas of the country in the past decade despite downward trends overall. Ethnic groups and the foreign-born are especially susceptible according to the Center for Disease Control, subsequently increasing the probability for exposure in the southwest border counties with high immigrant and Hispanic populations.<sup>18</sup>

HEPA rates based on CDC ten year averages vary dramatically with the likelihood of occurrence greater in New Mexico than the other border states (3.9 per 100,000). Like TB, the rate for Hispanics, especially among children, is higher than among other segments of the population.<sup>19</sup> The problems associated with colonias also add to the hepatitis problem and many cases among the poor are likely to not be treated, and thus, not reported. Texas border counties report exceptionally high incidence led by Maverick County (11.2 per 100,000). Due to the transmission through contaminated water and food, and high rates of international exchanges, the rate of hepatitis is likely to remain in the border region. Public health efforts are the sole remedy to enhance general sanitary conditions among the most effected populations, an additional burden in improving the long term health conditions of the region.

**Table 9.7**  
**1999-2003 Reported Rates of AIDS, HEPA, and TB Cases by County**

	Aids Rate per 100,000 <sup>20</sup>	Hepatitis A Rate per 100,000 <sup>21</sup>	TB Rate per 100,000
<b>United States (2003)</b>	15.2	2.6	5.1
<b>Border Counties</b>	16.1	*	10.4
<b>Arizona (2003)</b>	28.0	4.7	5.3
<i>Cochise</i>	13.9	3.4	0.0
<i>Pima</i>	34.7	2.5	2.7
<i>Santa Cruz</i>	14.9	7.4	5.0
<i>Yuma</i>	17.5	3.6	14.6
<b>California (1999-2001)</b>	16.3	2.0	9.8
<i>Imperial</i>	2.9	3.0	19.2
<i>San Diego</i>	20.2	2.2	10.5
<b>New Mexico (2000-2002)</b>	4.9	3.9	3.0
<i>Dona Ana</i>	5.9	2.6	6.1
<i>Hidalgo</i>	0.0	1.5	0.0
<i>Luna</i>	2.7	2.2	0.0
<b>Texas (2001)</b>	14.0	1.6	7.7
<i>Brewster</i>	11.2	1.0	11.2
<i>Cameron</i>	11.3	3.7	16.0
<i>Culberson</i>	0.0	2.7	0.0
<i>El Paso</i>	17.6	3.8	9.7
<i>Hidalgo</i>	8.8	3.2	12.5
<i>Hudspeth</i>	0.0	.9	0.0
<i>Jeff Davis</i>	0.0	.9	0.0
<i>Kinney</i>	0.0	1.3	0.0
<i>Maverick</i>	12.4	11.2	22.7
<i>Presidio</i>	0.0	1.7	0.0
<i>Starr</i>	3.7	4.4	34.8
<i>Terrell</i>	0.0	0.0	0.0
<i>Val Verde</i>	2.2	4.2	19.8
<i>Webb</i>	5.0	5.3	15.4
<i>Zapata</i>	0.0	2.2	15.9

\*A complete data base to calculate this value is not available.  
 Source: State and County Quickfacts <http://quickfacts.census.gov>.<sup>22</sup>

## **Mental Health**

Mental health data from the border counties is difficult to compile because each border state uses different definitions and levels of analysis for mental health. For instance, mental illness data in Arizona is conceptualized as “hospital inpatient discharges” while mental illness data in Texas is conceptualized as “adults with mental illness.” As a result of such differences, one cannot simply conduct comparison across states. Moreover, admits and diagnoses simply cannot be equated to discharges. Many persons diagnosed are not within a data collection period of only a single year.

Prevalence data, such as California’s, is based on survey data of non-institutionalized residents combined with institutional data,<sup>23</sup> while Texas data is based on diagnoses by authorized authorities.<sup>24</sup> As Table 9.8 shows, there are approximately 22,100 persons suffering from a diagnosable mental disorder in the United States per 100,000 residents during 2003. Residents of Arizona border counties appear more likely than Arizona residents as a whole to be discharged from a hospital for mental illness. On the other hand, the prevalence rate of mental illness in California suggests that residence in a border county results in a lower rate of mental illness than for the State of California as a whole.

**Table 9.8**  
**2000-2003 Mental Illness by County<sup>25</sup>**

<b>United States (2003)</b>		<b>Rate per 100,000 Residents</b> 22,100
	<b>Hospital Inpatient Discharges for Mental Illness</b>	
<b>Arizona (2003)</b>	19,154	343
<b>Arizona Border</b>	7,343	599
<i>Cochise</i>	254	208
<i>Pima</i>	6,841	766
<i>Santa Cruz</i>	84	209
<i>Yuma</i>	164	96
	<b>Prevalence of Mental Illness</b>	
<b>California (2000)<sup>3,4</sup></b>	2,232,569	6,591
<b>California Border</b>	191,318	6,472
<i>Imperial</i>	11,002	7,728
<i>San Diego</i>	180,316	6,408
	<b>Hospital Inpatient Discharges for Mental Illness</b>	
<b>New Mexico (2001)</b>	9,485	511
<b>New Mexico Border</b>	1,415	676
<i>Dona Ana</i>	1,284	719
<i>Hidalgo</i>	25	468
<i>Luna</i>	106	420
	<b>Adults with Mental Illness</b>	
<b>Texas (2003)</b>	3,101,236	19,639
<b>Texas Border</b>	275,685	19,661
<i>Brewster</i>	1,401	19,636
<i>Cameron</i>	47,020	19,640
<i>Culberson</i>	430	19,626
<i>El Paso</i>	96,706	19,640
<i>Hidalgo</i>	79,327	19,639
<i>Hudspeth</i>	471	19,650
<i>Jeff Davis</i>	347	19,627
<i>Kinney</i>	503	19,641
<i>Maverick</i>	6,252	19,638
<i>Presidio</i>	1,019	19,630
<i>Starr</i>	7,084	19,640
<i>Terrell</i>	164	19,594
<i>Val Verde</i>	6,278	19,639
<i>Webb</i>	26,999	19,860
<i>Zapata</i>	1,684	19,636

Source: See endnote.<sup>26</sup>

### Appendix 9.1 Key Federal Statutes Affecting Undocumented Immigrants and Emergency Health Services

Act	Year Enacted	Relevant Highlights
Consolidated Omnibus Budget Reconciliation Act 1986 (OBRA 86)	1986	Amended Medicaid law to authorize the reimbursement of healthcare providers for childbirth care and emergency medical services delivered to all immigrants (regardless of their legal status) as long as they meet the state's Medicaid eligibility criteria (no need to present a social security number).
Emergency Medical Treatment and Active Labor Act (EMTALA)	1996	<p>Requires hospitals and emergency personnel to treat anyone who needs emergency medical care regardless of income or immigration status.</p> <p>Requires hospitals to provide all patients that arrive in an emergency department with mandatory medical screening examinations.</p> <p>Requires hospitals to stabilize patients, if possible, before transit if an emergency medical condition exists and ensure patient safety during the transfer process.</p>
Title IV of Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA)	1996	<p>Continues coverage for undocumented immigrants in need of "healthcare items and services that are necessary for the treatment of an emergency medical condition."</p> <p>Continues coverage for undocumented immigrants for certain public health assistance, including immunizations, and the "testing and treatment of symptoms of communicable diseases whether or not such symptoms are caused by a communicable disease."</p> <p>Allows states to provide and pay for preventive or primary care to undocumented immigrants by passing specific legislation after August 22, 1996 that affirmatively provides eligibility for such services.</p>
Balanced Budget Act of 1997 (BBA 1997)	1997	<p>Directed the Secretary of Health and Human Services to distribute \$25 million annually to 12 states, during fiscal years 1998-2001 to help pay for costs of providing emergency health services to undocumented immigrants.</p> <p>Funds were allocated based on state's estimated total number of undocumented immigrants in nation (using INS figures), and were restricted to 12 states with the highest share of this population.</p> <p>Twelve states that received funds accounted for 88 percent of the undocumented immigrant population.</p>
Illegal Immigration Reform and Immigrant Responsibility Act	1996	<p>Clarified and strengthened INS' prosecutorial discretion.</p> <p>Requires the Attorney General to report on the use of its "parole" authority.</p>

## Endnotes to Chapter 9

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1. Health Professional Shortage Areas (HPSAs) may have shortages of primary medical care, dental or mental health providers and may be urban or rural areas, population groups or medical or other public facilities. The border counties have shortages in all areas reflecting the national health care professional shortage and a looming crisis in the region. See <http://bhpr.hrsa.gov/shortage>.
2. The American Hospital Association conducts an annual assessment of uncompensated costs and has data available at [www.aha.org](http://www.aha.org). See also, "Medical Emergency: Costs of Uncompensated Care in Southwest Border Counties" US / Mexico Border Counties Coalition, Washington, D.C., 2002.
3. See as an example, D. P. Goldman, J. P. Smith and N. Sood, "Legal Status and Health Insurance Among Immigrants," 2005, *Health Affairs*, Vol 24, Issue 6, 1640-1653.
4. Hot Topics: County News. National Association of Counties. December 22, 2003, pp. 1-2.
5. [www.lulac.org/advocacy/issues/immigration/truth](http://www.lulac.org/advocacy/issues/immigration/truth).
6. Mohanty, S. A., S. Woolhandler, D. U. Himmelstein, S. Pati, O. Carrasquillo, and D. H. Bor, Health Care Expenditures of Immigrants in the United States: A Nationally Representative Analysis August 2005, Vol 95, No. 8, *American Journal of Public Health*, pp. 1431-1438.
7. U.S. National Center for Health Statistics in Table 101, *Statistical Abstract of the United States, 2004-2005*.
8. U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, "2004 National Healthcare Disparities Report," Rockville, MD, AHRQ Publication No. 05-0014.
9. The discussion about the lack of insurance among the nation's poor is well documented. Two very valuable references include: U.S./Mexico Border Counties Coalition. (September 26, 2002). "Medical Emergency: Who Pays the Price for Uncompensated Emergency Medical Care Along the Southwest Border?" P. iii ([www.bordercounties.org](http://www.bordercounties.org)); and, Institute of Medicine of the National Academies, "A Shared Destiny: Community Effects of Uninsurance," The National Academies Press, Washington, D.C., 2003.
10. Ibid. pp. 105-122.
11. <http://www.cdc.gov/od/oc/media/presskits/hhd/diabetes.htm>.

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12. Brandon, K. (2003). "Diabetes Stalks Families on U.S.-Mexico Border." July 27, 2003. <http://www.personal.monm.edu/jkessler/Art-Diabetes-Border-Towns.htm>. Date Accessed May 16, 2005.
13. Ibid.
14. Additional sources include: Arizona Data <http://www.azdhs.gov/plan/report/cvs/cvs03/index.htm> table 103; California Data <http://www.dhs.ca.gov/hisp/chs/OHIR/tables/datafiles/vsofca/0227.xls> and <http://www.dhs.ca.gov/hisp/chs/OHIR/tables/datafiles/vsofca/0221.xls>; New Mexico Dona Ana <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/DonaAnaProfile.pdf>, <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/HidalgoProfile.pdf>, <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/LunaProfile.pdf>; Texas Data (2002) <http://www.tdh.state.tx.us/chs/vstat/latest/t09.HTM>, <http://www.tdh.state.tx.us/chs/vstat/latest/t10.HTM> and <http://www.tdh.state.tx.us/chs/vstat/latest/t11.HTM>.
15. Additional sources include: Arizona Data 2001 county total population <http://recenter.tamu.edu/data/popc/popcs04.html>, [http://www.azdhs.gov/phs/oncdps/diabetes/pdf/status\\_report2001.pdf](http://www.azdhs.gov/phs/oncdps/diabetes/pdf/status_report2001.pdf); California Data <http://www.dhs.ca.gov/hisp/chs/OHIR/reports/countyhealthfacts/diabetes2003.pdf>; New Mexico Dona Ana Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/DonaAnaProfile.pdf>, Hidalgo Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/HidalgoProfile.pdf>, Luna Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/LunaProfile.pdf>; Texas Data <http://www.tdh.state.tx.us/diabetes/PDF/county.pdf>.
16. Additional sources include: United States Data <http://www.statehealthfacts.kff.org/cgi-bin/healthfacts.cgi?>; Arizona Data <http://www.azasthma.org/aac-co-why-asthma.htm>; California Data <http://www.dhs.ca.gov/ps/deodc/ehib/EHIB2/PDF/California%20Asthma%20Facts>; New Mexico Dona Ana Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/DonaAna>; New Mexico Hidalgo Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/Hidalgo>; New Mexico Luna Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/Luna>; Texas Data 200 MSA total population <http://recenter.tamu.edu/mreports02/el Paso1.asp> and <http://recenter.tamu.edu/mreports02/brownsville1.asp>.
17. www. Chicagotribune.com. July 27, p. 1.
18. <http://www.cdc.gov/od/oc/media/pressrel/fs040318.htm>.

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19. Weinberg, M., J. Hopkins, L. Farrington, L. Gresham, M. Ginsberg, and B. P. Bell, "Hepatitis A in Hispanic Children Who Live Along the United States–Mexico Border: The Role of International Travel and Food-Borne Exposures," *Pediatrics*, Vol. 114 No. 1 July 2004, pp. 68-73.
20. Arizona AIDS number is current prevalence minus 1993-2002 incidences and California AIDS number is for persons age 13 and older.
21. The 10 year average per 100,000 found at <http://www.cdc.gov/ncidod/diseases/hepatitis/a/vax/index.htm>, provides the best data set that covers the entire set of southwestern border counties.
22. Additional sources include: United States Data <http://statehealthfacts.org/cgi-bin/healthfacts.cgi>; Arizona Data <http://www.azdhs.gov/phs/oids/downloads/publicstats2003.pdf>, <http://www.azdhs.gov/phs/hiv/pdf/counties.pdf> and <http://www.azdhs.gov/phs/hiv/pdf/arizona.doc>; California Data <http://www.dhs.ca.gov/hisp/chs/phweek/cprofile2003/Profile2003.pdf>; New Mexico Dona Ana Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/DonaAnaProfile.pdf>, Hidalgo Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/HidalgoProfile.pdf> and Luna Data <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/LunaProfile.pdf>; Texas Data <http://www.tdh.state.tx.us/dpa/CSHDPA01.HTM> and associated 16 pdfs by county and for the state.
23. [www.umm.edu/patiented/articles/what\\_specific\\_issues\\_with\\_hepatitis\\_a\\_how\\_it\\_treated\\_000059\\_6.htm](http://www.umm.edu/patiented/articles/what_specific_issues_with_hepatitis_a_how_it_treated_000059_6.htm). Date Accessed June 20, 2005.
24. <http://psy.utmb.edu/estimation/estimation.htm>.
25. Arizona defines mental illness as psychoses (such as, schizophrenia and manic depression), neuroses (such as, anxiety, and substance dependence), and retardation. Arizona also reports the most serious illness listed upon release from inpatient care. California defines youth mental illness as serious emotional disturbance and adults as simply serious mental illness. California prevalence data reflects the number of youth who have serious emotional disturbances (SED) and the number of adults who have serious mental illnesses (SMI). For more on the estimation methodology, see <http://psy.utmb.edu/estimation/estimation.htm>. New Mexico utilizes a category called mental diseases. It is not defined in the report. New Mexico reports discharges from hospital inpatient care. Texas defines mental illness as schizophrenia, major depression, bipolar disorder, anxiety, lifetime dysthymia, phobia, and other impairments. Texas reports the number of adults with a mental illness by county.
26. Data sources include: Arizona Data <http://www.azdhs.gov/plan/hip/for/mental/index.htm> table 4; California Data <http://www.dmh.ca.gov/SADA/docs/Prevalence%20Rates/Imperial/Table1.xls> and <http://www.dmh.ca.gov/SADA/docs/Prevalence%20Rates/San%20Diego/Table1.xls>;



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New Mexico Data Dona Ana <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/DonaAnaProfile.pdf>; Hidalgo <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/HidalgoProfile.pdf>; Luna <http://dohewbs2.health.state.nm.us/VitalRec/County%20Profiles/LunaProfile.pdf>; and, Texas Data: <http://www.dshs.state.tx.us/mhreports/01-05RevisedPrevPriPopData.pdf>.

## Chapter 10

# Trade and Border Traffic

Differences in border-crossing patterns between U.S. southwest ports of entry are primarily attributable to city size and geography, and existed long before the passage of North American Free Trade Agreement. Greater people and vehicle flows occur where a U.S. border city and its neighboring Mexican city have a larger combined populace. Although southwestern border counties would rank 13<sup>th</sup> in population if considered a 51<sup>st</sup> state, border counties would rank 22<sup>nd</sup> in U.S. state rankings on the allocation of federal highway planning and construction expenditures between 1993 and 2003. Southwestern border counties also support the nation's industrial base by geographically being located on the well established trade corridors from Mexico to the industrial Northeast, Midwest, and other regional markets. As a result, there is greater traffic along the entry points closer in distance or connected to well-established transportation nodes, such as interstate highways. In addition, within southwest border counties, especially urban centers, commuting and local traffic issues are recognized as growing but still far removed in terms of the scale of traffic impediments faced by most of the nation's urban areas.

- Traffic has reached an all time high along the southwest border.
- On any given day, about 132,000 persons, 250,000 vehicles, 523,000 vehicle passengers, 12,000 commercial trucks, and 2,000 rail containers cross from Mexico into the United States.<sup>1</sup>

- Seven ports of entry in particular, Laredo, El Paso, Otay Mesa, Hidalgo, Nogales, Brownsville-Cameron, and Calexico East, and their respective border counties, are at the center of cross-border trade and crossings between the United States and Mexico.
- These crossing points handle 90 percent of all southwest border trade and northbound commercial truck traffic. In addition, the region's top ports, Laredo, El Paso, and San Diego, are also the second, fifth, and sixth busiest land gateways by trade value in the nation, respectively.<sup>2</sup>
- Regional mobility issues are growing as congestion and traffic delays increase; however, compared to the nation, the southwestern border counties' urban areas are relatively free of the commuting issues facing other regions.

### Policy Issues

Border counties provide both a location and comparative cost advantage for U.S. and Mexican industry from reduced transit and transportation costs. However, their unique location at the center of cross-border trade with the nation's second largest trading partner, Mexico, has brought about fewer economic benefits than hoped in many instances. Primarily, the consequence of an influx of cross border trade traffic has created infrastructure and social costs.<sup>3</sup> Bridge and highway

funding has been outpaced by the rapid growth in vehicle and commercial traffic generated by the surge in population and commerce, and has brought with them congestion at major highways and interchange arteries. Funding for transportation infrastructure for border counties is lagging when compared to other regions. If considered a 51<sup>st</sup> state, border counties would rank 22<sup>nd</sup> in U.S. state rankings on the allocation of federal highway planning and construction expenditures between 1993 and 2003 (Table 10.1), although they ranked 13<sup>th</sup> in population totals and are a strategic resource sustaining the greater United States and North American economy. The volume of freight and associated truck traffic and the excess wear on local roads is only expected to increase over time.

Changes in security measures in the wake of September 11 and delays in implementation of trucking regulations to allow Mexican-domiciled trucks to operate beyond border commercial areas have posed challenges to growth in the border economy. The post-September 11 policies to combat terrorism at the border and subsequent increased wait time at border crossings have resulted in a form of non-trade barrier to entry that is primarily absorbed by border residents. The inconvenience of uncertain and greater wait times has economic repercussions on cross-border employment and sales activity in industries that directly benefit from the flow of international trade and persons – from manufacturing to logistics to professional services to wholesale and retail trade.

Longer wait times on cargo also create problems in the just-in-time supply chain that the North American manufacturing process is dependent upon. The result is increasing transaction costs that are ultimately passed on to the consumer, whether through changes in transport modes, greater inventory costs or various other transportation,

communication, or distribution delays. The congestion of vehicle and cargo trucks as they wait to cross at international bridges also results in greater air pollution for border counties.<sup>4</sup>

Other challenges confront the border, including inspections of Mexico-domiciled trucking seeking to operate in the U.S. interior and the US-VISIT (United States Visitor and Immigrant Status Indicator Technology) program, which is intended to improve the information collected on foreign nationals traveling to and from the United States. For southwestern border counties these challenges become political issues related to the nation's borders as policy makers and residents ask: Why is there a clear difference in treatment of our neighbors to the south than those to the north? Mexican trucks are required to pass extensive safety inspections and stringent requirements for drivers are greater than those imposed on Canadian trucking companies.<sup>5</sup> At the same time, Mexican nationals currently have restrictions on their laser visas limiting their stay in the United States to no more than 72 hours and 25 miles past the border (Arizona is an exception, extending its border to 75 miles northward so Mexican nationals can shop in Tucson). By contrast, Canadian nationals are allowed to visit and travel whenever they like within the United States for up to six months before they are required to obtain a visa. The difference in treatment of southwest border crossers, when combined with considerations of infrastructure and technology needs, substantially increases the difficulty of entering and exiting the United States. The result is an increase in the negative externalities borne by southwest border residents generated by the combination of supporting the volume of traffic produced by trade, and reduced cross-border spending that has fallen as a result of crossing delays.

**Table 10.1**  
**1993 to 2003 Highway Planning and Construction Expenditures Totals (in Millions of Dollars)**

1	California	21,908.6	27	Louisiana	3,920.6
2	Texas	18,449.6	28	Arkansas	3,834.2
3	Pennsylvania	12,496.6	29	Colorado	3,809.2
4	New York	12,220.5	30	West Virginia	3,773.9
5	Florida	11,627.2	31	Oklahoma	3,653.5
6	Ohio	8,711.6	32	Mississippi	3,324.2
7	Illinois	8,638.2	33	Oregon	3,182.1
8	Michigan	7,925.2	34	Alaska	3,146.1
9	Georgia	7,808.6	35	Iowa	3,144.2
10	New Jersey	7,391.4	36	Kansas	2,855.4
11	Massachusetts	7,199.7		<b>Border Counties w/out San Diego</b>	<b>2,805.0</b>
12	North Carolina	7,029.7	37	New Mexico	2,646.4
13	Virginia	6,864.7	38	Montana	2,437.1
14	Missouri	6,060.1	39	Utah	2,173.1
15	Indiana	6,043.4	40	Nebraska	2,065.6
16	Maryland	5,993.2	41	Idaho	1,993.6
17	Alabama	5,596.7	42	North Dakota	1,947.1
18	Tennessee	5,322.7	43	South Dakota	1,888.3
19	Wisconsin	5,176.2	44	Hawaii	1,765.2
20	Washington	5,089.0	45	Wyoming	1,744.3
21	Kentucky	4,609.4	46	Nevada	1,642.1
<b>22</b>	<b>Border Counties</b>	<b>4,272.0</b>	47	Rhode Island	1,624.8
23	Connecticut	4,127.1	48	Maine	1,466.8
24	South Carolina	4,124.0	49	New Hampshire	1,335.8
25	Arizona	3,960.7	50	Delaware	1,101.3
26	Minnesota	3,934.2	51	Vermont	1,100.6

Source: Consolidated Federal Funds Report, U.S. Census Bureau.

Exports and imports between the United States and Mexico, and the consequent demand for trucking cargo, have grown tremendously in the southwest border region, capturing a greater share of the nation's total trade and commercial truck traffic. For example, trade through the southwest border accounted for 10.1 percent of total U.S. trade in 2004, up from 7.4 percent in 1994 (Table 10.2; see detailed data in Appendix A). Similarly, northbound or incoming cargo trucks through the southwest border counties comprised 39.5 percent of all trucks

entering the United States in 2004, up from 35.8 percent in 1995 as shown in Table 10.3. While the demand for truck hauls is largely determined by maquiladora production and final goods exchange, traffic also has increased as a result of the large number of empty trailer crossings to and from Mexico in support of just-in-time delivery of components from U.S. warehouses to maquiladoras, a.k.a., the "drayage system." Texas' land ports with Mexico are the busiest in the nation, while California's rank 4<sup>th</sup> behind only Michigan and New York.

**Table 10.2**  
**1994 and 2004 Summary of Total Trade, Imports, and Exports by Southwest Customs District and Ports**  
**(in Millions of Dollars)**

Custom Districts & Ports	Total Trade			Imports			Exports			Exports as % of Total Trade	
	1994	2004	% 94-04 change	1994	2004	% 94-04 change	1994	2004	% 94-04 change	1994	2004
Total U.S. Southwest Border	87,430.4	231,920.5	165.3%	42,012.8	136,628.8	225.2%	45,417.6	95,291.8	109.8%	51.9%	41.1%
Total U.S.	1,175,882.0	2,288,479.0	94.6%	663,256.0	1,469,704.0	121.6%	512,626.0	818,775.0	59.7%	43.6%	35.8%
Southwest Border % of Total U.S.	7.4%	10.1%		6.3%	9.3%		8.9%	11.6%			

Source: Texas Center for Border Economic and Enterprise Development, Texas A and M International derived from U.S. Census.

The terrorist attacks of September 11 and the security measures that followed have had a substantial impact on border counties. The most observable, yet difficult to quantify inconvenience to border residents, is the increased wait times to cross as a result of the heightened border security.<sup>6</sup> Border crossings and wait times that were already intolerable before September 11 have been significantly altered as the focus has shifted from almost exclusively stopping drugs, contraband, and undocumented immigrants to securing the nation's borders, often without differentiating between what constitutes

a high risk or a low risk. The effects of September 11 are illustrated at the top two ports for pedestrian and vehicle crossings, El Paso (in El Paso County) and San Ysidro (in San Diego County). In El Paso, immediately following September 11, vehicle waits of 2 to 3 hours to cross over the international bridges quickly became the new norm. These times have diminished in the period since September 11, but to levels much higher than pre-September 11 wait times. In response, people often gave up driving, preferring to wait less by walking across the border, thereby increasing pedestrian crossings. In

turn, pedestrian crossing times rose as a result of the volume. Overall, a 109 percent rise in pedestrian crossings was recorded by U.S. Customs between August 2001 and August 2002. In most cases, persons continue to walk across more and drive across less.<sup>7</sup> As a result, changes in consumer patterns are altered by fewer purchases if they have to be carried back into Mexico or by only visiting the immediate border area versus trips to malls or other interior locations. In contrast to El Paso, San Ysidro pedestrian crossings

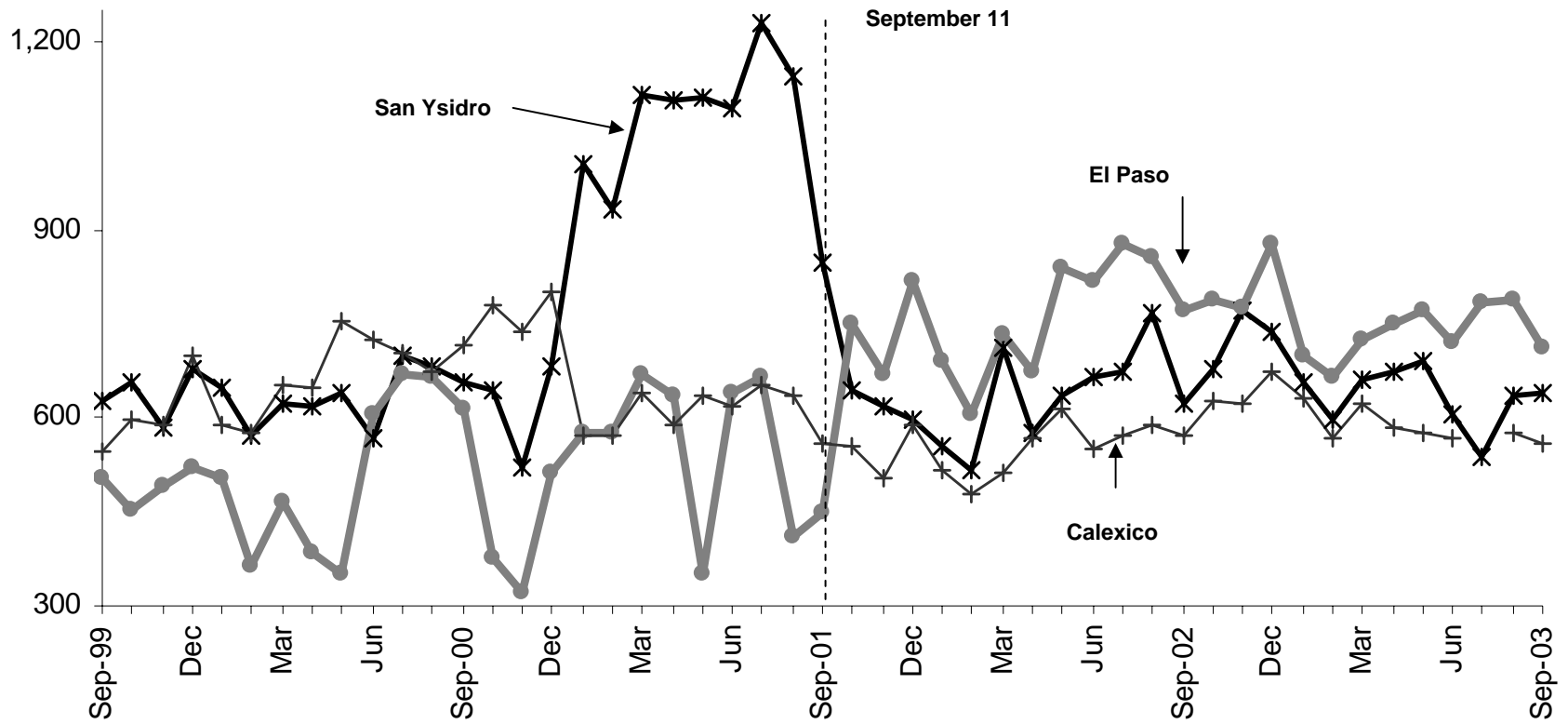
contracted by one-third between August 2001 and August 2002 and vehicle crossings rose to levels greater than pre-September 11. The change in human traffic patterns resulting from September 11 at El Paso and San Ysidro were so dramatic that these ports literally changed rankings within a period of weeks. Immediately after September 11, San Ysidro surpassed El Paso as the leader in vehicle crossings and El Paso surpassed San Ysidro as the leading port in pedestrian traffic (See Figures 10.1 and 10.2).

**Table 10.3**  
**2004 and 1995 Border Crossings Rankings by State Land Ports**

Rank	Cargo Trucks			Vehicles			Pedestrians		
		2004	1995		2004	1995		2004	1995
1	TX	3,036,018	1,894,971	TX	45,805,476	40,878,097	TX	20,440,329	15,443,565
2	MI	2,715,757	1,880,971	CA	34,553,627	12,224,347	CA	18,197,094	9,662,965
3	NY	1,987,117	1,504,957	AZ	10,195,882	8,336,435	AZ	9,186,005	7,621,087
4	CA	1,110,758	666,866	NY	9,334,930	10,693,704	NY	549,740	361,408
5	WA	674,772	558,852	MI	8,978,154	11,427,389	NM	260,807	108,355
6	ME	518,186	363,192	WA	4,951,100	8,157,961	ME	115,011	119,625
7	ND	340,862	257,926	ME	3,540,077	4,435,793	WA	102,652	92,902
8	VT	334,051	240,993	VT	1,431,287	1,639,640	MN	29,769	39,083
9	AZ	323,196	296,342	MN	1,051,563	1,104,416	VT	12,804	22,981
10	MT	167,678	132,845	ND	606,293	754,327	ND	5,298	10,483
11	MN	103,065	135,785	NM	578,904	346,192	MT	4,893	12,710
12	ID	49,198	47,387	MT	462,237	560,080	AK	4,066	778
13	NM	33,716	2,446	ID	162,802	246,991	ID	1,784	3,370
14	AK	11,134	12,102	AK	117,142	125,236	MI		34,623
<b>Southwest Border</b>		<b>4,503,688</b>	<b>2,860,625</b>	<b>Southwest Border</b>	<b>91,133,889</b>	<b>61,785,071</b>	<b>Southwest Border</b>	<b>48,084,235</b>	<b>32,835,972</b>
<b>U.S.</b>		<b>11,405,508</b>	<b>7,995,635</b>	<b>U.S.</b>	<b>121,769,474</b>	<b>100,930,608</b>	<b>U.S.</b>	<b>48,910,252</b>	<b>33,533,935</b>
<b>Southwest Border % of U.S.</b>		<b>39.5%</b>	<b>35.8%</b>	<b>Southwest Border % of U.S.</b>	<b>74.8%</b>	<b>61.2%</b>	<b>Southwest Border % of U.S.</b>	<b>98.3%</b>	<b>97.9%</b>

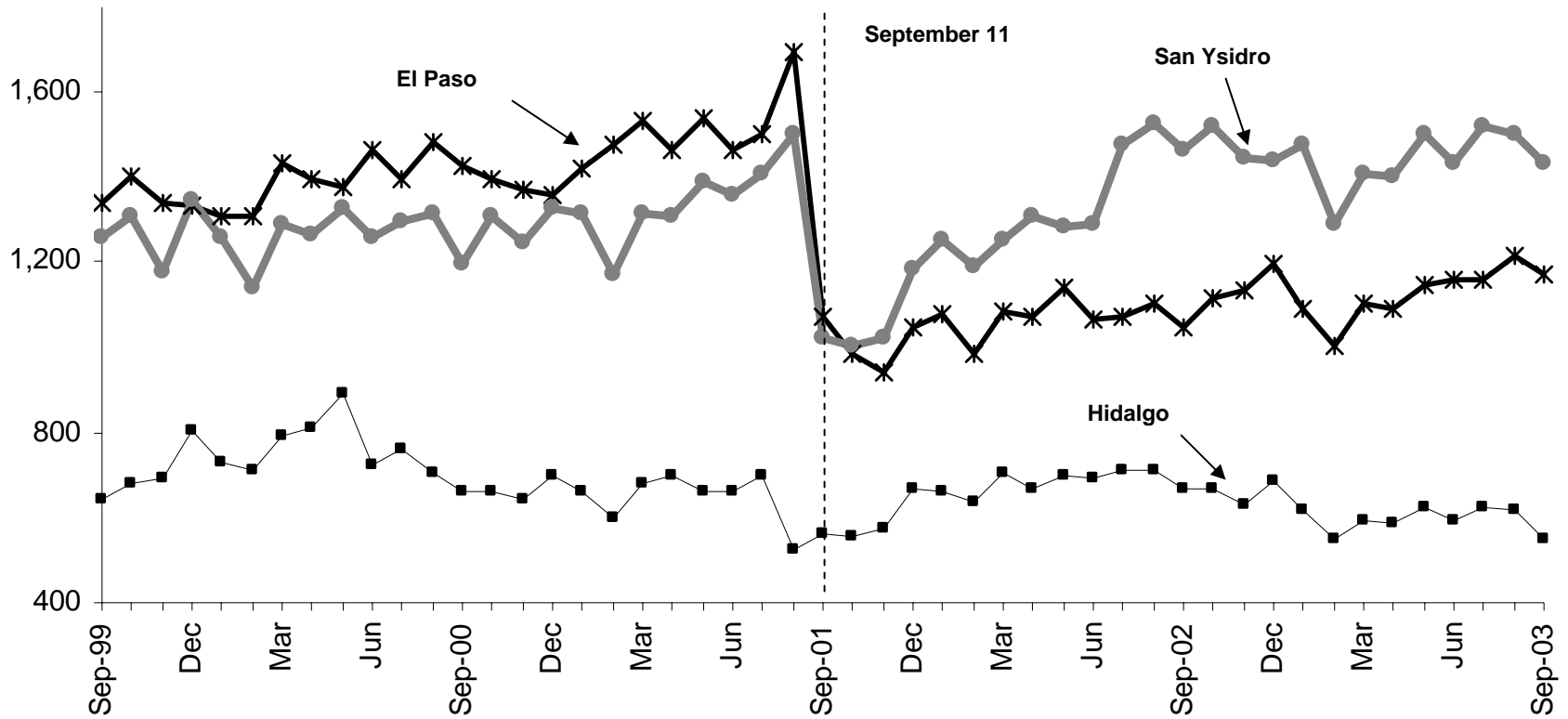
Source: U.S. Bureau of Transportation Statistics (BTS) from U.S. Customs Service.

**Figure 10.1**  
**1999 (September) to 2003 (September) Pedestrian Crossings at Top Ports (in Thousands).**



Source: Border Trade Statistics, U.S. Customs.

**Figure 10.2**  
**1999 (September) to 2003 (September) Vehicle Crossings at Top Ports (in Thousands)**



Source: Border Trade Statistics, U.S. Customs.



## Daily Commuter Traffic and Congestion

The interdependence of the border creates traffic flows that originate from two forces, namely daily commuting within border counties and cross border traffic related to both commuting and trade. Traffic and mobility are impacted by capacity that is strained as southwest border counties grow and must compete for transportation funding; efficiency that is often compromised by border security demands; and, development patterns that force traffic through sometimes already congested corridors.<sup>8</sup> County-by-county solutions are the outcome of changes in traffic patterns and a single border wide solution is neither desired nor expected. For residents of the border's rural counties, concerns about congestion and mobility are minimal. However, in individual border counties and their communities, concerns are growing as traffic demands result in significant delays for a variety of reasons ranging from lack of alternative routes when accidents occur to growth that has resulted in demand exceeding the road system's capabilities. In a series of studies conducted by the Texas Transportation Institute, southwest border counties are recognized as having potentially serious mobility limitations. In this regard, within the southwest border region, the "2005 Urban Mobility Report" demonstrates that:

- San Diego is 12<sup>th</sup> nationwide in annual hours of delays by travelers, 52 hours per year, exceeding the national average for 85 urban areas by 5 hours.
- El Paso ranks 54<sup>th</sup> nationally with Laredo and Brownsville falling at 79<sup>th</sup> and 85<sup>th</sup> respectively, in terms of annual hours of delay.
- These delays equate to 81,756,000 hours of time, 13<sup>th</sup> nationally for San Diego, resulting in an additional

59,000,000 gallons of fuel consumed, combined to a congestion cost calculated at \$1.4 billion per year.<sup>9</sup>

- Delays in Pima County, the greater Tucson urban area ranks 44<sup>th</sup> nationally, for El Paso 58<sup>th</sup>, and Laredo and Brownsville 82<sup>nd</sup> and 85<sup>th</sup>, respectively.
- While data is not kept by state, travel times, primarily associated with commuting, in all border areas are inching upwards annually; however, only in San Diego do the delays and costs exceed the national average and local traffic problems are not nearly at the levels of the nation's major urban areas where delays are 61 hours per year.

Almost all of the nation's border pedestrian crossings (98.3 percent) and three-fourths (74.8 percent) of vehicle crossings occur at the Mexican border (See Figures 10.1 and 10.2.). Much of the high volume of traffic through southwest ports results from the close social, familial, and work relationships among border residents. During the months of November and December, these relations are even more apparent as crossings rise as a result of increased holiday purchases by Mexican nationals in U.S. border cities. Increases in U.S.-Mexico border traffic have been significant over the past decade (See Appendix 10.2 and 10.3). Incoming pedestrians reached 48.1 million in 2004, an increase of 4.2 million from 1997 (9.5 percent) while vehicle crossings reached 91.3 million, a rise of 11.3 million since 1997 (14.1 percent).<sup>10</sup> The majority of the growth in pedestrian traffic came from the El Paso port while San Ysidro witnessed the greatest growth in vehicle traffic. As previously mentioned, the September 11 terrorist attacks on the nation and subsequent policies have had a tremendous impact on cross-border norms and are

indicators of what future events might do to cross-border traffic.<sup>11</sup>

- Over-the-year between August 2001 and 2002 persons walking from Mexico into the United States fell at San Ysidro by 377,057 and at Calexico by 47,900, and rose at El Paso by 446,638 (in Nogales they rose by 101,176).
- With the exception of Hidalgo (TX), vehicle crossings fell at all U.S. ports of entry between August and September 2001. The over-the-month drops varied greatly, from 31,260 at Calexico East to 621,865 at El Paso. Other than El Paso, vehicles fell by close to or more than 100,000 at the southwest ports of San Ysidro, Brownsville, Laredo, Calexico, Nogales, and Otay Mesa.

### Trade and Transportation

The U.S.-Mexico border is comprised of four U.S. Customs Districts (Laredo, El Paso, Nogales, and San Diego),<sup>12</sup> each with multiple ports of entry that connect cross-border cities via international land bridges and rail connections. Smaller border ports function as distribution channels for North American trade while larger southwest ports function as both distribution and production networks for both U.S. and Mexican manufacturing industries.

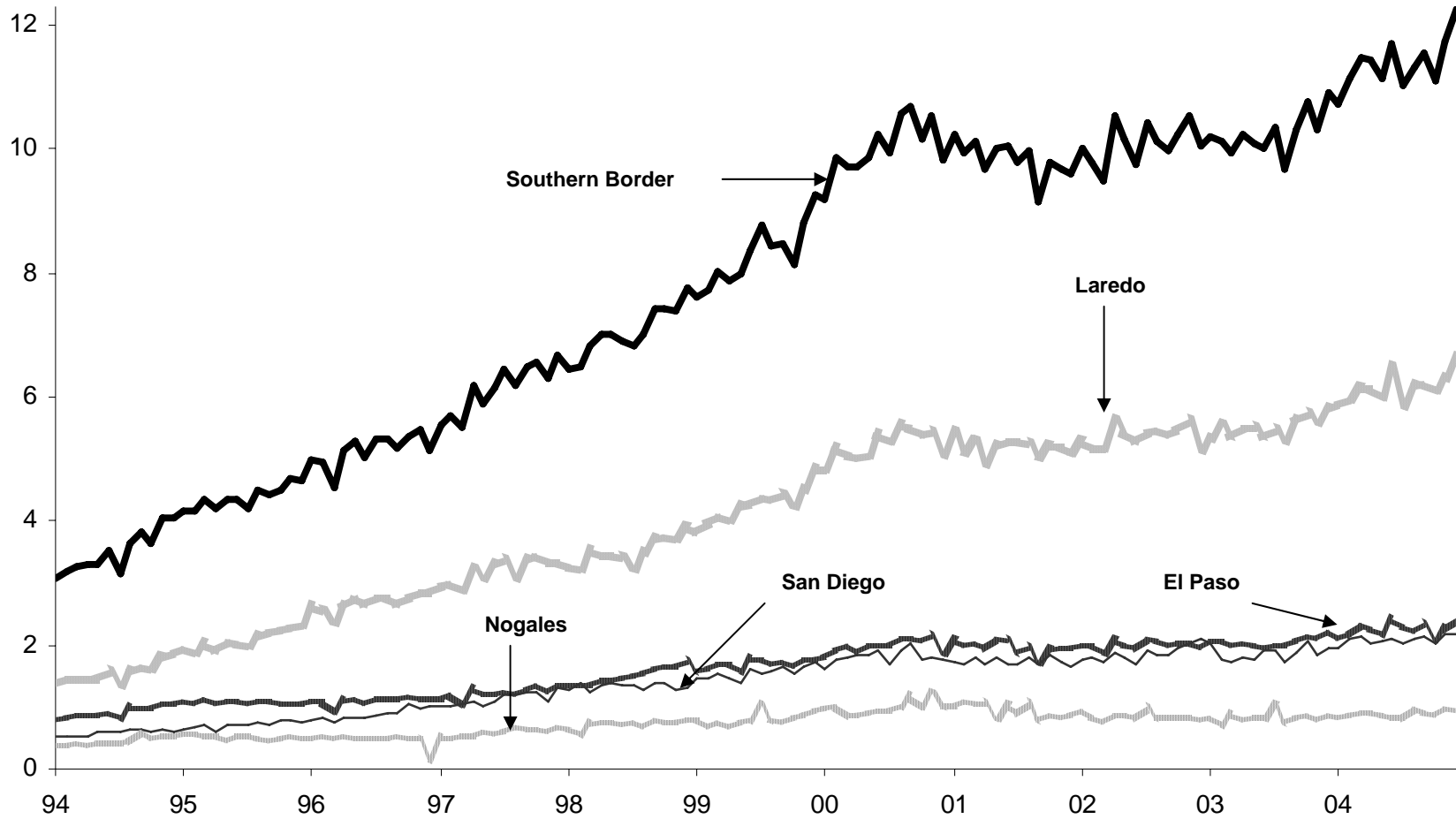
In 2004, total trade through the U.S. southwest border was \$231.9 billion (the sum of imports of \$136.6 billion and exports of \$95.3 billion), an increase of \$144.5 billion (165.3%) from 1994 (See Appendix 10.4). Trade through the southwest border accounted for 10.1 percent of total U.S. trade in 2004, up from 7.4 percent in 1994. The Laredo District dominates southwest border trade, followed by the El Paso, San Diego, and Nogales Districts (Figures 10.3 and 10.4). Imports have

risen sharply in the border region, driven primarily by the almost three-fold increase through the Laredo District. Imports through the San Diego District have increased substantially in percentage terms, but in actual dollar amount, the rise is just one third that of Laredo's. Likewise, similar export growth has occurred in the El Paso District.

The predominant mode of transportation for trade between the United States and Mexico in both value and volume is surface transport via commercial cargo trucks, followed by rail and air modes.<sup>13</sup> The demand for truck hauls is largely determined by maquiladora export production in Mexico at ports, such as El Paso, and by final goods production and trade between Mexico and the United States at ports such as Laredo, which serves as the primary corridor that connects Mexico's domestic industrial centers of Monterrey, Mexico City and Guadalajara with the U.S. market, and vice versa. At ports, such as Otay Mesa and Calexico East that connect Tijuana to San Diego and Mexicali to Imperial County, truck hauls are determined by both maquiladora production and final goods exchange. In Nogales, agricultural trade dominates distribution.

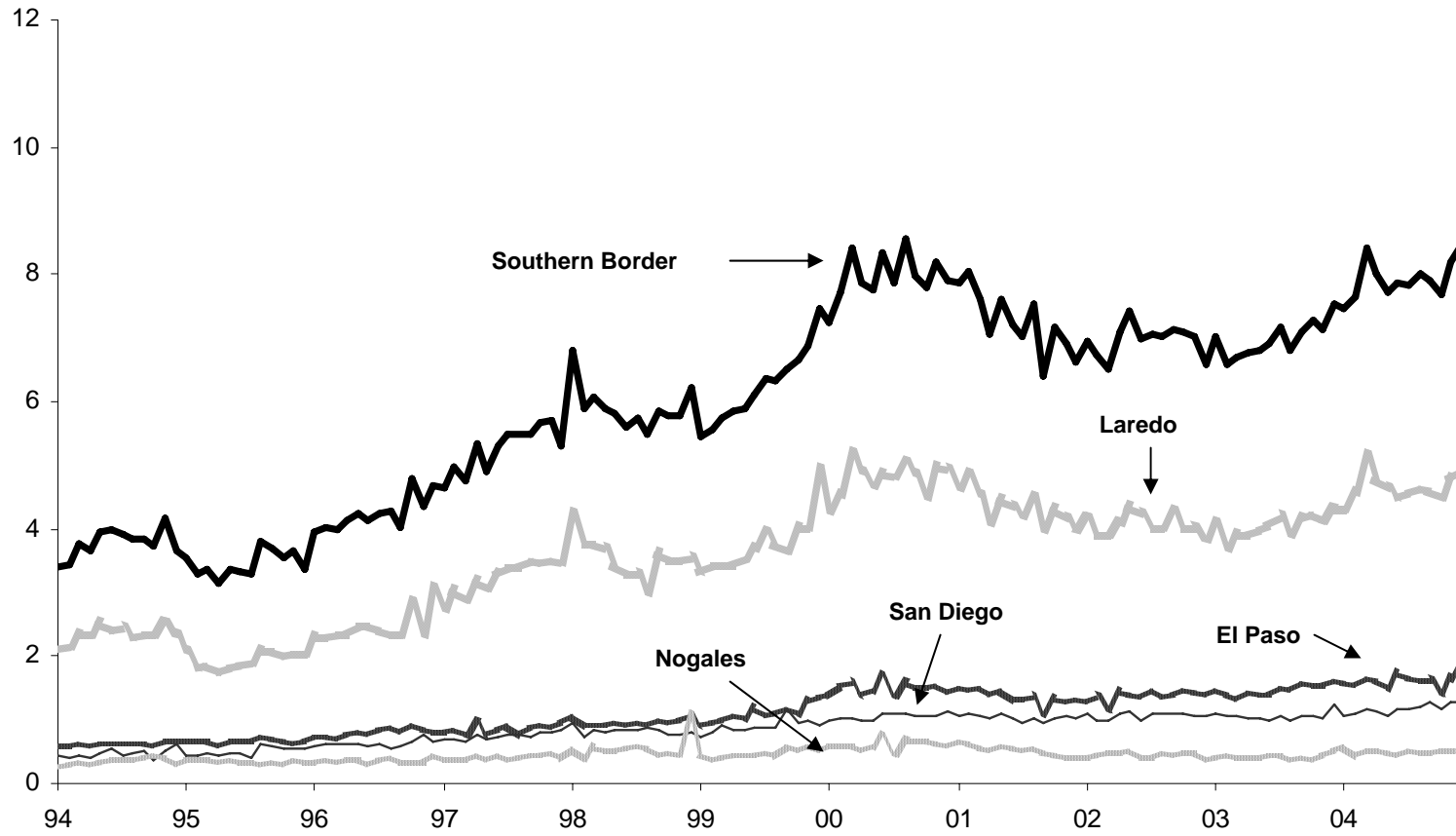
Northbound cargo trucks crossing through southwestern border ports increased 163 percent between 1994 and 2004, from 2.76 to 4.5 million crossings based on U.S. Customs documentation. Not all southwest ports of entry handle incoming (northbound) commercial trucks and the majority of truck crossings are concentrated through key logistical distribution nodes. The three primary ports include Laredo, El Paso, and Otay Mesa. The Hidalgo and Brownsville ports in the Lower Rio Grande region are also critical distribution nodes, while California's port at Calexico East and Arizona's port at Nogales record substantial commercial truck traffic and

**Figure 10.3**  
**1994-2004 Imports by Southwest Districts (in Billions of Dollars)**



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

**Figure 10.4**  
**1994-2004 Exports by Southwest Districts (in Billions of Dollars)**

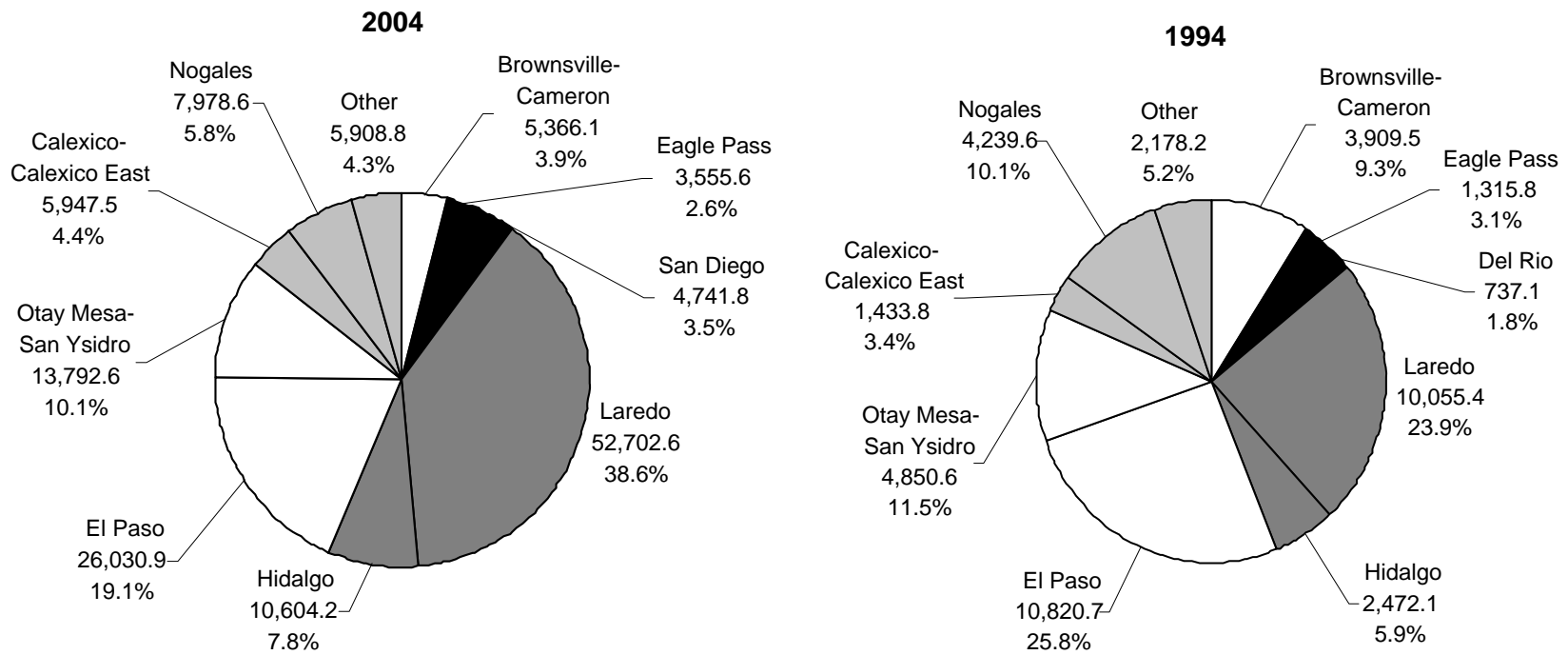


Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

international trade. Monthly trade and truck traffic flows through Nogales, compared to other ports, are highly variable as they follow seasonal movements of agriculture. The top three ports in the southwest are also top ports across the nation increasing the importance of the region's trade activities within the national trade arena (Figures 10.5 and 10.6 and Appendix 10.4):

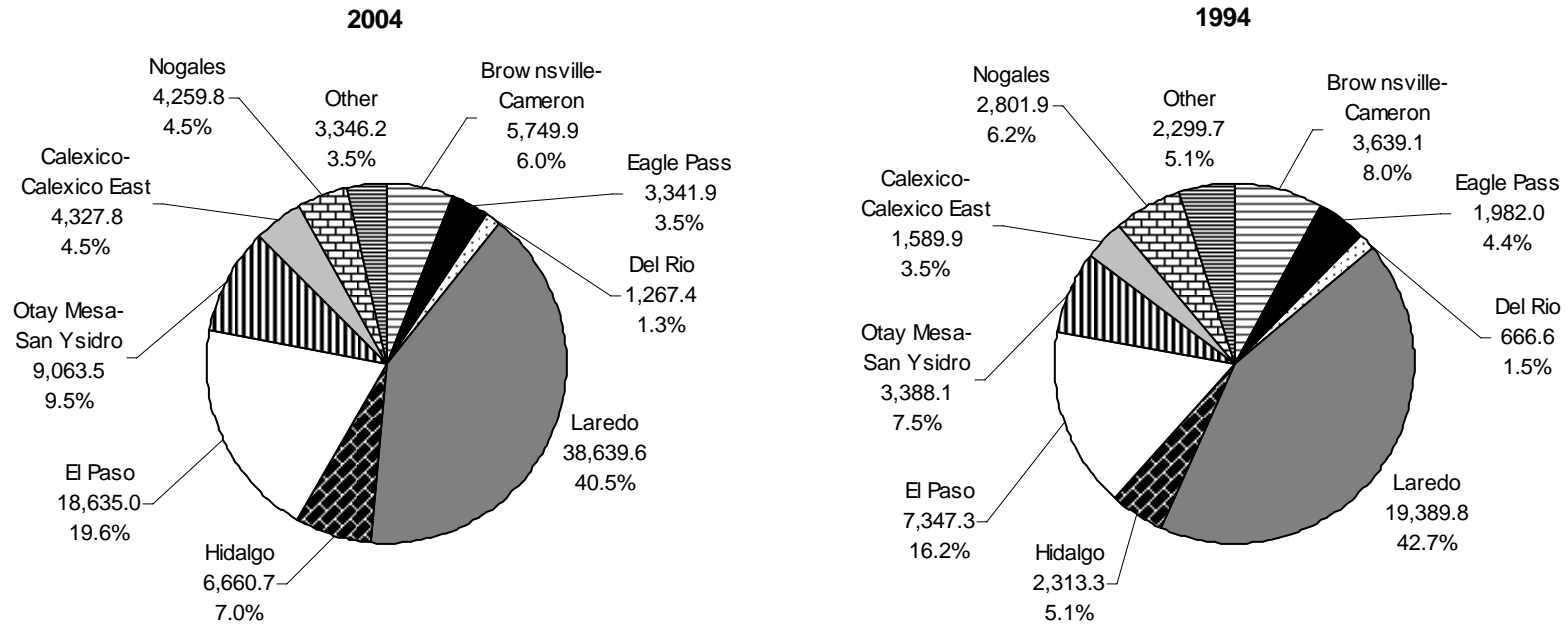
- The port of Laredo is the nation's second busiest land gateway by trade value (after the port of Detroit) and is the 6<sup>th</sup> leading gateway overall (all modes – land, air, and sea). It handles the highest volume of commercial trucks and trade value on the U.S.-Mexico border, connecting directly to both nations' industrial centers.
- In 2004, more than 1.39 million trucks crossed northbound through the Laredo port, almost one-third of the total incoming trucks crossing the U.S.-Mexico land ports.
- In 2004, more than \$91.3 billion worth of goods passed through Laredo, the majority imports, accounting for almost two-fifths of the southwest border's total trade.
- Mexico's products (non-maquila goods) imported into the U.S. are primarily directed through Laredo's World Trade Bridge, the most utilized truck crossing on the U.S.-Mexico border.
- The port of El Paso is the nation's 5<sup>th</sup> busiest land gateway by trade value and the 14<sup>th</sup> overall. It plays a key role in the drayage and logistics component of the just-in-time system between the United States and Mexico's maquiladoras.
- The El Paso port ranked 3<sup>rd</sup> in northbound truck crossings in 2004 (719.5 thousand) and its international bridges handle the second largest amount of border county trade, roughly \$44.7 billion in 2004. Most trade and truck traffic that pass through El Paso are directly related to the maquiladora industry.
- The port of Otay Mesa is the nation's 6<sup>th</sup> busiest land gateway by trade value and 25<sup>th</sup> overall gateway (all modes).
- With 726,200,000 northbound truck crossings in 2004, the Otay Mesa port of entry<sup>14</sup> was the 2<sup>nd</sup> largest commercial crossing and handles the 3<sup>rd</sup> highest trade value (almost one-tenth) among all U.S.-Mexico land crossings, roughly \$22.9 billion. Nearly all trade through Otay Mesa originates or terminates in California.

**Figure 10.5**  
**2004 and 1994 Imports by Border County Ports of Entry**



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

**Figure 10.6**  
**2004 and 1994 Exports by Border County Ports of Entry**



Source: Texas Center for Border Economic and Enterprise Development (TCBEED) from the Foreign Trade Statistics, U.S. Census Bureau.

**Appendix 10.1**  
**1994 and 2004 Total Trade Imports and Exports by Southwest Customs Districts and Ports (in Millions of Dollars)**

		Total Trade			Imports			Exports			Exports as % of Total Trade	
		1994	2004	94-04 % Change	1994	2004	94-04 % Change	1994	2004	94-04 % Change	1994	2004
	<b>PORT NAME</b>											
	Brownsville-Cameron	7,548.6	11,116.0	47.3%	3,909.5	5,366.1	37.3%	3,639.1	5,749.9	58.0%	48.2%	51.7%
	Del Rio	1,403.7	2,834.5	101.9%	737.1	1,567.2	112.6%	666.6	1,267.4	90.1%	47.5%	44.7%
	Eagle Pass	3,297.8	6,897.5	109.2%	1,315.8	3,555.6	170.2%	1,982.0	3,341.9	68.6%	60.1%	48.5%
	Laredo	29,445.2	91,342.2	210.2%	10,055.4	52,702.6	424.1%	19,389.8	38,639.6	99.3%	65.9%	42.3%
	Hidalgo	4,785.3	17,264.8	260.8%	2,472.1	10,604.2	329.0%	2,313.3	6,660.7	187.9%	48.3%	38.6%
	Rio Grande City	155.9	221.1	41.9%	51.9	129.3	149.3%	104.0	91.8	-11.7%	66.7%	41.5%
	Progreso	219.1	142.8	-34.8%	100.8	8.8	-91.3%	118.3	134.0	13.2%	54.0%	93.8%
	Roma	91.2	80.0	-12.3%	19.3	11.5	-40.6%	71.9	68.6	-4.7%	78.9%	85.7%
	Edinburg Airport	0.0	0.0	--	0.0	0.0	--	0.0	0.0	--	--	--
	<b>Laredo District Total</b>	<b>46,946.8</b>	<b>129,898.9</b>	<b>176.7%</b>	<b>18,661.8</b>	<b>73,945.1</b>	<b>296.2%</b>	<b>28,285.1</b>	<b>55,953.7</b>	<b>97.8%</b>	<b>60.2%</b>	<b>43.1%</b>
	<b>El Paso</b>	<b>18,168.0</b>	<b>44,666.0</b>	<b>145.8%</b>	<b>10,820.7</b>	<b>26,030.9</b>	<b>140.6%</b>	<b>7,347.3</b>	<b>18,635.0</b>	<b>153.6%</b>	<b>40.4%</b>	<b>41.7%</b>
	Presidio	101.1	409.6	305.2%	56.6	187.0	230.5%	44.5	222.5	400.3%	44.0%	54.3%
	Fabens	0.4	32.4	7860.3%	0.2	0.0	-100.0%	0.2	32.4	17676.9%	44.8%	100.0%
	Columbus	23.5	69.2	194.3%	15.9	36.4	129.4%	7.6	32.8	329.3%	32.5%	47.4%
	Albuquerque	32.8	11.1	-66.1%	32.5	9.1	-72.2%	0.2	2.1	774.4%	0.7%	18.5%
	Santa Teresa	91.5	1,185.4	1195.3%	91.5	769.6	741.0%	0.0	415.8	--	0.0%	35.1%
	Santa Teresa Airport	0.4	0.1	-86.9%	0.2	0.0	-100.0%	0.2	0.1	-66.9%	39.5%	100.0%
	<b>El Paso District Total</b>	<b>18,417.7</b>	<b>46,373.8</b>	<b>151.8%</b>	<b>11,017.6</b>	<b>27,033.1</b>	<b>145.4%</b>	<b>7,400.0</b>	<b>19,340.7</b>	<b>161.4%</b>	<b>40.2%</b>	<b>41.7%</b>
	<b>San Diego</b>	<b>779.1</b>	<b>4,931.0</b>	<b>532.9%</b>	<b>461.6</b>	<b>4,741.8</b>	<b>927.2%</b>	<b>317.5</b>	<b>189.2</b>	<b>-40.4%</b>	<b>40.7%</b>	<b>3.8%</b>
	Andrade	3.8	2.9	-22.5%	0.1	0.1	-54.2%	3.7	2.9	-21.5%	97.1%	98.3%
	Calexico	3,023.7	9.6	-99.7%	1,433.8	0.0	-100.0%	1,589.9	9.6	-99.4%	52.6%	100.0%
	San Ysidro	7,869.5	38.1	-99.5%	4,850.3	0.0	-100.0%	3,019.2	38.1	-98.7%	38.4%	99.9%
	Tecate	530.9	1,009.1	90.1%	244.5	543.2	122.2%	286.4	465.9	62.7%	54.0%	46.2%
	Otay Mesa	369.2	22,818.0	6080.7%	0.3	13,792.6	4613342.2%	368.9	9,025.5	2346.7%	99.9%	39.6%
	Calexico-East	0.0	10,265.7	--	0.0	5,947.5	--	0.0	4,318.1	--	--	42.1%
	<b>San Diego District Total</b>	<b>12,576.2</b>	<b>39,074.6</b>	<b>210.7%</b>	<b>6,990.6</b>	<b>25,025.3</b>	<b>258.0%</b>	<b>5,585.5</b>	<b>14,049.3</b>	<b>151.5%</b>	<b>44.4%</b>	<b>36.0%</b>
	<b>Douglas</b>	<b>665.3</b>	<b>797.8</b>	<b>19.9%</b>	<b>362.3</b>	<b>530.7</b>	<b>46.5%</b>	<b>302.9</b>	<b>267.1</b>	<b>-11.8%</b>	<b>45.5%</b>	<b>33.5%</b>
	Lukeville	13.4	9.3	-30.0%	1.6	0.1	-93.9%	11.7	9.3	-21.2%	88.0%	99.0%
	Naco	67.7	86.1	27.2%	24.8	27.7	11.9%	43.0	58.4	36.0%	63.4%	67.8%
	Nogales	7,041.4	12,238.3	73.8%	4,239.6	7,978.6	88.2%	2,801.9	4,259.8	52.0%	39.8%	34.8%
	Phoenix	617.5	1,286.9	108.4%	71.4	788.7	1004.8%	546.1	498.3	-8.8%	88.4%	38.7%
	Sasabe	0.6	20.7	3203.3%	0.2	0.0	-90.3%	0.4	20.7	5098.9%	63.5%	99.9%
	San Luis	495.9	964.2	94.4%	346.2	672.2	94.2%	149.7	292.1	95.0%	30.2%	30.3%
	Tucson	587.9	1,169.9	99.0%	296.7	627.4	111.5%	291.2	542.5	86.3%	49.5%	46.4%
	<b>Nogales District Total</b>	<b>9,489.7</b>	<b>16,573.3</b>	<b>74.6%</b>	<b>5,342.7</b>	<b>10,625.3</b>	<b>98.9%</b>	<b>4,147.0</b>	<b>5,948.0</b>	<b>43.4%</b>	<b>43.7%</b>	<b>35.9%</b>
	<b>Total U.S. Southwest Border</b>	<b>87,430.4</b>	<b>231,920.5</b>	<b>165.3%</b>	<b>42,012.8</b>	<b>136,628.8</b>	<b>225.2%</b>	<b>45,417.6</b>	<b>95,291.8</b>	<b>109.8%</b>	<b>51.9%</b>	<b>41.1%</b>
	<b>Total U.S.</b>	<b>1,175,882.0</b>	<b>2,288,479.0</b>	<b>94.6%</b>	<b>663,256.0</b>	<b>1,469,704.0</b>	<b>121.6%</b>	<b>512,626.0</b>	<b>818,775.0</b>	<b>59.7%</b>	<b>43.6%</b>	<b>35.8%</b>
	<b>Southwest Border % of Total U.S.</b>	<b>7.4%</b>	<b>10.1%</b>		<b>6.3%</b>	<b>9.3%</b>		<b>8.9%</b>	<b>11.6%</b>			

Source: Texas Center for Border Economic and Enterprise Development, Texas A and M International derived from U.S. Census.



**Appendix 10.2  
1994-2004 Incoming Pedestrian Crossings Along the U.S.-Mexico Border**

U.S. PORT NAME	2004 Rank	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
San Ysidro, CA	1	9,457,600	8,302,110	7,903,483	11,435,946	7,542,450	7,558,174	6,909,382	7,046,923	U	U	U
El Paso, TX	2	8,441,671	8,899,168	9,301,395	7,201,100	5,825,155	5,666,477	5,169,966	4,542,646	4,405,140	4,403,325	5,672,036
Nogales, AZ	3	6,131,407	5,583,533	5,911,866	4,874,738	4,677,819	4,806,076	4,796,884	4,643,538	4,417,030	4,698,049	4,948,152
Calexico, CA	4	4,847,096	6,230,123	6,894,820	7,119,785	8,352,324	8,099,253	8,492,078	8,167,540	7,373,815	7,100,203	6,469,371
Laredo, TX	5	4,507,105	4,577,725	4,648,046	5,060,947	5,492,769	6,674,293	5,093,851	5,427,815	3,713,397	3,112,505	4,257,086
Brownsville, TX	6	2,905,826	2,920,355	3,204,848	3,176,131	3,017,533	3,465,915	3,604,032	3,726,740	3,801,203	3,308,537	3,769,738
San Luis, AZ	7	2,316,812	2,625,907	2,968,278	3,170,259	2,824,562	2,721,603	2,016,280	2,220,799	2,385,462	2,212,747	2,137,883
Hidalgo, TX	8	2,011,500	2,138,232	1,958,914	2,325,812	2,575,622	2,559,617	2,377,143	2,429,241	2,603,443	2,541,556	3,057,580
Andrade, CA	9	1,946,347	1,747,369	1,703,862	1,779,392	1,762,700	1,634,155	1,457,009	1,360,393	1,325,445	1,161,868	1,076,367
Otay Mesa, CA	10	1,519,627	1,467,171	1,684,117	1,002,971	648,756	684,047	619,158	621,517	583,206	1,145,522	361,159
Progreso, TX	11	1,409,693	1,275,881	1,288,506	1,278,671	1,193,590	1,368,048	1,207,768	1,164,483	1,095,911	900,074	866,836
Eagle Pass, TX	12	701,241	698,602	691,904	864,105	920,114	761,221	661,922	529,897	458,729	395,933	398,354
Douglas, AZ	13	540,623	776,258	648,989	728,585	682,872	704,973	641,181	599,082	547,742	567,030	554,333
Tecate, CA	14	423,357	444,924	439,520	359,165	288,156	287,496	251,228	297,237	265,631	255,372	337,364
Roma, TX	15	255,238	242,394	245,377	311,458	494,717	479,762	469,341	443,949	452,752	426,365	489,022
Columbus, NM	16	246,880	242,448	250,968	182,025	187,709	195,531	138,881	119,418	144,354	108,355	102,216
Lukeville, AZ	17	103,094	89,694	78,336	126,268	109,800	78,611	73,308	76,274	72,085	71,790	68,228
Del Rio, TX	19	99,712	132,216	167,153	258,102	265,252	260,486	264,456	262,717	270,577	272,086	226,397
Naco, AZ	18	91,694	77,518	72,628	92,554	92,617	64,698	69,353	71,839	67,257	67,434	66,088
Rio Grande City, TX	20	69,176	121,149	129,752	88,089	86,225	86,226	76,593	85,919	90,423	30,949	30,126
Presidio, TX	21	20,101	25,187	34,065	24,240	16,019	16,719	21,136	11,890	9,075	11,522	16,300
Fabens, TX	22	19,066	25,311	33,723	32,208	23,813	17,052	14,524	14,737	24,691	40,713	38,703
Santa Teresa, NM	23	13,927	16,864	13,197	3,789	3,642	4,113	3,169	1,157	298	NA	NA
Calexico East, CA	24	3,067	1,586	2,398	2,538	2,293	15,100	28,649	42,463	U	U	U
Sasabe, AZ	25	2,375	2,048	2,136	2,443	3,133	3,588	4,262	3,097	1,698	4,037	4,405
<b>U.S. - Mexico Border Total</b>		<b>48,084,235</b>	<b>48,663,773</b>	<b>50,278,281</b>	<b>51,501,321</b>	<b>47,089,642</b>	<b>48,213,234</b>	<b>44,461,554</b>	<b>43,911,311</b>	<b>34,109,364</b>	<b>32,835,972</b>	<b>34,947,744</b>

Source: Border Trade Statistics, U.S. Customs. NA or U – Data not applicable are unavailable.

**Appendix 10.3**

**1994-2004 Incoming Vehicle Crossings Along the U.S.-Mexico Border**

U.S. PORT NAME	2004 Rank	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
San Ysidro, CA	1	17,621,030	17,408,481	16,441,766	15,001,616	14,106,704	15,269,561	14,474,686	13,213,420	U	U	U
El Paso, TX	2	14,817,206	13,699,206	13,095,153	16,135,835	16,697,439	16,001,926	15,212,062	15,089,692	15,095,553	16,004,344	15,887,942
Brownsville, TX	3	7,211,401	7,219,865	7,896,809	7,548,394	7,877,255	7,579,231	6,512,784	6,161,471	6,073,623	5,768,397	6,047,628
Hidalgo, TX	4	7,183,674	7,169,629	8,136,100	7,549,907	8,779,691	8,319,581	7,126,677	6,604,555	6,098,540	5,630,431	5,807,589
Laredo, TX	5	6,725,119	6,777,423	6,921,709	7,454,330	7,151,127	6,894,982	7,524,347	7,409,721	6,792,925	5,782,659	6,941,040
Otay Mesa, CA	6	6,193,568	4,912,899	4,140,610	3,956,842	4,845,348	4,480,026	4,326,786	3,800,936	3,377,407	3,549,378	3,745,144
Calexico, CA	7	5,641,994	5,261,985	6,174,218	6,374,425	6,744,970	6,836,372	6,957,454	6,469,607	6,138,688	7,081,042	8,440,912
Nogales, AZ	8	3,782,556	3,836,372	3,978,640	4,590,933	4,681,567	4,186,962	3,698,273	3,587,985	3,316,799	3,368,337	3,829,677
San Luis, AZ	9	3,755,829	3,189,867	3,306,378	2,596,180	2,597,835	2,687,387	2,641,879	2,740,807	2,597,734	2,592,335	3,033,624
Eagle Pass, TX	10	3,580,066	3,573,651	3,743,893	3,402,659	3,357,677	3,029,861	2,778,819	2,637,610	2,630,508	2,478,366	2,690,317
Calexico East, CA	11	3,159,892	3,102,398	3,504,005	3,080,540	2,550,625	2,203,291	1,785,602	1,781,749	U	U	U
Douglas, AZ	12	2,087,450	2,091,251	2,321,534	2,103,271	2,252,216	2,150,092	2,028,032	1,991,904	1,915,119	1,827,277	2,173,220
Del Rio, TX	13	1,881,858	1,909,639	2,094,729	1,956,047	1,968,712	2,054,057	1,900,700	1,853,091	1,770,666	1,604,880	1,611,828
Roma, TX	14	1,223,819	1,263,153	1,391,166	1,338,228	1,332,536	1,328,519	1,224,540	1,190,213	1,175,094	1,095,325	1,156,674
Tecate, CA	15	1,183,222	1,284,525	1,205,430	1,143,827	1,163,471	1,214,949	1,000,699	1,041,013	1,043,022	1,059,538	1,064,093
Progreso, TX	16	1,120,869	1,151,174	1,214,011	1,134,782	1,086,496	1,151,050	1,064,961	994,252	1,023,263	922,826	929,536
Andrade, CA	17	753,921	704,294	723,530	603,027	606,863	612,147	579,552	553,874	557,179	534,389	522,953
Presidio, TX	19	718,128	701,921	739,763	760,809	723,560	735,297	653,818	613,455	578,171	492,835	545,009
Rio Grande City, TX	18	692,329	706,230	740,449	675,856	687,550	714,130	667,071	563,160	571,819	500,664	537,514
Fabens, TX	20	651,007	658,831	735,983	733,819	705,623	699,004	582,008	652,739	627,481	597,370	604,109
Lukeville, AZ	21	398,469	413,042	442,094	436,523	400,493	501,345	394,144	381,918	265,471	266,366	248,919
Columbus, NM	22	351,128	356,568	387,487	369,206	383,722	384,578	313,587	329,733	387,395	346,192	296,005
Naco, AZ	23	340,332	339,663	337,433	336,662	339,196	326,640	303,993	294,493	289,683	261,056	275,128
Santa Teresa, NM	24	227,776	293,457	377,843	204,799	83,297	73,815	70,040	69,618	80,911	NA	NA
Sasabe, AZ	25	39,195	42,867	42,268	38,440	32,823	34,942	31,977	25,962	22,322	21,064	20,693
<b>U.S. - Mexico Border Total</b>		<b>91,341,838</b>	<b>88,068,391</b>	<b>90,093,001</b>	<b>89,526,957</b>	<b>91,156,796</b>	<b>89,469,745</b>	<b>83,854,491</b>	<b>80,052,978</b>	<b>62,429,373</b>	<b>61,785,071</b>	<b>66,409,554</b>

Source: Border Trade Statistics, U.S. Customs. U – Data are unavailable.

**Appendix 10.4  
1994-2004 Incoming (Northbound) Commercial Truck Crossings Along the U.S.-Mexico Border**

U.S. PORT NAME	2004 Rank	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994
Laredo, TX	1	1,391,850	1,354,229	1,441,653	1,403,914	1,493,073	1,486,489	1,352,198	1,251,365	1,015,905	747,241	667,907
Otay Mesa/San Ysidro, CA	2	726,164	697,152	731,291	708,446	688,340	646,587	606,384	567,715	530,704	445,770	439,654
El Paso, TX	3	719,545	659,614	705,199	660,583	720,406	673,003	605,980	582,707	556,134	606,742	573,933
Hidalgo, TX	4	454,351	406,064	390,282	368,395	374,150	325,225	266,547	234,800	205,028	177,459	164,900
Calexico East, CA	5	312,227	261,140	276,390	256,715	278,811	261,545	206,218	166,198	NA	NA	NA
Nogales, AZ	6	247,553	243,365	242,237	249,237	254,694	256,426	258,828	242,830	229,337	206,032	191,902
Brownsville, TX	7	226,289	229,389	248,869	251,613	299,238	303,540	276,779	247,578	226,367	223,689	267,316
Eagle Pass, TX	8	100,100	88,272	89,856	97,658	106,892	101,140	90,822	71,656	57,622	53,026	57,012
Tecate, CA	9	69,670	59,363	57,655	60,887	62,878	59,606	50,805	67,277	49,423	41,381	35,697
Del Rio, TX	10	64,061	65,609	72,039	59,942	61,228	58,843	53,623	45,059	39,720	37,431	33,462
San Luis, AZ	11	41,184	37,975	37,671	40,032	40,348	44,829	40,613	42,351	46,653	44,455	44,472
Rio Grande City, TX	12	40,815	35,523	26,330	25,724	24,065	20,832	17,872	16,130	14,084	12,668	16,720
Santa Teresa, NM	13	29,185	28,674	27,951	29,820	31,946	24,202	27,088	32,521	18,463	NA	NA
Douglas, AZ	14	28,146	26,122	24,362	31,520	33,594	32,568	35,656	35,718	38,089	36,272	37,140
Progreso, TX	15	23,064	19,571	23,886	19,844	12,001	16,617	15,503	18,926	23,521	20,838	23,423
Roma, TX	16	8,510	7,633	9,953	11,953	13,276	16,522	13,900	11,559	12,751	11,300	12,010
Presidio, TX	17	7,433	5,720	6,605	7,104	8,734	8,848	7,417	4,752	3,102	4,328	4,744
Naco, AZ	19	5,131	3,643	4,078	8,949	9,137	7,766	8,197	6,575	6,057	5,613	5,240
Columbus, NM	18	4,531	4,589	4,652	4,396	4,545	5,271	3,886	2,305	2,380	2,446	1,229
Andrade, CA	20	2,697	2,253	2,075	1,767	1,517	1,359	2,160	2,647	3,983	3,732	3,678
Lukeville, AZ	21	636	821	1,552	4,357	3,840	4,291	3,769	3,671	2,682	2,673	2,498
Sasabe, AZ	22	546	1,324	2,007	1,995	2,652	2,442	2,131	1,546	1,417	1,297	1,230
Fabens, TX	23	NA	NA	NA	108	214	170	165	168	136	249	525
Calexico, CA	24	NA	NA	NA	NA	NA	NA	2	33,611	170,526	175,983	178,428
<b>U.S. - Mexico Border Total</b>		<b>4,503,688</b>	<b>4,238,045</b>	<b>4,426,593</b>	<b>4,304,959</b>	<b>4,525,579</b>	<b>4,358,121</b>	<b>3,946,543</b>	<b>3,689,665</b>	<b>3,254,084</b>	<b>2,860,625</b>	<b>2,763,120</b>

Source: Border Trade Statistics, U.S. Customs. NA – Data not applicable.

## Endnotes to Chapter 10

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1. This does not include southbound crossings as measurements for outgoing traffic are unreliable, but doubling these totals is just as effective for a rough estimate of total northbound and southbound traffic since what comes through usually goes back.
2. Bureau of Transportation Statistics. U.S. Department of Transportation. 2004. "America's Freight Transportation Gateways."
3. Border regions also bear a greater public health burden from increased trade and immigration in proportion to economic prosperity. These and other demographic and social factors on both sides of the border interact to create health conditions distinct from other areas in the United States, including a higher risk for certain health problems and reduced access to healthcare services. The flow of people back and forth also guarantees efficient transmission of communicable diseases. Additionally, an unknown but significant proportion of the millions of annual border crossings are health related – medically underserved U.S. residents obtain lower priced prescriptions and over-the-counter medications as well as basic medical and dental services in Mexico while affluent and indigent Mexican residents obtain improved, specialized or otherwise unavailable healthcare services in the United States. (Maria Alvarez Amaya, 2003. "Health Issues on the U.S.-México Border," *Dígame, Policy & Politics on the Texas Border*, University of Texas at El Paso, Kendall/Hunt Publishing Company, Ch. 14, pp. 259-283).
4. Differing operating times between U.S. and Mexican Customs further compounds congestion at the bridges. Cargo trucks begin lining up on one side of the border as they wait for the other side of the border to open the inspection gates. Clearly a homogenous schedule would allow those first in line to be inspected before a bottleneck begins. Furthermore, the current inspection system is undermanned at a time when some stakeholders prefer a policy of 'stop and examine everything' as part of homeland security without differentiating between what is high risk and what is low risk. Old technologies and compliances from Mexican exporters to pre-clear cargo before reaching U.S. Customs and new ones recently implemented should help facilitate the movement of goods to some extent. Recent efforts have expanded the number of vehicle crossing lanes at some ports to alleviate the greater scrutiny required by Customs officials. While these efforts have helped, increased wait times to cross and congestion post September 11 remain serious social, economic, and environmental health and safety issues for border residents.
5. See, DOT and Related Agencies Appropriations Act, 2002 at <http://thomas.loc.gov/cgi-bin/query/F?c107:6:./temp/~c107jngmPf:e36500>: Mexican trucks are mentioned in section 350.
6. At the port level, general wait times per international bridge can be assessed by monitoring radio stations that provide such information via U.S. Customs or from U.S. Customs directly with the proper credentials. Tracking this information is complex since it varies by bridge, date, time, events, and other factors inherent to the particular cities which are tied together. The Department of Homeland Security, U.S. Customs' website also provides snapshots of wait times and the number of open lanes for commercial and vehicle crossings for the international bridges at major ports of entry. These data, however, have proven unreliable. For example, the site transmitted from Washington D.C. can post a 5 minute delay at a specific bridge in El Paso when it is known for a fact by

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those living there that the delay is far greater. Furthermore, there exists no historical time series for these data as what is posted is quickly erased after the next time set is posted, thereby limiting comparisons. It should be noted though that recent postings of wait times are far more within the range of being plausible versus past collections. For these reasons, wait times are most reliable when they are based on first-hand knowledge, personal crossing experience, and information about the individual ports that includes conversations with those who live there.

7. The dramatic change in pedestrian travel also results from altered southbound travel as individuals cross back and are mentioned as incoming northbound crossings. El Paso residents have curbed their social practices of entering Mexico. Like Cd. Juárez residents, El Pasoans walk across when they can do so. For example, many nightclubs and drug stores are located in downtown Cd. Juárez, just a few minutes walk from El Paso via the Paso Del Norte bridge. Refusing to travel across and wait in vehicle lines, more El Pasoans park their cars near the bridge, walk across, make their purchases or visit nightclubs, and walk back. On the more extreme side, some U.S. border residents have literally stopped going over to enjoy Mexico's restaurants, nightlife, and other entertainment venues because of the time uncertainty in returning.

8. See D. Schrank, "The 2005 Urban Mobility Report," Texas Transportation Institute, Texas A and M University, College Station, TX, May 2005.

9. See Schrank, pp. 11-14; congestion cost is value of time of person traveling (\$123.45 per hour) plus excess fuel consumed at state average costs.

10. Base year 1997 is chosen because between 1994 and 1996, San Ysidro had unavailable data, thereby skewing the totals downward substantially.

11. Olmedo, C. and D. Soden. 2005. "Terrorism's Role in Re-Shaping Border Crossings: 11 September and the US Borders," *Geopolitics*, 10:1-26.

12. The Laredo District incorporates all ports of entry between the Lower Rio Grande and Middle Rio Grande regions in Texas. The El Paso District includes ports in the Upper Rio Grande region and in New Mexico. The San Diego and Nogales Districts include entries in California and Arizona, respectively. There are a total of 31 ports of entry in the Southwest Customs Districts and all but four are on the international boundary with Mexico. The exceptions are the ports of San Diego, Albuquerque, Phoenix, and Tucson.

13. Bureau of Transportation Statistics (BTS), U.S. Department of Transportation. Transborder Surface Freight. Data from the U.S. Census Bureau, Foreign Trade Division, prepared by the BTS.

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14. The Otay Mesa port was developed in 1985 with only northbound cargo operations. In 1994, all southbound commercial traffic was moved from San Ysidro to Otay Mesa. Today, there is limited commercial truck and goods movement through the San Ysidro port. Because San Ysidro was the principal port prior to 1995, it is best to incorporate both ports as Otay Mesa/San Ysidro to obtain a consistent time series. Also in California, the Calexico East port became fully operational in 1997 and, thus, most exports and imports transferred to this site away from Calexico. Similarly, combining both ports as Calexico/Calexico East provides a consistent series since logistically they are adjacent to one another.

## Chapter 11 Immigration

Nationally, the issue of immigration is controversial and is not a topic for which any set of conclusions is likely to gain an overwhelming consensus. In the border region, immigrants from the foreign born population,<sup>1</sup> distinct from those who are part of the Hispanic ethnic group, are actually a much smaller segment of the population than might be expected. The 2004 American Community Survey, conducted by the Census Bureau, documents that among 236 counties nationwide, only four southwest border counties report more than 1 percent of their population being foreign born. Hidalgo, TX ranks highest among border counties, but only 15<sup>th</sup> nationally, El Paso comes in at 17<sup>th</sup> with 28 percent, San Diego 24<sup>th</sup> with 23.2 percent, and Pima 80<sup>th</sup> with 13.8 percent, out of the 236 counties examined.<sup>2</sup> Yet, for those living in the border region's states and counties, immigration is a controversial economic, political, and social topic, driven largely by the role of undocumented immigration.

Evaluating the effect of undocumented immigration on the economic prospects of native-born residents and what undocumented immigration costs southwestern border counties to provide services ranging from education to health care is extremely complex. In addition, few topics in the region are as emotionally charged. The costs of unauthorized entrants is widely studied and more widely hotly debated, but is outside the scope of this discussion. The fact of the matter is that the actual number of unauthorized entrants may raise the percentage of foreign born in many locations, especially the border counties of the southwest, which serve as a gateway for immigration from Mexico. However, any

estimates of total costs and the fiscal burdens these may create are likely to be incomplete and subject to a host of measurement problems.

- Almost 5 percent of foreign born persons reside in the border counties, and close to 72 percent of the total foreign born population in border counties was born in Mexico.
- Exact population counts of unauthorized persons are unavailable and studies from the Pew Hispanic Center, The Urban Institute, and the former Immigration and Naturalization Service (INS) vary dramatically in their estimates.
- Undocumented immigrants impose a fiscal burden on the United States where taxpayers pay the bill for educational, healthcare, and incarceration costs.

### Policy Issues

Three policy issues dominate the discussions related to immigration in southwest border counties. While family ties and culture play a strong role in decisions to reside on one side of the border or the other, the costs of health services, education, and law enforcement are localized in most cases, creating an additional burden on southwest border counties. These three are the largest cost areas identified in a 1994 study conducted by the Urban Institute, which provides a useful baseline for comparison more than a decade later.<sup>3</sup>

Education costs of the undocumented immigrant population primarily fall onto K-12 schooling, an area where immigration status is generally not required to obtain enrollment. Health care providers, as discussed in Chapter 9, face unreimbursed medical outlays for health care provided to the undocumented population. Lastly, incarceration for crimes or unauthorized entry, likewise, has resulted in uncompensated costs to county prisons (see Chapter 13 for a more detailed discussion).

State and local taxes paid by the undocumented immigrant population go toward offsetting these costs, but border counties must concern themselves with accounting for these costs to ascertain the gap between tax revenues and the expenses they incur. The total of such payments can generally be estimated, but a true cost estimate is best to gain support for federal or state actions to cover these costs.

The fiscal costs of illegal immigration do not end with these three major cost areas. The total costs of illegal immigration to the state's taxpayers would be considerably higher if other cost areas, such as special English instruction, welfare programs used by the U.S.-born children of undocumented immigrants, or welfare benefits for American workers displaced by undocumented immigrant workers, also were calculated.

From a more positive perspective, legal immigration and the choice of eventual citizenship help supplement the labor pool, which is noticeable in the nation's dependence on immigrants for agriculture labor. Five centuries since finding the Americas, the United States is still, at its roots, a nation of immigrants. Managing the influx of those in search of the nation's prosperity places a burden on border counties. As a result, at the same time that discussions for managing and controlling immigration occur, the southwest border counties also are destined to remain a point of entry that generates cultural diversity and mirrors today what the nation is likely to

look like by 2050 as the Hispanic minority becomes the majority-minority.<sup>4</sup>

While the primary responsibility for combating illegal immigration rests with the federal government, there are many measures that state and local governments can take to combat the problem. However, clouding the policy process are severe data limitations resulting from unauthorized entry and the changing demographic composition of the United States population. Data limitations complicate the accuracy in counting the undocumented immigrant population and their exact consumption of social services, such as food assistance, education, healthcare, and tax rebates. Exact population counts of unauthorized persons are unavailable because, under certain circumstances it is, in fact, illegal to ask a person what their legal status is, nor are undocumented immigrants normally willing to divulge their status. Thus, policy makers are limited to somewhat imprecise data to make immigration policy decisions. Beyond this, as the increase in the foreign born population changes the composition of the total national population, the southwest border counties will be less and less different and more like the rest of the nation. In this case, either the issue of immigration policy becomes national or is diluted by regional efforts that cannot gain broader national support. The latter, perhaps, may hurt southwest border counties the most due to a lack of political representation in comparison to larger areas which also have substantial immigration issues but have more federal political clout. Yet, regardless of the direction, the southwest border counties will be involved in the policy decision making process because of their proximity to Mexico and their role as a "gateway."

### **The Size and Composition of the Foreign Born Population**

The U.S. Census Bureau reports foreign born persons who are not U.S. citizens by birth, but are "naturalized U.S. citizens,



lawful permanent residents (documented immigrants), temporary migrants (such as students), humanitarian migrants (such as refugees), and persons illegally present in the United States.”<sup>5</sup> The size of the foreign born population has grown considerably, as shown in Table 11.1, which reports estimates of the population of foreign born persons at 31.1 million in 2000. Of that total, 12.6 million (40.4%) resided in southwest border states and 1.4 million (4.5%) lived in southwest border counties. Concentration of the foreign born, not surprisingly, are in the five most populous southwest border counties: San Diego (606,254), Pima (100,050), El Paso (186,168), and Hidalgo, TX (168,215). Added to this list, and not reported, in 2004 estimates by the Census Bureau is Cameron (85,723).<sup>6</sup>

The largest number of non-citizens, the category which also captures undocumented immigrants, resided in San Diego (356,129), Hidalgo, TX (119,741), El Paso (108,347), Pima (60,385), and Cameron (56,152) counties.<sup>7</sup> Along the southwest border, the largest immigrant groups, comprised of both legal and undocumented persons, come from Mexico, the Philippines, and Vietnam (Figure 11.1). Mexico represents the home country of close to three quarters of the border states’ foreign born population and 71.7 percent of the border counties’ foreign born population.

### **Estimating the Size of the Undocumented Population in the United States**

Although the U.S. Census is the official and primary source of population estimates, it only distinguishes U.S. citizens from non-citizens. Other institutions, such as the Urban Institute and the Pew Hispanic Center, use information from the Census’ surveys to tabulate population estimates for the

undocumented or unauthorized population residing in the United States. In addition to the estimates tabulated by the Pew Hispanic Center and the Urban Institute, the former INS previously calculated the number of undocumented immigrants in the United States. These institutions use the residual method or a variant of it. The residual method is based on tabulation of the unauthorized population by subtracting the estimated legal population from the Census total foreign born population count.

Using one of the variations of the residual method, The Pew Hispanic Center estimates 10.3 million undocumented immigrants living in the United States as of March, 2004.<sup>8</sup> Furthermore, the Center estimates that more than half are from Mexico and work primarily in low wage and low education occupations. The majority of undocumented immigrants are young adult males with high labor force participation rates. The Pew Hispanic Center also estimates that 24 percent of these undocumented migrants reside in California (2.4 million), 14 percent are in Texas (1.4 million), and 5 percent are in Arizona (500,000).<sup>9</sup> Combined, these estimates suggest that three of the four southwest border states account for more than two out of five of the undocumented immigrants in the United States.<sup>10</sup>

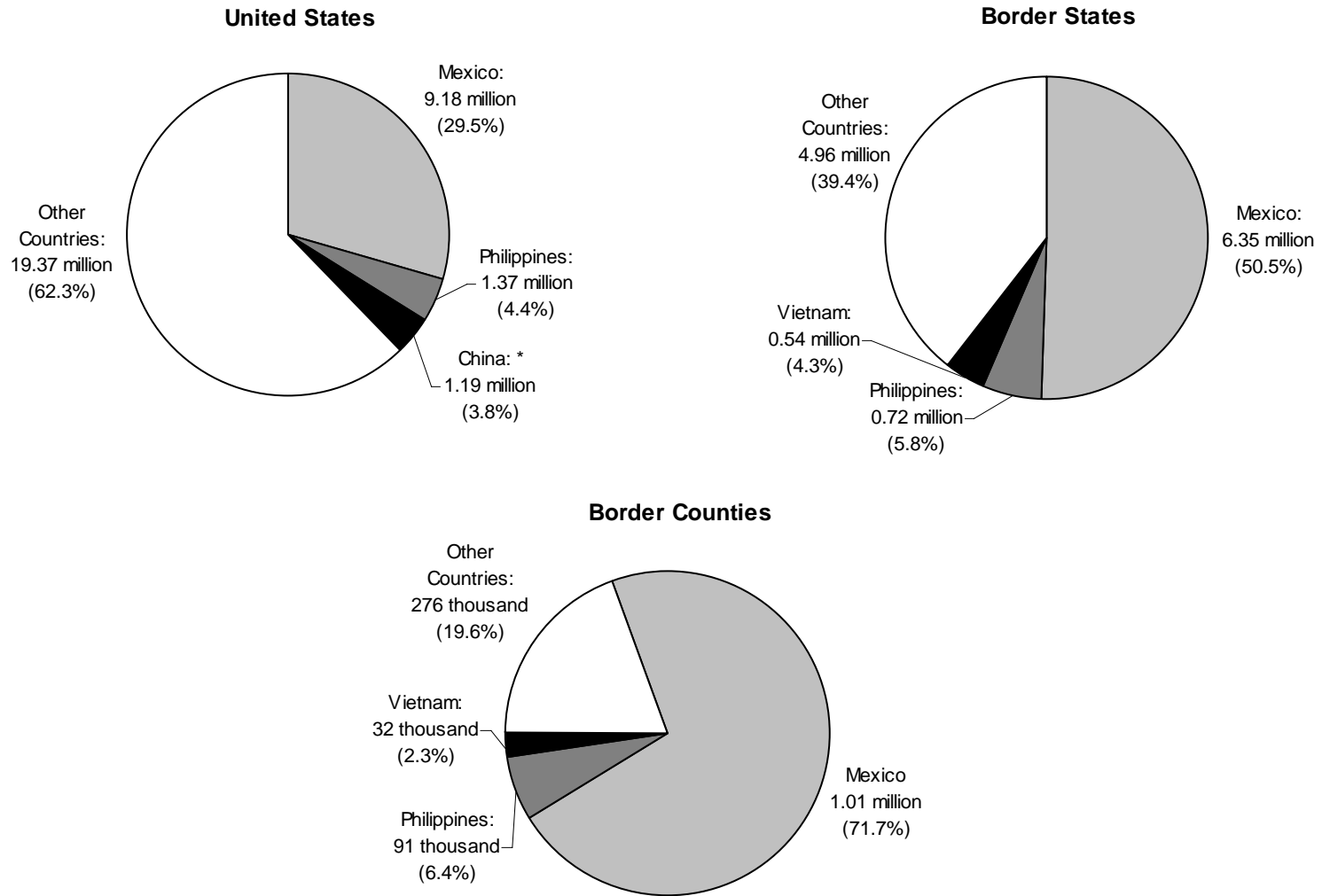
In a second study, the Urban Institute approximated the unauthorized immigrant population to be smaller, at 9.3 million persons in 2002.<sup>11</sup> California and Texas are in the top six destinations, where 2.4 and 1.1 million unauthorized persons, respectively, are expected to be residing. Arizona and New Mexico have smaller undocumented immigrant populations, that fall within the ranges of 250,000 to 350,000 and 50,000 to 75,000, respectively. Furthermore, Mexico is the country of origin for 5.3 million unauthorized immigrants.

**Table 11.1**  
**2000 Top 3 Birth Counties for the Foreign Born Population**

	Total	1 <sup>st</sup> Pop.	Country	2 <sup>nd</sup> Pop.	Country	3 <sup>rd</sup> Pop.	Country
<b>United States</b>	31,107,889	9,177,487	Mexico	1,369,070	Philippines	1,192,437	China *
<b>Arizona</b>	656,183	436,022	Mexico	26,323	Canada	15,868	Germany
Cochise	14,438	10,058	Mexico	993	Germany	692	Korea
Pima	100,050	62,346	Mexico	3,889	Canada	3,284	Germany
Santa Cruz	14,457	13,903	Mexico	105	Korea	68	Canada
Yuma	38,479	34,453	Mexico	1,351	Canada	300	Germany
<b>AZ Border Counties</b>	167,424	120,760	Mexico	5,658	Canada	4,619	Germany
<b>California</b>	8,864,255	3,928,701	Mexico	664,935	Philippines	418,712	China *
Imperial	45,783	43,083	Mexico	449	Korea	396	Philippines
San Diego	606,254	292,749	Mexico	84,977	Philippines	29,199	Vietnam
<b>CA Border Counties</b>	652,037	335,832	Mexico	85,373	Philippines	29,232	Vietnam
<b>New Mexico</b>	149,606	107,272	Mexico	5,463	Germany	3,324	Canada
Dona Ana	32,623	29,553	Mexico	442	Germany	260	China *
Hidalgo	657	639	Mexico	13	Germany	3	Philippines
Luna	4,884	4,629	Mexico	38	Canada	20	Japan/Germany
<b>NM Border Counties</b>	38,164	34,821	Mexico	475	Germany	269	China *
<b>Texas</b>	2,899,642	1,879,369	Mexico	107,027	Vietnam	101,259	El Salvador
Brewster	615	466	Mexico	44	United Kingdom	23	Canada
Cameron	85,723	80,421	Mexico	676	Canada	490	Philippines
Culberson	463	428	Mexico	9	Pakistan	8	Philippines
El Paso	186,168	169,701	Mexico	4,056	Germany	1,373	Korea
Hidalgo	168,215	160,914	Mexico	1,295	Philippines	963	Canada
Hudspeth	1,110	1,104	Mexico	3	Spain/Korea	-	-
Jeff Davis	240	193	Mexico	16	Canada	7	Germany
Kinney	397	334	Mexico	17	India	14	Germany
Maverick	17,867	17,549	Mexico	62	Vietnam	38	Korea
Presidio	2,615	2,556	Mexico	20	Germany	11	Japan
Starr	19,758	19,540	Mexico	111	Philippines	34	Nicaragua
Terrell	107	92	Mexico	9	Honduras	4	United Kingdom
Val Verde	10,494	9,865	Mexico	81	Guatemala	77	United Kingdom
Webb	56,029	54,056	Mexico	268	Honduras	159	El Salvador
Zapata	2,931	2,882	Mexico	15	Philippines	12	Germany
<b>TX Border Counties</b>	552,732	520,101	Mexico	4,664	Germany	3,186	Philippines
<b>Border States</b>	12,569,686	6,351,364	Mexico	724,873	Philippines	537,739	Vietnam
<b>Border Counties</b>	1,410,357	1,011,514	Mexico	90,962	Philippines	32,103	Vietnam

Source: U.S. Census Bureau.

**Figure 11.1**  
**2000 Home Country of the Foreign Born Population**



Source: U.S. Census Bureau.

**Table 11.2**  
**2000 Census Estimated Unauthorized Resident Population (in Thousands)**

State of Residence	Estimated Population	Rank	State Total (2000 Census)	Percent of Unauthorized Population in Each State	Rank
California	2,209	1	33,872	6.50%	1
Texas	1,041	2	20,852	5.00%	4
New York	489	3	18,976	2.60%	11
Illinois	432	4	12,419	3.50%	5
Florida	337	5	15,982	2.10%	13
Arizona	283	6	5,131	5.50%	2
Georgia	228	7	8,186	2.80%	7
New Jersey	221	8	8,414	2.60%	10
North Carolina	206	9	8,049	2.60%	9
Colorado	144	10	4,301	3.30%	6
Washington	136	11	5,894	2.30%	12
Virginia	103	12	7,079	1.50%	14
Nevada	101	13	1,998	5.10%	3
Oregon	90	14	3,421	2.60%	8
Massachusetts	87	15	6,349	1.40%	15
Other States	892	16	120,497	0.70%	16
All States	7,000		281,422	2.50%	

Source: Immigration and Naturalization Services.

Lastly, the former INS also used the residual method to calculate population estimates for the undocumented immigrant population. According to INS, 7 million unauthorized persons were residing in the United States in 2000 (Table 11.2). Out of the 7 million, 2.2 million were living in California, 1 million in Texas, and 283,000 in Arizona.<sup>12</sup> The INS also estimated that Mexico was the country of origin

for 4.8 million authorized persons, but unfortunately was not able to provide county estimates.

**Characteristics of Legal and Undocumented Immigrants**

In these studies, it is assumed that legal and undocumented immigrants share the same socio-demographic characteristics.

This is not the case; the composition of families is mixed with legal and undocumented resident status. For instance, the Pew Hispanic Center reports there are 4.7 million children of unauthorized migrants; 2.6 million of them are U.S. citizens. Children, numbering 1.2 million, also have siblings who are a mix of U.S. citizens and unauthorized migrants. More than 900,000 children are in families where everyone is unauthorized.<sup>13</sup> The Pew Hispanic Center also estimates that, according to the March 2002 U.S. Current Population Survey, 41 percent of children had undocumented parents, with 26 percent of these children under the age of six, and 15 percent between 6 and 17 years old.<sup>14</sup>

According to the Pew Hispanic Center, families made up of unauthorized immigrants tend to be younger. In this regard, among working age adults (defined as 18 to 64 years-old) in the undocumented population, about 84 percent are young adults (defined as 18 to 44 years-old). Moreover, unauthorized migrants of working age (defined as 25 to 64 years-old) are less likely to have completed a high school education. The Pew Hispanic Center calculates that 32 percent of unauthorized migrants have not completed high school. On the other side of the spectrum, 10 percent of the unauthorized population has some college, and 15 percent has completed a bachelor's degree or more. In addition, the average family size of unauthorized families is larger than native families, 2.29 persons versus 1.96, respectively; and, their incomes are far less, \$27,400 for unauthorized families versus \$47,700 for native families.<sup>15</sup>

Labor participation rates also differ among groups and between genders. According to the Pew Hispanic Center, adult women who are unauthorized migrants between the ages of 18 and 64 (56 percent) work less than native women (73 percent). They also work less than unauthorized migrant males (92 percent).<sup>16</sup> The Pew Hispanic Center also

estimates there were 6.3 million unauthorized workers in the United States in 2004. Most are concentrated in occupations that require minimal education and do not have licensing requirements, such as farming, cleaning, and construction.

Unauthorized migrants record higher poverty rates among children and adults and they lack health insurance.<sup>17</sup> Close to 40 percent of children whose parents are unauthorized migrants live in poverty. Moreover, 53 percent of children of unauthorized migrants lack insurance, compared to 9 percent of children with native parents, and 13 percent of children with legal immigrant parents. For adults, 27 percent of unauthorized migrants live in poverty and 59 percent lack health insurance. Based on these characteristics, policy makers must be aware that changes in the demographic make-up of the immigration population will continue. Due to the influx from Mexico, it is important that these concerns be examined with 360 degrees of thinking that involves assessments of events and immigration patterns related to both the United States and Mexico.

### **Fiscal Impact Imposed by Undocumented Immigrants**

Several studies have been conducted to determine the fiscal burden of undocumented immigrants; but those studies have either focused on the fiscal impact of immigrants (including authorized and unauthorized immigrants) or on the impact of undocumented immigrants in certain states. Among these, The Center for Immigration Studies (CIS) published the *High Cost of Cheap Labor: Illegal Immigration and the Federal Budget*,<sup>18</sup> a study that estimated the total fiscal impact of undocumented immigration on the federal budget. The study uses data for 2002 from the 2003 Current Population Survey from the U.S. Census Bureau. Also, the Federation for American Immigration Reform (FAIR) has published two case studies for Arizona and California.

When taxes paid by undocumented households were examined, the CIS study discovered that undocumented households contribute less than other households.<sup>19</sup> Overall, households headed by undocumented aliens paid, on average, \$4,212 in total tax payments. All other households, on average, paid \$15,099 in total tax payments. The CIS study also found that undocumented households impose larger costs for food assistance welfare programs, in the treatment for the uninsured, federal aid to schools, federal prisons/courts, and the immigration system, when compared to other households, which include households headed by legal immigrants and U.S. citizens.<sup>20</sup> For example, each household headed by unauthorized immigrants costs the U.S. government \$499 in food assistance and welfare programs, \$591 for treatment for the uninsured, \$371 for federal education costs, and \$760 for federal prisons, courts, and the former INS. For all other households, the costs for these categories were lower: \$266, in food assistance and welfare programs, \$123 for treatment of the uninsured, \$233 for federal education costs, and \$91 for federal prisons, respectively.

The study concludes that households headed by undocumented immigrants impose a fiscal burden on the federal budget. It also states that when costs imposed by undocumented immigrants are subtracted from the taxes they pay, they fall short by \$2,736. By contrast, households headed by legal immigrants and U.S. citizens fall short by an estimated \$1.

The Federation for American Immigration Reform produced two reports that explained the fiscal burden of undocumented immigration in California and Arizona. In their estimates, tax payments by undocumented immigrants in 2004 in California and Arizona were \$1.7 billion and \$257 million, respectively (Table 11.3). Total outlays for education, medical care, and incarceration totaled \$10.5 and \$1.29 billion in California and Arizona, respectively, creating a total fiscal burden for California and Arizona that was \$8.8 and \$1.033 billion, respectively.

**Table 11.3**  
**2004 Outlays and Receipts for Unauthorized Immigrants in California and Arizona (in Billions of Dollars)**

		California			Arizona		
		Outlays	Receipts	Net Cost	Outlays	Receipts	Net Cost
Education							
	Illegal Immigrants	3.2		3.2	0.33		0.33
	Children of Illegal Immigrants	4.5		4.5	0.48		0.48
Uncompensated Medical Care		1.4		1.4	0.4		0.4
Incarceration		1.4		1.4	0.08		0.08
Tax Payments		10.5	1.7	8.8	1.29	0.257	1.033

Source: Federation for American Immigration Reform.

## Endnotes to Chapter 11

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1. The foreign-born population includes anyone who was not a U.S. citizen at birth. This includes respondents who indicated they were a U.S. citizen by naturalization or not a U.S. citizen.
2. Source: U.S. Census Bureau, 2004 American Community Survey.
3. M. E. Fix and J. S. Passel. "Immigration and Immigrants: Setting the Record Straight," Washington, D.C., The Urban Institute, 1994.
4. The work of Steve Murdoch, Texas State Demographer, provides a great source of information on this transition. See [txsdc.utsa.edu](http://txsdc.utsa.edu).
5. [www.census.gov](http://www.census.gov).
6. U.S. Census Bureau.
7. U.S. Census Bureau.
8. Pew Hispanic Center. 2005. "Estimates of the Size and Characteristics of the Undocumented Population." [www.pewhispanic.org](http://www.pewhispanic.org). March; J. S. Passel and R. Suro. "Rise, Peak, and Decline: Trends In U.S. Immigration 1992–2004." Pew Hispanic Center, Washington, DC.
9. The Pew Hispanic Institute employs data related to the six largest states with the largest immigrant populations: California, New York, Texas, Florida, Illinois and New Jersey. As a result, New Mexico is not included in these data.
10. County level statistics for the number and characteristics of this population are not available.
11. Passel, J. S., R. Capps, and M. E. Fix. 2004. "Undocumented Immigrants: Facts and Figures." Urban Institute Immigration Studies Program, January 14.
12. Tabulations were not reported for New Mexico.
13. Passel, J.S., R. Capps and M. E. Fix., 2005. "Unauthorized Migrants: Numbers and Characteristics." Pew Hispanic Center, June 14.

14. Capps, R., M. E. Fix, J. Ost, J. Reardon-Anderson, and J. Passel. 2005. "The Health and Well-Being of Young Children of Immigrants." *Immigrant Families and Workers*. The Urban Institute. Brief No. 5, February.

15. Ibid.

16. Ibid.

17. Ibid.

18. Camarota, S. A. 2004. "The High Cost of Cheap Labor: Illegal Immigration and the Federal Budget." Center for Immigration Studies, August.

19. Ibid.

20. Ibid.



## Chapter 12 Housing

Housing in southwest border counties is marked by two positive factors that many areas of the nation cannot claim. First, home ownership is higher than in most of the nation which would rank border counties 22<sup>nd</sup> as a 51<sup>st</sup> state. Second, the median price of a home places the region 37<sup>th</sup> as a 51<sup>st</sup> state, a ranking that falls to 45<sup>th</sup> without San Diego. Low housing costs are also passed to the rental market which provides more affordability than much of the nation. Low median housing values provide southwest border counties an excellent opportunity to attract in-migration for those seeking to lessen the financial burden of housing, for attracting industries that are looking at housing as a key factor in relocation and for retirees, flocking to the sunbelt for, among other reasons, affordable housing.

In most areas of the country, a home purchase is a sound financial investment and in border counties like San Diego, Pima, and Imperial, homes have appreciated substantially in just a few years. San Diego clearly stands out based on median home values more than doubling from \$234,000 to \$494,000 between 2000 and 2005. Less dramatic but substantial increases are recorded elsewhere, but overall the southwestern border counties have not seen housing prices skyrocket at levels that mark the “hot” housing markets. Nationally, the median home price in late 2005 was approximately \$215,000, while in El Paso, for example, a median home price is only \$120,000 with Cameron County below \$100,000. As a result, home ownership is more affordable in many southwestern border counties, but returns on this investment are substantially lower than other parts of the nation have experienced.

Home ownership is not only an important investment decision but is a commitment to a community. This commitment to southwest border counties may come as a surprise to many. Looking at the southwest border counties, home ownership data indicates rates that are often well ahead, sometimes leading both their respective states and the nation (See Table 12.1). As a 51<sup>st</sup> state, southwest border counties would rank 22<sup>nd</sup> in homeownership rates, but the case could be made that this is a rate that is forced lower by the inclusion of California counties which record lower home ownership. These lower rates are no doubt a result of higher home costs in that state.

Based on data discussed in other chapters in this report that ranks southwest border counties low across a variety of measures, the border’s housing situation looks promising. Lower home purchase costs, combined with low interest rates in the recent past, have made buying a home, which is unaffordable in a major metropolitan area, affordable in southwestern border counties. Home ownership rates in the region are also complimented by the transfer of houses between generations, especially in many older communities; however, the extent of this practice has never been systematically studied and is likely to effect ownership rates only minimally.

In light of low income levels in border counties, the high rate of home ownership is quite interesting. Unfortunately, home ownership data does not provide as complete a picture as needed to analyze the entire breadth of the housing situation. Research is limited in this area because Home Mortgage Disclosure Act (HMDA) data do not contain the most

**Table 12.1**  
**2000 Census Homeownership and Rental Rates Along the U.S.-Mexico Border**

	Home Ownership Rate	Rental Rate
<b>United States</b>	66.20%	33.80%
<b>Arizona</b>	68.00%	32.00%
Cochise	67.30%	32.70%
Pima	64.30%	35.70%
Santa Cruz	68.00%	32.00%
Yuma	72.30%	27.70%
<b>California</b>	56.90%	43.10%
San Diego	55.40%	44.60%
Imperial	58.30%	41.70%
<b>New Mexico</b>	70.00%	30.00%
Dona Ana	67.50%	32.50%
Hidalgo	73.10%	26.90%
Luna	74.90%	25.10%
<b>Texas</b>	63.80%	36.20%
Brewster	59.50%	40.50%
Cameron	67.70%	32.30%
Culberson	70.80%	29.20%
El Paso	63.60%	36.40%
Hidalgo	67.90%	32.10%
Hudspeth	81.00%	19.00%
Jeff Davis	70.10%	29.90%
Kinney	77.40%	22.60%
Maverick	69.60%	30.40%
Presidio	70.30%	29.70%
Starr	79.50%	20.50%
Terrell	77.00%	23.00%
Val Verde	66.00%	34.00%
Webb	65.70%	34.30%
Zapata	81.90%	18.10%
<b>Border Counties</b>	<b>69.54%</b>	<b>30.46%</b>

Source: U.S. Census 2000, Summary File 3.

important identifiers that allow tracking of true progress in increased home ownership. Put another way, mortgage lending involves privacy to both the borrower and the lender that limits access to key variables.

- Median home values in the border region are biased by the above national average values in San Diego. This is evidenced by the region's rank of 37<sup>th</sup> as a 51<sup>st</sup> state in home values that changes to 45<sup>th</sup> if San Diego is excluded.
- As a 51<sup>st</sup> state the southwest border counties would rank 22<sup>nd</sup> in home ownership and would move up to 15<sup>th</sup> without the lower rates of California counties.
- Lower cost of homes and less appreciation has resulted in less equity generated through home appreciation than is experienced in many other regions.
- The lack of equity also limits the opportunity to use home equity, which is provided in home ownership in other regions of the nation, to obtain investment funds, and finance children's education. Moreover, it also limits use of equity to offset borrowing costs with lower home mortgage interest rates versus higher consumer interest rates (i.e., credit cards).
- Some areas of the border have seen homeownership rates increase in the past three decades while San Diego and Pima have seen a decline since 1970 (Table 12.2).

Added to this, mortgages carried by sub-prime lenders<sup>1</sup> to high risk borrowers, and lenders willing to finance mobile homes are not tracked, a point addressed later in more detail.

- While some southwest border counties are likely to see rapid growth in retirement, others may experience industrial relocations or changes in the make-up of the military. Each may require a different response to housing provisions which requires careful analysis and monitoring by counties when they are developing their new housing resources.
- The border has very affordable housing, a fact that can be used in a variety of ways to promote regional development.

### Policy Issues

Mild population increases in most border areas will allow local markets to keep pace with demands. In a few areas, such as Pima and Imperial counties, demand will outpace the rest of the border counties. Imperial County is, perhaps, the only affordable housing left in Southern California at a median price of approximately \$300,000. Other counties, such as El Paso and Webb, are experiencing a mild housing boom. The southwest border counties are attracting investors and new residents, being seen as an attractive alternative to most of the nation. Both entrepreneurs and retirees are being pointed to the region for a variety of reasons, foremost of which is the value of housing.<sup>2</sup>

**Table 12.2**  
**1970-2000 Homeownership Rates Over Time, Border MSAs, and Suburbs**

		El Paso, TX MSA	Central city of: El Paso city, TX	Suburbs*	Brownsville - Harlingen - San Benito, TX MSA	Central city of: Brownsville city, TX	Suburbs*
Owner Occupied as percent of All Occupied Units	1970	58.7	60.3	40.2	67.4	62.1	76.1
	1980	59.4	59.2	61.3	64.7	55.6	77.9
	1990	58.6	57.6	68	64.4	55.8	75.7
	2000	63.6	61.4	78.2	67.7	61.2	78.7
		Laredo, TX MSA	Central city of: Laredo city, TX	Suburbs*	Eagle Pass, TX Micro SA	Principal city of: Eagle Pass city, TX	Suburbs*
Owner Occupied as percent of All Occupied Units	1970	59	58.5	67.7	59.6	61	51.7
	1980	62	60.4	81.7	64.6	59.9	75.5
	1990	60.7	59	83	64.6	57.3	75.6
	2000	65.7	64.4	81.3	69.6	58.6	81.9
		Tucson, AZ MSA	Central city of: Tucson city, AZ	Suburbs*	Yuma, AZ MSA	Central city of: Yuma city, AZ	Suburbs*
Owner Occupied as percent of All Occupied Units	1970	65.4	64.2	69.4	62.4	65.5	59.2
	1980	66	59.8	77	68.8	64	73.1
	1990	60.9	51.4	76.5	66.6	58.5	76.1
	2000	64.3	53.4	79.3	72.3	63.5	80.8
		Las Cruces, NM MSA	Principal city of: Las Cruces city, NM	Suburbs*	San Diego, CA MSA	Central city of: Coronado city, CA	Suburbs*
Owner Occupied as percent of All Occupied Units	1970	59.3	62.2	55.2	56.5	36.3	64.1
	1980	64.1	60.3	68.5	55.1	44.3	61.5
	1990	64.6	56.2	74	53.8	50.2	59.2
	2000	67.5	58.1	76.5	55.4	51.6	61.1

\*Suburb data are defined as the total for the MSA less the sum of data for these cities.

Source: U.S. Census 2000.

For the housing community, growth also will be a function of the make-up of in-migration. Using the shift of 20,000 soldiers to Fort Bliss, Texas, as an example, some units, such as helicopter air cavalry, include more officers who are older, more likely to be married with children and in search of traditional single family homes. The reverse, such as an infantry unit, has more enlisted soldiers, fewer officers, and fewer spouses and children. As a result, demand may shift to

base-provided housing or apartments. From another perspective, the increase in retirees in the southwest is likely to continue. This influx can be quite mixed as some retirees look to buy the affordable dream home. Others may decide to downsize and another segment may want a second home and augment the region's already well-known snowbirds. The mix in this housing market will require careful planning by southwest border counties.

Unlike other parts of the nation, the wealth created by home ownership has yet to be fully realized along the U.S.-Mexico border. The reason for this is quite basic, namely that southwest border counties have not had the demand that other regions have experienced. Land is still available and at a relatively low cost. Low labor costs are combined with affordable land to keep housing prices down. Where there are increases in prices, they are primarily attributable to increased material costs.

### **Sub-Prime Lending**

Housing in southwest border counties is not without problems. One issue is low incomes, which limit what is affordable for many residents of the region. A second and more disturbing issue is that of sub-prime lending – loans with higher interest rates for consumers with impaired or non-existent credit histories. Sub-prime loans, which often are 2 percentage points higher than conventional loans, are made to individuals who have a record of slow payments, defaults, or repossessions. In addition, lack of knowledge about financial institutions and what they require to make a loan often create barriers to those with low financial literacy.<sup>3</sup>

According to the Department of Housing and Urban Development, sub-prime lending is especially prevalent in communities with more than an 80 percent Hispanic population, and at a rate 1.5 greater than the rest of the nation. Both sub-prime lending and a high percentage of mobile home ownership are common in southwest border counties. As a result, this limits the ability of policy and decision makers to formulate a complete picture of the housing situation in many locales.

Data specific to sub-prime loans are not available in HMDA data, making it virtually impossible for analysts to track without

searching the data by lender for hundreds of thousands of records. However, research conducted by the Center for Community Change, which examined 100 MSAs, suggests that El Paso is the number one sub-prime lending market in the United States, with a staggering 47 percent of loans made by sub-prime lenders. Other Texas MSAs also make this list, with Laredo, Texas ranking 14<sup>th</sup> with 38 percent of its loans written by sub-prime lenders; McAllen-Edinburgh-Mission, 26<sup>th</sup> on the list (37%); and Brownsville-Harlingen-San Benito is 38<sup>th</sup> (36%). Tucson and Yuma, Arizona make appearances at 35 and 50 percent, respectively. A very unusual pattern appears when one compares MSA rank on the sub-prime list and the homeownership rate for the same area – the higher a city appears on the sub-prime list, the higher the homeownership rate. Thus, it would appear that the large number of low income families in southwest border counties, many of whom are unable to qualify for traditional mortgages, are willing to obtain mortgages at above market rates. Sub-prime lending does have advocates, largely within the industry itself, who argue that they offer credit to those who would normally not qualify for traditional credit products and, by doing so, provide home ownership opportunities to an under-served segment of the population. Yet, the sub-prime default rate is 7 percent compared to 1 percent for traditional mortgages.<sup>4</sup> This may not be seen as an astonishing rate but may be a concern for southwest border counties seeking more stability in their housing markets.

The problem of sub-prime lending is made more complicated since government sponsored enterprises (GSEs), such as Fannie Mae and Freddie Mac, which were created specifically to increase homeownership among low income and minority populations, are barred from purchasing loans that deviate too far from the market average. Yet, sub-prime loans to low income residents may be one reason for high homeownership rates along the border. Unable to secure traditional mortgages

at market rates, they enter a market that allows them to move into the ranks of home ownership, a situation that would be implausible under any conditions where median housing prices near national averages.

### **The Homeownership Paradox in Southwest Border Counties**

If higher income levels lead to homeownership, and homeownership, in turn, is a path to wealth accumulation, one must ask how the border region, an area with a documented history of low income levels, developed into a region with higher than average homeownership rates. At one extreme, if the 47 percent of sub-prime loans made in El Paso were to disappear and these borrowers were unable to qualify for a traditional loan, the home ownership rate would undoubtedly drop dramatically. The root of this problem, as is the case with others discussed in this report, is the lingering problem of low income associated largely with education levels in southwest border counties.<sup>5</sup> The fact that income and education should enter into a discussion of homeownership is linked to the fact that employment, in general, requires more technical skill and advanced training than at any other time in history.<sup>6</sup>

Reviewing the levels of education that prevail in a number of southwestern border counties, and considering the fact that these lower education levels limit access to high skill-high wage jobs, the portrait is of an area that, by all accounts, would lead to homeownership rates that lag behind the national average. Today, high school graduates, rather than serve as economic drivers as they have in the past, now fill a critical role in the middle and lower tier of most regional economies,<sup>7</sup> particularly those transitioning to a technology or knowledge based economy as seen in San Diego and Pima

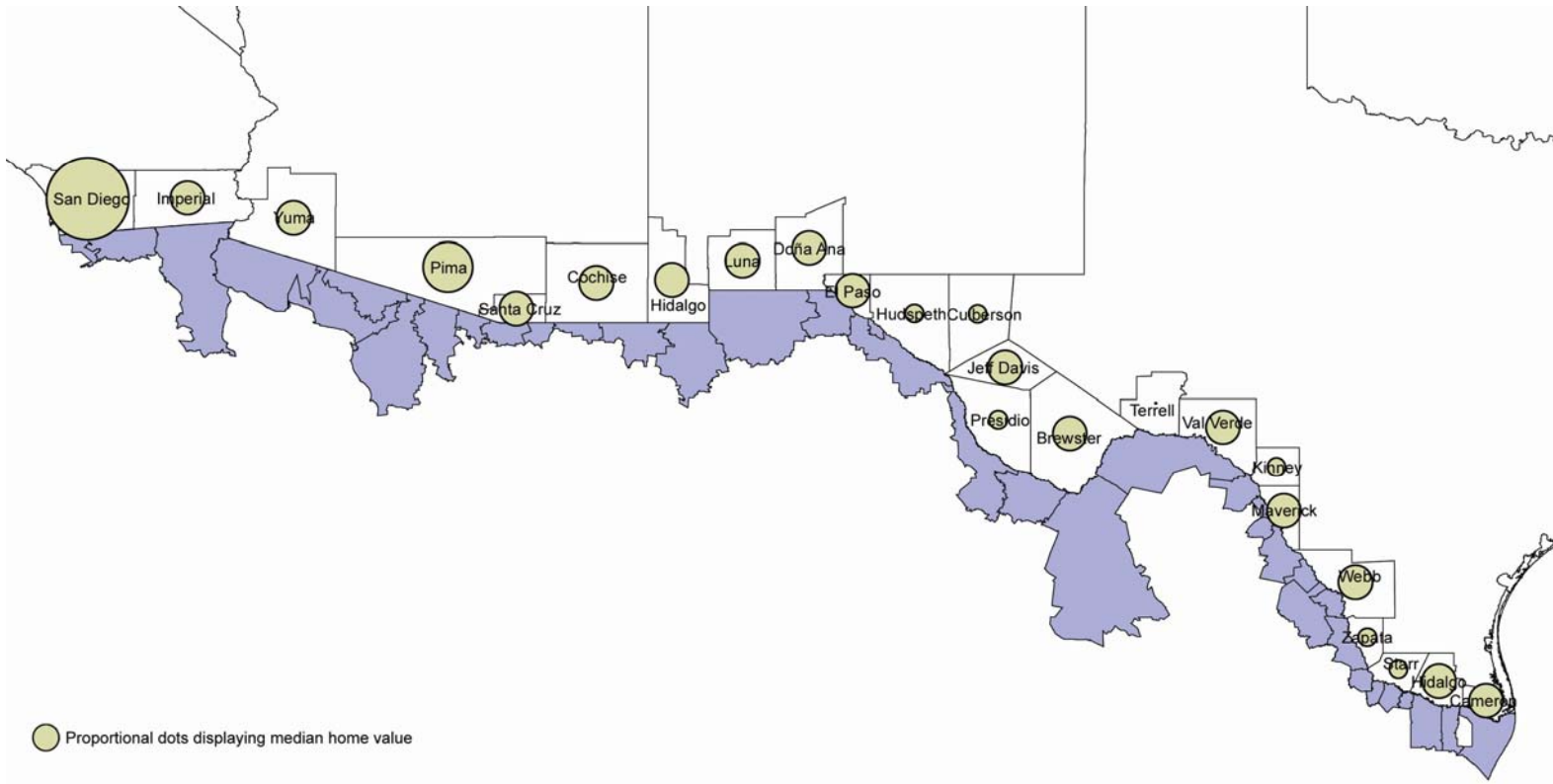
counties. In many southwest border counties the shortage of high school graduates has become an obstacle to economic development and has a large impact on income levels by the nature of the jobs they are qualified to hold.<sup>8</sup>

The decline in regional income levels as a result of low graduation rates would traditionally suggest low homeownership rates. This is not the case; in fact, home ownership rates are among the highest in the country in places that traditional thinking would believe the opposite. This pattern extends well beyond the traditional housing market. In colonia Census tracts, the home ownership rate was 73 percent in 2000. In colonias and major MSAs in southwest border counties, 1990 homeownership rates also were well above national levels (66.2%). Data from Census 2000 for the border counties tell the same story and with colonias aside, 17 border counties had homeownership rates well above the national average, while seven fell only slightly below that average. Even with high homeownership rates in colonias, the rate is not large enough to significantly change the prevailing pattern in homeownership. Ownership rates throughout the border region are high even with colonias removed.<sup>9</sup>

### **Home Values**

The homeownership issue is difficult to understand. At one level, the traditional income-homeownership association fails. Add to this that sub-prime lending may assist in achieving high homeownership rates. At another level, use of homes to create wealth is limited when only one border county, San Diego, reported a median home value above that of the United States in Census 2000. Some border counties, such as Terrell, have almost insurmountable value gaps because the

**Map 12.1**  
**2000 Proportional Data Displaying Median Home Value**



median home value in that county is only 22 percent of that of the United States. Thirteen border counties actually have median home values that are 50 percent or less than that of the United States average (Map 12.1).

As previously discussed, median values along the U.S.-Mexico border are significantly lower than the United States average; with Pima County being closest to the national media value (Map 12.1). In part, some of the paradox in homeownership can be explained by housing values. Along the U.S.-Mexico border, the higher the median value, the lower the homeownership rate. Consequently, there is a negative correlation between median housing value and the homeownership rate, a pattern that is reflected border wide, and subsequently, limiting homes as investments, as seen by Figure 12.1 which plots the value to ownership values.

Figure 12.1 easily can be explained by a county like San Diego where housing has become so expensive that many people would no longer be able to afford to buy their own homes at the current market value. Research conducted by ACCRA, the Council for Community and Economic Research at George Mason University, shows that all border counties outside of San Diego fall below the national baseline (100). In Figure 12.2, among border areas, only Las Cruces makes a brief appearance above the baseline. San Diego, which appears on a separate axis and which had an index value of 245 (145 points above the U.S. base) in the second quarter of 2005, already faces a problem where many people cannot purchase or qualify for their existing homes. This may be a deterrent to future growth in San Diego, particularly if a homeowner wanted to “trade up” to a larger or higher quality home. In contrast, for most counties on the border this is not the problem. In reverse, rather than deterring growth, many southwest border counties may be able to use these lower

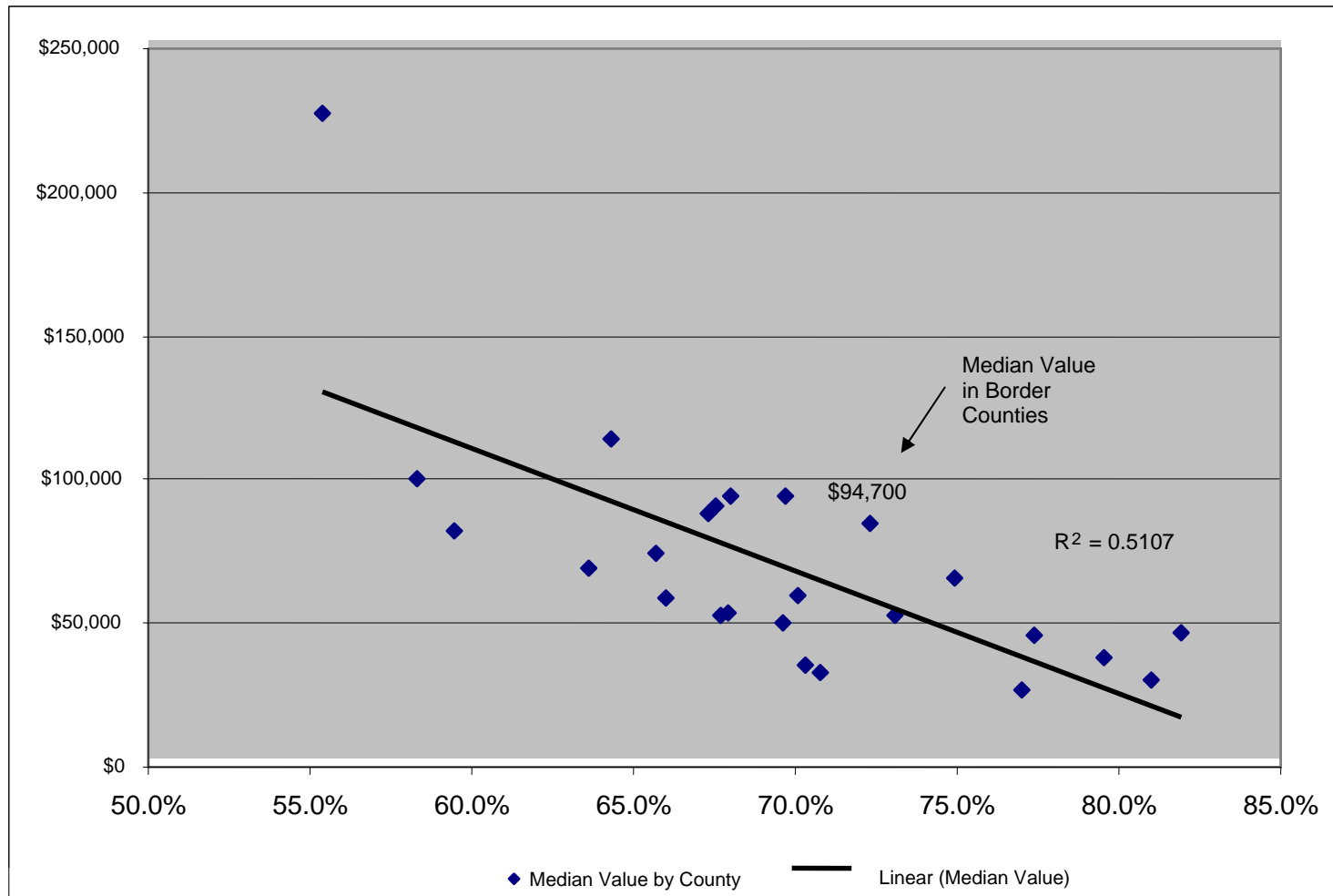
values as a way to attract a variety of businesses and their employees to a region where housing is recognized as under valued.

Further evidence of the homeownership wealth gap is provided by the large percentage of income absorbed by housing costs in several border counties. In Map 12.2, more than 20 percent of homeowners in San Diego and Imperial counties in California and Santa Cruz County, Arizona (23.2%, 21.4%, and 21.2%, respectively) are paying above 35 percent of gross income on housing. This exceeds the established ratio of the Census Bureau which has an affordability standard below 35 percent). Webb (19.1%) is the only county in Texas approaching this range. In fact, El Paso, Hidalgo, and Cameron, the largest Texas border counties, fall between 15 and 18 percent of income going to housing costs. The same can be said of Yuma and Pima counties in Arizona (17% and 16.1%, respectfully). New Mexico has the lowest percentage of income going to housing, no doubt linked to the robust housing market being experienced in places like Doña Ana.

The percentage of people paying above 35 percent of their incomes on home rental show a similar pattern (Appendix 12.1). Generally, below median values may create an attractive condition that can be used to attract in-migration, new industry, and retirees; yet, border counties no doubt would be interested in balancing this affordability with some wealth creation through home ownership, especially if home appreciation in equity can be reinvested in the region’s human and physical capital pools. In the near future, as income levels begin to climb, housing costs below national standards fulfills an important need to the region’s residents and relieves southwest border counties from higher homeless rates, foreclosures, and public housing demands than national median values would create.

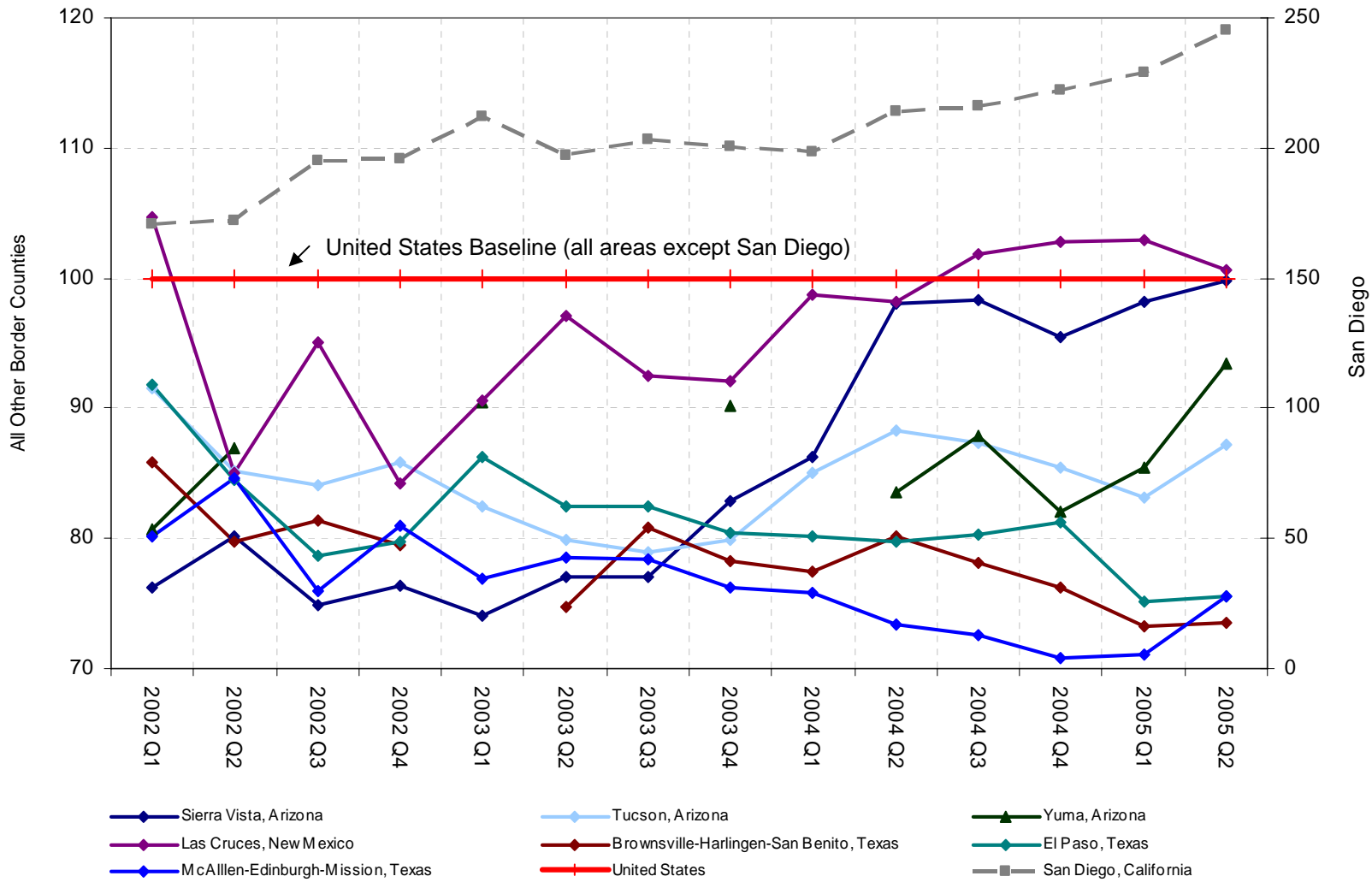


**Figure 12.1**  
**2000 Census Correlation Between Homeownership Rates and Median Value**



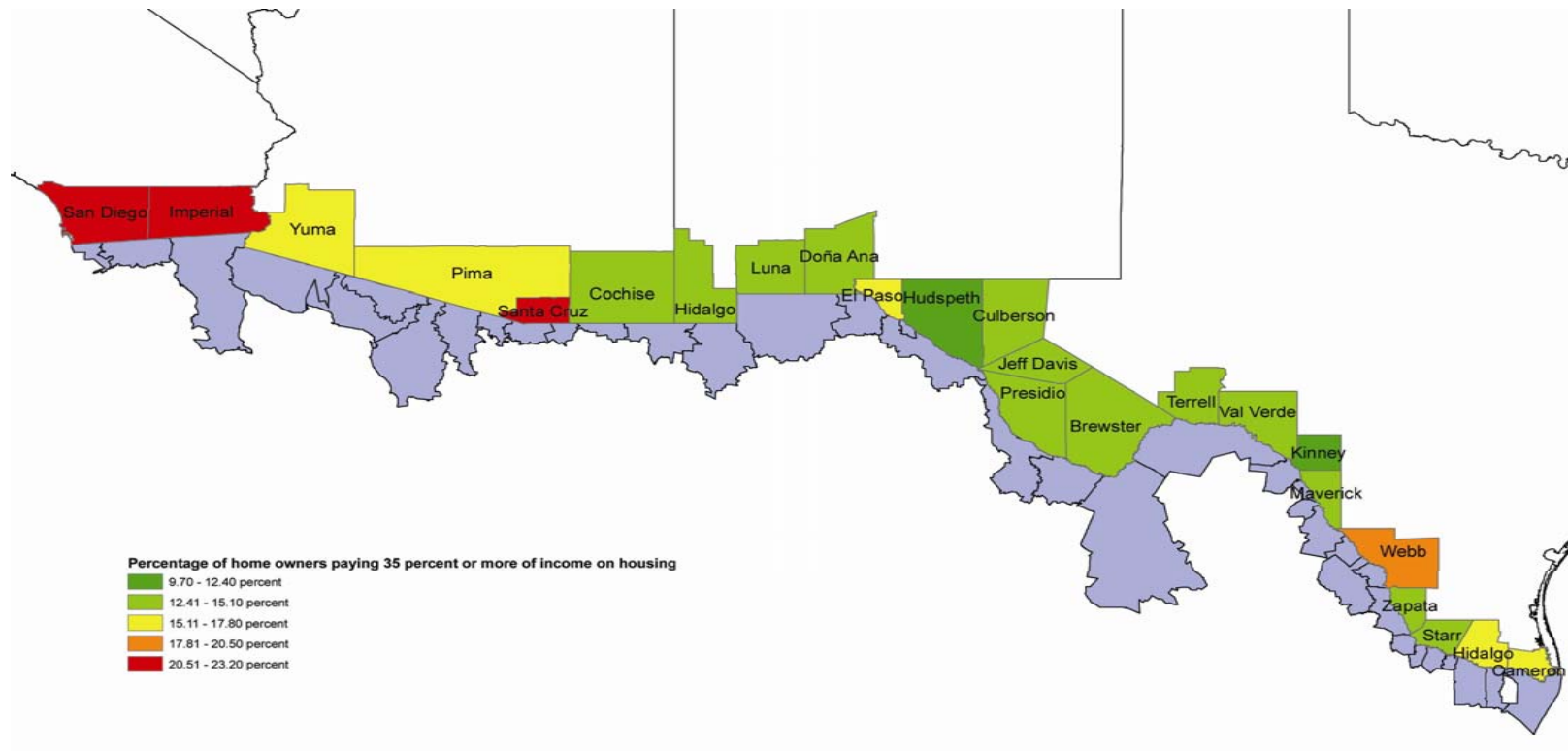
Source: [www.accra.org](http://www.accra.org).

**Figure 12.2**  
**2002-2005 Housing Cost Index for Selected Border Cities**



Source: www.accra.org.

**Map 12.2**  
**2000 Homeowners Along the U.S.-Mexico Border Paying 35 Percent or More of Gross Income on Housing**



**Appendix 12.1  
1999 Housing Summary Data**

State	Total Units	Occupied Housing Units; Selected characteristics; No telephone service; Percent	Specified owner-occupied units; Value; Median (dollars); Number	Specified owner-occupied units; Mortgage status and selected monthly owner costs; With a mortgage; Percent	Specified owner-occupied units; Selected monthly owner costs as a percentage of household income in 1999; 35 percent or more; Percent	Specified renter-occupied units; Gross rent; Median (dollars); Number	Specified renter-occupied units; Gross rent as a percentage of household income in 1999; 35 percent or more; Percent
<b>Texas</b>	8,157,575	3.2	82,500	64.2	13.6	574	27.1
Brewster	4,614	9	67,000	36.5	14.5	370	31.8
Cameron	119,654	5.8	53,000	45.5	15.2	413	30.4
Culberson	1,321	8.1	32,500	36.9	14.9	323	18.9
El Paso	224,447	3.7	69,600	64.2	15.5	468	31.2
Hidalgo	192,658	7.4	52,400	41.3	15.7	401	28.9
Hudspeth	1,471	12.4	30,500	21.5	10	317	12
Jeff Davis	1,420	10.3	59,800	24.7	13	354	8.3
Kinney	1,907	5.7	45,800	34.9	9.7	369	22.7
Maverick	14,889	7.8	50,200	36.2	13.4	323	30.9
Presidio	3,299	11.1	35,500	16.3	13.3	276	19.8
Starr	17,589	11.1	37,800	16.4	14.1	281	28.9
Terrell	991	6.1	26,500	19.7	13.6	446	9.6
Val Verde	16,288	5.2	58,600	44.4	14.2	408	21.7
Webb	55,206	6.1	74,600	54.5	19.1	449	30.7
Zapata	6,167	9.2	46,500	33.9	13	267	28.7
<b>Arizona</b>	2,189,189	3.7	121,300	74.9	16.2	619	30.9
Cochise	51,126	4.6	88,200	67.1	14.3	470	22.9
Pima	366,737	2.7	114,600	72.9	16.1	544	33.9
Yuma	74,140	5.4	85,100	70	17	508	26.8
Santa Cruz	13,036	6.3	94,700	68.8	21.2	475	30.8
<b>California</b>	12,214,549	1.5	211,500	79	23.2	747	34.1
Imperial	43,891	4.8	100,000	74.7	21.4	504	35.4
San Diego	1,040,149	1	227,200	79.2	23.2	761	34.1
<b>New Mexico</b>	780,579	5.7	108,100	63.6	16	503	30.5
Dona Ana	65,210	4	90,900	62.5	14	445	34.4
Hidalgo	2,848	11	53,900	45.2	13.6	267	22
Luna	11,291	10.8	66,000	52.6	14.8	337	28.2
<b>United States</b>	115,904,641	2.4	119,600	70	15.8	602	29.5

Source: www.census.org.

## Endnotes to Chapter 12

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1. Sub-prime loans are for persons with blemished or limited credit histories. The loans carry a higher rate of interest than prime loans to compensate for increased credit risk. <http://www.hud.gov/offices/fheo/lending/subprime.cfm>.
2. See <http://www.entrepreneur.com>; *Money Magazine*, July 2004.
3. Personal financial literacy is the ability to read, analyze, manage, and communicate about the personal financial conditions that affect material well being. It includes the ability to discern financial choices, discuss money and financial issues without (or despite) discomfort, plan for the future, and respond competently to life events that affect everyday financial decisions, including events in the general economy, from Lois Vitt, Project Director, et al., *Personal Finance and the Rush to Competence: Financial Literacy in the U.S., A National Field Study Commissioned and Supported by The Fannie Mae Foundation, Institute for Socio-Financial Studies, Middleburg, VA, 2000.*
4. Remarks by Federal Reserve Governor Edward M. Gramlich, Financial Services Roundtable Annual Housing Policy Meeting, Chicago, IL, May 2004.
5. Anderson, J.B. and D. Dimon. 1995. "The Impact of Opening Markets on Mexican Male/Female Wage and Occupational Differentials." *Social Science Journal*, 32 (4): 309-327; Fullerton, T.M. 2001. "Educational Attainment and Border Income Performance." *Economic and Financial Review*, 3: 2-10; Peach, J. "NAFTA and Mexico's Current Economic Crisis: Short-run and long-run perspectives." *Social Science Journal*, 32 (4): 375-389; Pick, J.B. and E.W. Butler. (1993). "Projections of the Mexican national labor force, 1980 to 2005." *Social Biology*, 40 (3/4): 161-176.
6. Federal Reserve Bank of Dallas. (1994). "The Service Sector: Give It Some Respect." *1994 Annual Report Federal Reserve Bank of Dallas*.
7. Ibid.
8. Fullerton, T.M. 2001. "Educational Attainment and Border Income Performance." *Economic and Financial Review*, 3: pp. 2-10.
9. 2000 Census, Summary File 3. [www.census.com](http://www.census.com).

## Chapter 13

# Crime and Law Enforcement

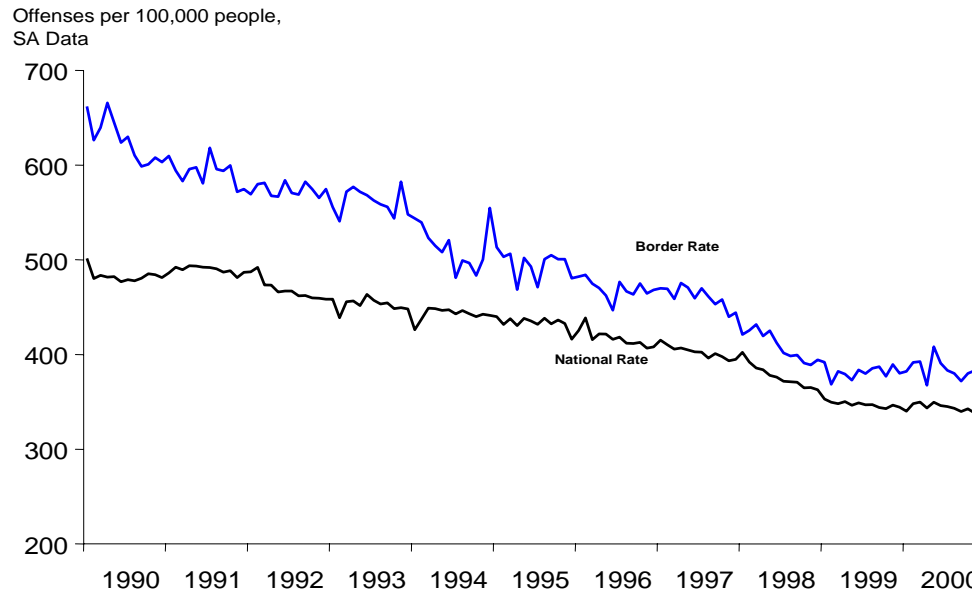
The contemporary situation in southwest border counties relating to crime and law enforcement is quite different than many would expect. Consider, for example, that some of the nation's safest cities are located along the southwest border, including Tucson and El Paso. Given the link of crime to important quality of life decisions, the low rate of crime in southwest border counties, combined with attributes, such as affordable housing is part of the landscape of increasing retirement in the southwest. Since 1990, official crime statistics have recorded a dramatic drop of 30 percent (Figure 13.1). Property crimes are down 40 percent between 1990 and 2000 and violent crimes, among the lowest in the nation making up only 12 percent of all crimes, dropped 29 percent in the same decade.<sup>1</sup>

Border counties have high rates of drug offenses, for which the region would rank 1<sup>st</sup> if considered a 51<sup>st</sup> state. Immigration offenses, which make up 72 percent of all federal offenses in the region, also would rank border counties 1<sup>st</sup> if considered a 51<sup>st</sup> state. These rankings also are tied closely with their respective border states which themselves rank as leaders in federal drug and immigration offenses. However, while drug and immigration enforcement issues are high profile, they mask other crime statistics, such as low property crimes and violent crimes. Indeed crime statistics have fallen in numerous locales, but where the border counties do report high rates of crimes, they are linked to its geography that serves as a

passage for illegal drugs northward to supply the demands of the rest of North America, and to immigration fueled by a search for better paying jobs and more opportunities.

- The border region has recorded a significant decline in crime in recent years, but like most areas this decline has flattened out and will be challenged by population growth.
- Border county crime rates place the region as 16<sup>th</sup> as a 51<sup>st</sup> state in violent crimes and the federal crime index.
- Border counties report the largest number of federal offenses creating a 1<sup>st</sup> ranking as a 51<sup>st</sup> state, primarily as a result of drug and immigration arrests by federal agencies.
- By not using drug offenses in determining federal formula bloc funding, southwest border counties face continued under funding of their efforts.
- The dependence of the federal government on southwest border counties to provide housing for prisoners has the intent of efficiency, but has become a significant drain on border counties due to a failure to fully reimburse the expenses incurred.

**Figure 13.1**  
**1990-2000 Crime Rates Per 100,000 Residences: Border Counties Versus the Nation**



Source: Federal Reserve Bank of Dallas.

- Border prosecutors accept many cases passed down from federal prosecutors, but are not fully funded to handle these cases. Any reduction in support to handle this case load, such as the Southwest Border Prosecution Initiative, can only have an adverse effect on the criminal justice system.
- Federal arrests in U.S. District Court border counties are two times more likely to involve immigration offenses than other crimes.

**Policy Issues**

Three issues become interrelated in southwest border counties. First, local crime is reported to local law enforcement and reported in the national Uniform Crime Report. Second, reported federal offenses, especially those related to drug trafficking and immigration, results in federal-local overlaps in policing these issues. And, third, how southwest border counties are compensated for servicing federal criminal offenses.

Within the southwest border region the division between local law enforcement and federal issues related to international border management existed even before September 11. Since then, additional federal attention to securing the southwestern border has spread out the division even more. For border counties, northern Mexico serves as a staging area for drug trafficking and unauthorized immigration. Federal efforts to control these problems have resulted in a reliance on the services of southwest border counties, particularly in the areas of holding prisoners and prosecuting crimes that originated from federal agencies and their efforts. Southwest border counties have supported these activities, but have had to bear additional costs and millions of dollars of unreimbursed expenses.

The overall fall in the crime rate in the region is a positive note, but smaller counties are likely to see a spread of crime to rural area as urban police departments grow and benefit from the shadow of federal homeland security presence. Southwest border counties have to address human resource shortages for law enforcement personnel that are occurring in many areas of the country. Meeting the market for salaries will additionally burden the region, especially as population growth demands additional officers and support personnel.

Regardless, the southwest border counties are caught between local need for growth and an influx in population and federal activities at two levels: one, supporting free trade and second, insuring the security of international borders. No other part of the country is as integrated as the southwest border with Mexico and, at the same time, has had such a significant federal presence that controls integration. The fact that this condition is not likely to change in the foreseeable

future requires that federal policy help address the shortfall in funding services that southwest border counties provide. Without attention to this issue these counties may have to limit what they can do in order to serve their citizenry, which, in the end, will make the activities of federal agencies more difficult.

### **Crime Rates**

The most common measure of crime in the United States is the Federal Bureau of Investigation (FBI) Uniform Crime Report (UCR) based on reported crimes to local police and sheriffs agencies. Table 13.1 reports that per 100,000 residents southwest border counties report higher crime rates than the nation as a whole – 4,477 crimes per 100,000 residents versus 3,914 crimes per resident.<sup>2</sup> Overall, this index score would place the southwest border counties 16<sup>th</sup> as a 51<sup>st</sup> state, between Oklahoma and Missouri, a ranking that indicates crime in the region is much less of a problem than in many other locales as seen in Table 13.2. This position is further supported by Table 13.3 which reports violent crimes<sup>3</sup> and shows that, as a 51<sup>st</sup> state, the southwest border counties would rank 16<sup>th</sup> between Oklahoma and Massachusetts.

Data indicate that southwest border counties are relatively similar to the states in which they are located – Arizona and New Mexico border counties show slightly higher county-level crime rates than their respective state rates, while California and Texas border counties show slightly lower border county-level rates than the state rate. In fact, state level data indicates that southwest border counties consistently have lower violent crime rates than the non-border counties in their respective states.



**Table 13.1**  
**2002 Crime Rate Per 100,000 Residents by County<sup>4</sup>**

	Population Served by Reporting Agencies	Index Crimes	Crimes Reported to Police <sup>5</sup>						Motor Vehicle Theft	Arson
			Murder	Rape	Robbery	Aggravated Assault	Burglary	Larceny		
<b>United States</b>	267,856,616	3,914	5	30	142	297	707	2,314	419	26
<b>All Border Counties</b>	5,952,138	4,477	4	31	105	364	703	2,685	586	26
<b>Arizona</b>	5,376,701	6,391	7	30	147	371	1,081	3,695	1,059	33
<b>Arizona Border Counties</b>	1,216,337	6,533	6	40	137	429	959	4,152	810	47
<i>Cochise</i>	125,233	3,917	2	15	30	533	646	2,367	325	18
<i>Pima</i>	897,329	7,543	8	49	174	401	1,058	4,884	970	58
<i>Santa Cruz</i>	40,818	2,940	0	5	32	159	615	1,695	434	2
<i>Yuma</i>	170,189	3,332	1	20	32	518	653	1,776	333	20
<b>California</b>	35,116,033	3,942	7	29	185	372	679	2,037	633	40
<b>California Border Counties</b>	3,064,799	3,609	3	27	113	337	646	1,807	676	20
<i>Imperial</i>	147,591	3,552	2	19	85	354	1,080	1,445	567	40
<i>San Diego</i>	2,917,208	3,612	3	27	115	336	624	1,825	682	19
<b>New Mexico</b>	1,616,631	5,359	8	57	127	570	1,100	3,072	424	24
<b>New Mexico Border Counties</b>	120,872	5,837	4	71	89	392	1,102	3,938	240	27
<i>Dona Ana</i>	89,310	6,437	1	77	104	365	1,106	4,557	226	21
<i>Hidalgo</i>	6,050	1,041	0	17	17	182	248	463	99	0
<i>Luna</i>	25,512	4,872	16	63	51	537	1,290	2,595	321	55
<b>Texas</b>	21,698,610	5,193	6	39	173	361	977	3,165	472	38
<b>Texas Border Counties</b>	1,550,130	4,782	3	31	74	388	631	3,356	298	21
<i>Brewster</i>	9,261	2,160	0	11	0	184	799	1,112	54	32
<i>Cameron</i>	350,147	6,462	3	31	80	317	902	4,857	273	21
<i>Culberson</i>	3,107	322	0	32	0	129	0	97	64	0
<i>El Paso</i>	709,871	4,228	2	38	85	480	382	2,924	317	20
<i>Hidalgo</i>	92,985	3,543	4	28	32	210	727	2,421	120	1
<i>Hudspeth</i>	3,493	1,002	0	0	29	315	172	458	29	57
<i>Jeff Davis</i>	2,305	824	43	0	0	43	477	174	87	0
<i>Kinney</i>	3,529	57	0	0	0	0	0	0	57	0
<i>Maverick</i>	49,403	2,955	4	0	12	198	549	1,976	217	16
<i>Presidio</i>	7,629	0	0	0	131	301	288	39	0	0
<i>Starr</i>	55,982	1,985	11	20	21	247	636	790	261	11
<i>Terrell</i>	1,129	0	0	0	0	0	0	0	0	0
<i>Val Verde</i>	46,853	2,943	4	4	23	117	487	2,111	196	6
<i>Webb</i>	201,712	6,677	4	29	101	454	1,028	4,605	456	43
<i>Zapata</i>	12,724	3,576	16	8	31	417	1,540	1,320	244	16

Source: Uniform Crime Report, 2002 county level data file archived at the National Archive of Criminal Justice Data.

**Table 13.2**  
**2002 Border Counties Ranked as a State Based on Crime Index**

State	Index	Rank	State	Index	Rank
New Hampshire	2,220	1	Kansas	4,087	26
South Dakota	2,279	2	Ohio	4,107	27
North Dakota	2,406	3	Arkansas	4,158	28
West Virginia	2,515	4	Mississippi	4,159	29
Vermont	2,530	5	Nebraska	4,256	30
Maine	2,656	6	Alaska	4,310	31
New York	2,804	7	Colorado	4,348	32
Pennsylvania	2,841	8	Utah	4,452	33
Kentucky	2,902	9	Alabama	4,465	34
Connecticut	2,997	10	<b>Border Counties</b>	<b>4,477</b>	35
New Jersey	3,024	11	Nevada	4,498	36
Massachusetts	3,094	12	Georgia	4,507	37
Virginia	3,140	13	Missouri	4,602	38
Idaho	3,173	14	North Carolina	4,721	39
Wisconsin	3,253	15	Oklahoma	4,743	40
Iowa	3,448	16	Maryland	4,747	41
Montana	3,513	17	Oregon	4,868	42
Minnesota	3,535	18	Tennessee	5,019	43
Wyoming	3,581	19	New Mexico	5,078	44
Rhode Island	3,589	20	Louisiana	5,098	45
Indiana	3,750	21	Washington	5,107	46
Michigan	3,874	22	Texas	5,190	47
<b>United States</b>	<b>3,914</b>		South Carolina	5,297	48
Delaware	3,939	23	Florida	5,421	49
California	3,944	24	Hawaii	6,044	50
Illinois	4,016	25	Arizona	6,386	51

Source: [http://www.fbi.gov/ucr/cius\\_02/html/web/offreported/02-table05.html](http://www.fbi.gov/ucr/cius_02/html/web/offreported/02-table05.html).

Note: Crime index of offenses reported is rounded to nearest whole number.

**Table 13.3**  
**2003 Violent Crime Per 100,000 Population**

State	Violent Crimes per 100,000	Rank	State	Violent Crimes per 100,000	Rank
South Carolina	794	1	New Jersey	366	26
Florida	730	2	Montana	365	27
Maryland	704	3	Indiana	353	28
Tennessee	688	4	Washington	347	29
New Mexico	665	5	Colorado	345	30
Delaware	658	6	Ohio	333	31
Louisiana	646	7	Mississippi	326	32
Nevada	614	8	Connecticut	308	33
Alaska	593	9	Oregon	296	34
California	579	10	Nebraska	289	35
Illinois	557	11	Rhode Island	286	36
Texas	553	12	Virginia	276	37
Arizona	513	13	Iowa	272	38
Michigan	511	14	Hawaii	270	39
Oklahoma	506	15	Minnesota	263	40
<b>Border Counties</b>	<b>504</b>	<b>16</b>	Wyoming	262	41
<b>United States</b>	<b>475</b>		Kentucky	262	42
Missouri	473	17	West Virginia	258	43
Massachusetts	469	18	Utah	249	44
New York	465	19	Idaho	243	45
Arkansas	456	20	Wisconsin	221	46
North Carolina	455	21	South Dakota	173	47
Georgia	454	22	New Hampshire	149	48
Alabama	430	23	Vermont	110	49
Pennsylvania	398	24	Maine	109	50
Kansas	396	25	North Dakota	78	51

Source: U.S. Federal Bureau of Investigation (FBI), Crime in the United States.

**Arrests by Police**

The Uniform Crime Report provides arrests by local policing agencies as seen in Appendix 13.1. This table shows that border counties total arrest rates are 16 percent higher than the national rate per 100,000. These data present interesting findings that relate to federal crimes. Drug possession and drug sale arrest rates are 83 percent and 14 percent, respectively, higher than the national rates, and at a level that

would result in a 1<sup>st</sup> place ranking as a 51<sup>st</sup> state in arrests for federal offenses (Appendix 13.2). Of note is the higher proportion of arrests for drug possession, associated with drug interdiction. While arrests of major drug dealers is difficult, there is success in apprehending the many drug transporters that use the border region as a point of entry into the greater North America market for illegal drugs. In addition, in three out of the four border states, drug sale arrests occur at a lower

rate in the border counties than in the remainder of the state as the drug trade moves into the interior.

Border counties show higher arrest rates (121 per 100,000 residents) for vandalism than the United States nationally (83 per 100,000 residents), and each state's border counties show higher vandalism arrest rates than their respective state. In another crime category, high rates of vagrancy arrests are reported in southwest border counties. Vagrancy arrests are one option that local law enforcement can utilize to address undocumented immigration. Data show that the border counties utilize vagrancy arrests to an unusual extent, exhibiting an arrest rate five times higher than the national average (48 per 100,000 residents versus 9 per 100,000 residents). This arrest category is employed more often in California than in any other border area, but is not limited to border counties since in all four southwest border states, the border and non-border county vagrancy arrest rates are mirrored.

### **Federal Formula Funding Programs and the Uniform Crime Report**

The federal government's major crime funding programs to aid state and local law enforcement agencies are the Local Law Enforcement Bloc Grant program and the Byrne Memorial Formula Grant program. In fiscal year 2003, these two programs accounted for more than 38 percent of all federal grants in southwest border counties.<sup>6</sup> The two programs were merged in 2005 to create the Justice Assistance Grant (JAG). The mission of the Justice Assistance Grant is to fund law enforcement programs, prosecution and court programs, prevention and education programs, corrections and community corrections programs, drug treatment programs, and planning, evaluation, and technology programs.<sup>7</sup> These programs share one aspect of allocated funding: they allotted

shares based on the Uniform Crime Report's Crimes Reported to Police Crime Index Violent Crimes (murder, rape, robbery, and aggravated assault).<sup>8</sup> As can be seen, the Crime Index in Table 13.1 indicates that border counties other than Pima, Arizona, Cameron and El Paso, Texas are generally lower than the national average for crime rates that go into the formula grant computations. However, if drug sales and possession crimes were used in computing these allocations, nearly every southwestern border county's funding would increase. Inasmuch as the Justice Assistance Grant program mandate includes drug control, the funding formula does not include any measure of drug crime rates. In the future, this should serve as a stimulus to reassess the formula the U.S. Department of Justice currently utilizes. An estimated 44,892 drug arrests by local law enforcement in border counties, or 15 percent of all local law enforcement arrests, were not included as part of the determination of allocations to southwest border counties law enforcement agencies for FY 2003. Realizing this, it is possible that:

- More state and local law enforcement activities in border counties go unfunded than in non-border counties.
- The disparities in funding create a huge burden to border counties' local law enforcement agencies.

### **Law Enforcement Funding Shortages**

The 2000 Law Enforcement Management and Statistics Survey indicates that the number of full-time equivalent officers per 100,000 residents for agencies in border counties is 62 percent of the national average (157 officers per 100,000 residents versus 251 officers per 100,000 residents). In Arizona and Texas, border county agencies are considerably understaffed, receiving only 63 percent and 70 percent,

respectively, of the officer per resident rates of the non-border agencies. Not only are law enforcement agencies in border counties understaffed overall, but they face issues related to being under funded. The average annual operating budget for a law enforcement agency that serves a border county is 97 percent of the operating budget of the average received by a law enforcement agency in the United States. Texas, with its long tradition of limited local government, spends the least per agency in border counties. In all but New Mexico, border county agencies average less than 90 percent of what the non-border agencies in that state receive.

Steps to supplement funding for state courts in southwest border counties have been addressed partly by the Southwest Border Prosecution Initiative (SWBPI) which began in 2002. The purpose of the SWBPI is to reimburse lower levels of government for the costs associated with the prosecution of criminal cases that were federally initiated (i.e., federal agents making the arrest) but declined by local U.S. Attorney's Offices for prosecution. To be eligible for the SWBPI, the federal prosecutor has to agree not to pursue federal charges against a defendant, and, in turn, either a state or local jurisdiction will prosecute the defendant for possible violation of state or local criminal statutes.

The SWBPI funded southwest border county prosecutors more than \$28 million in the two year period 2002 (\$15.352 million) and 2003 (\$13.401 million) as seen in Table 13.4. It added as much as \$5,707 on average in a fiscal year to a prosecutor's budget for handling a SWBPI eligible case in 2002 and \$4,923 in 2003. Despite this welcome addition to border prosecutor resources, the SWBPI funding per case has declined, in part due to an expansion of the program in 2004 to include all counties in the eligible states, rather than just the border counties. This program expansion has resulted in a pro-ration of claims payments in each of fiscal years 2004 and 2005. As

Table 13.4 illustrates, this is an important source of funding that allows the justice system in southwest border counties to continue with less strain and more efficiency than if these federal cases were left as an unfunded mandate.

### **Criminal Aliens**

Local jurisdictions often feel the consequences of accepting inmates from overloaded state and federal penitentiaries. As a result of proximity to Mexico and the higher arrest levels of undocumented immigrants, the federal inmates sent to county and local prisons are often criminal aliens. Due to the repeated use of local prisons to house substantial numbers of criminal aliens, the State Criminal Alien Assistance Program (SCAAP) was established in 1995 to reimburse state and local jails for their costs of housing criminal aliens charged with federal crimes. As Table 13.5 indicates, the federal funding for reimbursing state and local incarceration facilities declined from 1999 to 2001, rebounded in 2002, reached a low in 2003, and has climbed in the last two reported years. In recent years Congress has reinstated SCAAP when it has been eliminated from the proposed Presidential Budget, allocating \$405 million for FY 2006; however, southwest border counties spend more than \$100 million annually but receive only \$4 million in reimbursements. Given the previous discussion about low property tax bases and lower incomes, these unreimbursed costs create a critical fiscal gap which the federal government must address with border counties to insure federal programs can rely on their prison systems to carry out the growing federal mandate in the future.

### **Discretionary Federal Funding to Local Criminal Justice Agencies**

Like the rest of the nation's criminal justice agencies, agencies in southwest border counties, as detailed above, have

**Table 13.4**  
**2002-2003 Southwest Border Prosecution Initiative Program Awards by County (in 2002 Dollars)**

	<b>Awards 2002</b>	<b>Awards 2003</b>	<b># 2002</b>	<b># 2003</b>	<b>\$ per case 2002</b>	<b>\$ per case 2003</b>
<b>United States</b>	\$38,966,455	\$37,687,488	6,936	7,860	\$5,618	\$4,795
<b>All Border Counties</b>	\$15,352,500	\$13,401,515	2,690	2,722	\$5,707	\$4,923
<b>Arizona</b>	\$2,997,500	\$3,333,995	445	594	\$6,736	\$5,613
<b>Arizona Border Counties</b>	\$970,000	\$1,914,712	137	360	\$7,080	\$5,319
<i>Cochise</i>	\$1,250	\$701,369	1	187	\$1,250	\$3,751
<i>Pima</i>	\$0	\$195,503	0	23	\$0	\$8,500
<i>Santa Cruz</i>	\$161,250	\$183,284	42	40	\$3,839	\$4,582
<i>Yuma</i>	\$807,500	\$834,555	94	110	\$8,590	\$7,587
<b>California</b>	\$18,453,955	\$15,277,246	3,379	3,422	\$5,461	\$4,464
<b>California Border Counties</b>	\$6,348,750	\$3,786,657	1,513	1,165	\$4,196	\$3,250
<i>Imperial</i>	\$453,750	\$355,572	94	243	\$4,827	\$1,463
<i>San Diego</i>	\$5,895,000	\$3,431,085	1,419	922	\$4,154	\$3,721
<b>New Mexico</b>	\$5,747,500	\$8,260,020	1,436	2,179	\$4,002	\$3,791
<b>New Mexico Border Counties</b>	\$326,250	\$1,364,858	112	484	\$2,913	\$2,820
<i>Dona Ana</i>	\$0	\$1,102,151	0	371	\$0	\$2,971
<i>Hidalgo</i>	\$21,250	\$58,651	6	16	\$3,542	\$3,666
<i>Luna</i>	\$305,000	\$204,057	106	97	\$2,877	\$2,104
<b>Texas</b>	\$11,767,500	\$10,816,227	1,676	1,665	\$7,021	\$6,496
<b>Texas Border Counties</b>	\$7,707,500	\$6,335,288	928	713	\$8,305	\$8,885
<i>Brewster</i>	\$18,750	\$0	6	0	\$3,125	\$0
<i>Cameron</i>	\$0	\$368,768	0	47	\$0	\$7,846
<i>Culberson</i>	\$0	\$0	0	0	\$0	\$0
<i>El Paso</i>	\$5,038,750	\$3,963,832	626	413	\$8,049	\$9,598
<i>Hidalgo</i>	\$0	\$0	0	0	\$0	\$0
<i>Hudspeth</i>	\$1,527,500	\$1,141,251	179	138	\$8,534	\$8,270
<i>Jeff Davis</i>	\$0	\$0	0	0	\$0	\$0
<i>Kinney</i>	\$82,500	\$26,882	13	3	\$6,346	\$8,961
<i>Maverick</i>	\$930,000	\$763,685	93	102	\$10,000	\$7,487
<i>Presidio</i>	\$110,000	\$56,207	11	7	\$10,000	\$8,030
<i>Starr</i>	\$0	\$0	0	0	\$0	\$0
<i>Terrell</i>	\$0	\$0	0	0	\$0	\$0
<i>Val Verde</i>	\$0	\$14,663	0	3	\$0	\$4,888
<i>Webb</i>	\$0	\$0	0	0	\$0	\$0

Source: Bureau of Justice Assistance, Southwest Border Prosecution Master Funds Tracking File.

**Table 13.5**  
**1999–2005 State Criminal Alien Assistance Program Grant Awards to Southwest Border Counties**

	1999	2000	2001	2002	2003	2004	2005
<b>Arizona</b>							
Cochise	156,824	257,437	281,727	242,150	77,163	133,904	72,681
Pima	1,226,631	886,660	733,848	847,233	448,363	747,878	407,301
Yuma	154,949	706,939	347,262	552,866	174,069	217,921	220,339
Santa Cruz	173,801	106,536	0	93,764	22,759	0	31,453
Arizona Total	1,712,205	1,957,572	1,362,837	1,736,013	722,354	1,099,703	731,774
<b>California</b>							
Imperial	337,661	266,026	284,841	184,703	34,959	136,356	56,370
San Diego	8,079,979	5,036,410	4,891,349	5,255,909	716,730	795,416	2,346,881
California Total	8,417,640	5,302,436	5,176,190	5,440,612	751,689	931,772	2,403,251
<b>New Mexico</b>							
Hidalgo	2,638	0	0	0	0	1,742	0
Luna	8,372	32,034	21,634	0	12,457	4,549	4,914
Dona Ana	386,524	0	130,261	87,176	71,927	63,669	85,519
New Mexico Total	397,534	32,034	151,895	87,176	84,384	69,960	90,433
<b>Texas</b>							
El Paso	1,005,088		1,116,519	772,471	217,050	218,179	357,084
Hudspeth	0	0	0	0	5,876	2,704	4,299
Culberson	0	0	0	0	0	0	0
Jeff Davis	0	0	0	0	0	0	0
Presidio	0	0	0	0	894	0	0
Brewster	0	0	0	0	0	0	0
Terrell	0	0	0	0	0	0	0
Val Verde	64,510	0	30,846	7,508	8,645	7,138	6,713
Kinney	6,894	0	0	0	0	462	3,795
Maverick	0	0	0	85,248	13,386	0	20,643
Webb	111,302	1,896,940	440,478	503,509	106,241	81,443	64,069
Zapata	0	0	9,765	40,275	10,017	6,841	3,426
Starr	0	0	0	46,883	6,897	0	7,026
Hidalgo	121,827	0	0	0	33,583	48,291	714,808
Cameron	737,196	866,801	450,304	520,289	238,836	460,229	29,936
Texas Total	2,046,817	2,763,741	2,047,912	1,976,183	641,425	825,287	1,211,799
<b>Total Border Counties</b>	<b>12,574,196</b>	<b>10,055,783</b>	<b>8,738,834</b>	<b>9,239,984</b>	<b>2,199,852</b>	<b>2,926,722</b>	<b>4,437,257</b>

Source: Austin, Copelin & Reyes, 2006.

historically been recipients of federal financial assistance. The border has a low rate of violent crime, yet high rates of drug crimes, which are unaccounted for in the formula funding decision structure. As a result, discretionary and special needs funding programs become critical to the sustained functioning of border criminal justice agencies. Two of these special needs funding programs, the State Criminal Alien Assistance Program and the Southwest Border Prosecution Initiative help meet funding gaps to assist in offsetting the costs of federally requested inmate housing and prosecution of federally initiated crimes. These are supplemented by non-formula grant funding programs, such as the Byrne Discretionary Grant and the Community Oriented Policing Services (COPS) grants. In fiscal year 2003, the Byrne Discretionary Grant accounted for 7 percent of the Bureau of Justice assistance and the COPS grants accounted for 22 percent of grant funding awards nationwide. The purpose of the Byrne Discretionary Grant is to educate and train criminal justice personnel, provide technical assistance to state and local governments, promote projects that are multi-

jurisdictional or national in scope, and demonstrate programs that are likely to be successful in multiple jurisdictions. According to Table 13.6, the variability in the amount of Byrne Discretionary Grant and other nonformula grant money awarded to criminal justice agencies in border counties is never more than 1.3 percent of all Byrne Discretionary Grant and other nonformula grant funds in a given fiscal year. In fact, during 1999, 2000, and 2002, less than 1 percent of all Byrne Discretionary Grant and other nonformula grants were awarded to criminal justice agencies in border counties. Only in 2002 did border counties receive more than three million dollars (in constant 1999 dollars and excluding the aforementioned SCAAP and SWBPI funds) to assist them with criminal justice functions. In any given year, the majority of border counties receive no funding through the Byrne Discretionary Grant nor through other nonformula grant programs. Since border counties account for approximately 2.5 percent of all U.S. residents, the border counties would appear to be underserved on a per capita basis by these programs.

**Table 13.6**  
**1999-2003 Byrne Discretionary and Other Nonformula Grant Awards by County (in 1999 Dollars)**

	Year				
	1999	2000	2001	2002	2003
<b>United States</b>	\$161,535,031	\$182,558,568	\$262,138,685	\$715,197,658	\$419,787,668
<b>All Border Counties</b>	\$204,987	\$2,403,561	\$675,992	\$7,562,757	\$1,870,977

Source: Bureau of Justice Assistance Annual Fiscal Year Reports to Congress 1999-2003.

The COPS grant program was established in 1994 to assist local law enforcement agencies boost their manpower levels to be more effective at engaging communities by direct police-public contacts, and thus, preventing crime at its roots.<sup>9</sup> As Table 13.7 shows, this program has benefited southwest border counties' law enforcement agencies and their budgets. While the COPS programs of Cops in Schools, Homeland

Security Overtime, Making Officer Redeployment Effective, Tribal Resources Grant, and Universal Hiring generally require some amount of matching funds from local agencies, agencies in the larger population border counties appear to be able to successfully meet the matching requirements. Counties, such as El Paso, Texas, San Diego, California, Pima, Arizona, and Yuma, Arizona all seem to have had success acquiring COPS



**Table 13.7**  
**2003 and 2004<sup>10</sup> Community Oriented Policing Services Grant Awards by County (in 2003 Dollars)**

	Year	
	2003	2004
<b>United States</b>	\$635,763,847	\$396,097,312
<b>All Border Counties</b>	\$16,219,739	\$13,118,146

Source: Bureau of Justice Assistance Annual Fiscal Year Reports to Congress 1999-2003.

**Table 13.8**  
**2002 Federal Arrests by Offense Type and U.S. District Court Jurisdiction**

	Offense Type by Percent (%)										
	Total Number	% of Total	% Violent	% Property	% Drugs	% Public Order	% Weapon	% Immigration	% Supervision Violation	% Material Witness	% Unknown
<b>United States</b>	124,074	100.0	3.81	13.92	27.19	7.07	6.04	20.37	17.55	3.16	0.91
<b>All Border Districts</b>	42,056	33.90	1.53	3.29	23.27	3.00	1.41	47.17	12.84	7.34	0.16

Source: Federal Justice Statistics Program, Arrests for Federal Offenses in Fiscal Year 2002; available at <http://fjsrc.urban.org>.

funds. During 2003 and 2004, law enforcement agencies in border counties received between 2.6 percent and 3.3 percent of all COPS funding, an addition of approximately \$14.7 million in fiscal year 2002 dollars per year.

As most are aware, a primary concern of many American citizens is the security of our borders. The United States federal government has tasked a wide variety of agencies with enforcing, prosecuting, and incarcerating criminal aliens. Except for case filings and dispositions, the federal government’s Federal Justice Statistics Project does not organize its data by county, using instead a system based on U.S. District Courts. These regions contain both border and non-border counties, and as a result, assessing the burden that falls on border counties cannot be well gauged by a single

“federal crime rate.” Nevertheless, there are clear differences between border counties which have a U.S. District Court and non-border counties containing a U.S District Court. Table 13.8 shows that 34 percent of all federal arrests occur in U.S. District Courts containing border counties. This amounts to more than 42, 000 arrests by federal law enforcement officials in U.S. District Courts in border counties. Nearly half (47%) of arrests in border-containing districts are for immigration offenses, while only 20 percent of arrests in non-border containing districts are for immigration offenses. Table 13.9 indicates that the vast majority of arrests are for unauthorized presence in the United States and more than 64 percent of arrests in districts containing border counties are for immigration offenses. This peaks in Arizona, where more than 77 percent of all arrests of criminal aliens are for an

immigration offense. The association of drugs with criminal aliens does not appear to be substantiated in border counties. The drug association, in fact, is stronger in non-border containing districts. More than 20 percent of arrests in U.S. District Courts not containing border counties of criminal aliens are for drug offenses, while only 15 percent of arrests in districts containing border counties are for the same offense. Table 13.10 indicates that the majority (58%) of the arrests in border counties containing U.S. District Courts are criminal aliens of Mexican nationality. Similarly drug arrests, as a

percentage of all arrests, are above normal in the Southern District of California, constituting more than 21 percent of all arrests of criminal aliens. This exceeds both the national and border percentages by more than a 3 percent difference. This is perhaps indicative of the Tijuana-San-Diego's corridor's status as one of the two main land-based urban area drug importation routes for the western U.S. The other corridor, Cd. Juárez-El Paso – served by the Western District of Texas – reports the largest percentage of drug arrests of criminal aliens of Mexican origin, at 22 percent.

**Table 13.9**  
**2002 Federal Arrests of Criminal Aliens by Offense Type and U.S. District Court Jurisdiction**

	Total	% Violent	% Property	% Drugs	% PublicOrder	% Weapon	% Immigration	% Supervision Violation	% Material Witness	% Unknown
<b>United States</b>	42,742	0.73	5.81	21.65	1.47	0.90	53.72	7.13	8.25	0.33
<b>All Border Districts</b>	28,732	0.30	1.19	15.32	0.62	0.26	64.33	7.46	10.48	0.05
<b>Arizona</b>	10,072	0.26	0.91	10.47	0.41	0.31	77.75	3.35	6.50	0.04
<b>Arizona Border District</b>	10,072	0.26	0.91	10.47	0.41	0.31	77.75	3.35	6.50	0.04
<b>California</b>	6,061	0.58	4.92	21.32	0.84	0.41	46.64	10.76	14.32	0.21
<b>California Border District (Southern)</b>	4,336	0.30	1.18	21.19	0.46	0.16	47.90	10.82	17.87	0.12
<b>New Mexico</b>	1,932	1.04	0.36	17.08	0.31	0.21	72.62	4.76	3.62	0.00
<b>New Mexico Border District</b>	1,932	1.04	0.36	17.08	0.31	0.21	72.62	4.76	3.62	0.00
<b>Texas</b>	13,226	0.29	1.87	16.51	0.95	0.29	57.80	9.88	12.38	0.04
<b>Texas Border Districts</b>	12,392	0.23	1.54	16.94	0.90	0.27	57.87	10.05	12.19	0.03
<i>Texas Southern District</i>	5,794	0.24	2.42	15.05	0.71	0.33	49.59	14.64	17.00	0.03
<i>Texas Western District</i>	6,598	0.21	0.77	18.60	1.06	0.21	65.14	6.02	7.96	0.03

Source: Federal Justice Statistics Program, Arrests for Federal Offenses in Fiscal Year 2002; <http://fjsrc.urban.org>.

**Table 13.10**  
**2002 Federal Arrests of Criminal Aliens with Mexican Nativity by Offense Type and U.S. District Court Jurisdiction**

	Total	% Violent	% Property	% Drugs	% PublicOrder	% Weapon	% Immigration	% Supervision Violation	% Material Witness	% Unknown
<b>United States</b>	29,380	0.30	1.76	18.19	0.66	0.48	61.58	7.65	9.33	0.05
<b>All Border Districts</b>	24,420	0.24	0.72	16.16	0.51	0.19	63.98	7.90	10.25	0.05
<b>Arizona</b>	8,433	0.14	0.13	10.83	0.32	0.18	78.39	3.24	6.72	0.05
<b>Arizona Border District</b>	8,433	0.14	0.13	10.83	0.32	0.18	78.39	3.24	6.72	0.05
<b>California</b>	5,134	0.25	2.30	21.39	0.55	0.31	50.27	10.36	14.49	0.08
<b>California Border District</b>	4,012	0.22	0.70	21.11	0.37	0.17	49.25	10.59	17.47	0.10
<b>New Mexico</b>	1,824	1.10	0.22	16.67	0.27	0.16	73.30	4.77	3.51	0.00
<b>New Mexico Border District</b>	1,824	1.10	0.22	16.67	0.27	0.16	73.30	4.77	3.51	0.00
<b>Texas</b>	10,799	0.18	1.35	17.83	0.74	0.22	56.68	11.01	11.95	0.03
<b>Texas Border Districts</b>	10,151	0.17	1.32	18.54	0.76	0.22	56.15	11.28	11.54	0.03
<i>Texas Southern District</i>	4,966	0.20	2.03	14.78	0.52	0.22	50.22	15.89	16.11	0.02
<i>Texas Western District</i>	5,185	0.14	0.64	22.14	0.98	0.21	61.83	6.87	7.16	0.04

Source: <http://fjsrc.urban.org>. Federal Justice Statistics Program, USMS02IN, Arrests for Federal Offenses Fiscal Year, 2002.

The burden for the preponderance of law enforcement has come under the umbrella of the Department of Homeland Security. The historically known sister federal agencies of the U.S. Border Patrol, the U.S. Immigration and Naturalization Service (INS), and the U.S. Customs Service, are now the reconfigured Immigration and Customs Enforcement (ICE) and Customs and Border Protection (CBP). These agencies account for more than 85 percent of all arrests of criminal aliens in border counties containing U.S. District Courts. ICE,

and its predecessor INS, account for a larger percentage of non-border county arrests than border county arrests, while the new CBP and its predecessors report the opposite pattern. Because of this federal presence, local police and sheriffs are the criminal justice sector least burdened by unfunded federal mandates. In light of the fact that the border counties are already handling more crimes than the national average, keeping additional federal enforcement activities outside of the realm of local law enforcement agencies should remain a priority, allowing them to focus on their local demands.

**Appendix 13.1**  
**2002<sup>11</sup> Arrest Rate Per 100,000 Residents by County**

	Total	Combined Crimes	Violent	Property	Drugs Total	Drugs Sale	Drugs Possession	Vandalism	Vagrancy
<b>United States</b>	4,271	681	188	494	483	91	359	83	9
<b>All Border Counties</b>	4,976	811	262	548	741	82	659	121	48
<b>Arizona</b>	5,800	955	175	779	561	94	467	177	15
<b>Arizona Border Counties</b>	7,496	1,063	178	885	945	101	843	258	8
<i>Cochise</i>	5,782	1,065	247	818	560	133	426	269	2
<i>Pima</i>	8,077	1,085	154	931	1,110	109	1,000	275	6
<i>Santa Cruz</i>	6,862	1,323	184	1,142	365	10	358	12	2
<i>Yuma</i>	5,852	881	256	626	497	55	441	214	24
<b>California</b>	4,073	858	370	488	734	125	609	79	13
<b>California Border Counties</b>	3,878	716	331	385	798	112	686	88	88
<i>Imperial</i>	5,211	843	410	434	1,472	136	1,336	85	9
<i>San Diego</i>	3,811	710	327	383	764	111	653	88	92
<b>New Mexico</b>	6,557	738	237	501	397	127	260	62	1
<b>New Mexico Border Counties</b>	6,560	759	203	557	609	74	531	86	1
<i>Dona Ana</i>	6,520	773	200	574	646	81	562	84	1
<i>Hidalgo</i>	4,347	298	66	231	463	17	446	99	17
<i>Luna</i>	7,361	772	255	517	384	39	333	94	4
<b>Texas</b>	4,831	720	148	572	472	47	424	56	9
<b>Texas Border Counties</b>	4,926	804	202	602	483	7	476	82	6
<i>Brewster</i>	3,930	335	162	173	238	54	184	0	0
<i>Cameron</i>	5,769	823	157	666	359	5	354	84	20
<i>Culberson</i>	8,722	354	161	193	1,641	64	1,577	0	0
<i>El Paso</i>	4,985	867	257	610	501	3	498	102	4
<i>Hidalgo</i>	3,871	505	116	389	371	9	356	31	0
<i>Hudspeth</i>	14,973	544	57	487	9,304	0	9,304	0	0
<i>Jeff Davis</i>	998	564	43	521	43	0	43	0	0
<i>Kinney</i>	3,542	28	0	28	312	312	0	0	0
<i>Maverick</i>	5,670	294	73	221	344	0	344	2	0
<i>Presidio</i>	1,258	92	52	39	367	0	367	52	0
<i>Starr</i>	6,209	516	170	347	732	30	702	20	0
<i>Terrell</i>	354	0	0	0	0	0	0	0	0
<i>Val Verde</i>	3,236	352	49	303	299	0	299	64	0
<i>Webb</i>	3,738	1,071	207	865	567	11	556	82	0

Source: Uniform Crime Report, 2002 county level data file archived at the National Archive of Criminal Justice Data.

### Appendix 13.2 2002 Arrests for Federal Offenses

State	Total		Violent offenses		Property offenses		Drug offenses		Weapon offenses		Immigration offenses		Public-order offenses	
	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank	Number	Rank
Alabama	1,556	19	92	17	327	18	481	21	205	12	0	47	134	21
Alaska	257	49	--		63	43	64	49	13	51	--		30	45
Arizona	12,524	4	293	3	400	16	1,615	6	143	20	8,060	3	319	9
Arkansas	652	39	21	41	160	30	139	42	57	37	60	22	46	38
<b>Border Counties w/o Southern California District</b>	<b>35,676</b>	<b>1</b>	<b>579</b>	<b>1</b>	<b>1,192</b>	<b>4</b>	<b>7,999</b>	<b>1</b>	<b>574</b>	<b>1</b>	<b>17,548</b>	<b>1</b>	<b>1,164</b>	<b>1</b>
<b>Border Districts (all)</b>	<b>42,056</b>	<b>1</b>	<b>644</b>	<b>1</b>	<b>1,382</b>	<b>3</b>	<b>9,786</b>	<b>1</b>	<b>593</b>	<b>1</b>	<b>19,839</b>	<b>1</b>	<b>1,260</b>	<b>1</b>
California	13,096	3	374	2	1,815	1	3,043	3	279	10	3,286	4	580	4
Colorado	1,039	28	53	30	171	27	261	32	106	26	83	16	101	25
Connecticut	503	42	21	43	110	35	168	38	47	39	17	41	47	37
Delaware	256	50	--		57	47	48	50	66	36	--		19	49
Florida	6,527	6	161	7	1,157	5	2,576	4	339	4	375	7	478	5
Georgia	2,578	10	126	10	444	11	768	11	199	13	133	12	383	8
Hawaii	566	41	21	42	85	38	212	36	33	45	--		92	26
Idaho	379	44	26	40	59	46	106	43	44	42	52	25	38	42
Illinois	2,983	9	113	14	619	8	1,140	7	155	19	129	13	312	10
Indiana	1,050	27	73	20	169	28	378	25	139	21	11	46	61	33
Iowa	954	30	0		97	37	496	19	75	32	116	14	42	41
Kansas	827	35	41	35	114	34	296	30	67	35	56	24	70	29
Kentucky	1,168	25	59	28	219	23	376	26	121	22	29	30	141	20
Louisiana	1,395	20	66	26	291	20	441	23	185	16	43	26	77	27
Maine	356	45	16	44	75	42	66	48	47	40	32	29	37	43
Maryland	1,253	23	99	15	189	25	301	28	114	23	29	31	157	16
Massachusetts	949	31	36	37	234	22	298	29	87	29	37	28	61	32
Michigan	2,211	15	92	16	594	10	608	16	283	9	68	20	154	17
Minnesota	721	36	67	25	131	32	271	31	25	49	18	39	32	44
Mississippi	846	33	51	31	184	26	305	27	72	34	14	44	66	30
Missouri	2,162	17	65	27	372	17	753	12	327	6	71	19	141	19
Montana	598	40	68	24	99	36	172	37	44	41	27	35	55	35
Nebraska	857	32	31	38	61	45	485	20	55	38	75	18	22	48
Nevada	1,334	22	69	23	281	21	159	39	156	18	177	10	249	12
New Hampshire	294	47	16	45	62	44	73	47	18	50	13	45	12	50
New Jersey	1,347	21	48	32	412	14	441	22	74	33	43	27	126	23
New Mexico	3,065	8	133	9	78	40	829	9	84	30	1,466	5	75	28
New York	6,868	5	292	4	1,731	2	2,070	5	509	3	501	6	619	3
North Carolina	2,477	12	189	6	425	13	679	14	339	5	66	21	213	13
North Dakota	293	48	44	33	49	48	32	51	35	43	29	32	24	46
Ohio	2,166	16	115	12	594	9	614	15	161	17	27	34	153	18
Oklahoma	1,055	26	39	36	200	24	224	34	99	28	14	43	208	14
Oregon	1,169	24	71	21	158	31	249	33	107	25	220	9	61	31
Pennsylvania	2,516	11	145	8	648	7	746	13	297	7	89	15	167	15
Rhode Island	235	51	--		41	49	93	45	29	47	21	37	11	51
South Carolina	1,738	18	89	18	435	12	507	18	193	14	23	36	108	24
South Dakota	657	38	115	13	75	41	81	46	26	48	15	42	56	34
Tennessee	2,374	13	88	19	405	15	794	10	275	11	75	17	288	11
Texas	23,270	2	268	5	1,265	4	6,259	2	553	2	8,546	2	923	2
Utah	961	29	56	29	167	29	158	40	191	15	168	11	44	39
Vermont	318	46	--		26	51	145	41	34	44	28	33	23	47
Virginia	3,516	7	124	11	703	6	1,005	8	292	8	58	23	446	6
Washington	2,255	14	70	22	307	19	545	17	102	27	254	8	418	7
West Virginia	830	34	0		79	39	388	24	112	24	0	48	44	40
Wisconsin	667	37	42	34	124	33	216	35	77	31	17	40	47	36
Wyoming	401	43	27	39	34	50	104	44	32	46	18	38	129	22

Source: U.S. Marshals Service Prisoner Tracking Data Base.

## Endnotes to Chapter 13

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1. Federal Reserve Bank of Dallas, *Southwest Economy*, "Falling Crime and Rising Border Enforcement: Is There a Connection?", Issue 3, May/June 2003.
2. Fiscal year 2002 data is the most recent Uniform Crime Report data available to the general public by county at this time. This is not problematic for this analysis, as 2002 tends to fit into the middle of the financial data series on criminal justice expenditures and federal grant funding awards.
3. Violent offenses known to the police include murder, forcible rape, robbery, and aggravated assault.
4. Numbers will not precisely match the UCR publication for 2002, as the FBI and National Archive of Criminal Justice Data use different imputation algorithms for incomplete data.
5. Crimes reported to police include crimes reported to municipal police, sheriff agencies, county police, and state police agencies that contribute information to the UCR.
6. Bureau of Justice Assistance. 2004. "Solutions for Safer Communities: FY 2003 Annual Report to Congress on Initiatives Funded by the Bureau of Justice Assistance," NCJ 207629. Washington, DC: Bureau of Justice Assistance, United States Department of Justice, page 2; Community Oriented Policing Services. 2004. "Community Oriented Policing Services Annual Fiscal Year Report, 2003"; Community Oriented Policing Services, United States Department of Justice; and Community Oriented Policing Services. 2005. "Community Oriented Policing Services Annual Fiscal Year Report, 2004:" Community Oriented Policing Services, United States Department of Justice. The Community Oriented Policing Services reports can be found at <http://www.cops.usdoj.gov/mime/open.pdf?Item=959> and <http://www.cops.usdoj.gov/mime/open.pdf?Item=800>.
7. Hickman, M. 2005. Justice Assistance Grant (JAG) Program, 2005, NCJ 209333. Washington, DC: Bureau of Justice Statistics, United States Department of Justice, p. 1.
8. *Ibid.*, p. 2.
9. [www.cops.usdoj.gov/default.asp?Item=35](http://www.cops.usdoj.gov/default.asp?Item=35).
10. Prior to 2003, information on grant disbursements by county was not publicly available.

11. Arrests by police include arrests by municipal police, sheriff agencies, county police, and state police agencies that contribute information to the UCR. Combined Crimes are: Murder, Rape, Robbery, Aggravated Assault, Burglary, Larceny, and Motor Vehicle Theft. Violent Crimes are: Murder, Rape, Robbery, and Aggravated Assault. Property Crimes are: Burglary, Larceny, and Motor Vehicle Theft. Vagrancy is defined as begging, loitering, etc. This includes prosecutions under the charge of suspicious person.

## Chapter 14

# Fiscal Balance of Payments and Taxation

The fiscal balance of payments compares the outflow or payment of federal and state taxes to the inflow or receipt of federal and state funds, the key components of determining “fair share” within regions. Fair share suggests that each county should receive funds from state and local government in proportion to what it contributes to them in taxes. Further, it refers to the redistribution of federal revenues in the form of transfer payments or direct expenditures for projects and services, both of which are a function of the population’s age composition and the amount of collected taxes.<sup>1</sup> Federal tax collections among border counties are affected by age of the population because younger adults contribute less to the tax base due to lower levels of personal income and older adults typically have left the work force and pay less in taxes as a result. With a weak tax base, border counties are among those that look to the federal government for financial assistance in order to cover costs for providing needed infrastructure and services. As a result, if the border counties were made the 51<sup>st</sup> state it would rank 29<sup>th</sup> in receipt of total federal government expenditures, a ranking that would place it between the states of Oklahoma and Mississippi in receipt of overall federal expenditures.

- The inclusion and exclusion of San Diego County in the analysis affects the overall fiscal health of the border counties. For the most part, when San Diego County is incorporated into the analysis, border counties appear to be fiscally healthy. When San Diego is excluded, the fiscal health of border counties is dramatically weaker.
- Out of the total and all types of federal expenditures to border counties, half are disbursed to San Diego County.
- Excluding San Diego, the remaining border counties would rank 29<sup>th</sup> in receipt of combined federal funds in the following categories: Total Amounts, Retirement and Disability Payments, Other Direct Payments, and Grants.
- However, border counties would rank 22<sup>nd</sup>, when considered as the 51<sup>st</sup> state, when disbursement amounts of federal funds for Procurement Contracts and Salaries and Wages are evaluated (Table 14.2).
- If border counties composed the 51<sup>st</sup> state and per capita values are examined for each of the federal funds categories, the border counties without San Diego are ranked 31<sup>st</sup> overall.
- When San Diego is excluded, using national average federal expenditures per capita, the southwest border counties receive \$1.9 billion less in federal funds coming to the region.
- When comparing the ratios of federal expenditures to paid federal income tax, border counties with smaller populations have higher ratios, indicating these smaller counties are in receipt of more financial help from the federal government in order to achieve a balanced fiscal condition.



## **Policy Issues**

Border counties do not generate high tax revenues. As a result, there is greater dependence on federal funds than in other areas of the nation. This aspect of federalism helps lower income counties, such as those along the southwestern border by allowing for redistribution of federal funds from more affluent areas. From one perspective it could be argued that these funds are stop gap measures that will not result in economic development. Those who are in favor of economic development may be led to ask what policies can be followed to lessen federal dependency. From another perspective, government employment, such as the military, homeland security or regional offices, may provide the resources base necessary to build communities. Another point of view would take the position that it is necessary to obtain more support for the least advantaged citizens of the region through any avenue available. Lastly, an investment in infrastructure is seen by some as a critical policy choice to attract industries and commercial interests who, in turn, provide higher paying jobs and create demand for training.

The policy area related to federal funds expenditures is extremely complex. As a result, policy and decision makers in the southwest border region must realize that the federal fiscal pie is relatively fixed. Subsequently, each choice for a program has an opportunity cost, namely that another program will not be funded. As a strategy, the southwest border must align with other areas of the country, such as large urban areas and rural regions with similar characteristics. Aligning with other areas that also have serious problems of poverty and economic development can leverage political support for programs that will benefit the southwest border.

The southwest border also has to build an agenda around the fact that much of the day-to-day fiscal agenda is local. However, federal investment in infrastructure is needed to support NAFTA, which has resulted in a disproportionate burden on southwest border counties during its first decade. Federal support is required to insure that the critical flow of goods and services to the rest of the nation brought about by trade with Mexico can be sustained. Many lawmakers from interior states are simply unaware of the costs borne by southwest border counties. Federal lawmakers must work to bring more federal projects to the region; projects that will attract investment from the private sector and result in creation of jobs and regional wealth. Many federal lawmakers from outside the region may see a "Robinhood Effect," where the more affluent states are supporting the less affluent. However, these lawmakers need to understand that this investment is critical because exclusion of the border does little to lessen dependency on federal expenditures. Investment in projects and programs with a long term goal of economic growth not only will accelerate development in the border, but will create a larger positive regional income base, while insuring flow of goods and services to the nation's interior.

## **Federal Funds Expenditures**

According to the U.S. Census Bureau, data for federal funds expenditures is divided by U.S., state, and county totals and reported by funds for: Total Amounts, Retirement and Disability Payments, Other Direct Payments, Grants, Procurement Contracts, and Salaries and Wages. As shown by Table 14.1, the examination of the amount of federal funds dispersed to border counties demonstrates their fragile fiscal position, which is worsened when San Diego County is

excluded. If the border counties were made the 51<sup>st</sup> state, when examined without San Diego, total federal expenditures for the southwestern border counties would achieve a 29<sup>th</sup> place ranking. When this ranking is broken down, the data shows the following rankings: Retirement and Disability, 32<sup>nd</sup> place; Other Direct Payments, 34<sup>th</sup> place; and, Grants, 28<sup>th</sup>

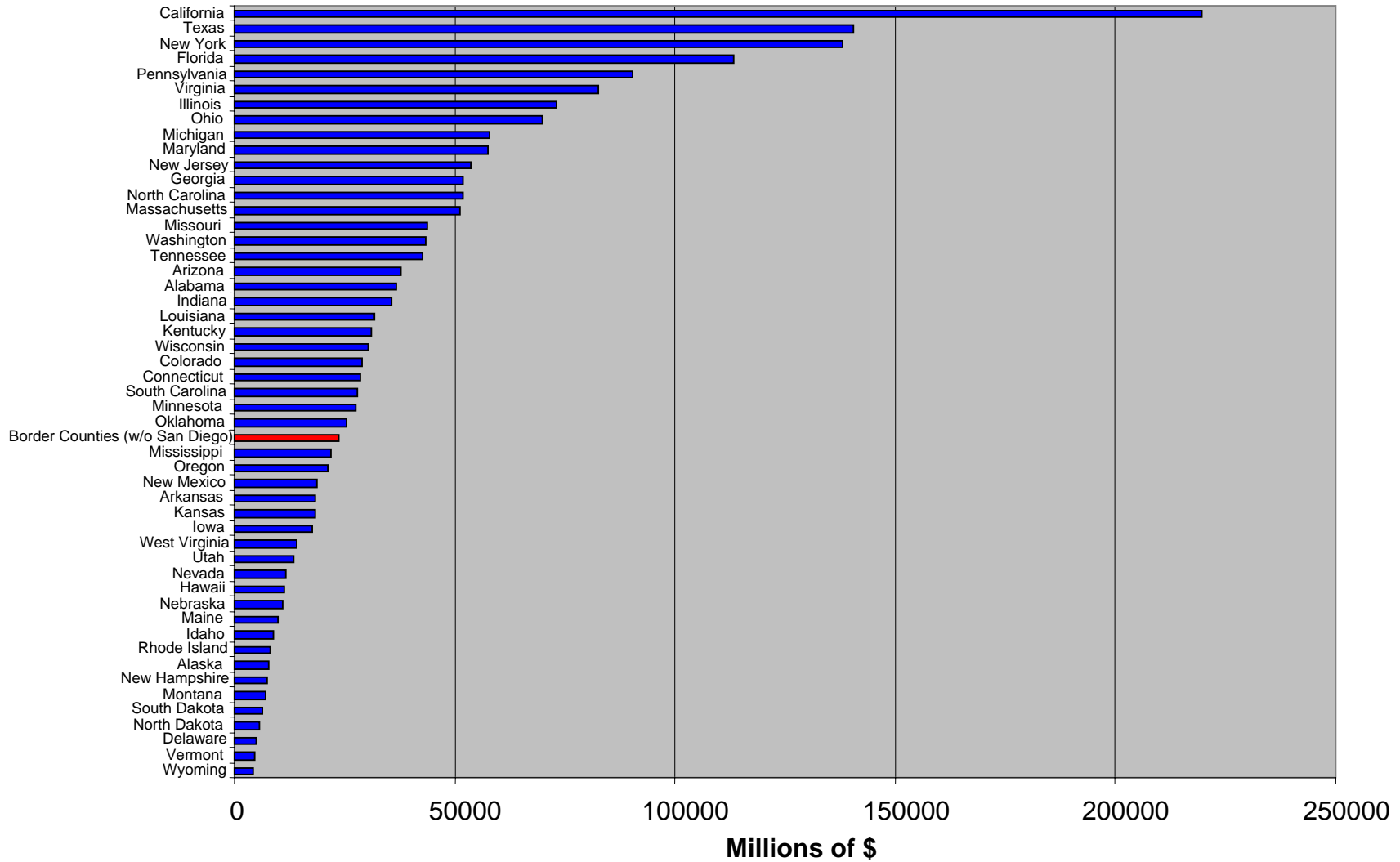
place (Table 14.2). The only areas where border counties would rank in the top 25 are in Procurement Contracts at 22<sup>nd</sup> place and Salaries and Wages at 25<sup>th</sup> place: expenditures that reflect the large federal presence in Homeland Security and military personnel.

**Table 14.1**  
**2003 (Fiscal Year) Percent of Federal Expenditures Disbursed to Border States and Border Counties by Total and Fund Type**

Type of Government Fund and Total	Arizona	California	New Mexico	Texas	Border States	Border Counties (w/San Diego)	Border Counties (w/o San Diego)	United States
Retirement / Disability Payments For Individuals	1.9%	9.6%	0.7%	6.2%	18.4%	2.0%	1.1%	100.0%
Other Direct Payments	1.7%	12.4%	0.6%	7.3%	21.9%	1.7%	0.9%	100.0%
Grants (Block, Formula, Project, And Cooperative Agreements)	1.6%	11.6%	1.0%	6.4%	20.7%	2.1%	1.2%	100.0%
Procurement Contracts	2.6%	11.3%	1.8%	9.1%	24.8%	3.1%	1.5%	100.0%
Salaries And Wages	1.6%	9.8%	0.9%	6.6%	18.9%	4.1%	1.4%	100.0%
<b>Total Direct Expenditures or Obligations</b>	1.8%	10.7%	0.9%	6.8%	20.2%	2.3%	1.1%	100.0%
Direct Loans )	1.6%	8.8%	0.5%	4.1%	15.0%	9.7%	5.9%	100.0%
Guaranteed/Insured Loans	3.6%	9.7%	0.7%	8.4%	22.4%	2.4%	1.8%	100.0%
Insurance	0.7%	6.8%	0.2%	10.9%	18.5%	0.0%	0.0%	100.0%

Source: Consolidated Federal Funds Report 2003, U.S. Census Bureau.

**Figure 14.1**  
**2003 Amount of Total Federal Expenditures**



Source: Consolidated Federal Financial Reports, Fiscal Year 2003. U.S. Census Bureau.

**Table 14.2**  
**2003 (Fiscal Year) Summary of Federal Government Expenditures by State and Border Counties (in Millions of Dollars)**

	Total	Rank	Retirement and disability	Rank	Other direct payments	Rank	Grants	Rank	Procurement	Rank	Salaries and wages	Rank
Alabama	\$36,871	19	\$12,232	19	\$7,698	20	\$6,649	23	\$7,067	13	\$3,224	21
Alaska	\$7,944	44	\$1,041	51	\$584	51	\$3,022	37	\$1,680	35	\$1,617	35
Arizona	\$37,801	18	\$12,022	20	\$6,653	22	\$7,235	21	\$8,557	6	\$3,335	20
Arkansas	\$18,340	33	\$7,038	30	\$4,558	32	\$4,541	32	\$864	41	\$1,339	37
<b>Border Counties (w/o San Diego)</b>	<b>\$23,679</b>	<b>29</b>	<b>\$6,873</b>	<b>32</b>	<b>\$3,677</b>	<b>34</b>	<b>\$5,332</b>	<b>28</b>	<b>\$4,946</b>	<b>22</b>	<b>\$2,851</b>	<b>25</b>
California	\$219,706	1	\$61,236	1	\$49,480	1	\$51,329	1	\$37,050	1	\$20,611	1
Colorado	\$28,874	24	\$8,375	27	\$5,014	29	\$6,014	25	\$5,142	20	\$4,329	13
Connecticut	\$28,595	25	\$7,549	29	\$5,669	25	\$5,376	27	\$8,484	7	\$1,516	36
Delaware	\$5,061	49	\$1,945	46	\$1,201	48	\$1,181	51	\$245	51	\$489	50
Florida	\$113,341	4	\$45,192	2	\$30,041	3	\$17,463	5	\$10,899	5	\$9,746	5
Georgia	\$51,910	12	\$16,666	12	\$11,426	11	\$10,561	12	\$5,243	19	\$8,015	7
Hawaii	\$11,269	39	\$3,014	41	\$1,502	45	\$1,911	44	\$1,978	34	\$2,864	23
Idaho	\$8,654	42	\$2,865	42	\$1,566	44	\$1,858	46	\$1,531	36	\$834	44
Illinois	\$73,020	7	\$24,786	7	\$20,232	6	\$15,720	6	\$5,729	17	\$6,553	8
Indiana	\$35,525	20	\$13,394	17	\$9,178	15	\$7,313	20	\$3,302	26	\$2,338	27
Iowa	\$17,550	35	\$6,780	33	\$4,654	31	\$3,877	34	\$1,109	40	\$1,129	41
Kansas	\$18,208	34	\$6,196	34	\$4,469	33	\$3,415	36	\$2,020	32	\$2,108	29
Kentucky	\$31,153	22	\$10,169	22	\$6,119	24	\$6,634	24	\$5,119	21	\$3,112	22
Louisiana	\$31,646	21	\$9,559	25	\$8,424	19	\$7,820	18	\$3,195	27	\$2,648	26
Maine	\$9,966	41	\$3,403	40	\$1,753	41	\$2,610	39	\$1,312	38	\$888	42
Maryland	\$57,646	10	\$13,306	18	\$9,161	16	\$8,632	16	\$16,216	4	\$10,331	4
Massachusetts	\$51,265	14	\$13,794	13	\$12,339	10	\$13,328	8	\$8,357	8	\$3,446	16
Michigan	\$57,870	9	\$22,042	8	\$15,556	8	\$12,970	9	\$3,884	23	\$3,418	17
Minnesota	\$27,580	27	\$9,627	24	\$6,514	23	\$6,914	22	\$2,406	31	\$2,120	28
Mississippi	\$21,741	30	\$6,923	31	\$4,904	30	\$5,318	29	\$2,626	29	\$1,970	31
Missouri	\$43,874	15	\$13,509	16	\$9,887	13	\$8,655	15	\$7,992	10	\$3,832	15
Montana	\$7,092	46	\$2,315	45	\$1,497	46	\$1,938	43	\$497	47	\$845	43
Nebraska	\$11,000	40	\$3,956	38	\$2,732	36	\$2,512	40	\$608	45	\$1,192	40
Nevada	\$11,637	38	\$4,708	36	\$2,280	38	\$1,955	42	\$1,472	37	\$1,222	39
New Hampshire	\$7,349	45	\$2,838	43	\$1,336	47	\$1,865	45	\$738	42	\$571	48
New Jersey	\$53,679	11	\$18,388	11	\$14,190	9	\$11,481	11	\$5,461	18	\$4,159	14
New Mexico	\$18,736	32	\$4,388	37	\$2,281	37	\$4,322	33	\$5,819	16	\$1,926	32
New York	\$137,898	3	\$40,506	3	\$33,524	2	\$47,575	2	\$7,758	11	\$8,535	6
North Carolina	\$51,766	13	\$18,806	10	\$11,012	12	\$11,613	10	\$3,794	24	\$6,541	9
North Dakota	\$5,726	48	\$1,447	48	\$1,627	43	\$1,537	49	\$398	48	\$717	46
Ohio	\$69,902	8	\$25,348	6	\$16,957	7	\$15,687	7	\$6,548	15	\$5,362	12
Oklahoma	\$25,254	28	\$8,772	26	\$5,505	26	\$5,136	30	\$2,488	30	\$3,353	19
Oregon	\$21,253	31	\$8,024	28	\$5,147	28	\$5,103	31	\$1,198	39	\$1,781	34
Pennsylvania	\$90,350	5	\$32,072	5	\$25,156	5	\$18,624	4	\$8,137	9	\$6,363	10
Rhode Island	\$8,036	43	\$2,535	44	\$1,791	40	\$2,234	41	\$659	44	\$817	45
South Carolina	\$28,038	26	\$10,106	23	\$5,486	27	\$5,969	26	\$3,614	25	\$2,863	24
South Dakota	\$6,202	47	\$1,809	47	\$1,641	42	\$1,698	47	\$381	49	\$673	47
Tennessee	\$42,602	17	\$13,744	14	\$8,922	17	\$9,057	13	\$7,522	12	\$3,357	18
Texas	\$140,451	2	\$39,149	4	\$29,117	4	\$28,423	3	\$29,823	3	\$13,939	3
Utah	\$13,500	37	\$3,892	39	\$2,051	39	\$2,845	38	\$2,665	28	\$2,047	30
Vermont	\$4,443	50	\$1,358	49	\$828	49	\$1,331	50	\$566	46	\$360	51
Virginia	\$82,454	6	\$19,553	9	\$9,420	14	\$7,886	17	\$30,839	2	\$14,756	2
Washington	\$43,368	16	\$13,587	15	\$8,513	18	\$8,881	14	\$6,629	14	\$5,758	11
West Virginia	\$14,226	36	\$5,663	35	\$3,048	35	\$3,562	35	\$665	43	\$1,289	38
Wisconsin	\$30,237	23	\$11,618	21	\$7,282	21	\$7,544	19	\$2,008	33	\$1,785	33
Wyoming	\$4,226	51	\$1,152	50	\$602	50	\$1,616	48	\$346	50	\$510	49

Source: Consolidated Federal Funds Report 2003, U.S. Census Bureau.

San Diego continues to be an anomaly affecting the overall fiscal condition of the combined border counties. When included, San Diego receives almost as much in federal funds as the funds distributed to all other border counties combined. Overall, border counties received 2.3 percent of total federal expenditures when San Diego County is included and 1.1 percent when San Diego is excluded in 2003 (Table 14.1).

Examining the share of other types of federal expenditures that are distributed to border counties follows a similar path (Table 14.1). For example, federal expenditures made to border counties in 2003, (without San Diego) were reported as: Retirement and Disability as 1.1 percent; Other Direct Payments as .9 percent; Grants as 1.2 percent; Procurement as 1.5 percent; and, Salaries and Wages as 1.4 percent of disbursed funds. When San Diego is integrated back into the analysis, the percentages for the same federal funds increase to 2.0 for Retirement and Disability; 1.7 for Other Direct Payments; 2.1 for Grants; 3.1 for Procurement; and, 4.1 for Salaries and Wages. Border counties also receive minimal government assistance from other government funds. For example, border counties (without San Diego) receive 5.9 percent of Direct Loans and 1.8 percent of Guaranteed/Insured Loans. After including data for San Diego County, those percentages almost double to 9.7 percent in Direct Loans and 2.4 percent in Guaranteed/Insured Loans.

### **Per Capita Values for Aggregated Federal Funds Expenditures for Different Types**

Per capita values for federal funds expenditures further illustrate the fiscal health strains facing border counties. They show how border counties (without San Diego) may not be receiving their “fair share” of federal expenditures that many believe are warranted (Table 14.3). In two categories, the

receipt of Procurement Contracts and Salaries and Wages, the inclusion of San Diego County values does not severely skew data as seen in Table 14.3, and southwestern border counties are above U.S. per capita values.<sup>2</sup> In all other categories, border counties (with and without San Diego) fall below U.S. per capita values in receipt of federal funds expended. The inclusion and exclusion of San Diego County does make a difference when Total Expenditures are examined, such that without San Diego, per capita values for border counties for Total Federal Expenditures are \$6,407, below the U.S. per capita value of \$6,910. With San Diego per capita expenditures rise above U.S. amounts to \$7,215.

To put this in perspective, if a hypothetical fair share was based on national values, when San Diego is included it accounts for 50 percent of the federal expenditures in southwestern border counties, resulting in the region receiving an additional \$2 billion more in federal funds. Examining Table 14.4, if San Diego is removed, the remaining southwestern border counties receive \$1.9 billion less than they would receive if they received national per capita federal expenditures. While the mix of federal programs varies dramatically from region to region, the southwestern border does need to concern itself with the level of federal expenditures it receives and target a greater share to enhance the per capita receipt of funding outside of San Diego County.

Based on Figure 14.2 and Table 14.5, as the 51<sup>st</sup> state, border counties would rank in the bottom half of each type of expenditure except for Procurement. Total Federal Fund Expenditures would rank 31<sup>st</sup>, Retirement and Disability would rank 46<sup>th</sup>, Other Direct Payments would rank 49<sup>th</sup>, and Grants would rank 30<sup>th</sup>. Procurement Contracts result in an 11<sup>th</sup> place ranking, while Salary and Wages fall into 17<sup>th</sup> place.

**Table 14.3**  
**2003 Comparison of Per capita Values for Federal Fund Expenditures for Border Counties (in Millions of Dollars)**

	Border Counties per Capita (w/San Diego)	Border Counties per Capita (w/o San Diego County)	U.S. per Capita	Border Counties (w/ San Diego) Above/Below U.S. per Capita	Border Counties (w/o San Diego) Above/Below U.S. per Capita
Retirement / Disability Payments For Individuals	\$1,960	\$1,859	\$2,168	-	-
Other Direct Payments	\$1,007	\$995	\$1,523	-	-
Grants (Block, Formula, Project, And Cooperative Agreements)	\$1,379	\$1,443	\$1,496	-	-
Procurement Contracts	\$1,554	\$1,338	\$1,011	+	+
Salaries And Wages	\$1,314	\$771	\$713	+	+
<b>Total Direct Expenditures Or Obligations</b>	<b>\$7,215</b>	<b>\$6,407</b>	<b>\$6,910</b>	<b>+</b>	<b>-</b>
Other Federal Assistance					
Direct Loans	\$58	\$47	\$119	-	-
Guaranteed/Insured Loans	\$509	\$554	\$780	-	-
Insurance	\$826	\$1,098	\$2,424	-	-

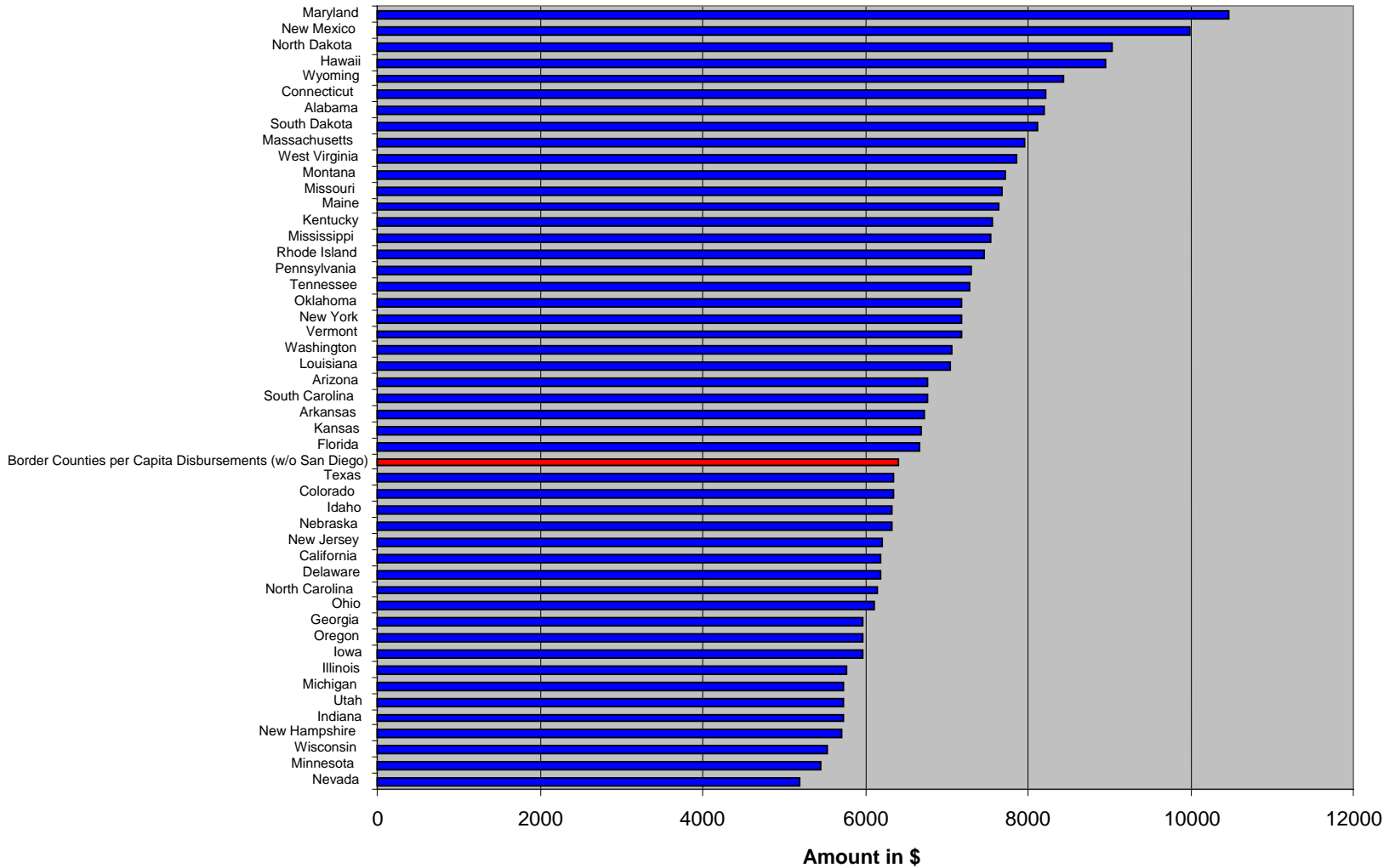
Source: Consolidated Federal Funds Report 2003, U.S. Census Bureau.

**Table 14.4**  
**2003 Distribution of Federal Funds Based on Per Capita Values**

	Population	Border Per Capita Federal Expenditures	Federal Expenditures Received	National Average Per Capita Federal Expenditures	Federal Expenditures Based on National Average Per Capita Receipts	Federal Expenditure Balances
<b>All Border Counties</b>	6,712,445	\$7,215	\$48,430,290,675	\$6,910	\$46,382,994,950	+\$2,047,295,725
<b>Without San Diego</b>	3,780,731	\$6,407	\$24,223,143,517	\$6,910	\$26,124,851,210	-\$1,901,707,693

Source: Consolidated Federal Funds Report 2003, U.S. Census Bureau.

**Figure 14.2**  
**2003 Per Capita Amounts for Total Federal Expenditures**



Source: Consolidated Federal Financial Reports, Fiscal Year 2003. U.S. Census Bureau.

**Table 14.5**  
**2003 (Fiscal Year) Per Capita Amounts of Total Federal Government Expenditures by State and Border Counties**

State and Border Counties	Total	Rank	Retirement and Disability	Rank	Other Direct Payments	Rank	Grants	Rank	Procurement	Rank	Salary and Wages	Rank
Alabama	\$8,192	9	\$2,718	2	\$1,710	9	\$1,477	23	\$1,570	7	\$716	20
Alaska	\$12,244	1	\$1,604	51	\$901	50	\$4,658	1	\$2,590	4	\$2,492	1
Arizona	\$6,773	26	\$2,154	35	\$1,192	44	\$1,296	41	\$1,533	8	\$598	30
Arkansas	\$6,729	28	\$2,582	7	\$1,672	12	\$1,666	15	\$317	50	\$491	41
<b>Border Counties w/o San Diego</b>	<b>\$6,407</b>	<b>31</b>	<b>\$1,859</b>	<b>46</b>	<b>\$955</b>	<b>49</b>	<b>\$1,443</b>	<b>30</b>	<b>\$1,338</b>	<b>11</b>	<b>\$771</b>	<b>17</b>
California	\$6,192	37	\$1,726	49	\$1,394	30	\$1,447	27	\$1,044	19	\$581	33
Colorado	\$6,345	33	\$1,840	47	\$1,102	46	\$1,322	39	\$1,130	16	\$951	9
Connecticut	\$8,209	8	\$2,167	33	\$1,628	18	\$1,543	19	\$2,436	5	\$435	46
Delaware	\$6,191	38	\$2,379	15	\$1,469	28	\$1,444	28	\$299	51	\$598	29
Florida	\$6,660	30	\$2,655	3	\$1,765	6	\$1,026	50	\$640	30	\$573	35
Georgia	\$5,977	41	\$1,919	44	\$1,316	37	\$1,216	46	\$604	34	\$923	11
Hawaii	\$8,961	6	\$2,397	14	\$1,194	43	\$1,520	20	\$1,573	6	\$2,277	2
Idaho	\$6,334	34	\$2,097	42	\$1,146	45	\$1,360	37	\$1,121	17	\$611	28
Illinois	\$5,771	44	\$1,959	43	\$1,599	19	\$1,242	45	\$453	41	\$518	38
Indiana	\$5,734	47	\$2,162	34	\$1,481	27	\$1,180	48	\$533	38	\$377	49
Iowa	\$5,961	43	\$2,303	21	\$1,581	20	\$1,317	40	\$377	45	\$384	48
Kansas	\$6,686	29	\$2,275	24	\$1,641	16	\$1,254	44	\$742	24	\$774	16
Kentucky	\$7,565	16	\$2,469	10	\$1,486	25	\$1,611	16	\$1,243	14	\$756	19
Louisiana	\$7,038	25	\$2,126	38	\$1,874	5	\$1,739	14	\$711	25	\$589	31
Maine	\$7,632	15	\$2,606	5	\$1,342	32	\$1,999	11	\$1,005	20	\$680	25
Maryland	\$10,464	3	\$2,415	12	\$1,663	14	\$1,567	17	\$2,944	3	\$1,875	4
Massachusetts	\$7,969	11	\$2,144	36	\$1,918	4	\$2,072	10	\$1,299	12	\$536	37
Michigan	\$5,741	45	\$2,187	32	\$1,543	23	\$1,287	42	\$385	44	\$339	50
Minnesota	\$5,451	50	\$1,903	45	\$1,287	39	\$1,366	36	\$476	40	\$419	47
Mississippi	\$7,545	17	\$2,403	13	\$1,702	10	\$1,846	13	\$911	22	\$684	24
Missouri	\$7,691	14	\$2,368	16	\$1,733	8	\$1,517	21	\$1,401	9	\$672	26
Montana	\$7,729	13	\$2,523	8	\$1,632	17	\$2,112	8	\$542	37	\$920	12
Nebraska	\$6,324	35	\$2,274	25	\$1,571	21	\$1,444	29	\$350	48	\$685	23
Nevada	\$5,193	51	\$2,101	41	\$1,018	48	\$872	51	\$657	29	\$545	36
New Hampshire	\$5,707	48	\$2,204	30	\$1,038	47	\$1,449	25	\$573	35	\$444	45
New Jersey	\$6,214	36	\$2,129	37	\$1,643	15	\$1,329	38	\$632	31	\$481	42
New Mexico	\$9,995	4	\$2,341	20	\$1,217	41	\$2,306	5	\$3,104	2	\$1,027	6
New York	\$7,186	22	\$2,111	40	\$1,747	7	\$2,479	3	\$404	43	\$445	44
North Carolina	\$6,157	39	\$2,237	27	\$1,310	38	\$1,381	33	\$451	42	\$778	15
North Dakota	\$9,033	5	\$2,283	23	\$2,567	1	\$2,425	4	\$627	32	\$1,131	5
Ohio	\$6,113	40	\$2,217	28	\$1,483	26	\$1,372	35	\$573	36	\$469	43
Oklahoma	\$7,192	21	\$2,498	9	\$1,568	22	\$1,463	24	\$708	26	\$955	8
Oregon	\$5,971	42	\$2,254	26	\$1,446	29	\$1,434	32	\$337	49	\$500	40
Pennsylvania	\$7,307	19	\$2,594	6	\$2,034	3	\$1,506	22	\$658	28	\$515	39
Rhode Island	\$7,467	18	\$2,355	18	\$1,664	13	\$2,076	9	\$612	33	\$759	18
South Carolina	\$6,761	27	\$2,437	11	\$1,323	35	\$1,439	31	\$872	23	\$690	22
South Dakota	\$8,114	10	\$2,367	17	\$2,147	2	\$2,221	6	\$498	39	\$881	13
Tennessee	\$7,293	20	\$2,353	19	\$1,527	24	\$1,550	18	\$1,288	13	\$575	34
Texas	\$6,350	32	\$1,770	48	\$1,316	36	\$1,285	43	\$1,348	10	\$630	27
Utah	\$5,741	46	\$1,655	50	\$872	51	\$1,210	47	\$1,133	15	\$870	14
Vermont	\$7,176	23	\$2,193	31	\$1,337	33	\$2,150	7	\$914	21	\$582	32
Virginia	\$11,163	2	\$2,647	4	\$1,275	40	\$1,068	49	\$4,175	1	\$1,998	3
Washington	\$7,073	24	\$2,216	29	\$1,388	31	\$1,448	26	\$1,081	18	\$939	10
West Virginia	\$7,858	12	\$3,128	1	\$1,683	11	\$1,968	12	\$367	46	\$712	21
Wisconsin	\$5,525	49	\$2,123	39	\$1,331	34	\$1,379	34	\$367	47	\$326	51
Wyoming	\$8,432	7	\$2,298	22	\$1,201	42	\$3,224	2	\$690	27	\$1,018	7

Source: Consolidated Federal Funds Report 2003, U.S. Census Bureau.



### Total Federal Individual Income Tax Collections

Total Federal Individual Income Tax Collections represent the outflow or payment component for the balance of payment equation.<sup>3</sup> The ratio of federal expenditures to income tax collections illustrates how much money is returned to counties for every dollar paid out in taxes. Table 14.6 presents the amount of revenue paid to the federal government in income tax collections along with per capita values. Unfortunately, the Internal Revenue Service does not keep data for all jurisdictions pertaining to income tax collections. However, referring back to Chapter 4 and the discussion of income, if the southwest border would rank 39<sup>th</sup> as a 51<sup>st</sup> state in income, it follows that it would also rank similarly in terms of income tax collections.

Total Federal Individual Income Tax Collections were highest for border counties in California followed by border county collections in Texas, Arizona, and New Mexico (Table 14.6). Federal Income Tax Collections originating from border counties consisted of 17.6 percent for Arizona, 8.6 percent for California, 7.7 percent for New Mexico, and 4.1 percent for Texas as a percent of total state collections. As previously discussed in earlier chapters, weak population densities reduce federal income tax collections and per capita values. As a result, the lowest per capita values are found in the least populated border counties of Jeff Davis County (\$183),

Cochise County (\$206), and Maverick County (\$508). The highest per capita values are found in San Diego County (\$3,016), Brewster County (\$2,512), and Pima County (\$2,049).<sup>4</sup>

In order to compensate for a smaller tax base, less populated border counties receive more federal dollars in exchange for every income tax dollar being sent. For example, the highest ratios of federal expenditures to federal paid income tax were found in Cochise County, Arizona (40.98), Hidalgo County, New Mexico (11.52), Hudspeth County, Texas (33.61), and Jeff Davis County, Texas (49.53). Examining the ratio for all border counties it decreases from 4.69 without San Diego County by nearly 30 percent to 3.36 with San Diego County. Put another way, for every \$1.00 paid in federal taxes, border counties on average receive \$4.69 in federal expenditures in their counties, but this amount is diluted to \$3.36 when San Diego is included. These calculations substantiate that “the poorer border counties are receiving a larger return on tax dollars.”<sup>5</sup> However, the gap between funds received versus the many needs of the southwestern border counties is partially skewed by large federal wage and salaries expenditures associated with a variety of border programs and Homeland Security. The degree to which these generate long term fiscal stability in the region, compared to the burden on local infrastructure, makes this an area ripe for considerable discussion.

**Table 14.6**  
**2002 Ratio of Federal Expenditures to Federal Tax Paid**

County and State	2002 Total Federal Expenditures	2002 Total Income Tax Paid by Individuals	Balance of Payments	Ratio of Federal Expenditures to Paid Income Tax	2002 Total Federal Expenditures Per Capita	2002 Total Income Tax Paid by Individuals Per Capita
Cochise County	\$1,277,199,988	\$31,165,000	\$1,246,034,988	40.98	\$10,639	\$260
Pima County	\$7,773,076,099	\$1,797,858,000	\$5,975,218,099	4.32	\$8,858	\$2,049
Santa Cruz County	\$212,700,258	\$46,490,000	\$166,210,258	4.58	\$5,369	\$1,174
Yuma County	\$900,760,867	\$168,635,000	\$732,125,867	5.34	\$7,402	\$1,012
Border Counties	\$10,163,737,212	\$2,044,148,000	\$8,119,589,212	4.97	\$8,442	\$1,698
Non-Border Counties	\$24,597,402,788	\$9,567,550,000	\$15,029,852,788	2.57	\$5,808	\$2,259
<b>State of Arizona</b>	<b>\$34,761,140,000</b>	<b>\$11,611,698,000</b>	<b>\$23,149,442,000</b>	<b>2.99</b>	<b>\$6,391</b>	<b>\$2,135</b>
Imperial County	\$740,306,336	\$172,532,000	\$567,774,336	4.29	\$5,081	\$1,184
San Diego County	\$23,164,573,976	\$8,734,937,000	\$14,429,636,976	2.65	\$7,999	\$3,016
Border Counties	\$23,904,880,312	\$8,907,469,000	\$14,997,411,312	2.68	\$7,859	\$2,928
Non-Border Counties	\$182,496,614,688	\$94,543,311,000	\$87,953,303,688	1.93	\$5,713	\$2,959
<b>State of California</b>	<b>\$206,401,495,000</b>	<b>\$103,450,780,000</b>	<b>\$102,950,715,000</b>	<b>2.00</b>	<b>\$5,899</b>	<b>\$2,957</b>
Dona Ana County	\$1,190,388,934	\$223,322,000	\$967,066,934	5.33	\$6,665	\$1,250
Hidalgo County	\$32,821,865	\$2,849,000	\$29,972,865	11.52	\$6,134	\$532
Luna County	\$139,626,337	\$14,177,000	\$125,449,337	9.85	\$5,529	\$561
Border Counties	\$1,362,837,136	\$240,348,000	\$1,122,489,136	5.67	\$6,515	\$1,149
Non-Border Counties	\$16,114,683,864	\$2,886,704,000	\$13,227,979,864	5.58	\$9,791	\$1,754
<b>State of New Mexico</b>	<b>\$17,477,521,000</b>	<b>\$3,127,052,000</b>	<b>\$14,350,469,000</b>	<b>5.59</b>	<b>\$9,421</b>	<b>\$1,686</b>
Brewster County	\$54,485,639	\$22,800,000	\$31,685,639	2.39	\$6,003	\$2,512
Cameron County	\$1,585,252,180	\$327,001,000	\$1,258,251,180	4.85	\$4,490	\$926
Culberson County	\$15,989,771	\$1,674,000	\$14,315,771	9.55	\$5,654	\$592
El Paso County	\$3,856,066,138	\$834,972,000	\$3,021,094,138	4.62	\$5,560	\$1,204
Hidalgo County	\$2,353,227,297	\$522,471,000	\$1,830,756,297	4.50	\$3,840	\$853
Hudspeth County	\$56,909,010	\$1,693,000	\$55,216,010	33.61	\$17,059	\$507
Jeff Davis County	\$20,060,631	\$405,000	\$19,655,631	49.53	\$9,069	\$183
Kinney County	\$27,819,489	\$4,162,000	\$23,657,489	6.68	\$8,151	\$1,219
Maverick County	\$226,972,485	\$24,782,000	\$202,190,485	9.16	\$4,650	\$508
Presidio County	\$50,281,859	\$5,023,000	\$45,258,859	10.01	\$6,699	\$669
Starr County	\$228,346,685	\$39,538,000	\$188,808,685	5.78	\$4,062	\$703
Terrell County	\$10,452,358	\$2,226,000	\$8,226,358	4.70	\$10,237	\$2,180
Val Verde County	\$345,518,885	\$50,798,000	\$294,720,885	6.80	\$7,536	\$1,108
Webb County	\$835,760,613	\$238,424,000	\$597,336,613	3.51	\$4,043	\$1,153
Zapata County	\$53,083,196	\$25,265,000	\$27,818,196	2.10	\$4,171	\$1,985
Border Counties	\$9,720,226,236	\$2,228,295,000	\$7,491,931,236	4.36	\$4,720	\$1,082
Non-Border Counties	\$113,710,937,764	\$51,874,911,000	\$61,836,026,764	2.19	\$5,783	\$2,638
<b>State of Texas</b>	<b>\$123,431,164,000</b>	<b>\$54,103,206,000</b>	<b>\$69,327,958,000</b>	<b>2.28</b>	<b>\$5,682</b>	<b>\$2,491</b>
<b>Border Counties (w/San Diego County)</b>	<b>\$45,151,680,896</b>	<b>\$13,420,260,000</b>	<b>\$31,731,420,896</b>	<b>3.36</b>	<b>\$6,931</b>	<b>\$2,060</b>
<b>Border Counties (w/o San Diego County)</b>	<b>\$21,987,106,920</b>	<b>\$4,685,323,000</b>	<b>\$17,301,783,920</b>	<b>4.69</b>	<b>\$3,375</b>	<b>\$719</b>

Source: U.S. Census; Internal Revenue Service.

## Endnotes for Chapter 14

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1. Brenner, C. T., E. Dalton and D. Soden. 2001. "Fiscal Balance of Payments in El Paso: Fiscal Federalism from 1995-2000." Technical Report 2001-4. Institute for Policy and Economic Development, University of Texas at El Paso.
2. The value for Procurement Contracts represents the value of obligations for contract actions by all federal agencies and departments except for the United States Postal Service. These values do not reflect actual government expenditures but intended obligations. Salaries and Wages represent outlays during the federal government's fiscal year. Amounts for federal government salaries and wages are collected from five departments and agencies: the Department of Defense, the Postal Service, the Federal Bureau of Investigation, the U.S. Coast Guard, and the Office of Personnel Management. Consolidated Federal Funds Reports, Fiscal Year 2003.
3. Values for federal income tax collections and federal funds expenditures are for 2002. Ratios for 2003 were unable to be calculated because the most recent federal tax collection data is from 2002.
4. Brewster County is an anomaly in this case because it is not as densely populated as San Diego and Pima counties.
5. Brenner, et al., 2001.

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