Measuring the Impact of Hispanic Population Growth on the Location of and Demand for Commercial Real Estate in the United States

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Prepared for and Funded by the National Association of Industrial and Office Properties Research Foundation

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May 2008

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Table of Contents

Executive Summary	1
Introduction	2
Demographic Impact	. 3
Population Growth Trends	3
Origins of Hispanic Immigrants	4
The Illegal Population	. 4
Where Hispanics Live	5
Demographic Profile of the Hispanic Population	8
Impact on the Labor Force	9
Buying Power	11
Spending Patterns	12
Economic Impact	14
Hispanics as Workers	14
Hispanics as Consumers	15
Fiscal Benefits and Costs	20
Impact on Commercial Real Estate	22
References	25
Appendix: Industrial and Office Employment and Space	
Associated with Hispanic Spending by State and Metropolitan Area	27



Executive Summary

According to the Census Bureau, Hispanics comprise the country's largest minority group, estimated at 44.3 million persons, or 14.4 percent of the nation's total population in 2006. The number of Hispanics has increased 4.2 percent annually from 1990 to 2006, making Hispanics the nation's fastest growing minority. The recent growth of the nation's Hispanic population has changed the way Americans live from the food they eat to the movies and sports they watch. The American society has encouraged election ballots as well as real estate contracts to be printed in Spanish and has embraced Hispanic music and television programming.

The Hispanic population is concentrated in five states. In 2006, California, Texas, Florida, New York and Illinois accounted for 68 percent of the Hispanic population. California alone had 29.5 percent of all Hispanics. In each of these states, the Hispanic population is growing much more rapidly than the total population. Among major metropolitan areas across the country, seven cities have Hispanic populations of more than 1 million. Los Angeles has the largest Hispanic population with 5.7 million in 2006. It is followed by New York with 3 million and Miami with 2 million. The others are Chicago (1.8 million); Houston (1.8 million); Dallas (1.6 million); and Phoenix (1.2 million).

Recent growth trends suggest that the Hispanic population is spreading rapidly into the southeast and other areas. Among the 20 states with the most rapidly growing Hispanic populations, nine are in the southeast. Arkansas, Georgia and South Carolina recorded the highest growth rates of Hispanic population, with the numbers of Hispanics growing at 8 percent or more annually since 2000.

The rising Hispanic population is growing in economic influence. In 2006, Hispanics controlled about \$798 billion in buying power, defined as total personal income after taxes available for spending. Projections indicate that Hispanic buying power will rise to \$1.04 billion by 2012, growing 4.5 percent annually in real terms.

The spending of Hispanic consumers affects the economy through multiplier effects on total output,

income and employment. Each dollar spent generates additional dollars of output and income through successive rounds of re-spending within the economy. The effects of this re-spending are termed multiplier effects. The multiplier effects of Hispanic spending generate additional employment, income and taxes.

As Hispanic spending rippled through the nation's economy, it generated \$1.25 billion in additional output (or business receipts) in 2006. Hispanic spending fostered the creation of 13.3 million additional jobs and \$463.7 billion in extra labor income. Hispanic spending indirectly was responsible for an additional \$109.5 billion in federal tax revenues and \$84.9 billion extra local and state tax receipts.

The impact of Hispanic spending on the demand for industrial and office space is substantial. In 2006, Hispanic spending is estimated to have generated a total of 588,865 industrial jobs, which in turn are estimated to have fostered a demand for 749 million square feet of industrial space across the country. Likewise, Hispanic spending in 2006 was responsible for a total of 1,151,237 office jobs, which created a demand for 324 million square feet of office space.

The impact of Hispanic spending is greatest in California, Texas and Florida, where it generates the largest number of industrial and office jobs and the greatest volume of industrial and office space. Among metropolitan areas, Hispanic spending fosters the most jobs and the greatest volume of space in Los Angeles, New York and Miami.

In 2012, Hispanic buying power is projected to be \$1.042 trillion in 2006 dollars. This represents a 30.6 percent increase over the level of Hispanic buying power in 2006. If the distribution of consumer spending by Hispanics remains relatively unchanged, increased spending by Hispanics can be expected to expand the demand for industrial space nationwide by 229 million square feet and the demand for office space by 99 million square feet.

Introduction

This paper reports research undertaken for the National Association of Industrial and Office Properties Research Foundation to investigate the impact of Hispanic population growth on the demand for commercial real estate.

The first section of the report examines the *demographic* impact of Hispanic population growth. It explores the pattern of Hispanic population growth and its impacts on the labor market, consumption spending, and other facets of the national economy.

The second section details the *economic* impact of Hispanic population growth. It explores the effects of Hispanic workers on national productivity and output. It sets out the economic impacts of Hispanic spending on business receipts, income, employment and taxes. It reviews and summarizes past studies of the fiscal impact of Hispanic population growth on the budgets federal of state and local governments.

The final section of the report looks at the effects of Hispanic growth and spending on the demand for industrial and office space. It details the impacts of Hispanic spending on the demand for industrial and office space in states and metropolitan areas across the country.

Demographic Impact

The U.S. Census Bureau uses the term *Hispanic* to refer to a person of Mexican, Puerto Rican, Cuban or other Spanish/Hispanic/Latino culture or origin.¹ Hispanic is considered an ethnic category rather than a racial group. The Spanish language is normally the only uniting factor, because Hispanics can be of any race: black, white, Asian, etc.

Population Growth Trends

According to the Census Bureau, Hispanics comprise the country's largest minority group, estimated at 44.3 million persons, or 14.4 percent of the nation's total population in 2006. The number of Hispanics has increased 4.2 percent annually from 1990 to 2006, making Hispanics the nation's fastest growing minority. Recently, the growth of the Hispanic population has slowed somewhat, rising 3.9 percent annually since 2000. By 2012, the Hispanic population is projected to grow to 52 million, or 16.5 percent of the nation's total (see Figure 1).²

From 2000 through 2006, the Hispanic population grew by 9 million persons. Some 5 million of this increase resulted from the surplus of births over deaths, that is, from the natural increase in the population. The rate of natural increase in the Hispanic population during 2000-06 was 2.2 percent annually, or 3.6 times the rate of natural increase for the population as a whole (Table 1). This high rate of natural increase is driven by the high birth rate and relatively low death rate of the Hispanic population. The annual birth rate for Hispanics is 2.5 percent, compared to 1.5 percent for the total population, and the Hispanic death rate is 0.3 percent, compared to 0.9 percent for the population as a whole.

The Pew Center estimates that there are now 10 million "second generation" Hispanics, that is, children born to Hispanic immigrants.³ There are another 11 million "third generation" Hispanics, or children born to native-born Hispanic parents.



FIGURE 1: HISPANIC POPULATION GROWTH

TABLE 1: POPULATION GROWTH RATES, 2000–2006

Growth Rates	Hispanic Population	Total Population
Total Growth Rate	3.9%	1.0%
Birth Rate	2.5%	1.5%
Death Rate	0.3%	0.9%
Rate of Natural Increase	2.2%	0.6%
Net Migration Rate	1.8%	0.4%

Source: U.S. Census Bureau

¹ See, http://www.census.gov/popest/national/asrh/NC-EST2006-asrh.html

² A recent report from the Pew Center projects the Hispanic population will triple in size by 2050 and will account for most of the nation's population growth from 2005 through 2050. Hispanics will make up 29 percent of the U.S. population in 2050. See, Jeffrey S. Passell and D'Vera Cohn, U.S. Population Projections: 2005 - 2050 (Washington, DC: Pew Research Center, February 11, 2008).

³ See, http://pewhispanic.org/files/factsheets/2.pdf

As these children and grandchildren of Hispanic immigrants enter their childbearing years and birth rates among the Hispanic population remain high, the natural rate of increase in the Hispanic population is expected to become an ever more important factor driving Hispanic population growth.

About 4 million of the 9 million increase in the Hispanic population during 2000-06 resulted from net international migration, that is, a surplus of in-migrants over out-migrants. The net international migration rate for the Hispanic population is 1.8 percent, or 4.5 times that of the population as a whole.

The cultural assimilation of Hispanic immigrants takes time. Most immigrants maintain some kind of connection to their native country, according to a recent survey of Hispanic immigrants conducted by the Pew Hispanic Center.⁴ Fifty-one percent regularly send remittances home to relatives, and 41 percent phone home to family and friends at least once a week. The Pew survey finds that these activities tend to decline as time in the United States increases; however, only 38 percent of Hispanic immigrants look on the United States as home, while 49 percent continue to view their country of birth as their "real homeland." Nevertheless, over time, Hispanics appear to be assimilating in the same way that other immigrant groups have done in the past. The Pew Center reports that 94 percent of Hispanic adults who were born of immigrant parents say they are fluent in English.⁵

Origins of Hispanic Immigrants

The Census Bureau estimates that 40 percent of the 43.2 million Hispanics in the country in 2006 were born outside the United States (Table 2).⁶ Of the 17.2 million Hispanics born outside the United States, 10.9 million are from Mexico. Hispanic immigrants born in Central America comprise some 2.4 million persons; those born in South America number 1.8 million; and all other foreign born Hispanic immigrants 2.1 million.

TABLE 2: FOREIGN BORN HISPANIC IMMIGRANTS, 2006

	Total	Percent
All Hispanics	43,168,000	100.00%
Born in the United States	25,933,000	60.07%
Foreign Born	17,235,000	39.93%
Mexican	10,939,000	25.34%
Puerto Rican	23,000	0.05%
Cuban	979,000	2.27%
Central American	2,432,000	5.63%
South American	1,777,000	4.12%
Other	1,085,000	2.51%

Source: U.S. Census Bureau

The Illegal Population

The U.S. Census Bureau does not have data on the size of the illegal Hispanic population because it does not try to determine immigration status when conducting its various surveys. Its "foreign born" category includes both legal and illegal non-citizen immigrants.

A recent study by the Pew Hispanic Center estimates that a large fraction of foreign-born Hispanics are illegal residents.⁷ It estimates that the unauthorized population was 11.5 to 12 million in 2006. Some 66 percent of the unauthorized population have been in the country for 10 years or less, and 40 percent, or 4.4 million people, have been in the country five years or less. Adult males account for 49 percent of the unauthorized total, while 35 percent are adult females. The remaining 16 percent of the unauthorized population are children. In addition, there are an estimated 3.1 million children who are U.S. citizens by birth, living in families in which the head of the family or a spouse is an unauthorized immigrant.

⁴ Roger Waldinger, "Between Here and There: How Attached Are Latino Immigrants to Their Native Country?" (Washington, DC: Pew Hispanic Center, October 25, 2007).

^{5 &}quot;Open Up: Special Report on Migration," The Economist, January 5, 2008, p. 15.

⁶ See, http://www.census.gov/population/www/socdemo/foreign/datatbls.html

⁷ See, http://pewhispanic.org/reports/report.php?ReportID=61

Where Hispanics Live

The Hispanic population is concentrated in just five states (Table 3). In 2006, California, Texas, Florida, New York and Illinois accounted for 68 percent of the Hispanic population. California alone had 29.5 percent of all Hispanics. In each of these states, the Hispanic population is growing much more rapidly than the total population.

Hispanics have grown to represent more than 20 percent of the total population in six states: New Mexico, California, Texas, Arizona, Nevada and Florida (Table 4). New Mexico has the largest fraction of Hispanic residents, with Hispanics there comprising 44 percent of the total.

While the states with the greatest fraction of Hispanics are concentrated in the southwest, recent growth trends suggest that the Hispanic population is spreading rapidly into the southeast and other areas. Among the 20 states with the most rapidly growing Hispanic populations, nine are in the southeast. Arkansas, Georgia and South Carolina recorded the highest growth rates of Hispanic population, with the numbers of Hispanics there growing at 8 percent or more annually since 2000 (Table 5).

TABLE 4:STATES WITH THE LARGEST FRACTION OFHISPANIC RESIDENTS

State	Total Population 2006	Hispanic Population 2006	Hispanic Percent of Total
New Mexico	1,954,599	860,688	44.0%
California	36,457,549	13,074,156	35.9%
Texas	23,507,783	8,385,139	35.7%
Arizona	6,166,318	1,803,378	29.2%
Nevada	2,495,529	610,052	24.4%
Florida	18,089,888	3,646,499	20.2%
Colorado	4,753,377	934,413	19.7%
New York	19,306,183	3,139,456	16.3%
New Jersey	8,724,560	1,364,696	15.6%
Illinois	12,831,970	1,886,933	14.7%
U.S. Total	299,398,484	44,321,038	14.8%

Source: U.S. Census Bureau

State	Total Population 2006	Ave. Ann. Percentage Change 2000-06	Hispanic Population 2006	Ave. Ann. Percentage Change 2000-06	Percentage Share of Hispanic Total, 2006
California	36,457,549	1.2%	13,074,156	3.0%	29.5%
Texas	23,507,783	2.0%	8,385,139	3.9%	18.9%
Florida	18,089,888	2.1%	3,646,499	5.2%	8.2%
New York	19,306,183	0.3%	3,139,456	1.5%	7.1%
Illinois	12,831,970	0.5%	1,886,933	3.6%	4.3%
U.S. Total	299,398,484	1.0%	44,321,038	3.9%	68.0%

TABLE 3: FIVE STATES WITH THE LARGEST HISPANIC POPULATIONS, 2006

Source: U.S. Census Bureau

State	Total Population 2006	Ave. Ann. Percentage Change 2000-06	Hispanic Population 2006	Ave. Ann. Percentage Change 2000-06
Arkansas	2,810,872	0.8%	141,053	8.4%
Georgia	9,363,941	2.3%	703,246	8.3%
South Carolina	4,321,249	1.2%	151,289	8.0%
North Carolina	8,856,505	1.6%	593,896	7.8%
Tennessee	6,038,803	1.0%	194,706	7.8%
Nevada	2,495,529	3.8%	610,052	7.6%
South Dakota	781,919	0.6%	16,773	7.4%
Alabama	4,599,030	0.6%	113,890	7.0%
Maryland	5,615,727	1.0%	337,341	6.8%
New Hampshire	1,314,895	1.0%	29,872	6.5%
Virginia	7,642,884	1.3%	479,530	6.5%
Alaska	670,053	1.1%	37,548	6.4%
Maine	1,321,574	0.6%	13,529	6.3%
Delaware	853,476	1.4%	53,835	6.3%
Kentucky	4,206,074	0.7%	85,938	6.2%
Utah	2,550,063	2.2%	286,113	6.0%
Indiana	6,313,520	0.6%	300,857	5.8%
Arizona	6,166,318	3.1%	1,803,378	5.7%
lowa	2,982,085	0.3%	114,700	5.7%
Missouri	5,842,713	0.7%	164,194	5.6%
U.S. Total	299,398,484	1.0%	44,321,038	3.9%

TABLE 5: 20 STATES WITH THE MOST RAPIDLY GROWING HISPANIC POPULATIONS, 2000–2006

Source: U.S. Census Bureau.

Among major metropolitan areas across the country, seven cities have Hispanic populations of more than 1 million. Los Angeles has the largest Hispanic population with 5.7 million in 2006. It is followed by New York with 3 million and Miami with 2 million. The others are Chicago (1.8 million); Houston (1.8 million); Dallas (1.6 million); and Phoenix (1.2 million).

Table 6 shows the Hispanic populations in the 51 U.S. metropolitan areas where NAIOP chapters exist. These 51 metropolitan areas include most of the major metro areas in the nation. In total, the 51 metro areas shown in Table 6 account for 58 percent of the nation's Hispanic population.

TABLE 6: HISPANIC POPULATIONS IN NAIOP CHAPTER CITIES

MSA Name	State	Total Population 2006	Ave. Ann. Percentage Change 2000-06	Hispanic Population 2006	Ave. Ann. Percentage Change 2000-06
Albuquerque	NM	816,811	1.9%	358,448	2.9%
Atlanta	GA	5,138,223	3.2%	470,239	9.7%
Baltimore	MD	2,027,039	1.1%	61,212	7.2%
Bethesda	MD	1,155,069	1.3%	139,902	4.9%
Birmingham	AL	1,100,019	0.7%	30,923	8.9%
Boston	MA	4,455,217	0.2%	334,597	2.9%
Charlotte	NC	1,583,016	2.9%	126,683	10.9%
Chicago	IL	9,505,748	0.7%	1,828,545	3.4%
Cincinnati	ОН	2,104,218	0.8%	34,100	7.1%
Cleveland	ОН	2,114,155	-0.3%	80,768	1.8%
Columbus	ОН	1,725,570	1.1%	45,762	8.1%
Dallas	ТХ	6,003,967	2.6%	1,589,939	6.0%
Dayton	ОН	838,940	-0.2%	12,622	4.3%
Denver	СО	2,408,750	1.9%	528,351	4.8%
Detroit	MI	4,468,966	0.1%	156,900	3.6%
Greensboro	NC	685,378	1.1%	43,792	8.1%
Greenville	SC	601,986	1.2%	30,874	9.9%
Harrisburg	PA	525,380	0.5%	17,619	4.4%
Honolulu	ні	909,863	0.6%	63,312	1.3%
Houston	ТХ	5,539,949	2.7%	1,823,634	5.1%
Indianapolis	IN	1,666,032	1.5%	72,879	9.8%
Jacksonville	FL	1,277,997	2.2%	67,388	8.0%
Kansas City	MO	1,967,405	1.2%	132,375	5.9%
Las Vegas	NV	1,777,539	4.4%	482,899	8.1%
Los Angeles	CA	12,950,129	0.8%	5,694,422	1.8%
Miami	FL	5,463,857	1.5%	2,093,306	3.5%
Milwaukee	WI	1,509,981	0.1%	119,695	4.0%
Minneapolis	MN	3,175,041	1.1%	141,007	6.1%
Naples	FL	314,649	3.8%	79,352	8.3%
Nashville	TN	1,455,097	1.7%	72,256	9.8%
New York	NY	11,561,625	0.4%	3,034,252	1.2%
Newark	NJ	2,152,757	0.4%	340,004	3.8%
Orlando	FL	1,984,855	3.2%	438,149	8.3%
Pensacola	FL	439,987	1.1%	13,731	3.9%
Philadelphia	PA	3,885,395	0.2%	225,231	3.5%
Phoenix	AZ	4,039,182	3.7%	1,209,591	6.8%
Pittsburgh	PA	2,370,776	-0.4%	22,939	4.7%
Portland	OR	2,137,565	1.7%	208,060	6.5%

MSA Name	State	Total Population 2006	Ave. Ann. Percentage Change 2000-06	Hispanic Population 2006	Ave. Ann. Percentage Change 2000-06
Raleigh	NC	994,551	3.8%	82,603	10.4%
Reno	NV	400,560	2.6%	80,912	6.2%
Rochester	NY	1,035,435	0.0%	50,469	1.3%
Sacramento	CA	2,067,117	2.4%	372,317	5.0%
Salt Lake City	UT	1,067,722	1.6%	158,017	5.7%
San Diego	CA	2,941,454	0.7%	885,504	2.8%
San Francisco	CA	1,698,282	-0.3%	299,339	0.4%
San Jose	CA	1,787,123	0.5%	474,453	1.7%
Seattle	WA	2,496,619	1.1%	174,991	5.9%
St. Louis	MO	2,473,196	0.7%	46,281	5.5%
Tampa	FL	2,697,731	2.0%	371,395	6.9%
Tulsa	ОК	66,313	2.4%	2,425	9.1%
Washington	DC	3,895,583	1.8%	432,660	6.7%
51 Metro Area Total		137,459,819	1.2%	25,657,124	3.7%

Source: U.S. Census Bureau

The Hispanic population is growing most rapidly in cities in the southeast. Eight of the 10 metro areas with the most rapidly growing Hispanic populations were in the southeast during 2000-2006. Charlotte, N.C., had the most rapidly growing Hispanic population, with the number of Hispanics there surging 10.9 percent per year. It was followed by Raleigh, N.C. (10.4 percent); Greenville, S.C. (9.9 percent); Nashville, Tenn. (9.8 percent); and Indianapolis, Ind. (9.8 percent). The slowest rate of Hispanic population growth was registered in San Francisco, Calif., where the number of Hispanics rose just 0.4 percent annually. None of the 51 metro areas shown in Table 6 recorded a decline in the number of Hispanic residents.

Demographic Profile of the Hispanic Population

The demographics of the Hispanic population differ from the population at large. The median age of the Hispanic population is much younger than the total population. In 2006, the median age of the Hispanic population was 27.4 years, compared to a median age of 36.4 years for the nation's population as a whole. In addition, males comprise 51.7 percent of the Hispanic population, but only 49.3 percent of the total national population. The *Consumer Expenditure Survey* conducted annually by the Bureau of Labor Statistics points to further differences between Hispanic household and others (Table 7). Hispanic households are larger, containing an average of 3.4 persons compared to just 2.5 persons for all households. Hispanic households have more children. The average Hispanic household has 1.2 children under 18, while all households average only 0.6. Hispanic households have slightly fewer older persons in their homes. Hispanics average 0.2 persons 65 and older, while there are 0.3 older persons in the average household.

Hispanics households have more persons in the labor force, with an average of 1.6 earners compared to only 1.3 for all households. In November 2007, the employment/population ratio was 65.1 percent for Hispanics, compared to 63.2 percent for the population at large.

Hispanic households are substantially poorer than others. In 2006, the median Hispanic household earned \$38,747 before taxes, while the median for all households was \$48,451 (Figure 2).⁸ Data from the *American Community Survey* shows that Hispanic men in 2006 earned just 65.1 percent as much as other men, with median earnings of \$27,490 compared to the all male median of \$42,210. Hispanic females earned 75.8 percent as much as other females, with median earnings of \$24,738 relative to the all female median of \$32,649.

Many Hispanic households are officially classified as poor. Poverty estimates from the Census Bureau reveal that 20.2 percent of Hispanic households (or some 2.6 million) in 2006 were below the official poverty figure.⁹ This compares to just 12.1 percent of all households. An estimated 927,000 Hispanic households (7.1 percent) had incomes that were below 50 percent of the official poverty figure.

Despite the large numbers who remain poor, the poverty status of Hispanics has been improving. The percentage of Hispanic families living in poverty has fallen from 27.8 percent in 1994 to 18.9 percent in 2006, while the percentage of all families in poverty has declined from 11.6 percent to 9.8 percent over the same period.

Because their income is lower, Hispanic households own fewer cars and are less likely to own their own home. Hispanics average 1.7 motor vehicles compared to 2.0 for the average household. Only 50 percent of Hispanic households are homeowners, while 67 percent of all households own their home.

Impact on the Labor Force

Hispanics account for a substantial portion of the total growth of the nation's labor force. From 2000 through 2007, the number of employed persons rose by almost 11.4 million, or 1.2 percent annually (Table 9). The growth of Hispanic employment accounted for almost 6.1 million of the 11.4 million increase, or 53.5 percent. Hispanic employment has grown 5.1 percent annually since 2000, more than four times more rapidly than the growth of total national employment.

In November 2007, the unemployment rate among Hispanics was 5.6 percent, down 0.1 percentage points from the average rate recorded in 2000. The overall unemployment rate was 4.5 percent, up 0.7 percentage points from 2000.

Relative to other workers, Hispanics are more often employed in services, farming, construction and production and transport (Figure 3). They are less frequently employed in management and sales.

TABLE 7: COMPOSITION OF HISPANIC HOUSEHOLDS AND OTHERS, 2005

Household Characteristic	Hispanic Households	All Households
Number of Persons	3.4	2.5
Children Under 18 Years	1.2	0.6
Persons 65 and Over	0.2	0.3
Number of Earners	1.6	1.3
Number of Motor Vehicles	1.7	2.0
Percent Homeowners	50.0	67.0

Source: Bureau of Labor Statistics, *Consumer Expenditure Survey*, 2005

FIGURE 2: MEDIAN EARNINGS OF HISPANICS AND OTHERS, 2006



Source: U.S. Census Bureau

8 Bureau of the Census, Income, Earnings, and Poverty Data from the 2006 American Community Survey, August 2007.

9 See, http://www.census.gov/hhes/www/poverty/ poverty.html

TABLE 8: HISPANICS IN THE LABOR FORCE, 2000–2007

	2007	2000	Difference	Ave. Ann. % Chg.
Total Adult Population	232,939,000	210,577,000	22,362,000	1.5%
Labor Force	154,035,000	141,025,000	13,010,000	1.3%
Employed	147,118,000	135,731,000	11,387,000	1.2%
Unemployed	6,917,000	5,294,000	1,623,000	3.9%
Unemployment Rate	4.5%	3.8%	0.7%	n.a.
	-	-		
Hispanic Adult Population	31,809,000	22,687,000	9,122,000	4.9%
Labor Force	21,937,000	15,514,000	6,423,000	5.1%
Employed	20,701,000	14,631,000	6,070,000	5.1%
Unemployed	1,236,000	883,000	353,000	4.9%
Unemployment Rate	5.6%	5.7%	-0.1%	n.a.

Note: Figures show totals for November of each year, not seasonally adjusted.

Source: U.S. Department of Labor, Bureau of Labor Statistics, The Employment Situation, various issues.

FIGURE 3: OCCUPATIONS OF HISPANICS AND OTHERS, 2006



Note: Farming is omitted from the occupations shown in the graph. It accounts for 2.7 percent of Hispanic employment, but only 0.7 percent for all workers.

Source: U.S. Census Bureau.

Buying Power

The rising Hispanic population is growing in economic influence. A recent report by the Selig Center reveals that Hispanics controlled about \$798 billion in buying power in 2006.¹⁰ The Selig report defines buying power as the total personal income of residents that is available, after taxes, for spending, excluding dollars that are borrowed or that were saved in previous years.

Figure 4 shows the trend in inflation-adjusted Hispanic buying and real disposable personal income for the nation as a whole. In 2006, the buying power of Hispanic households was 8.3 percent of total disposable income. Since 1990, Hispanic buying power has risen 6.3 percent annually, more than twice as fast as the 2.9 percent increase in real disposable income during the same period. The rate of increase in the buying of Hispanics has slowed modestly since 2000, rising 6.1 percent annually, while total disposable income has gained 2.6 percent yearly.

FIGURE 4: HISPANIC BUYING POWER AND REAL DISPOSABLE PERSONAL INCOME, 1990 – 2006





Sources: Selig Center for Economic Growth, University of Georgia, The Multicultural Economy and the U.S. Department of Commerce, Bureau of Economic Analysis

10 Jeffrey M. Mumphreys, "The Multicultural Economy 2006," Georgia Business and Economic Conditions, vol. 66, no. 3.

Figure 5 shows actual and projected Hispanic buying power in inflation-adjusted dollars from 1990 through 2012. Projected figures reflect the linear trend in actual buying power from 2000 through 2006. The projections indicate that Hispanic buying power will rise to \$1.042 trillion by 2012, growing 4.5 percent annually in real terms.

The growth in Hispanic buying power is being driven by rapid population growth and better employment opportunities. The relatively young Hispanic population, with its high rate of new labor force entrants, is seeing its buying power propelled upward as young Hispanics advance on their various career paths.

Hispanic buying power like Hispanics themselves is highly concentrated. California alone accounts for 27 percent of Hispanic buying power. The five states with the largest Hispanic buying power comprise 67 percent of the total. They are California (\$212.6 billion); Texas (\$142 billion); Florida (\$83.6 billion); New York (\$62.7 billion); and Illinois (\$35.4 billion).

A total of 33.5 percent of Hispanic buying power is concentrated in just five metro areas: Los Angeles (\$92.6 billion); New York (\$61.9 billion); Miami (\$48 billion); Chicago (\$34.3 billion); and Houston (\$30.9 billion). The top 17 metro areas with the largest Hispanic buying power account for 50.7 percent of the total.¹¹

FIGURE 5: HISPANIC BUYING POWER: ACTUAL AND PROJECTED, 1990 – 2012





Sources: Selig Center for Economic Growth, University of Georgia, The Multicultural Economy, projections by the author.

Spending Patterns

Because of differences in per capita income, wealth, demographics and culture, the spending habits of Hispanics as a group are not the same as those of the average U.S. consumer. Hispanics spend in total only about 86 percent as much as the average non-Hispanic consumer (Table 10).

Hispanic households spend a larger percentage on utilities, motor vehicles, groceries, gasoline, clothing and rent. Compared to the non-Hispanic population, Hispanics spend about the same proportion of their total outlays on health and personal care, ground passenger transport, restaurants, sporting goods, books and music.

Hispanics spend substantially smaller proportions of their incomes on home ownership, furniture, insurance, education, health care, amusement, accommodations, religious and civic organizations and miscellaneous retailing.

11 These statistics are tabulated by the author on the basis of data obtained from the Selig Center (2007) and the U.S. Census.

TABLE 9:	AVERAGE EXPENDITURE	S OF HISPANIC HOUSEHO	LDS AND OTHERS, 2005
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NALCO		Hisp	Hispanics		All Households	
Code	Sector	Ave. Exp.	Percent	Ave. Exp.	Percent	Diff.
221	Utilities	\$2,986	8.2%	\$3,207	7.6%	0.6%
236	Construction (owner housing)	\$4,886	13.5%	\$6,085	14.4%	-1.0%
441	Motor Vehicle and Parts Dealers	\$5,348	14.7%	\$5,946	14.1%	0.7%
442	Furniture Stores	\$1,303	3.6%	\$1,822	4.3%	-0.7%
445	Food and Beverage Stores	\$3,630	10.0%	\$3,734	8.8%	1.2%
446	Health and Personal Care Stores	\$501	1.4%	\$546	1.3%	0.1%
447	Gasoline Stations	\$2,171	6.0%	\$1,995	4.7%	1.3%
448	Clothing Stores	\$2,195	6.0%	\$1,850	4.4%	1.7%
451	Sporting, Book, and Music Stores	\$55	0.2%	\$135	0.3%	-0.2%
453	Miscellaneous Store Retailers	\$1,937	5.3%	\$2,608	6.2%	-0.8%
485	Ground Passenger Transport	\$380	1.0%	\$456	1.1%	0.0%
524	Insurance and Related Activities	\$140	0.4%	\$410	1.0%	-0.6%
531	Real Estate & Rental	\$3,876	10.7%	\$2,163	5.1%	5.6%
611	Educational Services	\$558	1.5%	\$986	2.3%	-0.8%
621	Ambulatory Health Care Services	\$1,520	4.2%	\$2,800	6.6%	-2.4%
713	Amusement and Recreation	\$1,494	4.1%	\$2,494	5.9%	-1.8%
721	Accommodation	\$175	0.5%	\$541	1.3%	-0.8%
722	Food and Drinking Places	\$2,207	6.1%	\$2,685	6.4%	-0.3%
813	Religious, Civic, Prof., etc.	\$927	2.6%	\$1,751	4.1%	-1.6%
	Total	\$36,289	100.0%	\$42,214	100.0%	n.a.

Note: NAICS Code classifications inserted by the author. Totals exclude social security and pension contributions. Source: Bureau of Labor Statistics, *Consumer Expenditure Survey*, 2005

Economic Impact

This section assesses the economic impact of Hispanic population growth. The conceptual approach employed here addresses three main issues: 1) the impact of Hispanics as workers; 2) the impact of Hispanics as *consumers*; and 3) the fiscal benefits and costs to the government budget (federal, state, and local). The approach is illustrated in Figure 6.

Hispanics as Workers

Hispanics account for 14.2 percent of the labor force (Table 8), and Hispanic workers filled 53.5 percent of all the new jobs created during 2000-07. Because of the growth of the Hispanic workforce, total output of the nation's economy has been larger. Very simply, more workers enable the economy to produce more output. Hispanic workers make the overall economy larger and more productive. For example, a 2004 study of immigrant workers (mostly Hispanics) in Arizona concluded that the total output of the Arizona economy was \$44 billion (12 percent) larger because of the expanded supply of immigrant (mostly Hispanic) labor.

Hispanic workers not only expand the overall supply of labor in the economy, they also alter the relative prices of skilled and unskilled labor and capital. Non-Hispanics benefit from Hispanic labor because they are not exactly like Hispanics in terms of labor-market skills and training. For example, only 12.4 percent of Hispanics have a college degree and only 0.4 percent have a Ph.D., compared to 28 percent and 1.3 percent of all workers respectively. These differences lead to complementarities in the production process that can benefit non-Hispanics. Assume, for example, that one supervisor is needed for every 50 non-skilled workers. An increase in the number of unskilled workers may lead to a need for more supervisors and thus higher wages for the more skilled supervisory workers. A recent study of immigration by the President's Council of Economic Advisors suggests that non-Hispanics may benefit from the presence of low skilled Hispanic construction laborers because they allow non-Hispanic skilled craftsmen and

Hispanic as Workers Hispanics as Consumers 1) Direct Impacts 2) Indirect Impacts

FIGURE 6: ASSESSING THE ECONOMIC IMPACT OF

HISPANIC POPULATION GROWTH

contractors to build more homes at a lower cost than otherwise without the Hispanic labor.¹²

In general, non-Hispanics benefit from their ownership of capital resources (both physical and human), which are made more productive by the presence of Hispanic workers and by the lower prices of goods and services that are fostered by Hispanic workers. The larger supply of labor resulting from Hispanic population growth means more output for the economy, which is split between Hispanics who receive wages and non-Hispanics who receive wages and larger earnings from their ownership of capital, both physical and human. Non-Hispanics also gain from being able to consume at lower prices a greater variety of goods and services that are produced by industries with high concentrations of Hispanic labor (farming, construction and services).

The benefits that accrue to non-Hispanics from the presence of Hispanic workers can be termed the "Hispanic surplus." While difficult to measure, the prevalence of Hispanic workers in the labor force (14.2 percent of the total) suggests the surplus is a substantial fraction of the nation's GDP. A similar surplus accrues to native workers through the entry of immigrant workers into the labor force. In 2006,

12 Executive Office of the President, Council of Economic Advisors, "Immigration's Economic Impact," June 20, 2007.

immigrant workers accounted for 15 percent of the nation's labor force, and the Council of Economic Advisors estimates that the "immigrant surplus" that accrued to non-immigrants was between \$12 and \$62 billion that year.¹³ Ottaviano and Peri estimate that 90 percent of non-immigrant workers gain from immigration.¹⁴ Their study suggests that immigration since 1990 has raised the wages of non-immigrants by \$30 to \$80 billion per year.

A recent study of immigrant (mostly Hispanic) workers in Oklahoma looked at the economic impact on the state economy of the withdrawal of 50,000 undocumented workers, or about 3 percent of the state's labor force.¹⁵ The study estimated that the impact on the Oklahoma economy of such a loss of workers would be very substantial. In the short run, GDP in the state was estimated to fall -1.3 percent, or about \$1.8 billion. Over the long term, allowing for the in-migration of new workers, the decline was found to be more muted, with the resulting drop in GDP measuring at about -1.0 percent. The study concluded that the long-run impact on the real wages of low-skill workers would be an increase of 1.4 percent, while the real wages of highskill workers would decline -0.8 percent.

The benefits that accrue to the economy from the entry of Hispanics into the labor force are by no means the full extent of the nation's gain resulting from the growth of the Hispanic population. In addition to their impact as workers, Hispanics are an important source of entrepreneurial talent, further enlarging the national economy and making it more productive with their imagination and enterprise. A report by the Kauffman Foundation finds that Hispanics are about equally as likely as Whites to engage in entrepreneurial ventures. In the late 1990s, the report estimates that about 1.1 million Hispanics were attempting to start new businesses, and about 20 out of every 100 Hispanic men with graduate educations had plans to start a new venture.¹⁶

In 2002, the Census reports Hispanics owned 6.8 percent of all firms in the country (Table 10). Hispanicowned firms had \$221.9 billion in sales, 1.5 million employees and a total payroll of \$36.7 billion.

Hispanics as Consumers

This section assesses the economic impact of Hispanic as consumers in the economy. Figure 8 depicts the basic conceptual scheme. The analysis is conducted

TABLE 10: HISPANIC OWNED BUSINESSES, 2002

	No. of Firms	Sales (in \$billions)	Employees	Firm Payrolls (in billions)
Hispanics	1,573,464	\$221.9	1,536,795	\$36.7
Total	22,974,655	\$22,603.7	110,766,605	\$3,812.4
% Hispanic	6.8%	1.0%	1.4%	1.0%

Source: http://www.census.gov/csd/sbo/company2002.htm

FIGURE 7: ASSESSING THE ECONOMIC IMPACT OF HISPANICS AS CONSUMERS



13 Ibid.

- 14 Gianmarco Ottaviano and Giovanni Peri, "Rethinking the E.ects of Immigration on Wages" NBER Working Paper, #12497 (2006).
- 15 Economic Impact Group, A Computable General Equilibrium (CGE) Analysis of the Impact of the Oklahoma Taxpayer and Citizen Protection Act of 2007.
- 16 Kauffman Foundation, *The Entrepreneur Next Door*, http://www.kauffman.org/items.cfm?itemID=317

using the IMPLAN® (IMpact Analysis for PLANing) input-output model that divides the economy into sectors, defined by the good or service produced, where the outputs of one sector are inputs of another. IMPLAN analyzes a computer model that contains 509 sectors of the local economy and reflects the existing structure of the economy using data from the U.S. Department of Labor, Bureau of the Census and the Bureau of Economic Analysis. IMPLAN was originally developed by the U.S. Forest Service and the University of Minnesota and is now available from the Minnesota IMPLAN Group, Incorporated. The IMPLAN model is widely used by economic development specialists to assess the economic impact of new industrial and other development.

The basic inputs into the IMPLAN model are the estimates of Hispanic buying power provided by the survey conducted by the Selig Center (Figure 4) and the pattern of consumer spending by Hispanic households available from the Bureau of Labor Statistics (Table 9). For 2006, the Selig Center estimates that Hispanic buying power was \$798.8 billion. From this, the analysis subtracts the estimated \$68 billion in remittances sent to Latin American countries, mainly from the United States, from immigrants abroad in 2006.¹⁷ The resulting \$730.8 billion in Hispanic buying power estimated to be spent domestically is allocated across sectors in accord with the spending pattern shown in Table 9.

The spending of Hispanic consumers affects the economy through multiplier effects on total output, income and employment. Each dollar spent generates additional dollars of output and income through successive rounds of re-spending within the economy. The effects of this spin-off re-spending are termed multiplier effects. The multiplier effects of Hispanic spending generate additional employment, income and taxes.

Economic impact is measured in terms of 1) the total output (business receipts) of all industries in the nation; 2) total number of new jobs created; 3) the total amount of additional labor income; and 4) total federal, state and local tax revenues.

The economic impact of Hispanic spending is shown in Table 11. As Hispanic spending rippled through the nation's economy, it generated \$1.25 trillion in additional output (or business receipts) in 2006. Hispanic spending fostered the creation

TABLE 11: ECONOMIC IMPACT OF HISPANIC SPENDING, 2006

Total Economic Impact (in \$billons)	\$1,250.3
Spin-off Employment	13,314,000
Spin-off Labor Income (in \$billons)	\$463.7
Spin-off Federal Taxes (in \$billons)	\$109.5
Spin-off State & Local Taxes (in \$billons)	\$84.9

TABLE 12: OUTPUT (BUSINESS RECEIPTS) EFFECTS BYINDUSTRY, 2006

NAICS Code	Industry	Output (Bus. Receipts)
44-45	Retail Trade	\$151,026,843,648
53	Real Estate, Rental & Leasing	\$145,935,171,584
31-33	Manufacturing	\$138,206,920,704
23	Construction	\$106,802,741,248
62	Health Care & Social Assistance	\$80,475,414,528
22	Utilities	\$78,376,189,952
52	Finance & Insurance	\$75,726,176,256
72	Accommodation & Food Services	\$71,529,086,976
92	Public Administration	\$55,302,823,936
54	Professional, Scientific, & Technical Services	\$49,583,263,744
48-49	Transportation & Warehousing	\$44,760,801,280
81	Other Services (except Public Administration)	\$43,746,238,464
71	Arts, Entertainment, & Recreation	\$39,370,018,816
51	Information	\$38,432,452,608
42	Wholesale Trade	\$37,623,365,632
56	Administrative Support, Waste Man. & Remediation Ser.	\$31,217,606,656
61	Educational Services	\$17,984,280,576
55	Management of Companies & Enterprises	\$16,702,689,280
21	Mining, Quarrying, & Oil and Gas Extraction	\$15,170,328,576
11	Agriculture, Forestry, Fishing & Hunting	\$12,319,813,632
	Total	\$1,250,292,228,096

17 International Fund for Agricultural Development, Sending Money Home: Worldwide Remittance Flows to Developing Countries, http://www.ifad.org/events/ remittances/maps/ of 13.3 million additional jobs and \$463.7 billion in extra labor income. Hispanic spending indirectly was responsible for an additional \$109.5 billion in federal tax revenues and \$84.9 billion extra local and state tax receipts.

Table 12 shows the output (or business receipts) effects of Hispanic spending by industry. The greatest impact on industry output was in the retail trade sector, where output was higher by \$151 billion. This was followed by the real estate sector where output was \$146 billion larger and the manufacturing sector where output was \$138 billion higher.

The employment effects of Hispanic spending are show in Table 13. The largest number of jobs was created in the retail trade sector, where employment was higher by 2.69 million. The second highest number of jobs was created in accommodations and food services with 1.72 million, and the third largest was in the health care sector where employment was greater by 1.03 million.

Table 14 details the number of jobs created by Hispanic spending in each of the 50 states and the District of Columbia. The largest employment impact was in California, where Hispanic spending generated 3.5 million jobs. It was followed by Texas, where 2.4 million jobs were created. The lowest number of jobs was generated in Vermont, where spending by Hispanics was responsible for only 2,815 jobs.

Table 15 shows the number of jobs generated in the 51 metro areas associated with NAIOP chapters. In total, Hispanic spending fostered 7.8 million jobs in the 51 metro areas. The largest number of jobs was created in Los Angeles, where Hispanic spending was responsible for 1.5 million jobs. New York was second with more than 1 million jobs generated by the spending of Hispanic residents. The smallest number of jobs was created in Tulsa.

TABLE 13: EMPLOYMENT EFFECTS BY INDUSTRY, 2006

NAICS Code	Industry	Employment
44-45	Retail Trade	2,693,627
72	Accommodation & Food Services	1,721,193
62	Health Care & Social Assistance	1,028,904
23	Construction	980,035
81	Other Services (except Public Administration)	904,212
53	Real Estate, Rental & Leasing	840,140
71	Arts, Entertainment, & Recreation	690,779
56	Administrative Support, Waste Management & Remediation Ser.	628,848
92	Public Administration	609,051
31-33	Manufacturing	556,553
54	Professional, Scientific, & Technical Services	526,801
48-49	Transportation & Warehousing	470,744
52	Finance & Insurance	412,722
61	Educational Services	355,175
42	Wholesale Trade	259,279
11	Agriculture, Forestry, Fishing & Hunting	182,614
51	Information	158,510
22	Utilities	138,561
55	Management of Companies & Enterprises	101,086
21	Mining, Quarrying, & Oil and Gas Extraction	54,679
	Total	13,313,512

TABLE 14: NUMBER OF JOBS CREATED BY STATE, 2006

State	Number of Jobs
Alabama	37,483
Alaska	13,731
Arizona	433,621
Arkansas	35,041
California	3,543,151
Colorado	300,347
Connecticut	128,738
Delaware	17,463
District of Columbia	24,676
Florida	1,393,100
Georgia	205,254
Hawaii	34,611
Idaho	32,531
Illinois	589,423
Indiana	96,087
Iowa	33,204
Kansas	69,728
Kentucky	26,081
Louisiana	55,478
Maine	5,220
Maryland	140,024
Massachusetts	165,761
Michigan	130,463
Minnesota	61,290
Mississippi	17,723
Missouri	54,339

State	Number of Jobs
Montana	6,974
Nebraska	38,554
Nevada	186,852
New Hampshire	11,453
New Jersey	511,892
New Mexico	258,800
New York	1,044,501
North Carolina	161,450
North Dakota	3,774
Ohio	89,047
Oklahoma	69,815
Oregon	93,553
Pennsylvania	158,907
Rhode Island	30,066
South Carolina	44,792
South Dakota	5,527
Tennessee	62,219
Texas	2,367,150
Utah	77,178
Vermont	2,815
Virginia	183,650
Washington	165,123
West Virginia	5,921
Wisconsin	74,705
Wyoming	14,225
U.S. Total	13,313,512

TABLE 15: NUMBER OF JOBS CREATED IN NAIOP CHAPTER CITIES, 2006

FIPS*	MSA Name	State	No. of Jobs	FIPS*	MSA Name	State	No. of <u>Jobs</u>
10740	Albuquerque	NM	107,782	33460	Minneapolis	MN	44,029
12060	Atlanta	GA	137,247	34940	Naples	FL	30,315
12580	Baltimore	MD	25,408	34980	Nashville	TN	23,090
13644	Bethesda	MD	58,071	35644	New York	NY	1,032,534
13820	Birmingham	AL	10,177	35084	Newark	NJ	127,216
71650	Boston	MA	108,955	36740	Orlando	FL	167,389
16740	Charlotte	NC	34,591	37860	Pensacola	FL	5,246
16980	Chicago	IL	571,399	37964	Philadelphia	PA	67,917
17140	Cincinnati	ОН	11,128	38060	Phoenix	AZ	290,845
17460	Cleveland	ОН	26,861	38300	Pittsburgh	PA	6,917
18140	Columbus	ОН	15,219	38900	Portland	OR	52,302
19100	Dallas	ТХ	448,845	39580	Raleigh	NC	22,456
19380	Dayton	ОН	4,198	39900	Reno	NV	24,782
19740	Denver	со	169,827	40380	Rochester	NY	16,791
19820	Detroit	MI	52,048	40900	Sacramento	CA	100,899
24660	Greensboro	NC	11,905	41620	Salt Lake City	UT	42,625
24860	Greenville	SC	9,141	41740	San Diego	CA	239,975
25420	Harrisburg	PA	5,313	41884	San Francisco	CA	81,122
26180	Honolulu	ні	21,987	41940	San Jose	CA	128,579
26420	Houston	ТХ	514,817	FIPS*	MSA Name	State	No. of Jobs
26900	Indianapolis	IN	23,276	42644	Seattle	WA	49,703
27260	Jacksonville	FL	25,745	41180	St. Louis	MO	15,052
28140	Kansas City	МО	41,267	45300	Tampa	FL	141,887
29820	Las Vegas	NV	147,907	46140	Tulsa	ОК	684
31100	Los Angeles	CA	1,543,212	47894	Washington	DC	175,403
33100	Miami	FL	799,722		Total		7,848,371
33340	Milwaukee	WI	34,565				

*Note: Federal information processing standards codes (FIPS codes) are a standardized set of numeric or alphabetic codes issued by the National Institute of Standards and Technology (NIST) to ensure uniform identification of geographic entities through all federal government agencies.

Fiscal Benefits and Costs

Because some 4 million of the 9 million increase in the Hispanic population during 2000-06 resulted from international migration and because a large fraction of Hispanic immigrants entered illegally, the fiscal benefits and costs of Hispanic immigration has become a potent political issue. The issue has generated substantial literature directed at assessing the overall fiscal impact on public sector budgets. This section reviews the literature on the fiscal impact of immigration by Hispanics and other groups.

- Immigrants differ from the native-born population in terms of their age, education and family structure, and in other ways. These differences affect their impact on government budgets and the impacts of their descendants. Immigrants pay taxes to various levels of government and also receive services and benefits. The mix of the taxes they pay and the services they receive depends on their age, education and income, and also on the ages and education of their children.
- A recent study of Hispanics in North Carolina concluded that in 2004 every Hispanic resident imposed a net cost on the local and state budget of \$102 annually.¹⁸ A similar recent study of immigrants in Arizona concluded that immigrant workers generated a net gain to local and state government of \$940 million annually, or about \$1,131 per immigrant.¹⁹
- A 2004 Heritage Foundation study looked at "low-skilled" immigrant workers.²⁰ It defined "low-skilled" as having less than a high school education. In 2004, there were 4.5 million lowskilled households with 15.9 million persons, or about five percent of the nation's population. Forty percent of the households are estimated to be headed by an illegal immigrant. The study concluded that each low-skill immigrant household generates a net fiscal deficit between

the taxes it pays and the cost of the benefits and services it receives. The amount of the combined fiscal deficit at the federal, state and local levels amounted to \$19,588 in 2004.

- Reviewing these and other such snapshot studies, a recent report by the Council of Economic Advisors concludes that the findings of these types of studies are incomplete and potentially misleading because they ignore the full benefits and costs of immigration that arise only over time.²¹ What is necessary is a long-run projection of taxes and government expenditures that captures the long-term fiscal impact of immigrants and their children.
- The National Research Council conducted a landmark study of the fiscal impacts of immigration in 1996, focused on the longterm fiscal impacts of immigration.²² The study estimated that the average immigrant generated a slightly negative net present value of -\$3,000 over his or her lifetime when looking at federal, state and local government budgets combined.

The net fiscal impact of immigrants was found to vary greatly by their level of education. A typical immigrant with less than a high school education created a negative net present value of -\$89,000, while an immigrant with more than a high school education generated a positive net present value of +\$105,000.

When the study included the fiscal impacts of immigrant children, the effects were found to be substantially more positive. The study found that the overall fiscal impact of a typical immigrant was a positive net present value of +\$80,000, projected over the lifetime of the immigrant and his or her children. For immigrants with less than a high school education, the combined net fiscal impact generated by them and their children was estimated at -\$13,000. That of an immigrant with a high school education was +\$51,000, and that of an immigrant with more than high school was +\$198,000.

- 18 John D. Kasarda and James H. Johnson, Jr., *The Economic Impact of the Hispanic Population on the State of North Carolina* (Chapel Hill, NC: Frank Hawkins Kenan Institute of Private Enterprise, 2006).
- 19 Judith Gans, Immigrants in Arizona: Fiscal and Economic Impact (Tucson, AZ: Udall Center for Studies in Public Policy, 2007).
- 20 Robert Rector and Christine Kim, *The Fiscal Cost of Low-Skill Immigrants to the U.S. Taxpayer* (Washington, DC: Heritage Foundation, May 21, 2007.
- 21 Executive Office of the President, Council of Economic Advisors, "Immigration's Economic Impact," June 20, 2007.
- 22 James P. Smith and Barry Edmonston, eds., The New Americans: Economic, Demographic, and Fiscal Effects of Immigration (Washington, DC: National Academy Press, 1977).

The fiscal effects of immigration also were found to be very different depending on the level of government examined. The impact on combined local and state governments was found to be negative, while the effect on the federal budget was positive. For the average immigrant, the net present value was -\$25,000 at the local and state level and +\$105,000 at the federal level.

Other similar studies focused on the long-run effects of immigration have reached similar conclusions.²³ Overall, immigration generates a small, positive fiscal impact. The magnitude of the impact is larger (smaller) for more (less) skilled immigrants. The fiscal impacts become more positive over time for immigrants at all skill levels as their children enter the workforce. Lastly, the fiscal impacts of immigration are negative at the state and local levels and positive at the federal level.

23 Ronald Lee and Timothy Miller, "Immigration, Social Security, and Broader Fiscal Impacts, *American Economic Review*, May 2000, pp. 350-354; and Kjetil Storesletten, "Sustaining Fiscal Policy through Immigration, *Journal of Political Economy*, April 2000, pp. 300-323.

Impact on Commercial Real Estate

Commercial real estate is necessary to provide workspace for those who are employed in the process of production, whether in manufacturing, management, sales or services. The demand for commercial real estate can be thought of as a "derived demand," that is, it is an input into the production process, not a product or service that provides direct utility to consumers. The quantity of commercial real estate demanded is directly dependent on consumer demand for the final product(s), which commercial real estate is used to produce.

Since a principal function of commercial real estate is to provide employee workspace, the relationship between employment and commercial space usage is important. A number of past studies have related the demand for industrial and office real estate to the level of employment.²⁴ In this section, industrial real estate demand is related to employment in the manufacturing and transportation sectors (NAICS codes 31-33 and 493), while office demand is related to employment in 1) information services; 2) financial services; and 3) professional and business services (NAICS codes 518, 525, and 551-561).²⁵

Figure 8 illustrates the relationship between industrial and office space and the corresponding levels of employment in 40 MSAs across the country. Figures for occupied space are taken from the Building Owners and Managers Association (BOMA) database for 2007.²⁶ Employment numbers are from the Bureau of Labor Statistics for 2007. Across the 40 metropolitan areas, the regression equations plotted in Figure 8 show that at the margin each new industrial job is associated with 1,272.2 square feet of industrial space and each new office job is associated with 281.6 square feet of office space. The elasticity of industrial space demand with respect to industrial employment is 0.87 (evaluated at the sample means), which suggests that a one percent increase in employment is associated with a 0.87 percent increase in the demand for industrial space. Likewise, the elasticity of office demand with respect to office employment is 0.88, indicating that a 1 percent increase in employment is associated with a 0.88 increase in the demand for office space.

Hispanic spending generates a total of 13.3 million jobs across all sectors of the economy (Table 14). Among these, a total of 588,865 are industrial jobs (NAICS codes 31-33 and 493). Applying the marginal space/employment ratio for the industrial sector estimated in Figure 8, Hispanic spending is estimated to generate a demand for 749.2 million square feet of industrial space (Table 16) annually.

Hispanic spending likewise is responsible for a total of 1,151,237 office jobs (NAICS codes 518, 525, and 551-561). Again, applying the marginal space/ employment ratio for the office sector estimated

24 Studies of office space often have used a set space-employment ratio to project future office demand. Kimball and Bloomberg (1987) used the ratio of 250 square feet of office space per office worker, which they obtained from the Building Owners and Managers Association (BOMA) annual office market surveys. Similarly, Howland and Wessel (1994) used a ratio of 347 square feet per worker, which they took from an earlier study by Gruen and Gruen (1986). Other studies have constructed more formal econometric models of office market demand and supply which simulate the workings of the office market. For example, Hekman's (1985) model reports that office supply is very responsive to the 10-year growth rate in employment, using data drawn from 14 cities in the early 1980s. Pollakowski, Wachter, and Lynford (1992) estimate an office demand function in which demand increases from 144 to 261 square feet for every office worker employed, based on data drawn from 21 MSAs in the 1980s. Clapp, Pollakowski and Lynford (1992) using data from the Boston market find that the elasticity of occupied space with respect to employment varies between 0.27 and 0.67, thus, a 1-percent change in employment is associated with a 0.27 to 0.67 percent rise in occupied space. Hendershott, Lizieri, and Matysiak (1999) drawing on data from the London market for 1977-96 find that the elasticity of office demand with respect of employment is 0.66. They also report a price elasticity of office demand of -0.18, indicating that a 1-percent increase in rents is associated with a -0.18 percent fall in office demand.

25 On the relationship between office space and employment in specific sectors of the U.S. economy, see studies by DePasquale and Wheaton (1995) and Wheaton (1987).

26 See, Building and Owners and Managers Association, Experience Exchange Report, 2007 (Washington, DC).

in Figure 8, Hispanic spending is estimated to generate a demand for 324.2 million square feet of office space (Table 16) annually.

Tables 17 and 18 show the number of industrial and office jobs and the corresponding volume of space generated in the 10 states and metropolitan areas where Hispanic spending has the greatest impact on industrial and office demand. California, Texas and Florida have the largest number of industrial and office jobs and the largest volume of industrial and office space. Among metropolitan areas, Los Angeles, New York and Miami are the beneficiaries of the most jobs and the greatest volume of space.

In 2012, Hispanic buying power is projected to be \$1.042 trillion in 2006 dollars (see Figure 5). This represents a 30.6 percent increase over the level of Hispanic buying power in 2006. If the distribution of consumer spending by Hispanics remains relatively unchanged, the increased spending by Hispanics can be expected to expand the demand for industrial space nationwide by 229.2 million square feet and the demand for office space by 99.2 million square feet.

TABLE 16: INDUSTRIAL & OFFICE EMPLOYMENT AND SPACE

	Number of Jobs	Space (sq. ft.)
Industrial	588,865	749,153,619
Office	1,151,237	324,188,264

FIGURE 8: SPACE AND EMPLOYMENT

INDUSTRIAL MARKET



OFFICE MARKET



TABLE 17: INDUSTRIAL & OFFICE EMPLOYMENT ANDSPACE BY STATE

	Ind	ustrial	Office		
State	Number of Jobs	Space (sq. ft.)	Number of Jobs	Space (sq. ft.)	
California	156,716	199,373,736	306,381	86,276,865	
Texas	104,700	133,199,945	204,691	57,640,860	
Florida	61,618	78,389,986	120,463	33,922,433	
New York	46,199	58,774,271	90,319	25,433,941	
Illinois	26,071	33,166,914	50,968	14,352,629	
New Jersey	22,641	28,804,254	44,264	12,464,735	
Arizona	19,179	24,399,925	37,496	10,558,808	
Colorado	13,285	16,900,557	25,971	7,313,536	
New Mexico	11,447	14,562,723	22,379	6,301,864	
Georgia	9,078	11,549,665	17,749	4,997,995	
Total	470,934	599,121,976	920,681	259,263,666	

TABLE 18: INDUSTRIAL & OFFICE EMPLOYMENT AND SPACE BY MSA

		Industrial		Off	ice
MSA Name	State	Number of Jobs	Space (sq. ft.)	Number of Jobs	Space (sq. ft.)
Los Angeles	CA	68,257	86,836,825	133,444	37,577,713
New York	NY	45,670	58,100,849	89,285	25,142,525
Miami	FL	35,372	45,000,486	69,153	19,473,482
Chicago	IL	25,273	32,152,694	49,410	13,913,737
Houston	ΤX	22,771	28,968,864	44,517	12,535,968
Dallas	TX	19,853	25,256,563	38,812	10,929,509
Phoenix	AZ	12,864	16,365,914	25,150	7,082,175
San Diego	CA	10,614	13,503,452	20,751	5,843,475
Washington	DC	7,758	9,869,956	15,167	4,271,118
Denver	CO	7,512	9,556,188	14,685	4,135,339
Total		255,944	325,611,790	500,373	140,905,040

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Appendix: Industrial and Office Employment and Space Associated with Hispanic Spending by State and Metropolitan Area

TABLE A.1: INDUSTRIAL AND OFFICE EMPLOYMENT AND SPACE BY STATE

	Industrial		Office	
State	Number of Jobs	Space (sq. ft.)	Number of Jobs	Space (sq. ft.)
Alabama	1,658	2,109,153	3,241	912,714
Alaska	607	772,664	1,187	334,362
Arizona	19,179	24,399,925	37,496	10,558,808
Arkansas	1,550	1,971,748	3,030	853,253
California	156,716	199,373,736	306,381	86,276,865
Colorado	13,285	16,900,557	25,971	7,313,536
Connecticut	5,694	7,244,130	11,132	3,134,820
Delaware	772	982,623	1,510	425,220
District of Columbia	1,091	1,388,544	2,134	600,878
Florida	61,618	78,389,986	120,463	33,922,433
Georgia	9,078	11,549,665	17,749	4,997,995
Hawaii	1,531	1,947,582	2,993	842,795
Idaho	1,439	1,830,550	2,813	792,151
Illinois	26,071	33,166,914	50,968	14,352,629
Indiana	4,250	5,406,835	8,309	2,339,750
lowa	1,469	1,868,422	2,871	808,540
Kansas	3,084	3,923,596	6,029	1,697,894
Kentucky	1,154	1,467,580	2,255	635,080
Louisiana	2,454	3,121,776	4,797	1,350,915
Maine	231	293,706	451	127,098
Maryland	6,193	7,879,160	12,108	3,409,623
Massachusetts	7,332	9,327,403	14,334	4,036,334
Michigan	5,770	7,341,190	11,281	3,176,822
Minnesota	2,711	3,448,820	5,300	1,492,440
Mississippi	784	997,273	1,533	431,559
Missouri	2,403	3,057,663	4,699	1,323,171
Montana	308	392,423	603	169,817
Nebraska	1,705	2,169,417	3,334	938,792
Nevada	8,265	10,514,214	16,157	4,549,914
New Hampshire	507	644,470	990	278,888
New Jersey	22,641	28,804,254	44,264	12,464,735

	Industrial		Office	
State	Number of Jobs	Space (sq. ft.)	Number of Jobs	Space (sq. ft.)
New Mexico	11,447	14,562,723	22,379	6,301,864
New York	46,199	58,774,271	90,319	25,433,941
North Carolina	7,141	9,084,825	13,961	3,931,362
North Dakota	167	212,343	326	91,889
Ohio	3,939	5,010,689	7,700	2,168,322
Oklahoma	3,088	3,928,505	6,037	1,700,019
Oregon	4,138	5,264,250	8,090	2,278,048
Pennsylvania	7,029	8,941,733	13,741	3,869,440
Rhode Island	1,330	1,691,835	2,600	732,124
South Carolina	1,981	2,520,457	3,873	1,090,701
South Dakota	244	311,016	478	134,589
Tennessee	2,752	3,501,093	5,380	1,515,061
Texas	104,700	133,199,945	204,691	57,640,860
Utah	3,414	4,342,827	6,674	1,879,312
Vermont	124	158,389	243	68,541
Virginia	8,123	10,333,992	15,880	4,471,925
Washington	7,303	9,291,501	14,278	4,020,798
West Virginia	262	333,169	512	144,175
Wisconsin	3,304	4,203,638	6,460	1,819,079
Wyoming	629	800,437	1,230	346,381
Total	588,865	749,153,619	1,151,237	324,188,264

TABLE A.2: INDUSTRIAL AND OFFICE EMPLOYMENT AND SPACE BY METROPOLITAN AREA

		Industrial		Office	
MSA Name	State	Number of Jobs	Space (sq. ft.)	Number of Jobs	Space (sq. ft.)
Albuquerque	NM	4,767	6,064,891	9,320	2,624,517
Atlanta	GA	6,071	7,722,906	11,868	3,342,005
Baltimore	MD	1,124	1,429,708	2,197	618,691
Bethesda	MD	2,568	3,267,644	5,021	1,414,038
Birmingham	AL	450	572,670	880	247,817
Boston	MA	4,819	6,130,931	9,422	2,653,095
Charlotte	NC	1,530	1,946,445	2,991	842,303
Chicago	IL	25,273	32,152,694	49,410	13,913,737
Cincinnati	ОН	492	626,165	962	270,966
Cleveland	OH	1,188	1,511,497	2,323	654,084
Columbus	ОН	673	856,393	1,316	370,595
Dallas	TX	19,853	25,256,563	38,812	10,929,509
Dayton	OH	186	236,209	363	102,217
Denver	CO	7,512	9,556,188	14,685	4,135,339
Detroit	MI	2,302	2,928,778	4,501	1,267,397
Greensboro	NC	527	669,886	1,029	289,886
Greenville	SC	404	514,357	790	222,583
Harrisburg	PA	235	298,959	459	129,371
Honolulu	HI	973	1,237,223	1,901	535,395
Houston	ТΧ	22,771	28,968,864	44,517	12,535,968
Indianapolis	IN	1,030	1,309,741	2,013	566,776
Jacksonville	FL	1,139	1,448,662	2,226	626,893
Kansas City	MO	1,825	2,322,126	3,568	1,004,875
Las Vegas	NV	6,542	8,322,739	12,790	3,601,577
Los Angeles	CA	68,257	86,836,825	133,444	37,577,713
Miami	FL	35,372	45,000,486	69,153	19,473,482
Milwaukee	WI	1,529	1,944,964	2,989	841,662
Minneapolis	MN	1,947	2,477,495	3,807	1,072,110
Naples	FL	1,341	1,705,856	2,621	738,191
Nashville	TN	1,021	1,299,266	1,997	562,244
New York	NY	45,670	58,100,849	89,285	25,142,525
Newark	NJ	5,627	7,158,469	11,001	3,097,751
Orlando	FL	7,404	9,419,033	14,474	4,075,986
Pensacola	FL	232	295,180	454	127,736
Philadelphia	PA	3,004	3,821,722	5,873	1,653,809
Phoenix	AZ	12,864	16,365,914	25,150	7,082,175
Pittsburgh	PA	306	389,229	598	168,435

		Industrial		Office	
MSA Name	State	Number of Jobs	Space (sq. ft.)	Number of Jobs	Space (sq. ft.)
Portland	OR	2,313	2,943,044	4,523	1,273,571
Raleigh	NC	993	1,263,578	1,942	546,800
Reno	NV	1,096	1,394,514	2,143	603,461
Rochester	NY	743	944,838	1,452	408,869
Sacramento	CA	4,463	5,677,631	8,725	2,456,934
Salt Lake City	UT	1,885	2,398,495	3,686	1,037,923
San Diego	CA	10,614	13,503,452	20,751	5,843,475
San Francisco	CA	3,588	4,564,756	7,015	1,975,350
San Jose	CA	5,687	7,235,149	11,118	3,130,934
Seattle	WA	2,198	2,796,783	4,298	1,210,278
St. Louis	MO	666	846,961	1,302	366,513
Tampa	FL	6,276	7,984,000	12,269	3,454,991
Tulsa	ОК	30	38,499	59	16,660
Washington	DC	7,758	9,869,956	15,167	4,271,118
Total		347,138	441,629,180	678,659	191,110,332

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