

Executive Summary Backgrounder

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Housing Affordability: Smart Growth Abuses Are Creating a “Rent Belt” of High-Cost Areas

Wendell Cox and Ronald D. Utt, Ph.D.

Within the space of a single year, the public focus on the housing market has shifted from a concern that persistent and high inflation of home prices will preclude homeownership for moderate-income families to a worry that a downturn in home prices will undermine the health of the economy. However, as a survey of the nation’s housing markets reveals, concern on both counts has been overblown, and the housing affordability problems that have emerged are concentrated in a limited number of metropolitan areas where years of counterproductive land-use regulations have limited the supply of building lots.

Specifically, areas with very high home prices tend to be those following smart growth practices by imposing restrictive zoning provisions (e.g., downzoning, limits on residential rezoning, green belts, and growth boundaries) and other impediments to development (e.g., impact fees, proffers, and mandatory amenities and design features). The high-cost areas also tend to be the markets now experiencing the sharpest price declines. These regulatory-induced housing affordability problems are not unique to the United States. Abusive land-use and building regulations in Australia, the United Kingdom, and Ireland have led to escalating home prices similar to some of the worst cases in the United States.

Affordable Housing. In most American communities, houses are still affordable. For the country as a whole, the median price of existing homes sold in

the second quarter of 2006 was just \$227,500. While only tiny fractions of the residents in Los Angeles and San Francisco can afford to buy the median-priced home in their markets, the median-priced home in Indianapolis is accessible to 87.4 percent of the households in that community.

Similar measures of access and affordability indicate that many other major markets are affordable, including Atlanta, Dallas, Houston, and St. Louis. According to a quarterly survey conducted by the National Association of Home Builders (NAHB) and Wells Fargo Bank, 50 percent or more of the households in 98 of the 199 regional housing markets can afford the median-priced house or better.

Nonetheless, the media have focused on the extreme cases of unaffordability over the past several years. For example, in mid-2006, the median home price reached \$576,300 in the Los Angeles area; \$549,200 in parts of the New York City area; \$443,400 in Washington, D.C.; \$748,200 in San Jose; and \$640,000 in Honolulu. These are just some of the metropolitan areas where home prices are now unaffordable for most residents.

This paper, in its entirety, can be found at:
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aid or hinder the passage of any bill before Congress.

According to NAHB's Housing Opportunity Index, less than 2 percent of Los Angeles households and 7 percent of households in the New York area have access to the median-priced house. Of the 199 markets surveyed, 22 are within the affordable range for only 10 percent of the population. Of these 22 least affordable markets, 20 are in California, where restrictive land-use practices have been in place since the 1970s.

Although the housing affordability problem is confined to a limited number of geographic areas, these markets account for a significant portion of the nation's population and commercial activity. To date, much of the concern has focused on how high prices adversely affect the homeownership opportunities for moderate-income families.

Home prices have been exceptionally high in California for many years, and the homeownership rate is nearly 50 percent in many metropolitan areas and below 60 percent in the state, compared to almost 70 percent nationwide. Yet as more and more communities adopt California-type land-use regulations, homeownership opportunities will decline to California levels, creating an involuntary "rent belt" throughout the United States as millions of moderate-income families are excluded from homeownership and pushed into apartments. In Virginia, where many of the fast-growing counties began to enact stiff land-use regulations in the late 1990s, the homeownership rate has fallen from 75.1 percent of households in 2001 to 71.2 percent in 2005—the largest decline of any state.

Domestic Migration. Of potentially greater significance is the way accelerating home prices are influencing migration patterns within the United States as households and businesses move from high-cost areas to lower-cost areas to enhance their standards of living or competitiveness. Since 2000, the biggest losers through domestic migration—which measures the number of residents who have left the state to live elsewhere—have been New York and California, the nation's least affordable places.

Much of their losses have come from their major metropolitan areas. Between 2000 and 2005, California lost 645,000 residents and New York lost 961,000 residents to other states. The losses have been even worse for major metropolitan areas. New York City, San Francisco, and Los Angeles, respectively, lost 1,175,000, 549,000, and 305,000 residents to other states or other areas within their states.

While these states are losing domestic population, they have gained in total population because immigration from abroad has more than replaced the domestic population losses. The consequence of this population shuffle is that the losing states and metropolitan areas are giving up their wealthier, better educated, and more productive citizens for those with less wealth, income, and education. Ultimately, this will lead to relatively lower incomes in the losing areas in comparison to past levels. California, for example, once had much higher incomes than the national average, but that premium has nearly disappeared over the past several decades.

Conclusion. The overly regulated metropolitan areas seem likely to experience considerably less population and economic growth in the future than they would if their land-use policies had not broken the historic relationship between house values and household incomes. To restore higher levels of economic growth, such areas will need to liberalize their land-use policies. In the meantime, affordable metropolitan areas that have not grown as strongly in recent decades face a unique opportunity for renewal and expansion. Such areas, many in the long dormant Midwest, will need to avoid the siren song of excessive land regulation to take advantage of this potential.

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Background

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Housing Affordability: Smart Growth Abuses Are Creating a “Rent Belt” of High-Cost Areas

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A hot topic of discussion for the past two years has been whether or not the United States was experiencing a “housing bubble” and whether the bubble’s inevitable “pop” would undermine financial markets and the economy. By late 2005, housing prices were experiencing some deflation, but the dramatic collapse in prices that some had expected was not in evidence through the first half of 2006.¹

However, this may be changing. Preliminary reports for the third quarter of 2006 indicate price declines in a number of markets. If sustained, these declines will begin the process of restoring the promise of homeownership to moderate-income families.

Over the past five years, home prices have escalated at a rapid pace in several U.S. markets and abroad, reaching exceptionally high levels in mid-2006. The median home price reached \$576,300 in the Los Angeles area; \$549,200 in parts of the New York City area; \$443,400 in the Washington, D.C., area; \$748,200 in San Jose; and \$640,000 in Honolulu. These are just some of the markets where home prices are now unaffordable for most residents. According to the Housing Opportunity Index, compiled by the National Association of Home Builders (NAHB) and Wells Fargo Bank, less than 2 percent of Los Angeles area residents can afford to buy a median-priced existing home, and less than 7 percent of households in the New York area have access to a median-priced house.²

While these areas have received much of the media’s attention and news reports have created the impression that the nation is in the grip of a speculative real

Talking Points

- Housing affordability problems are concentrated in regions where anti-growth land-use regulations have limited the supply of building lots.
- Of the 22 least affordable markets, 20 are in California, where restrictive land-use practices have been common since the 1970s.
- High-cost housing encourages businesses and households to move elsewhere and undermines the regional economy.
- The solution is to attack the root cause of the affordability problem—restrictive land-use regulations—and increase the supply of building lots. Efforts to turn back such regulations are underway in a number of communities.
- The overly regulated metropolitan areas seem likely to experience considerably less population and economic growth in the future than would have occurred if their land-use policies had not broken the historic relationship between house values and household incomes. To restore higher levels of economic growth, such areas will need to liberalize their land-use policies.

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estate bubble, nationwide data reveal that only a modest fraction of the country has exceptionally high and escalating prices. Indeed, houses are still affordable in most American communities. For the country as a whole, the median price for existing homes sold in the second quarter of 2006 was just \$227,500. In fast-growing Atlanta, Dallas–Fort Worth, and Houston, median home prices are below \$175,000. Areas with very high prices tend to have restrictive land-use practices and other impediments to development, such as impact fees, mandatory proffers, and growth boundaries.

In contrast to the few high-priced areas where homeownership is now beyond the reach of most people, 87.4 percent of households in Indianapolis, 79.1 percent in St. Louis, and 68.5 percent in Atlanta can afford to buy a median-priced house in the market. In 98 of the 199 areas covered by the NAHB report, 50 percent or more of the households in the area can afford a median-priced house.

While the national data reveal that the housing affordability problem is limited to the metropolitan areas of a few states—principally those in coastal areas—these regional price differences could significantly affect public policy and shape future growth and prosperity in the United States.

First, escalating housing prices and shrinking affordability create hardships for moderate-income and low-income households. Forcing such households back into the rental market denies moderate-income families access to homeownership and the wealth-creation opportunities that homeownership provides.

Second, although these regional cost increases are typically a consequence of local land-use regulations, they inevitably lead to demands for increased government housing assistance or new federal, state, and local programs to promote homeownership for those of modest means. As a result, taxpayers across the nation could be forced to offset the costs of counterproductive local land-use policies.

Third, growing regional disparities in housing costs encourage a shift of resources—most notably labor—from high-cost to low-cost areas as workers seek a higher standard of living as influenced by access to quality housing. Businesses will also shift their operations from high-cost areas to remain competitive in national and global markets. Recently published U.S. Census data show that states with high housing costs (e.g., California, New York, and Washington, D.C.) have lost significant domestic population to states with more moderate housing costs (e.g., Nevada,³ Arizona, and Georgia). These losses were concentrated in high-cost major metropolitan areas, while smaller metropolitan and rural areas often gained population. If these trends continue, the resulting demographic shifts could significantly alter the nation's political and economic landscape.

America's Historic Migration Patterns

“Demography is destiny,” claimed 19th century French mathematician August Comte in an observation that underscores how profoundly shifts in population and changing growth rates can affect national and global events. Population changes over the past four centuries have influenced much of American history and economic development.

America's early development in the 17th and 18th centuries was spurred by European settlers seeking affordable land, farm and home ownership, and a higher standard of living than was achievable in Europe. As the East Coast became crowded and developed and as land costs increased beyond the means of ordinary people, new immigrants and the offspring of the existing population pushed west into the frontier, searching for the same standard of living and opportunities that encouraged their ancestors to leave Europe and cross the Atlantic.

These waves of westward expansion continued through most of the 19th century. As settlement

1. National Association of Realtors, “Median Sales Price of Existing Single-Family Homes for Metropolitan Areas,” at [www.realtor.org/Research.nsf/files/msapricesf.pdf/\\$file/msapricesf.pdf](http://www.realtor.org/Research.nsf/files/msapricesf.pdf/$file/msapricesf.pdf) (December 4, 2006).
2. National Association of Home Builders, “Housing Opportunity Index: 3rd Quarter 2006, by Affordability Rank,” November 20, 2006, at www.nahb.org/fileUpload_details.aspx?contentID=535 (December 4, 2006).
3. Nevada housing affordability is poor relative to the nation but much better than housing affordability in the nearby Los Angeles, San Diego, San Francisco, and San Jose markets.

reached the Pacific coast, new settlers continued the westward migration, filling in the gaps between the coasts. In 1790, America's center of population was estimated to lie in the northern reaches of the Chesapeake Bay near Elk Neck, Maryland. By 1830, it had drifted west into what is now West Virginia, and it was in Ohio when the Civil War began. As people continued to move west and south, so did the country's population center, entering Indiana in 1890 and Illinois in 1950 and reaching central Missouri in 2000.⁴

As the U.S. population continued to move west during the early 20th century, the nation also began to see a movement from rural areas to urban areas as farm workers who were displaced by mechanization and were suffering falling incomes began to move to cities—many in the north—where better-paying factory jobs beckoned. Between 1900 and 2000, more than 90 percent of the nation's population became urbanized, with urban areas adding 185,000,000 residents.⁵

Within this larger movement, African-Americans in the rural areas of the South began to flee shrinking economic opportunities and racial discrimination for better lives in cities in the more tolerant North and West. Although the rural-to-urban migration patterns continued through the 20th century, the decades after World War II saw another shift of economic activity that induced workers to move from the Northern industrial belt to cities in the South and West to take advantage of lower costs and higher standards of living in the fast-growing Sun Belt.

These population shifts profoundly changed the affected regions. The populations of many Northern cities grew strongly during the first half of the century but began to decline in the second half while experiencing a significant change in their racial compositions. Conversely, the South and West boomed as populations in these regions grew rapidly. These population changes shifted political representation in Congress away from Northern urban centers to suburbs and Southern and Western dis-

tricts. The North-South income gap also began to narrow as manufacturing and other services displaced agriculture in many once largely rural states.

However, this movement west, which dominated American demographic patterns for the past six decades, may be reversing as high housing and transportation costs appear to be helping to disperse California's domestic population east to less costly regions of the country. Similarly, domestic demographic shifts to dominant metropolitan areas—notably New York and Chicago—have also reversed, most likely in response to high housing prices and the escalating costs associated with worsening traffic congestion.

Causes of the Housing Affordability Problem

Among the chief reasons for the escalating home prices in some parts of the nation is the growing practice in many communities of increasing the regulations governing land use in ways that limit its supply for the construction of houses and apartments. Until recently, the vast majority of U.S. states and communities allowed for a relatively free market in land and seldom interfered with the use of privately owned land.

Zoning. Zoning was nonexistent until 1916, when New York City became the first to regulate land use in an effort to rationalize the various activities (e.g., manufacturing, agriculture, shipbuilding, slaughterhouses, waste dumps, oil refining, retail, and residential) competing for space on an increasingly crowded island. A few years later, Commerce Secretary Herbert Hoover led the federal government to endorse zoning in the 1920s, and a number of communities adopted the practice in the following decade.

Some zoning restrictions were designed to exclude certain types of development from individual jurisdictions, a power that the U.S. Supreme Court upheld in *Village of Euclid v. Ambler Realty Co.*⁶ Not until the 1950s did zoning become more

4. See U.S. Census Bureau, "Mean Center of Population for the United States: 1790 to 2000," at www.census.gov/geo/www/cenpop/meanctr.pdf (November 30, 2006).

5. Authors' calculations based on U.S. Census data.

6. 272 U.S. 365.

widespread as the postwar economic boom and accelerating prosperity encouraged veterans and their new families to move to the suburbs for better housing and a higher-quality lifestyle.

Although zoning became increasingly common after World War II, the communities that employed it did so in an attempt to balance fundamental property rights against health, safety, and nuisance issues caused by commercial and industrial uses. Beyond this, communities imposed very few restrictions on development of residential land. For example, they generally did not regulate unit type and size, lot size, setbacks, building materials, occupancy, and tenancy.

This began to change in the 1970s when fast-growing communities—mostly in California and Oregon—went beyond traditional zoning practices by implementing more intrusive land-use restrictions (e.g., growth boundaries) to discourage people from moving into their communities or to confine new households to designated development areas to preserve natural land and/or agriculture. Until the 1990s, such restrictive practices were largely confined to California and Oregon; but beginning in the middle to late 1990s and spurred by the anti-suburban advocacy of the emerging smart growth and New Urbanist movements, more and more suburban communities and some cities began to use zoning and other forms of land-use regulation to deter growth and/or to limit access only to residents and businesses with desirable demographic attributes, using high incomes as a proxy for race, education, and ability to generate tax revenues commensurate with the cost of received public services. Some communities also encouraged childlessness to reduce public education expenses.

To achieve these economic and social outcomes, many communities adopted more restrictive land-use regulations and imposed so-called impact fees on new houses. Included among the more restrictive land-use regulations were minimum lot sizes (one house per one, five, or 10 acres); downzoning (reducing permitted density, which increases lot sizes and diminishes the potential to construct affordable homes); growth boundaries (confining all development to a designated area); green belts, and other park or woodland set-asides. All of these restrictions add to the cost of a house by creating

artificial land shortages that raise the price of approved building sites. Making housing more expensive limits ownership in and access to the community to the more affluent segment of society.

Impact Fees. Access to a community can also be limited by impact fees, which are levied on each new house for the alleged purpose of compensating the community for the public costs incurred for new residents who move into the community. Of course, this rationalization ignores the tax revenue generated from these same new residents. Some parts of California levy impact fees of up to \$70,000 per house. In other states and counties, fees of \$20,000 to \$40,000 are more common. This adds to the price of the house and deters moderate-income households from homeownership.

Building Regulations. Another series of obstacles that are sometimes invoked, albeit infrequently, to deter moderate-income households from moving in are requirements that a new house meet certain minimum quality and amenity standards, all of which are designed to increase costs and limit access. Common amenity mandates include brick construction, minimum square footage of interior space, costly design standards, sidewalks, and sod lawns. Such mandated amenities and public interference with design preferences are still relatively uncommon in the United States, but this may be changing as U.S. building regulations begin to conform to patterns that have recently emerged in other advanced countries.

Although restrictive land-use regulations in the U.S., Australia, Ireland, and New Zealand are a relatively new phenomenon, such limits have been common in the United Kingdom for the past 60 years. However, in recent years, building regulations in all of these countries have increasingly interfered with basic design issues to force property owners and builders to conform to some preferred aesthetic standard regarding design, materials, and placement and to meet certain environmental standards regardless of any cost-benefit considerations. As a consequence, housing affordability in these countries is about as bad as it is in the U.S. communities with the most restrictive smart growth strategies.

In some Australian communities, planners must approve such features as a house's color scheme,

mail box materials, shrubbery, and room orientation in relation to backyard. In one Australian community where summer temperatures exceed 100 degrees Fahrenheit and winter temperatures dip into the 30s, the authorities granted a building permit with the stipulation that the new home have neither air conditioning nor heating (in order to deter global warming) and that such devices would not be added in the future. In Ireland, a county south of Dublin mandates roof color, gable overhang, number and style of windows, exterior materials and colors, and curvature of the driveway.⁷

Essex County in the United Kingdom requires new residential developments to provide ponds, bat boxes, nectar-laden flowers, roof gardens, and balconies instead of private backyards. Bicycle racks, sand pits, and trees must be placed in community streets to slow traffic to no more than 10 mph. Deputy Prime Minister John Prescott urged communities in the rest of the U.K. to adopt the Essex requirements.⁸ In several rural U.K. communities, an effort is underway to ban second homes, charge their owners' a "local impact tax," or require a permit from the local planning authority to change an existing primary residence to a second home by way of a sale.⁹

Combined with the existing land-use restrictions in these countries, these design mandates have sent home values soaring and have contributed to creating some of the world's least affordable housing, even though the average size of a new English house is one-third the size of U.S. or Australian houses and nearly as small as the Spartan flats built by the East German government in the 1980s.

Two Affordability Surveys

Data compiled and reported by Demographia in its annual housing survey reveal worsening measures of housing affordability in the 100 top metropolitan areas in six advanced countries.¹⁰ Table 1 and Table 2 list the best and worst housing markets from Demographia's survey of 100 large metropolitan areas in the United States, Australia, the United Kingdom, New Zealand, Canada, and Ireland. (For the complete results, see Appendix A.) Demographia's measure of affordability is the median multiple: the median home price in the market divided by the median household income in the same market. For example, Los Angeles's median house price is 11.2 times the area's median household income. The higher the median multiple, the less affordable is housing in that market.

These housing affordability losses are of comparatively recent vintage. As late as 1995, the excessively high-cost markets of Los Angeles, San Francisco, and San Jose had median multiples of 4.0 or less.¹¹

Because land-use regulations in the United States are largely a state or local responsibility,¹² affordability varies dramatically from one jurisdiction to the next, depending on local land-use laws and regulations. America's devolution of land-use responsibility contrasts sharply with the practices of several other countries listed in Table 1 where national land regulations can take precedence over local and regional regulations. A review of Appendix A shows that all but one of the covered metropolitan areas in Australia, New Zealand, Ireland, and the U.K. are rated "severely unaffordable," which is a result of

7. South Dublin County Council, *South Dublin Development Plan, 2004–2010*, pp. 355–367, at www.sdublincoco.ie/sdcc/departments/planning/publications/pdf/2004DevelopmentPlan.03112005.pdf (November 30, 2006).
8. Hugh Pearman, "The Greening of 10 mph Suburbia," *The Sunday Times* (London), November 20, 2005, at www.timesonline.co.uk/article/0,,2087-1879922,00.html (November 30, 2006).
9. Charles Clover, "Councils May Be Allowed to Stop Sale of Second Homes," *The Telegraph*, May 18, 2006, at www.telegraph.co.uk/news/main.jhtml?xml=/news/2006/05/18/nhomes18.xml (November 30, 2006).
10. Demographia, *2nd Annual Demographia International Housing Affordability Survey: 2006*, Pavletich Properties Limited, at www.demographia.com/dhi-ix2005q3.pdf (November 30, 2006).
11. Demographia, "Major Market Housing Affordability: United States: 1995–2005," at demographia.com/db-haff19952005us.htm (November 30, 2006).
12. The federal regulations may also apply in varying degree by virtue of the provisions of the Endangered Species Act, wetlands preservation, and the Army Corps of Engineers oversight responsibility for navigable bodies of water.

Table 1 B 1999

The 20 Least Affordable Housing Markets

Housing Market	Median Multiple*
Los Angeles	11.2
San Diego	10.8
Honolulu	10.6
Ventura County, CA	9.6
San Francisco	9.3
Miami	8.8
Sydney, Australia	8.5
New York	7.9
Riverside, CA	7.7
San Jose	7.4
London, U.K.	6.9
Bristol, U.K.	6.8
Fresno	6.8
Sacramento	6.8
Auckland, New Zealand	6.6
Hobart, Australia	6.6
Vancouver, Canada	6.6
Adelaide, Australia	6.5
Las Vegas	6.4
Melbourne, Australia	6.4

* For the third quarter of 2005.
Source: Demographia, "2nd Annual Demographia International Housing Affordability Survey: 2006," p. 20, at www.demographia.com/dhi-ix2005q3.pdf (December 4, 2006).

Table 2 B 1999

The 20 Most Affordable Housing Markets

Housing Market	Median Multiple*
Buffalo	2.2
Rochester	2.2
Indianapolis	2.4
Winnipeg, Canada	2.4
Akron	2.5
Omaha	2.5
Pittsburgh	2.5
Grand Rapids	2.6
St. Louis	2.6
Tulsa	2.6
Dayton	2.7
Kansas City	2.7
Oklahoma City	2.7
Atlanta	2.8
Austin	2.8
Cincinnati	2.8
Dallas-Ft. Worth	2.8
Edmonton, Canada	2.8
Louisville	2.8
Quebec, Canada	2.8

* For the third quarter of 2005.
Source: Demographia, "2nd Annual Demographia International Housing Affordability Survey: 2006," p. 20, at www.demographia.com/dhi-ix2005q3.pdf (December 4, 2006).

stricter land-use regulations and practices. Reflecting the regional diversity of land-use regulations in the United States and Canada, all but one of the "moderately unaffordable" or "affordable" metropolitan areas are in the United States or Canada. Notably, California accounts for eight of the 11 least affordable U.S. metropolitan areas.

The regional diversity of affordability in the U.S. is further illustrated by the results of a survey of 182 U.S. metropolitan areas conducted by the NAHB and Wells Fargo Bank and reported quarterly in their Housing Opportunity Index (HOI).¹³ Mirroring Demographia's survey, 19 of the 20 least affordable U.S. metropolitan areas are in California. The remaining area is a component of the New York City area. Table 3 and Table 4 list the least affordable and most affordable U.S. housing markets for the third quarter of 2006. (For the full HOI results, see Appendix B.) The HOI uses data similar to those

used in Demographia's survey but expresses them in terms of the percentage of houses in the market that a median-income household could afford to buy. In Los Angeles, which both surveys rank as the least affordable area, a median-income household could afford only 1.9 percent of the homes. By contrast, the median-income buyer in Springfield, Ohio—the most affordable region—could afford any one of 91.4 percent of houses in the area.

As in Demographia's survey, a number of California metropolitan areas receive exceptionally poor affordability rankings. Defenders of smart growth policies, land-use restrictions, and growth controls often attempt to explain such poor ranking by contending that all of the high-cost metropolitan areas—San Francisco, Los Angeles, San Diego, New York, Seattle, and Boston—are prosperous, fast-growing areas that are attracting highly paid professional workers who are bidding up the price of existing

13. See National Association of Home Builders, "Housing Opportunity Index."

Table 3 B 1999

The 20 Least Affordable U.S. Housing Markets

Metropolitan Area	Housing Opportunity Index
Los Angeles–Long Beach	1.8%
Salinas, CA	2.6%
Santa Ana–Anaheim	3.8%
Modesto, CA	4.1%
Merced, CA	4.3%
Stockton, CA	4.8%
Madera, CA	4.8%
San Diego–Carlsbad	4.9%
Napa, CA	4.9%
New York–White Plains	5.1%
Santa Barbara	6.1%
San Luis Obispo, CA	6.5%
Riverside–San Bernadino	6.7%
San Francisco	6.8%
El Centro, CA	6.9%
Fresno, CA	7.1%
Sacramento	7.9%
Nassau–Suffolk, NY	7.9%
Santa Cruz, CA	8.1%
Yuba City, CA	8.3%

Source: National Association of Homebuilders, "Housing Opportunity Index: 3rd Quarter 2006, by Affordability Rank," November 20, 2006, at www.nahb.org/fileUpload_details.aspx?contentID=535 (December 4, 2006).

Table 4 B 1999

The 20 Most Affordable U.S. Housing Markets

Metropolitan Area	Housing Opportunity Index
Bay City, MI	90.0%
Springfield, OH	89.8%
Mansfield, OH	88.7%
Lansing, MI	87.8%
Lima OH	87.6%
Battle Creek, MI	86.8%
Canton, OH	86.5%
Indianapolis, IN	85.9%
Detroit–Dearborn, MI	85.5%
Youngstown, OH	85.5%
Flint, MI	85.3%
Saginaw, MI	85.1%
Rockford, IL	83.9%
Utica–Rome, NY	83.2%
Buffalo–Niagara Falls, NY	82.9%
Cumberland, MD	81.8%
Binghamton, NY	81.6%
Grand Rapids, MI	81.6%
Dayton, OH	81.2%
Erie, PA	81.2%

Source: National Association of Homebuilders, "Housing Opportunity Index: 3rd Quarter 2006, by Affordability Rank," November 20, 2006, at www.nahb.org/fileUpload_details.aspx?contentID=535 (December 4, 2006).

housing stocks. However, growth has slowed significantly in these markets, while strong growth continues in Dallas–Fort Worth, Houston, and Atlanta—areas that have managed to preserve some measure of housing affordability through less regulation of land and building markets. Indeed, Houston is still notable for the absence of any zoning.

The Planning Penalty

Several recent studies of housing affordability corroborate the relationship between land-use regulations and housing prices. In a study of more than 300 U.S. housing markets, Randal O’Toole of the Thoreau Institute estimates that “regions with growth-management planning have seen prices increase by 4 to 14 percent per year. Regions without such planning have seen prices increase by only 1 to 3 percent per year.” O’Toole uses these differ-

ences to calculate a “planning penalty” for each market, which estimates the share of a home’s total price that is attributable to land-use regulations. Such penalties range from a low of \$10,000 in South Carolina, where land-use planning is just taking hold, to more than \$500,000 per house in the San Francisco Bay area, where aggressive land-use planning has been practiced since the 1970s. O’Toole estimates that planning regulations cost U.S. homebuyers \$275 billion annually.¹⁴

An earlier study by Edward L. Glaeser of Harvard University and Joseph Gyourko of the University of Pennsylvania found a similar relationship between housing costs and land-use regulations:

Measures of zoning strictness are highly correlated with high prices. While all of our evidence is suggestive, not definitive, it

14. Randal O’Toole, *The Planning Penalty: How Smart Growth Makes Housing Unaffordable*, American Dream Coalition, March 2006, at www.americandreamcoalition.org/Penalty.pdf (January 3, 2007).

seems to suggest that land-use regulation is responsible for high housing costs where they exist.¹⁵

Impact on Low-Income and Moderate-Income Households

As home prices rise faster than incomes in a community, fewer households can afford to purchase new homes, and those forced out of the homeownership market must rent or live with parents. These potential homebuyers are forced into the rental market and compete for available rental units, reducing vacancy rates and driving up rents. As a consequence, the poorest households in the community are priced out of the rental market and forced to double up with others, cut back on other expenses, or seek government housing assistance. In extreme cases, some households at the margin may be forced into homelessness.

A recent study by the Public Policy Institute of California attempted to adjust the government's national poverty line of about \$19,000 for a family of four by regional differences in housing costs and concluded, after the housing cost adjustment, that the incidence of poverty was greatest in Washington, D.C., followed by the State of New York and California.¹⁶ As Appendix A and Appendix B show, these areas ranked poorly in housing affordability.

For those at the bottom end of the income distribution, escalating housing costs push them into greater hardship as high rents force reductions in spending on other necessities. For those with higher but still modest incomes, high home prices preclude homeownership opportunities and all of the related benefits. According to the U.S. Census Bureau, citizens of these three jurisdictions have exceptionally high housing costs, high poverty rates, and home-

ownership rates below the national average. In 2005, the homeownership rate was 68.9 percent nationally but only 59.7 percent in California, 45.8 percent in the District of Columbia, and 55.9 percent in New York.¹⁷ According to 2004 data, homeownership rates in major metropolitan areas in California and New York are even worse: 51.6 percent in Los Angeles, 50.6 percent in San Francisco, and 36.6 percent in the New York City area.¹⁸

As land-use restrictions in these jurisdictions worsen and as similar regulations spread to other states, homeownership rates may begin to decline. Perhaps as a harbinger of that trend, the national homeownership rate fell from 69.1 percent in 2005 to 68.5 percent in early 2006—the lowest rate since 2003. Many Virginia counties that form the suburbs of Washington, D.C., have recently placed severe restrictions on residential development, causing median-home prices to double in some jurisdictions in just a few years. Perhaps as a result of the region's diminished affordability, Virginia's homeownership rate has dropped from its peak of 75.1 percent in 2001 to 71.1 percent in 2005, indicating that Virginia has 118,000 fewer home-owning households than if the 2001 rate had been maintained.

In response to the high housing costs in communities with abusive land-use practices, many moderate-income public employees (e.g., firemen, policemen, teachers, clerks, building inspectors, and school bus drivers) are forced to live outside the community, often at great distances, to find housing within their budgets. Many of these workers travel an hour or more one-way to work, incurring higher transportation costs, which reduce their standards of living and diminish their quality of life, while contributing to worsening traffic congestion.¹⁹ The U.S. Census Bureau has acknowledged this phe-

15. Edward Glaeser and Joseph Gyourko, "Zoning's Steep Price," *Regulation*, Vol. 25, No. 3 (Fall 2002), p. 30, at www.cato.org/pubs/regulation/regv25n3/v25n3-7.pdf (November 30, 2006).

16. Press release, "Are Federal Poverty Estimates Valid for California?" Public Policy Institute of California, May 11, 2006, at www.ppic.org/main/pressrelease.asp?i=624 (November 30, 2006).

17. U.S. Census Bureau, "Housing Vacancies and Homeownership (CPS/HVS), Annual Statistics: 2005," Table 13, at www.census.gov/hhes/www/housing/hvs/annual05/ann05t13.html (November 30, 2006).

18. U.S. Census Bureau, "Housing Vacancies and Homeownership (CPS/HVS), Annual Statistics: 2004," Table 14, at www.census.gov/hhes/www/housing/hvs/annual04/ann04t14.html (November 30, 2006).

19. D'Vera Cohn, "In Md. and Va., Long Haul Becoming Part of the Job," *The Washington Post*, September 13, 2006, p. B4, at www.washingtonpost.com/wp-dyn/content/article/2006/09/12/AR2006091201426.html (November 30, 2006).

nomenon by creating a new category called “extreme commutes.”

Regional Economic Implications

While much of the recent concern about high housing costs has focused on their adverse impact on individuals and families, a growing body of evidence suggests that high housing costs are also affecting the economic health of some states, regions, and metropolitan areas. In addition to anecdotal evidence, the U.S. Census confirms that interstate and intercity migration by households and businesses from high-cost to low-cost areas is growing. Households move to enhance or sustain standards of living, and businesses move to maintain competitiveness in national and global markets.

As noted earlier, patterns of migration from places of less opportunity to those offering more are common in the American experience. From Colonial times into the first part of the 20th century, the general migratory pattern in the United States was from the crowded eastern seaboard, where land costs were beyond the reach of many, into the frontier, which moved west as settled areas expanded.

From the 1920s to the early 1950s, poor southern sharecroppers—black and white—began to leave the southeastern states for higher-paying factory jobs in the North. Yet in the 1950s, many of those factory jobs began moving south and west in response to lower wages, cheaper land, and fewer labor unions. Workers and suppliers soon followed. Atlanta, Dallas, Houston, Phoenix, and Los Angeles expanded as the central cities of Detroit, Cleveland, Philadelphia, Buffalo, Chicago, and New York and other manufacturing centers declined in population, factories, and businesses. In every metropolitan area, the migrations were induced largely by cost differentials that encouraged business activity to move

to remain competitive and profitable. For individuals and families, these cost differences represented an opportunity to improve their living standards.

While wage and land cost differentials influenced the earlier migrations heavily, today’s population shifts seem to be driven largely by land cost differentials, which influence people’s standard of living by way of housing affordability. Given the current median home price of more than \$700,000 in San Jose, California, entry-level tech workers, programmers, and engineers cannot afford to take jobs in Silicon Valley, and the firms cannot afford to pay salaries that would allow out-of-area workers to maintain an acceptable lifestyle. As a consequence, workers are discouraged from moving to California and businesses are encouraged to move elsewhere to remain competitive.

A growing amount of evidence—both anecdotal²⁰ and from the U.S. Census Bureau—indicates that many California residents are moving to lower-cost areas of the state or nation. At the same time, economic development authorities in other states are eagerly using California’s affordability problems to recruit California firms by offering attractive subsidies.²¹ Even the federal government has had difficulty recruiting employees for its Los Angeles and San Francisco operations.²²

U.S. Census data reveal this pattern of domestic migration, which is measured on the basis of states and metropolitan areas. A state’s net domestic migration is the number of new residents that arrive from other states (excluding immigrants from other countries) minus the number of existing residents who leave for any other state. Immigrants from other countries are measured only after they become established in one state and then move to another state.

20. Jim Christie, “California Middle-Class Packing Up, Heading East,” Reuters, August 23, 2006, and press release, “Special Survey on Californians and Their Housing: Housing Costs Lead Many Californians to Consider Moving,” Public Policy Institute of California, November 18, 2004, at www.ppic.org/main/pressrelease.asp?i=528 (November 30, 2006).

21. Associated Press, “Florida Is Investing Big Money in Biotech Hub,” *Winston-Salem Journal*, September 27, 2006, at www.journalnow.com/servlet/Satellite?pagename=WSJ%2FMSGArticle%2FWSJ_BasicArticle&c=MGArticle&cid=1149190840895 (November 30, 2006), and Corilyn Shropshire, “Google Plans to Establish Outpost at CMU,” *Pittsburgh Post-Gazette*, December 15, 2005, at www.post-gazette.com/pg/05349/622655.stm (November 30, 2006).

22. Stephen Barr, “Cost of Living Said to Be Driving Out L.A. and S.F. Federal Workers,” *The Washington Post*, July 27, 2006, p. D4, at www.washingtonpost.com/wp-dyn/content/article/2006/07/26/AR2006072601790.html (November 30, 2006).

Table 5

B 1999

Net Domestic Migration for Select Areas, 2000–2005

Metropolitan Area	Net Domestic Migration	Median Multiple*	Housing Opportunity Index**	Median Home Price**
New York	-1,175,000	7.9	5.1%	\$477,700
San Francisco–San Jose	-549,000	9.3/7.4	6.8%	\$749,400
Los Angeles	-305,000	11.2	1.8%	\$582,000
Chicago	-344,000	4.9	44.8%	\$279,400
Denver	-19,000	4.0	57.1%	\$253,200
Boston	-204,000	6.1	23.8%	\$412,300
Seattle	-4,000	5.3	22.8%	\$373,400
San Diego	-98,000	10.8	4.9%	\$601,900
Dallas–Ft. Worth	+115,000	2.8	57.1%	\$151,300
Phoenix	+301,000	5.1	26.6%	\$266,500
Tampa–St. Petersburg	+202,000	5.0	40.6%	\$234,000
Sacramento	+141,000	6.8	7.9%	\$375,400
Atlanta	+194,000	2.8	66.6%	\$176,100
Orlando	+190,000	5.4	28.9%	\$271,000
Charlotte	+112,000	3.6	63.6%	\$198,300
Las Vegas	+228,000	6.4	13.7%	\$318,000
Fresno	+13,000	6.8	7.1%	\$290,000
Indianapolis	+30,000	2.4	85.1%	\$122,400
Houston	+61,000	2.9	54.4%	\$152,800

* For the third quarter of 2005.

** For the third quarter of 2006.

Sources: Demographia, "2nd Annual Demographia International Housing Affordability Survey: 2006," p. 20, at www.demographia.com/dhi-ix2005q3.pdf (December 4, 2006); National Association of Homebuilders, "Housing Opportunity Index: 3rd Quarter 2006, by Affordability Rank," November 20, 2006, at www.nahb.org/fileUpload_details.aspx?contentID=535 (December 4, 2006); National Association of Realtors, "Median Sales Price of Existing Single-Family Homes for Metropolitan Areas," at www.realtor.org/Research.nsf/files/msaprices.pdf?file/msaprices.pdf (December 4, 2006); and author's calculations from U.S. Census Bureau data, April 1, 2000 to June 30, 2005.

Net domestic migration for a metropolitan area is calculated similarly. For example, net domestic migration for the Los Angeles area is the number of existing residents who move in from other U.S. metropolitan and rural areas minus the number of Los Angeles residents who move to other locations in the United States, including other areas in California.

Appendix C lists net domestic migration figures for 54 major metropolitan areas for 2000 to 2005, and Table 5 presents a summary of these results along with two measures of housing affordability. Over that five-year period, high housing cost areas that lost substantial numbers of domestic population include the Los Angeles area (–305,000 residents) and San Jose–San Francisco (–549,000). Over the same time period, Sacramento gained 141,000 residents and Bakersfield gained 42,000. The biggest loser of all was the New York metropolitan area, which lost a staggering 1,175,000 residents.

The same data also measure domestic migration among the 50 states. Calculations for the period from 2000 to 2005 show that California lost 645,000 people, Massachusetts lost 233,000, New York lost 961,000, and New Jersey lost 188,000. Not surprisingly, states that gained include those with more competitive land markets and more affordable housing, at least relative to those that lost domestic population. These include Arizona (+392,000 people), Florida (+1,029,000), Nevada (+258,000), North Carolina (+222,000), Georgia (+217,000), and Texas (208,000). It is important to note that a state can lose domestic population while gaining in overall population due to foreign immigration and the "natural" increase caused by births exceeding deaths.

Table 5 shows that the biggest losers were in areas with the least affordable housing, while those that gained were in areas with more afford-

able housing. In particular, both Phoenix and Las Vegas gained domestic migration; even though they are relatively expensive compared to housing nationwide, they are affordable relative to their nearby competitors—California’s major large metropolitan areas. Similarly, domestic migration into high-cost Sacramento and Fresno has also continued, probably because housing is much less expensive in these cities than in San Francisco, San Jose, Los Angeles, and San Diego.

The extent of domestic migration loss from the high-cost markets is reflected in Appendix C. The highest-cost markets (median multiples of 4.0 or more) lost 2.8 million domestic migrants between April 1, 2000, and July 1, 2005. Some high-cost markets gained, especially those near higher-cost markets (e.g., Las Vegas, Phoenix, Tampa–St. Petersburg, Orlando, Sacramento, Fresno, and Portland). Less costly housing markets and smaller markets registered an increase of 1.7 million domestic migrants.

These developments could portend a substantial reversal in U.S. demographic trends, with people moving out of the higher-cost markets, especially in the coastal West and the Northeast, to lower-cost inland markets in the West, Midwest, South, and Northeast. Further, the large gain in smaller markets could indicate that excessively high housing prices in smart growth markets are instigating the long-anticipated but not yet seen movement away from the larger metropolitan areas, which is made possible by improved transportation and telecommunications.

As noted earlier, states and metropolitan areas that lost domestic population can still gain overall because of the natural increase in foreign immigrants, which is of overwhelming significance in California and New York. Compared to 11.1 percent nationwide, 26.2 percent of California’s population and 20.4 percent of New York’s population is foreign born.²³

As a result, some might argue that domestic migration is of little consequence to a region’s economic health because the population is still grow-

ing, along with incomes and production. However, the overall population increase may mask a significant shift in the productivity, wealth, and education of a region’s population if the new entrants tend to be less skilled than those who are leaving for other states and metropolitan areas. In turn, these changing demographic characteristics could affect the regional economy and its competitiveness.

This is not to suggest that immigration has negative consequences, but only that domestic out-migration combined with the substitution of less educated and skilled workers for the more skilled could limit a region’s economic vitality. As the Texas state demographer recently observed:

Domestic migrants are what demographers refer to as “positively selected.” That means they tend to have higher levels of education and income than persons in the areas to which the migrants move. They tend to substantially increase the markets for various goods and services, including real estate.

Immigrants, on the other hand (today and historically), tend to be a bimodal group. Some have high levels of education and relatively high paying jobs; however a much larger proportion have relatively low levels of education and take relatively low-paying jobs. Immigrants have smaller effects on economic growth. Thus the growth of the post-2000 period [in Texas] has been less supportive of economic growth.²⁴

While this analysis focuses on the potential productivity differences between immigrants and the indigenous population, other evidence and studies suggest a direct link between housing affordability and an area’s economic vitality, which may not necessarily stem from the relative productivity of different population groups.

A 2005 staff working paper by Raven Saks at the Federal Reserve Board notes that economic studies have found a link between labor migration and local economic conditions and that area wage differences,

23. U.S. Census Bureau, 2005 American Community Survey, “Selected Social Characteristics in the U.S.: 2005.”

24. Steven H. Murdock, “From the Outside In: Domestic Migration Boosts Population,” *Tierra Grande*, Vol. 13, No. 2 (April 2006), at www.recenter.tamu.edu/grande/vol13-2/1772.html (November 30, 2006).

compared to the cost of moving, influence a worker's decision to move. Because housing consumes a large share of a household's budget (19.2 percent in 2002), housing prices significantly affect the value of real wages in any area. Saks also notes that several studies have found that areas with high housing prices attract fewer migrants and that numerous studies have found a direct relationship between the intensity of an area's homebuilding restrictions and housing prices.

Based on these relationships, Saks hypothesizes that areas with restrictive land-use policies have less employment growth and higher wages. Using data from 85 metropolitan areas, she concludes that:

In places with relatively few barriers to construction, an increase in housing demand leads to a large number of new housing units and only a moderate increase in housing prices. In contrast, for an equal demand shock, places with more regulation experience a 17 percent smaller expansion of the housing stock and almost double the increase in housing prices. Furthermore I find that housing supply regulations have a significant effect on local labor market dynamics. Whereas a 1 percent increase in labor demand generally leads to a 1 percent increase in the long-run level of employment, the employment response is less than 0.8 percent in places where the housing supply is highly constrained.²⁵

With housing shortages leading to labor shortages and higher wages, businesses have an incentive to move to less costly areas of the country (or world) for a less costly and more abundant supply of labor (and customers). As businesses leave an area and others are discouraged from moving to it, economic activity and income growth slow.

State-by-state data on per capita personal income illustrate some of the possible emerging consequences

of affordability-induced migratory patterns by comparing recent income patterns in states with restrictive land-use patterns and housing affordability problems with income patterns in states without such problems. The nationwide inflation-adjusted per capita personal income grew by 2.9 percent between 2000 and 2005, compared to just 0.6 percent in California, perhaps reflecting a 25-year trend of moderation stemming from land-use restrictions put in place beginning in the 1970s. In 1980, per capita personal income in California was 12.4 percent higher than the national average, but by 2005, that premium had declined steadily to just under 5 percent.

By contrast, Colorado benefited from spillover growth from companies and workers wanting a Western location at affordable prices. As a result of these location decisions, the Colorado economy has boomed over the past several decades. Colorado's per capita personal income was below California's in the 1980s but moved ahead of it by 2000 as migrants seeking a better standard of living brought their money and skills to the state. However, Colorado has seen little income gain since 2000, perhaps reflecting the recent spread of California-type land-use restrictions and building regulations.

Oregon residents have seen their standard of living erode in response to three decades of restrictive growth boundaries and other New Urbanist schemes that have diminished affordability and raised costs. Oregonians' standard of living has declined from being virtually identical to the national average in the 1960s to 8.5 percent below the national average in 2005, a period that coincides with the imposition of growth boundaries in the mid-1970s. Although voters twice approved referenda in 2004 that relaxed the growth boundaries, the state's obsessive resistance to highway expansion has led to serious traffic congestion in Portland that has encouraged businesses to move elsewhere despite improvements in housing affordability.²⁶

25. Raven E. Saks, "Job Creation and Housing Construction: Constraints on Metropolitan Area Employment Growth," Federal Reserve Board, Divisions of Research & Statistics and Monetary Affairs *Finance and Economics Discussion Series* 2005-49, p. [iii], at www.federalreserve.gov/PUBS/FEDS/2005/200549/200549pap.pdf (November 30, 2006).

26. Economic Development Research Group, "The Cost of Congestion to the Economy of the Portland Region," December 2005, pp. ES1-ES5, at www.metro-region.org/library_docs/trans/cost_of_congestion_report_final_1_1.pdf (November 30, 2006). The report notes that Sysco Foods, a leading supplier to restaurants and cafeterias, moved its distribution center from Portland to Spokane "because it was taking too long to serve its market from the Portland area."

Similarly, New York's income premium over the national average has slipped as affordability has worsened. Personal incomes in New York were 19 percent above the national average in 1990 but fell to 14 percent by 2005.

In contrast to the slipping performance in some of the states with housing affordability problems, several states with few or no land-use impediments have seen important gains in their economic performance. Affordable Georgia has seen high population growth driven by domestic migration, which has significantly influenced its standard of living. Personal income in Georgia increased from 21 percent below the national average in 1980 to 12 percent below by 2005 as new businesses and skilled workers moved into the state.

Other Cost and Opportunity Factors

All things being equal, both businesses and workers will be inclined to locate in places where profits and real incomes are highest. Much of American history reflects the occasional and sometimes substantial migration of people from one region to another in search of better opportunities. In some cases, the opportunities consisted of jobs and better pay, while in other cases, the quest for a higher standard of living (and better profits) drove an exodus from high-cost regions to low-cost regions.

As noted in the previous section, high-cost housing and the search for affordable housing appear to influence domestic migration patterns significantly. With housing expenditures accounting for 15 percent of personal consumption expenditures in 2005 (second only to medical care), changes in housing costs can significantly influence an individual's standard of living.

Transportation Cost Differences. More recently, a growing body of anecdotal evidence suggests that relative differences in regional transportation costs may also influence the domestic migration of businesses and households. While out-of-pocket transportation costs account for only about 7 percent of household income and do not vary greatly from region to region as both fuel and motor vehicles

trade in national markets, congestion-related delays—another important transportation “cost”—reduce leisure time for households and raise operating costs for businesses as deliveries and personnel are delayed in traffic.

Each year, the Texas Transportation Institute (TTI) calculates a series of congestion measures for 85 of the largest urban areas in the country, and the results show that average traffic congestion has grown steadily worse from each year to the next.²⁷ The TTI's Travel Time Index measures rush hour travel time compared to the time required to travel the same distance during off-peak hours. In 2003 (the most recent data available), the average Travel Time Index for all 85 areas was 1.37, up from 1.12 in 1982. This means that rush hour travel times were 37 percent longer than during off-peak times in 2003. On average, congestion was worse in the larger areas, while the smallest measured areas (populations under 500,000) were the least congested, averaging an Index of 1.10 in 2003.

Among the individual urban areas, Los Angeles had the worst traffic congestion (1.75), followed by Chicago; San Francisco; Washington, D.C.; Miami; Houston; Detroit; Atlanta; and New York. With the exception of Washington, Houston, and Atlanta, all of the badly congested areas experienced domestic out-migration. Except for Atlanta and Houston, all suffered from unaffordable housing. Notably, six of the 25 worst metropolitan areas for traffic congestion were in California, which experienced the largest domestic out-migration of all 50 states, followed by New York.

Other measures of traffic congestion and commuting problems reveal much the same relationships. For 2003, the U.S. Census Bureau ranked states, cities, and counties by the percentage of workers who experienced “extreme commutes,” which are defined as one-way commutes that exceed 90 minutes. According to the U.S. Census Bureau, three (California, New Jersey, and New York) of the four states with the largest share of extreme commuters also experienced out-migration, while six of the 10 U.S. counties with the

27. Texas Transportation Institute, “2005 Urban Mobility Report,” pp. 20–21, Table 5. All subsequent TTI data are drawn from this report.

greatest share of extreme commuters were in New York. Among the 10 worst cities for commuters, three were in California and two were in the New York metropolitan area,²⁸ both of which have lost domestic population since 2000.

While high home prices tend to affect regional demographic trends by influencing households' decisions to stay or leave, congestion costs primarily influence business location decisions, which in turn influence households who may choose to migrate in response to improving or worsening job opportunities. In recent years, several researchers have attempted to estimate the cost imposed by traffic congestion on a metropolitan area. One study conducted by the National Cooperative Highway Research Program of the Transportation Research Board concluded that such costs might be substantial:

Traffic congestion imposes costs to businesses beyond the mere vehicle and driver costs of delay, including potential effects on inventory costs, logistics costs, reliability costs, just-in-time processing costs, and reductions in market areas for workers, customers and incoming/outgoing deliveries.... Businesses may respond to worsening traffic congestion in a variety of ways, including moving away, going out of business, and adjusting to smaller market areas for workers, suppliers, and customers—with some resulting loss of productivity.²⁹

Using Chicago and Philadelphia as case studies, the model, which estimates the impact of traffic relief or delays on economic production, shows that a 10 percent reduction in travel times (less congestion) focused on business delivery of products and services would reduce costs by \$980 million in Chicago and by \$240 million in Philadelphia. Looking at how congestion may affect the labor supply, commute times, and the availability of workers, the researchers estimate that a 10 percent reduction in

travel times would save \$350 million in Chicago and \$200 million in Philadelphia.³⁰

While housing and transportation costs appear to be a significant influence on where households and businesses relocate, other costs also affect business location and household migration patterns. Relative differences in wages, union work rules, tax policy, business regulation, and other exogenous factors encourage or discourage businesses (and therefore households) to locate in or away from certain regions, states, and markets. How these factors work together and which ones are more important are still debatable questions and will likely remain so for the foreseeable future as smart growth advocates look to blame factors other than land-use regulations and anti-car policies.

Influence of Economic Decline on Migration

While extensive out-migration may contribute to regional economic decline as households take their skills and financial resources elsewhere, out-migration is often induced by relative economic decline. Notwithstanding relative differences in housing affordability and transportation costs, diminishing employment opportunities and incomes can encourage existing workers to move to places with more robust economies and better job prospects.

Many metropolitan areas with moderately unaffordable or affordable housing and minimal traffic congestion experienced significant out-migration between 2000 and 2005. (See Appendix C.) Most of these are older manufacturing centers in the Northeast that have lost core businesses to obsolescence and/or to other regions or countries beginning in the 1950s and continuing into the new century. Many also have central cities with more serious social problems, while some have reputations for less effective local government. These include the markets of Philadelphia, Detroit, Cincinnati, Day-

28. U.S. Census Bureau, "Extreme' Commute Rankings," 2003 American Community Survey Summary Tables, at www.census.gov/Press-Release/www/2005/Commutesextremes.pdf (January 3, 2007).

29. Glen Weisbrod, Donald Vary, and George Treyz, *Economic Implications of Congestion*, National Research Council, Transportation Research Board, National Cooperative Highway Research Program Report No. 463, 2001, at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_463-a.pdf (November 30, 2006).

30. *Ibid.*

ton, St. Louis, Cleveland, Rochester, Buffalo and Pittsburgh, and New Orleans.³¹

Even so, each of these historically declining metropolitan areas (except for Detroit) lost fewer domestic migrants from 2000 to 2005 than did San Diego, which was one of the nation's fastest-growing metropolitan areas from World War II to 2000. The substantial out-migration from high housing cost and high congestion areas like Chicago and New York may be exacerbated by the same factors.

Conclusion

The Federal Reserve's effort to deter inflation by raising interest rates has had the expected effect of slowing the economy slightly and the homebuilding market substantially. As a consequence, home prices in many markets peaked in early 2006 and fell slightly in several areas during the second half of the year. While falling home prices will make housing more affordable to some, restrictive federal macroeconomic policies are a clumsy and counter-productive way to promote homeownership, and the benefits accruing to a few are probably offset by the tens of thousands of roofers, carpenters, plumbers, and others in the building trades who no longer have a job.

A better solution is to attack the root cause of the affordability problem—restrictive land-use regulations—and increase the supply of building lots. If such a policy were implemented in any of the

impacted areas, home prices in now-unaffordable regions like Los Angeles, Washington, New York City, and Miami would begin to return to affordable levels. Efforts to turn back such regulations are underway in a number of communities. The most notable is a recent ballot box victory that forced Oregon to relax its regulations.

The overly regulated metropolitan areas seem likely to experience considerably less population and economic growth in the future than would have occurred if their land-use policies had not broken the historic relationship between house values and household incomes. To restore higher levels of economic growth, such areas will need to liberalize their land-use policies.

In the meantime, affordable metropolitan areas that have not grown as strongly in recent decades face a unique opportunity for renewal and expansion. Such areas—many in the long-dormant Midwest—will need to ignore the siren song of excessive land-use regulation to take advantage of their potential.

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31. New Orleans is the only Sun Belt metropolitan area to experience out-migration in every year between 2000 and 2005. The destruction caused by Hurricane Katrina dramatically hastened the trend in late 2005.

Housing Unaffordability Rankings by Median Multiple, 3rd Quarter, 2005

	Rank	Nation	Market	Median Multiple*
Severely Unaffordable	1	United States	Los Angeles and Orange County, CA	11.2
	2	United States	San Diego, CA	10.8
	3	United States	Honolulu, HI	10.6
	4	United States	Ventura County, CA (Los Angeles area)	9.6
	5	United States	San Francisco, CA	9.3
	6	United States	Miami–West Palm Beach, FL	8.8
	7	Australia	Sydney	8.5
	8	United States	New York, NY–NJ–CT–PA	7.9
	9	United States	Riverside–San Bernardino, CA (Los Angeles area)	7.7
	10	United States	San Jose, CA (San Francisco area)	7.4
	11	United Kingdom	London (Greater London Authority)	6.9
	12	United Kingdom	Bristol	6.8
	12	United States	Fresno, CA	6.8
	12	United States	Sacramento, CA	6.8
	15	New Zealand	Auckland	6.6
	15	Australia	Hobart	6.6
	15	Canada	Vancouver	6.6
	18	Australia	Adelaide	6.5
	19	United States	Las Vegas, NV	6.4
	19	Australia	Melbourne	6.4
	21	United States	Bridgeport, CT (New York area)	6.3
	21	United States	Washington, DC–VA–MD–WV	6.3
	23	United States	Boston, MA–NH	6.1
	23	United Kingdom	East of England (London area)	6.1
	23	Australia	Perth	6.1
	26	Australia	Brisbane	6.0
	26	Ireland	Dublin	6.0
	26	United Kingdom	Southeast England (London area)	6.0
	29	New Zealand	Christchurch	5.9
	30	United States	Tucson, AZ	5.7
	31	United Kingdom	Tyne and Wear (Newcastle)	5.6
	32	United States	Providence, RI–MA	5.5
	32	United Kingdom	West Yorkshire (Leeds–Bradford)	5.5
	34	United States	Orlando, FL	5.4
	34	United Kingdom	West Midlands (Birmingham)	5.4
	36	United Kingdom	Greater Manchester	5.3
	36	United Kingdom	Merseyside (Liverpool)	5.3
	36	United States	Seattle–Tacoma, WA	5.3
	39	United Kingdom	Nottinghamshire	5.2
	39	United Kingdom	South Yorkshire (Sheffield)	5.2
	39	New Zealand	Wellington	5.2
	42	United States	Phoenix, AZ	5.1
Seriously Unaffordable	43	United States	Tampa–St. Petersburg, FL	5.0
	44	United States	Chicago, IL	4.9
	45	Australia	Canberra	4.8
	45	United States	New Haven (New York area)	4.8
	47	United States	Baltimore, MD	4.7
	48	United States	Allentown, PA–NJ	4.6
	48	United States	Worcester (Boston area)	4.6
	50	Canada	Toronto	4.4
	51	Australia	Darwin	4.3
	52	United States	Milwaukee, WI	4.2
52	United States	Portland, OR–WA	4.2	

(continued on next page)

Appendix A

B 1999

Housing Unaffordability Rankings by Median Multiple, 3rd Quarter, 2005 (continued)

	Rank	Nation	Market	Median Multiple*	
Moderately Unaffordable	54	United States	Denver, CO	4.0	
	54	United Kingdom	Strathclyde (Glasgow)	4.0	
	54	United States	Virginia Beach–Norfolk, VA–NC	4.0	
	57	United States	Hartford, CT	3.9	
	57	United States	Philadelphia, PA–NJ–DE–MD	3.9	
	57	United States	Richmond, VA	3.9	
	60	Canada	Hamilton	3.8	
	61	United States	Albuquerque, NM	3.7	
	61	United States	Jacksonville, FL	3.7	
	63	United States	Birmingham, AL	3.6	
	63	United States	Charlotte, NC–SC	3.6	
	63	United States	New Orleans, LA	3.6	
	66	United States	Albany, NY	3.5	
	66	United States	Minneapolis–St. Paul, MN–WI	3.5	
	66	Canada	Montreal	3.5	
	69	United States	Baton Rouge, LA	3.3	
	69	United States	Nashville, TN	3.3	
	71	Canada	Calgary	3.2	
	71	United States	Memphis, TN–AR–MS	3.2	
	73	United States	Detroit, MI	3.1	
	73	Canada	Ottawa, ON	3.1	
	73	United States	Raleigh, NC	3.1	
	73	United States	Salt Lake City, UT	3.1	
	Affordable	77	United States	Cleveland, OH	3.0
		78	United States	Columbus, OH	2.9
		78	United States	Houston, TX	2.9
		78	United States	San Antonio, TX	2.9
		81	United States	Atlanta, GA	2.8
		81	United States	Austin, TX	2.8
		81	United States	Cincinnati, OH–KY–IN	2.8
		81	United States	Dallas–Fort Worth, TX	2.8
		81	Canada	Edmonton	2.8
		81	United States	Louisville, KY–IN	2.8
81		Canada	Quebec	2.8	
88		United States	Dayton, OH	2.7	
88		United States	Kansas City, MO–KS	2.7	
88		United States	Oklahoma City, OK	2.7	
91		United States	Grand Rapids, MI	2.6	
91		United States	St. Louis, MO–IL	2.6	
91		United States	Tulsa, OK	2.6	
94		United States	Akron, OH	2.5	
94		United States	Omaha, NE–IA	2.5	
94		United States	Pittsburgh, PA	2.5	
97		United States	Indianapolis, IN	2.4	
97		Canada	Winnipeg	2.4	
99		United States	Buffalo, NY	2.2	
99	United States	Rochester, NY	2.2		

Source: Demographia, "2nd Annual Demographia International Housing Affordability Survey: 2006," p. 20–22, at www.demographia.com/dhi-ix2005q3.pdf (December 4, 2006).

Appendix B

B 1999

Housing Opportunity Index by Affordability Rank, 3rd Quarter, 2006

Metropolitan area	Housing Opportunity Index*	2006 Median Family Income	Median Home Price**	Affordability Rank**	
				National	Regional
Bay City, MI	90.0%	\$55,800	\$87,000	1	1
Springfield, OH	89.8%	\$55,400	\$88,000	2	2
Mansfield, OH	88.7%	\$52,700	\$85,000	3	3
Lansing–East Lansing, MI	87.8%	\$64,900	\$114,000	4	4
Lima, OH	87.6%	\$52,200	\$87,000	5	5
Battle Creek, MI	86.8%	\$55,200	\$87,000	6	6
Canton–Massillon, OH	86.5%	\$54,900	\$100,000	7	7
Indianapolis, IN	85.9%	\$65,100	\$122,000	8	8
Detroit–Livonia–Dearborn, MI***	85.5%	\$56,700	\$95,000	9	9
Youngstown–Warren–Boardman, OH–PA	85.5%	\$52,100	\$86,000	9	9
Flint, MI	85.3%	\$57,800	\$106,000	11	11
Saginaw–Saginaw Township North, MI	85.1%	\$53,800	\$90,000	12	12
Rockford, IL	83.9%	\$63,600	\$122,000	13	13
Utica–Rome, NY	83.2%	\$52,600	\$83,000	14	1
Buffalo–Niagara Falls, NY	82.9%	\$58,300	\$88,000	15	2
Cumberland, MD–WV	81.8%	\$48,400	\$90,000	16	1
Binghamton, NY	81.6%	\$54,100	\$92,000	17	3
Grand Rapids–Wyoming, MI	81.6%	\$61,500	\$128,000	17	14
Dayton, OH	81.2%	\$59,800	\$113,000	19	15
Erie, PA	81.2%	\$54,300	\$96,000	19	4
Monroe, MI	81.1%	\$69,600	\$150,000	21	16
Sherman–Denison, TX	81.1%	\$53,100	\$103,000	21	2
Toledo, OH	80.5%	\$58,900	\$115,000	23	17
Springfield, IL	79.7%	\$64,600	\$121,000	24	18
Akron, OH	79.5%	\$61,300	\$115,000	25	19
Harrisburg–Carlisle, PA	79.5%	\$64,300	\$140,000	25	5
Sandusky, OH	79.1%	\$60,200	\$116,000	27	20
Peoria, IL	79.0%	\$62,400	\$120,000	28	21
Rochester, NY	79.0%	\$64,100	\$117,000	28	6
Warren–Farmington Hills–Troy, MI***	78.2%	\$79,500	\$166,000	30	22
Winston–Salem, NC	77.4%	\$58,200	\$132,000	31	3
Duluth, MN–WI	76.9%	\$55,700	\$120,000	32	23
Champaign–Urbana, IL	76.2%	\$62,600	\$137,000	33	24
Cleveland–Elyria–Mentor, OH	76.1%	\$61,400	\$129,000	34	25
San Angelo, TX	75.8%	\$46,800	\$100,000	35	4
Syracuse, NY	75.7%	\$59,500	\$109,000	36	7
Oklahoma City, OK	74.4%	\$53,900	\$118,000	37	5
St. Louis, MO–IL	74.0%	\$65,800	\$140,000	38	26
Tulsa, OK	73.4%	\$54,500	\$126,000	39	6
Cincinnati–Middletown, OH–KY–IN	73.0%	\$64,600	\$145,000	40	27
Columbia, SC	72.7%	\$58,900	\$145,000	41	7
Victoria, TX	72.6%	\$51,200	\$119,000	42	8
Birmingham–Hoover, AL	72.3%	\$57,400	\$133,000	43	9
Greenville, SC	72.0%	\$56,500	\$145,000	44	10
Columbus, OH	71.8%	\$64,400	\$145,000	45	28
Pittsburgh, PA	71.8%	\$57,400	\$122,000	45	8
Greensboro–High Point, NC	71.4%	\$56,400	\$142,000	47	11
Glens Falls, NY	70.9%	\$53,700	\$126,000	48	9
Pueblo, CO	69.1%	\$46,800	\$128,000	49	1
Atlanta–Sandy Springs–Marietta, GA	66.6%	\$68,100	\$186,000	50	12
Fayetteville, NC	66.1%	\$47,600	\$122,000	51	13
Reading, PA	66.1%	\$64,600	\$150,000	51	10

(continued on next page)

Appendix B

B 1999

Housing Opportunity Index by Affordability Rank, 3rd Quarter, 2006 (continued)

Metropolitan area	Housing Opportunity Index*	2006 Median Family Income	Median Home Price**	Affordability Rank**	
				National	Regional
Lancaster, PA	65.4%	\$64,100	\$173,000	54	11
Tallahassee, FL	64.5%	\$58,500	\$160,000	55	15
Charlotte–Gastonia–Concord, NC–SC	63.6%	\$64,400	\$175,000	56	16
Ann Arbor, MI	63.4%	\$82,400	\$219,000	57	29
Durham, NC	63.0%	\$61,700	\$174,000	58	17
Pocatello, ID	62.7%	\$50,200	\$144,000	59	2
Wichita Falls, TX	62.6%	\$49,100	\$118,000	60	18
Beaumont–Port Arthur, TX	61.9%	\$50,600	\$118,000	61	19
Raleigh–Cary, NC	61.2%	\$71,600	\$206,000	62	20
Amarillo, TX	60.7%	\$51,800	\$130,000	63	21
Waco, TX	60.7%	\$49,100	\$129,000	63	21
Wilmington, DE–MD–NJ***	59.7%	\$73,200	\$227,000	65	12
Milwaukee–Waukesha–West Allis, WI	58.8%	\$66,800	\$179,000	66	30
Ithaca, NY	58.3%	\$63,500	\$168,000	67	13
Pittsfield, MA	58.2%	\$61,200	\$178,000	68	14
Fort Collins–Loveland, CO	58.0%	\$68,600	\$223,000	69	3
Tyler, TX	58.0%	\$52,700	\$148,000	69	23
Austin–Round Rock, TX	57.8%	\$69,600	\$197,000	71	24
Gainesville, GA	57.4%	\$58,300	\$177,000	72	25
Albany–Schenectady–Troy, NY	57.1%	\$66,200	\$180,000	73	15
Dallas–Plano–Irving, TX***	57.1%	\$66,700	\$186,000	73	26
Denver–Aurora, CO	57.1%	\$71,300	\$228,000	73	4
Minneapolis–St. Paul–Bloomington, MN–WI	56.4%	\$78,500	\$242,000	76	31
Colorado Springs, CO	55.7%	\$63,100	\$208,000	77	5
Greeley, CO	55.3%	\$57,800	\$188,000	78	6
Pensacola–Ferry Pass–Brent, FL	55.3%	\$51,900	\$160,000	78	27
Springfield, MA	55.1%	\$62,900	\$187,000	80	16
Ogden–Clearfield, UT	54.7%	\$61,200	\$204,000	81	7
Houston–Sugar Land–Baytown, TX	54.4%	\$60,900	\$169,000	82	28
Hartford–West Hartford–East Hartford, CT	54.2%	\$80,200	\$235,000	83	17
Roanoke, VA	54.0%	\$57,800	\$190,000	84	29
Salisbury, MD	53.5%	\$55,300	\$180,000	85	30
Gainesville, FL	53.3%	\$54,500	\$169,000	86	31
Spokane, WA	52.8%	\$53,900	\$170,000	87	8
Richmond, VA	52.1%	\$67,200	\$225,000	88	32
Vineland–Millville–Bridgeton, NJ	51.8%	\$56,400	\$160,000	89	18
Midland, TX	51.7%	\$55,900	\$154,000	90	33
Great Falls, MT	50.9%	\$47,800	\$153,000	91	9
Lake County–Kenosha County, IL–WI***	50.3%	\$86,000	\$270,000	92	32
Camden, NJ***	50.2%	\$77,300	\$223,000	93	19
Wheeling, WV–OH	50.0%	\$48,200	\$167,000	94	34
Allentown–Bethlehem–Easton, PA–NJ	49.6%	\$65,900	\$210,000	95	20
Jacksonville, FL	48.8%	\$60,300	\$200,000	96	35
Norwich–New London, CT	48.4%	\$73,900	\$240,000	97	21
Salem, OR	48.1%	\$56,800	\$192,000	98	10
College Station–Bryan, TX	47.9%	\$52,300	\$160,000	99	36
Boulder, CO	47.2%	\$81,600	\$300,000	100	11
New Haven–Milford, CT	47.0%	\$75,000	\$239,000	101	22
San Antonio, TX	46.5%	\$53,100	\$162,000	102	37
Trenton–Ewing, NJ	46.4%	\$85,400	\$260,000	103	23
Corpus Christi, TX	46.1%	\$48,200	\$144,000	104	38
Asheville, NC	45.5%	\$50,400	\$185,000	105	39

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Appendix B

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Housing Opportunity Index by Affordability Rank, 3rd Quarter, 2006 (continued)

Metropolitan area	Housing Opportunity Index*	2006 Median Family Income	Median Home Price**	Affordability Rank**	
				National	Regional
Chicago–Naperville–Joliet, IL***	44.8%	\$72,100	\$254,000	107	33
Worcester, MA	44.0%	\$71,700	\$249,000	108	24
Charleston–North Charleston, SC	43.6%	\$56,400	\$215,000	109	40
Ocala, FL	43.4%	\$44,900	\$163,000	110	41
Rockingham County–Strafford County, NH***	43.0%	\$77,000	\$269,000	111	25
Palm Bay–Melbourne–Titusville, FL	42.4%	\$57,300	\$200,000	112	42
Baltimore–Towson, MD	41.5%	\$72,800	\$275,000	113	43
Tampa–St. Petersburg–Clearwater, FL	40.6%	\$54,400	\$198,000	114	44
Virginia Beach–Norfolk–Newport News, VA–NC	40.3%	\$60,300	\$227,000	115	45
Fort Walton Beach, FL	40.1%	\$57,800	\$225,000	116	46
Albuquerque, NM	39.0%	\$53,200	\$205,000	117	13
Manchester–Nashua, NH	36.9%	\$76,900	\$255,000	118	26
Brownsville–Harlingen, TX	36.8%	\$33,000	\$118,000	119	47
Salt Lake City, UT	36.8%	\$61,300	\$253,000	119	14
Panama City–Lynn Haven, FL	36.6%	\$51,600	\$225,000	121	48
Hagerstown–Martinsburg, MD–WV	35.5%	\$57,700	\$237,000	122	49
Provo–Orem, UT	35.3%	\$56,000	\$239,000	123	15
Lakeland, FL	35.0%	\$49,500	\$201,000	124	50
El Paso, TX	33.7%	\$39,500	\$141,000	125	51
Vero Beach, FL	32.2%	\$55,500	\$220,000	126	52
Punta Gorda, FL	32.1%	\$50,800	\$208,000	127	53
Essex County, MA***	31.0%	\$78,200	\$330,000	128	27
Cambridge–Newton–Framingham, MA***	30.7%	\$90,900	\$388,000	129	28
Bethesda–Gaithersburg–Frederick, MD***	30.4%	\$98,400	\$425,000	130	54
Tucson, AZ	30.2%	\$52,400	\$220,000	131	16
Portland–Vancouver–Beaverton, OR–WA	30.0%	\$66,900	\$270,000	132	17
Eugene–Springfield, OR	29.9%	\$54,700	\$225,000	133	18
Deltona–Daytona Beach–Ormond Beach, FL	29.4%	\$50,300	\$205,000	134	55
Atlantic City, NJ	29.2%	\$64,400	\$258,000	135	29
Orlando–Kissimmee, FL	28.9%	\$57,400	\$244,000	136	56
West Palm Beach–Boca Raton–Boynton Beach, FL***	28.8%	\$64,400	\$290,000	137	57
Bellingham, WA	28.5%	\$57,500	\$257,000	138	19
Philadelphia, PA***	28.1%	\$69,800	\$294,000	139	30
Sarasota–Bradenton–Venice, FL	28.1%	\$58,400	\$253,000	139	58
Yuma, AZ	27.9%	\$41,100	\$184,000	141	20
Bridgeport–Stamford–Norwalk, CT	27.6%	\$95,900	\$450,000	142	31
Olympia, WA	27.6%	\$64,300	\$249,000	142	21
Fort Lauderdale–Pompano Beach–Deerfield Beach, FL***	27.3%	\$60,600	\$265,000	144	59
Bremerton–Silverdale, WA	27.0%	\$63,200	\$260,000	145	22
Prescott, AZ	26.7%	\$48,300	\$245,000	146	23
Mount Vernon–Anacortes, WA	26.6%	\$56,500	\$250,000	147	24
Phoenix–Mesa–Scottsdale, AZ	26.6%	\$60,100	\$259,000	147	24
Edison, NJ***	25.7%	\$87,500	\$357,000	149	32
Poughkeepsie–Newburgh–Middletown, NY	25.4%	\$73,400	\$295,000	150	33
Honolulu, HI	25.3%	\$71,300	\$430,000	151	26
Kingston, NY	25.1%	\$61,400	\$239,000	152	34
Boise City–Nampa, ID	24.4%	\$56,100	\$250,000	153	27
Chico, CA	23.9%	\$49,700	\$260,000	154	28
Boston–Quincy, MA***	23.8%	\$77,700	\$355,000	155	35
Seattle–Bellevue–Everett, WA***	22.8%	\$74,300	\$357,000	156	29

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Appendix B

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Housing Opportunity Index by Affordability Rank, 3rd Quarter, 2006 (continued)

Metropolitan area	Housing Opportunity Index*	2006 Median Family Income	Median Home Price**	Affordability Rank**	
				National	Regional
Providence–New Bedford–Fall River, RI–MA	21.8%	\$64,000	\$266,000	158	36
Port St. Lucie–Fort Pierce, FL	21.5%	\$54,600	\$247,000	159	60
Cape Coral–Fort Myers, FL	20.8%	\$56,000	\$260,000	160	61
Washington–Arlington–Alexandria, DC–VA–MD–WV***	20.5%	\$88,200	\$420,000	161	62
Ocean City, NJ	20.4%	\$64,100	\$370,000	162	37
Naples–Marco Island, FL	18.4%	\$66,100	\$364,000	163	63
Reno–Sparks, NV	18.0%	\$62,800	\$320,000	164	31
Flagstaff, AZ	17.8%	\$54,200	\$308,000	165	32
Bend, OR	17.5%	\$58,800	\$314,000	166	33
Laredo, TX	17.1%	\$34,800	\$150,000	167	64
Redding, CA	17.0%	\$49,000	\$260,000	168	34
Carson City, NV	16.7%	\$57,300	\$282,000	169	35
Newark–Union, NJ–PA***	16.7%	\$85,400	\$407,000	169	38
St. George, UT	16.5%	\$46,900	\$293,000	171	36
Bakersfield, CA	15.4%	\$48,100	\$275,000	172	37
Medford, OR	15.3%	\$52,900	\$279,000	173	38
Las Vegas–Paradise, NV	13.7%	\$58,200	\$306,000	174	39
Visalia–Porterville, CA	13.3%	\$44,100	\$255,000	175	40
Barnstable Town, MA	13.2%	\$66,800	\$350,000	176	39
Hanford–Corcoran, CA	13.1%	\$46,200	\$250,000	177	41
San Jose–Sunnyvale–Santa Clara, CA	12.2%	\$97,100	\$655,000	178	42
Miami–Miami Beach–Kendall, FL***	10.9%	\$48,300	\$273,000	179	65
Vallejo–Fairfield, CA	10.8%	\$74,000	\$445,000	180	43
Oxnard–Thousand Oaks–Ventura, CA	10.1%	\$79,500	\$580,000	181	44
Santa Rosa–Petaluma, CA	9.2%	\$75,100	\$540,000	182	45
Oakland–Fremont–Hayward, CA***	8.8%	\$83,800	\$560,000	183	46
Yuba City, CA	8.3%	\$48,200	\$304,000	184	47
Santa Cruz–Watsonville, CA	8.1%	\$75,100	\$685,000	185	48
Nassau–Suffolk, NY***	7.9%	\$91,000	\$450,000	186	40
Sacramento–Arden Arcade–Roseville, CA	7.9%	\$65,400	\$385,000	186	49
Fresno, CA	7.1%	\$47,000	\$306,000	188	50
El Centro, CA	6.9%	\$43,300	\$273,000	189	51
San Francisco–San Mateo–Redwood City, CA***	6.8%	\$91,200	\$759,000	190	52
Riverside–San Bernardino–Ontario, CA	6.7%	\$57,500	\$393,000	191	53
San Luis Obispo–Paso Robles, CA	6.5%	\$63,800	\$535,000	192	54
Santa Barbara–Santa Maria, CA	6.1%	\$65,800	\$500,000	193	55
New York–White Plains–Wayne, NY–NJ***	5.1%	\$59,200	\$500,000	194	41
Napa, CA	4.9%	\$75,000	\$615,000	195	56
San Diego–Carlsbad–San Marcos, CA	4.9%	\$64,900	\$477,000	195	56
Madera, CA	4.8%	\$48,000	\$310,000	197	58
Stockton, CA	4.8%	\$57,100	\$434,000	197	58
Merced, CA	4.3%	\$46,400	\$359,000	199	60
Modesto, CA	4.1%	\$54,400	\$372,000	200	61
Santa Ana–Anaheim–Irvine, CA***	3.8%	\$78,300	\$626,000	201	62
Salinas, CA	2.6%	\$62,200	\$595,000	202	63
Los Angeles–Long Beach–Glendale, CA***	1.8%	\$56,200	\$523,000	203	64

* The Housing Opportunity Index indicates the share of homes affordable for median-income household. These data are for the third quarter of 2006.

** For the third quarter of 2006.

*** Metropolitan divisions. All other areas are metropolitan statistical areas.

Source: National Association of Homebuilders, "Housing Opportunity Index: 3rd Quarter 2006, by Affordability Rank," November 20, 2006, at www.nahb.org/fileUpload_details.aspx?contentID=535 (December 4, 2006).

Appendix C

B 1999

U.S. Domestic Migration and Housing Affordability

Metropolitan Area	Domestic Migration, 2000-2005		Median Multiple, Q3, 2005	Affordability Classification
	Net	Percent Change		
Los Angeles	-305,000	-1.9%	11.2%	High Cost Loser
San Diego	-98,000	-3.5%	10.8%	High Cost Loser
San Francisco	-549,000	-7.7%	9.3%	High Cost Loser
Miami	-41,000	-0.8%	8.8%	High Cost Loser
New York	-1,175,000	-5.5%	7.9%	High Cost Loser
Fresno	13,000	1.4%	6.8%	High Cost Attractor
Sacramento	141,000	7.3%	6.8%	High Cost Attractor
Las Vegas	228,000	16.2%	6.4%	High Cost Attractor
Washington-Baltimore	-30,000	-0.4%	6.3%	High Cost Loser
Boston	-204,000	-3.6%	6.1%	High Cost Loser
Providence	-5,000	-0.3%	5.5%	High Cost Loser
Orlando	190,000	11.2%	5.4%	High Cost Attractor
Seattle	-4,000	-0.1%	5.3%	High Cost Loser
Phoenix	301,000	9.3%	5.1%	High Cost Attractor
Tampa-St. Petersburg	202,000	8.4%	5.0%	High Cost Attractor
Chicago	-344,000	-3.7%	4.9%	High Cost Loser
Milwaukee	-49,000	-2.9%	4.2%	High Cost Loser
Portland	48,000	2.5%	4.2%	High Cost Attractor
Denver	-19,000	-0.8%	4.0%	High Cost Loser
Virginia Beach	1,000	0.1%	4.0%	High Cost Attractor
Philadelphia	-51,000	-0.9%	3.9%	Less than 4.0%
Hartford	6,000	0.5%	3.9%	Less than 4.0%
Richmond	41,000	3.8%	3.9%	Less than 4.0%
Jacksonville	82,000	7.3%	3.7%	Less than 4.0%
New Orleans	-41,000	-3.0%	3.6%	Less than 4.0%
Birmingham	12,000	1.1%	3.6%	Less than 4.0%
Charlotte	112,000	5.9%	3.6%	Less than 4.0%
Minneapolis	-11,000	-0.3%	3.5%	Less than 4.0%
Albany	12,000	1.1%	3.5%	Less than 4.0%
Nashville	51,000	3.7%	3.3%	Less than 4.0%
Memphis	-1,000	-0.1%	3.2%	Less than 4.0%
Detroit	-151,000	-2.8%	3.1%	Less than 4.0%
Salt Lake City	-35,000	-2.4%	3.1%	Less than 4.0%
Raleigh-Durham	82,000	6.3%	3.1%	Less than 4.0%
Columbus	9,000	0.5%	2.9%	Less than 4.0%
Houston	61,000	1.3%	2.9%	Less than 4.0%
San Antonio	66,000	3.9%	2.9%	Less than 4.0%
Cincinnati	-10,000	-0.5%	2.8%	Less than 4.0%
Louisville	11,000	0.9%	2.8%	Less than 4.0%
Austin	75,000	6.0%	2.8%	Less than 4.0%
Dallas-Fort Worth	115,000	2.2%	2.8%	Less than 4.0%
Atlanta	194,000	4.3%	2.8%	Less than 4.0%
Dayton	-27,000	-2.5%	2.7%	Less than 4.0%
Oklahoma City	10,000	0.9%	2.7%	Less than 4.0%
Kansas City	17,000	0.9%	2.7%	Less than 4.0%
St. Louis	-15,000	-0.6%	2.6%	Less than 4.0%
Grand Rapids	-3,000	-0.2%	2.6%	Less than 4.0%
Cleveland	-79,000	-2.7%	2.5%	Less than 4.0%
Pittsburgh	-40,000	-1.6%	2.5%	Less than 4.0%
Indianapolis	30,000	1.6%	2.4%	Less than 4.0%
Buffalo	-35,000	-2.8%	2.2%	Less than 4.0%
Rochester	-27,000	-2.4%	2.2%	Less than 4.0%

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Summary		Domestic Migration	
		Net	Percent Change
By Affordability	Median Multiple \geq 4.0%	-1,699,000	-1.7%
	Median Multiple $<$ 4.0%	460,000	0.7%
	Smaller Metropolitan Areas and Other	1,239,000	1.1%
High Cost Attractor and Losers	Median Multiple \geq 4.0%		
	High Cost Losers	-2,823,000	-3.3%
	High Cost Attractors	1,124,000	7.8%
	Median Multiple $<$ 4.0%	460,000	0.7%
	Smaller Metropolitan Areas and Other	1,239,000	1.1%

Source: Author's calculations based on U.S. Census Bureau data, April 1, 2000 to June 30, 2005, and Demographia, "2nd Annual Demographia International Housing Affordability Survey: 2006," p. 20, at www.demographia.com/dhi-ix2005q3.pdf (December 4, 2006).