



Spring 2006

Getting Ahead of the (Housing) Curve: A Look at Emerging Housing Needs and Market Dynamics

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This paper was written for the Funders' Network for Smart Growth and Livable Communities by Dr. Arthur C. Nelson, FAICP, Professor and Director of Urban Affairs and Planning and Associate Director with the Metropolitan Institute at Virginia Tech's Northern Virginia Center in Alexandria.

This paper is the first in a series of four papers, edited by Stephanie Jennings, that examine the interconnections between housing and other issues of concern to philanthropic organizations and the communities in which they work. This paper is designed as an overview and focuses on the unique features of the housing market and emerging trends. Other papers in the series will address regionalism and housing; children, education, and housing; and transportation, energy, and housing.

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Publisher's Note:

This paper is the first in a series of housing papers that provide a context for funder conversations and work around housing and smart growth. *Getting Ahead of the (Housing) Curve: A Look at Emerging Housing Needs and Market Dynamics* seeks to explain overarching national and local market forces and demographic trends, explore emerging consumer preferences, and suggest a future research agenda to elevate knowledge and understanding of housing trends and impacts on the lives of individuals and families.

This paper is only a starting point. Other papers in the series will address regionalism and housing; children, education, and housing; and transportation, energy, and housing. Reader' understanding of the complex web of housing and smart growth issues will be enhanced by reviewing the entire series.

Abstract

In the boom years following World War II, Americans enjoyed an abundance of affordable housing. A suburban home with a yard became the ideal and homeownership rates soared. Fast forward to the present and we find that homes across many regions are now unaffordable for the average working family. Communities are challenged to meet the growing need for homes and apartments and resulting demands on water and energy supplies, transportation systems, schools, and other infrastructure. Many families find they have more limited choices within their budgets and are often forced to make tradeoffs between cost, location, home quality, and neighborhoods.

Looking to the future, America will need to build a total of 60 million new homes over the next 30 years to meet consumer demand. Of this total number, 40 million new homes are needed to support a growing population, but another 20 million will replace those that are removed through demolition or conversion. These figures assume that most of the existing housing stock is preserved over time.

Currently, even with favorable interest rates and a booming home-building industry, suppliers are barely producing two million homes annually. As shown later in this paper, at least one-third of all new housing development is not meeting consumers' true needs. The pace of construction is not likely to increase as local communities struggle to balance growth and redevelopment pressures with concerns about increasing densities, traffic, and school quality.

For the moment, these shortcomings may not be high on the public's agenda, but over the next decade it will become clear that housing production, configuration, and location are missing the mark.

This paper seeks to demystify the underlying dynamics of housing markets to help funders better understand housing challenges and their implications for other smart growth issues. The first section, *Key Concepts for Understanding Housing Markets*, explains the components of housing value and the role of location in creating value. This section also

explains the relative importance of homeownership to family financial well-being and how housing affordability is measured. The second section, *The Dynamic Housing Market*, discusses current factors that impact housing supply and demand. The third section, *Meeting Housing Needs*, provides a broad overview of the public, private, and nonprofit systems that have been developed to help meet overall demand as well as efforts to meet the needs of particular populations. The final section, *Concluding Observations: A Research Agenda for the Future*, discusses knowledge and information that would be helpful in understanding future market trends and crafting strategies to meet emerging housing needs.

Key Concepts for Understanding Housing Markets

In the current economy, many liken the continued growth of the real estate market to the stock market bubble and crash of a few years ago. Yet these markets behave quite differently for a number of reasons. This section provides a brief discussion of the components of home values, the particular impacts of location and access on housing value, and the importance of housing for family wealth accumulation and financial stability.

Components of Housing Value

Simply stated, housing is a complex commodity. When someone chooses to rent or buy a home, one is purchasing more than just the physical structure; one is buying all that comes with that neighborhood and location. When someone buys a home, one is also concerned about its future value. When someone develops or purchases a rental property, one is taking all of these factors into consideration as well. Housing prices generally reflect the value of five factors, as illustrated by the following formula:¹

$$\begin{aligned} \text{Price} = & \text{Land Value} + \text{Structure Value} \\ & + \text{Infrastructure Value} \\ & + \text{Present Location Value} + \text{Future Location Value} \end{aligned}$$

Land Value has been traditionally measured on its value for agricultural use. The higher the agricultural productivity of the land, the higher the value of this component and the more likely land will be used for agriculture and not developed. However, once an area is developed, value is determined primarily by the other components.

Structural Value is the cost to build and maintain the structure over time. The higher the construction costs, the higher the value of this component. Construction costs include both the costs of materials as well as labor.

Infrastructure Value reflects the cost to provide urban infrastructure and services to the unit(s), such as schools, police and fire, water and sewer, and transportation. The value of this component will rise in step with the increased cost of these services. Many communities use impact fees on new construction to attach these costs to the purchase of a home.

Present Location Value refers to the value of the location where the unit or building resides. The closer to centers of employment, shopping, recreation, or other attractive features, the higher the value of this component.

Future Location Value is speculative and based on the expected future value of the location where the unit or building resides. If the home is located in a fast growing area or one with desirable amenities, one can expect the value of this component to increase.

Together, these components make up the value of a home. While homebuyers or renters rarely try to break down the value of homes in this way, they often consider each component intuitively in residential real estate transactions.

Role of Location and Accessibility

Many of today's concerns about regional growth relate to concepts of location and access. When a household chooses a place to live, it often makes trade-offs between location, neighborhood features, and housing quality to meet its budget. Location refers to the geographic place where a home is situated, but accessibility refers to the ease of reaching jobs, shopping, services, and friends and relatives. Once selected, a home or apartment's location will not change. In contrast, access to jobs and services may change as a result of new development patterns or growing traffic congestion in the surrounding community. Some families, of course, have few housing choices because of limited incomes and/or affordable options.

Homes developed in today's suburbs often have diminished access by design. In addition, the overall impact of suburban style housing has resulted in a deconcentration of population across metropolitan areas. Research shows that average number of persons per square mile in urban areas fell from 3,376 persons in 1960 to 2,141 in 1990.² It seems clear that metropolitan areas are becoming less densely settled. As America has deconcentrated its employment and population from central cities to suburbs, exurbs, and beyond, these homes have decreased accessibility to jobs and services.

In turn, residents must rely on automobiles to cover the growing distances between jobs, services, and their homes. Research shows that automobile dependency is rising faster than population growth. Between 1990 and

2000, total vehicle miles traveled rose 31 percent while the population increased just 13 percent; in other words, vehicle miles traveled grew at a pace 132 percent faster than population growth.³ This growing dependence is further illustrated by data that show an 8 percent decrease in the use of transit and a 23 percent decrease in walking/bicycling between 1990 and 2000.⁴

The challenges of location and access often have a greater impact on low-income families. Choice does not extend to a growing number of households either because market rents and sales prices are too high or incomes are too low. Researcher Jonathan Levine found that low-income households face lengthening commutes as employment suburbanizes because they cannot find affordable housing near those jobs.⁵ In contrast, middle- and higher-income households enjoy shorter commutes to suburban jobs in areas where they mostly tend to live anyway.⁶

Housing's Impact on Wealth Accumulation

In comparison to other consumer goods, residential homes are very durable. In 1990, there were 18.8 million homes built before 1940. By 2000, only 8 percent of these homes left the market. This extensive life span is part of the reason why homes maintain their value over time.

Investment in homeownership is the single biggest source of household wealth in the United States. Homeownership rates have reached an all-time high during the 2000s with an ownership rate of 69 percent by late 2004. In 2003, equity in homes reached \$7.7 trillion,⁷ or about half of all household wealth.⁸ Homeownership has long been one of the principal sources of wealth accumulation for families, especially those with moderate and low incomes. Among households in the first income quintile, home equity represents 80 percent of their wealth.

For those families in the second income quintile, home equity represents 60 percent of their wealth.⁹

In the first decade of the 21st century, half of all metropolitan areas are predicted to see housing price appreciation and only a third appear to risk weaker prices.¹⁰ For the most part, prospects for low- and moderate-income households to accumulate wealth appear best in growing metropolitan areas, and probably in suburbs where new job formation will continue to dominate.¹¹

Housing Costs and Household Income

The amount a household can “afford” to pay is typically based on the percent of income paid for rent or a mortgage plus other related costs such as insurance and taxes. The current standard established by the U.S. Department of Housing and Urban Development (HUD)—although established with little empirical foundation—defines housing as unaffordable if it consumes more than 30 percent of a household’s income. Researchers use the term “severely cost burdened” to refer to households spending more than 50 percent of their incomes on housing.

At present, one in three American households are paying more than 30 percent of their income for housing.¹² Affordability is a concern for both renters and homeowners. Analysis shows that 25 percent of homeowner households and 40 percent of renter households are paying more than 30 percent of their income for housing. The growing number of elderly, single-parent households, and immigrants are particularly susceptible to high housing cost burdens. During the period 1997-2001, roughly two-thirds of all single-person households spent more 30 percent of their income on housing with about 45 percent paying more than half.¹³ The growing number of elderly households will also find it difficult to pay for housing. The *2003*

American Housing Survey found that three million elderly households (whose household head is age 65 or older), spent more than half their income on housing.¹⁴ These trends cut across urban, suburban, and rural markets.

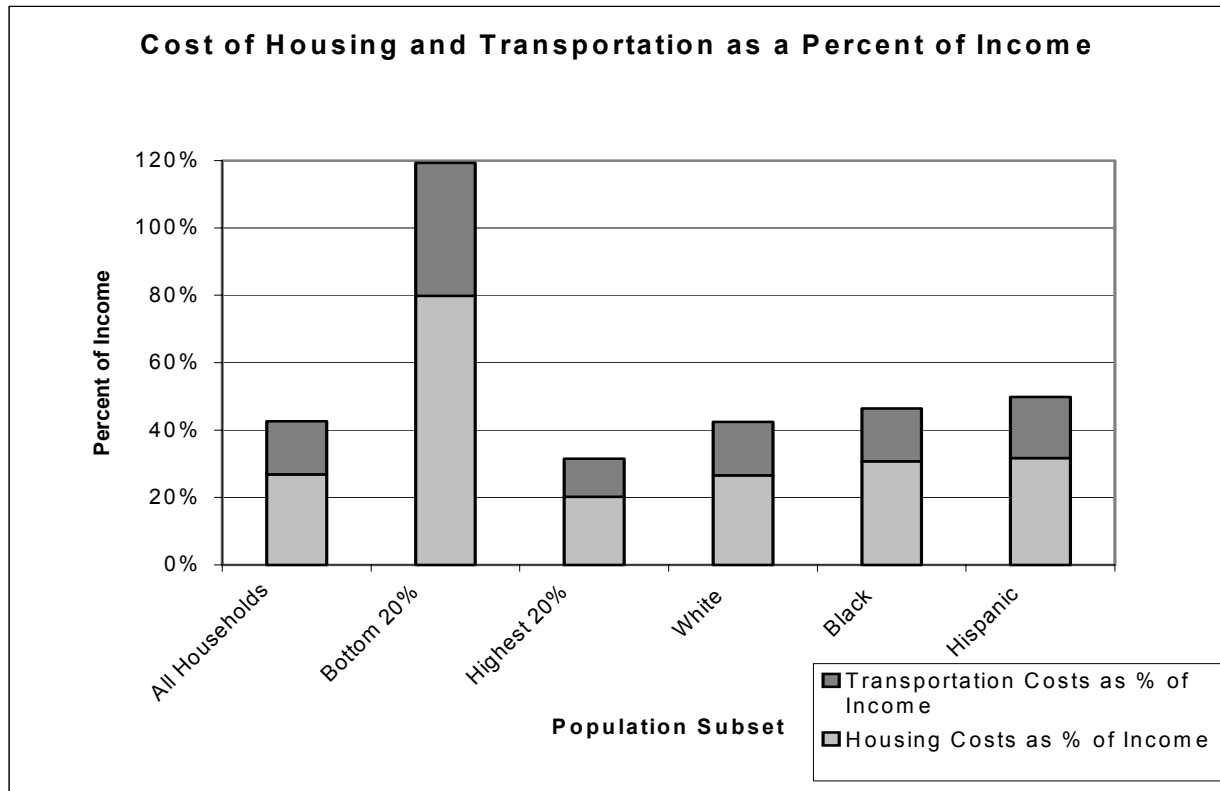
Between 2000 and 2003, immigrants from foreign countries accounted for 45 percent of the increase in the nation’s population.¹⁵ Yet as foreign-born immigrants become an increasingly large share of the population, their households are becoming increasingly crowded. When defined as more than one person per room (not just bedroom), crowding among the foreign born has increased steadily since 1980, rising from 8 to 26 percent, compared with a drop from 4 to 3 percent among native-born Americans.¹⁶ The reason is that with low- to moderate-incomes and a desire to live in the suburbs where the most jobs are, immigrants’ households sometimes join forces to buy or rent housing for their collective families.

Economists agree—and it’s no easy feat getting economists to agree on anything—there are other attendant costs that are not captured in HUD’s definition of housing costs. For example, a family that chooses to buy a home with a lower present location value may find it actually costs them more to access jobs and services over time. There is growing recognition that transportation costs must also be considered in order to get a true picture of a household’s “housing” costs.

Consider the following statistics. In 2002, the median income for all households was \$49,430, with housing costs of \$13,283. This housing cost represents 27 percent of income, which is slightly less than the 30 percent standard. As Figure 1 shows, the story changes when transportation costs are also included. Total housing and “access” costs are 42.6 percent for all households. Virtually no household group enjoys housing that is “affordable” when transportation is included,

although the highest-income quintile comes close.¹⁷

FIGURE 1: Cost of Housing and Transportation as a Percent of Income



Source: Consumer Expenditures in 2002. Bureau of Labor Statistics, U.S. Department of Commerce, Report 974, February 2004. Accessed October 16, 2004 at <http://stats.bls.gov/cex/csxann02.pdf>.

The Dynamic Housing Market

The American housing system is a modified free market economy. Ideally, the producers collectively find the “right” level of production to meet consumer demand at prices they are willing to pay. This is a gross simplification, of course, but it provides a foundation for deriving two basic implications for housing. If consumers’ demand for housing exceeds producers’ ability to build, housing prices rise. If housing production outpaces demand, prices will fall. In a perfect market, all housing demands are met simultaneously with sufficient supply.

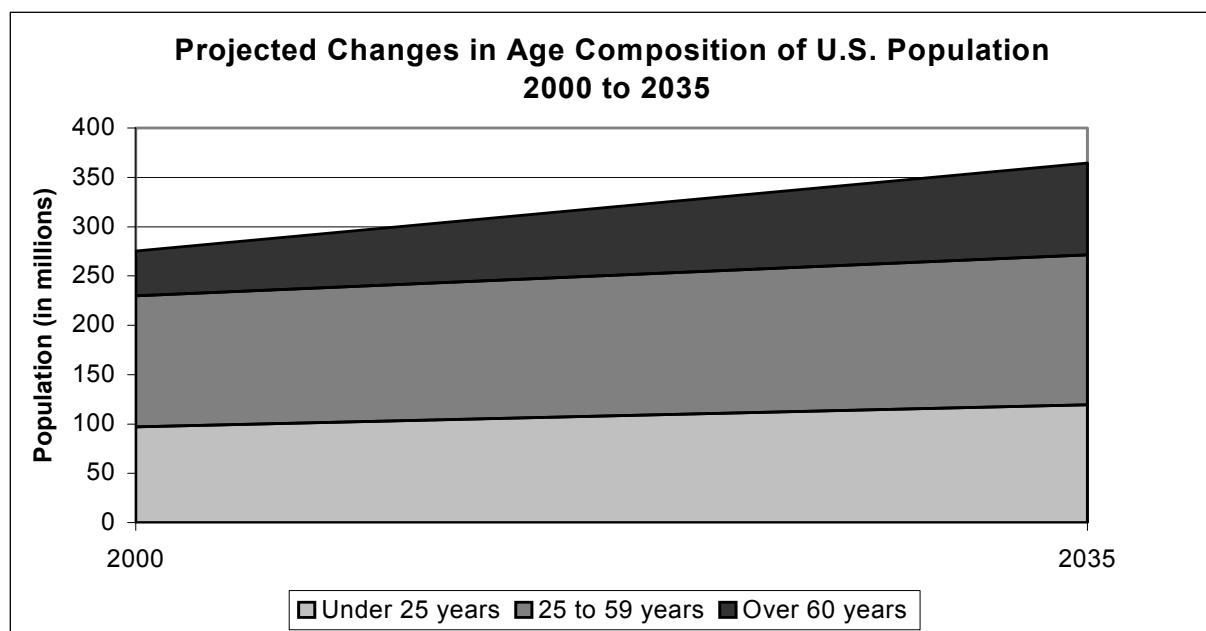
While this system has worked well for many, there are many reasons why it has failed to meet the needs of all consumers and communities. This section explores the most prominent factors impacting the supply of and demand for housing. On the demand side, this section discusses the growing population, evolving consumer preferences, and the impact of innovations in mortgage finance. On the supply side, this section discusses how land availability and characteristics and development regulation impact the overall supply of housing.

Growing Population and Changing Households

Our nation's rapidly changing demographic trends greatly impact current and future demand for housing. The nation's population continues to grow by leaps and bounds, but its composition is changing. The number of younger people under 25 will grow at a pace

comparable to the national average, while the population most likely to have children (ages 25 to 59) will lag. In contrast, the population over age 60 will more than double. Even more remarkable is the projection that the number of people over 75 will more than double and account for about a fifth of the nation's population growth between 2000 and 2035.

FIGURE 2: Projected Changes in Age Composition of U.S. Population from 2000 to 2035

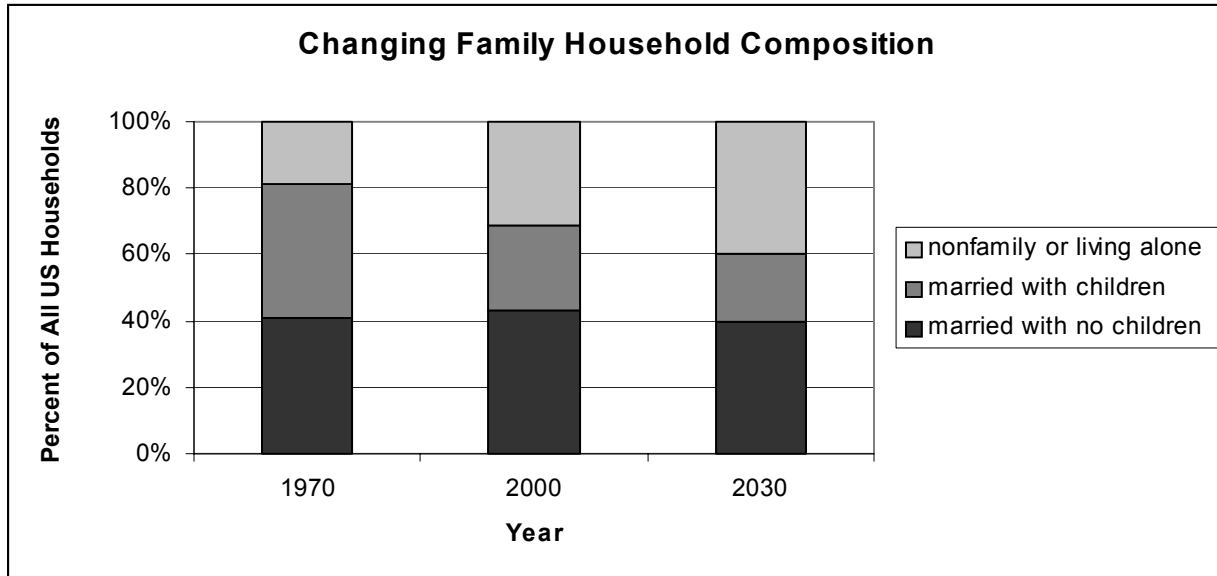


Source: Projections of the Total Resident Population by 5-Year Age Groups, and Sex with Special Age Categories: Middle Series, 2025 to 2045, (NP-T3-F), Population Projections Program, Population Division, U.S. Census Bureau, (Washington, D.C.). Figures combined into categories shown.

The expanding population is by no means equally distributed across the country. Coastal areas continue to experience the most rapid population growth. For example, while the United States grew by 13 percent during the 1990s, coastal Southeastern and West Coast states grew by more than 16 percent and together accounted for about half the nation's growth. In contrast, Northeastern, Great Lakes, and Plains states grew by about half the national rate.

Concurrently, the composition of the typical household is also changing. Research shows that traditional households with two parents and children make up an increasingly smaller share of all households as shown in Figure 3. In contrast, the nation's share of nontraditional households (including unmarried and same-sex couples) will double and the share of people living alone will also increase dramatically.

FIGURE 3: Changing Family Household Composition



Source: 1970 and 2000 data from U.S. Census Bureau. Estimates for 2030 by the author.

As demographics are changing, so are housing needs. It almost goes without saying that housing is a cradle-to-grave proposition. The type of housing that is needed or most suitable along the way varies considerably by

age and other factors. Consider the generalized stages of households advanced by Carter and McGoldrick, to which the author has added types of housing typically needed:¹⁸

TABLE 1: Generalized Life Stages of Households and their Desired Housing Types

Life Stage	Desired Type of Housing
Single young adults	apartments, other rentals, owner-attached
Young couples	apartments, other rentals, owner-attached
Families with young children	small owner-detached
Families with adolescents	large owner-detached
Launching children and moving on	move from large detached to small detached
Families in later life	small owner-detached or owner-attached

As shown by Table 1, each stage of the life cycle has its own housing needs. Generally, as householders (heads of households) age, families get larger, and incomes rise, the propensity to own a home rises, along with the tendency to own larger homes on larger lots. At the peak income-producing years, households headed by people ages 55 to 64

accounted for 13 percent of all households and 16 percent of all homes owned.¹⁹

The type of housing stock occupied also varies by age of the householder. Most households with heads ages 29 or younger live in attached homes such as apartments, condominiums, or townhouses. A more

careful look at household composition and housing type is telling. About 86 percent of married couples generally, and 79 percent of those with children, own their homes, but among single-adult households, 55 percent without children own their homes while only 39 percent with children do.²⁰ As shown in Figure 2, the share of families with children will continue to fall while single-adult households will continue to rise.

Current housing trends combined with changing demographic composition likely will lead to different housing needs than seen since the end of World War II. For example, between 2000 and 2030, metropolitan Atlanta will add 730,000 households, but only 70,000 of them will have children.²¹ Obviously, the nation's housing demand over the next 30 years will be geared more to serving young households and the elderly, and less to serving traditional married-couple households with children. This will have profound implications for the nation's housing stock.

Shifting Consumer Preferences

Changes in housing demand are driven not just by demographic shifts but also by evolving consumer preferences and affordability. Such changes may be driven by the negative aspects of suburbanization such as auto-dependency, traffic congestion, and the necessity for even middle-income people to move ever farther out to find housing they can afford with the amenities they want.

Recent surveys of housing demand are beginning to show increasing preference for new urbanism-style²² and other higher-density housing configurations. For example, in 2001, the National Association of Realtors commissioned a national survey to gauge the market responsiveness to new urbanism and more generally higher-density housing.²³ The survey showed about a third of prospective homebuyers would prefer higher-density

housing developed using new urbanism principles. Dowell Myers and Elizabeth Gearin evaluated more closely the preferences of respondents reflecting the *future* housing market and found that another quarter of all households could be attracted to higher-density or new urbanism-style communities once they trusted the market rewards.²⁴

Market trends may be shifting to reflect this changing demand. According to data from the National Association of Realtors, sales prices of existing condominium/coop homes exceeded that of existing single family and townhouse homes in 2004 for the first time ever. Moreover, in 2004, the average rate of appreciation for condominiums/coops exceeded that of single family detached homes and townhouses, 12.1 percent to 8.8 percent.²⁵ Recognizing these trends, the Urban Land Institute (ULI) and PriceWaterhouseCoopers in their 2004 issue of *Emerging Trends in Real Estate* named the following development opportunities that minimize investment risk and help developers/investors realize reasonable profits:²⁶

- For-sale housing in downtown and infill locations, including condominium conversions, loft rehabilitations, townhouses, and adaptive use projects;
- Low- and moderate-income rental apartments in urban areas and inner-ring suburbs; and
- Master-planned community developments with town center features and designs based on the new urbanism and smart growth principles.

In a report for ULI, Mark J. Eppli and Charles C. Tu found that new urbanism-style planned communities enjoyed twice the rate of appreciation seen in comparably sized planned unit developments based on conventional suburban planning.²⁷

Innovations in Mortgage Finance

Market and regulatory changes in the past few years have moved the homeownership rate to a record high rate—higher even than in the 1950s. Increased availability of mortgage credit, more flexible mortgage terms, and automated underwriting systems that make the process more objective have helped to make ownership a reality for groups that traditionally were more likely to be renters: minority families, single mothers, and people living alone. Although gaps remain in minority homeownership, it is far more possible than in the past for people to choose whether to rent or buy—if only they can find housing they can afford in a location of their choice. On the other hand, a growing number of homeowners have interest-only loans often made with little or no down-payment. So long as prices keep appreciating this could be a profitable investment strategy. If prices do not rise, or rise at least by an amount needed to pay sales commissions and closing costs, such homeowners could lose money.

Housing Supply Factors

It is projected that America will need to build 60 million new homes, or two million per year, in the next 30 years. Of the total, 40 million new homes will be needed to meet the needs of a growing population, but another 20 million will replace those that are removed.²⁸ This assumes that most of the existing supply is preserved over time. Currently, even with low interest rates and a booming home-building industry, barely two million homes are being produced annually. Moreover, at least one-third—and possibly up to half—of all new housing development is not meeting consumers' true needs. For the moment, these shortcomings may not be high on the public's agenda, but over the next decade it will become clear that housing production, configuration, and location are missing the mark.

Limitations on supply and its ability to truly match consumers' need are caused by a variety of factors. As mentioned earlier, housing is a durable commodity and not easily removed to make way for something new. Second, it takes time to build housing. This lag time can potentially result in the delivery of homes years from now that were based on needs that may no longer exist. Other barriers to the production range from regulation to financing to land supply.

Finding the Land

The existing and future supply of land available for residential development is a critical issue. Every community faces a range of physical factors, policies, and market conditions that influence the availability and cost of land. For example, Atlanta has few physical barriers to land supply, such as mountains or bodies of water. Furthermore, its soils support septic systems and water can be accessed in most areas at depths within 100 to 200 feet. Yet the housing supply is effectively reduced because suburbs typically restrict housing to single-family detached homes on large lots.

In contrast, the metropolitan area of Portland, Ore., has both physical barriers (mountains and water bodies) and policy constraints (a regional urban growth boundary) on the overall area of land within which development may occur, but its policies increase supply through higher-density requirements. Portland's production of attached housing during the 1990s was twice the rate of metropolitan Atlanta. The most rapidly growing metropolitan area with a population of more than a million—Las Vegas—has desert and federal land ownership constraints combined with water that is accessible only through deep wells or water-rights-restricted surface water. It pursues policies that achieve

one of the highest densities of single-family detached homes per acre in the country. The public infrastructure system plays a critical role in enabling and shaping residential development patterns. For example, more than a quarter of all metropolitan Atlantans do not have public sewer service, while nearly all do in metropolitan Portland and Las Vegas. All metropolitan areas have bus service, but only in Portland is it accessible to all urbanized areas. While Atlanta and Portland have rail systems, only in Portland is ridership rising as a percent of all work commutes, primarily because a higher share of the metropolitan population is within five miles of their workplaces than in Atlanta.

The Impact of Policy and Regulation

Demand-supply relationships are in play in every community. Sometimes, local governments cater to a niche market, such as the demand by the wealthy for upscale homes in the resort areas of Aspen, Colo., or Park City, Utah, primarily because physical constraints limit meeting all housing needs. More often, local governments decide simply to limit housing choices. Exclusionary zoning practices—such as prohibiting apartments and townhouses or requiring very large lot sizes—raise prices or exclude certain housing types altogether from certain areas, and may reflect NIMBYism (opposition from local residents for development considered to be undesirable) more than any physical constraint or concern for the public welfare. Fast-growing areas also may have concerns about the ability to provide public services—although exclusionary zoning in some cases may be simply NIMBYism disguised as a desire for smarter growth or an inability to provide services.

In Atlanta, America’s most sprawling major metropolitan area,²⁹ most suburban jurisdictions do not allow apartments, attached forms of owner-occupied homes,

small lots, or cluster homes. Instead, large minimum lot and house sizes prevail. Habitat for Humanity, which typically builds smaller than average homes for low-income owners, is unwelcome. One planner in a suburban jurisdiction lamented recently that, “(w)e do have Habitat homes, in fact I helped build one . . . [but] (t)hey are no longer allowed.”³⁰ Atlanta is not alone, and is probably more in the mainstream than an outlier.³¹ In order to overcome this dynamic that makes it impossible to provide affordable homes or apartments, housing advocates have increasingly used the term “workforce housing” to express the need for housing that is affordable to lower-wage workers, especially public servants such as teachers, police officers, firefighters, and health care workers.

Meeting Housing Needs

The United States has developed a variety of policies, subsidies, and programs to help address housing shortfalls for particular communities and populations. As described earlier, local governments can mitigate the cost of housing through regulatory decisions on lot and structure size, allowances for attached units and multi-family dwellings, and other infrastructure decisions. These planning strategies can help minimize need for subsidies as well as the unintended stigma that often goes along with “affordable” housing.

Even with a solid overall residential development strategy, there are many households in every community that do not have sufficient incomes to house themselves without some sort of subsidy. Traditionally, public housing has been provided for the lowest-income households. However, the federal government has moved away from failed public housing developments that concentrated the poor in favor of using incentives for private and nonprofit developers to build subsidized housing. Subsidies now take many forms and are

directed to households with varying incomes, not just the very lowest-income households. Consider the most successful low-cost housing subsidy program in recent years, the Low-Income Housing Tax Credit (LIHTC). Between 1987 and 2000, this unique federal program³² generated 1.4 million housing units, at a rate of about 100,000 units per year. Although there are a number of federal and some state programs to encourage provision of low- and moderate-income housing through subsidies, incentives, or mandates, a large literature shows that they are not enough to meet the need.³³

In fact, many communities are losing both market rate and subsidized units due to regional shortages of housing and increased interest in close-in and older neighborhoods where much of this housing is located. Many private owners of LIHTC and other subsidized properties are seeking to sell to take advantage of buoyant market conditions. A number of nonprofit and government programs have been established to preserve these affordable units. Other federal programs, such as HOPE VI (a program to revitalize targeted public housing projects to create a mix of market-rate and assisted housing), sometimes result in fewer units available for low- and moderate-income households. Between 1993 and 2003, total public housing authority and federal-state-local subsidized housing fell 14 percent.³⁴

For many years, housing subsidies were considered primarily the responsibility of the federal government. State governments paid little attention to housing policy, but that is changing.³⁵ Increasingly, local and state governments are taking action to provide more affordable housing. One approach to increasing supply is inclusionary zoning, which requires provision of some affordable units in new housing developments. Specific requirements vary, and developers may have an option to contribute to an affordable

housing fund in lieu of building affordable units. Another strategy is to establish an affordable housing trust fund. There are now over 275 funds established and administered by state, county, and city governments. The focus and size of these funds vary dramatically. Some provide project-based subsidies for development of rental or homeownership units while others finance rehabilitation or provide homebuyer assistance.³⁶

Implications for Smart Growth

What does this review of the state of housing mean for smart growth? First, what *is* smart growth? To Douglas R. Porter, a long-time observer of planning trends, “smart growth” is essentially a broad-brush term for guiding development in ways that improve the overall welfare of society.³⁷ One may define smart growth as seeking to achieve the following goals:

Preserve public goods such as air, water, and significant landscapes.

Minimize public fiscal costs, which means that development patterns should minimize the cost per unit of development to provide public facilities and services.

Minimize adverse land use impacts and maximize positive ones. Certain land uses have adverse effects on others, such as placing a landfill in the midst of an area planned for new community development (which was proposed in Kansas City, Mo., some years back). Some land uses have synergistic effects on others, such as found in mixed-use developments.

Maximize social equity, which means that development patterns should maximize jobs-housing balances

within small areas, and provide equal accessibility to work, shopping, services, and leisure. The term “fair growth” is sometimes used to refer to growth planning that allows for a range of housing opportunities near jobs.

Maximize quality of life, which relates to such things as public health, neighborhood stability, and life-cycle housing opportunities within neighborhoods.

Currently, the predominant residential development patterns run counter to the principles of smart growth. The chief culprits are decision making and development regulations related to land use that result in urban sprawl, which is characterized mainly as low-density single-family detached development that has led to ever-declining development density and ever-increasing volumes of land that is developed. For example, between 1960 and 2000, urbanized land area grew faster than population growth, resulting in urbanized land density dropping from 3,100 to 2,400 persons per square mile. Between 1985 and 2001, America added 19 million housing units, but 8 million were on lots of more than one acre.³⁸ Data from the American Housing Survey indicate a loss of more than 3,000 square miles of land annually to residential development of homes on lots of more than one acre each.³⁹ If sustained over 30 years, newly developed land will be equivalent in area to the entire state of Colorado.

These residential development patterns also put a strain on public coffers. Low-density development is the most expensive density to serve. The cost of water, wastewater, stormwater, streets, schools, parks, public safety, and other forms of infrastructure is estimated to be about \$90,000 per home.⁴⁰ Between 1997 and 2001, roughly 350,000 low-

density homes were built annually, implying a cost approaching \$1 trillion in 30 years. A large and growing literature shows that more compact and contiguous development patterns, and moderate to high-density mixed-use developments are the least costly to serve and the most resilient to development cycles that can otherwise lead to blight.⁴¹ Moreover, it appears that with good planning and design, traffic impacts can be reduced by up to 40 percent or more with low-density suburban development creating even more long-term savings.⁴² Mixed-use development also can result in more stable neighborhoods, thereby assuring a stable source of tax revenue to maintain infrastructure.⁴³ These developments can also create homeownership and rental opportunities for families with a broader range of incomes.

The relationship between housing and quality of life is at once difficult to measure but easy to grasp. The effect on one aspect—public health—is being measured systematically, and numerous studies are beginning to show conclusively that sprawl contributes to unhealthy lifestyles⁴⁴ and, because it generates more vehicular traffic, causes more air-borne-related illnesses among low-income urban residents.⁴⁵ While population grew about 20 percent during the 1980s and 1990s, vehicle miles traveled grew more than 50 percent,⁴⁶ adding to the pollution associated with automobiles.

Another measure of quality of life is how people regard their neighborhoods, and there are indications that low-density suburban neighborhoods are losing some of their luster. For example, between 1993 and 2003, the American Housing Survey found that overall satisfaction with neighborhood quality fell from 7.9 to 7.6 (on a 10-point scale) and for homeowners fell more dramatically, from 8.2 to 7.8. In contrast, satisfaction with neighborhood quality in metropolitan Portland, which has been pursuing regional

smart growth strategies for a generation, rose slightly between 1990 and 2002.⁴⁷

Concluding Observations: A Research Agenda for the Future

As noted earlier, future housing needs are likely to be very different from today. The following section identifies areas of future inquiry for housing and demographic trends that could help inform decisionmakers. There are four broad areas for consideration.

First, although changing demographics are fairly clear, research to gain a more precise understanding of future housing needs would be beneficial. One approach would be to look to the future, say 2040, and estimate housing needs of the population nationally and, ideally, for each metropolitan area and particular sub-groups such as low-income households and the elderly. Such estimates may not be precise, but they can suggest at least within an order of magnitude what may be expected.

Second, building on research about future housing needs, the next step would be to “back-plan” to determine how housing production should evolve from 2005 to say 2040. Such analysis would include identifying over- and undersupplies of housing stock by type, density, location, and configuration, as well as estimating housing stock to be lost. The nation loses about sixth-tenths of 1 percent of its housing stock annually, which means that by 2040 it will lose in the range of 30 million housing units.

Third, to meet future housing needs it will be necessary to identify impediments to meeting them and strategies for overcoming such impediments. The usual impediments are antiquated planning and zoning schemes, limitations of financial institutions, and those noted in the standard housing barrier research,⁴⁸ but there may be other impediments. For example, if global warming

leads to sea-level rise, it may be necessary to reorient future housing production away from areas that may become inundated.

Fourth, it is critical to make an honest assessment of the appropriate tenure of housing occupants. Although it is the nation’s policy to facilitate homeownership among those who seek it, it is possible that this emphasis can lead to over-production of owner-occupied housing and under-production of rental housing or alternative tenure options. It is likely that housing tenure needs also vary by metropolitan area and by population sub-groups.

Undertaking and synthesizing this research can lead to a clearer understanding by decision-makers of where they can make the most difference in meeting emerging housing needs. It can also form the foundation for a strategic plan around which funders may collectively find common interests and direct limited resources. In short, through such research and its synthesis, decision-makers and funders can position themselves to be a leading voice in advocating and supporting efforts to address housing needs, sometimes even before they rise to prominence on the national policy agenda.

Appendix A — Glossary

Affordable housing. This term has two meanings. The first is HUD’s technical definition that defines housing as unaffordable if its mortgage/rent, taxes, insurance, and maintenance exceed 30 percent of a household’s income. The second is more general and is often termed “housing affordability.” It is not a precise definition but allows for consideration of location efficiency (that can allow transportation “savings” because of transit availability for example to offset higher housing payments), changes in stages of life cycle (that can temporarily increase housing costs), and so forth.

Density. Measure of land-use intensity. It is commonly measured as dwelling units per “net” or “gross” acre. A gross acre includes the entire land area of a project including rights-of-way that may be dedicated to the public when the project is finished. A net acre is the portion net of such dedications. A density of eight units for a gross acre becomes 10 units for a net acre if 25 percent of the gross area is right-of-way dedicated for public use (a common figure).

Exclusionary housing practices. Practices that by design make housing more expensive and thereby less affordable. Low-density zoning, large minimum house sizes, extensive landscaping requirements, and expensive exterior treatment requirements all raise the price of housing and have the effect of excluding low-income households from being able to afford to live often in the very communities where they work.

Government-Sponsored Enterprises. Congressionally chartered financial institutions that are granted unique powers to purchase and manage mortgages and other financial instruments negotiated between financial institutions (such as banks) and consumers (such as home buyers). Commonly known as the secondary market; Fannie Mae and Freddie Mac are two examples.

Housing cost burden. Often expressed as the ratio between the cost to maintain a dwelling and household income—the higher the ratio, the greater the housing cost burden.

Inclusionary zoning/inclusionary housing. Locally adopted requirements imposed on developers to set aside or otherwise provide a share of new housing units to low- and moderate-income households. Inclusionary zoning may require 10 to 20 percent of all housing units to be occupied by low- and moderate-income households or may provide a density bonus (more units than the underlying zoning code allows) in exchange for providing housing to low- and moderate-income households. Inclusionary housing may include other policies that require private developments to provide some housing for low- and moderate-income households.

Low-Income Housing Tax Credit. A program of the U.S. Department of the Treasury that is managed by individual states. Each year, the Treasury Department awards each state a certain amount of federal income tax credits that may be allocated on a competitive basis to developers who provide housing for low- and moderate-income households.

New urbanism. A planning and urban design movement that attempts to build new communities based on pre-Depression era planning and design principles, and improving on them to account for modern technology and transportation needs. New urbanism includes extensive mixed land uses and mixed-use buildings, interconnecting streets and sidewalks (as opposed to cul-de-sacs), clearly demarcated and accessible public spaces and places, and a definable economic, social, cultural, and governance center.

NIMBY (Not In My Back Yard). An acronym for the opposition by local residents to construction of facilities, residential, or commercial development considered to be undesirable. Opposition may also be based on perceived detrimental impacts on property values or quality of life.

Public Housing Agencies. Public agencies usually associated with cities or counties that use federal and sometimes state funds to build and operate housing for low-income households. They also manage federally funded housing vouchers that enable low-income households to rent qualifying private-sector housing; under this arrangement, the household pays no more than 30 percent of its income for the unit and the federal government through the public housing agency pays the difference between market-rate rent and that which the household can afford. Commonly known as the Section 8 program, or the Housing Assistance Payment,

vouchers also can be issued for homeownership to subsidize mortgage payments.

Redevelopment. Occurs when an existing structure or area that is substantially developed is converted to typically more intensive and often different uses. The converted structure or area may be vacant, blighted, or in other ways under-used relative to market demand.

Regulatory barriers. In addition to exclusionary zoning, other regulatory barriers to providing affordable housing include building codes that require higher standards than needed to promote the reasonable public health and safety, building permit quotas or moratoriums, and complicated, lengthy development review processes combined with unpredictable exactions. These regulations also impact the feasibility of rehabilitating older structures.

Workforce housing. This is a concept suggesting that workers should have access to housing based on their income and family life cycle within a reasonable distance of their work place. Affordable housing advocates often give examples of service workers such as teachers, police officers, firefighters, and health care workers to help overcome NIMBYism because people may be more accepting of “affordable” housing if it will be occupied by such workers.

Endnotes

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¹⁵ Based on analysis by the author from "Cumulative Estimates of the Components of Population Change for the United States and States: April 1, 2000 to July 1, 2003." U.S. Census Bureau, NST-EST2003-04.

¹⁶ Adapted from Harvard Joint Center for Housing Studies, *State of the Nation's Housing 2003*.

¹⁷ Because income figures do not include public assistance, housing and transportation costs exceed 100 percent of income for the lowest 20 percent income category.

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- ²⁰ Based on analysis by the author from *American Housing Survey 2001*.
- ²¹ Atlanta Neighborhood Development Partnership, Inc, *Making the Case for Mixed Income and Mixed Use Communities: Executive Summary* (2004), p. 23.
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- ³² Generally, and subject to a variety of rules, investors can receive tax credits over 10 years for up to 90 percent of the total construction cost of new low-income rental housing units and up to 40 percent for new moderate-income housing units. The tax credits are funded by the federal government and allocated by the states; see also the definition in Appendix A.
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⁴⁰ Figures updated to 2004 by the author from figures provided in Frank, James E. *The Cost of Alternative Development Patterns* (Washington, DC: Urban Land Institute, 1989). The figure uses only costs for a one-acre lot; costs for a five-acre fully served lot are \$130,000.

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