

THE STATE OF FLORIDA'S

# Housing 2003

## **REVISED FEBRUARY 2004**

### Douglas White,

Florida Housing Data Clearinghouse, Shimberg Center, University of Florida

**Janet Galvez**, Shimberg Center, University of Florida

### Dean Gatzlaff,

Real Estate Center, Florida State University

### Jim Martinez,

Florida Housing Data Clearinghouse, Shimberg Center, University of Florida



Margaret Murray, Department of Urban and Regional Planning, Florida Atlantic University

## Diep Nguyen,

Florida Housing Data Clearinghouse, Shimberg Center, University of Florida

### William O'Dell,

Florida Housing Data Clearinghouse, Shimberg Center, University of Florida

**Marc T. Smith**, Shimberg Center, University of Florida



Major funding for this report provided by the State of Florida.

Florida Housing Data Clearinghouse Shimberg Center for Affordable Housing, M. E. Rinker, Sr. School of Building Construction, College of Design, Construction & Planning University of Florida www.shimberg.ufl.edu

This publication, as well as an Appendix containing estimates of housing supply and the affordability index for each of Florida's sixty-seven counties, are available on the Internet at www.flhousingdata.shimberg.ufl.edu.

The Appendix also may be purchased from the Shimberg Center for \$15.00 to cover reproduction and mailing costs.

### **Douglas White**

Florida Housing Data Clearinghouse Shimberg Center University of Florida

### Janet Galvez

Shimberg Center University of Florida

### Dean Gatzlaff

Real Estate Center Florida State University

### Jim Martinez

Florida Housing Data Clearinghouse Shimberg Center University of Florida

## Margaret Murray

Department of Urban and Regional Planning Florida Atlantic University

## Diep Nguyen

Florida Housing Data Clearinghouse Shimberg Center University of Florida

### William O'Dell

Florida Housing Data Clearinghouse Shimberg Center University of Florida

### Marc T. Smith

Shimberg Center University of Florida

Florida Housing Data Clearinghouse, Shimberg Center for Affordable Housing, M. E. Rinker, Sr. School of Building Construction, College of Design, Construction and Planning, University of Florida, www.shimberg.ufl.edu/

Major funding for this report provided by the State of Florida

## Acknowledgement

One of the primary objectives of the Florida Housing Data Clearinghouse is to provide state and local policy makers and program planners with a centralized source for estimates of current housing supply. The Shimberg Center for Affordable Housing wishes to acknowledge the continued support of the Florida Housing Finance Corporation for the preparation of this report titled *The State of Florida's Housing, 2003.* We also acknowledge the valuable input provided by the members of the Clearinghouse Technical Advisory Committee. This group of dedicated technical advisors represents a broad range of interests in Florida's housing supply.

The databases and reports produced by the Florida Housing Data

Clearinghouse are publicly accessible on the Internet at www.shimberg.ufl.edu.

At the home page of the web site, select "Fla. Housing Data" to access all available materials including county-specific data. We welcome comments to make the report more valuable.

Robert C. Stroh, Jr., Ph. D. Director, Shimberg Center

## Contents

1.0 Introduction	3
2.0 Population Change: Race/Ethnicity and Housing	4
2.1 Introduction	4
2.2 Population	5
2.3 Headship and Homeownership	5
2.4 Race/Ethnic Differences in Housing	11
2.5 Local Responses: Broward County	
2.6 Local Responses: Orlando MSA	
2.7 Conclusion	
Appendix 2.1 Using State and Local Area Census Data	22
Appendix 2.2 Understanding Current Conditions	23
Appendix 2.3 Examining Change	25
3.0 Florida's Housing Supply	27
3.1 Data Description	27
3.2 Single-family Housing	29
3.3 Condominiums	42
3.4 Multifamily Housing	52
3.5 Impact of Housing on the Florida Economy	53
3.6 Summary	53
4.0 Housing Prices and Affordability	54
4.1 Introduction	54
4.2 Housing Affordability Index	54
4.3 Cost Burden	59
5.0 Florida House Price Trends: Market Comparisons and Forecasts	61
5.1 Introduction	61
5.2 Statewide Measures of Single-Family House Prices in Florida	61
5.3 District-Level Measures of Single-Family House Price Appreciation in Florida	64
5.4 MSA-Level Measures of Single-Family House Price Appreciation in Florida	65
5.5 County-Level Measures of House Price Appreciation in Florida	68
5.6 Forecasts of State- and MSA-Level House Price Changes	68
6.0 Conclusion	80
Tables	
2.1 Percentage Change in Total Population and Immigrant Population by County	6-9
2.2 Broward County: Housing and Population	
2.3 Pembrooke Pines Racial/Ethnic Housing Profile	
2.4 Pembrooke Pines: Selected Housing Data	
2.5 Orange County: Selected Housing Characteristics	
2.6 Orlando: Selected Current Housing Characteristics	
2.7 Orlando: Selected Current Population Characteristics	
2.8 Orlando: Racial/Ethnic Housing Profile	
2.9 Selected Current Population Characteristics by Race/Ethnicity	
opinion of the control of the co	

2.10 Selected Current Housing Characteristics	
· ·	
2.11 Mirmar, Census Tract 1105: Changes in Housing	
2.12 Mirmar, Census Tract 1105: Population Change by Race/Ethnicity	
3.1 Single-family Housing Stock	
3.2 Condominium Housing Stock	
3.3 Multifamily Housing Stock with Two to Nine Units in Complex	
3.4 Multifamily Housing Stock with Ten or more Units in Complex	
4.1 Affordability Index	
4.2 Affordability Index Ranking 1999	
4.3 Cost Burden	
5.1 Summary of Florida House Price Appreciation,	
5.2 Average Annual Percentage Appreciation and Period Rankings by District	
5.3 Annual House Price Indices for Florida Districts	
5.4 Annual House Price Appreciation (%) for Florida Districts	
5.5 Correlation of Annual Appreciation Rates between Districts	
5.6 Average Annual Percentage Appreciation and Period Rankings By MSA	69
5.7 Annual House Price Indices for Florida Metropolitan Statistical Areas	70-71
5.8 Annual House Price Appreciation (%) for Florida Metropolitan Statistical Areas .	72-73
5.9 Correlation of Annual Appreciation Rates between MSAs	72-73
5.10 Average Annual Percentage Appreciation and Period Rankings By County	75
5.11 Annual House Price Appreciation (%) for Selected Counties	76-77
5.12 Explaining Past Changes in Real Single-Family House Prices	76-77
5.13 Average Annual Percentage Appreciation and Period Rankings By MSA	
5.14 District, MSA and Counties listed by District Location	
Figures Figure 2.1 Percentage of Population that is Foreign Born in 2000	
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000 Figure 2.3 Contribution of New Foreign Born to Population Growth 1990 to 2000	10
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000 Figure 2.3 Contribution of New Foreign Born to Population Growth 1990 to 2000 Figure 2.4 Florida Headship Rate by Race/Ethnicity and Age	10 11
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14 15
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14 15
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 14 15 16
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 15 16 19
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 13 14 14 15 16 19
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 15 16 19 30 31
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 15 16 19 20 30 31 42
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 15 16 19 20 30 31 42 43
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 15 16 19 20 30 31 42 43
Figure 2.2 Percentage Change in Foreign Born Population 1990 to 2000	10 11 12 14 14 15 16 19 30 31 42 62 63

## 1. Introduction

This study is a compendium of facts on Florida's housing. The data highlight the tremendous diversity in housing characteristics across the state, particularly between the 35 urban counties and the 32 rural counties, as well as between coastal and non-coastal counties. The characteristics of Florida's housing reflect the characteristics of the state's population. The population of the state is growing, creating a demand for additional housing, yet that growth is not distributed uniformly across the state. Growth is most often a coastal phenomenon. Further, the nature of the growth differs across the state as characterized by age, income, race, ethnicity, and county of origin. The following report is divided into four sections that examine the effect of immigration on the housing stock, Florida's housing stock, the affordability of the housing stock, and price trends and forecasts for Florida's housing stock.

Over the last ten years, Florida has had a large influx in immigration with many of those immigrants entering the country between 1990 and 2000. These recently arriving immigrants have made up a large part of population growth in many of the counties, with all but one county, Jackson, experiencing an increase in the number of foreign born residents. In seven of Florida's counties, these new arrivals made up over thirty-five percent of the counties population growth over the last decade. Section 2 of the report examines how local housing markets have changed to adjust to this new market.

Property appraiser data files are used to examine Florida's housing stock in Section 3. First the housing stock is separated into three broad categories, single-family housing, condominiums, and multi-family housing, which is further separated into complexes with two to nine units and complexes with

ten or more units. This separation highlights the difference between the rural, urban, and coastal counties. Single-family housing units dominate, but condominiums are an important source of housing in some coastal counties and manufactured housing play a key role in rural counties in the interior of the state. Other broad trends are discussed in this section including the total number of units, the median age of units, and the median sales price of units in each county. The coastal and large urban counties tend to have the largest number of units and the highest median sales prices when compared to the rest of the state.

The issue of housing affordability is examined in Section 4. The most affordable housing is generally located in rural counties in the interior and northern part of the state. In general, the least affordable counties are either coastal counties or located in major metropolitan areas. Besides examining the individual counties, Section 4 examines affordability at the state level and finds that after years of increasing affordability, housing became less affordable in Florida over the last year. This decline in affordability is likely due to the fact that housing prices have continued to appreciate rapidly in the state while personal income has experienced little growth over the last two years.

The movement in house prices and the rate of appreciation in housing is discussed in Section 5. Florida is currently experiencing the highest five-year real rate of increase in housing prices that it has ever seen. House prices have increased by almost 4.0 percent per year over and above the general rate of inflation the last five years. Housing prices are predicted to continue rising with the southern portion of the state and the six largest metropolitan areas



experiencing higher than average increases, and lower than average price increases forecast in the northwest part of the state.

This report first discusses immigrations effect on the state's housing stock. Second, it details characteristics of the housing stock in the state. Third, it discusses issues in the affordability of housing in the state. Finally, it discusses the movement in house prices and the rate of appreciation in housing. The expectation is that the information included in this study will help readers to understand the diversity, the needs, the public policy concerns, and the opportunities of Florida's many housing markets.

## 2. Population Change: Race/Ethnicity and Housing

Margaret Murray, Department of Urban and Regional Planning, Florida Atlantic University

## 2.1 Introduction

The state of Florida is a mosaic of racial and ethnic groups making a place for themselves and their families. While many areas of the state are rural and the population predominately white, the urban areas are home to an increasingly diverse population. In 1990 minorities constituted 26.8 percent of the state's population and in 2000 34.6 percent. This chapter examines minority residential patterns in Florida and evaluates how those patterns have changed over time. Also presented is a brief discussion of the availability and use of the US Census of Population and Housing data for 1990 and 2000.

During the 38 years since the 1965 passage of amendments to the 1952 Immigration and Nationality Act, the number of foreign born in the United States has increased substantially. In contrast to earlier policies, this amendment identified family reunification as the main preference category for entry. This preference continues today, although legislation passed in 2001 also gives additional preference to certain workers with technical skills needed in US industries. Our discussion uses data primarily from the 2000 Census; the term foreign born used in this report has the same meaning as the census definition which is found in the footnote below.1 The term "new foreign born" used in this report means that portion of the foreign born population who entered the U.S. from 1990 to 2000.

Florida is one of the high immigration states. However, South Florida is no longer the only focal point of Florida's racially and ethnically diverse neighborhoods. Data collected in the 2000 Census illustrates how the population of Florida is changing everywhere from the Panhandle to the Keys.

As illustrated in Table 2.1 and Figures 2.1, 2.2 and 2.3, all but one of Florida's counties, Jackson, saw an increase in the total number of foreign born and all counties saw an increase in foreign born entering the U.S. in the last ten years. While Miami-Dade County saw the largest increase in absolute numbers of foreign born (over 273,000 people), several counties, mostly small or rural, saw increases over 200 percent. Large percentage increases weren't restricted to small counties, however. There were increases in the number of foreign born of over 150 percent in Orange and Collier and over 200 percent in Osceola.

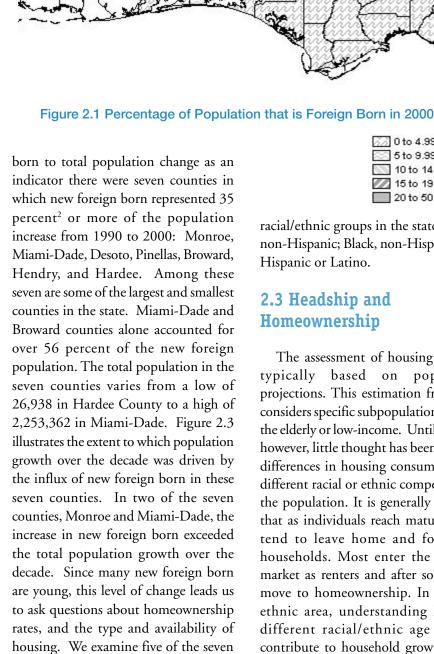
<sup>&</sup>lt;sup>1</sup> The foreign-born population includes all people who were not U.S. citizens at birth. Foreign-born people are those who indicated they were either a U.S. citizen by naturalization or they were not a citizen of the United States. Census 2000 does not ask about immigration status. The population surveyed includes all people who indicated that the United States was their usual place of residence on the census date. The foreign-born population includes: immigrants (legal permanent residents), temporary migrants (e.g., students), humanitarian migrants (e.g., refugees), and unauthorized migrants (people illegally residing in the United States).

## 2.2 Population

The level of immigration during the 1990s particularly impacted several counties in the state - those in which new foreign born were a substantial portion of the total population increase over the decade. Using the ratio of new foreign

Hendry and Hardee - in more detail later in this report.

Because the structure of the currently released census data does not permit us to focus on just the immigrant population, the remainder of this chapter will consider the similarities and differences between the three largest



counties, two large - Broward and

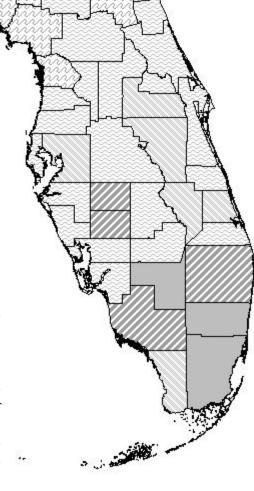
Miami-Dade - and three small - DeSoto,



racial/ethnic groups in the state, White, non-Hispanic; Black, non-Hispanic; and Hispanic or Latino.

## 2.3 Headship and Homeownership

The assessment of housing needs is typically based on population projections. This estimation frequently considers specific subpopulations such as the elderly or low-income. Until recently, however, little thought has been given to differences in housing consumption by different racial or ethnic components of the population. It is generally accepted that as individuals reach maturity they tend to leave home and form new households. Most enter the housing market as renters and after some years move to homeownership. In a multiethnic area, understanding how the different racial/ethnic age cohorts contribute to household growth is key to predicting both renter and owner household growth.



<sup>&</sup>lt;sup>2</sup> The state average is 34 percent and these are the counties at the 90th percentile and above.

Table 2.1 Chanç	ge in Population			
	Numerical Change in Total Population 1990-2000	Percent Change in Total Population 1990-2000	Numerical Change, Total Foreign Born 1990-2000	% Change in Total Foreign Born 1990-2000
COUNTY				
Alachua County	36359	20.0%	5216	48.8%
Baker County	3773	20.4%	109	77.3%
Bay County	21223	16.7%	1060	24.5%
Bradford County	3573	15.9%	234	104.0%
Brevard County	77252	19.4%	10039	47.9%
Broward County	367530	29.3%	212113	107.0%
Calhoun County	2006	18.2%	194	210.9%
Charlotte County	30652	27.6%	4274	60.9%
Citrus County	24570	26.3%	1162	25.4%
Clay County	34828	32.9%	3040	91.7%
Collier County	99278	65.3%	30168	189.7%
Columbia County	13900	32.6%	611	86.7%
DeSoto County	8344	35.0%	4720	358.4%
Dixie County	3242	30.6%	194	220.5%
Duval County	105908	15.7%	22341	95.8%
Escambia County	31612	12.0%	3795	54.0%
Flagler County	21131	73.6%	2582	108.7%
Franklin County	2090	23.3%	49	30.4%
Gadsden County	3982	9.7%	1347	268.9%
Gilchrist County	4770	49.3%	128	104.1%
Glades County	2985	39.3%	494	143.2%
Gulf County	1828	15.9%	129	88.4%
Hamilton County	2397	21.9%	120	66.7%
Hardee County	7439	38.2%	3475	283.2%
Hendry County	10437	40.5%	4929	130.7%
Hernando County	29687	29.4%	1362	24.4%
Highlands County	18934	27.7%	4778	152.5%
Hillsborough County	164894	19.8%	51798	81.8%
Holmes County	2786	17.7%	94	41.6%
Indian River County	22739	25.2%	3629	65.7%
Jackson County	5380	13.0%	-218	-23.6%
Jefferson County	1606	14.2%	45	39.5%
Lafayette County	1444	25.9%	240	106.2%
Lake County	58424	38.4%	5525	104.3%

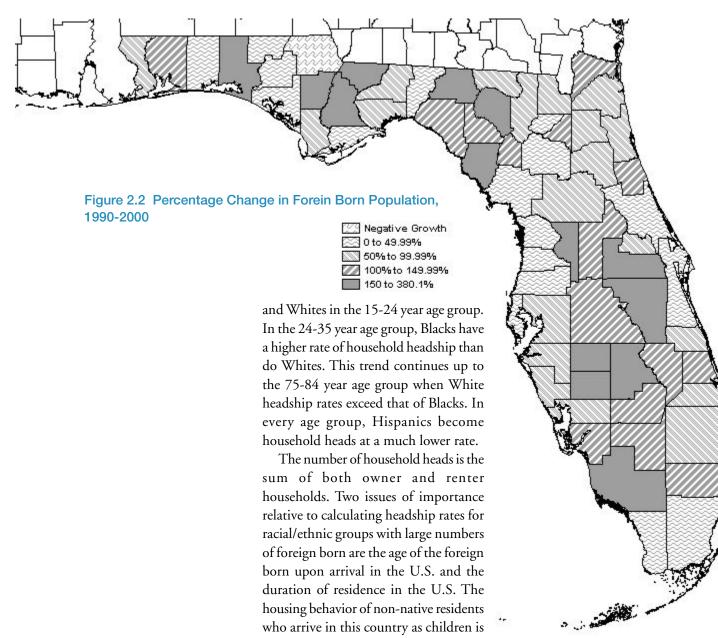
Foreign Born as a % of Total Population 2000	Foreign Born % of Total Population 1990	"New" Foreign Born (entered U.S. 1990- March 2000)	New Foreign Born as a % of Population Change 1990-2000
7.3%	5.9%	8150	22.4%
1.1%	0.8%	83	2.2%
3.6%	3.4%	1538	7.2%
1.8%	1.0%	86	2.4%
6.5%	5.3%	8081	10.5%
25.3%	15.8%	167860	45.7%
2.2%	0.8%	81	4.0%
8.0%	6.3%	2277	7.4%
4.9%	4.9%	980	4.0%
4.5%	3.1%	1815	5.2%
18.3%	10.5%	23877	24.1%
2.3%	1.7%	405	2.9%
18.7%	5.5%	4005	48.0%
2.0%	0.8%	72	2.2%
5.9%	3.5%	19605	18.5%
3.7%	2.7%	3583	11.3%
9.9%	8.3%	963	4.6%
1.9%	1.8%	51	2.4%
4.1%	1.2%	757	19.0%
1.7%	1.3%	101	2.1%
7.9%	4.5%	233	7.8%
2.1%	1.3%	92	5.0%
2.3%	1.6%	177	7.4%
17.5%	6.3%	2589	34.8%
24.0%	14.6%	4332	41.5%
5.3%	5.5%	1175	4.0%
9.1%	4.6%	3495	18.5%
11.5%	7.6%	49054	29.7%
1.7%	1.4%	70	2.5%
8.1%	6.1%	3199	14.1%
1.5%	2.2%	146	2.7%
1.2%	1.0%	4	0.2%
6.6%	4.1%	319	22.1%
5.1%	3.5%	3914	6.7%

	Numerical Change in Total Population 1990-2000	Percent Change in Total Population 1990-2000	Numerical Change, Total Foreign Born 1990-2000	% Chang in Tot Foreign Bo 1990-20
COUNTY				
Lee County	105775	31.6%	22912	131.3
Leon County	46959	24.4%	4306	61.2
Levy County	8527	32.9%	288	47.5
Liberty County	1452	26.1%	91	165.5
Madison County	2164	13.1%	279	300.0
Manatee County	52295	24.7%	10856	95.4
Marion County	64083	32.9%	6367	91.2
Martin County	25831	25.6%	3443	50.1
Miami-Dade County	316268	16.3%	273196	31.2
Monroe County	1565	2.0%	3850	48.8
Nassau County	13722	31.2%	831	117.0
Okaloosa County	26722	18.6%	2799	45.3
Okeechobee County	6283	21.2%	2257	120.4
Orange County	218853	32.3%	77849	152.5
Osceola County	64765	60.1%	16453	214.9
Palm Beach County	267666	31.0%	91549	86.9
Pasco County	63634	22.6%	7471	44.8
Pinellas County	69823	8.2%	27273	45.1
Polk County	78542	19.4%	19113	132.7
Putnam County	5353	8.2%	956	67.6
St. Johns County	39306	46.9%	2980	97.4
St. Lucie County	42524	28.3%	10647	111.9
Santa Rosa County	36135	44.3%	1781	100.7
Sarasota County	48181	17.3%	13761	82.6
Seminole County	77667	27.0%	15250	84.6
Sumter County	21768	68.9%	2326	380.1
Suwannee County	8064	30.1%	1218	294.9
Taylor County	2145	12.5%	160	100.6
Union County	3190	31.1%	36	14.5
Volusia County	72631	19.6%	7013	32.9
Wakulla County	8661	61.0%	162	94.2
Walton County	12841	46.3%	856	187.7
Washington County	4054	24.0%	122	30.7
State Total	3,044,452	23.5%	1,008,227	60.6

Foreign Born as a % of Total Population 2000	Foreign Born % of Total Population 1990	"New" Foreign Born (entered U.S. 1990- March 2000)	New Foreign Born as a % of Population Change 1990-2000
9.2%	5.2%	17858	16.9%
4.7%	3.7%	5095	10.8%
2.6%	2.3%	277	3.2%
2.1%	1.0%	87	6.0%
2.0%	0.6%	188	8.7%
8.4%	5.4%	9803	18.7%
5.2%	3.6%	3318	5.2%
8.1%	6.8%	3673	14.2%
50.9%	45.1%	416059	131.6%
14.7%	10.1%	4869	311.1%
2.7%	1.6%	573	4.2%
5.3%	4.3%	2291	8.6%
11.5%	6.3%	2048	32.6%
14.4%	7.5%	59033	27.0%
14.0%	7.1%	11057	17.1%
17.4%	12.2%	81788	30.6%
7.0%	5.9%	6902	10.8%
9.5%	7.1%	32841	47.0%
6.9%	3.6%	14505	18.5%
3.4%	2.2%	881	16.5%
4.9%	3.6%	1395	3.5%
10.5%	6.3%	7333	17.2%
3.0%	2.2%	1033	2.9%
9.3%	6.0%	11219	23.3%
9.1%	6.3%	12005	15.5%
5.5%	1.9%	828	3.8%
4.7%	1.5%	1036	12.8%
1.7%	0.9%	68	3.2%
2.1%	2.4%	89	2.8%
6.4%	5.8%	8492	11.7%
1.5%	1.2%	75	0.9%
3.2%	1.6%	429	3.3%
2.5%	2.4%	132	3.3%
16.7%	12.9%	1,030,449	33.8%

The formation of independent households by minorities is commonly thought to take place at a later age than it does for whites. There are a number of reasons for this. These include both the cultural traditions of specific ethnic groups and the economic realities associated with education and employment opportunities. However, at least at the State level in age groups from 25 through 74, Blacks form independent households at a slightly higher rate than do Whites or Hispanics. As seen in Figure 2.4, the rate of household formation is about identical for Blacks

behavior of foreign born who arrive in this country as adults. Unfortunately, these data are not readily available from the Census.



more likely to mirror that of persons born in the U.S. than is the housing



## in Housing

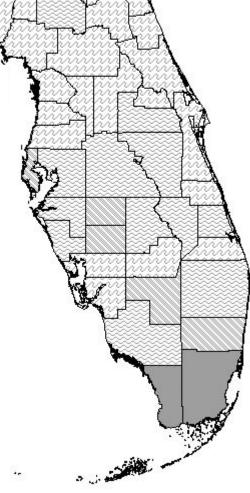
The continuing influx of new residents to the state has increased the demand for housing. This demand is being met to a large degree by Florida's very active home construction industry. There are now over 7.3 million housing units in the state. This is 1,657,350 more than there were in 1990. Over 65 percent of these new housing units are owner occupied. However, homeownership may be difficult for many of Florida's new foreign born because of lack of knowledge about the housing market, income, credit issues and an inability to speak English fluently.

There are a number of differences between the housing choices of Whites, Blacks, and Hispanics. Although we can examine the results of housing choices, we can only speculate on the reasons behind those choices and the extent to which local housing markets accommodate various racial/ethnic groups and income levels. A major housing choice consideration for most households is structure type. State level data indicates that over 54 percent of Blacks and 58 percent of Whites occupy single-family detached units. However, only 46 percent of the Hispanics do so. The median value of owner occupied

Whites, \$78,400 for Blacks and \$113,000 for Hispanics. Using a standard of crowding that identifies units as crowded when occupancy rises above one person per room, we find 15 percent of Black-occupied units, 23 percent of Hispanic-occupied units, and 2 percent of White-occupied classified as overcrowded. Evidence suggests that for some racial/ethnic groups the one person per room standard may be too stringent as larger households are the norm.

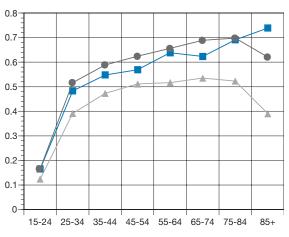
The transition from rental housing to homeownership is triggered by a number of different life events such as marriage, the birth of a child, or an increase in income. However sizable differences exist between various racial/ethnic groups relative to the attainment of homeownership. To calculate just the ownership rate, we divide the number of household heads who are owners in each age category by the total number of individuals in that age category. The ownership rate will always be lower than the total headship rate because some of the household heads are renters.

Using state level data, Figure 2.5 illustrates the ownership rate by race/ ethnicity. In every age group the homeowner-ship rate for White exceeds that of Black or Hispanic. In the 24-35 year age group and in the 35-44 year age









WhiteBlackHispanic

Black and Hispanic group, homeownership rates are relatively close together. Beyond that the ownership rates for Hispanic is significantly lower than for either White or Black. Estimates of future population growth at each age level combined with estimates of headship or ownership rates for each specific age group and racial/ ethnic category produces an approximation of housing needs for both rental and owner occupied housing. The housing needs number can then be compared with the existing housing stock and anticipated future construction of both rental and owner occupied dwellings.

Figures 2.5A, 2.5B, and 2.5C

illustrates the homeownership rate for different racial/ethnic groups the seven high immigration counties (Broward, Miami-Dade, DeSoto, Hardee, Hendry). Homeownership attainment for White, non-Hispanics generally exceeds that of Black, non-Hispanics or Hispanics. And, as with the state data, Hispanics have lower homeowner-ship rates than do the other groups. In DeSoto and Hardee Counties

the highest homeownership rate is in the 55-64 age group. This may reflect the character of these counties as "good places to retire." In most of the five counties the percent of owner occupied housing units increased.

The next section examines racial/ ethnic differences in housing in two areas of the state that grew significantly in the 1990s due to the immigrant influx.

## 2.5 Local Responses: Broward County

The Broward County portion of the Miami-Fort Lauderdale MSA had over 740,000 housing units in 2000, a growth rate of 18 percent since 1990 (see Table 2.2). There were 84,780 new singlefamily homes and 27,603 multi-family units built in Broward County between 1990 and March of 2000. Large homebuilding corporations constructed most of the single-family units in the western part of the county where large tracts of open land were still available. These corporations frequently targeted the growing Hispanic population in their advertising campaigns as well as in their subdivision design.

The total foreign born population in Broward County more than doubled during the 1990s. Many of those new foreign born located in the Miramar-Pembrooke Pines area of the county (further discussion is found in the Appendix to this section). The cities of Miramar and Pembrooke Pines are located in the southern part of Broward County. The southern boundary of Miramar is contiguous with the Broward/ Miami-Dade county line and Pembrooke Pines lies directly north of Miramar. Both of these cities experienced rapid growth in population and housing units during the past decade. The population in Pembrooke Pines alone grew by an astounding 106 percent. As seen in Table 2.3 most of the population change is a result of the increase in both Black, non-Hispanic and Hispanic people moving into the area. Figures 2.6 and 2.7 illustrate the census tracts in 1990 and 2000 with respect to the Hispanic population. These maps illustrate where the Hispanic population settled during the decade.

<sup>&</sup>lt;sup>3</sup> One builder, Lisa Maxwell, Director of Redevelopment for the Lennar Corporation and former Executive Director of the Builders' Association of South Florida, commented about accommodating the racial and ethnic diversity found in South Florida. She noted that in planning new housing it was important to think about how people use space. For example, some racial/ethnic groups may be more likely to live in extended families therefore it is important to design floor plans that respect that family structure.

In fact, the May 19, 2003 issue of USA Today included Pembrooke Pines in a front-page article titled 'New Brooklyns' replace white suburbs. The article highlighted a number of cities throughout the country that are now home to an increasingly diverse population. This racial and ethnic diversity means that for much of the population English is a second language and it is not typically the language spoken at home. Other differences include larger households and the need for larger housing units. The average household size for the Black and Hispanic community is 2.97 and 3.19 respectively while for White households it is 2.28 persons per household.

Home construction in the City of Pembrooke Pines exploded during the 1990s. By March of 2000, there were over 93 percent more homes in the City than existed prior to 1990. Table 2.4 compares 1990 housing unit data to 2000 data for the City. The number of large and small units increased dramatically. The number of efficiency units increased by 392 percent and one bedroom units grew by 246 percent. The number of homes with four and five or more bedrooms also grew appreciably. Over 7000 homes with seven or more rooms were added to the housing stock.<sup>3</sup>

## 2.6 Local Responses: Orlando MSA

The Orlando metro area is made up of four counties: Orange, Seminole, Lake, and Osceola. Orange County is the most metropolitan of the four counties and it is home to the City of Orlando, the county seat. Orange County gained more than 59,000 new foreign born in the past decade and total population increased by 32 percent. As presented in Table 2.5 both the Black and Hispanic population grew considerably. Overall, construction of new housing units appears to have kept pace with the population change as the number of total

housing units increased by 28 percent. Most of those new homes were built to accommodate the need for additional single-family housing. Figures 2.8 and 2.9 illustrate the change in Hispanic

population by census tract in the four-county Orlando metro area.

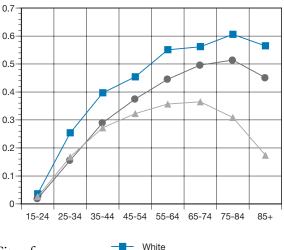
Many of the new foreign born settled in the City of Orlando. However, in contrast to the county, most of the new housing units in Orlando are multi-family units rather than single-family units. Owner occupation increased only 12 percent while renter occupation increased by 38 percent (see Table 2.6). The largest increase by unit size took place in one and two room units.

The racial/ethnic mix in the City of Orlando is changing. This mix is presented in Table 2.7. Orlando is definitely more of a racial/ethnic melting pot today than it was in 1990. The Black population increased by 18 percent and the Hispanic population by 140 percent from 1990 through 1999. The major increase in households occurred in oneperson households. Data presented in Table 2.8 indicates that the largest Hispanic group is Puerto Rican with 6,234 households and an average household size of 2.7. It is also interesting, that in general all Hispanic household and family sizes are larger than White households and families but comparable to Black households and families. The median income level in the city is \$35,732 but lower for Blacks at \$25,447, and for Hispanics at \$29,347.

## 2.7 Conclusion

Over the past decade, the population of Florida has increased dramatically. This increase is fueled by continued migration of residents of northern states looking for warm winter weather and by the almost constant flow of foreign born

Figure 2.5 Florida Homeownership Rate by Race/Ethnicity and Age

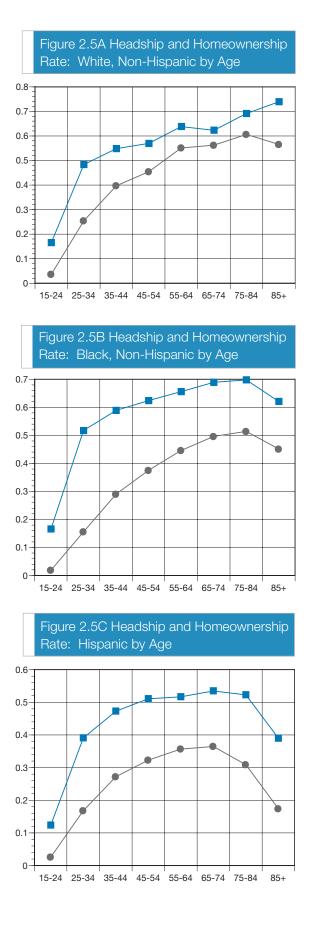


Black

Hispanic







## Figure 2.6 Broward County Hispanic Households as a Percentage of all Households by Census Tract

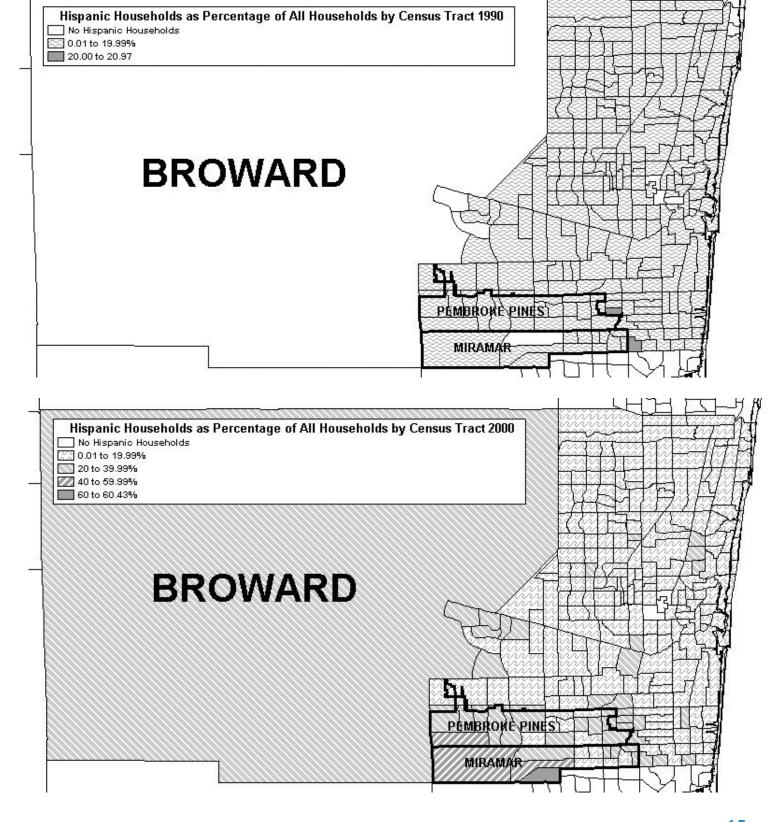
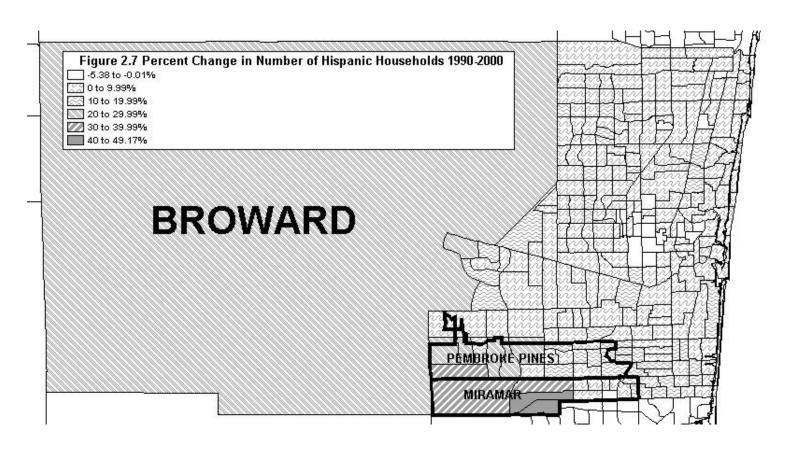


Figure 2.7 Broward County Hispanic Households - Percent Change in the Number of Households (1990-2000)



	1990	2000	Change
Housing			
% Change in Stock	628660	741043	18%
% Change in Single Family	275978	360758	31%
Median Value	\$91,800	\$102,800	12%
Ratio of median value to state	NA	1.10	NA
Households	527860	654787	24%
Average Household Size	2.37	2.45	3%
Population			
Total Population	1255488	1623018	29%
White	942529	941674	0%
Black	187608	325305	73%
Hispanic	105668	271523	157%
Economic			
Median Household Income	\$32,728	\$41,691	27%
Ratio of median income to state	1.10	1.07	-2%

	Occupie	ed Units	Average Size		
	Owner	Owner Renter		Families	
White non-Hispanic	26141	5228	2.28	2.86	
Black non-Hispanic	4030	1705	2.97	3.38	
Hispanic	9558	2597	3.19	3.40	
Cuban	3861	549	3.06	3.35	
Mexican	196	98	2.92	3.29	
Puerto Rican	1736	601	3.00	3.38	
South American	1831	688	3.53	3.72	



Table 2.4 Pembroke Pines: Selected Housing Data					
Housing Units Total Units Single Family Multi-family Total Occupied Units Owner Occupied Renter Occupied	1990 28665 16145 12520 26213 20434 5779	2000 55293 34018 21275 51981 41636 10345	Change 93% 111% 70% 98% 104% 79%		
Age of Units 1990 - March 2000 1980s 1970s 1960s Pre 1960		27735 14246 9011 3447 1064			
Number of rooms  1 2 3 4 5 6 7 8 9 +	127 785 3094 8252 5900 4404 3681 1662 759	625 2717 6853 11053 10726 8031 7674 3028 2586	392% 246% 121% 34% 82% 82% 108% 82% 241%		
Number of Bedrooms 0 1 2 3 4 5 +  Median Gross Rent Median Value Ratio Median	147 3945 13049 8855 2471 197 \$667 \$93,800	1227 7465 19265 16913 8972 1451 \$945 \$122,700	735% 89% 48% 91% 263% 637% 42% 31%		
Value to County	1.02	1.19	17%		

Figure 2.8 Orlando MSA Hispanic Households - as a Percentage of All Households by Census Tracts (1990 & 2000)

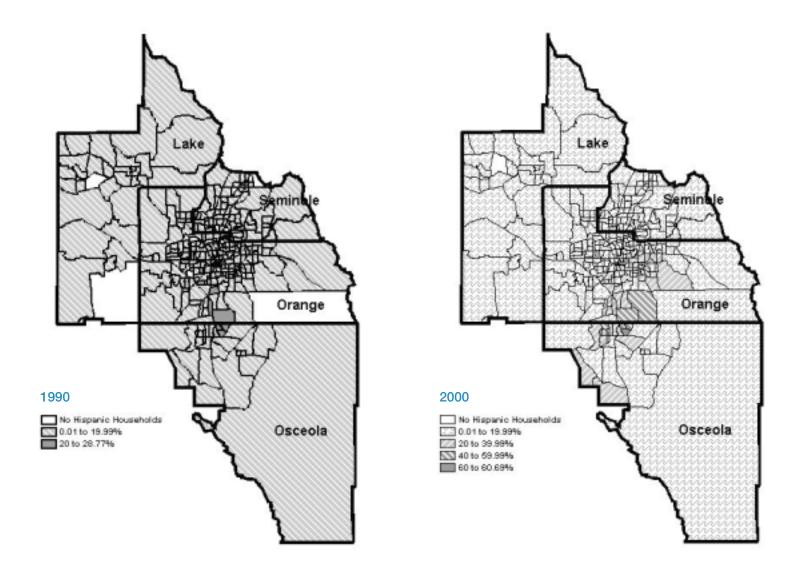


Figure 2.9 Orlando MSA Hispanic Households - Percent Change in the Number of Households (1990-2000)

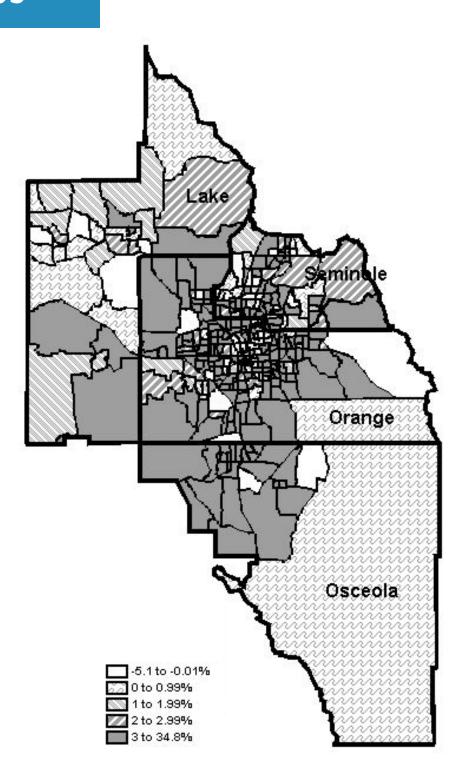


Table 2.5 Orange County: Selected Housing Characteristics				
	1990	2000	Change	
Housing				
% Change in Stock	282686	361349	28%	
% Change in Single Family	172070	272070	58%	
Median Value	\$85,751	\$100,300	17%	
Ratio of median value to state	NA	1.08	NA	
Households	254862	336366	32%	
Average Household Size	2.66	2.66	0%	
Population	677491	896344	32%	
White	497567	516024	4%	
Black	100443	155912	55%	
Hispanic	53087	168191	217%	
Economic				
Median Household Income	\$31,708	\$41,311	30%	
Ratio of median income to state	1.07	0.99	-7%	

	1990	2000	Change				
Housing Units				Number of rooms			
Total Units	71920	88636	25%	1	1921	3799	98%
Single Family	35958	38944	8%	2	5242	9453	80%
Multi-family	35962	49692	38%	3	11292	15342	36%
Total Occupied Units	64713	81020	25%	4	16954	18440	9%
Owner Occupied	29508	33052	12%	5	14929	17165	15%
Renter Occupied	35205	47968	36%	6	10558	12023	14%
				7	5142	6856	33%
Age of Units				8	3125	3183	2%
990 - March 2000		18840		9 +	1757	2382	36%
980s		22769					
1970s		14457		Number of Bedrooms			
1960s		11560		0	2485	4782	92%
Pre 1960		23225		1	15669	20710	32%
				2	27703	32999	19%
				3	20731	23444	13%
				4	4615	5912	28%
				5 +	718	789	10%
				Median Gross Rent	\$494	\$700	42%
				Median Value Ratio Median	\$74,815	\$97,400	30%
				Value to County	0.87	0.97	12%

Table 2.7 Orlando: Selected Population

**Population** 

Total

White

Black

Total

Size

1 person

2 persons

3 persons

4 persons

5 persons

6 persons

7 +

Hispanic

Households

1990

155232

97931

40730

13685

64517

20318

22094

10189

6927

2959

1178

852

looking for economic opportunity. The level of foreign migration has changed the music we hear on the radio, the food we eat in restaurants, and the neighborhoods in our urban areas. Neighborhoods that were once predominately white and elderly are now multi-racial and younger. As foreign born settle into this country, they will increasingly pursue the opportunity to own a home of their own. In those counties with large numbers of foreignborn people, housing markets that

			а
pulation	Characte	eristics	p
			e
2000	Change		a
185984	20%		e
94328			1
48193			F
32897	140%		a
			t
			C
80996	26%		t
			h
28363	40%		C
27124	23%		C
12060	18%		ŀ
7821	13%		v
3450	17%		
1317	12%		c
885	4%		C

accommodate particular racial/ ethnic groups are already established. For local housing policy planners adminisand rators. concerns about cost of he housing and the quality and quantity of the housing stock will arise.

The decennial census provides consistent and dependable data

that helps us understand housing issues from the state to the very local level. Fortunately in this computer era, the data is easy to access and analyze.

## **APPENDIX**

## 2.1A Using State and Local Area Census Data

In this section, we illustrate typical uses of census data both at the state and local level. State level data affords a broad picture of housing issues. However, looking at housing issues using state level

data does little to influence housing policy at the local level. It is important therefore to understand both the geography of the census and the data that are released from the census for each level of geography. Fortunately, the Census Bureau website (http://www.census.gov) is easily accessed and with a little practice, easy to use. From the Census Bureau homepage, data for Census 2000 and the 1990 census are located by clicking on "Your Gateway to Census 2000." Quick tables using "American Fact Finder" provide information on a variety of population, housing and economic conditions, or for more detailed tables, go directly to one of the summary files. These files are easily imported into an EXCEL or similar spreadsheet for further analysis and graphing. Compact disks containing census data along with a program to access these data can be purchased directly from the web site. Alternatively, the Census Bureau publishes a number of printed reports that can be purchased or are available at a designated census repository library.

Census data is presented in four summary files. Summary File 1 and 2 (SF1, SF2) contain 100 percent data while SF3 and SF4 contain sample data. The decision as to which file to use is based on the data needed. For example, SF2 has more detailed data on race/ ethnicity than does SF1 or SF3 both SF1 and SF3 presents information down to the ZIP code level. Census geography is hierarchical in form from the largest to smallest area. That is from the United States, to a particular state, to the county level and then to successively smaller levels until the block level is reached. There are 10 levels in all<sup>4</sup>. Additionally, the Census web site offers simple mapping capabilities.

The next segment focuses on creating a snapshot of current housing conditions in Hendry County and Broward County. Following that, data from Census 2000

<sup>&</sup>lt;sup>4</sup> In order to develop a better understanding of the census see: Meyers, Dowell. 1992. Analysis with Local Census Data: Portraits of Change. San Diego, Academic Press, Inc.

is compared to 1990 census data in order to evaluate change.

## 2.2A Understanding Current Conditions

A variety of questions come to mind when we attempt to understand a locality's current housing conditions. These questions are typically related to household size, ownership, affordability, crowding and quality, as well as questions about race and ethnicity. Evaluating the same housing issues at successively smaller jurisdictions illustrates how a given area compares with or diverges from a parent area. Census geography creates divisions on a number of different levels. Following the state and the county level, the Census Bureau identifies a statistical area known as a census county division (CCD) and a minor civil division (MCD). The MCD is a recognized political division in many states however not in Florida. The CCD is included to balance the geographic divisions but has little practical use. A better choice for comparative analysis is to identify all of the census tracts that

comprise the city, town or jurisdiction of interest. Another choice is to use the geographic level referred to by the Census Bureau as "place." Incorporated cities are identified as places and the Census Bureau also designates areas with boundaries that residents recognize (i.e. a suburban area that is not part of a city) as a census-designated place (CDP).

In the case of Hendry County the geographic divisions following the state and county are the Clewiston CCD and the LaBelle CCD. The Clewiston CCD includes the City of Clewiston, the

Harlem CDP, and the remainder of the area designated as part of the Clewiston CCD. In Broward County, the Miramar-Pembroke Pines CCD includes the City of Miramar, the City of Pembroke Pines, and a number of recognizable named subdivisions designated as CDPs.

	Occupied Units		Average Size	
			Households	Families
White non-Hispanic	22779	25412	1.94	2.66
Black non-Hispanic	5847	11284	2.74	3.36
Hispanic	3245	8402	2.72	3.23
Cuban	524	675	2.38	3.02
Mexican	137	574	2.91	3.52
Puerto Rican	1652	4582	2.7	3.19
South American	330	945	2.83	3.25

Hendry County is located south and west of Lake Okeechobee. Even though the total population in rural Hendry County is relatively small, it is unique in that the number of foreign born grew by over 130 percent during the decade of the 1990s. The county seat is LaBelle and the City of Clewiston is home to Florida's sugar industry.

Table 2.9. Selected Current Population Characteristics by Race/Ethnicity					
	Broward County	Miramar	Census Tract 1104.03	Census Tract 1105	
Total Population	1,623,018	72,739	5,112	8,028	
% White	58%	22%	24%	21%	
% Black	20%	42%	45%	52%	
% Hispanic	17%	29%	25%	21%	
% Other	5%	7%	6%	7%	
% Elderly	16%	6%	7%	8%	
% Below Poverty Level	12%	8%	8%	5%	
	Hendry County	Clewiston	Census Tract 1	Census Tract 2	
Total Population	36210	6460	6567	7506	
% White	43.88%	46.05%	46.37%	33.29%	
% Black	14.76%	10.54%	10.72%	38.30%	
% Hispanic	39.59%	40.94%	40.43%	26.74%	
% Other	1.76%	2.46%	2.48%	1.67%	
% Elderly	10.26%	9.85%	9.98%	8.13%	
% Below Poverty Level	24.00%	19.00%	19.00%	27.00%	
<ul><li>% White</li><li>% Black</li><li>% Hispanic</li><li>% Other</li><li>% Elderly</li></ul>	43.88% 14.76% 39.59% 1.76% 10.26%	46.05% 10.54% 40.94% 2.46% 9.85%	46.37% 10.72% 40.43% 2.48% 9.98%	33.29% 38.30% 26.74% 1.67% 8.13%	

Broward County, located on Florida's southeast coast, was selected because it felt the impact of two significant population migrations during the decade of the 1990s. The first was the movement of people from Miami-Dade County to Broward County following Hurricane Andrew's 1992 devastation of hundreds of housing units. The second is the recognition by immigrants that Broward County offers a good quality of life as more than 16 percent of all new immigrants selected Broward as their

is from county to census tracts to the city or from one census tract to another. The difference is due to the fact that counties and cities are political subdivisions with definite boarders while census tracts are based on population and have boundaries that can and do change over time.

For ease of presentation and discussion, the Broward County and Hendry County tables are presented together. It is not our intention to draw any comparisons between the two counties, as they are vastly different in character and economic base. Rather, the comparisons are made between the largest geographic unit and subsequently smaller ones. Table 2.9 contains data about current population. The first thing to notice about Miramar is that is has a significantly higher Black population than does Broward County as a whole. Also, there are fewer elderly and fewer people below the poverty level. The two census tracts, 1103.4 and 1105, are both in the eastern part of Miramar and about half of the population in each tract is Black.

When the population of Hendry County and the City of Clewiston is considered, we observe that Clewiston closely mirrors the county in the proportion of both White and Hispanic persons. There are somewhat fewer Blacks in the city or in Census Tract 1; however, Census Tract 2 has over 38 percent. Another observation is the high poverty rate. Although the rate in Clewiston is lower than the county as a whole, the rate in Census Tract 2 is higher.

Table 2.10 considers selected current housing information. In Broward County, there are almost as many multifamily housing units as there are singlefamily units. However, Miramar is over 80 percent single family. Although Miramar has a number of mobile homes there are none in either census tract. The figures for median owner occupied home value and median contract rent should be approached with caution. These

Table 2.10 Selected Current Housing Characteristics

Brow	ard County	Miramar	Census Tract 1104.03	Census Tract 1105
Total Housing Units	741,043	25,898	1,651	2,595
Single Family (att. + det.)	360,764	21,062	3,689	2402
Multi Family	352,349	4,318	34	193
Mobile Homes	26,834	518	0	0
Boats	1,096	0	0	0
Median Value Own	\$102,800	\$112,600	\$96,600	\$95,200
Median Contract Rent	\$676	\$694	\$881	\$601
Her	ndry County	Clewiston	Census Tract 1	Census Tract 2
Total Housing Units	12,294	2,458	2,513	2,556
Single Family (att. + det.)	5,851	1,441	1,465	925
Multi Family	1,005	534	534	136
Mobile Homes	5,316	483	493	1472
Boats	122	0	21	23
Median Value Own	\$56,600	\$93,500	\$45,200	\$46,900
Median Contract Rent	\$380	\$382	\$322	\$321

home. The next tables present Census 2000 data at the county level, the city level, and for one or more census tracts.

The next two tables present population and housing unit information from both Hendry County and Broward County. These tables provide examples of two different geographic relationships. In the first case in Broward County, the parent element is the county followed by the city and then by the two census tracts that are wholly contained within the city. In the second case Hendry County is the parent element, however, since the City of Clewiston is completely contained in part of one census tract, the comparison

figures reflect housing costs in 1999 dollars. In Broward County, the housing market has been extremely strong during the period from 1999 until today. Housing prices have risen consistently and in many areas homes are selling for almost 30 percent more than they did in 1999. Rents have risen in a similar though not as dramatic fashion. What we can learn from these figures is the relationship between the cost of buying and the cost of renting. It is interesting that the median rental rate in Census Tract 1103.4 is higher than in either Census Tract 1105 or in the City of Miramar. This may be due to the fact that there are very few multi-family units in CT 1103.4 and rental rates reflect the cost of renting a single-family home.

Although knowledge about certain current conditions is essential, it is the examination of change at a very local level that leads to new housing policy decisions. The following tables and subsequent discussion focus on how the changing population in Florida affects the need for housing. One of the important questions to ask about housing need is related to the contribution of minorities to total household growth and to ownership growth in the area.

## 2.3A Examining Change

Before a comparison between 1990 and 2000 census data is made, it is important to understand the changes in racial/ethnic categories between the two data sets. In SF1 and SF2 of the 1990 census, the racial categories consist of White, Black, American Indian, Asian and Other. Hispanics are counted separately and may be of any race. Using the categories of White, Black and Hispanic will lead to double counting as Hispanics are counted once as White or Black and again as Hispanic. In the 2000 census SF2, the same racial categories exist but in it is also possible to identify White, non-Hispanic; Black,

Table 2.11 Miramar, Census Ti	ract 1105: Cha	nges in Hous	ing
	1990	2000	Change
Housing Units			
Owner Occupied	2201	2216	0.68%
Renter Occupied	264	266	0.76%
Vacant	122	113	-7%
Housing Costs			
Median Value	\$78,500	\$95,200	21%
Percent of County Average	85.51%	92.61%	8%
Median Contract Rent	\$629	\$601	-4%
Percent of County Average	126.56%	88.91%	-30%
Median Gross Rent as a percentage of Household incom	33.50% e	22.50%	-33%
Persons Per Room			
.05-1	2323	2145	-8%
1.01-2	131	315	140%
2 or more	11	22	100%
Percent Overcrowded	5.76%	13.58%	136%

Table 2.12 Miramar, Census Tract 1105: Population Change by Race/Ethnicity						
	1990	2000	Change			
Total Population	6888	8028	16.55%			
White, non-Hispanic	4905	1646	-66.44%			
Black, non-Hispanic	737	4189	468.39%			
Hispanic	1078	1663	54.27%			
Other	168	530	215.48%			

non-Hispanic; and Hispanic who may be of any race. Using 1990 data, it is possible to create equivalent categories by backing the White Hispanics out of the White category and the Black Hispanics out of the Black category in the 1990 data set.

Ultimately, the questions we ask about housing or the housing problems we need to address determine the type of comparisons made. Data on housing in CT 1105 is presented in Table 2.11. At first glance, it seems that the housing conditions are somewhat stable. The level of owner and renter occupied housing is the same in 2000 as it was in 1990 and the number of vacant houses has declined. The median value of a housing unit in 2000 is closer to the median value in the county than it was in 1990 and the relative cost of renting has declined. However, part of the explanation for the decline in median gross rent as a percentage of household income is explained in the next part of the table when persons per room is considered. The number of persons per room has increased dramatically during the decade. More people are living in crowded conditions and it is likely that there are more people in each household contributing to the rent.

Racial/ethnic patterns are summarized in Table 2.12. The percentage of White residents has declined and the number of Black, non-Hispanic residents has increased dramatically from 737 to 4189 persons. The number of Hispanic residents also increased. In 1990, White householders occupied 67 percent of the owner-occupied housing units and only 9.5 percent by Black householders.

By 2000 of the owner occupied units, 39 percent were occupied by a White householder and 52 percent by a Black householder. Hispanic ownership rates in both periods are above 85 percent. However the Hispanic calculation includes both Black and White Hispanics and are already counted in the calculations for ownership rates for the Black and White category. Most of the housing stock in this census tract was constructed before 1980. There were 24 new housing units built in 1990 and none since. Housing policy concerns in this neighborhood probably focus on the aging housing stock and the need for rehabilitation, and the issue of overcrowded dwellings. The ability to evaluate change in housing consumption patterns helps identify these concerns.

## 3. Florida's Housing Supply

Douglas White Florida Data Clearinghouse Shimberg Center University of Florida

Marc T. Smith, Ph.D. Shimberg Center University of Florida

Florida's housing stock includes single-family units, multifamily units, and manufactured units. Although all three types of housing units are represented, the housing inventory is dominated by the single-family home. About 58 percent of the state's single family housing stock is located in six major metropolitan areas: Fort Lauderdale, Jacksonville, Miami, Orlando, Tampa-St. Petersburg, and West Palm Beach-Boca Raton. The Fort Lauderdale and Miami MSAs, because of their density, also have the distinction of having the most multifamily housing of any area in the state. Although not a type of structure, condominium housing is an important housing category in some areas of the state. Broward, Miami-Dade, and Palm Beach Counties alone have 58 percent of the state's condominiums. Significant concentrations of condominiums are also found in Collier, Lee, Pinellas, and Counties. Clearly, Sarasota condominiums tend to be a coastal phenomenon. By contrast, mobile or manufactured housing is largely a rural, inland phenomenon.

## 3.1 Data Description

To understand and analyze Florida's stock of housing, tax assessment records from the 67 county property appraisers are examined. From all 67 counties, the Shimberg Center obtains data on the four major categories of residentially coded parcels. This results in a database that contains information on residential

parcels of land and most residential structures in Florida, including: parcel identification; land use code (vacant residential, single-family, condominium, etc.); total assessed value; assessed land value; year in which structure was built; square footage of the structure; parcel size; date and price of the two most recent sales; ad valorem tax jurisdiction; homestead exemption; and location of the property by section, township, and range. The database contains most but not all residential structures, excluding (1) residential structures located on land that is not residentially coded, such as residential structures located on land that has an agriculture coding or residential structures that have a commercial coding (2) manufactured housing not classified as real property (this problem is discussed in more detail later in the report) and (3) structures that are not one of the four major residential land use categories examined. The data, unless otherwise noted, are for roll year 2002, the last complete year for which data are available.

Use of the individual county property appraiser data allows us to reasonably compare housing characteristics in the counties with each other. However, there are gaps and limitations in these Department of Revenue (DOR) data sets. Gaps occur because in some counties, certain fields of data are not included in the records or are missing for specific property types. For example, in many counties the year built information or square footage is missing for condominiums, and some counties do not report sales prices from more than five years ago. In a few cases only one year of sales data is reported. Limitations on the data can occur for two reasons. First, only the two most recent sales prices and year of those sales are reported. Any time a parcel sells, the oldest of the two sales is lost. Therefore when examining the county data, there are two potential explanations for the increasing



frequency of sales over time. The first is that sales really have increased over time, and the second is that this increased frequency is just a statistical anomaly due to properties selling multiple times, eliminating the older records.

A second limitation in the data is that definitions vary somewhat across counties; an example of this is square footage. Property appraisers calculate and use more than one measurement of square footage in their appraisal process. Thus, this characteristic can vary across county and possibly over time within the county. Another reason square footage can vary is the presence of multiple buildings on a parcel, which show up in the value for square footage field. In the past, Shimberg did not report square footage values that appeared to vary from the majority of the counties. However, this year, in the interest of providing more information, we are reporting these values.1 Another new feature to this year's report is the reporting of real values (in 2002 dollars) for sale prices on singlefamily homes, manufactured housing, and condominiums.2

Another problem that has to be addressed when creating the database is that the data must be cleaned. For example, any sales that are determined to be a "non-arms-length" transaction (by the DOR transaction code) are deleted. Additionally, any observations with obvious mispricing (due to data entry or other error) or which are not considered a sale for purposes of the report are

deleted. For example, the older of two recent sale prices for a newly constructed home is usually the sale of the lot; a price not comparable to the sale price after the home has been constructed. Finally, data entry problems exist that have required the development of screening rules to eliminate information that falls outside reasonable boundaries.

Despite these problems, the property appraiser data provides information on Florida's housing stock that is not otherwise available. For example, decennial Census data because of delays due to its release and the fact that it is only conducted once a decade. The Census is also subject to inaccuracies in evaluating housing unit characteristics because it relies on the evaluation by the occupants for estimates of numerous variables such as property value and age. Other sources, while current and valuable, are subject to limitations of geographic coverage or amount of information available.3

The following section describes the existing single-family housing stock in Florida. Subsequent sections provide detailed information on the condominium market and the multifamily housing market. Although manufactured housing accounts for a significant portion of residential housing units in many rural counties, we are unable to describe and discuss Florida's manufactured housing stock because comprehensive, accurate data are not available from the property appraiser data

<sup>&</sup>lt;sup>1</sup> In an attempt to make the data as similar as possible, square footage values are only calculated and reported for parcels with a single building.

<sup>&</sup>lt;sup>2</sup> The real value has adjusted the sales price to reflect inflation. Inflation reduces the purchasing power, so a dollar in 1990 is worth more than a dollar in 2002. Therefore the 1990 real sales price in 2002 dollars expresses what the sale price would have been in 2002.

<sup>&</sup>lt;sup>3</sup> In the National Association of Realtors (NAR) *Home Sales*, the median sale price of existing single-family homes, condos, and co-ops sold in each quarter are reported for the nine largest metropolitan areas in Florida. In addition, the Florida Association of Realtors (FAR) produces the *Florida Home Sales Report* that contains information on monthly sales volume and median sale prices for the 20 major metropolitan areas. While quite valuable, the NAR and FAR reports do not contain information on characteristics other than sale price and volume, and in addition are based only on MLS sales. Moreover, numerous counties are excluded.

<sup>&</sup>lt;sup>4</sup> The decennial US Census counts all manufactured housing, and therefore reports a drastically different number of total housing units for some of the rural counties than the corresponding county property appraiser. This difference is almost one hundred percent due to the difference in reported manufactured housing.

at our disposal. Accurate data on manufactured housing is difficult to obtain for several reasons. First, a manufactured home is classified as real property if the owner owns both the home and the lot. It is these homes that are included in the property appraiser files. Other manufactured housing, perhaps the larger share, is located on rented sites and carry a tag from the Division of Motor Vehicles.<sup>4</sup> Further, even combining these sources results in data that are not consistent from year to year. In addition to reporting problems, possible causes of inconsistencies include units not counted because of confusion about their status, failure to renew a tag, units placed on land and not reported to the appraiser, or uncertainty about the location of the unit (i.e. in a city or in the unincorporated portion of a county).

## 3.2 Single-Family Housing

Summary data by county, with aggregations to metropolitan and state totals, are included in Table 3.1 (if the data were not available on the county property appraiser files for a county, a "2)" is placed on the exhibit).

The single-family housing stock of Florida totals almost 3.9 million units and the total assessed value of these units is \$451.8 billion. Almost seventy-eight percent of these units are occupied by their owner; the remaining units are renter-occupied. The mean age of housing units in the state is 26 years, and the average size is 1,941 square feet. The number of single-family sales in 2001 totaled approximately 281,480, which is equal to approximately 7.2 percent of the

total single-family housing stock in this state.<sup>5</sup> The median price of a 2001 sale was \$130,000. This is lower than both the 2001 new median house price in the U.S. of \$187,500 and the 2001 existing house price of \$147,800.<sup>6</sup>

As shown in Figure 3.1, Florida's housing is geographically concentrated. The state's 21 metropolitan areas (MSAs) are divided into "major" metropolitan areas (6 MSAs) and "other" metropolitan areas (15 MSAs). The major MSAs include Ft. Lauderdale, Miami, Jacksonville, Orlando, West Palm Beach-Boca Raton, and Tampa-St. Petersburg-Clearwater. A total of fifteen counties are in major MSAs. The 15 other MSAs include twenty counties. A total of 35 of Florida's 67 counties are therefore found in metropolitan areas, with the remaining 32 being non-metropolitan.<sup>7</sup>

These remaining 32 counties are further categorized, as shown in the table, into four regional groups: Northwest, Northeast, Central, and South, according to categories used by the University of Florida's Bureau of Economic and Business Research.

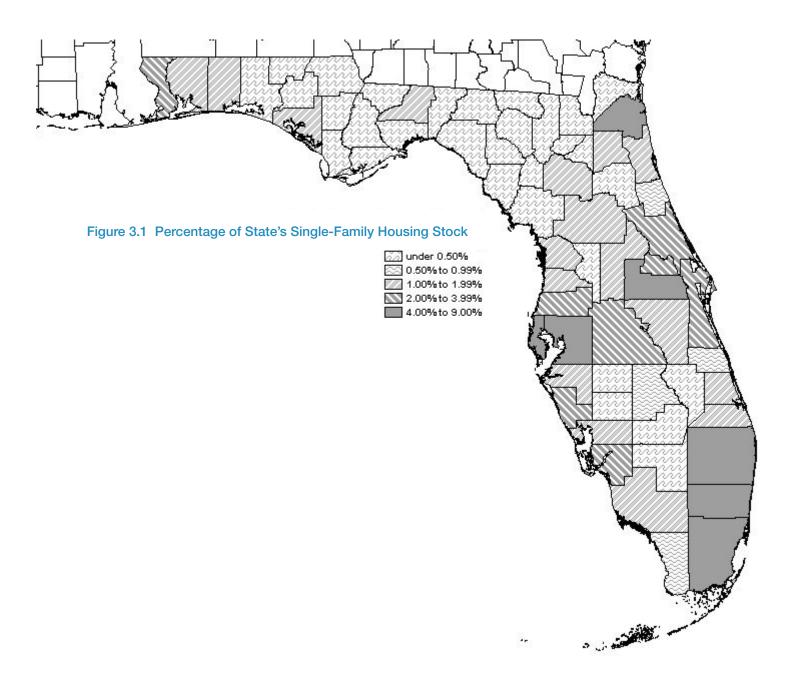
The totals and means for the state reported above allow for the determination of the standing of counties and metropolitan areas relative to the state, and for comparisons across counties and metropolitan areas. The six major MSAs contain approximately 2.3 million single-family units and these units comprise about 58 percent of the total housing stock in the state. Over one-quarter of the major MSA total, comprising almost 17 percent of the state, is found in the Tampa-St. Petersburg-Clearwater MSA (which we



<sup>&</sup>lt;sup>5</sup> The number of sales depends on what classes of transactions are regarded as qualified sales. For example, the total quoted here includes only sales that were arms-length transactions.

<sup>&</sup>lt;sup>6</sup> The sources for these national prices are: new single family - U.S. Census Bureau, Survey of Construction/Housing Sales Survey; existing single family - National Association of Realtors, Existing Home Sales Survey.

Multiple county MSAs are as follows: Daytona Beach MSA includes Flagler and Volusia Counties. Ft. Pierce-Port St. Lucie MSA includes Martin and St. Lucie Counties. Jacksonville MSA includes Clay, Duval, Nassau and St. Johns Counties. Orlando MSA includes Lake, Orange, Osceola and Seminole Counties. Pensacola MSA includes Escambia and Santa Rosa Counties. Sarasota-Bradenton MSA includes Manatee and Sarasota Counties. Tallahassee MSA includes Gadsden and Leon Counties. Tampa-St. Petersburg-Clearwater MSA includes Hernando, Hillsborough, Pasco and Pinellas Counties.



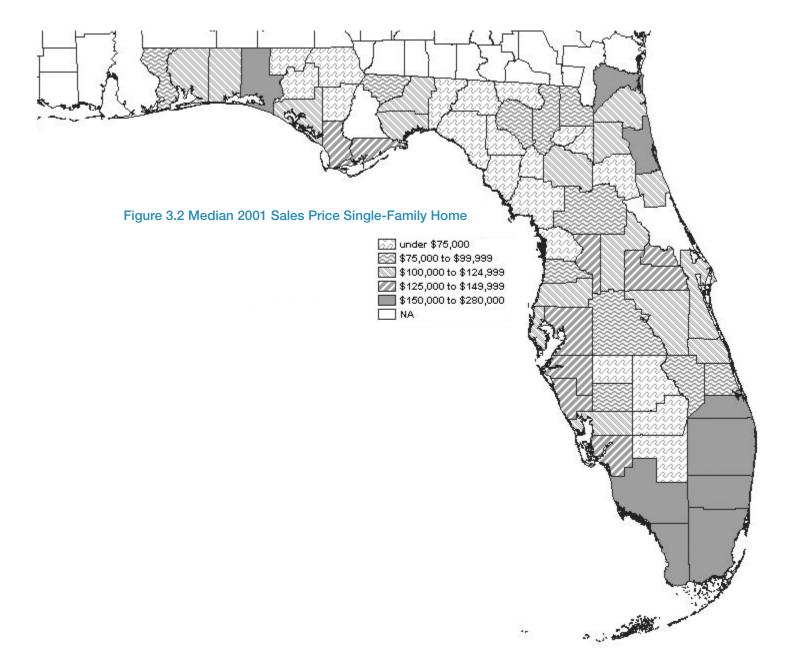


Table 3.1 Single-Family Housing Stock (See Section 3.1 & 3.2 regarding data limitations)

		Total Units	% of State	% Owner Occupied	Total Assessed Value(\$mils)	% of State
	Florida	3,889,178	100.0	77.5	451,840	100.0
Ft. Lauderdale	MSA Broward County	350,089	9.0	80.9	48,199	10.7
Jacksonville M	10.0					
Jackson ville ivi	Clay County	38,884	1.0	84.4	3,756	0.8
	Duval County	211,076	5.4	80.4	19,464	4.3
	Nassau County	14,093	0.4	77.7	1,832	0.4
	St. Johns County MSA total	37,790 301,843	1.0 7.8	79.8 80.7	6,421 31,473	1.4 7.0
Miami MSA						
	Miami-Dade County	320,112	8.2	77.6	43,936	9.7
Orlando MSA						
	Lake County	62,230	1.6	77.9	5,970	1.3
	Orange County	219,670	5.6	77.7	25,786	5.7
	Osceola County	51,857	1.3	64.6	5,132	1.1
	Seminole County	105,448	2.7	83.1 77.5	12,462 40,351	2.8
	MSA total	439,205	11.3	77.5	49,351	10.9
Tampa-St. Pet	ersburg-Clearwater MSA	46 101	1.0	70.0	2.656	0.9
	Hernando County Hillsborough County	46,101 258,341	1.2 6.6	79.2 82.3	3,656 25,802	0.8 5.7
	Pasco County	106,353	2.7	79.3	8,443	1.9
	Pinellas County	240,039	6.2	81.0	25,234	5.6
	MSA total	650,834	16.7	81.1	63,135	14.0
West Palm Bea	ach-Boca Raton MSA					
	Palm Beach County	199,462	5.1	79.5	39,172	8.7
Regional subto	otal	2,261,545	58.1	79.7	275,266	60.9
Daytona Beacl	h MSA					
	Flagler County	21,632	0.6	75.4	2,347	0.5
	Volusa County	133,424	3.4	78.9	11,788	2.6
	MSA total	155,056	4.0	78.4	14,134	3.1
Ft. Myers-Cap						
	Lee County	130,681	3.4	71.2	19,027	4.2
Ft. Pierce-Port	St. Lucie MSA					
	Martin County	39,288	1.0	76.0	7,666	1.7
	St. Lucia County MSA total	62,391 101,679	1.6 2.6	74.8 75.3	5,101 12,767	1.1 2.8
	WSA total	101,079	2.0	75.5	12,767	2.0
Ft. Walton Bea	ach MSA Oskaloosa County	52,881	1.4	71.6	5,332	1.2
0 : " 11 140	,	,			•	
Gainesville MS	A Alachua County	47,910	1.2	79.0	4,219	0.9
Lakeland-Wint	er Haven MSA					
Lakelanu-wint	Polk County	119,717	3.1	73.8	8,994	2.0
Melbourne-Titu	usville-Palm Bay MSA					
	Brevard County	148,411	3.8	80.9	13,328	2.9
Naples MSA	0.111.0					
	Collier County	58,450	1.5	68.8	16,292	3.6
Ocala MSA						
	Marion County	70,933	1.8	77.4	5,184	1.1

Total Just Value (\$mils)	% of State	Average Age	Relative Age Index	Average Size	New Units Constructed in 2001	% of State	Number of 2001 Sales	Median 2001 Sale Price
519,470	100.0	26	1.00	1,914	80,034	100.0	281,480	130,000
56,796	10.9	31	1.19	1,927	2)	2)	34,598	165,000
4,066	0.8	18	0.69	2,042	1,585	2.0	3,477	124,000
22,581	4.3	32	1.23	1,787	3,757	4.7	13,415	117,000
2,219	0.4	21	0.81	2,037	617	8.0	874	163,250
7,535	1.5	15	0.58	2,283	1,921	2.4	3,482	177,250
36,401	7.0	28	1.08	1,894	7,880	9.8	21,248	127,300
53,752	10.3	33	1.27	1,882	2,362	3.0	19,335	158,000
6,178	1.2	22	0.85	1,538	3,714	4.6	6,051	121,000
28,453	5.5	23	0.88	1,937	6,939	8.7	21,237	134,000
5,372	1.0	15	0.58	1,897	3,249	4.1	5,808	121,500
13,860	2.7	22	0.85	2,140	2,263	2.8	8,582	141,000
53,862	10.4	21	0.81	1,925	16,165	20.2	41,678	131,000
3,984	0.8	17	0.65	2,277	1,103	1.4	2,942	85,000
30,398	5.9	23	0.88	1,871	2)	2)	14,784	125,000
9,442	1.8	22	0.85	1,744	3,591	4.5	10,424	102,000
30,672	5.9	35	1.35	1,695	1,819	2.3	13,870	124,750
74,496	14.3	27	1.04	1,813	6,513	8.1	42,020	117,000
45,787	8.8	27	1.04	2,236	3,886	4.9	14,449	171,900
321,094	61.8	27	1.04	1,910	32,920	41.1	173,328	138,000
2,542	0.5	13	0.50	2,135	1,518	1.9	1,761	112,100
13,178	2.5	26	1.00	1,531	3,101	3.9	2)	2)
15,720	3.0	24	0.92	1,614	4,619	5.8	1,761	112,100
21,437	4.1	20	0.77	2,847	5,644	7.1	12,142	137,243
8,647	1.7	17	0.65	1,939	2)	2)	3,289	163,000
5,402	1.0	21	0.81	1,565	1,840	2.3	4,638	94,000
14,050	2.7	19	0.73	1,712	1,840	2)	7,927	117,000
5,595	1.1	23	0.88	1,946	1,094	1.4	3,892	110,000
4,713	0.9	24	0.92	1,894	966	1.2	3,386	112,900
10,057	1.9	30	1.15	2,296	3,576	4.5	8,377	97,500
15,010	2.9	23	0.88	1,617	3,684	4.6	10,546	103,400
19,934	3.8	16	0.62	1,928	3,700	4.6	5,223	223,800
5,645	1.1	21	0.81	1,544	2,745	3.4	5,165	91,858

Table 3.1 Single-Family Housing Stock (continued)

	Total Units	% of State	% Owner Occupied	Total Assessed Value(\$mils)	% of State
Panama City MSA					
Bay County	45,499	1.2	67.1	3,708	0.8
Pensacola MSA					
Escambia County	85,737	2.2	75.0 78.3	5,760	1.3
Santa Rosa County MSA total	37,605 123,342	1.0 3.2	76.3 76.0	3,776 9,536	0.8 2.1
Punta Gorda MSA					
Charlotte County	54,702	1.4	72.9	5,721	1.3
Sarasota-Bradenton MSA  Manatee County	63,419	1.6	77.5	8,421	1.9
Sarasota County	105,329	2.7	77.5 75.2	16,077	3.6
MSA total	168,748	4.3	76.1	24,498	5.4
Tallahassee MSA					
Gadsden County	9,193 61,392	0.2 1.6	76.0 75.1	454 6,067	0.1 1.3
Leon County MSA total	70,585	1.8	75.1	6,522	1.4
Vero Beach					
Indian River County	35,512	0.9	73.0	5,418	1.2
Regional subtotal	1,384,106	35.6	75.3	154,681	34.2
Northwest nonmetropolitan area	0.470	0.4	74.4	00	0.0
Calhoun County Franklin County	2,472 5,391	0.1 0.1	74.4 44.0	98 736	0.0 0.2
Gulf County	5,111	0.1	55.2	522	0.1
Holmes County	3,204	0.1	75.2	136	0.0
Jackson County	9,733	0.3	72.6	461	0.1
Jefferson County	1,988	0.1	72.0	93 45	0.0
Liberty County Macula County	1,208 4,777	0.0 0.1	66.6 70.3	337	0.0 0.1
Walton County	13,732	0.4	55.3	2,172	0.5
Washington County	4,038	0.1	71.6	184	0.0
NMA total	51,654	1.3	63.1	4,784	1.1
Northeast nonmetropolitan area  Baker County	3,032	0.1	84.7	181	0.0
Bradford County	5,043	0.1	75.5	287	0.1
Columbia County	10,640	0.3	78.2	657	0.1
Dixie County	2,475	0.1	61.6	103	0.0
Gilchrist County Hamilton County	1,776	0.0	74.4	100	0.0
Lafayette County	1,903 812	0.0 0.0	70.8 75.5	80 37	0.0 0.0
Levy County	6,204	0.2	72.6	379	0.1
Madison County	2,997	0.1	70.7	128	0.0
Suwannee County	5,087	0.1	74.8	270	0.1
Taylor County Union County	4,734 1,110	0.1 0.0	65.1 78.6	227 53	0.1 0.0
NMA total	45,813	1.2	74.0	2,502	0.6
Central nonmetropolitan area					
Citrus County	41,660	1.1	79.5	3,070	0.7
Putnam County Sumter County	15,429 16,251	0.4 0.4	72.6 77.3	927 1,321	0.2 0.3
NMA total	73,340	1.9	77.6	5,318	1.2
South nonmetropolitan area					
De Soto County	5,071	0.1	71.0	304	0.1
Glades County Hardee County	1,542 3,839	0.0 0.1	56.6 76.5	91 176	0.0 0.0
Hendry County	4,733	0.1	70.5 72.9	296	0.0
Highlands County	27,822	0.7	71.5	1,691	0.4
Monroe County	23,317	0.6	54.2	6,313	1.4
Okeechobee County NMA total	6,396 72,720	0.2 1.9	69.9 65.8	421 9,291	0.1 2.1
Regional subtotal	243,527	6.3	70.3	21,894	4.8
) Fewer than 25 parcels. 2) Data not available		2.0	. 5.5	,00 :	1.5

Total Just Value (\$mils)	% of State	Average Age	Relative Age Index	Average Size	New Units Constructed in 2001	% of State	Number of 2001 Sales	Median 2001 Sale Price
3,880	0.7	25	0.96	1,796	798	1.0	2,899	107,000
6,520 4,001 10,521	1.3 0.8 2.0	31 18 27	1.19 0.69 1.04	1,777 2,009 1,847	1,495 1,386 2,881	1.9 1.7 3.6	4,207 2,705 6,912	98,100 114,900 105,000
6,425	1.2	20	0.77	2,328	1,340	1.7	3,709	112,500
9,680 18,641 28,322	1.9 3.6 5.5	25 25 25	0.96 0.96 0.96	2,347 1,717 1,955	2,846 3,273 6,119	3.6 4.1 7.6	6,002 8,903 14,905	149,000 142,900 145,000
487 6,488 6,974	0.1 1.2 1.3	32 24 25	1.23 0.92 0.96	1,592 1,855 1,821	76 1,118 1,194	0.1 1.4 1.5	228 4,895 5,123	81,000 114,900 113,500
6,051	1.2	22	0.85	1,967	1,175	1.5	2,790	115,000
174,334	33.6	23	0.88	1,945	41,375	51.7	94,757	119,900
101 780 615 144 520 105 48 383 2,310 194 5,201	0.0 0.2 0.1 0.0 0.1 0.0 0.0 0.1 0.4 0.0 1.0	32 30 22 33 33 29 32 20 19 25 26	1.23 1.15 0.85 1.27 1.27 1.12 1.23 0.77 0.73 0.96 1.00	1,577 1,601 1,610 1,500 1,659 1,673 2) 1,596 1,905 1,551 2)	25 119 126 32 114 27 12 162 721 56 1,394	0.0 0.1 0.2 0.0 0.1 0.0 0.0 0.2 0.9 0.1	69 255 265 105 279 67 20 264 925 105 2,354	62,500 145,500 131,500 47,500 71,000 74,500 1) 118,350 157,200 60,000 110,000
216 306 718 112 105 87 42 429 135 313 233 60 2,757	0.0 0.1 0.1 0.0 0.0 0.0 0.1 0.0 0.1 0.0 0.5	28 33 29 29 25 35 31 29 25 32 27 27	1.08 1.27 1.12 1.12 0.96 1.35 1.19 1.12 0.96 1.23 1.04 1.04	1,650 1,619 1,792 2) 1,644 1,579 1,563 1,649 1,527 1,590 1,556 1,703 2)	94 59 251 16 48 19 17 117 26 90 63 23 823	0.1 0.3 0.0 0.1 0.0 0.0 0.1 0.0 0.1 0.1 0.0	168 114 498 73 50 28 26 206 45 183 135 26 1,552	83,350 66,500 75,914 55,000 73,700 58,250 61,250 69,950 60,000 75,000 62,600 73,450 73,000
3,315 1,027 1,424 5,767	0.6 0.2 0.3 1.1	19 33 15 21	0.73 1.27 0.58 0.81	2,216 1,958 1,710 2,051	1,118 168 1,641 2,927	1.4 0.2 2.1 3.7	2,405 526 2,243 5,174	74,500 70,500 135,400 102,000
327 92 183 311 1,718 7,246 442 10,318	0.1 0.0 0.0 0.1 0.3 1.4 0.1 2.0	30 27 33 26 22 27 25 25	1.15 1.04 1.27 1.00 0.85 1.04 0.96	1,686 1,540 1,544 1,602 1,718 1,551 1,596 1,629	60 26 23 41 2) 314 131 595	0.1 0.0 0.0 0.1 2) 0.4 0.2 2)	164 58 135 208 1,727 1,760 263 4,315	81,000 68,000 59,500 68,700 67,000 280,000 75,000 115,000
24,042	4.6	25	0.96	1,782	5,739	7.2	13,395	99,000

will refer to as Tampa Bay). The Orlando MSA has 11 percent of the state's single-family stock, the Ft. Lauderdale MSA about 9 percent, and the Miami MSA 8.2 percent. Of single county MSAs, Miami and Ft. Lauderdale have the largest numbers of single-family housing units in the state. Together, these two counties contain over 17 percent of the state's single-family units. Adding Palm Beach County results in almost 23 percent of the state's single-family stock being located in the these three southeast Florida counties.

The 15 other MSAs contain 35.6 percent of the state's single-family housing stock, while the 32 nonmetropolitan counties contain only 6.3 percent. The non-metropolitan counties show the extremes of population densities in the state. For example, Lafayette County has fewer than 1,000 single-family units. Other counties with less than 3,000 units include Calhoun, Dixie, Gilchrist, Glades, Hamilton, Jefferson, Liberty, Madison, and Union Counties. These 11 counties combined have only about one-half of one percent of the total single-family housing units in the state.

Based on property appraiser data, a total of 80,034 single-family units were constructed in the state in 2001.8 These units increased the size of the housing stock in the state by about 2 percent. Even excluding Broward Hillsborough County, slightly more than 41 percent of the new units were constructed in the six large metropolitan areas, with over 20 percent in the Orlando MSA and approximately 8 percent in the Tampa Bay MSA even while excluding Hillsborough County. Among counties in the smaller MSAs, Brevard, Collier, Lee, Polk, and Sarasota all had 4.1 percent or more of the state's new construction. Lee County, with 5,644 new units, exceeded the level of new construction in all of the metropolitan counties in the state except Orange. The construction numbers show growth in population in several of the smaller MSAs.

The total assessed value (the property appraiser's estimate of the value of a home for the calculation of property taxes) of single-family units in the state shows a similar pattern. The total assessed value of single-family units in the state is approximately \$451.8 billion and almost 61 percent of that total is found in the major MSAs. The three southeast Florida counties-Miami-Dade, Broward, and Palm Beach—have 29 percent of the total assessed value. The average assessed value of a single-family housing unit in Florida is about \$116,000. Average assessed values range from over \$279,000 in Collier County (Naples MSA) to about \$49,000 in Gadsden County (Tallahassee MSA) among metropolitan counties and from a high of over \$271,000 in Monroe County to a low of about \$37,000 in Liberty County among metropolitan counties.

A relative age index is constructed to compare the average age of housing units in a county or MSA to the state total. A problem with the age variable is that the age of a unit is changed if significant remodeling and renovations have been completed on a unit to reflect the date of those improvements. However, assuming that improvements to a house increase the longevity of the unit, then the improvements may represent a reasonable means to convey the age of the stock. The age variable is also not consistently recorded in all counties. Counties or MSAs with an older housing stock than Florida's average have a relative age index greater than one. Areas with a relatively young stock have an index less than one. The housing stock in the major MSAs is slightly older than the state average, as the relative age index is 1.04 and the average age is 27 years (rounded)

<sup>8</sup> This value excludes new construction in Broward County, Highlands County, Hillsborough County, and Martin County where accurate construction numbers were unavailable.

as compared to the state's 26 year average. For the other MSAs, the index is 0.88 with an average age of 23 years, and the non-MSA counties had an age index of 0.96 with an average age of 25 years.

Comparisons at these high levels of aggregation, however, mask significant differences in individual MSAs and counties. For example, with a relative age index of 0.50, Flagler County in the Daytona Beach MSA has the newest housing stock in Florida. This reflects a single-family housing stock in Flagler with an average age of 13 years. Other counties with relative age indexes of 0.75 or below include Clay, St. Johns, Osceola, and Hernando Counties among major MSA counties; Collier, Martin, and Santa Rosa Counties among the other MSAs; and Citrus, Sumter, and Walton Counties in the non-metropolitan category. Many of the counties with newer housing stocks are coastal counties that have experienced rapid growth; others are suburban counties in growing metropolitan areas. Citrus and Sumter Counties are experiencing growth related to major development targeted to retirement populations

Single-family housing stocks that are older than the state average are generally found in large urban counties or in the rural, interior counties with smaller populations. The oldest single-family stock is in Hamilton and Pinellas County, with a relative age index of 1.384 and a mean age of 35 years. Other nonmetropolitan counties with a relative age index of 1.25 or greater include Bradford, Hardee, Holmes, Jackson, and Putnam. Among the metropolitan counties, the oldest housing stock is found in Pinellas County with an average age of 35 years. Miami-Dade (33 years), Duval (32 years), Gadsden (32 years), Polk (30 years), and Escambia (31 years) also have relatively old housing stocks.

Counties with the largest number of sales transactions<sup>9</sup> in 2001 are, as

expected, the largest counties in population. Approximately 62 percent of the single-family transactions in the state in 2001 were in the major MSA counties, with 14.9 percent in the Tampa Bay MSA and 14.8 percent in the Orlando MSA. Among individual counties Broward was the highest with 12.3 percent of the state total while Orange had 7.5 percent and Miami-Dade had 6.8 percent of Florida's 2001 transactions. Over 24 percent of transactions in 2001 were in the three southeast Florida counties--Miami-Dade, Broward, and Palm Beach.

Over 33 percent of all sales in 2001 were in other MSA counties, while the remaining 5 percent were in the non-metropolitan counties. Lee County had 4.3 percent of the state's transactions in 2001. Brevard had 3.8 percent and, Sarasota County had 3.1 percent.

The turnover rate measures the percentage of total units sold in each area. Units sold as a percentage of total units in the large MSAs were 7.7 percent. The sales in other MSAs equaled 6.9 percent of total units; in the non-MSA counties they were 5.5 percent. Turnover of singlefamily housing units is clearly higher in MSAs, than in non-MSA counties. Counties with fewer than 100 transactions were small, rural counties including Liberty, Lafayette, Union, Hamilton, Madison, Gilchrist, Glades, Jefferson, Calhoun, Dixie, Holmes, Washington, Bradford, Taylor, Hardee, De Soto, Baker, and Suwannee.

The highest single-family median sales prices in 2001 were in Monroe (\$280,000), Collier (\$223,800), St. Johns (\$177,250), and Palm Beach (\$171,900) Counties. Other counties with median sales prices above \$130,000 include Broward, Nassau, Martin, Miami- Dade, Walton, Manatee, Franklin, Sarasota, Seminole, Lee, Sumter, Orange, and Gulf. All the counties with high median prices are coastal counties. Counties with



<sup>&</sup>lt;sup>9</sup> No sales data for single-family, condominium, or multi-family housing units are available for Volusia County in 2001. All following reported sales data is reported as if Volusia County had zero sales.

Table 3.2 Condominium Stock (See Section 3.1 & 3.3 regarding data limitations)

		Total Units	% of State	% Owner Occupied	Total Assessed Value(\$mils)	% of State	Total Just Value (\$mils)
Florida		1,307,701	100.0	48.5	142,491	100.0	152,184
Ft. Lauderdale	MSA						
T. Education	Broward County	208,878	16.0	56.1	14,989	10.5	16,673
Jacksonville M	SA						
	Clay County	1,020	0.1	62.8	70	0	76
	Duval County	7,887	0.6	59.2	752	0.5	902
	Nassau County	2,767	0.2	17.4	706	0.5	731
	St. Johns County	8,793	0.7	28.8	1,346	0.9	1,445
	MSA total	20,467	1.6	40.6	2,873	2.0	3,154
Miami MSA	Miami-Dade County	277.054	01.0	<b>50 1</b>	20.202	01.0	22 201
	Miami-Dade County	277,954	21.3	53.1	30,393	21.3	32,391
Orlando MSA	Laba Carret	0.700	0.0	FF 0	200	0.0	000
	Lake County	2,728	0.2	55.6	229	0.2	233
	Orange County	32,636	2.5	31.3	4,288	3.0	4,381
	Osceola County Seminole County	3,689 8,205	0.3 0.6	9.8 59.3	394 449	0.3 0.3	395 482
	MSA total	47,258	3.6	35.9	5,360	3.8	5,491
Tampa-St Pete	ersburg-Clearwater MSA						
iampa ot. i oto	Hernando County	782	0.1	53.1	36	0	36
	Hillsborough County	22,106	1.7	57.9	1,479	1.0	1,627
	Pasco County	10,866	0.8	53.5	523	0.4	550
	Pinellas County	89,997	6.9	53.0	7,676	5.4	8,477
	MSA total	123,751	9.5	53.9	9,714	6.8	10,691
West Palm Bea	ach-Boca Raton MSA	270 214	20.7	56.5	20 005	20.3	20 690
	Palm Beach County	270,214	20.7	50.5	28,895	20.3	30,689
Regional subt	otal	948,522	72.5	53.7	92,223	64.7	99,089
Daytona Beach	n MSA						
Daytona Boaoi	Flagler County	1,736	0.1	35.0	203	0.1	210
	Volusia County	22,909	1.8	32.2	2,447	1.7	2,598
	MSA total	24,645	1.9	32.4	2,650	1.9	2,809
Ft. Myers-Cape	e Coral MSA						
	Lee County	52,861	4.0	33.5	7,827	5.5	8,130
Ft. Pierce-Port	St. Lucie MSA						
	Martin County	13,213	1.0	49.9	1,025	0.7	1,062
	St. Lucie County	11,887	0.9	37.5	1,175	0.8	1,241
	MSA total	25,100	1.9	44.0	2,199	1.5	2,302
Ft. Walton Bea							
	Okaloosa County	9,690	0.7	10.0	1,685	1.2	1,708
Gainesville MS							
	Alachua County	3,181	0.2	47.7	166	0.1	175
Lakeland-Winte	er Haven MSA						
	Polk County	6,734	0.5	37.2	294	0.2	296
Melbourne-Titu	ısville-Palm Bay MSA						
	Brevard County	25,177	1.9	44	1,955	1.4	2,089
Naples MSA							
•	Collier County	75,634	5.8	29.3	14,280	10	15,087

% of State	Average Age	Constructed in 2001	% of State	New Units Number of 2001 Sales	% of State	Median 2001 Sale Price
100.0	2)	15,611	100.0	127,088	100.0	106,000
11.0	2)	2)	2)	18,712	14.7	71,000
0.1 0.6 0.5 0.9 2.1	19 2) 19 2) 2)	6 2) 99 2) 105	0.0 2) 0.6 2) 0.7	104 392 196 1,048 1,740	0.1 0.3 0.2 0.8 1.4	66,750 117,200 244,750 147,000 136,000
21.3	2)	2)	2)	32,711	25.7	116,000
0.2 2.9 0.3 0.3 3.6	19 2) 13 22 2)	16 2) 261 102 379	0.1 2) 1.7 0.7 2.4	224 2,358 375 898 3,855	0.2 1.9 0.3 0.7 3.0	61,150 69,000 100,000 73,500 72,900
0 1.1 0.4 5.6 7.0	15 17 21 24 23	13 2) 4 192 209	0.1 2) 0.0 1.2 1.3	72 2,163 977 7,931 11,143	0.1 1.7 0.8 6.2 8.8	66,750 81,000 51,900 75,000 73,900
20.2	18	6,536	41.9	25,777	20.3	127,837
65.1	2)	7,229	46.3	93,938	73.9	99,000
0.1 1.7 1.8	17 2) 2)	81 2) 81	0.5 2) 0.5	233 2) 233	0.2 2) 0.2	144,000 2) 144,000
5.3	16	2,207	14.1	5,917	4.7	135,000
0.7 0.8 1.5	23 27 25	2) 54 54	2) 0.3 0.3	1,224 1,154 2,378	1.0 0.9 1.9	70,000 100,500 76,000
1.1	2)	2)	2)	947	0.7	214,900
0.1	17	0	0	378	0.3	71,500
0.2	2)	2)	2)	518	0.4	55,000
1.4	21	472	3.0	2,200	1.7	85,000
9.9	14	3,812	24.4	7,196	5.7	155,000

### Table 3.2 Condominium Stock (continued)

_		Total Units	% of State	% Owner Occupied	Total Assessed Value(\$mils)	% of State	Total Just Value (\$mils)
Ocala MSA							
	Marion County	5,949	0.5	66.8	320	0.2	328
Panama City M	SA						
	Bay County	10,887	0.8	9.4	1,208	0.8	1,225
Pensacola MSA							
	Escambia County	4,511	0.3	23.5	562	0.4	576
	Santa Rosa County	1,315	0.1	20	215	0.2	217
	MSA total	5,826	0.4	22.7	777	0.5	793
Punta Gorda MS	SA						
	Charlotte County	11,283	0.9	31.8	1,315	0.9	1,388
Sarasota-Brade	inton MSA						
Sarasola-Braue	Manatee County	23,632	1.8	50.4	2,395	1.7	2,577
	Sarasota County	44,790	3.4	41.8	7,942	5.6	8,704
	MSA total	68,422	5.2	44.7	10,337	7.3	11,281
Tallahassee MS	A Leon County	729	0.1	24.7	31	0	32
	Leon County	129	0.1	24.7	31	O	32
Vero Beach							
	Indian River County	11,883	0.9	41.9	1,708	1.2	1,833
Regional subtot	al						
0		338,001	25.8	35.7	46,752	32.8	49,474
Northwest nann	netropolitan area						
Northwest north	Franklin County	37	0	8.1	5	0	5
	Gulf County	37	Ö	5.4	7	0	7
	Wakulla County	97	0	17.5	9	0	9
	Walton County	8,423	0.6	7.4	1,597	1.1	1,610
	NMA Total	8,594	0.7	7.5	1,618	1.1	1,631
Northeast nonm	netropolitan area						
	Bradford County	18	0	88.9	1	0	1
	Columbia County	46	0	71.7	3	0	3
	Levy County	198	0	3	16	0	16
	Taylor County	23	0	4.3	2	0	2
	NMA Total	285	0	19.6	22	0	23
Central nonmet	ropolitan area						
	Citrus County	1,471	0.1	42.7	76	0.1	79
	Putnam County	141	0	34.8	9	0	9
	Sumter County	106	0	42.5	4	0	4
	NMA Total	1,718	0.1	42	89	0.1	92
South nonmetro	ppolitan area						
	De Soto County	554	0	42.8	35	0	36
	Glades County	32	0	25	2	0	2
	Hardee County	218	0	33.5	8	0	8
	Hendry County	143	0	21.7	8	0	9
	Highlands County Monroe County	1,144 8,332	0.1 0.6	42 16	50 1,677	0 1.2	50 1,763
	Okeechobee County	6,332 158	0.6	25.3	1,677	0	1,763
	NMA Total	10,581	0.8	20.9	1,787	1.3	1,874
Regional subto	otal	21,178	1.6	17.1	3,516	2.5	3,621

<sup>1)</sup> Fewer than 25 parcels.

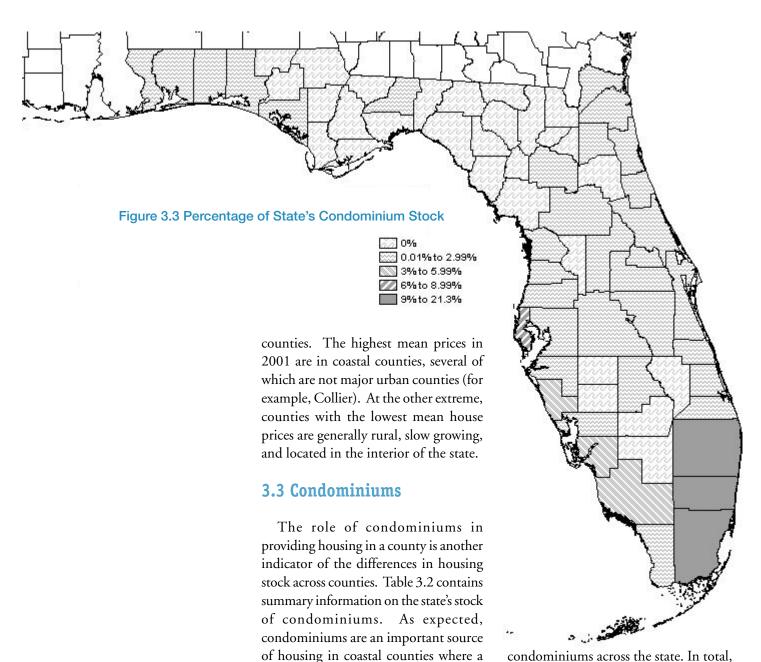
<sup>2)</sup> Data not available.

% of State	Average Age	Constructed in 2001	% of State	New Units Number of 2001 Sales	% of State	Median 2001 Sale Price
0.2	17	11	0.1	445	0.4	58,000
0.8	2)	2)	2)	1,161	0.9	127,600
0.4 0.1 0.5	18 13 17	280 2) 280	1.8 2) 1.8	592 44 636	0.5 0.0 0.5	174,900 74,500 160,550
0.9	18	146	0.9	1,146	0.9	83,000
1.7 5.7 7.4	21 22 21	226 843 1,069	1.4 5.4 6.8	2,309 4,006 6,315	1.8 3.2 5.0	104,900 134,900 122,500
0	28	7	0.0	119	0.1	68,500
1.2	20	203	1.3	1,165	0.9	116,000
32.5	2)	8,342	53.4	30,754	24.2	125,500
0 0 0 1.1 1.1	3 16 2) 2) 2)	10 0 2) 2) 10	0.1 0.0 2) 2) 0.1	3 2 31 1,087 1,123	0.0 0.0 0.0 0.9 0.9	1) 1) 128,060 215,000 211,500
0 0 0 0	2) 23 11 2) 2)	2) 0 18 2) 18	2) 0.0 0.1 2) 0.1	0 5 6 0 11	0.0 0.0 0.0 0.0 0.0	0 1) 1) 0 1)
0.1 0 0 0.1	20 19 2) 2)	0 0 2) 0	0.0 0.0 2) 0.0	114 22 8 144	0.1 0.0 0.0 0.1	64,500 1) 1) 64,250
0 0 0 0 0 1.2 0 1.2	2) 20 8 15 21 2) 25 2)	2) 0 12 0 2) 2) 0 12	2) 0.0 0.1 0.0 2) 2) 0.0 0.1	98 3 10 8 127 850 22 1,118	0.1 0.0 0.0 0.0 0.1 0.7 0.0 0.9	80,900 1) 1) 52,000 179,250 1) 145,000
2.4	2)	40	0.3	2,396	1.9	171,315

low median prices include a number with median prices below \$60,000 in 2001: Hardee (\$59,500), Hamilton (\$58,250), Dixie (\$55,000), and (Holmes (\$47,500).

As shown in Figure 3.2, the sales price data further illustrate the differences between urban and rural counties and between coastal and non-coastal

these units are owner-occupied, much less than the 77.5 percent owner-occupied percentage found in the single-family stock. A total of 757,046 units, or 58 percent of condominium units in the state, are located in three southeast Florida counties: Miami-Dade, Broward, and Palm Beach. Figure 3.3 shows the geographical distribution of



number of retirees live, but not in

interior counties. Summing across

counties indicates that there were

1,307,701 condominium-housing units

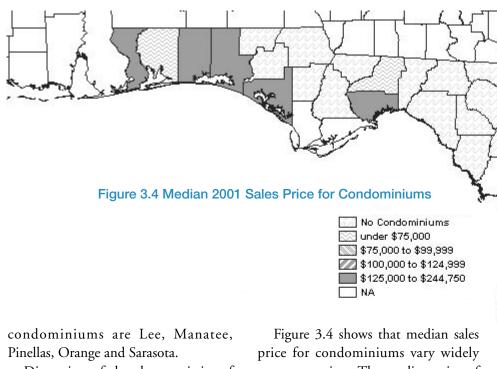
in the state in 2002. 48.5 percent of

condominiums across the state. In total, the non-MSA counties have less than 2.0 percent of the total condominiums in the state, and almost 80 percent of these are found in two counties: Monroe and Walton.

<sup>&</sup>lt;sup>10</sup> Data on the average size (square footage) of the condominium stock is not reported because of variations in reported data.

Other coastal metropolitan counties have a much smaller stock of condominium units than the three southeast counties, but condominiums still play a major role in the provision of housing in those counties. For example, Collier County's 75,634 condominium units far exceed the 58,450 single-family housing units in the county. Condominium units also exceed singlefamily units in Palm Beach County. Other counties with large numbers of years. Among the major metropolitan counties, Pinellas has the highest mean age of 24 years for condominium units.

The number of condominium sales in the state totaled 127,088 units in 2001. Of these over 25 percent occurred in Miami-Dade County, 20 percent in Palm Beach County, and over 14 percent in Broward County. These three southeast counties accounted for about 61 percent of all condominium transactions in the state.



Discussion of the characteristics of condominiums in the state is limited by the lack of data in a number of the data fields in some counties. These fields include year built, age, and price. The following description is based on the available data.

We do not report a mean age for condominium units due to limited data for the individual counties. However, we can compare average age in 36 of Florida's counties, and in 30 of the 36, mean age for condominiums is less than or equal to the mean age for single-family units. Some of the newest condominium stocks are located in non-metropolitan counties including Franklin, with a mean age of 3 across counties. The median price of condominium units sold in the state in 2001 was \$106,000. Counties with median prices above \$200,000 were the \$244,750 in Nassau County, \$214,900 in Okaloosa County, and \$215,000 in Walton County. These are coastal counties and are not part of major MSAs. The relatively high price of portions of the condominium stock in Florida appears to reflect the steep premium paid for the ocean accessibility that is an attribute of many condominiums in coastal settings and the retirement clientele for the units.<sup>10</sup> Condominium units in the larger counties have lower median sales prices, including \$71,000

<sup>&</sup>lt;sup>11</sup> Total number of sales in the state was calculated by treating the counties with missing data as having zero sales.

#### Table 3.3 Multi-Family Stock with Two to Nine Units in Complex

		Total Complexes	% of State	Total Assessed Value (\$m)	% of State	Total Just Value (\$m)
	Florida	155,974	100	18,157	100	19,157
Ft. Lauderdale N	ISA Broward County	19,524	12.5	2,764	15.2	2,934
Jacksonville MS	Α					
	Clay County	277	0.2	27	0.1	27
	Duval County Nassau County	4,402 316	2.8 0.2	453 54	2.5 0.3	485 59
	St. Johns County	1,840	1.2	274	1.5	326
	MSA total	6,835	4.4	808	4.5	897
Miami MSA						
	Miami-Dade County	32,263	20.7	4,531	25	4,751
Orlando MSA						
	Lake County	1,176 10,411	0.8 6.7	101 787	0.6 4.3	101 813
	Orange County Osceola County	839	0.7	83	0.5	84
	Seminole County	1,130	0.7	94	0.5	96
	MSA total	13,556	8.7	1,065	5.9	1,093
Tampa-St. Peter	sburg-Clearwater MSA					
	Hernando County	402	0.3	36	0.2	37
	Hillsborough County Pasco County	5,222 3,822	3.3 2.5	453 269	2.5 1.5	464 295
	Pinellas County	3,622 13,506	2.5 8.7	1,605	8.8	295 1,771
	MSA total	22,952	14.7	2,363	13	2,566
West Palm Bead	ch-Boca Raton MSA					
	Palm Beach County	11,315	7.3	1,341	7.4	1,418
Regional subtota	al					
J		106,445	68.2	12,873	70.9	13,659
Daytona Beach	MSA					
	Flagler County	387	0.2	45	0.2	46
	Volusia County	8,889	5.7	653	3.6	693
	MSA total	9,276	5.9	698	3.8	739
Ft. Myers-Cape		5 000	0.0	201	0.5	000
	Lee County	5,609	3.6	631	3.5	660
Ft. Pierce-Port S						
	Martin County St. Lucie County	967	0.6	87	0.5	89
	MSA total	1,478 2,445	0.9 1.6	97 185	0.5 1	98 187
		_,				
Ft. Walton Beac	h MSA Okaloosa County	751	0.5	89	0.5	90
		701	0.0	00	0.0	00
Gainesville MSA	Alachua County	1,778	1.1	121	0.7	122
	•	1,770	1.1	121	0.1	122
Lakeland-Winter	r Haven MSA Polk County	4,344	2.8	272	1.5	275
	·	4,044	2.0	212	1.0	210
Melbourne-Titus	sville-Palm Bay MSA Brevard County	2,952	1.9	318	1.8	333
	Dievara County	2,952	1.5	310	1.0	000
Naples MSA	Collier County	1 020	1.2	284	1.6	295
	Collier County	1,929	1.2	204	1.0	290
Ocala MSA	Marian Carrat	4.400	0.7	0.4	0.4	00
	Marion County	1,139	0.7	81	0.4	82
Panama City MS			<del>-</del> =		<u> </u>	
	Bay County	780	0.5	78	0.4	78

(See Section 3.1 & 3.4 regarding data limitations

			lew Complexe		
% of State	Average Age	Relative Age Index	Constructed in 2001		Number of 2001 Sales
100	36	1.00	555	100	9,286
15.3	38	1.06	2)	2)	1,688
0.1 2.5 0.3 1.7 4.7	2) 48 28 25 41	2) 1.33 0.78 0.69 1.14	2) 2 2 17 21	2) 0.4 0.4 3.1 4	0 215 18 71 304
24.8	42	1.17	54	9.7	1,931
0.5 4.2 0.4 0.5 5.7	36 25 25 29 26	1.00 0.69 0.69 0.81 0.72	9 11 8 6 34	1.6 2 1.4 1.1 6.1	80 815 39 45 979
0.2 2.4 1.5 9.2 13.4	18 28 31 51 42	0.50 0.78 0.86 1.42 1.17	12 2) 4 13 29	2.2 2) 0.7 2.3 5.2	18 286 140 871 1,315
7.4	41	1.14	10	1.8	569
71.3	39	1.08	148	26.8	6,786
0.2 3.6 3.9	17 26 25	0.47 0.72 0.69	34 88 122	6.1 15.8 21.9	46 2) 46
3.4	26	0.72	89	16	479
0.5 0.5 1	22 36 31	0.61 1.00 0.86	2) 1 1	2) 0.2 0.2	55 99 154
0.5	30	0.83	3	0.5	17
0.6	29	0.81	6	1.1	73
1.4	30	0.83	26	4.7	239
1.7	39	1.08	18	3.2	132
1.5	26	0.72	34	6.1	72
0.4	25	0.69	5	0.9	83
0.4	21	0.58	10	1.8	47

### Table 3.3 Multi-Family Stock with Two to Nine Units in Complex (continued)

		Total Complexes	% of State	Total Assessed Value (\$m)	% of State	Total Just Value (\$m)
Pensacola MSA		•		(, ,		· ,
	Escambia County	1,839	1.2	148	0.8	154
	Santa Rosa County	608	0.4	60	0.3	60
	MSA total	2,447	1.6	209	1.1	215
Punta Gorda MS	SΔ					
r anta dorda me	Charlotte County	1,006	0.6	135	0.7	143
	·	•				
Sarasota-Brader		4.500	0.0	504	0.0	504
	Manatee County	4,530	2.9 1.5	534 319	2.9 1.8	564 327
	Sarasota County MSA total	2,277 6,807	1.5 4.4	853	1.6 4.7	327 891
	WOA total	0,007	7.7	000	7.7	051
Tallahassee MSA	4					
	Gadsden County	11	0	9	0	9
	Leon County	2,002	1.3	188	1	189
	MSA total	2,013	1.3	197	1.1	198
Vero Beach						
VCIO Beach	Indian River County	762	0.5	82	0.5	83
	·					
Regional subtota	al					
		44,038	28.2	4,232	23.3	4,390
Northwest nonm	netropolitan area					
Northwest norm	Calhoun County	3	0	2	0	2
	Franklin County	16	Ö	5	Ö	5
	Gulf County	2	0	0	0	0
	Holmes County	6	0	1	0	1
	Jackson County	65	0	15	0.1	15
	Jefferson County	12	0	2	0	2
	Wakulla County	18	0	2	0	2
	Walton County	48 14	0 0	8 3	0 0	8
	Washington County NMA Total	184	0.1	3 38	0.2	3 39
	· · · · · · · · · · · · · · · · · · ·		• • • • • • • • • • • • • • • • • • • •		0.2	
Northeast nonm						
	Baker County	25	0	4	0	4
	Bradford County	16	0	1	0	1
	Columbia County Dixie County	209 3	0.1 0	20 0	0.1 0	20 0
	Gilchrist County	8	0	1	0	1
	Hamilton County	17	0	5	0	5
	Lafayette County	4	Ö	Ö	Ö	Ö
	Levy County	68	0	6	0	6
	Madison County	41	0	5	0	5
	Suwannee County	44	0	3	0	3
	Taylor County	7	0	5	0	5
	Union County NMA Total	8 450	0 0.3	1 51	0 0.3	1 51
	TAINIT TOTAL	400	0.0	01	0.0	01
Central nonmetr						
	Citrus County	373	0.2	27	0.1	27
	Putnam County	133	0.1	8	0	9
	Sumter County NMA Total	75 581	0 0.4	5 41	0 0.2	6 42
	INIVIA IOIAI	301	0.4	41	0.2	42
South nonmetro	politan area					
	De Soto County	175	0.1	12	0.1	12
	Glades County	35	0	2	0	2
	Hardee County	229	0.1	11	0.1	12
	Hendry County	381	0.2	28	0.2	28
	Highlands County Monroe County	712 2,619	0.5 1.7	38 822	0.2 4.5	38 876
	Okeechobee County	125	0.1	10	0.1	10
	NMA Total	4,276	2.7	922	5.1	977
		, -		-		-
Regional subtota	al	5,491	3.5	1,053	5.8	1,109
) Fewer than 25 parce	els.	o,-ro i	0.0	1,000	5.0	1,100
) Data not available.						

<sup>46</sup> 

(See Section 3.1 & 3.4 regarding data limitations,

% of	Average	Relative (	w Complexes Constructed	% of	Number of
State	Age	Age Index	in 2001	State	2001 Sales
0.8 0.3 1.1	34 21 31	0.94 0.58 0.86	12 3 15	2.2 0.5 2.7	74 23 97
0.7	28	0.78	14	2.5	92
2.9 1.7 4.6	36 38 37	1.00 1.06 1.03	8 6 14	1.4 1.1 2.5	275 187 462
0 1 1	1) 29 29	1) 0.81 0.81	0 12 12	0 2.2 2.2	2) 122 122
0.4	30	0.83	19	3.4	54
22.9	30	0.83	388	69.8	2,169
0 0 0 0 0.1 0 0 0 0.2	1) 1) 1) 1) 20 1) 1) 16 1)	1) 1) 1) 0.56 1) 0.44 1) 0.56	0 0 0 0 1 0 0 1 0 2	0 0 0 0 0.2 0 0.2 0 0.2	2) 2 2) 2) 2) 2) 2) 2) 2) 2) 2)
0 0 0.1 0 0 0 0 0 0 0 0	25 1) 27 1) 1) 1) 26 18 25 1) 1)	0.69 1) 0.75 1) 1) 1) 0.72 0.50 0.69 1) 1) 0.72	0 0 0 0 0 0 0 0 2 0 0	0 0 0 0 0 0 0 0 0 0.4 0 0	1 1 5 2) 2) 1 2) 3 3 1 2) 2)
0.1 0 0 0.2	23 35 24 26	0.64 0.97 0.67 0.72	2 0 1 3	0.4 0 0.2 0.5	34 4 5 43
0.1 0 0.1 0.1 0.2 4.6 0.1 5.1	31 27 38 31 34 42 30 39	0.86 0.75 1.06 0.86 0.94 1.17 0.83 1.08	1 0 1 1 2) 7 2 12	0.2 0 0.2 0.2 2) 1.3 0.4 2.2	12 2) 7 9 56 183 4 271
5.8	2)	1.00	19	3.4	331

#### Table 3.4 Multi-Family Stock with Ten or More Units in Complex

		Total Complexes	% of State	Total Assessed Value (\$m)	% of State	Total Just Value (\$m)
Florida	Florida	14,000	100	33,201	100	33,209
Ft. Lauderdale M	ISA Broward County	1,822	13	5,285	15.9	5,289
Jacksonville MS	A					
	Clay County Duval County Nassau County St. Johns County MSA total	42 546 37 35 660	0.3 3.9 0.3 0.3 4.7	165 2,050 42 170 2,428	0.5 6.2 0.1 0.5 7.3	165 2,050 43 170 2,428
Miami MSA						
	Miami-Dade County	3,893	27.8	6,228	18.8	6,230
Orlando MSA						
	Lake County Orange County Osceola County Seminole County MSA total	115 739 92 242 1,188	0.8 5.3 0.7 1.7 8.5	167 3,769 422 1,326 5,684	0.5 11.4 1.3 4 17.1	167 3,770 422 1,326 5,684
Tampa-St. Peter	sburg-Clearwater MSA	40	0.0	00	0.4	20
	Hernando County Hillsborough County Pasco County Pinellas County MSA total	46 755 132 783 1,716	0.3 5.4 0.9 5.6 12.3	39 3,202 177 1,755 5,173	0.1 9.6 0.5 5.3 15.6	39 3,202 177 1,755 5,173
West Palm Beac	h-Boca Raton MSA Palm Beach County	800	5.7	2,624	7.9	2,624
Regional subtota	al	10,079	72	27,422	82.6	27,429
Daytona Beach	MSA					
	Flagler County Volusia County MSA total	6 496 502	0 3.5 3.6	8 419 427	0 1.3 1.3	8 419 427
Ft. Myers-Cape	Coral MSA Lee County	175	1.3	562	1.7	562
Ft. Pierce-Port S						
	Martin County St. Lucie County	62 67	0.4 0.5	114 101	0.3 0.3	114 101
	MSA total	129	0.9	215	0.6	215
Ft. Walton Beacl	h MSA Okaloosa County	146	1	136	0.4	136
Gainesville MSA	Alachua County	392	2.8	625	1.9	625
Lakeland-Winter	Haven MSA Polk County	280	2	302	0.9	302
Melbourne-Titus	sville-Palm Bay MSA Brevard County	269	1.9	544	1.6	544
Naples MSA	Collier County	100	0.7	522	1.6	522
Ocala MSA	Marion County	87	0.6	126	0.4	126
Panama City MS	SA Bay County	120	0.9	124	0.4	124

(See Section 3.1 & 3.5 regarding data limitations)

% of State	Average Age	Relative Age Index	New Complexes Constructed in 2001	% of State	Number of 2001 Sales
State	Aye	Aye illuex	111 2001	State	2001 34163
100.0	30	1.00	183	100.0	643
15.9	34	1.13	2)	2)	119
0.5 6.2 0.1 0.5 7.3	2) 28 21 14 27	2) 0.93 0.70 0.47 0.90	2) 13 4 1	2) 7.1 2.2 0.5 9.8	2) 19 2 2) 21
18.8	38	1.27	26	14.2	224
0.5 11.4 1.3 4 17.1	21 22 15 18 21	0.70 0.73 0.50 0.60 0.70	2 16 6 10 34	1.1 8.7 3.3 5.5 18.6	5 30 1 4 40
0.1 9.6 0.5 5.3 15.6	16 23 22 37 29	0.53 0.77 0.73 1.23 0.97	3 2) 2 3 8	1.6 2) 1.1 1.6 4.4	2) 36 5 57 98
7.9	29	0.97	21	11.5	16
82.6	32	1.07	107	58.5	518
0 1.3 1.3	1) 39 39	1) 1.30 1.30	1 4 5	0.5 2.2 2.7	2) 2) 2)
1.7	22	0.73	10	5.5	9
0.3 0.3 0.6	23 25 24	0.77 0.83 0.80	2) 4 4	2) 2.2 2.2	3 4 7
0.4	22	0.73	3	1.6	1
1.9	22	0.73	7	3.8	3
0.9	27	0.90	0	0.0	10
1.6	29	0.97	3	1.6	10
1.6	16	0.53	7	3.8	2)
0.4	24	0.80	0	0.0	1
0.4	22	0.73	0	0.0	2

#### Table 3.4 Multi-Family Stock with Ten or More Units in Complex (continued)

		Total Complexes	% of State	Total Assessed Value (\$m)	% of State	Total Just Value (\$m)
Pensacola MSA	Escambia County Santa Rosa County MSA total	123 24 147	0.9 0.2 1.1	264 27 291	0.8 0.1 0.9	264 27 291
Punta Gorda M	SA Charlotte County	25	0.2	53	0.2	53
Sarasota-Brade	enton MSA					
	Manatee County Sarasota County MSA total	116 532 648	0.8 3.8 4.6	395 467 863	1.2 1.4 2.6	395 467 863
Tallahassee MS						
	Gadsden County Leon County MSA total	47 348 395	0.3 2.5 2.8	4 647 651	0 1.9 2	4 647 651
Vero Beach	Indian River County	42	0.3	98	0.3	98
Regional subto	•					
		3,457	24.7	5,538	16.7	5,539
Northwest non	metropolitan area Calhoun County Franklin County	4 25	0 0.2	1 5	0	1 5
	Gulf County	5	0	4	0	4
	Holmes County Jackson County	6 15	0 0.1	3 3	0 0	3 3
	Jefferson County	7	0.1	2	0	2
	Wakulla County Walton County	1 60	0 0.4	1 20	0 0.1	1 20
	Washington County NMA Total	2 125	0 0.9	1 40	0 0.1	1 40
Northeast nonr	netropolitan area					
	Baker County	1	0	1	0	1
	Bradford County Columbia County	16 24	0.1 0.2	10 22	0 0.1	10 22
	Dixie County	6	0	2	0	2
	Gilchrist County Lafayette County	1 1	0 0	0 1	0 0	0 1
	Levy County	11	0.1	6	0	6
	Madison County Suwannee County	8 15	0.1 0.1	3 9	0 0	3 9
	Taylor County	2	0	1	0	1
	Union County NMA Total	4 89	0 0.6	1 56	0 0.2	1 56
Central nonme						
	Citrus County Putnam County	48 29	0.3 0.2	19 26	0.1 0.1	19 26
	Sumter County	47	0.2	8	0	8
	NMA Total	124	0.9	53	0.2	53
South nonmetr		20	0.0	10	0	10
	De Soto County Glades County	32 4	0.2 0	13 1	0 0	13 1
	Hardee County	8	0.1	5	0	5
	Hendry County Highlands County	14 56	0.1 0.4	7 26	0 0.1	7 26
	Monroe County	10	0.1	39	0.1	39
	Okeechobee County NMA Total	2 126	0 0.9	1 92	0 0.3	1 92
Regional subto	tal	464	3.3	241	0.7	241

<sup>1)</sup> Fewer than 25 parcels.

<sup>2)</sup> Data not available.

#### (See Section 3.1 & 3.5 regarding data limitations)

		N	lew Complexes		
% of State	Average Age	Relative Age Index	Constructed in 2001	% of State	Number of 2001 Sales
0.8 0.1 0.9	23 1) 23	0.77 1) 0.73	0 0 0	0.0 0.0 0.0	2) 2) 2)
0.2	26	0.87	3	1.6	2
1.2 1.4 2.6	26 26 26	0.87 0.87 0.87	2 0 2	1.1 0.0 1.1	3 20 23
0 1.9 2	28 26 26	0.93 0.87 0.87	1 24 25	0.5 13.1 13.7	2) 41 41
0.3	18	0.60	2	1.1	1
16.7	27	0.90	71	38.8	110
0 0 0 0 0 0 0 0 0 0.1	1) 22 1) 1) 1) 1) 1) 11 1) 2)	1) 0.73 1) 1) 1) 1) 1) 0.37 1) 0.53	0 0 0 0 0 1 0 1 0 2	0.0 0.0 0.0 0.0 0.0 0.5 0.0 0.5 0.0	2) 2) 2) 2) 2) 1 2) 1 2) 2
0 0 0.1 0 0 0 0 0 0 0	1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 2)	1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 1) 0.80	0 0 2 0 0 0 0 0 0	0.0 0.0 1.1 0.0 0.0 0.0 0.0 0.0 0.0 0.0	2) 2) 1 2) 2) 2) 2) 2) 2) 2) 2)
0.1 0.1 0 0.2	18 19 28 22	0.60 0.63 0.93 0.73	0 1 0 1	0.0 0.5 0.0 0.5	2) 2) 6 6
0 0 0 0 0.1 0.1 0 0.3	22 1) 1) 1) 24 1) 1) 24	0.73 1) 1) 1) 0.80 1) 1) 0.80	0 0 0 0 2) 0 0	0.0 0.0 0.0 0.0 2) 0.0 0.0	1 2) 2) 2) 5 2) 2)
0.7	2)	0.73	5	2.7	15

in Broward, \$81,000 in Hillsborough, \$116,000 in Miami-Dade, and \$69,000 in Orange County. While these counties have high priced units, the medians indicate a broader market for condominium units.

#### 3.4 Multifamily Housing

The county property appraiser data used in this report do not allow an accounting for the number of units in multifamily rental structures, as only information on the structures (parcels) is reported. It is this information that is summarized below. We divide the multifamily stock, consistent with the appraiser data, into two categories: complexes with less than 10 units and complexes with 10 or more units.

Table 3.3 contains summary information on the state's stock of multifamily properties containing fewer than 10 units. There are about 156,000 multifamily properties that contain fewer than 10 units in the state of Florida. Approximately 68 percent of these are found in the six major metropolitan areas, with another almost 28 percent located in other metropolitan areas. Only 3.5 percent of these small multifamily complexes are found in non-MSA counties. Almost 21 percent of the units in this category are found in Miami-Dade County. Only nine of the 31 non-MSA counties have more than 100 such complexes, with Monroe having over 61 percent of the non-MSA total. Other non-MSA counties with more than 100 properties were Columbia, Citrus, Putnam, DeSoto, Hardee, Hendry, Highlands and Okeechobee Counties. These numbers again point to the differences that are observed between the urban, coastal counties and the rural, interior counties of Florida. As with condominium units, which are also likely found in multifamily structures, it is apparent that urban and coastal counties are the predominant settings for such structures while the rural and interior counties are characterized by a largely single-family housing stock.

The mean age of multifamily complexes containing 9 or fewer units is 36 years for the state. Counties with the oldest average ages (and at least 100 properties) include Duval (48), Miami-Dade (42), Monroe (42), and Pinellas (51). Counties with more than 100 properties and a relative age index of below 0.6 (the state index is 1.0) include Bay, Flagler, Hernando, and Santa Rosa.

There are few sales of multifamily properties of less than 10 units relative to single-family units, as there were only 9,286 small multifamily properties sold across the state in 2001<sup>11</sup>. Miami-Dade and Broward Counties combined to have almost 39 percent of the sales in the state, and 73 percent of all sales were in major MSA areas.

Table 3.4 contains information on multifamily complexes with 10 or more units. With a total of 14,000 complexes in the state, there are about 9 percent as many of these larger complexes as of complexes with less than 10 units, but these complexes undoubtedly comprise more total units than the smaller complexes. About 28 percent of these larger complexes are located in Miami-Dade County, with 13 percent in Broward County and 12.3 percent in the Tampa Bay MSA. The six major MSAs contain approximately 72 percent of all complexes of this type. The other MSAs contain almost 25 percent of the state total, with Volusia, Alachua, Leon, and Sarasota Counties having more than 300 complexes. The Alachua and Leon numbers reflect the concentration of college students in those communities. Non-MSA counties contain only 3.3 percent of the state's stock of larger apartment complexes.

The average age of these larger complexes is 30 years. Miami-Dade (38 years), Pinellas (37 years), and Volusia (39 years) Counties have relatively old stocks of larger complexes. At 21 years, the Orlando MSA has the

youngest stock of such complexes among the six major MSAs.

There were 183 complexes of greater than 10 units constructed in 2001. About 59 percent of this construction occurred in the six major MSAs including over 18 percent in the Orlando MSA. Sales of existing complexes in this category totaled 643 in 2001, with approximately 35 percent in Miami-Dade County and over 80 percent in the major MSAs.

### 3.5 Impact of Housing on the Florida Economy

There are a number of ways in which the impact of housing on the Florida economy might be measured. For example, we might examine the number of jobs created in the construction and related industries, the payroll on those jobs, or the materials cost of a housing unit. We examine two simple measures. First, in 2001 there were 281,480 sales of single family housing units (new and existing). With an average sales price of \$130,000, these transactions total over \$36.6 billion in sales. This figure is the basis from which transaction fees, transfer taxes, mortgage fees, purchases of new furnishings and equipment, and other expenditures flowing into the economy are generated. Second, the total assessed value of the single family housing stock in the state was over \$451 billion in 2001. This figure is the basis for property taxes as well as a measure of the wealth of households. The figure does not include condominiums, multifamily rental structures, or manufactured housings.

The U.S. Department of Commerce Bureau of Economic Analysis (BEA) has created a Regional Input-Output Modeling System (RIMS II) which is used to analyze economic impacts. The RIMS II system allows economic impacts to be estimated for three categories, economic output, earnings, and employment. Using the appropriate RIMS II multipliers, and assuming the 80,034 new single-family units have an average value of \$130,000, this construction creates 391,206 jobs, has an economic output impact of almost \$22 billion, and creates \$7.4 billion in earnings. <sup>12</sup> Assuming an average millage rate of 17.12 for the state this new construction generates approximately \$178 million in local taxes.

#### 3.6 Summary

The county property appraiser data provides a wealth of data on characteristics of the housing stock across the state. The county-by-county and MSA summaries clearly show differences in the importance of single-family properties, condominiums, and multifamily properties. Also apparent are differences across the state in the age and size of units. Finally, there are significant differences in the numbers of transactions each year and in the median values of properties. The differences show that the state might be characterized as two states when thinking about the housing market, with the large urban and coastal counties at one extreme and the small, rural inland counties at the other.



<sup>&</sup>lt;sup>12</sup> For a more detailed discussion of the RIMS II approach and the economic impact of real estate, see The Impact of Real Estate on the Florida Economy 2003 available from the Shimberg Center for Affordable Housing or online (http://www.flhousingdata.shimberg.ufl.edu/reports/index.html).

### **Revised February 2004**

Due to a mathematical error, the Historic Affordability Index and County Affordability Index tables in the 2003 State of Florida's Housing contain incorrect information for 30 counties. The corrected tables are

- Table 4.1 Historic Affordability Index County Affordability Index
- Table 4.2 County Affordability Index and Rank

This error changes the level, but not the trend, of the affordability numbers and changes the rank of some counties, but the overall conclusions drawn in the report remain the same: housing affordability decreased in Florida last year due to the reasons mentioned in the report.

We regret the mistake.

### 4. Housing Affordability

Douglas White, Florida Data Clearinghouse, Shimberg Center, University of Florida Marc T. Smith, Ph.D., Shimberg Center, University of Florida

#### 4.1 Introduction

The affordability of housing is an important issue nationally and in the state of Florida. Households are concerned about it because affordability affects their ability to become a homeowner, as well as the size and amenities of the home they are able to purchase. Real estate salespersons and other industry participants also are concerned, because the number of households able to afford the purchase of a home is an important determinant of single-family sales activity in their local markets. Housing affordability also has become an important public policy issue, as home ownership is viewed as being an important goal for both individual and societal reasons.

Three factors are the primary determinants of the affordability of housing. These are household income, housing prices, and mortgage rates. For a household considering homeownership, an additional factor is the rate of appreciation in housing prices. This chapter begins with a discussion of affordability using a homeownership cost index measure. It then investigates issues of housing affordability using a concept called cost burden.

### **4.2 Housing Affordability Index**

One measure of housing affordability is the cost of homeownership, commonly

conveyed through housing affordability indices. These indices generally indicate that affordability increased substantially towards the end of the last decade, primarily as a result of lower interest rates during that period. A housing affordability index for an area brings together the price and the income elements that contribute to housing affordability. The most common index construction method is that used by the National Association of Realtors (NAR). The NAR index measures the ability of the median income household in an area to afford a median priced house. In addition to the median income and median house price in an area, index construction requires the current mortgage interest rate, assumptions about the down payment required to purchase the median price home, and the maximum percentage of household income that can be spent on housing. An index of 100 indicates the typical (median) family in the area has sufficient income to purchase a single-family home selling at the median price.1 Median house prices are calculated from the DOR county property appraiser datasets. Median household incomes come from the 2000 decennial US Census.

Although important, median sale prices in a county or MSA do not alone determine housing affordability. A second important factor is the income of area residents. The highest household incomes in Florida are generally in the coastal counties that also contain many high priced housing units. However, median household incomes and single-family house prices in an area are only moderately correlated — which can lead to significant differences in housing affordability across counties and MSAs.

Our index construction method can be represented by the following formula:

<sup>&</sup>lt;sup>1</sup> Affordability indices are calculated by NAR only for the nine largest metropolitan areas in Florida. Moreover, most of these MSAs are recent additions to the report, and thus provide little historical information on how housing affordability has changed over time and across counties. In addition, the affordability indices published by NAR are based only on homes that have sold through the use of a multiple listing service. Thus, the home sales used to calculate the median sale price may not be representative of all housing stock in the area.

Affordability Index = 
$$\frac{Median\ Family\ Income}{Qualifying\ Income} \times 100$$

Qualifying income is defined as the income needed to qualify for a mortgage to finance an existing median-priced home. As an example, if median family income in the area is \$35,000, the median price of an existing home is \$100,000, and the mortgage interest rate is 10 percent, the calculated affordability index is 103.9:

$$\frac{\$35,000}{4 \times 12(0.80 \times \$100,000) \times 0.008776}$$

$$= \frac{\$35,000}{\$33,700}$$

$$= 103.9\%$$

The denominator is the annual mortgage payment, multiplied by 4, because the income needed to qualify for a 20 percent down, 10-percent, monthly payment loan is assumed to be four times the annual mortgage payment. This is equivalent to a household spending 25 percent of their monthly income on mortgage costs, and is consistent with the qualifying ratio used by residential mortgage lenders. The calculated index of 103.9 indicates that median household income in the area is slightly (3.9 percent) higher than that needed to qualify for the loan. The higher the calculated affordability index, the easier it is for a household in the area with median income to purchase a medianpriced home.

To calculate affordability indices for each county and MSA, mortgage rates for each year are obtained from the Federal Housing Finance Board. These effective mortgage rates (points are amortized over 10 years) combine fixed and adjustable rate loans.<sup>2</sup>

We calculate affordability indices (Exhibit 4-1) for all counties in Florida and for the years for which we have sufficient data (at least 25 sales each year, as the sales provide the basis for the calculation of a median sales price of a home). Our index calculations differ from those of the NAR because we use the property appraiser data as the source for home sales transaction prices rather than the Multiple Listing Service® used by the Realtors, and our median income is household rather than family income. Our numbers are therefore not directly comparable, but do give an indication of relative affordability across the state.

Table 4.1 illustrates that consistently across counties and MSAs, the affordability indices developed for this report show housing affordability improving in Florida throughout the 1990s (i.e. the level of the affordability index has generally increased). However in many counties and MSAs there was a decline in affordability between 1999 and 2001. Florida's improved housing affordability in the 1990s is consistent with an increase in affordability at the national level. In 1990, the U.S. affordability index was 109.5. In 1999 the index had risen to 139.1. That is, the median household income in the U.S. was 39.1 percent greater than that needed to purchase a median price home (using standard financing). In Florida the median of 67 counties was 156.81 in 1991, 158.91 in 1999, and 140.98 in 2001(the Florida median is not directly comparable to the national number because the Florida median is derived from the 67 county indices). While experiencing an increase in affordability throughout the nineties, last year Florida experienced a decline in affordability.

In the calculation of an affordability index, the mortgage interest rate is a key component because of its role in



<sup>&</sup>lt;sup>2</sup> The NAR also uses the effective mortgage rates supplied by the Federal Housing Finance Board and assumes, as we do, that the income needed to quality for standard financing is four times the annual mortgage payment. Thus, our calculated affordability indexes are directly comparable to those calculated by NAR for the country's largest metropolitan areas.

determining the qualifying income needed to purchase the median priced house. A large reason for the increased affordability throughout the nineties was the continued decline of mortgage rates. The national average mortgage rate for a single-family home was 9.74% in 1990, and it had fallen to 7.96% by 2000, and continued to decline to 6.51% in 2002.3 The combination of low interest rates and the recent lackluster return to the stock market has lead many to invest in real estate. This increased investment has caused home prices to dramatically increase over the last few years and led to concern that a speculative bubble is forming in the housing market.

Another important factor that contributed to the increased affordability in the 1990s was the steady increase in median household incomes. In fact, median incomes generally increased faster than median house prices over the 1990s time period. However, unemployment in Florida increased from 3.6% in January 2000 to 5.3% in January 2003.4 Not surprisingly, per capita personal income barely increased from \$28,366 in 2000 to \$29,596 in 2002.5 This slow income growth while housing prices continue to appreciate explains the recent decrease in housing affordability.

In interpreting the affordability indices for each county, several caveats should be considered. First, as a result of the limited sales transactions in some smaller counties, the median sale price may vary considerably from year to year. This fluctuation in the estimated median house price produces an exaggerated variability in the calculated affordability index. Second, the calculation of the index using median house prices and incomes may mask the distribution of affordability across the various income brackets within a county or MSA. For

example, if house prices in a county tend to be tightly distributed around their median value, while incomes are more widely dispersed, then affordability problems will exist at the lower income ranges that are not identified by the affordability index. Thus, standard indices based on median house prices and median incomes are only one measure of housing affordability. What the affordability indices provide is an indication of the relative change in affordability within counties over time, and the relative affordability of housing across counties.

Table 4.2 ranks the affordability of each county. Eight Florida counties had an affordability index below 100 in 2001. The least affordable counties [i.e., those with ranks closer to 65, only 65 counties are included because insufficient sales precluded the inclusion of Liberty and Volusia County] included seven counties in major metropolitan areas, Miami-Dade which ranked 60th, Broward which ranked 59th, Lake which ranked 58th, Osceola which ranked 55th, Nassau which ranked 56th, Saint Johns which ranked 54th, and Palm Beach which ranked 52<sup>nd</sup>, two other MSA counties, Martin (53), and Collier (57), and coastal counties in south Florida and on the panhandle including Gulf (61), Franklin (64), Monroe (65), and Walton (62). Monroe (the Florida Keys), a growth restricted county with a unique environment, is the least affordable with an affordability index of 66.58. The index exceeds the 2001 national average of 135.7 in 43 of the 65 counties.

At the other extreme, the most affordable counties are generally rural counties in the interior of the state, mostly in the north part of the state. Bradford County is Florida's most affordable county in 2001 (index = 213.04). Other top 10 high affordability

 $<sup>^{\</sup>rm 3}$  Interest rate data is from the Federal Housing Finance Board.

<sup>&</sup>lt;sup>4</sup> Unemployment figures are from the Bureau of Labor Statistics, U.S. Department of Labor.

<sup>&</sup>lt;sup>5</sup> Per capita personal income figures are from the Bureau of Economic Analysis, Regional Accounts Data.

Table 4.1 Historic Affordability Index County Affordability Index												
Major Metro Areas	1992	1994	1995	1996	1997	1998	1999	2001				
Ft. Lauderdale MSA												
Broward County	NA	NA	NA	NA	NA	NA	NA	92.12				
Jacksonville MSA	100.00	100.71	144.00	157.00	155.40	105.00	170 55	15404				
Clay County Duval County	162.92 NA	162.71 NA	144.28 NA	157.38 NA	155.48 NA	165.66 NA	172.55 150.39	154.34 141.34				
Nassau County	133.42	131.90	126.89	120.29	117.80	121.49	126.88	106.43				
St. Johns County	127.51	109.23	96.58	101.53	98.23	106.51	115.48	111.62				
Miami MSA Miami-Dade County	105.23	93.94	82.81	90.93	88.01	93.72	100.40	87.46				
Orlando MSA												
Lake County	124.69	113.22	111.99	108.39 131.05	108.63	106.94	132.45	99.11				
Orange County Osceola County	130.14 130.53	121.88 118.10	127.83 118.80	131.05	131.59 122.90	137.79 120.10	138.39 140.37	133.28 108.89				
Seminole County	148.25	142.21	134.33	144.00	146.89	151.52	147.42	160.11				
Tampa-St. Petersburg-Clearwa	ater MSA											
Hernando County	150.45	135.93	136.56	134.91 131.99	145.81	145.51	162.59	146.71				
Hillsborough County Pasco County	135.01 NA	131.12 NA	126.57 NA	131.99 NA	134.02 NA	139.04 NA	134.43 NA	145.32 129.00				
Pinellas County	132.01	122.76	120.13	125.87	132.90	136.63	137.12	126.08				
West Palm Beach-Boca Raton Palm Beach County	MSA 113.82	111.76	107.38	116.85	114.86	133.15	121.30	112.04				
Other Metro Areas												
Daytona Beach MSA												
Flagler County	116.01	106.34	97.51	118.14	133.32	132.63	150.05	139.19				
Volusia County	136.95	128.73	124.86	130.17	131.87	140.40	156.15	NA				
Ft. Myers-Cape Coral MSA Lee County	126.97	113.13	106.08	107.38	106.33	115.21	123.54	114.22				
Ft. Pierce-Port St. Lucie MSA												
Martin County	116.66 168.69	104.41 156.60	104.03 148.36	103.67 155.05	102.39 155.04	114.82 156.74	111.98 172.38	112.02 153.78				
St. Lucie County	100.09	130.00	140.30	155.05	155.04	150.74	172.30	155.76				
Ft. Walton Beach MSA Okaloosa County	145.54	142.47	133.34	142.10	142.22	143.32	153.24	159.92				
•	140.04	172.71	100.04	142.10	172.22	140.02	100.24	100.02				
Gainesville MSA Alachua County	114.77	115.78	113.74	114.85	112.86	115.59	114.99	121.38				
· ·												
Lakeland-Winter Haven MSA Polk County	146.53	137.99	135.57	138.05	143.46	154.25	161.68	147.89				
Melbourne-Titusville-Palm Bay	MSA											
Brevard County	155.77	151.23	146.83	151.04	147.19	147.06	163.37	146.35				
Naples MSA	100.00	00.47	00.75	07.00	05.57	00.40	100.00	100.01				
Collier County	100.80	98.47	88.75	97.68	95.57	98.12	103.99	103.01				
Ocala MSA Marion County	157.05	105.99	124.44	133.12	120.27	136.11	149.10	136.12				
•	157.05	125.83	124.44	133.1∠	130.27	130.11	149.10	130.12				
Panama City MSA Bay County	144.82	149.03	136.71	142.90	139.72	140.29	148.66	135.77				
	1 <del>44</del> .02	143.00	130.71	144.30	103.12	140.23	140.00	133.11				
Pensacola MSA Escambia County	144.82	156.43	161.85	147.31	136.56	142.29	143.17	143.77				
Santa Rosa County	151.34	138.31	126.71	138.39	130.56	136.48	151.18	136.71				
,												

Table 4.1 Historic Affordability Index County Affordability Index (continued)										
	1992	1994	1995	1996	1997	1998	1999	2001		
Punta Gorda MSA Charlotte County	141.41	125.61	119.48	128.68	128.44	132.95	154.05	120.42		
Sarasota-Bradenton MSA										
Manatee County Sarasota County	122.53 136.12	119.51 120.06	117.24 116.93	119.60 122.57	118.54 119.83	120.41 132.98	118.49 129.61	116.40 114.94		
Tallahassee MSA										
Gadsden County Leon County	137.01 144.56	135.71 144.46	131.23 128.73	146.17 136.62	122.71 144.79	134.15 145.17	169.44 142.82	142.52 154.66		
Vero Beach	150.00	140.47	145.40	4 45 55	454.74	170.00	150.00	150.57		
Indian River County	152.63	146.47	145.46	145.55	151.74	170.00	156.82	152.57		
Nonmetro County Regions										
Northwest nonmetropolitan area Calhoun County	186.57	192.39	179.82	167.72	174.73	190.35	182.10	179.76		
Franklin County Gulf County	123.48 166.32	89.85 143.41	85.07 146.43	76.83 161.99	93.41 137.36	78.15 118.07	77.06 114.10	72.12 84.92		
Holmes County	201.00	193.65	188.88	176.34	209.71	197.12	210.89	195.50		
Jackson County	154.89	191.47	155.73	160.16	150.45 200.90	155.87	191.62	148.41 168.56		
Jefferson County Wakulla County	NA NA	218.45 141.97	240.65 144.58	171.68 136.58	200.90 140.86	190.92 138.16	191.32 143.74	137.30		
Walton County	169.54	114.97	103.74	105.28	88.00	87.64	93.95	83.55		
Washington County	176.74	184.07	182.72	177.71	173.26	176.84	210.46	174.41		
Northeast nonmetropolitan area		100 50	100.10	100.10	450.00	474.00	100.00	170 10		
Baker County Bradford County	178.36 204.00	196.58 203.27	196.48 179.53	182.13 171.62	159.80 188.40	171.26 189.75	190.99 178.68	179.40 213.04		
Columbia County	142.20	153.65	152.04	167.16	155.47	153.66	159.43	164.52		
Dixie County	198.51	191.68	199.59	164.72	NA	173.00	220.39	147.12		
Gilchrist County	203.16	124.43	189.25	145.38	116.15	170.58	159.30	147.45		
Lafayette County	NA 150.25	NA 151.97	NA 138.16	NA 148.48	NA 128.56	208.31 159.69	212.93 160.00	201.71 153.04		
Levy County Madison County	158.35 203.35	212.91	215.78	175.91	166.05	169.04	174.75	174.31		
Suwannee County	207.12	160.67	168.57	156.84	144.87	168.45	181.40	141.95		
Taylor County	199.46	147.17	182.01	179.37	189.41	194.74	197.38	178.70		
Union County	NA	161.08								
Central nonmetropolitan area										
Citrus County	152.98	148.84	132.14	143.10	151.28	145.48	166.90	146.80		
Putnam County Sumter County	149.55 NA	146.02 NA	155.12 NA	156.39 NA	167.84 NA	172.72 NA	163.39 106.50	166.12 79.66		
South nonmetropolitan area										
De Soto County	159.69	182.96	168.86	160.58	172.81	147.04	165.36	155.32		
Glades County	133.25	132.51	134.98	182.99	162.45	158.28	182.64	169.14		
Hardee County Hendry County	262.56 135.90	263.51 160.80	210.55 150.26	199.86 147.87	201.89 165.94	197.01 186.73	214.62 194.77	189.27 200.03		
Highlands County	155.31	148.61	131.13	134.03	140.93	161.01	179.00	165.04		
Monroe County	79.55	72.41	64.25	70.38	67.64	74.22	70.21	66.58		
Okeechobee County	162.21	145.86	145.68	157.16	145.63	150.86	176.58	164.01		

index counties in 2001 include Lafayette, Hendry, Holmes, Hardee, Calhoun, Baker, Taylor, Washington, and Madison. These counties, with the exception of Taylor County, are inland, rural, and characterized by relatively low median house prices. It should be emphasized that most of the counties with the highest affordability indices also had fewer than 300 transactions in 2001. The small number of transactions is not surprising in small counties, but may be indicative of the level of competition in the market and therefore the pressure on housing prices. Also, with so few

transactions, the estimated median house price is subject to more random variation from year to year, and thus likely overstates the true variation in affordability in these small counties.

#### 4.3 Cost Burden

The affordability index indicates that housing became more affordable in Florida in the late 1990s as compared to the early part of the decade. The primary factor in increasing affordability is the decline in mortgage interest rates during the period.

However, the use of indices focuses only on the average and masks what is happening at the low end. In addition, the index reported only examines owner-occupied housing. For households of lower income, the loss of affordable housing from the stock and price increases that have exceeded the growth in incomes, among other factors, have led to a worsening problem of housing affordability. As a means of examining the number of households with a housing affordability problem, we calculate a number called "cost burden." Cost burden is our estimate of the number of

County	2001	2001 Rank	County	2001	2001 Rank
Bradford	213.04	Most Affordable	Escambia	143.77	35
Lafayette	201.71	2	Gadsden	142.52	36
Hendry	200.03	3	Suwannee	141.95	37
Holmes	195.50	4	Duval	141.34	38
Hardee	189.27	5	Flagler	139.19	39
Calhoun	179.76	6	Wakulla	137.30	40
Baker	179.40	7	Santa Rosa	136.71	41
Taylor	178.70	8	Marion	136.12	42
Washington	174.41	9	Bay	135.77	43
Madison	174.31	10	Orange	133.28	44
Glades	169.14	11	Pasco	129.00	45
Jefferson	168.56	12	Pinellas	126.08	46
Putnam	166.12	13	Alachua	121.38	47
Highlands	165.04	14	Charlotte	120.42	48
Columbia	164.52	15	Manatee	116.40	49
Okeechobee	164.01	16	Sarasota	114.94	50
Union	161.08	17	Lee	114.22	51
Seminole	160.11	18	Palm Beach	112.04	52
Okaloosa	159.92	19	Martin	112.02	53
DeSoto	155.32	20	Saint Johns	111.62	54
Leon	154.66	21	Osceola	108.89	55
Clay	154.34	22	Nassau	106.43	56
Saint Lucie	153.78	23	Collier	103.01	57
Levv	153.04	24	Lake	99.11	58
Indian River	152.57	25	Broward	92.12	59
Hamilton	149.17	26	Miami-Dade	87.46	60
Jackson	148.41	27	Gulf	84.92	61
Polk	147.89	28	Walton	83.55	62
Gilchrist	147.45	29	Sumter	79.66	63
Dixie	147.12	30	Franklin	72.12	64
Citrus	146.80	31	Monroe	66.58	Least Affordab
Hernando	146.71	32	Liberty	NA	
Brevard	146.35	33	Volusia	NA	
Hillsborough	145.32	34			

Florida renter households paying more than 30 percent of their income toward housing costs. The 30 percent figure corresponds to that used in federal housing programs and is a common standard used to assess housing affordability problems. Our calculation is for renter households only. While over 20 percent of the State's owner households are also cost burdened, the renter households are the targets of most assistance programs historically.

Table 4.3 shows that our estimate is that in the year 2002 there were about 1.9 million renter households in Florida. Of these households, about 809,000

were cost burdened, representing 41.6 percent of all renters. Of the households paying more than 30 percent of their income toward rent, over 361,000 (almost 45 percent) pay more than 50 percent. Most of the households paying more than 50 percent of their income toward housing costs had incomes below 50 percent of the median income for their area.

About 20 percent of the cost

About 20 percent of the cost burdened renter households reside in Miami-Dade County. With 11.5 percent in Broward County and 6.5 percent in Palm Beach County, our estimate is that more than one-third, 38 percent, of cost burdened households are located in the three south Florida counties. An additional 15 percent of the state's cost burdened households are in the Tampa Bay metropolitan area, so that a total of 53 percent of Florida's renter households experiencing cost burden are located in four MSAs.

Table 4.3. Cost burden Renters in Flori	4.3. Cost Burden Renters in Flori	da
---	-----------------------------------	----

Income as Percent of Area Median		Cost Burden					
Family Income	All Renters	30-50%	<b>50+</b> %				
<30%	353,069	43,383	217,315				
30-49.9%	290,570	124,412	109,886				
50-79.9%	425,173	202,653	28,248				
80-119.9%	428,904	64,234	5,477				
120+ %	445,974	12,778	458				
Grand Total	1,943,690	447,460	361,384				

### 5. Florida House Price Trends: Market Comparisons and Forecasts

Dean H. Gatzlaff, Ph.D. FSU Real Estate Center The Florida State University

#### 5.1 Introduction

Buoyed by historically low mortgage interest rates, the inflation-adjusted price of single-family homes in Florida has steadily increased since 1996. On average, house prices have increased by almost 4.0 percent per year over and above the general rate of inflation over the last five years. This real rate of increase is higher than during any other five-year period we've recorded, including the high appreciation period of the 1970s. Estimates indicate that, other than in perhaps some areas of central Florida and northwest Florida, the events of September 11, 2001 and the sluggish U.S. economy have not slowed recent house price increases. Preliminary estimates indicate that, on average, house prices in Florida have increased by 8.00 percent annually since 2000. When compared to the general annual rate of inflation of 1.97 percent over this same period, it yields an average real house price appreciation rate of 6.03 percent. The persistence in this price trend has resulted in an upward revision to our previously reported Florida house price appreciation forecasts for the 2001 to 2010 period—from 3.28 percent to 4.97 percent, annually.

The purpose of this report is to document single-family house price movements for the state of Florida. The report is organized as follows. In the next section, Section 5.2, Florida-wide singlefamily house price indices are reported for the 1971 to 2002 period (preliminary estimates for 2002) and compared with changes in the consumer price index (CPI-U), the broad stock market index (S&P500), and a long-term government bond index. In Section 5.3, relative house price appreciation rates in Florida's 11 planning districts from 1981 to 2002 are compared and contrasted. In addition, house price movements in the larger urban areas are compared to the smaller, more rural, areas. A comparison of relative house price appreciation among the 20 Florida MSAs is presented in Section 5.4. Section 5.5 reports average annual house price movements from 1996 to 2001 for individual counties where sufficient data are available. County transaction data were aggregated where adequate data were not available to provide reasonably reliable Projected house price appreciation rates are reported for the 2001 to 2010 period in Section 5.6.

### 5.2 Statewide Measures of Single-Family House Prices in Florida

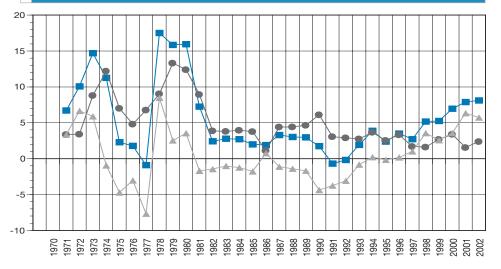
The annual movement in the overall price of single-family housing in Florida for the last 30 years is summarized in Figure 5.1 and Table 5.1. Figure 5.1 indicates annual house price appreciation in the state of Florida climbed as high as 17.5 percent in 1978 and experienced



<sup>&</sup>lt;sup>1</sup> To avoid the problems associated with inferring price appreciation from the changes in median sale prices, (e.g., median sale prices are reported by the National Association of Realtors) estimates of house price appreciation are constructed using a "repeat-sale" method. This method has been shown to produce reliable estimates of appreciation while holding "constant" any changes in house characteristics that have occurred over time. Implementation of the method requires actual transaction data from individual properties that have sold more than once; thus, the index is applicable to existing house prices. Note that each Florida county property appraiser retains the two most recent transaction prices, if sold twice, for each property in their county. Unfortunately, updating the index is complicated because the entire index is "revised" when new sale data are added each year, and older sale information for properties selling a third time are deleted. The most reliable index estimate occurs in the period spanned by the most representative sample of repeat sales. In updating the indices, the average holding period is assumed to be approximately 10 years and a final index level is reported for 1992. Index levels after 1991 will be subsequently revised as additional sale data become available.

declines of nearly 1 percent in 1977 and 1991. In the inflationary 1970s, house prices increased dramatically and were characterized by both high levels of appreciation and volatility. During this period, annual appreciation rates averaged 9.52 percent statewide. This is contrasted with an annual inflation rate of 8.11 percent. Hence, inflationadjusted house prices increased, on average, 1.41 percent per year (0.0952 – 0.0811 = 0.0141).

Figure 5.1 Florida Annual House Price Index and Appreciation (1971-2002)



Note: 2002 values are preliminary. House price appreciation rates are derived from the Florida House Price Index (all counties) for years 1981 to 2002, and from the Florida House Price Index (six largest MSAs) for years 1971 to 1980. General inflation is derived from the Bureau of Labor Statistics, Consumer Price Index (CPI-U).



With the exception of 1981, annual house price changes in the 1980s were substantially diminished—hovering between 1.89 and 3.29 percent. Annual house price appreciation averaged only 3.01 percent for the period, compared to an average inflation rate of 4.51. Thus, inflation-adjusted house price increases were negative at –1.50 percent. In fact, only in 1986 did house price appreciation exceed inflation during the decade. Revised estimates for the 1990s indicate that this characteristic continued through the first half of the 1990s. However, a

reversal of this trend occurred in the mid-1990s and continued through the last half of the 1990s. On average, from 1991 to 1995 Florida house prices increased at a rate of 1.46 percent per year compared to average inflation rates of 2.98 percent. In contrast, the 1996 to 2000 period saw house prices increase 4.72 percent per year, while general inflation slowed to 2.54 percent to yield an inflation-adjusted rate of appreciation 2.18 percent. This trend has strengthened into the 2000s, where preliminary estimates indicate average annual house appreciation rates of 8.00 percent in 2001 and 2002. This compares to only 1.97 percent average annual inflation, yielding historically high inflation-adjusted appreciation estimates of 6.03 percent.

Over the 30-year period nominal house price returns averaged approximately 10 percent per year. This rate includes an implicit rent of 5 percent that is necessary to compute for homeownership.<sup>2</sup> This rate compares favorably to average annual rates of 14.45 and 9.87 percent for stocks (S&P 500) and bonds (long-term government bonds), respectively. A wide deviation in relative returns between single-family housing, stocks, and bonds can be seen in the 10-year summaries of the 1970s, 1980s, and 1990s. It is interesting to note the preliminary 2002 annual returns are 13.11 percent for housing, compared to -22.11, 17.84, and 2.38 percent rates for stocks, bonds and the CPI, respectively—an exceptionally strong relative performance period for housing. Preliminary estimates indicate that house prices, adjusted for inflation, have risen quicker during the 1997 to 2002 period than any other consecutive five-year period reported.

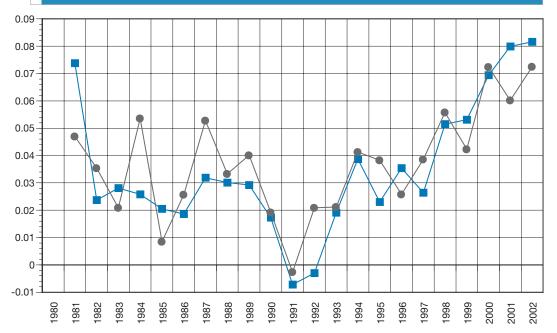
<sup>&</sup>lt;sup>2</sup> The implicit rent, or dividend, received by households due to homeownership is generally assumed by urban and financial economists to be approximately 4 to 6 percent. Although the dividend for rental housing is generally in the range of 7 to 10 percent, occupants of owner-occupied housing generally consume more (larger) housing relative to the rent the home would command in an open market. Thus, the implied dividend (net rent / market value) they receive for renting, implicitly from themselves, is less as a percent of the value of the asset than traditional rental housing.

Table 5.1 Summary of Florida House Price Appreciation, Housing Returns, Inflation, and Selected Asset Classes (1971-2002)

		Nominal House Price Apprec.	General Inflation	Real House Price Apprec.	Nominal Returns to Housing	Nominal Returns to Stocks	Nominal Returns to Bonds
1971-1980	Annual Mean	9.52	8.11	1.41	14.52	10.34	4.11
1981-1990	Annual Mean	3.01	4.51	-1.50	8.01	14.63	14.51
1991-2000	Annual Mean	3.09	2.76	0.33	8.09	18.39	11.00
1971-2000	Annual Mean	5.21	5.13	0.08	10.21	14.45	9.87
1971-2000	Std. Dev.	5.11	3.27	3.55	n.a.	16.45	12.30
2001-2002	Annual Mean	8.00	1.97	6.03	13.00	-17.00	10.88
2002-prelim.	Annual Mean	8.11	2.38	5.73	13.11	-22.11	17.84

Note: 2002 values are preliminary. House price appreciation rates are derived from the Florida House Price Index (all counties) for years 1981 to 2002, and from the Florida House Price Index (six largest MSAs) for years 1971 to 1980. General inflation is derived from the Bureau of Labor Statistics, Consumer Price Index (CPI-U). Returns to housing assume a five-percent long-run dividend to housing from implicit rent. Returns to stocks (S&P500) and bonds (Long-Term Government Bonds) are as reported by Ibbotson Associates (Stocks, Bonds, Bills and Inflation, 2002).

Figure 5.2 District-Level Measures of Single-Family House Price Appriciation in Florida



Note: 2002 values are preliminary. House price appreciation rates for "All MSA" and "Non-MSA counties" are derived from aggregate index of all 20 Florida MSAs and the aggregate index estimated for the counties not in any of the 20 Florida MSAs, respectively.





### 5.3 District-Level Measures of Single-Family House Price Appreciation in Florida

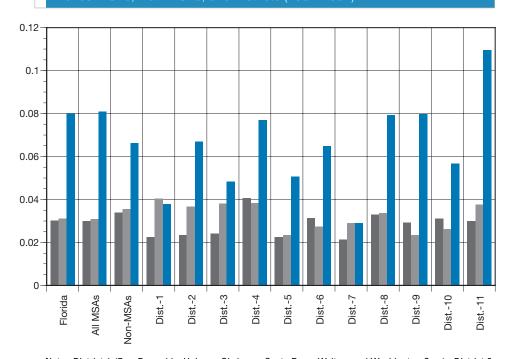
A comparison of annual appreciation rates for housing located in large metropolitan areas designated as Metropolitan Statistical Areas (MSAs) by the U.S. Bureau of the Census versus housing located outside of MSA designated areas is charted in Figure 5.2. Single-family housing located in the non-MSA counties consistently experienced

Comparing house price movements among the eleven planning districts in Florida reveals some patterns.<sup>3</sup> Figure 5.3 charts the average annual house price appreciation for two decades (1981-90 and 1991-2000) and for the first two years of the 2000s (2001-2002) for each of the planning districts. Statewide annual house price appreciation averaged just over 3.0 percent both decades. However, it is clear from Figure 5.3 that in general South Florida (i.e., Districts 8, 9, 10, & 11) experienced higher rates of appreciation in the 1980s than North Florida (Districts 1, 2, & 3). This trend then reversed in the 1990s. Notably, average annual appreciation rates in the 2000s are dramatically higher than in either of the two previous decades—a trend that is forecasted later to slow.

Table 5.2 details the period trends in appreciation across the districts of the state. It is interesting to note that Northeast Florida, West Florida and the Tampa Bay area experienced high rates of house price appreciation, relative to the state in the early 1980s. The second half of the 1980s was marked by high rates of house price appreciation in South Florida. These are followed by high rates in West Florida, Apalachee, and North Central districts from 1991-1995. House price indices are reported for each district in Table 5.3.4 In the late 1990s, appreciation rates in Northeast Florida, Tampa Bay, and South Florida exceeded other districts. It is interesting to note that South Florida has experienced very rapid appreciation during the last two years.

Annual rates of house price appreciation and the respective correlation of the 21-year series are noted in Tables 5.4 and 5.5. House price movements are found to be highly correlated among Districts 6, 7, 8, 9, 10, and 11 (i.e., through East Central, Central, Tampa Bay, Southwest Florida,

Figure 5.3 Average Annual House Price Appreciation Florida MSAs, Non-MSAs, and Districts (1981-2002)



Note: District 1 (Bay, Escambia, Holmes, Okaloosa, Santa Rosa, Walton, and Washington Cos.), District 2 (Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty, and Wakulla Cos.), District 3 (Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, and Union Cos.), District 4 (Baker, Clay, [adeq. data not avail. for Duival], Nassau, Putnam, and St. Johns Cos.), District 5 (Citus, Levy, Marion, and Sumter Cos.), District 6 (Brevard, Flagler, Lake, Orange, Osceola, Seminole, and Volusia Cos.), District 7 (De Soto, Hardee, Highlands, Okeechobee, and Polk Cos.), District 8 (Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota Cos.), District 9 (Charlotte, Collier, Glades, Hendry, and Lee Cos.), District 10 (Indian River, Martin, Palm Beach, and St. Lucie Cos.), and District 11 (Broward, Dade, and Monroe Cos.)



higher rates of appreciation from 1986 to 1998. Recently, from 1999 to 2001, house prices have increased at a greater rate in the MSA-designated counties than in the smaller areas. Preliminary estimates indicate this trend continues into 2002.

<sup>&</sup>lt;sup>3</sup> The counties included in each of the eleven planning districts are noted in Table 5.14.

<sup>&</sup>lt;sup>4</sup> Note that sufficient transaction data were not available to report 2002 appreciation estimates at the district, MSA, and county level; however, preliminary statewide measures are estimated and reported.

Table 5.2 Average Annual Percentage Appreciation and Period Rankings by District For Selected Periods (1981–2002)

District	1981-85	1986-90	1991-95	1996-00	2001-02
Florida (All Districts)	3.43	2.58	1.46	4.72	8.00
Florida (All MSAs)	3.44	2.54	1.41	4.72	8.08
Florida (All Non-MSA counties)	3.31	3.42	2.38	4.70	6.63
District 1: West Florida	4.24 (3)	0.22 (11)	3.34 (1)	4.73 (5)	3.78 (10)
District 2: Apalachee	2.80 (7)	1.91 (8)	3.01 (2)	4.34 (9)	6.69 (5)
District 3: North Central Florida	1.89 (10)	2.93 (4)	2.80 (3)	4.82 (4)	4.83 (9)
District 4: Northeast Florida	6.14 (1)	1.97 (7)	2.19 (5)	5.45 (1)	7.68 (4)
District 5: Withlacoochee	2.88 (5)	1.60 (10)	0.95 (9)	3.71 (11)	5.06 (8)
District 6: East Central Florida	4.06 (4)	2.19 (5)	1.03 (8)	4.44 (7)	6.47 (6)
District 7: Central Florida	2.65 (8)	1.62 (9)	2.05 (6)	3.72 (10)	2.90 (11)
District 8: Tampa Bay	4.53 (2)	2.05 (6)	1.45 (7)	5.27 (2)	7.93 (3)
District 9: Southwest Florida	1.43 (11)	4.41 (1)	0.33 (11)	4.35 (8)	7.96 (2)
District 10: Treasure Coast	2.87 (6)	3.33 (3)	0.67 (10)	4.59 (6)	5.65 (7)
District 11: South Florida	2.21 (9)	3.75 (2)	2.53 (4)	4.97 (3)	10.96 (1)

Note: Estimates for 2002 are preliminary. Shaded areas denote top quartile ranking. District 1 (Bay, Escambia, Holmes, Okaloosa, Santa Rosa, Walton, and Washington Cos.), District 2 (Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty, and Wakulla Cos.), District 3 (Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, and Union Cos.), District 4 (Baker, Clay, [adeq. data not avail. for Duval], Nassau, Putnam, and St. Johns Cos.), District 5 (Citus, Levy, Marion, and Sumter Cos.), District 6 (Brevard, Flagler, Lake, Orange, Osceola, Seminole, and Volusia Cos.), District 7 (De Soto, Hardee, Highlands, Okeechobee, and Polk Cos.), District 8 (Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota Cos.), District 9 (Charlotte, Collier, Glades, Hendry, and Lee Cos.), District 10 (Indian River, Martin, Palm Beach, and St. Lucie Cos.), and District 11 (Broward, Dade, and Monroe Cos.)

and South Florida including the Orlando, and Miami areas), and between the districts comprising Jacksonville, Orlando, and Tampa

### 5.4 MSA-Level Measures of Single-Family House Price Appreciation in Florida

Average annual rates of appreciation are listed for five-year periods from 1981-2000 and the 2001-2002 period in Table 5.6, as well as the relative ranking of each MSA's among the 20 MSAs with respect to its house price increases. During the 1980 to 1985 period, the larger MSAs of Jacksonville and Tampa-St. Petersburg generally led other MSAs in house price appreciation. In the later half of the 1980s, MSAs located in the southern portion of the state, particularly MSAs such as Naples, Punta Gorda, and Ft. Myers in the southeast led the rest of the state in house price appreciation. The 1991 to 1995

period, a slow growth period, saw a change in this trend with relatively rapid appreciation in the northwest area of Florida. During the first half of the 1990s, areas such as Panama City, Ft. Walton Beach, Pensacola, and Tallahassee outperformed all other MSAs with the exception of Miami. In the last half of the 1990s, the trend in house price appreciation looked much like the early 1980s, with Jacksonville, Tampa-St. Petersburg and Naples once again among the state's leaders. Early estimates indicate that the MSAs in south Florida have experienced exceptionally rapid house price appreciation in the first couple years after 2000.

It is interesting to note that the Naples and Miami MSAs were among the highest quartile in terms of average annual house price appreciation rates in three of the four five year periods studied, and have continued to experience rapid appreciation rates into the 2000s. In addition, most areas experienced periods



Table 8	5.3 Annı	ual Hous	e Price Ir	ndices fo	r Florida	Districts	(1980-2	2001)						
	AII FL	AII Msa	Non MSA	Dist. 1	Dist. 2	Dist. 3	Dist. 4	Dist. 5	Dist. 6	Dist. 7	Dist. 8	Dist. 9	Dist. 10	Dist. 11
1980	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1981	1.072	1.074	1.047	1.069	1.074	0.993	1.141	1.061	1.066	1.073	1.100	1.077	1.084	1.066
1982	1.098	1.099	1.084	1.124	1.092	1.020	1.192	1.120	1.087	1.077	1.129	1.068	1.097	1.091
1983	1.129	1.130	1.107	1.150	1.127	1.096	1.230	1.091	1.138	1.105	1.176	1.060	1.126	1.101
1984	1.160	1.159	1.166	1.198	1.149	1.145	1.298	1.151	1.187	1.132	1.219	1.071	1.138	1.107
1985	1.183	1.183	1.176	1.230	1.146	1.093	1.343	1.149	1.219	1.138	1.246	1.071	1.150	1.114
1986	1.205	1.205	1.206	1.230	1.149	1.175	1.361	1.146	1.242	1.161	1.289	1.112	1.180	1.153
1987	1.245	1.244	1.270	1.245	1.155	1.251	1.399	1.203	1.269	1.165	1.322	1.145	1.205	1.205
1988	1.282	1.281	1.312	1.242	1.202	1.188	1.456	1.196	1.297	1.197	1.342	1.190	1.280	1.258
1989	1.321	1.318	1.365	1.252	1.224	1.255	1.488	1.231	1.338	1.234	1.369	1.277	1.326	1.307
1990	1.343	1.341	1.391	1.243	1.259	1.257	1.479	1.242	1.359	1.232	1.379	1.328	1.353	1.339
1991	1.334	1.331	1.387	1.258	1.298	1.267	1.483	1.218	1.349	1.237	1.359	1.328	1.335	1.341
1992	1.332	1.327	1.416	1.295	1.325	1.271	1.499	1.198	1.346	1.250	1.367	1.322	1.318	1.339
1993	1.357	1.353	1.446	1.338	1.323	1.323	1.553	1.243	1.369	1.284	1.394	1.314	1.332	1.398
1994	1.410	1.405	1.506	1.408	1.412	1.364	1.587	1.277	1.394	1.324	1.446	1.333	1.368	1.470
1995	1.444	1.437	1.564	1.465	1.459	1.442	1.647	1.301	1.430	1.364	1.480	1.350	1.399	1.516
1996	1.494	1.488	1.604	1.554	1.545	1.501	1.715	1.329	1.456	1.394	1.524	1.367	1.429	1.567
1997	1.534	1.528	1.666	1.617	1.574	1.578	1.785	1.364	1.500	1.431	1.571	1.410	1.466	1.612
1998	1.614	1.606	1.759	1.690	1.646	1.633	1.885	1.411	1.568	1.502	1.660	1.461	1.541	1.691
1999	1.699	1.692	1.834	1.771	1.695	1.732	2.002	1.476	1.650	1.566	1.764	1.542	1.629	1.785
2000	1.817	1.809	1.966	1.845	1.802	1.824	2.147	1.560	1.775	1.637	1.912	1.669	1.749	1.930
2001	1.960	1.954	2.085	1.903	1.873	1.900	2.310	1.630	1.894	1.717	2.083	1.832	1.917	2.155
2002	2.119	2.113	2.236	n.a.	n.a.									

Note: 2002 values are preliminary. District 1 (Bay, Escambia, Holmes, Okaloosa, Santa Rosa, Walton, and Washington Cos.), District 2 (Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Leon, Liberty, and Wakulla Cos.), District 3 (Alachua, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, and Union Cos.), District 4 (Baker, Clay, [adeq. data not avail. for Duval], Nassau, Putnam, and St. Johns Cos.), District 5 (Citus, Levy, Marion, and Sumter Cos.), District 6 (Brevard, Flagler, Lake, Orange, Osceola, Seminole, and Volusia Cos.), District 7 (De Soto, Hardee, Highlands, Okeechobee, and Polk Cos.), District 8 (Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota Cos.), District 9 (Charlotte, Collier, Glades, Hendry, and Lee Cos.), District 10 (Indian River, Martin, Palm Beach, and St. Lucie Cos.), and District 11 (Broward, Dade, and Monroe Cos.)

	All	All	Non	Dist.	Dist.	Dist.	Dist.	Dist.	Dist.	Dist. 7	Dist.	Dist.	Dist.	Dist
	FL	MSA	MSA	1	2	3	4	5	6	,	8	9	10	11
1981	7.25	7.38	4.70	6.93	7.41	-0.67	14.08	6.14	6.60	7.26	9.96	7.69	8.45	6.5
982	2.42	2.37	3.54	5.16	1.63	2.64	4.47	5.56	1.94	0.37	2.68	-0.86	1.15	2.3
1983	2.78	2.81	2.09	2.27	3.28	7.47	3.17	-2.61	4.71	2.66	4.18	-0.69	2.69	0.8
1984	2.71	2.58	5.36	4.18	1.94	4.49	5.60	5.45	4.28	2.43	3.66	1.04	0.98	0.5
1985	1.99	2.05	0.85	2.68	-0.28	-4.49	3.40	-0.17	2.77	0.52	2.20	-0.03	1.06	0.7
1986	1.89	1.86	2.57	0.02	0.26	7.43	1.34	-0.20	1.86	2.00	3.47	3.86	2.65	3.4
1987	3.29	3.19	5.28	1.19	0.51	6.53	2.84	4.93	2.17	0.36	2.50	2.93	2.13	4.5
1988	3.02	3.01	3.33	-0.23	4.10	-5.07	4.09	-0.59	2.17	2.75	1.57	3.99	6.16	4.4
1989	2.97	2.92	4.01	0.76	1.78	5.61	2.19	2.90	3.18	3.09	1.97	7.26	3.60	3.9
1990	1.74	1.73	1.92	-0.65	2.88	0.14	-0.62	0.96	1.58	-0.13	0.73	4.04	2.11	2.4
1991	-0.69	-0.72	-0.26	1.17	3.12	0.82	0.26	-1.96	-0.74	0.40	-1.41	0.00	-1.35	0.1
1992	-0.18	-0.30	2.09	2.97	2.09	0.30	1.09	-1.66	-0.19	0.99	0.56	-0.48	-1.27	-0.1
1993	1.92	1.91	2.12	3.31	-0.15	4.14	3.62	3.81	1.69	2.74	1.96	-0.63	1.02	4.4
1994	3.88	3.87	4.13	5.20	6.72	3.09	2.17	2.69	1.79	3.12	3.75	1.47	2.74	5.1
1995	2.38	2.30	3.83	4.04	3.29	5.68	3.81	1.87	2.61	3.02	2.38	1.31	2.22	3.0
1996	3.49	3.54	2.58	6.07	5.90	4.12	4.13	2.17	1.84	2.20	2.92	1.24	2.16	3.3
1997	2.71	2.64	3.86	4.08	1.89	5.13	4.06	2.66	2.98	2.68	3.12	3.16	2.57	2.8
1998	5.17	5.15	5.58	4.53	4.55	3.46	5.61	3.40	4.54	4.94	5.67	3.62	5.14	4.9
1999	5.25	5.31	4.23	4.81	2.98	6.07	6.22	4.60	5.22	4.27	6.27	5.54	5.69	5.6
2000	6.96	6.94	7.24	4.17	6.36	5.33	7.23	5.74	7.61	4.53	8.36	8.22	7.36	8.1
2001	7.89	7.99	6.02	3.12	3.92	4.17	7.60	4.48	6.66	4.91	8.95	9.76	9.66	11.6
2002	8.11	8.16	7.25	n.a.	n.a.	n.a.	n.a.	n.a						

	AII FL	AII Msa	Non MSA	Dist. 1	Dist. 2	Dist. 3	Dist. 4	Dist. 5	Dist. 6	Dist. 7	Dist. 8	Dist. 9	Dist. 10	Dist 11
lorida	1.00													
All MSAs	1.00	1.00												
lon-MSA	0.80	0.78	1.00											
Dist1	0.47	0.47	0.37	1.00										
Dist2	0.59	0.59	0.39	0.51	1.00									
Dist3	0.17	0.16	0.37	0.12	-0.09	1.00								
Dist4	0.81	0.81	0.60	0.66	0.51	-0.04	1.00							
Dist5	0.67	0.66	0.77	0.56	0.22	0.27	0.65	1.00						
Dist6	0.90	0.90	0.75	0.40	0.43	0.24	0.80	0.58	1.00					
Dist7	0.82	0.82	0.62	0.53	0.62	0.15	0.83	0.47	0.78	1.00				
Dist8	0.95	0.95	0.74	0.54	0.53	0.22	0.87	0.62	0.93	0.85	1.00			
Dist9	0.78	0.78	0.65	-0.01	0.41	0.11	0.53	0.47	0.70	0.65	0.69	1.00		
Dist10	0.93	0.93	0.69	0.22	0.55	0.03	0.74	0.48	0.84	0.81	0.86	0.87	1.00	
Dist11	0.88	0.88	0.71	0.23	0.45	0.18	0.59	0.59	0.68	0.69	0.77	0.81	0.88	1.0

of rapid growth and slow growth in house prices relative to the other Florida MSAs. Only the Sarasota-Bradenton and Ocala MSAs were ranked in all periods to be in the top 10 (of 20) and bottom 10, respectively.

House price indices are reported for each of the 20 MSAs, as well as the state, all MSAs, and all non-MSA areas in Table 5.7.5 Annual rates of appreciation from 1981 to 2001, constructed from the indices listed in Table 5.7, are listed in Table 5.8 for all MSAs in Florida. Table 5.9 lists the correlation coefficients estimated using the 21-year appreciation rates in Table 5.8. As with the District estimates, a strong correlation in the movements of house prices is seen in the central part of the state among the MSAs in central and northeast Florida. It is interesting to note that although the Ocala MSA is located among these MSAs, the house price appreciation in Ocala appears to be fairly independent of the underlying conditions affecting the other MSAs. In addition, house price movements in the MSAs in the southern areas (i.e., Miami, Ft. Lauderdale, and West Palm Beach) of the state are highly correlated, as are the Ft. Pierce, Naples, and Ft. Myers areas. Table 5.9 gives further evidence that, with some exceptions, the state's housing market can be broadly described in terms of three general markets—northwest, central and south.

### 5.5 County-Level Measures of House Price Appreciation in Florida

Estimates of house price appreciation for the 1996 to 2001 period are reported for all Florida counties, listed by district, in Table 5.10. Estimates are reported for all counties having sufficient transaction information. In some districts, the small counties are grouped to provide more reliable estimates.

During the 1996 to 2001 period, annual house price appreciation rates exceeded 6.0 percent in six counties (areas): Monroe (8.36 percent), St. Johns (7.40 percent), Collier (6.84 percent), Pinellas (6.54 percent), the smaller counties of District 2 (6.52 percent) and Dade (6.42 percent). In contrast, five areas experienced average annual appreciation rates of less than 3.75 percent over this same period: the small counties in District 7 (3.18 percent), Citrus (3.32 percent), the small counties of Districts 4 and 5 (3.52 percent each) and Hernando (3.55 percent). Relative to other large urban counties, Pinellas and Dade experienced rapid increases in house prices of 6.54, and 6.42 percent per year, respectively. Table 5.11 reports the estimates of annual house price appreciation for the state and county areas for each year from 1996 through 2001.

### 5.6 Forecasts of State- and MSA-Level House Price Changes

Changes in population, real income, mortgage interest rates, housing starts, and price changes in previous periods are shown in this section to affect MSA house price levels. The effects of these selected explanatory variables on inflation-adjusted house price appreciation are displayed in Table 5.12. Note the inflation-adjusted price appreciation is calculated as:

inflation-adjusted appreciation =

$$\left[\frac{(1+apprecation\ rate)}{(1+inflation\ rate)}\right]-1$$

The effects of the explanatory variables on inflation-adjusted house price appreciation is estimated using a "fixed-effects" regression model that incorporates the time-series, cross-sectional, nature of the data such that

<sup>&</sup>lt;sup>5</sup> Note that the estimated appreciation rates for the Jacksonville MSA include primarily Clay, Nassau, and St. Johns counties. They do not substantially include Duval County, due to the limited data available.

Table 5.6 Average Annual Percentage Appreciation and Period Rankings By MSA For Selected Periods (1981–2002)

Metropolitan Statistical Area	1981-85 (rank)	1986-90 (rank)	1991-95 (rank)	1996-00 (rank)	2001-02 (rank)
Florida - (All MSAs)	3.44	2.54	1.41	4.72	8.08
Pensacola MSA (Dist. 1)	4.20 (6)	0.09 (18)	2.91 (5)	5.09 (5)	2.17 (20)
Ft. Walton Beach MSA (Dist. 1)	4.67 (3)	-0.04 (19)	3.72 (2)	4.49 (10)	3.27 (19)
Panama City MSA (Dist. 1)	3.01 (11)	0.92 (17)	3.82 (1)	4.04 (16)	7.90 (9)
Tallahassee MSA (Dist. 2)	2.81 (12)	2.07 (11)	2.46 (6)	3.90 (18)	7.02 (13)
Gainesville MSA (Dist. 3)	n.a.	n.a.	3.18 (4)	5.04 (6)	5.28 (16)
Jacksonville MSA (Dist. 4)	7.38 (1)	1.81 (13)	2.02 (9)	5.60 (2)	7.54 (12)
Ocala MSA (Dist. 5)	2.63 (14)	1.11 (16)	1.42 (11)	4.09 (14)	4.51 (18)
Daytona Beach MSA (Dist. 6)	3.35 (7)	2.88 (8)	1.36 (12)	4.10 (13)	7.60 (11)
Orlando MSA (Dist. 6)	4.66 (4)	2.35 (10)	1.03 (14)	4.88 (8)	6.18 (15)
Melbourne-Titusville MSA (Dist. 6)	3.05 (9)	1.20 (15)	0.76 (17)	3.31 (19)	6.65 (14)
Lakeland MSA (Dist. 7)	3.15 (8)	1.48 (14)	2.06 (8)	4.09 (14)	4.67 (17)
Tampa-St.Pete. MSA (Dist. 8)	4.76 (2)	1.90 (12)	1.33 (13)	5.33 (3)	7.75 (10)
Sarasota-Bradenton MSA (Dist. 8)	3.05 (9)	2.84 (9)	2.10 (7)	4.93 (7)	8.88 (5)
Punta Gorda MSA (Dist. 9)	0.58 (19)	4.83 (2)	-0.94 (20)	4.36 (11)	8.66 (6)
Ft. Myers MSA (Dist. 9)	2.03 (17)	4.14 (3)	1.01 (15)	3.94 (17)	8.54 (7)
Naples MSA (Dist. 9)	4.51 (5)	5.90 (1)	0.81 (16)	5.90 (1)	11.52 (2)
Ft. Pierce MSA (Distr. 10)	2.30 (15)	3.20 (7)	-0.55 (19)	3.28 (20)	8.54 (7)
West Palm Beach MSA (Dist. 10)	2.69 (13)	3.40 (5)	0.54 (18)	4.78 (9)	10.54 (4)
Ft. Lauderdale MSA (Dist. 11)	1.89 (18)	3.30 (6)	1.85 (10)	4.29 (12)	11.87 (1)
Miami MSA (Dist. 11)	2.15 (16)	3.79 (4)	3.64 (3)	5.32 (4)	10.68 (3)

Notes: Estimates for 2002 are preliminary. Shaded areas denote top quartile ranking. Pensacola MSA (Escambia and Santa Rosa Cos.), Ft. Walton Beach MSA (Okaloosa Co.); Panama City MSA (Bay County), Tallahassee MSA (Leon and Gadsden Cos.), Gainesville MSA (Alachua Co.[adeq data not avail all periods]), Jacksonville MSA (Clay, [adeq. data not avail. for Duval], Nassau, and St. Johns Cos.), Ocala MSA (Marion Co.), Daytona Beach MSA (Flagler and Volusia Cos.), Orlando MSA (Lake, Orange, Osceola, and Seminole Cos.), Melbourne-Titusville MSA (Brevard Co.), Lakeland MSA (Polk Co.), Tampa-St.Petersburg MSA (Hernando, Hillsborough, Pasco, and Pinellas Cos.), Sarasota-Bradenton MSA (Manatee and Sarasota Cos.), Punta Gorda MSA (Charlotte Co.), Ft. Myers-Cape Coral MSA (Lee Co.), Naples MSA (Collier Co.), Ft. Pierce-Port St. Lucie MSA (Martin and St. Lucie Cos.), West Palm Beach-Boca Raton MSA (Palm Beach Co.), Ft. Lauderdale MSA (Broward Co.), and Miami MSA (Dade Co.)

inflation-adjusted house price =  $a + \sum b X + e$ appreciation

### where:

- a = estimated vector of coefficients corresponding to each MSA
- b = estimated regression coefficient
- e = estimation error
- X = vector of independent economic and demographic variables

The reported figures are the estimated regression coefficients.<sup>6</sup> T-statistics, which measure the statistical significance of the explanatory variables, are reported in parentheses.

The first column of Table 5.12 contains results for the 1981 to 2001 time period using only the six largest Florida MSAs: Ft. Lauderdale, Jacksonville, Miami, Orlando, Tampa-St. Petersburg, and West Palm Beach. This sample contains 124 observations.



<sup>&</sup>lt;sup>6</sup> The fixed-effects estimation procedure is equivalent to using ordinary least squares with (indicator) variables to capture the effects of being located in a particular MSA. The model dummy assumes, effectively, that the effect of the explanatory variables on house prices appreciation is the same in all MSAs. Unexplained variation in appreciation, presumably due to omitted explanatory variables, is not assumed to be constant across MSAs, and is captured in intercept terms that vary across the MSAs. These MSA intercept terms are not reported here, but are available upon request.

	AII FL	AII Msa	Non MSA	MSA 1	MSA 2	MSA 3	MSA 4	MSA 5	MSA 6	MSA 7	MSA 8
	Flor	mon	mon	Pens	Ft.W	Pana	Tall	Gain	Jack	Ocal	Dayt
1980	1.000	1.000	1.000	1.000	1.000	1.000	1.000	n.a.	1.000	1.000	1.000
1981	1.072	1.074	1.047	1.078	1.063	1.030	1.073	n.a.	1.182	1.038	1.076
1982	1.098	1.099	1.084	1.124	1.130	1.052	1.113	n.a.	1.250	1.119	1.067
1983	1.129	1.130	1.107	1.125	1.204	1.104	1.139	n.a.	1.270	1.056	1.109
1984	1.160	1.159	1.166	1.169	1.222	1.194	1.147	n.a.	1.354	1.123	1.151
1985	1.183	1.183	1.176	1.227	1.255	1.156	1.147	n.a.	1.418	1.133	1.177
1986	1.205	1.205	1.206	1.216	1.230	1.214	1.142	n.a.	1.412	1.104	1.220
1987	1.245	1.244	1.270	1.223	1.276	1.218	1.149	n.a.	1.465	1.176	1.261
1988	1.282	1.281	1.312	1.209	1.283	1.225	1.201	n.a.	1.515	1.165	1.293
1989	1.321	1.318	1.365	1.230	1.283	1.214	1.226	n.a.	1.553	1.187	1.332
1990	1.343	1.341	1.391	1.232	1.250	1.208	1.269	1.343	1.550	1.194	1.356
1991	1.334	1.331	1.387	1.210	1.305	1.257	1.287	1.390	1.536	1.190	1.360
1992	1.332	1.327	1.416	1.253	1.328	1.309	1.318	1.392	1.552	1.167	1.366
1993	1.357	1.353	1.446	1.292	1.391	1.338	1.318	1.447	1.615	1.224	1.402
1994	1.410	1.405	1.506	1.358	1.488	1.382	1.384	1.496	1.648	1.259	1.411
1995	1.444	1.437	1.564	1.420	1.500	1.457	1.432	1.570	1.712	1.280	1.451
1996	1.494	1.488	1.604	1.502	1.621	1.532	1.520	1.659	1.778	1.335	1.461
1997	1.534	1.528	1.666	1.567	1.686	1.582	1.537	1.741	1.858	1.370	1.502
1998	1.614	1.606	1.759	1.650	1.715	1.678	1.594	1.788	1.959	1.413	1.567
1999	1.699	1.692	1.834	1.738	1.762	1.777	1.641	1.893	2.098	1.485	1.640
2000	1.817	1.809	1.966	1.820	1.865	1.774	1.732	2.008	2.247	1.563	1.772
2001	1.960	1.954	2.085	1.851	1.915	1.927	1.806	2.113	2.426	1.634	1.909
2002	2.119	2.113	2.236	n.a							

(.000	2001)										
MSA 9 Orla	MSA 10 Melb	MSA 11 Lake	MSA 12 Tamp	MSA 13 Sara	MSA 14 Punt	MSA 15 Ft.M	MSA 16 Napi	MSA 17 Ft.P	MSA 18 WPB	MSA 19 Ft.L	MSA 20 Miam
1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
1.069	1.045	1.076	1.106	1.067	1.045	1.102	1.217	1.108	1.081	1.032	1.098
1.100	1.071	1.084	1.136	1.086	1.056	1.080	1.169	1.131	1.093	1.079	1.101
1.163	1.097	1.129	1.187	1.107	1.021	1.081	1.259	1.168	1.114	1.088	1.107
1.219	1.128	1.143	1.232	1.142	1.021	1.101	1.199	1.091	1.128	1.094	1.110
1.255	1.162	1.166	1.259	1.161	1.028	1.101	1.222	1.112	1.140	1.098	1.109
1.269	1.183	1.187	1.305	1.188	1.063	1.143	1.291	1.143	1.171	1.139	1.141
1.301	1.186	1.193	1.338	1.216	1.106	1.173	1.354	1.180	1.195	1.188	1.186
1.335	1.200	1.226	1.358	1.250	1.132	1.224	1.382	1.244	1.271	1.230	1.244
1.378	1.236	1.262	1.379	1.300	1.240	1.300	1.533	1.283	1.307	1.268	1.297
1.409	1.233	1.254	1.383	1.335	1.299	1.348	1.624	1.302	1.346	1.291	1.335
1.404	1.202	1.266	1.358	1.344	1.266	1.366	1.596	1.293	1.315	1.282	1.354
1.387	1.224	1.265	1.366	1.349	1.227	1.371	1.620	1.262	1.293	1.290	1.331
1.416	1.226	1.301	1.388	1.399	1.244	1.363	1.577	1.228	1.316	1.339	1.410
1.444	1.249	1.349	1.443	1.440	1.258	1.377	1.668	1.265	1.351	1.369	1.541
1.482	1.280	1.388	1.476	1.481	1.238	1.417	1.687	1.265	1.381	1.414	1.591
1.518	1.292	1.427	1.516	1.533	1.274	1.421	1.716	1.269	1.410	1.446	1.666
1.566	1.328	1.464	1.564	1.584	1.302	1.472	1.789	1.317	1.447	1.475	1.715
1.646	1.362	1.539	1.654	1.664	1.335	1.521	1.900	1.353	1.523	1.537	1.789
1.739	1.422	1.623	1.761	1.754	1.419	1.590	2.031	1.402	1.619	1.606	1.908
1.879	1.505	1.696	1.912	1.883	1.531	1.717	2.243	1.485	1.743	1.742	2.061
2.002	1.599	1.775	2.080	2.068	1.684	1.872	2.502	1.627	1.926	1.948	2.306
n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a



Table	e 5.8 Ar	nnual Ho	use Price	e Apprec	iation (%	6) for Flor	ida Metr	opolitan	
	All FL Flor	AII Msa	Non MSA	MSA 1 Pens	MSA 2 Ft.W	MSA 3 Pana	MSA 4 Tall	MSA 5 Gain	MSA 6 Jack
1981	7.25	7.38	4.70	7.82	6.27	3.01	7.26	n.a.	18.20
1982	2.42	2.37	3.54	4.22	6.29	2.11	3.77	n.a.	5.78
1983	2.78	2.81	2.09	0.08	6.60	4.99	2.37	n.a.	1.61
1984	2.71	2.58	5.36	3.91	1.52	8.13	0.66	n.a.	6.55
1985	1.99	2.05	0.85	4.96	2.65	-3.22	-0.03	n.a.	4.77
1986	1.89	1.86	2.57	-0.88	-1.95	5.07	-0.42	n.a.	-0.42
1987	3.29	3.19	5.28	0.59	3.69	0.30	0.61	n.a.	3.76
1988	3.02	3.01	3.33	-1.17	0.57	0.61	4.57	n.a.	3.36
1989	2.97	2.92	4.01	1.73	-0.02	-0.97	2.02	n.a.	2.53
1990	1.74	1.73	1.92	0.17	-2.51	-0.43	3.54	n.a.	-0.18
1991	-0.69	-0.72	-0.26	-1.76	4.33	4.02	1.42	3.46	-0.89
1992	-0.18	-0.30	2.09	3.55	1.78	4.11	2.35	0.15	1.03
1993	1.92	1.91	2.12	3.09	4.75	2.27	0.02	3.92	4.02
1994	3.88	3.87	4.13	5.14	6.97	3.30	5.02	3.40	2.09
1995	2.38	2.30	3.83	4.55	0.80	5.38	3.47	4.98	3.85
1996	3.49	3.54	2.58	5.80	8.12	5.16	6.17	5.64	3.85
1997	2.71	2.64	3.86	4.31	4.00	3.24	1.06	4.95	4.52
1998	5.17	5.15	5.58	5.32	1.74	6.07	3.74	2.72	5.42
1999	5.25	5.31	4.23	5.34	2.71	5.94	2.93	5.88	7.11
2000	6.96	6.94	7.24	4.68	5.87	-0.19	5.58	6.04	7.09
2001	7.89	7.99	6.02	1.72	2.69	8.65	4.27	5.23	7.97
2002	8.11	8.16	7.25	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

ľ	vote:	2002	values	are	preliminary.	
						-

Table	5.9 Co	rrelation o	of Annua	l Apprec	iation Ra	ates betw	veen MS	As (198 <sup>-</sup>	1-2001)
	<b>All</b> <b>FL</b> Flor	AII Msa	Non MSA	MSA 1 Pens	MSA 2 Ft.W	MSA 3 Pana	MSA 4 Tall	MSA 5 Gain	MSA 6 Jack
Flor	1.00								
MSA	1.00	1.00							
Non	0.80	0.78	1.00						
Pens	0.46	0.46	0.38	1.00					
Ft.W	0.27	0.27	0.09	0.45	1.00				
Pana	0.20	0.19	0.23	0.10	0.07	1.00			
Tall	0.60	0.61	0.39	0.44	0.41	0.09	1.00		
Gain	0.60	0.60	0.41	0.21	0.32	0.00	0.33	1.00	
Jack	0.75	0.75	0.55	0.67	0.35	0.12	0.50	0.64	1.00
Ocal	0.45	0.44	0.58	0.52	0.31	0.05	0.20	0.78	0.51
Dayt	0.82	0.82	0.67	0.19	-0.02	0.18	0.26	0.53	0.64
Orla	0.88	0.88	0.71	0.39	0.26	0.16	0.43	0.69	0.70
Melb	0.79	0.79	0.70	0.52	0.11	0.18	0.36	0.42	0.65
Lake	0.80	0.80	0.47	0.50	0.36	0.26	0.52	0.61	0.71
Tamp	0.93	0.93	0.73	0.52	0.30	0.30	0.52	0.52	0.80
Sara	0.93	0.93	0.73	0.35	0.12	0.26	0.49	0.61	0.66
Punt	0.69	0.69	0.59	0.09	-0.17	-0.14	0.28	0.67	0.36
Ft.M.	0.73	0.73	0.60	0.10	-0.20	0.05	0.43	0.52	0.57
Napl	0.71	0.71	0.42	0.21	0.06	-0.07	0.50	0.39	0.55
Ft.P.	0.73	0.74	0.40	0.10	0.16	-0.13	0.54	0.54	0.53
W.P.	0.93	0.93	0.70	0.23	0.01	0.14	0.55	0.60	0.64
Ft.L	0.76	0.76	0.71	0.09	0.04	0.18	0.35	0.50	0.38
Miam	0.82	0.82	0.57	0.26	0.24	0.15	0.57	0.59	0.52

Statisti	cal Areas	s (MSAs,	(1981-2	001)									
MSA 7 Ocal	MSA 8 Dayt	MSA 9 Orla	MSA 10 Melb	MSA 11 Lake	MSA 12 Tamp	MSA 13 Sara	MSA 14 Punt	MSA 15 Ft.M	MSA 16 Napl	MSA 17 Ft.P	MSA 18 WPB	MSA 19 Ft.L	MSA 20 Miam
3.75	7.65	6.86	4.49	7.63	10.56	6.72	4.48	10.19	21.67	10.84	8.11	3.25	9.75
7.83	-0.87	2.91	2.51	0.67	2.78	1.75	1.04	-1.99	-3.95	2.01	1.07	4.51	0.33
-5.56	3.96	5.79	2.42	4.23	4.43	1.98	-3.31	0.06	7.75	3.28	1.96	0.80	0.51
6.25	3.72	4.80	2.80	1.19	3.85	3.11	0.06	1.90	-4.80	-6.58	1.26	0.59	0.26
0.91	2.30	2.92	3.05	2.02	2.20	1.67	0.61	0.00	1.91	1.97	1.03	0.32	-0.09
-2.56	3.67	1.17	1.76	1.77	3.60	2.37	3.46	3.80	5.65	2.79	2.71	3.74	2.89
6.56	3.32	2.52	0.29	0.50	2.54	2.34	4.06	2.62	4.91	3.17	2.05	4.30	3.97
-0.93	2.52	2.60	1.16	2.80	1.51	2.77	2.35	4.37	2.11	5.44	6.38	3.59	4.90
1.89	3.09	3.19	3.02	2.97	1.53	3.97	9.52	6.23	10.88	3.10	2.89	3.05	4.22
0.58	1.80	2.25	-0.24	-0.64	0.31	2.75	4.76	3.68	5.93	1.48	2.96	1.79	2.97
-0.30	0.26	-0.32	-2.54	0.92	-1.82	0.65	-2.52	1.32	-1.70	-0.66	-2.31	-0.67	1.38
-1.93	0.48	-1.22	1.85	-0.08	0.60	0.34	-3.07	0.40	1.47	-2.43	-1.68	0.64	-1.63
4.83	2.61	2.05	0.15	2.89	1.62	3.74	1.34	-0.61	-2.66	-2.70	1.75	3.75	5.92
2.90	0.62	2.01	1.86	3.65	3.92	2.93	1.13	1.02	5.77	3.04	2.67	2.32	9.29
1.63	2.84	2.60	2.49	2.92	2.32	2.81	-1.57	2.90	1.18	0.00	2.27	3.22	3.24
4.35	0.71	2.43	0.94	2.77	2.73	3.57	2.91	0.24	1.73	0.33	2.09	2.27	4.68
2.59	2.80	3.19	2.79	2.61	3.11	3.30	2.22	3.61	4.25	3.78	2.60	1.99	2.98
3.12	4.31	5.10	2.59	5.11	5.81	5.05	2.49	3.31	6.18	2.73	5.25	4.26	4.30
5.13	4.69	5.63	4.40	5.49	6.46	5.40	6.29	4.54	6.90	3.59	6.33	4.49	6.63
5.26	8.00	8.07	5.83	4.47	8.56	7.35	7.89	8.02	10.46	5.97	7.62	8.43	8.03
4.51	7.73	6.55	6.22	4.67	8.80	9.82	9.98	9.03	11.52	9.51	10.54	11.87	11.90
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	

MSA 7 Ocal	MSA 8 Dayt	MSA 9 Orla	MSA 10 Melb	MSA 11 Lake	MSA 12 Tamp	MSA 13 Sara	MSA 14 Punt	<b>MSA</b> <b>15</b> Ft.M	MSA 16 Napl	<b>MSA</b> <b>17</b> Ft.P	MSA 18 W.P.	MSA 19 Ft.L	MSA 20 Miam
1.00													
0.15	1.00												
0.34	0.84	1.00											
0.28	0.73	0.78	1.00										
0.12	0.70	0.74	0.64	1.00									
0.33	0.85	0.87	0.84	0.82	1.00								
0.43	0.84	0.80	0.75	0.72	0.84	1.00							
0.43	0.59	0.52	0.54	0.36	0.51	0.77	1.00						
0.12	0.84	0.61	0.60	0.58	0.68	0.79	0.73	1.00					
-0.08	0.72	0.58	0.55	0.69	0.71	0.64	0.58	0.82	1.00				
0.02	0.61	0.56	0.54	0.64	0.67	0.64	0.59	0.73	0.83	1.00			
0.27	0.82	0.79	0.73	0.73	0.83	0.91	0.74	0.81	0.70	0.79	1.00		
0.43	0.64	0.58	0.64	0.42	0.65	0.83	0.73	0.59	0.40	0.60	0.80	1.00	
0.37	0.62	0.54	0.47	0.69	0.68	0.84	0.68	0.69	0.64	0.68	0.82	0.71	1.00

The estimated regression coefficient on the change in population is 0.448. This means that a 1-percent increase in this population group in the urban areas is associated with a 0.448 increase in the inflation-adjusted price of single-family housing. The estimated coefficient on changes in real per capita income of 0.398 also indicates a positive relationship to percentage changes in real house prices. As expected, the level of the nominal mortgage rate is negatively associated with price changes. The coefficient can be interpreted as an increase of 1 percent in the rate results in a reduction of the inflation-adjusted house price of 0.5 percent. The estimated coefficient on housing starts is negative, suggesting that substantial new housing supply slows house price appreciation. Finally, changes in real house prices in the previous year are highly correlated with current changes. In all cases the coefficient signs are found to be consistent with expectations and statistically significant.

The second column of Table 5.12 contains the results for the 1981 to 2001 period using data for all 20 MSAs. This sample contains 405 observations.7 Relative to the regression using just the six largest MSAs, the effects of the economic variables retain their estimated signs and, generally, their magnitudes. It is noted that house price movements are more sensitive to percentage changes in population and housing starts in larger urban areas. This appears to be reasonable because large percentage changes population and starts are not easily achieved in the more populous urban areas.

Taken together, the results of Table 5.12 are robust. Increases in the number of individuals in their prime buying years and increases in inflation-adjusted per capita income have a significantly consistent positive effect on inflation-adjusted house prices. Increases in the level of mortgage interest rates and

housing starts have a consistent negative effect on appreciation. In addition, house price changes are persistent. These regression results are consistent with findings in the housing research literature. The relative strength and stability of the estimated coefficients, along with the explanatory power of the model, suggest that it can be used to project reasonable estimates of future house prices.

The historical regression analyses are used to forecast the average annual rates of price appreciation for each MSA over the 2001 to 2010 period. comparison, the forecasts are reported along with the average annual appreciation rates for the previous 10year periods in Table 5.13. economic data required for the forecasts comes from the Florida Long-Term Economic Forecast, 2001 by the Bureau of Business and Economic Research (BEBR) at the University of Florida. The Bureau's estimates of expected population, real per capita income, and housing starts are employed in our appreciation forecasts. Mortgage rates are assumed to average their 1996 to 2001 average level of approximately 7.50 percent for the 5-year period. To report nominal appreciation, annual inflation during the 2001 to 2010 period is assumed to be 2.50 percent (again, the average annual rate from 1996 to 2001).

It is important to note that forecasting requires the assumption that the historical relations between inflationadjusted price appreciation and the explanatory variables such as population, inflation-adjusted per capita income, housing starts, mortgage rates, and past appreciation continue into the future. Certainly, this may be only a rough approximation of the effect these variables will actually have going forward. In addition, the appreciation estimates are based on the BEBR's underlying forecast of the respective economic variables, as well as the assumption that average interest rates

<sup>&</sup>lt;sup>7</sup> Observations were not available for all years for all MSAs (see Table 5.7).

Table 5.10 Average Annual Percentage Appreciation and Period Rankings By County (1996–2001)

County	1996- 2001	County	1996- 2001
Florida (All Counties)	5.24	Osceola Co. (Dist. 6, Orlando MSA)	4.40
Florida (All MSAs)	5.26	Seminole Co. (Dist. 6, Orlando MSA)	5.30
Florida (All non-MSA Counties)	4.92	Brevard Co. (Dist. 6, Melbourne MSA)	3.80
Escambia Co. (Dist. 1, Pensacola MSA)	4.82	Polk Co. (Dist. 7, Lakeland MSA)	4.19
Santa Rosa Co. (Dist. 1, Pensacola MSA)	3.84	District 7 Small Counties (Dist. 7)	3.18
Okaloosa Co. (Dist. 1, Ft. Walton Beach MSA)	4.19	Hernando Co. (Dist. 8, Tampa-St.P. MSA)	3.55
Bay Co. (Dist. 1, Panama City MSA)	4.81	Hillsborough Co. (Dist. 8, Tampa-St.Pete. MSA)	5.81
District 1 Small Counties (Dist. 1)	4.61	Pasco Co. (Dist. 8, Tampa-St.Pete. MSA)	4.97
Leon Co. (Dist. 2, Tallahassee MSA)	3.97	Pinellas Co. (Dist. 8, Tampa-St.Pete. MSA)	6.54
District 2 Small Counties (Dist. 2)	6.52	Manatee Co. (Dist. 8, Sarasota MSA)	5.90
Alachua Co. (Dist. 3)	5.07	Sarasota Co. (Dist. 8, Sarasota MSA)	5.68
District 3 Small Counties (Dist. 3)	3.89	Charlotte Co. (Dist. 9, Punta Gorda MSA)	5.30
Clay Co. (Dist. 4, Jacksonville MSA)	4.44	Lee Co. (Dist. 9, Ft. Myers MSA)	4.79
Duval Co. (Dist. 4, Jacksonville MSA)	n.a.	Collier Co. (Dist. 9, Naples MSA)	6.84
St. Johns Co. (Dist. 4, Jacksonville MSA)	7.40	District 9 Small Counties (Dist. 9.)	4.74
District 4 Small Counties (Dist. 4)	3.52	Indian River Co. (Dist. 10)	4.81
Citrus Co. (Dist. 5)	3.32	Martin Co. (Dist. 10, Ft. Pierce MSA)	4.27
Marion Co. (Dist. 5, Ocala MSA)	4.16	St. Lucie Co. (Dist. 10, Ft. Pierce MSA)	4.38
District 5 Small Counties (Dist. 5)	3.52	Palm Beach Co. (Dist. 10, W. Palm Beach MSA)	5.74
Volusia Co. (Dist. 6, Daytona MSA)	4.76	Broward Co. (Dist. 11, Ft. Lauderdale MSA)	5.55
Lake Co. (Dist. 6, Orlando MSA)	4.49	Dade Co. (Dist. 11, Miami MSA)	6.42
Orange Co. (Dist. 6, Orlando MSA)	5.34	Monroe Co. (Dist. 11)	8.36

Notes: Multi-county estimates may vary from MSA estimates due to small sample estimation error. Shaded areas denote top quartile return. Flagler, and Duval Cos. not estimated due to insufficient data. District 1 small cos. are Holmes, Walton, and Washington. District 2 small cos. are Calhoun, Franklin, Gadsden, Gulf, Jackson, Jefferson, Liberty, and Wakulla. District 3 small cos. are Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, and Union. District 4 small cos. are Baker and Putnam. District 5 small cos. are Levy and Sumter. District 7 small cos. are De Soto, Hardee, Highlands, Okeechobee. District 9 small cos, are Glades and Hendry.

and general inflation will be consistent with the past 5-year period.

Average house price appreciation rates for the state of Florida, reported in Table 5.13, are estimated to be 4.97 percent per year (i.e., 2.47 percent above expected inflation). In general, the highest annual appreciation rates are forecast for the southern portions of the state (e.g., Miami, 7.49%; Ft. Lauderdale, 6.84%; and West Palm Beach, 6.27% per year). Other MSAs that are forecast to experience higher than average rates are Tampa (6.04% per year) and Jacksonville (6.07% per year). With the exception of Panama City, lower than average house price increases are forecast in the northwestern portion of the state, (e.g., Pensacola, Ft. Walton Beach, and Tallahassee). The forecasted relative annual appreciation ranking among the

six largest MSAs is Miami (7.49%); Ft. Lauderdale (6.84%); West Palm Beach (6.27%); Jacksonville (6.07%); Tampa-St. Petersburg (6.04%); and Orlando (5.23% per year)—all projected to increase at rates higher than the state's average.



i.11 An	nual Hou	ıse Price	Apprecia	ation (%)	for Sele	cted Co	unties (1	996 - 20	00)
FL	Esca	Sant	Okal	Bay	D1sm	Leon	D2sm	Alac	D3sm
3.49	5.43	7.37	8.12	5.16	0.09	5.28	5.57	5.64	1.21
2.71	4.71	2.85	4.00	3.24	7.28	0.67	6.85	4.95	5.63
5.17	5.70	4.35	1.74	6.07	4.76	3.92	9.24	2.72	4.98
5.25	5.53	4.40	2.71	5.94	8.11	2.82	3.81	5.88	6.74
6.96	4.00	6.99	5.87	-0.19	7.64	5.36	9.13	6.04	3.39
7.89	3.57	-2.92	2.69	8.65	-0.23	4.79	4.50	5.23	1.38
Semi	Brev	Polk	D7sm	Hern	Hill	Pasc	Pine	Mana	Sara
1.90	0.94	2.77	0.66	0.74	2.48	2.82	2.99	5.34	2.67
3.64	2.79	2.61	2.79	3.19	3.62	0.51	3.46	2.37	3.88
5.36	2.59	5.11	4.46	2.84	6.27	4.78	5.94	4.62	5.23
4.64	4.40	5.49	0.67	2.91	6.38	5.36	7.16	5.85	5.05
9.77	5.83	4.47	4.74	5.92	8.05	7.29	9.97	7.63	7.41
6.47	6.22	4.67	5.74	5.72	8 N7	9.06	9.73	9.57	9.83
	FL  3.49 2.71 5.17 5.25 6.96 7.89  Semi 1.90 3.64 5.36 4.64 9.77	FL Esca  3.49 5.43 2.71 4.71 5.17 5.70 5.25 5.53 6.96 4.00 7.89 3.57  Semi Brev 1.90 0.94 3.64 2.79 5.36 2.59 4.64 4.40 9.77 5.83	FL         Esca         Sant           3.49         5.43         7.37           2.71         4.71         2.85           5.17         5.70         4.35           5.25         5.53         4.40           6.96         4.00         6.99           7.89         3.57         -2.92           Semi         Brev         Polk           1.90         0.94         2.77           3.64         2.79         2.61           5.36         2.59         5.11           4.64         4.40         5.49           9.77         5.83         4.47	FL         Esca         Sant         Okal           3.49         5.43         7.37         8.12           2.71         4.71         2.85         4.00           5.17         5.70         4.35         1.74           5.25         5.53         4.40         2.71           6.96         4.00         6.99         5.87           7.89         3.57         -2.92         2.69           Semi         Brev         Polk         D7sm           1.90         0.94         2.77         0.66           3.64         2.79         2.61         2.79           5.36         2.59         5.11         4.46           4.64         4.40         5.49         0.67           9.77         5.83         4.47         4.74	FL         Esca         Sant         Okal         Bay           3.49         5.43         7.37         8.12         5.16           2.71         4.71         2.85         4.00         3.24           5.17         5.70         4.35         1.74         6.07           5.25         5.53         4.40         2.71         5.94           6.96         4.00         6.99         5.87         -0.19           7.89         3.57         -2.92         2.69         8.65           Semi         Brev         Polk         D7sm         Hern           1.90         0.94         2.77         0.66         0.74           3.64         2.79         2.61         2.79         3.19           5.36         2.59         5.11         4.46         2.84           4.64         4.40         5.49         0.67         2.91           9.77         5.83         4.47         4.74         5.92	FL         Esca         Sant         Okal         Bay         D1sm           3.49         5.43         7.37         8.12         5.16         0.09           2.71         4.71         2.85         4.00         3.24         7.28           5.17         5.70         4.35         1.74         6.07         4.76           5.25         5.53         4.40         2.71         5.94         8.11           6.96         4.00         6.99         5.87         -0.19         7.64           7.89         3.57         -2.92         2.69         8.65         -0.23           Semi         Brev         Polk         D7sm         Hern         Hill           1.90         0.94         2.77         0.66         0.74         2.48           3.64         2.79         2.61         2.79         3.19         3.62           5.36         2.59         5.11         4.46         2.84         6.27           4.64         4.40         5.49         0.67         2.91         6.38           9.77         5.83         4.47         4.74         5.92         8.05	FL         Esca         Sant         Okal         Bay         D1sm         Leon           3.49         5.43         7.37         8.12         5.16         0.09         5.28           2.71         4.71         2.85         4.00         3.24         7.28         0.67           5.17         5.70         4.35         1.74         6.07         4.76         3.92           5.25         5.53         4.40         2.71         5.94         8.11         2.82           6.96         4.00         6.99         5.87         -0.19         7.64         5.36           7.89         3.57         -2.92         2.69         8.65         -0.23         4.79           Semi         Brev         Polk         D7sm         Hern         Hill         Pasc           1.90         0.94         2.77         0.66         0.74         2.48         2.82           3.64         2.79         2.61         2.79         3.19         3.62         0.51           5.36         2.59         5.11         4.46         2.84         6.27         4.78           4.64         4.40         5.49         0.67         2.91         6.38	FL         Esca         Sant         Okal         Bay         D1sm         Leon         D2sm           3.49         5.43         7.37         8.12         5.16         0.09         5.28         5.57           2.71         4.71         2.85         4.00         3.24         7.28         0.67         6.85           5.17         5.70         4.35         1.74         6.07         4.76         3.92         9.24           5.25         5.53         4.40         2.71         5.94         8.11         2.82         3.81           6.96         4.00         6.99         5.87         -0.19         7.64         5.36         9.13           7.89         3.57         -2.92         2.69         8.65         -0.23         4.79         4.50           Semi         Brev         Polk         D7sm         Hern         Hill         Pasc         Pine           1.90         0.94         2.77         0.66         0.74         2.48         2.82         2.99           3.64         2.79         2.61         2.79         3.19         3.62         0.51         3.46           5.36         2.59         5.11         4.46 <td>3.49       5.43       7.37       8.12       5.16       0.09       5.28       5.57       5.64         2.71       4.71       2.85       4.00       3.24       7.28       0.67       6.85       4.95         5.17       5.70       4.35       1.74       6.07       4.76       3.92       9.24       2.72         5.25       5.53       4.40       2.71       5.94       8.11       2.82       3.81       5.88         6.96       4.00       6.99       5.87       -0.19       7.64       5.36       9.13       6.04         7.89       3.57       -2.92       2.69       8.65       -0.23       4.79       4.50       5.23         Semi       Brev       Polk       D7sm       Hern       Hill       Pasc       Pine       Mana         1.90       0.94       2.77       0.66       0.74       2.48       2.82       2.99       5.34         3.64       2.79       2.61       2.79       3.19       3.62       0.51       3.46       2.37         5.36       2.59       5.11       4.46       2.84       6.27       4.78       5.94       4.62         4.64</td>	3.49       5.43       7.37       8.12       5.16       0.09       5.28       5.57       5.64         2.71       4.71       2.85       4.00       3.24       7.28       0.67       6.85       4.95         5.17       5.70       4.35       1.74       6.07       4.76       3.92       9.24       2.72         5.25       5.53       4.40       2.71       5.94       8.11       2.82       3.81       5.88         6.96       4.00       6.99       5.87       -0.19       7.64       5.36       9.13       6.04         7.89       3.57       -2.92       2.69       8.65       -0.23       4.79       4.50       5.23         Semi       Brev       Polk       D7sm       Hern       Hill       Pasc       Pine       Mana         1.90       0.94       2.77       0.66       0.74       2.48       2.82       2.99       5.34         3.64       2.79       2.61       2.79       3.19       3.62       0.51       3.46       2.37         5.36       2.59       5.11       4.46       2.84       6.27       4.78       5.94       4.62         4.64

### County Key:

FL: Florida (All Counties)
Esca: Escambia (Dist.1)
Sant: Santa Rosa (Dist. 1)
Okal: Okaloosa (Dist. 1)
Bay: Bay (Dist. 1)
D1sm: District 1 Small Cos.
Leon: Leon (Dist. 2)

D2sm: District 2 Small Cos. Alac: Alachua (Dist. 3) D3sm: District 3 Small Cos. Clay: Clay (Dist. 4)
Duva: Duval (Dist. 4)
St.J: St. Johns (Dist. 4)
Citr: Citrus (Dist. 5)
Mari: Marion (Dist. 5)
D5sm: District 5 Small Cos.
Volu: Volusia (Dist. 6)
Lake: Lake (Dist. 6)
Oran: Orange (Dist. 6)
Osce: Osceola (Dist. 6)

Table 5.12 Explaining Past Changes in Real Single-Demographic Variables (1981-2001)

### **Explanatory Variable**

Pct. Annual Change in Population (Age 20-54)

Pct. Annual Change in Inflation-Adjusted Per Capita Income

Level of Nominal Mortgage Interest Rate

Housing Starts in Previous Year as Pct. of Total Households

House Price Appreciation in Previous Year

### No. of Observation

Notes: The six largest MSAs are Ft. Lauderdale, Jacksonville, Miami, Orlando, Tampa, and West Palm Beach. The figures reported are the estimated model coefficients, b, with their t-statistics in parentheses. Estimated model: House Price Appreciation = a + S bX, where b is the estimated coefficient, X the vector of explanatory variables, and a the vector of dummy variables for each of the respective MSAs. "\*" indicates that the coefficient is statistically significant at the 95% confidence level. The house price appreciation equation is estimated using a "fixed-effects" model that incorporates the time-series,

Clay	Duvl	St.J	D4sm	Citr	Mari	D5sm	Volu	Lake	Oran	Osce
2.00	n.a.	6.93	-0.24	-0.82	4.35	-0.24	0.79	1.05	3.04	2.84
4.69	n.a.	4.97	2.88	2.52	2.59	2.88	2.87	5.45	2.70	1.78
3.08	n.a.	6.81	3.50	4.06	3.12	3.50	4.42	4.38	5.23	3.75
6.77	n.a.	7.94	4.39	3.47	5.13	4.39	4.61	4.99	6.22	6.25
5.75	6.64	7.04	6.06	6.33	5.26	6.06	7.99	7.83	7.81	4.86
4.36	9.63	10.69	4.54	4.36	4.51	4.54	7.88	3.27	7.02	6.94
Char	Lee	Coll	D9sm	Indi	Mart	<b>St.L</b> 1.16 3.75 1.91 3.51 6.11 9.82	P.B.	Brow	Miam	Monr
2.91	0.24	1.73	11.76	5.05	-0.81		2.09	2.27	4.68	5.29
2.22	3.61	4.25	-3.61	1.01	3.70		2.60	1.99	2.98	5.10
2.49	3.31	6.18	3.05	5.94	3.93		5.25	4.26	4.30	8.93
6.29	4.54	6.90	9.87	5.06	3.88		6.33	4.49	6.63	5.28
7.89	8.02	10.46	4.73	7.60	5.73		7.62	8.43	8.03	11.65
9.98	9.03	11.52	2.64	4.21	9.18		10.54	11.87	11.90	13.91

Semi: Seminole (Dist. 6)
Brev: Brevard (Dist. 6)
Polk: Polk (Dist. 7)
D7sm: District 7 Small Cos.
Hern: Hernando (Dist. 8)
Hill: Hillsborough (Dist. 8)
Pasc: Pasco (Dist. 8)
Pine: Pinellas (Dist. 8)
Mana: Manatee (Dist. 8)
Sara: Sarasota (Dist. 8)

Char: Charlotte (Dist. 9)
Lee: Lee (Dist. 9)
Coll: Collier (Dist. 9)
D9sm: District 9 Small Cos.
Indi: Indian River (Dist. 10)
Mart: Martin (Dist. 10)
St.L: St.Lucie (Dist. 10)
P.Bch: Palm Beach (Dist. 10)
Brow: Broward (Dist. 11)
Miam: Miami (Dist. 11)
Monr. Monroe (Dist. 11)

### Family House Prices Using Economic and

Six Largest MSAs	AII MSAs
0.448	0.274
(2.36)*	(2.59)*
0.398	0.399
(5.96)*	(8.27)*
-0.00´5	-0.006
(-6.28)*	(-9.63)*
-0.95 <sup>5</sup>	-0.469
(-3.39)*	(-2.79)*
0.609	0.354
(9.66)*	(8.32)*
124	405

cross-sectional, nature of the data. This estimation procedure is equivalent to using ordinary least squares with dummy (indicator) variables to capture the effects of being located in a particular MSA. The model assumes, effectively, that the effect of the explanatory variables on house price appreciation is the same in all MSAs. Unexplained variation in appreciation, presumably due to omitted explanatory variables, is not assumed to be constant across the MSAs, and is captured in intercept terms that vary across the MSAs. These MSA intercept terms are not reported here, but are available upon request.

Table 5.13 Average Annual Percentage Appreciation and Period Rankings By MSA Ten-Year Periods (1971–00) with Ten-Year Projection (2000-10)

Metropolitan Statistical Area	1971-80 (rank)	1981-90( (rank)	1991-00 (rank)	2001-10 (rank)
Florida - (All MSAs)	9.52	2.99	3.07	4.97
Pensacola MSA (Dist. 1)	n.a.	2.14 (16)	4.00 (4)	3.46 (19)
Ft. Walton Beach MSA (Dist. 1)	n.a.	2.31 (15)	4.11 (2)	3.82 (17)
Panama City MSA (Dist. 1)	n.a.	1.96 (18)	3.93 (5)	5.30 (6)
Tallahassee MSA (Dist. 2)	n.a.	2.44 (13)	3.18 (10)	4.58 (12)
Gainesville MSA (Dist. 3)	n.a.	n.a.	4.11 (2)	4.44 (13)
Jacksonville MSA (Dist. 4)	8.34 (6)*	4.60 (2)	3.81 (6)	6.07 (4)
Ocala MSA (Dist. 5)	n.a.	1.87 (19)	2.76 (14)	3.34 (20)
Daytona Beach MSA (Dist. 6)	n.a.	3.12 (5)	2.73 (15)	4.85 (11)
Orlando MSA (Dist. 6)	9.82 (3)	3.50 (3)	2.95 (13)	5.23 (7)
Melbourne-Titusville MSA (Dist. 6)	n.a.	2.13 (17)	2.04 (18)	4.44 (13)
Lakeland MSA (Dist. 7)	n.a.	2.32 (14)	3.07 (11)	3.57 (18)
Tampa-St.Pete. MSA (Dist. 8)	8.76 (5)	3.33 (4)	3.33 (9)	6.04 (5)
Sarasota-Bradenton MSA (Dist. 8)	n.a.	2.94 (9)	3.51 (7)	5.10 (8)
Punta Gorda MSA (Dist. 9)	n.a.	2.70 (11)	1.71 (19)	4.97 (9)
Ft. Myers MSA (Dist. 9)	n.a.	3.09 (6)	2.48 (17)	4.89 (10)
Naples MSA (Dist. 9)	n.a.	5.20 (1)	3.36 (8)	4.27 (16)
Ft. Pierce MSA (Distr. 10)	n.a.	2.75 (10)	1.37 (20)	4.42 (15)
West Palm Beach MSA (Dist. 10)	10.18 (1)	3.04 (7)	2.66 (16)	6.27 (3)
Ft. Lauderdale MSA (Dist. 11)	9.89 (2)	2.59 (12)	3.07 (11)	6.84 (2)
Miami MSA (Dist. 11)	9.73 (4)	2.97 (8)	4.48 (1)	7.49 (1)

Notes: Shaded areas denote top quartile ranking. \*Data from previous report. Pensacola MSA (Escambia and Santa Rosa Cos.), Ft. Walton Beach MSA (Okaloosa Co.); Panama City MSA (Bay County), Tallahassee MSA (Leon and Gadsden Cos.), Gainesville MSA (Alachua Co.), Jacksonville MSA (Clay Nassau, and St. Johns Cos. [adeq. data not avail. for Duval]), Ocala MSA (Marion Co.), Daytona Beach MSA (Flagler and Volusia Cos.), Orlando MSA (Lake, Orange, Osceola, and Seminole Cos.), Melbourne-Titusville MSA (Brevard Co.), Lakeland MSA (Polk Co.), Tampa-St.Petersburg MSA (Hernando, Hillsborough, Pasco, and Pinellas Cos.), Sarasota-Bradenton MSA (Manatee and Sarasota Cos.), Punta Gorda MSA (Charlotte Co.), Ft. Myers-Cape Coral MSA (Lee Co.), Naples MSA (Collier Co.), Ft. Pierce-Port St. Lucie MSA (Martin and St. Lucie Cos.), West Palm Beach-Boca Raton MSA (Palm Beach Co.), Ft. Lauderdale MSA (Broward Co.), and Miami MSA (Dade Co.). 2001-2010 forecast based on model estimates reported in Table 5.13 using projected economic and demographic data from the Bureau of Economic and Business Research at the University of Florida.

### Table 5.14 District, MSA and Counties listed by District Location (Northwest Florida to Southeast Florida)

(Northwest Florida to Southeast I	iorida)	
District	MSA	County
District 1: West Florida	Panama City	Bay
District 1: West Florida	Pensacola	Escambia
District 1: West Florida	Pensacola	Santa Rosa
District 1: West Florida	Ft. Walton Beach	Okaloosa
District 1: West Florida	Non-MSA county	Holmes
District 1: West Florida	Non-MSA county	Walton
District 1: West Florida	Non-MSA county	Washington
District 2: Apalachee	Tallahassee	Gadsden
District 2: Apalachee	Tallahassee	Leon
District 2: Apalachee	Non-MSA county	Calhoun
District 2: Apalachee	Non-MSA county	Franklin
District 2: Apalachee	Non-MSA county	Gulf
District 2: Apalachee	Non-MSA county	Jackson
District 2: Apalachee	Non-MSA county	Jefferson
District 2: Apalachee	Non-MSA county	Liberty
District 2: Apalachee District 3: N. Central Florida	Non-MSA county Gainesville	Wakulla Alachua
District 3: N. Central Florida  District 3: N. Central Florida	Non-MSA county	Bradford
District 3: N. Central Florida	Non-MSA county	Columbia
District 3: N. Central Florida	Non-MSA county	Dixie
District 3: N. Central Florida	Non-MSA county	Gilchrist
District 3: N. Central Florida	Non-MSA county	Hamilton
District 3: N. Central Florida	Non-MSA county	Lafayette
District 3: N. Central Florida	Non-MSA county	Madison
District 3: N. Central Florida	Non-MSA county	Suwannee
District 3: N. Central Florida	Non-MSA county	Taylor
District 3: N. Central Florida	Non-MSA county	Union
District 4: Northeast Florida	Jacksonville	Clay
District 4: Northeast Florida	Jacksonville	Duval
District 4: Northeast Florida	Jacksonville	Nassau
District 4: Northeast Florida	Jacksonville	St. Johns
District 4: Northeast Florida	Non-MSA county	Baker
District 4: Northeast Florida District 5: Withlacoochee	Non-MSA county	Putnam Marion
District 5: Withlacoochee	Ocala Non-MSA county	Citrus
District 5: Withlacoochee	Non-MSA county	Levy
District 5: Withlacoochee	Non-MSA county	Sumter
District 6: E. Central Florida	Melbourne	Brevard
District 6: E. Central Florida	Daytona Beach	Flagler
District 6: E. Central Florida	Daytona Beach	Volusia
District 6: E. Central Florida	Orlando	Lake
District 6: E. Central Florida	Orlando	Orange
District 6: E. Central Florida	Orlando	Osceola
District 6: E. Central Florida	Orlando	Seminole
District 7: Central Florida	Lakeland	Polk
District 7: Central Florida District 7: Central Florida	Non-MSA county Non-MSA county	De Soto Hardee
District 7: Central Florida  District 7: Central Florida	Non-MSA county	Highlands
District 7: Central Florida	Non-MSA county	Okeechobee
District 8: Tampa Bay	Tampa – St. Petersburg	Hernando
District 8: Tampa Bay	Tampa – St. Petersburg	Hillsborough
District 8: Tampa Bay	Tampa – St. Petersburg	Pasco
District 8: Tampa Bay	Tampa - St. Petersburg	Pinellas
District 8: Tampa Bay	Sarasota - Bradenton	Manatee
District 8: Tampa Bay	Sarasota - Bradenton	Sarasota
District 9: Southwest Florida	Punta Gorda	Charlotte
District 9: Southwest Florida	Naples	Collier
District 9: Southwest Florida	Ft. Myers	Lee
District 9: Southwest Florida	Non-MSA county	Glades
District 9: Southwest Florida District 10: Treasure Coast	Non-MSA county Ft. Pierce – Port St. Lucie	Hendry Martin
District 10: Treasure Coast  District 10: Treasure Coast	Ft. Pierce – Port St. Lucie	St. Lucie
District 10: Treasure Coast	West Palm Beach	Palm Beach
District 10: Treasure Coast	Non-MSA county	Indian River
District 11: South Florida	Ft. Lauderdale	Broward
District 11: South Florida	Miami	Dade
District 11: South Florida	Non-MSA county	Monroe



### 6. Conclusion

Florida's 67 counties include 35 urban counties and the 32 rural counties. The urban counties can also be divided into those that are a part of the six major metropolitan areas and fifteen other metropolitan areas. Dividing the counties in this way is useful as a means to understand Florida's housing. There are also a number of differences in housing characteristics between coastal and non-coastal counties. These housing differences reflect the differences in the characteristics of the population in different areas of the state. The population of the state is growing, but not uniformly. Different areas of the state are also characterized by differences in the distribution of households by age, income, race, ethnicity, and county of origin.

Single-family housing units dominate the state, but condominiums are an important source of housing in some coastal counties and manufactured housing plays a key role in rural counties in the interior of the state. Relative to other areas of the country, housing prices in Florida are low. Appreciation rates for single-family housing differ across the state but have increased in recent years in most areas. Indices of affordability show that on average the affordability of housing increased throughout the 1990s, but declined in 2001. However, the affordability index masks problems that households with incomes below the median income have in obtaining suitable housing without paying more than 30 percent of income toward housing costs.

It is difficult to derive a single number of housing need, and the 30 percent of income standard may not be an appropriate criteria to define affordability. However, even if 50 percent is used as the standard, it is clear that there is a substantial need in Florida. The affordability calculations also indicate that the most severe needs are for households with incomes below 30 percent of median income. This is a group that is difficult to reach with state programs, but one that becomes even more vulnerable with changes in the federal public housing program.

While housing affordability is a problem in Florida, substandard housing is less pervasive. In part, this is a reflection of a relatively young housing stock in Florida that has been built in response to the recent rapid growth of the state. There are, however, areas of older housing stock in the state that are in need of rehabilitation and the aging of the existing housing stock will lead to additional needs for rehabilitation in the coming years.