AMERICA'S HOUSING CRISIS

collaboration by:

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To us, cities emerge because they provide opportunity to people, and are sustainable only so long as they continue to do so.

For a city to sustain itself, it must provide a wide range of opportunities – not just for the affluent. The city, better seen as a metropolitan area, needs to address the diverse interests and preferences of its residents. And given that those interests and preferences are constantly evolving, the "over planning" mindset is untenable, even dangerous, to the future of cities that embrace it.

It will be the primary task of the Center to spell out how cities can drive opportunity for the bulk of their citizens. Our goal is to present an alternative to the prevailing planning mindset vision. Our intention is through conferences, articles and studies to provide an alternative "pole" in the now very stilted and predictable trajectory of urban studies. It will help rediscover the essence of great cities, what Descartes called "an inventory of the possible."

PRINCIPLES OF OPPORTUNITY URBANISM

- The primary organizing principle of cities should be the creation of oppor-tunity and social mobility.
- People should have a range of neighborhood choices (including suburban), rather than being socially engineered into high-density, transit-oriented developments beloved by overly prescriptive planners.
- Restricting housing supply unreasonably through regulation drives up costs and harms the middle class.
- Education impacts housing choices, forcing parents to overpay in the few good school districts or move further out of the core city. Making educational alternatives available for working and middle class families is essential to upward mobility and long-term urban growth.
- Supporting the needs of middle-class families should be just as important, if not more, than the needs of the childless creative class. Children, after all, represent the future of society.
- Successful economies need a broad spectrum of industries. Solid middle-class and blue-collar jobs are just as important as the much celebrated high-tech industries aimed at white-collar professionals. Educational choices should be made to address these varied needs.
- Concentrations of power—whether through political or economic structures—undermine social mobility and the creation and pursuit of new opportunities. Decision-making power, therefore, should be as widely dispersed as practical.
- Transit investments should be based in large part on serving cost-effectively those who most need it, to provide a reasonable alternative for those (the disabled, elderly, students) for whom auto transit is difficult. It should not be primarily a vehicle for real estate speculation or indirect land use control. The use of bus transport, including rapid bus lanes, as well as new technologies, including firms like Uber and driverless cars, need to be considered as potential answers to the issue of urban mobility.
- In general, cities are better off with more market-oriented land-use policies than prescriptive central planning.

AUTHORS

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INTRODUCTION: AMERICA'S HOUSING CRISIS AND WHAT WE CAN DO ABOUT IT

By Joel Kotkin

America faces a growing crisis in housing supply unseen since the aftermath of the Second World War. It is both driving families out of many regions, particularly along the ocean coasts, and forcing many others to live in more crowded dwellings than most prefer. Although population growth has slowed significantly since the 1950s and 1960s, production has stalled even more so. It's not surprising that homebuilding declined after the housing bubble burst in 2008, but it also slowed by almost a quarter from 2011 to 2015.ⁱ

With supply limited, housing price inflation has re-emerged.ⁱⁱ In contrast, expenditures on food, apparel and transportation have dropped or stayed about the same. In 2015, rises in housing costs essentially swallowed savings made elsewhere, like on energy.ⁱⁱⁱ

These high housing prices also boost rents, largely by forcing potential buyers into the apartment market. Rental costs now comprise the largest share of income in modern US history. In part, this is due to a still–weak economy that is generating little in the way of income gains.^{iv} Since 1990, renters' income has been stagnant, but inflation adjusted rents have soared 14.7 percent.^v

The problem is generally most severe where "smart growth" ideology is strongest. Between 2010 and 2014 virtually all the areas with the fastest growth in new housing—Austin, Houston, Dallas, Raleigh, Charlotte, Orlando, Jacksonville, Oklahoma City and Nashville—are historically "liberal" markets that also enjoy high levels of affordability. The only "smart growth" region restrictive market to see rapid growth has been Seattle.

In contrast, affordability has been most degraded in markets that have built relatively little housing, particularly of the single family variety. Outside Seattle virtually all the most tightly regulated markets—New York, Los Angeles, San Francisco and Boston—have lagged the less regulated markets in producing new units since 2010. Regulatory hurdles play an important role here. In Boston, regulatory and land costs have boosted the cost of building a 1,600 square foot apartment to \$438,000.^{vi}

Policies that seek to impose a "pack and stack" strategy—sometimes seen as a way to relieve the housing affordability problem—have failed fairly universally, as evidenced by the experience of California. The state's largest metro areas have among the highest ratios of home prices to income. Prices in San Diego, Los Angeles and Riverside–San Bernardino have all risen considerably above the national average, despite only meager economic recoveries.^{vii} More prosperous San Jose and San Francisco are the most unaffordable major metropolitan markets in the nation.

As usual, the middle and working class renters fare the worst. In New York, Los Angeles, Miami and San Francisco, for example, renters spend 40 percent of their income on rent, well above the national average of under 30 percent. ^{viii} In each of these markets there have been strong increases (income adjusted) relative to historic averages. In New York, rents increased between 2010 and 2015 by 50 percent, while incomes for renters between ages 25 and 44 grew by just eight percent.^{ix}

Ultimately, the issue of housing ties directly to that of income mobility and social justice. As we showed in COU's earlier paper on "Best Cities for Minorities," opportunities for reasonable rents, and home ownership, are generally greater in places that have built the most housing—largely in Texas, the southeast and parts of the Intermountain West.^x Regardless of region, suburban areas also endure "generally less inequality," according to studies by the University of Washington's Richard Morrill, than the denser cities with activity centralized in the core; for example, in California, Riverside-San Bernardino is far less unequal than Los Angeles, and Sacramento less than San Francisco.xi Within the 51 metropolitan areas with more than 1 million in population, notes demographer Wendell Cox, suburban areas were less unequal (measured by the Gini coefficient) than the core cities in 46 cases.xii

Owning property constitutes the largest share of middle and working class assets. Homes represent only 9.4 percent of the wealth of the top 1 percent, but 30 percent for those in the upper 20 percent and, for the overall three–fifths of the population in the middle, roughly 60 percent.^{xiii} But in many parts of the country even middle class families have been priced out of the market to purchase a home. Forced to expend their incomes on such high rents, they have little chance to afford a down payment, and could end their careers with extremely modest assets.

Thomas Piketty, the French economist, recently described the extent to which inequality in 20 nations has deteriorated in recent decades, erasing the hard earned progress of previous years in the earlier part of the twentieth century.^{xiv} Matthew Rognlie of the Massachusetts Institute of Technology examined Piketty's research and concluded that the source of much of the inequality stems from redistribution of housing wealth away from the middle– class. Rognlie concluded that much of this was due to land regulation, which was severely impacting supply.^{xv}

THE POLICY AGENDA

This shortfall and the consequent price inflation has been exacerbated by planning policies designed to force ever–greater urban density, and squelch development along the periphery. As demographer Wendell Cox suggests in his essay "Levittowns of the Future," in many parts of the country we no longer build "starter" homes. This trend is particularly evident in markets like California, where strict regulations have driven prices, in some places, to nine times the median income, in contrast to a ratio of three in many other parts of the country.

In expensive, highly regulated markets, many developers find it worthwhile only to target the affluent.xvi At the root of the problem, Cox suggests, lies lack of affordable housing supply, both rental and to purchase. Ultimately, Cox suggests, we need to find ways to create more affordable housing options both for young families, as well as for those who choose instead to rent and stay in the city. Policy failures, he suggests, are slowly extinguishing the "American dream" in much of the country. Worse still, these approaches have gained powerful adherents in those areas that have yet to become unaffordable.

THE INFRASTRUCTURE CHALLENGE

In his essay "Decentralization, Infrastructure and Shared Prosperity" author Michael Lind lays out a new vision of American infrastructure development that resonates with the country's historic patterns. Throughout our history, we have built for the future, creating the toll roads, canals, railway lines, highways and airports that facilitate the dispersion of cities.

As Lind points out, this dispersion facilitates the movement of industry and people to places they can afford. Although core cities will retain many central functions, he suggests that the vast majority of new jobs will be found further away, in more affordable places that can accommodate middle and working class families. This requires better transportation systems, including autonomous cars, which can help make our current pattern of development more efficient and accessible to jobs. At a time when many pundits suggest a radical reversal of our historic pattern towards enforced densification, Lind urges "Evolution, not Revolution."

THE DEMOGRAPHIC CHALLENGE

Amidst generally slower demographic growth, three groups—adult millennials, minorities and seniors—are growing much faster than the general population. As author and generational researcher Morley Winograd points out, millennials, the largest generation in American history, will be the primary consumers of housing in the decades ahead.

The millennials, the generation born after 1983 and 2003, constitute the largest cohort in the country; by 2020 they will constitute one-third of the adult population.^{xvii} In the next five years, this generation will spend more (on a per household basis) than any other generation does; \$2 trillion on rent and home purchases combined.^{xviii} Some believe that millennials will choose high density urban living, putting an effective end to the long trend towards suburbanization.^{xix}

In his essay "Hurdling the Obstacles to Millennial Home Ownership," Winograd challenges these notions. Winograd cites extensive survey research from such respected groups as Frank N. Magid Associates, the Demand Institute, and even the Urban Land Institute, all of which foresee the vast majority of millennials settling in a more suburban, single family environment.^{xx}

The problem facing millennials, particularly as they enter their 30s, will be cost relative to income in an environment of slow income growth and rising house prices. Winograd suggests that we are "failing" our next generation by not producing enough housing that is affordable for the next generation's middle income households. Steps to address such issues as college debt, allowing more flexible mortgage terms, and in other ways reducing the cost of housing, he argues, should be major future priorities for the housing industry.

THE RISE OF MULTI-RACIAL SUBURBS

These same aspirations for homeownership and, in general, single family housing are more pronounced among immigrants. In her highly personalized essay, 'To The Suburb!,' journalist Anne Snyder reviews the motivations and aspirations of immigrant

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families to achieve home ownership. Snyder takes us, in particular, to the vast outlying suburban reaches of greater Houston, where many immigrants and minorities have been moving.

These changes are not limited to Houston, however, but can be seen in most American metropolitan areas. Increasingly, newcomers and minorities are seeking a better future not in crowded ethnic enclaves but in the more diverse outer reaches of the metropolis.

SENIORS AND THE FUTURE OF HOUSING

Our final demographic essay, written by Houston architect Tim Cisneros and me, focuses on the future of seniors. The fact that the US population over 65 will double to 80 million by 2050 has been seen as fostering a 'back to the city' trend. Some news reports have claimed that "millions" of aging boomers, now relieved of their children, are leaving their suburban homes for city apartments.^{xxi}

Yet, the demographic evidence suggests that most boomers are staying in their current residences and, if they move, they tend to move further out, even to smaller towns. During the last decade more than 99 percent of population growth among people aged 65 and older in major metropolitan areas took place in counties with densities below 2,500 people per square mile, well below traditional urban densities.xxii A National Association of Realtors survey found that the vast majority of buyers over 65 looked in suburban areas, followed by rural locales.^{xxiii} This is not likely to change in the future.

Senior housing presents new challenges for the industry. Many seniors, what we refer to as "young old," are more likely to stay at work, and remain in their communities, well into their 70s. Housing for this group often needs to allow for greater contact with the general population. A very different demographic, which will become more critical as boomers age, are the "old old," people generally in their 80s who require great care and more transportation options, at least until the full deployment of autonomous vehicles.

A GLIMPSE AT THE FUTURE

The challenges facing America's housing market are serious, but far from grim. New technologies, better building methods and greater emphasis on environmental concerns can create housing choices that can appeal to most American communities. In his essay "Designing Suburbs: Beyond New Urbanism" architect Rick Harrison shows how the suburbs of the future can be more environmentally.

Harrison notes that many planners, pundits and even some developers want to emulate the "pack and stack" approaches of other countries, fed by a common and enduring hostility towards suburbia. Besides the impact on prices of such policies, Harrison suggests these do not fit the realities of a country, like America, with a history of dispersion and vast amounts of land.

One tragic result of this anti– suburban meme among planners and architects is that very little attention is played to how to improve suburban development. Harrison suggests new building and planning methods that can create a new, improved suburban environment that can work successfully in a broad metropolitan context. As Frederick Law Olmstead, the creator of Central Park, once remarked: "No great town can long exist without great suburbs."^{xxiv}

A WORD TO READERS

These five essays reflect the views of very philosophically diverse authors, not necessarily those of COU. But our approach is built around what historian Robert Fishman defined three decades ago as "urban pluralism," an approach that includes the city center, close–in suburbs, new fringe developments and exurbs.^{xxv} We suggest that it is time to move beyond the tired, and failing, housing policies of today in order to address the needs of future generations.

For most middle and working class families, the goal is to achieve residence in a home, even if small and in a modest neighborhood, whether in a suburb or a city, where children can be raised and also where—of increasing importance seniors can grow old amidst familiar places and faces. Rather than insist on one form of urbanism, we need to support the idea that a metropolis' heart exists wherever its people choose to settle. "After all is said and done, he the citizen—is really the city," Frank Lloyd Wright suggested. "The city is going wherever he goes."xxvi



LEVITTOWNS OF THE FUTURE

By Wendell Cox

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"… a social revolution was being made, not by storming barricades, but by leaping over them."^{*i*}

Seven decades ago, the great postwar American suburbanization began. The seminal development was Levittown, built on potato fields in Nassau County, outside New York City. This archetypical development, with its small houses and modest lots, helped launch a suburbanizing trend that has accounted for virtually all of the population growth in the nation's largest metropolitan areas. Today's new houses are at least three times the size of the early Levittown houses, but they reflect the continued preference for suburban communities over the last half century.

This essay examines the great Post-War suburbanization, incubated in Levittown and its revolutionary impact on American civilization. At the same time, there is no doubt that racial exclusion was part of the formula, abetted not only by people, communities and developers, but worst of all by governments themselves, especially the federal government. These regrettable exclusionary policies at the time also characterized virtually every walk of American life.

Yet, for the most part, millions now including millions of minority households—are better off than they would have been without the great suburbanization. As *Professional Builder* magazine put it: At a time when few working people could afford a home, Levitt helped them realize their dream, starting with servicemen and women returning from the war.

Levitt brought mass production techniques to home building, following in the mold of Henry Ford, who made automobiles inexpensive enough for middle-income households. The higher quality detached housing with yards could not have been built at low enough prices without such techniques, nor could it have been offered at such prices without the additional advantage of less expensive urban fringe land.ⁱⁱⁱ

As home ownership expanded, perhaps the most important result was class mobility. In this period the American middle class expanded as never before and home ownership skyrocketed.^{iv}

This might seem cause for celebration, but an influential group of planners and intellectuals damned it from the very start. These, whom this essay will refer to as the retro-urbanists, tend to idealize the pre-automobile city, which has largely been replaced not only in the United States but in virtually all high income countries. German academic Thomas Sieverts called these views "criticism rooted in an ideological concept of the city."^v

As retro-urbanists have sought to stop or even reverse suburbanization, people stubbornly have continued to choose the suburbs overwhelmingly, not materially moved by the nostalgia so often keenly evident among pundits and planners. So far these efforts have achieved only modest gains, mostly in a handful of states, where the retrourbanists have had sway, but at great cost to the middle class.

In the meantime, however, the housing affordability represented by Levittown and most of the suburban development since World War II has had its reward in a "property owning democracy," which legendary urban planner Peter Hall of University College, London described as a principal objective of public policy.^{vi}

THE SITUATION IN 1946

The America of 1946 was much different than today. The United States had just emerged from the world's most destructive war, emerging as the dominant world power and producer (the latter principally because other competitors had experienced massive destruction). Yet, despite this position, Americans in 1946 experienced a far lower standard of living and greater level of poverty than today.

World War II had made it possible, finally, for the nation to emerge from the Great Depression, which had been characterized by unprecedented levels of unemployment and economic stagnation.

Housing was overcrowded, especially in the cities and living standards were far below present standards.

Michael J. Bennett describes the situation:^{vii}

"Home was usually a three or four story tenement or apartment house, a two, three or four-decker for as many families or a single-family shotgun house with tiny rooms off a single corridor, so-called because the shotgun could be fired down the corridor without hitting anyone. Only the better-off live in fairly spacious houses on the outskirts of town. Even those houses, however, had small tiny front lawns and were separated from each other by little more than a hedge between gravel or partially paved driveway."

Bennett goes on to indicate that only the very rich took showers in the morning, "because they were the only ones with showers" and that "Many families had to share toilets and sinks as well as tubs with people living on the same floor."

The nation's returning soldiers, in unprecedented numbers, would experience a better America, with better lives. There was also a concern among policymakers that the failure to facilitate opportunities for returning soldiers could result in social upheaval or even revolution in the worst case. Some noted the social disruptions that occurred following World War I, in countries like Russia and Germany. There was great interest in trying to ensure that this did not happen in America.

Just before the end of the war, Congress passed and President Roosevelt signed the Servicemen's Readjustment Act of 1944, called the "GI Bill of Rights," which provided assistance to veterans, especially improving access to housing and access to higher education. At the same time, the Federal Housing Administration was aiding home purchases for households not eligible for the "GI Bill."^{viii}

LEVITTOWN AND THE GREAT POST-WAR SUBURBANIZATION

America's status as an urban nation was still relatively new as it headed into World War II. The US urban population had not exceeded that of rural areas until the 1920 census. By 1940, the urban population was approximately 57 percent, according to Census Bureau data, well below the 81 percent of 2010. In the following seven decades almost all of the nation's population growth would occur in America's urban areas.

Following the legacy of the New Deal, it was expected that new housing would be largely provided by government. The home ownership rate had dropped to 44 percent from its peak of 48 percent in 1930.^{ix} It was assumed that the new housing would be for renters rather than for homeowners. The reality turned out much different.

One entrepreneur is widely heralded as having blazed the trail for the suburbanization that emerged following World War II, William Levitt, and his company Levitt and Sons. A home builder before the war, in 1947 he established the legendary Long Island, New York, community of Levittown. Levitt revolutionized homebuilding in the United States after having applied factory building techniques to the provision of wartime (defense) housing.

Levitt began to build rental housing on the suburban fringe of New York City, but switched to owned housing as federal programs and his house production techniques together create auspicious conditions for selling single family houses.

In 1947, Levitt marketed four different models. Eventually the seven square mile development would contain more than 17,000 new houses. The houses were small, at 750 square feet. There were four rooms, the kitchen, the living room and two bedrooms, all on a single floor. The houses, however could be expanded, which many households did. There were no garages. The houses were sold for approximately twice the average wage earner's annual pay.

Little more than a decade after the first house was occupied, Levittown achieved a population of 65,000 (1960 census). This was near the peak of Levittown's population, since with virtually all of the land occupied and a future of declining household size, reductions in population were inevitable. By 2010, the population had dropped to 52,000. However Levittown remained a vibrant community from the beginning and remains so today.

Levitt took the concept to other metropolitan areas as well. A Levittown featuring somewhat larger houses was developed in the Philadelphia suburbs of Willingboro township in Burlington County, New Jersey and in Pennsylvania's Bucks County.

In an essay entitled "Levittown: The Archetype for Suburban Development," historian Joshua Ruff said that: "... Levittown was about more than just the houses," adding that it was the "... largest and most influential housing development of its time.."^x

Lakewood: Another important suburban community was Lakewood, located near Long Beach in the Los Angeles metropolitan area.^{xi} The Lakewood development included 17,500 houses built between 1950 and 1953. The houses were between 825 square feet and 1,050 square feet.^{xii} Lakewood, which claimed to be the largest planned housing development ever, included a regional shopping center.

However, despite such important early developments, most of the new suburban housing around the nation was built by smaller home builders in the decades to come.

THE CONSUMER RESPONSE

The new suburban communities were exactly what returning soldiers and other Americans wanted. As historian Joshua Ruff put it:

> Patience had been killed by 15 years of economic depression, war and an epidemic housing shortage. People wanted the full package—the affordable house, the new appliances, the suburban lifestyle—and they wanted it right away.^{xiii}

Kenneth Fox, of Yale University, wrote that: "The suburban development that began in the 1940s was revolutionary in two ways: it changed the type of community millions of Americans live in, and it transformed the national social class structure."xiv

The American middle class was about to undergo an unprecedented expansion. Before, as author Studs Terkel put it: "The suburb, until [about 1946], had been the exclusive domain of the 'upper class.' It was where the rich lived. The rest of us were neighborhood folk. At war's end, a new kind of suburb came into being."

According to Fox: "Eventually, suburban cultural changes and whitecollar status aspirations fused and produced a shift in the basis of social class differentiation. Income and style of living supplanted occupation and economic status as the parameters defining the major social classes. A broad middle class emerged, encompassing more than one half the metropolitan population in the 1970s."xv

Indeed, according to Fox, middleclass became defined more as lifestyle, rather than origins: "Increasingly, and the family that chose to buy a home in a reputedly middle-class community, behave in a middle-class matter, and maintain all appearances of the middle class, could gain acceptance in the middle class, regardless of the parents occupations."^{xvi}

Levittown chronicler Barbara Kelly noted a connection between home ownership and upward mobility, indicating that it conveyed "defacto membership in middle class."xvii She added: "...during the years in which the government was most active in promoting home ownership, there was a marked expansion of the American middle class, which consisted largely of the definition of its parameters."xviii

Harvard historian Robert Fishman noted the rising affluence: "For the first time in any society, the single-family detached house was brought within the economic grasp of the majority of households."^{xix} The US may have been first, but it is not alone in having democratized prosperity.^{xx}

Bennett characterized the advances, noting that "... a social revolution was being made, not by storming barricades, but by leaping over them."^{xxi}

And despite claims to the contrary, most of the new suburban residents came from migration to the large metropolitan areas, not from core cities. The new suburbanites were as likely to be from a small town or the countryside as a big city. ^{xxii}

HOUSING AFFORDABILITY: WHAT MADE IT POSSIBLE

It was the affordability of such housing that made these improvements possible. Housing remained affordable across the nation in the decades to come, with some important exceptions.

According to the US censuses of 1950 through 1970 median house values in the largest metropolitan areas were generally 3.0 or less times the median household income (the "median multiple"), with only two having a higher average (both 3.1).^{xxiii}

At the same time, there were differences in housing affordability. As would be expected, some parts of the country were more attractive than others. Therefore, it is not surprising that house prices in the coastal California metropolitan centers of Los Angeles, the San Francisco Bay Area and San Diego were less affordable, but still remained at or below the 3.0 median multiple standard, in part due to higher incomes.

The housing bubble and bust were to come later, during which the losses in housing affordability were even greater.

Home Ownership

The government role here was crucial. By 1960, homeownership had reached 62 percent, well above the 44 percent of 1940. In the following three and half decades, the home ownership rate varied up and down in a range of from 62 percent to 66 percent (Figure).^{xxiv}

Then, as mortgage eligibility was relaxed during the housing bubble, the home ownership rate rose to nearly 69 percent. Following the housing bust, it had fallen to below 64 percent by 2015.^{xxv}

Some retro-urbanists have characterized the comparatively recent experience of the housing bubble and bust as indicative of an overall failure of postwar US housing programs. Nothing could be further from the truth.

In fact, US housing programs had been instrumental in producing a significant increase in homeownership and the creation of a much broader middle-class. The evidence remains "the 60 to 65 percent level of home ownership of the 35 years preceding 1995 was sustained. Meanwhile, even after the housing bust, home ownership remains a priority among American households,^{xxvi} including younger people.^{xxvii} Even after the Great Recession, the aspiration for home ownership remains strong. Polling by the Demand Institute (operated by The Conference Board and Nielson) found that 77% of respondents considered home ownership "an excellent investment" (Figure).^{xxviii}

THE RETRO-URBANIST RESPONSE

It might be expected that there would be popular and widespread acclamation of this success. Surely, the results were consistent with the principal priorities of a progressive society, at least in the historic sense, to improve the standard of living and reduce poverty.

Yet, this was not to be. Retro-urbanists, including many planners, architects and other thought leaders were nothing less than appalled. In reaction to this, the very first words in the preface of Herbert J. Gans' The Levittowners: Ways of Life and Politics in a New Suburban Community, read: "This book is about a much-maligned part of America, suburbia..."^{xxix} he continues to indicate that these observers of suburbia are similar to literary writing, "which often boils down to cataloguing ... Shortcomings from the author's perspective."^{xxx}

Kelly characterizes the criticisms as "...a form of pseudo-intellectual disdain for suburban life in general, with Levittown serving as its archetype."^{xxxi}

For example, in 1964, architect Peter Blake declared in *God's Own Junkyard*

that the suburban pattern developing in the United States is "making life there only slightly less tolerable than on tenement streets."^{xxxii}

He continued: "The results are palpable: children play in the street; parents spend most of their time maintaining a front garden they can't use; the community has to maintain long roads and long utility lines to service its strung-out houses; and the suburbs go broke." Blake^{xxxiii} also says that "America's suburbia is now functionally, aesthetically and economically bankrupt."xxxiv

Dr. Charles Winslow, professor of public health at Yale University said that the "inferior type of small house being provided by speculative builders to meet the veterans demands [were] dollhouses that out slum the slumming is of our prewar slums..." He also said that "families living in these houses might suffer serious mental and physical ills."^{xxxv}

Social commentator Paul Barker describes the intensity of the criticisms, noting that "suburban" is a "sneer-word" to architects and planners.^{xxxvi} He also says: "Those who oppose suburbia usually have highly doctrinaire views about how other people should live."^{xxxvii} While Sieverts refers to an ideological concept of cities, Barker characterizes it as theological: "Almost all architectural and planning commentaries, in the press or in government publications, still speak of the suburban as an evil that must somehow be cast out."^{xxxviii}

These kinds of criticisms have often been supported in the press.

Historian Joshua Ruff dismisses Lewis Mumford's complaint that Levittown was a "uniform environment from which escape is impossible" as "ignoring the architectural sameness (block after block of overcrowded apartments) many new suburbanites were fleeing from in Manhattan, Brooklyn and Queens."^{xxxix} But, despite their influence and access to the press, the retro-urbanists have been consistently ignored by households making home purchase decisions. As Barker put it, ""...such critics are outnumbered many, many times by the millions for whom suburbia is a land of pleasantness, friendship and hope."^{xl} Moreover, the retro-urbanists did not understand the desires of suburbanizing households. As Gans put it, they came "...for a house and not a social environment."^{xli}

In the final analysis, as Journalist Edward Humes wrote: "But the veterans who snapped up these new houses were coming from a different outlook, a different place—from boarding houses and cramped apartments and lives that just a few years earlier had offered little hope of college or homeownership or lasting financial security."^{xlii}

Households continued to move to the suburbs and suburbanization continued to attract nearly all population growth in the major metropolitan areas.

The Right and Wrong of

Figure 1

Suburban & Core Municipality Growth METROPOLITAN AREAS OVER 1,000,000: 1950-2010



Note: Nearly all core growth in greenfield areas (such as Los Angeles, Houston, Phoenix, etc.). Non-annexing cities lost 5,100,000 residents.

Suburbanization

Ruff provides a short summary of the positive and negative perceptions with respect to Levittown (which also apply to the great post-war suburbanization): "But Levittown was about more than just the houses. As the largest and most influential housing development of its time, it became a postwar poster child for everything right (affordability, better standard of living) and wrong (architectural monotony, poor planning, racism) with suburbia."^{kliii}

As for the "right" that Ruff refers to, it is hard to imagine more important benefits than a dispersion of wealth, affordability and a better standard of living. These are fundamental domestic public policy objectives long held by much of the nation's leadership, including liberals. A nation of homeowners, "President Franklin D. Roosevelt believed, "of people ho own a real share in their land, is unconquerable."^{xliv}

The case for the "wrong" is less clear. Architectural monotony does not negate the imperative to improve the standard of living and reduce poverty. Moreover, architectural monotony is in the eye of the beholder and clearly was of no more than secondary interest to the millions who overwhelmingly chose the suburbs. The very rowhouses that are now so widely celebrated by retro-urbanists were themselves originally stretches of identical structures with little differentiation. Planning that results in better affordability (and an improved standard of living) is good and effective, not "poor." Finally, as noted above, the racism concern is valid, but is a more general indictment of the nation at the time and has now been moderated by a flood of minority residents to suburbia.

According to Kelly: "For all the faults

attributed to them by their critics, the houses of the postwar subdivisions had widespread appeal. They may have been small and repetitious to their observers, but to their owners they represented something more than basic shelter—they were an opportunity to build a better life, a first step on the road to success. It is at that level that the housing programs of the 1940s made their greatest achievement"^{stiv}

THE NEW CITY

The postwar suburbs developed because they could. History had made it possible and thus virtually inevitable.

Throughout history, people have routinely adopted new techniques and technologies that made their lives better. Nostalgia did not prevent people from abandoning outhouses for indoor plumbing or iceboxes for refrigerators. People prefer better lives and greater comfort and accept technological advance as soon as it is affordable. It is not surprising that people found better lives and comfort preferable to nostalgia and an "ideological concept of the city."^{xlvi}

Indeed, the city was revolutionized. Levittown chronicler Barbara Kelly added that the postwar subdivision

suburbs had "evolved into a new form of city,"^{xlvii} while Thomas Sieverts characterized the "strange urban—rural landscape as a new form of city."^{xlviii}

The suburbs gradually became more independent of the core city, as employment was dispersed throughout the metropolitan area. They were no longer subordinate to the core cities, the legacy cites of the pre-war era. Jon C. Teaford of Purdue University wrote that the term: "...'suburb' had become a misnomer. Economically and socially periphery is no longer a subordinate dependent of the center and thus no longer a candidate for the prefix *sub* [emphasis in original]^{"xlix} Similarly, J. John Palen of Virginia Commonwealth University wrote: "Whatever everyone thinks about suburbs, it is now indisputable that they no longer *sub* [emphasis in original]."¹

More than three decades ago, Robert Fishman of the University of Michigan suggested:

> "In my view, the most important feature of the postwar American development has been the almost simultaneous decentralization of housing, industry, specialized services and office jobs; the consequent breakaway of the urban periphery from the center it no longer needs; and the creation of the decentralized environment..."^{li}

He went on to propose a new conception of the city (metropolitan area):

"The true center of this new city is not some downtown business district but in each residential unit. From that central starting point, the members of the household create their own city from the multitude of destinations that are within suitable driving distance."^{lii}

Even "suitable commuting distance" became less of a concern for many, as Alvin Tofler's"electronic cottage" became a reality for many as working at home expanded, facilitated by improved telecommunications.^{liii} Today, in the majority of American metropolitan areas, more people work at home than take transit.

THE PLANNING RESPONSE

Long before Levittown, there were strong criticisms of the suburbs reaching back into the 19th century and even to the 17th and 18th.^{liv}

However, it took the interwar building boom to marshal political forces to implement planning restrictions intended to stop the growth of the suburbs. Under the Town and Country

Figure 2

Urban Growth Boundry & Land Prices





Planning Act of 1947, Britain's liberal land-use policies were replaced by urban containment policies that have only become stronger over the years. Greenbelts (urban growth boundaries) were imposed around the cities of England, leaving little land for new residential development.

The result has been a severe and ongoing housing crisis, with house prices having doubled or tripled compared to their pre-urban containment relationship to incomes.^{Iv} This is to be expected, since prices tend to rise where the supply of a desired good or service (in this case land) is restricted, while demand continues unabated. Not even depressed metropolitan areas like Liverpool and Glasgow have escaped the cost escalation.

There is broad agreement among economists and even planning advocates that higher land prices occur within urban containment boundaries. ^{lvi} Planners expected that construction of higher density housing would negate the higher land price impact on house prices. Moreover, urban containment planning regimes have routinely included periodic reviews to expand land supply housing affordability. As the discussion below indicates, these approaches have failed as losses in housing affordability have been pervasive in more restrictively regulated metropolitan areas.

It took longer, but similar planning strategies have been adopted in many parts of the US. Their spread, however, has been slowed by America's federal structure,^{lvii} which did not lend itself to overnight imposition of urban containment policy. Even 70 years after World War II, the radical land use regulatory regime of the United Kingdom has been implemented in only parts of the United States.

Nonetheless, there were important

adoptions of Great Britain style urban containment policy. Things began to change, especially in California and Oregon in the 1970s.

In California, restrictions were placed on the incorporation of new suburban municipalities that made it more difficult for development to extend from existing municipalities into unincorporated areas.^{1viii} At the same time there were various environmental and land-use regulatory changes that made it more difficult to develop new housing. The net impact of this was fairly immediate house price increases relative to incomes. These housing affordability losses were recognized early some urban planning experts, such as David Dowell

Figure 3

Middle-Income Housing Affordability MAJOR US METROPOLITAN AREAS:1950-2014



at University of California, Berkeley^{lix} and Bernard Friedan at MIT.^{lx} California's housing affordability, which had been similar to that of the rest of the nation, began to deteriorate markedly, and by 1980 had reached unprecedented severity.

Urban containment policies were also enacted in states such as Washington, Florida, Tennessee, New Jersey and Maryland. Local initiatives significantly strengthened land use regulations, such as in the Virginia and Maryland counties of the Washington, DC-VA-MD-WV metropolitan area and the New York metropolitan area.

By 2000, house prices in some markets had reached five times incomes, nearly double their 1970s ratios. This is consistent with the economic principle that restricting supply tends to result in higher prices, all else equal.

The tragedy of the housing bust was to follow. Households were lured by mortgage products that back-loaded costs so that the greatly inflated prices could seem affordable. The more restrictive land use regimes could not respond with sufficient supply to meet the increased demand. By the middle 2000's the highest median multiples reached over 10 in the coastal California metropolitan areas, with some other metropolitan areas exceeding 5.0.

These price factors led to mortgage defaults, corporate bankruptcies, and a recession so severed that it is called the Great Recession. It was by far the worst economic reversal since the 1930s. Through the Great Recession, the US housing market sent ripples of economic disruption throughout the international economy.

There were massive house price losses across the nation, with the largest losses where house prices had risen the most. Yet, the house price increases relative to incomes quickly resumed. By 2014, median multiples had reached 8.0 or above in the San Francisco, San Jose, San Diego and Los Angeles metropolitan areas. Housing was also severely unaffordable in the New York, Boston, Miami, Riverside-San Bernardino, and Seattle metropolitan areas and was approaching similar severity in the Denver and the Portland metropolitan areas (Figure).

The housing distortion was so great that California's cost adjusted poverty rate became the highest in the nation, 50 percent above that of Mississippi. ^{lxi} Despite a California Legislative Analyst's reportdocumenting the association between regulation and housing affordability losses, the state has continued to strengthen regulation.^{lxii} The Tomas Rivera Institute raised concerns

Figure 4

Home Ownership by Ethnicity UNITED STATES: 2013



about the impact of compact development on minority housing affordability:^{lxiii}

> Whether the Latino homeownership gap can be closed, or projected demand for homeownership in 2020 be met, will depend not only on the growth of incomes and availability of mortgage money, but also on how decisively California moves to dismantle regulatory barriers that hinder the production of affordable housing. Far from helping, they are making it particularly difficult for Latino and African American households to own a home.

At the same time, throughout most of the country the historic housing affordability was preserved. Even through the housing bubble many major markets remained at or below the 3.0 housing affordability standard. There were also significant house price increases in some liberally regulated markets, but most remained at or below a 3.0 median multiple (such as Atlanta and other Less Restrictive Markets in the Figure above "Middle-Income Housing Affordability").

Finally, even in metropolitan areas with strong policies discouraging suburban development and favoring urban core development, most growth continues the periphery. For example, in Portland more than 95 percent of that growth between 2000 and 2010 was in suburbs and exurbs. In San Francisco, 88 percent of the growth was in the suburbs and exurbs.^{lxiv}

TOWARD A MORE ELITIST AMERICA?

The present preference in planning for urban containment policy threatens to reverse 70 years of social progress. As house prices rise relative to incomes --- a phenomenon clearly associated with of urban containment policy --- home ownership will be increasingly limited to the more affluent. Paul Barker asks why the strong land use regulations have survived. Answering his own question, he says that: "The short answer is that it protects the haves against the have-nots."1xv Robert Bruegmann of the University of Illinois, Chicago provides similar commentary, in chronicling the conversion of suburbs to abodes of the middle class:1xvi

"... Cities have sprawled from time immemorial and for a wide variety of reasons. As long as only a small number of the wealthiest and most powerful families occupied the most land in the most attractive locations, there was very little sustained organized protest. Whenever a newly affluent or empowered part of the population started to enjoy this privilege, there was a backlash."

Matthew Rognlie at the Massachusetts Institute of Technology has suggested that virtually all of the increased inequality identified by French economist Thomas Picketty has been in the housing sector. He suggests that:^{lxvii}

"... the literature studying markets with high housing costs finds that these costs are driven in large part by artificial scarcity through land use regulation A natural first step to combat the increasing role of housing wealth would be to re-examine these regulations and expand the housing supply.

Jason Furman, Chairman of the White House Council of Economic Advisers called for regulatory relief in a recent address on housing affordability and the consequences of high prices on the economy.^{lxviii}

> With high house prices and further hedges against property value depreciation in local regulations, some individuals are priced out of the market entirely, and homes in highly zoned areas also become even more attractive to wealthy buyers. Thus, in addition to constraining supply, zoning shifts demand outward, exerting further upward pressure on prices...

Worse of all, these restrictions are largely unnecessary. Better policies can secure a future for the next generation every bit as promising as the generations since World War II came to expect. The words of Presidential candidate Adlai Stevenson in 1952 are as relevant today as then: "Who shall say that the American dream is ended?"^{lxix}

LEVITTOWNS FOR THE FUTURE

But there is a solution. Levitowns can still be built. For example, a review of four metropolitan areas shows that new, entry level detached housing can be purchased for from 2.0 to 2.5 times median household incomes in Atlanta, Columbus, Houston and Indianapolis.^{lxx} This is only slightly above the two times average earnings typical in Levittown, when few families had more than one wage earner. Moreover, today's prices include a garage, and the houses are at least 50 percent larger. Implementation of recommendations in Section 9 could increase the number of new houses that replicate Levittown affordability today.

A number of policy proposals could improve the potential for improving housing affordability, particularly in the starter home market following the "trail" blazed by Levittown and other early postwar suburbs. These could restore, in the short term, the promise of Levittown for today's threatened middle-class. The first two relate to the stringency of metropolitan land use planning systems, since experience has demonstrated that the administration of urban containment policies not succeeded in maintaining housing affordability. Until these policies are reformed, new Levittowns are simply not likely to be built.

Recommendation #1

To retain housing affordability, liberally regulated metropolitan areas should not adopt restrictive housing regulations, such as urban containment. As is indicated above, urban containment policies have been virtually inextricably linked to the loss of housing affordability. The theory that the higher land prices inside an urban containment boundary will be offset by lower construction prices has proven to be entirely elusive in practice.

Recommendation #2

Wherever there is urban containment policy, it can be epected that housing affordability will further deteriorate. This approach needs to be reformed.

Wherever there is urban containment policy, it can be expected that housing affordability will further deteriorate. This approach needs to be reformed.

A road map has been provided by the Productivity Commission of New Zealand. In seeking to address the severe housing affordability in Auckland, the Productivity Commission has recommended that greenfield land for development be opened up in greater volume once prices have become unduly distorted. As the Commission indicated: ""Where large discontinuities emerge between the price of land that can be developed for housing and land that cannot be developed, this is indicative of the inadequacy of development capacity being supplied..."^{IIxxi}

The Productivity Commission's recommendation for an "eventdriven trigger" to open more land for development also could be adopted at the state or metropolitan area level in the United States. This would require establishment of annual housing affordability targets.

Recommendation #3

Metropolitan areas with urban containment policies should consider

establishing "special housing areas" outside their urban containment boundaries in order to facilitate housing that is affordable to middle income households.

These new developments could be authorized by governments to allow development of land and housing at prices similar to those, relative to incomes, that prevailed in the early suburban developments, such as Levittown. These districts should be within metropolitan areas (labor markets) and would provide advantages not only to aspiring families, but also to land owners whose land has been rendered worthless from a development perspective by urban containment policy. Limits on land prices should be set, with development proceeding only when land owners are willing to sell for prices within such limits. Generally similar proposals have been made by the New Zealand government (special housing areas), ^{lxxii} and by United Kingdom government housing researcher Kate Barker.^{1xxiii} This approach would also be similar in some respects to the successful municipal utility districts in Texas.

Recommendation #4

Governments, land developers and homebuilders should examine approaches for liberalizing regulation on starter homes, toward the end of implementing less costly delivery of housing.

Cost increasing factors such as delays in permitting, more expensive materials requirements and designs (such as favored architectural styles, including "new urbanist" designs) and other requirements that increase costs for starter homes should be reviewed. This would be appropriate in all markets and should be conducted consistent with appropriate health and safety standards. Wherever feasible, reforms should be implemented.

CONCLUSION

The legitimate purpose of planning is not so much better cities, but better lives for their inhabitants. This requires housing that is affordable and maximizes discretionary incomes and a reduction in poverty.

Planning can only be justified by the extent to which it improves people's lives. Suburbanization, through entrepreneurship and liberal planning accomplished this, and created the Great American Middle Class after the Second World War.^{lxxiv}

As Herbert Gabs suggested a half century ago: ^{1xxv}

"... whatever its imperfections, Levittown is a good place to live. Consequently, it is much less important to plan for new or improved suburban community and to make sure that more people are able to live in suburbs like those now being built. Specifically, the most urgent priority is to make the benefits of suburban living available to the poor and nonwhite families, now condemned to slum ghettos, who want to give their children and themselves a better life beyond the city limits.

Gans further expressed concern that there needed to be a place in the suburbs for lower middle income households: ^{lxxvi}

...The ideal solution is more, better and more variegated new towns in suburbs, but the first priority in the years to come is more communities for the less affluent."



SPREADING THE WEALTH: DECENTRALIZATION, INFRASTRUCTURE AND SHARED PROSPERITY

By Michael Lind

The public's preference and the views of the social and intellectual elite has never been greater.

Journalists, urban and environmental activists and politicians tend to share a vision of a future in which generations-old trends toward the decentralization and dispersal of both production and population are reversed. In this view, densification will replace sprawl, and mass transit will grow in importance relative to personal automobile use, as Americans in growing numbers abandon suburban houses for smaller apartments and condos in middensity and high-density cities.

"The New American Dream is Living in a City, Not Owning a House in the Suburbs," Time recently declared.1 The Atlantic agrees: "More Americans Moving to Cities, Reversing the Suburban Exodus."ii As for the preferred housing type, the Smithsonian informs us: "Micro Apartments are the Future of Urban Living."iii In this world-view, even farming will be brought "back to the city" with the emergence of vertical urban farms. "The Future of Agriculture May be Up" according to The Wall Street Journal. ^{iv} National Geographic predicts that "we may soon be munching on skyscraper scallions and avenue arugula."v

In this dense city-centric world view, not only will cities feed themselves in reality a practical and economic impossibility—but also there's virtually nothing density cannot do, from calming the climate to raising (U.S. national productivity. "Double a city's population and its productivity goes up 130 percent" asserts *MIT News*.^{vi} In the depopulated hinterland between downtowns, sleek high-speed trains will whiz past rows of elegant white windmills or gleaming solar panels. Economies of scale and largescale manufacturing will be replaced by high-tech localism and the rebirth of walkable dense neighborhoods. ^{vii}

Each wave of technological innovation since the early industrial revolution has inspired hopes that an economy of small-scale producers and small local markets and walkable, villagelike communities can be preserved or recreated, using the most advanced technology available at the time. In 1812, in a letter to General Thaddeus Kosciusko, Thomas Jefferson wrote of his hope that industrial technology could be reconciled with a society of small farmers: "We have reduced the large and expensive machinery for most things to the compass of a private family, and every family of any size is now getting machines on a small scale for their household purposes."viii In the early years of the twentieth century, Lewis Mumford hoped that electrification would permit a reversal of the trends toward largescale corporations and utilities and infrastructure grids and a renaissance of community life and pedestrian cities.ix

The third industrial revolution based on information technology has produced its own variants of this utopia, with Alvin and Heidi Toffler predicting "the electronic cottage."^x With these earlier utopias, today's techno-urbanism shares the same social ideal, a society in which production and population are reconcentrated and re-localized in dense communities, which may take the form of the low-rise pedestrian cities of the New Urbanists or Green and "sustainable" skyscraper downtowns. The persistence of this vision, in ever-changing forms, suggests that its appeal must be explained in terms of nostalgia for the less farflung, less centralized, smaller-scale communities of the agrarian era and the early industrial period.^{xi}

Something like this vision of the future American landscape has achieved the status of a near-consensus in the mainstream press about the alleged return to the city and the impending demise of the suburbs. But the story is wrong in every detail. In reality, the American people are not abandoning low-density housing for crowded and expensive urban cores, nor are they likely to do so in the future.

In fact, the immediate and likely mid-term future will look, in many ways, much like the recent past. Factories, farms and office parks will continue to be dispersed through suburbs, exurbs and the countryside. Information technology will consume ever more electricity, most of which, for the foreseeable future, will come from conventional utilities using fossil fuels, not from renewables like wind and solar power. The aging of the population and the growth of lowpaying personal service jobs will increase the importance to the service-sector working class of personal automobile use in employment. Self-driving cars and trucks, along with telecommuting, may reinforce this trend and produce further decentralization of work, housing, shopping and recreation. The robocar, not the passenger train, should be the icon of the transportation future.

TECHNOLOGY AND DECENTRALIZATION

For generations, successive technologies have dispersed production and population even as they have radically reduced transportation, energy and land costs. The increasing speed and flexibility permitted by innovative modes of transportation, from the canal to the railroad to the automobile, truck and airplane, have slashed freight and commuter costs while allowing production facilities and residences to spread out. The decentralization of work, shopping and dwelling has been enabled by the long distance transmission of energy and increasingly cheap, sophisticated and reliable telecommunications grids.

Since the beginning of the industrial era, each new form of travel—the train, the automobile or truck and the airplanehas permitted higher speeds. From 1800 to the present, personal mobility in the U.S. has grown at an average of 2.7 percent per year with a doubling time of 25 years.xii Higher speeds allow longer commutes or business trips in the same amount of time. This has resulted in the expansion of urban areas to take advantage of cheaper land for the kind of housing people prefer, largely single family, and the simultaneous decline in their overall density. One study notes that the automobile has allowed cities to grow as much as fifty times larger than the typical pre-modern pedestrian city, which was limited to an area of 20 square kilometers.xiii Today's advocates of urban "densification" frequently denounce the automobile as the source of so-called "sprawl." But the trend toward urban deconcentration began with the first industrial revolution, based on steam power. Rather than build urban

mass transit around smoke-spewing locomotives, many cities built horse-car lines, something which was not practical until industrial technology made iron or steel rails cheap. In many places these were later replaced by electric trolleys or subways (early horse-drawn railways using wooden tracks had been limited to mines). The growth of suburbs began with horse-drawn omnibuses, trolleys, subways and commuter rail. The "pedestrian cities" of 1900, idealized by many of today's urban planners, in fact were more dispersed than compact preindustrial villages and cities.

Nor has it ever been the case in the industrial era that production facilities have been situated for the convenience of existing city residents, as an alternative to moving workers to production sites. Mills grew up first along the fall lines of streams and rivers, where falling water could be tapped for energy. When coal-powered steam engines replaced waterpower, factory towns tended to be located near coal seams, as in the British Midlands, the Ruhr, and Pittsburgh, or else along rivers or canals with access to barge-borne coal. Mill towns and factory towns alike tended to grow up around the production facilities, which began as "greenfield" sites, to use modern terminology.

The second industrial revolution, based on the electric motor and the internal combustion engine, accelerated the decentralization of manufacturing in the U.S. and other advanced industrial countries. Electric wiring and motorized power tools allowed large, flat, horizontal factories to replace earlier vertical factories in which waterwheels or steam engines had driven machinery on multiple floors by means of ropes and pulleys. To save money, the new factories were located on cheap land, which only later became dense as residences and amenities for workers grew up around them, as in Detroit. Trucks enabled factories to be located far from both waterways and rail lines, and personal car ownership allowed workers to live in less crowded conditions at greater distances from where they worked.^{xiv}

Paradoxically, passenger air travel, by creating truly national corporations on a continental scale whose facilities could be visited by managers in a single day, allowed the centralization of functions in high-rise office buildings in a few headquarters cities, like New York City, and to a lesser extent, Chicago and, more recently, Los Angeles, Houston, Dallas and Atlanta.xv Satellite technology and the worldwide Web have enabled the further centralization of supervision over multinational corporations and global supply chains. The error of all too many modern urbanists is a failure to understand that the managerial and financial functions of such dense urban cores depend for their existence on supply chains and consumer markets in lowerdensity areas across the United States and the world. Only a small number of cities can specialize in these functions in the national and world economies, and these "global cities" like New York and Tokyo and Frankfurt cannot serve as models for most metro areas.xvi

THE FUTURE OF PRODUCTION

Will the trend toward the decentralization of production and housing be reversed in the twenty-first century?

Although their contribution to national employment is dwindling because of automation and offshoring, traded sector industries such as manufacturing, energy, mining and agriculture remain important parts of an advanced economy, because of their multiplier effects and upstream and downstream linkages. According to the Bureau of Economic Analysis, every dollar in final sales of a manufactured good is responsible for \$1.34 in input from other economic sectors, while a dollar of retail trade generates only 55 cents and a dollar of wholesale trade only 58 cents.^{xvii} These industries, by their nature, tend to locate their facilities in low-density areas and need extensive, state-of-the-art infrastructures to connect them with national and global suppliers and businesses and consumer markets with minimum friction and cost.

The decentralization enabled by trucks and cars and buses has converted the monocentric city of the railroad and canal era into what William Bogart, following Jean Gottmann, has called the polycentric city-a blob-like metro area with multiple smaller retail, office and recreation centers.^{xviii} For a while some older urban cores became specialized downtown business districts, housing the headquarters of firms whose factories, warehouses or back offices were located where land or labor or both were cheaper, in suburbs, small towns, and other states or other countries. But as headquarters have moved to suburban office parks and exurban campuses, many downtowns have reinvented themselves again as "playground cities" based around amenities enjoyed by a residential population of the rich and young professionals before marriage, as well as transient populations of tourists.xix

Production has moved back to its historic home, the countryside or the outskirts of town. The migration of production out of the city has been accelerated by municipal policies that penalize productive enterprises because of their side effects of traffic, waste or pollution. The real estate interest in gentrification—turning former warehouses into lofts for affluent members of the gentry class or restaurants or offices for fashionable social media startups—has seized on this transformation, and in some places, with favorable economic results.

The mainstream press frequently publishes breathless articles about the alleged rise of urban agriculture sometimes accompanied by striking illustrations of skyscrapers full of hydroponic gardens or covered with what appears to be kudzu. Most of these stories quote a single activist, Dickson Despommier, a retired professor of microbiology at Columbia University's School of Public Health.^{xx} Many articles convey Despommier's claims about the alleged superiority of indoor, climatecontrolled farming in big cities without raising any objections.^{xxi}

The most obvious objection is the price of land. Even if greenhouses and, in time, synthetic food laboratories were to contribute more to the diet of people in advanced industrial nations like the U.S., and even if consumers insisted on fresh food from nearby, most of these structures would be located on the periphery of expensive cities in low-rise suburbs or exurbs, to minimize the contribution of rent to the price. No matter what technology might be used, food grown in Manhattan will always be an expensive luxury because of land rent alone.

Nor is most manufacturing ever likely to return to densely-populated, expensive urban areas. The automation of factories is reducing the manufacturing workforce worldwide, even in China. As labor costs decline in importance as a factor in location, more firms may choose to site increasingly-robotic factories near consumer markets and supply chains. And rapid prototyping and other advances that enable customization and short production runs may reduce the benefit that large factories enjoy over smaller operations.

But high-tech home production of most appliances and high-tech versions of the village blacksmith will probably remain in the realm of science fiction. Economies of scale will probably continue to characterize even advanced manufacturing, to some degree. Most important of all, high rents, combined with municipal regulations, will make cities unattractive as sites for major factories, as distinct from small-scale artisanal shops. Neither agriculture nor large-scale manufacturing are likely to return to cities with high rents and property prices.

BERMUDA TRIANGLE URBANISM

What about service sector jobs? As automation leads manufacturing and other productive sectors to shed labor, the greatest growth in absolute employment is found in domestic service sector jobs in health, education, retail, government and other industries that cannot easily be outsourced or automated. The Bureau of Labor Statistics (BLS) projects that in 2022 "services-providing" jobs will account for 80.9 percent of new U.S. jobs. ^{xxii}

According to one influential view, the "new economy" is a post-material "knowledge economy" or "information economy" in which the production of immaterial goods and services is more important than material goods and traditional services. Adherents of this school often treat the most important activities in a modern economy as tech and financial services. This school of thought holds that U.S. productivity would be increased if more people were added to a few U.S. metro areas that specialize in tech and finance, with help from "densification" policies such as transit-oriented development.

According to Chang Tai-Hsieh of the University of Chicago and Enrico Moretti of the University of California, Berkeley, the U.S. could be more productive if more workers could move from less productive cities to more productive cities, which they identify as, among others, San Francisco, San Jose, New York, Boston, and Seattle. They criticize land-use restrictions which prevent more high-rise apartments and high-rise office buildings to house the hordes who allegedly would boost their own productivity, and the nation's as well, by moving from Bakersfield to San Jose.xxiii In short, massive densification would produce huge gains in productivity.

In all of this there is a grain of truth—but only a very small grain. It is true that, in certain industries, there are genuine agglomeration effects, leading to the dominance of one locale in that field, at least for a while: Silicon Valley for tech, Wall Street for finance, Detroit for automobiles, Hollywood for entertainment. These locations brought together workers, firms, capital, infrastructure and flourishing social networks facilitating the exchange of ideas. If you want to be a country music singer, it was a good idea to move from Tulsa, Oklahoma to Nashville in the old days and to Branson today.

But even these productivity effects are limited to particular industries with particular skill sets. You are more likely to improve your productivity and success as a country music singer if you move from Tulsa to Branson—but not if you move from Tulsa to Silicon Valley or Wall Street. Moretti and Hsieh admit: "The assumption of inter-industry mobility is clearly false in the short run. For example, it would be hard to relocate a Detroit car

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manufacturing worker to a San Francisco high tech firm overnight. On the other hand, the assumption is more plausible in the long run, as workers skills—especially the skills of new workers entering the labor market—can adjust."xxiv

In spite of this concession to reality, Moretti and Hsieh argue for the mass relocation of much of the U.S. workforce to San Francisco, San Jose, New York and a few other big cities. As Timothy B. Lee notes in Vox:

Hsieh and Moretti envision the New York metropolitan area becoming 9 times its current size, meaning that more than half the country would live there. The Austin metropolitan area would quadruple in size, as would the San Francisco Bay Area. Half the cities in America would lose 80 percent or more of their population. The population of Flint, MI, would shrink from 102,000 people to fewer than 2000.^{xxv}

This might be called Bermuda Triangle urbanism. Certain metro areas are like the Bermuda Triangle and other legendary zones in which the laws of nature are supposed to operate differently than everywhere else. These metro areas have the unique property of magically raising the productivity of human beings of all skill sets who cross an invisible force field into them.

Hsieh and Moretti argue that their favored coastal metro areas could rival Southern metro areas in growth by adopting the less restrictive land policies characteristic of growing Southern and Southwestern cities:

We find that three quarters of aggregate U.S. growth between 1964 and 2009 was due to growth in Southern US cites and a group of 19 other cities. Although labor productivity and labor demand grew most rapidly in New York, San Francisco, and San Jose thanks to a concentration of human capital intensive industries like high tech and finance, growth in these three cities had limited benefits for the U.S. as a whole. The reason is that the main effect of the fast productivity growth in New York, San Francisco, and San Jose was an increase in local housing prices and local wages, not in employment. In the presence of strong labor demand, tight housing supply constraints effectively limited employment growth in these cities. In contrast, the housing supply was relatively elastic in Southern cities. Therefore, TFP growth in these cities had a modest effect on housing prices and wages and a large effect on local employment.xxvi

Advocates of "densification" have seized on Hsieh's and Moretti's work to argue for crowding more people into San Francisco and Manhattan by adding skyscrapers, legalizing micro-apartments and squeezing tiny houses into existing suburbs.^{xxvii} But this ignores the fact that the growth of Southern and Southwestern cities has been driven in large part by the desire of middle-class and working-class Americans, as well as affluent Americans, to spend less while enjoying bigger homes and yards. According to demographer Wendell Cox, Census data shows that of the 51 metropolitan areas with more than 1 million residents, only three—Boston, Providence, and Oklahoma City—saw their core cities grow faster than their suburbs. (And both Boston and Providence grew slowly; their suburbs just grew more slowly. Oklahoma City, meanwhile, built suburban residences on the plentiful undeveloped land within

city limits.)". ^{xxviii} Similar preferences manifestly exist among younger generations of Americans. Between 2000-2011, the number of Americans aged 20-29 increased twenty times as much as the increase of their cohort in central business districts. ^{xxix} To accommodate this desire for inexpensive space Southern and Southwestern cities have expanded horizontally, not vertically.

To their credit, Hsieh and Moretti acknowledge that transportation systems, by enabling longer commutes, can allow more people to live in a metro area that remains relatively low in density. But even here they play to the prejudices of the coastal and campus intelligentsia, by endorsing high-speed rail: "An alternative is the development of public transportation that link local labor markets characterized by high productivity and high nominal wages to local labor markets characterized by low nominal wages. For example, a possible benefit of high speed train currently under construction in California is to connect low-wage cities in California's Central Valley--Sacramento, Stockton, Modesto, Fresno--to high productivity jobs in the San Francisco Bay Area."xxx

Hsieh and Moretti ignore how high-growth Southern cities—their putative models—actually grew. Cities in the South and Southwest in the last half century have expanded thanks to cars and trucks on adequate systems of streets and highways, and nearuniversal personal automobile ownership, not on the basis of a pre-automobile infrastructure of trains and trolleys and subways. People have moved there—and this appears to be true of educated workers—precisely not to live in high density and expensive areas.^{xxxi}

The link between densification and productivity does not exist even in the so-called "knowledge economy" of the tech sector. Even the intellectual labor of R&D tends to be done in the low-density environments of university and corporate campuses like those of Silicon Valley, Austin and the Research Triangle. The expensive downtowns of skyscraper cities increasingly are home to rentiers with residual financial claims on the products of innovation, including investors and former innovators, rather than individuals and groups engaged in important technological innovation themselves.

THE NEW LANDSCAPE OF EMPLOYMENT

Access to cars for personal use will become more, not less, important for the majority of the American workforce in the decades ahead, thanks to the shifting composition of the workforce and the spatial deconcentration of service sector jobs. While better-paying service sector jobs like those in finance, law and business and professional services may remain downtown in corporate headquarters, an increasing number of lower-wage jobs involving personal care will be found in lower-rent suburbs and exurbs within metro areas. Particularly important among these will be jobs caring for the elderly, either at hospitals and medical centers and nursing homes, or in the homes of the elderly themselves. Between 2002 and 2022, health care and social assistance will have created more jobs than any other sector, growing from 9.5 percent of employment to 13.6 percent. xxxii

Overwhelming numbers of American seniors say they wish to stay in their homes as long as they can.^{xxxiii} Given the expense of residential care, elderly Americans will try to remain home

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with the help not only of technology but also of personal services provided in their homes. These services, many of them paying modestly, will provide employment for nurses, health aides, food delivers, shoppers, drivers, and others providing in-home care or help. Because their clients will be dispersed through metro areas, personal vehicle ownership or access to a car will be a necessity for most of these in-home care-givers. And because few of these jobs are likely to pay well, members of the new service sector working class will economize on expenditures by living in low-cost neighborhoods and shopping at discount stores and dining in affordable restaurants that are located in lowdensity areas and do not pass on high rents to their customers.

What we are witnessing is the emergence of something not too dissimilar to European cities with gentrified downtowns becoming centers of high-status spending and employment while poverty is decentralized through the suburbs, particularly those in the inner ring while newer suburbs and exurbs generally do better.xxxiv This reversal of the mid-twentieth century pattern of downtown poverty and suburban affluence poses particular challenges to low-income workers without access to cars in suburbs and exurbs. Researchers at the Brookings Institute, studying data from hundreds of transit providers in numerous metro areas, discovered that, on average, workers reliant on mass transit cannot reach 70 percent of the jobs in their area in less than 90 minutes. Workers in lowincome suburbs were even worse off. Only 22 percent of potential metro area jobs for which they were eligible were accessible in less than an hour and a half one way by means of mass transit.xxxv

According to a study of two

federal pilot programs operated by the Department of Housing and Urban Development, Moving to Opportunity for Fair Housing and Welfare to Work vouchers, poor participants with cars lived in better neighborhoods and greater employment opportunities. Lowincome workers who received Moving to Opportunity Vouchers were twice as likely to get jobs and four times as likely to stay employed.xxxvi Even when mass transit is available it tends to consume more time than commuting by car. Another study, showing the superior outcomes available to poor people with access to private vehicles, concluded: "If we were most interested in increasing the mobility of the poor, we would subsidize car ownership."xxxvii

ROBOCARS VS. RAILROADS

In his 2011 State of the Union address, President Barack Obama declared: "Within 25 years, our goal is to give 80 percent of Americans access to highspeed rail. This could allow you to go places in half the time it takes to travel by car. For some trips, it will be faster than flying—without the pat-down." This vision was encouraged by maps showing an imaginary continental network of high-speed passenger rail.

But the president's high-speed rail initiative soon collided with reality. In 2011, the Obama administration proposed spending \$53 billion on highspeed rail in the next six years.^{xxxviii} But from 2009-2014 the federal government has spent only \$11 billion on high-speed rail.^{xxxix} Governors in a number of states have blocked their states from accepting federal high-speed rail grants, for fear of escalating costs. California's high speed rail project has been plagued by lawsuits and dwindling public support. Amtrak's Acela, instead of travelling between New York and Washington in only 90 minutes as a true high-speed train might, takes nearly three hours to cover the distance. It would take a quarter century and an estimated expenditure of \$150 billion to turn the Washington-to-New York route into a true high-speed rail route.

The fetishization by many opinion leaders of fixed-rail technology as a futuristic symbol is puzzling. Passenger trains, like passenger blimps, are an anachronistic technology. Most passenger rail in the U.S. was rendered obsolete by the development of automobiles and airlines in the last century. A nonstop cross-country flight in the U.S. usually takes no more than six or seven hours from airport to airport. Even if highspeed rail could compete on some routes, the number of destinations would be far smaller than those accessible by highspeed air. The displacement of passenger rail by air travel and automobile travel in the U.S. has led railroads to return to their original mission from the days of horse-drawn trams and canals-the efficient overland movement of freight.

The only part of the U.S. where inter-city passenger rail is significant is the Amtrak corridor through the Northeastern megalopolis from Washington, D.C. to Boston. But tickets are expensive, in spite of federal subsidies. In recent years, inter-city bus services have competed with Amtrak along its own route, with much cheaper tickets and only slightly longer travel time. Inter-city bus companies like Bolt have been able to lure away professionalclass travelers with amenities superior to those that Amtrak offers for a fraction of the price. A 2013 comparison of Amtrak and bus service in a number of routes across the nation concluded that "the cost of providing scheduled motorcoach service is significantly lower than the cost of providing Amtrak train service. The cost difference ranges from a low of \$17 per passenger (Washington, DC to Lynchburg, VA) to a high of more than \$400 per passenger (San Antonio, TX to El Paso, TX).^{xtl}

What about intra-city rail transit? Outside of a few dense urban areas like New York City, the future of fixedrail seems bleak, notwithstanding the enthusiasm of urban planners for "light rail" transit projects, which have replaced skyscrapers and Seattle-style space needle towers as icons of progress and prestige in the imaginations of local boosters. As the technology of self-driving cars advances and regulatory systems adapt, the price of rides in robotaxis compared to subway fare will plummet because taxi fares need no longer support a human worker, only maintenance and energy costs and a modest profit. Single-mode, point-to-point travel will always be more flexible and efficient than fixedrail transit which requires parts of the journey to be undertaken by foot, bicycle, or automobile, including taxi travel. In most American cities, buses and taxis and personal cars rendered trolley systems obsolete by the mid-twentieth century. By the mid-twenty-first century, except in a few cities or a few routes like airports to convention/hotel centers, robotaxis may put subways and light trail out of business.

Will robotaxis replace personal cars altogether? Many urbanist opponents of personal automobile ownership hope that fleets of robotaxis will roam the suburbs as well as dense urban centers, permitting suburbanites to dispense with garages and perhaps allowing "densification" of suburban neighborhoods, with houses built right up to the street.

Like most fantasies of orthodox urbanism, this is unrealistic. Even if the costs of robotaxis fall radically, it is hard to imagine suburbanites repeatedly calling

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taxis during the day for different trips—to work and back, to drop off and pick up children and school, to go shopping and to go out to a restaurant for dinner. In the suburbs, if not in dense urban centers, garages are likely to remain—and they will house the family robocar.

What is more, the family robocar, like its human-operated predecessorsthe station wagon and the minivan and the SUV—will be large enough to accommodate groups of people or large quantities of groceries or other purchases on occasion. And like today's cars, it will be designed to operate both in cities and on highways. Visions in which individuals on a daily basis now choose tiny one-or-two passenger self-driving cars to commute and now rent spacious robot vans by the hour to go shopping are unlikely to be realized be realized if waiting times make it inconvenient to summon rental vehicles in low-density neighborhoods, as opposed to dense urban cores.

To the extent that the automation of automobiles and trucks reduces accidents, safety considerations as an incentive to purchase large, heavy vehicles may diminish, and there may be a trend toward somewhat lighter and smaller cars. Still, it is reasonable to predict that fully self-driving cars and trucks will broadly resemble today's human-operated vehicles, if only because the spatial demands imposed by the dimensions of passengers and freight will remain the same. The street and highway infrastructure of tomorrow is also likely to be more or less the same for self-driving vehicles in the future as for today's cars and trucks, although fixed signals like painted stripes may give way to virtual signals permitting more flexible road use.

Reflecting the anti-automobile bias of the gentry intelligentsia, the American press has trumpeted a recent finding that between 2007 and 2012 the number of households without a vehicle increased. But the increase was negligible, from 8.7 percent to 9.2 percent.^{xli} Seventy-five percent of Americans drive to work, while ten percent commute to work by means of carpooling, a number that may have been enlarged by the hardships imposed by the Great Recession.^{xlii}

Personal care use may well expand, thanks to self-driving cars. The annual cost of upkeep of roads may increase, and it may be necessary to expand road capacity, if the automation of the automobile increases traffic by allowing the elderly and unescorted children to travel without having to drive or be driven by another person.

Flying as well as driving is on the verge of being transformed by robotics. The Federal Aviation Administration (FAA) may soon adopt regulations that permit the use of drones in the U.S. by civilian business.^{xliii} The potential impact on industries and business models can only be imagined. Restaurant-to-door pizza delivery by drone is probably not in the cards any time soon. The most likely applications of commercial drones are in air freight transportation, warehousing, agriculture and photography, among other industries.

Meanwhile, increasing automation may make passenger air travel safer. It might also enable the rise of "air taxis"—small aircraft which can pick up passengers on a flexible basis, along the lines of the "free flight" envisioned by a recent NASA study.^{xliv}

ENERGY IN THE INFORMATION AGE: MYTH VS. REALITY

Like popular visions of a future American landscape based on urban
density and mass transit, perceptions about the information technology and energy infrastructure of the future are equally at odds with reality.

The ICT (Information and Communications Technology) ecosystem is being transformed by a number of trends: the mobile internet, cloud computing, big data, the "internet of things" and "the industrial internet." All of these trends together will translate into increased demand for both electricity and reliable wireless communications.

Because much of the infrastructure supporting ICT is not visible—fiber optic cable, remote data centers, wireless towers—it is easy for the users of modern technology to imagine that it consumes less energy and materials than oldfashioned appliances, and to believe that information-based industries somehow exist in cyberspace rather than the material world. But the alleged virtual reality of cyberspace is grounded in physical infrastructure.

Unlike windmills and high-speed trains, data centers are not part of the popular iconography of the imagined future. Indeed, for security reasons, many data centers are hidden from public view in nondescript buildings in remote complexes. The result, as a New York Times report notes, is the illusion that information exists in an immaterial world: "The complexity of a basic transaction is a mystery to most users: Sending a message with photographs to a neighbor could involve a trip through hundreds or thousands of miles of Internet conduits and multiple data centers before the e-mail arrives across the street."xlv

In spite of their effective invisibility, data centers are the backbone of the digital economy. As these nodes in national and global communications networks grow in importance, they consume more energy. A modern data center uses 100 to 200 times more electricity per square foot than an office building.^{xlvi} Some data centers consume as much energy as small towns. In 2013 U.S. data centers devoured enough kilowatt-hours of electricity— 91 billion—to power twice the number of households in New York City.^{xlvii} Gains in efficiency and productivity may be outstripped by increased demands made possible by falling prices.

And energy-hungry data centers themselves represent only 20 percent of ICT electric consumption, with the rest dispersed among hand-held devices, PC's and other technologies. As one study notes, "Cost and availability of electricity for the cloud is dominated by same realities as for society at large—obtaining electricity at the highest availability and lowest possible cost."^{xlviii}

Electricity to power increasingly sophisticated phones and computers and cloud computing centers as well as machine-to-machine communication and communication among selfdriving vehicles will have to come from somewhere. Will the source be renewable energy? Many Americans have been persuaded that combating global warming will require a rapid—and relatively painless-transition from fossil fuels to renewables, identified in the popular imagination with wind power and solar energy. This vision is sometimes united with the idea of a "distributed" energy network, in which utilities buy much of their electricity from rooftop solar panels or electric cars.

In reality, the reign of hydrocarbons in the energy mix is far from over. The U.S. Energy Information Administration predicts that in 2040 as much as 80 percent of primary energy consumption by fuel in the U.S. will originate with three fossil fuels—petroleum and other liquids (33 percent), natural gas (29 percent) and coal (18 percent). In their contribution to primary energy production, renewables are predicted to rise only from 8 percent in 2013 to 10 percent in 2040. As a share of electricity generation by fuel, renewables are predicted to account for only 15-22 percent in 2040, roughly the same as nuclear energy. Most of the renewable category is accounted for by hydropower and wind; only minor contributions will be made even in the best case scenarios for 2040 by solar, geothermal, and biomass.¹

FUTURE INFRASTRUCTURE: EVOLUTION, NOT REVOLUTION

The conventional wisdom of urban planners posits revolution, not evolution. It is widely assumed that the trend of decentralization of production, housing and shopping—a trend that has been reinforced by each new wave of technology, beginning with steam engines-will somehow be reversed in the near future, leading to the reconcentration not only of housing but also of much manufacturing and even "urban agriculture" in dense cities. And all of this is supposed to be accompanied by mass abandonment of personal automobile use for mass transit and a rapid transition from fossil fuels to renewable energy sources.

As I have sought to demonstrate, none of these assumptions is plausible. The future American landscape will be characterized by evolution, not revolution. The desire to minimize costs will lead most businesses and households to avoid expensive, dense urban areas for low-density regions with cheaper land. According to Jed Kolko of Trulia, only one of the ten fastest-growing cities with more than 500,000 people, Seattle, is predominantly urban, while five—Austin, Fort Worth, Charlotte, San Antonio and Phoenix—are majority suburban.^{li}

Roads and highways will be important, as increasingly autonomous cars and trucks and buses render fixed-rail passenger transit even more marginal than it is today for passenger transportation (rail will retain its utility for freight transportation in the U.S.). Air travel will become more complex, with the addition to airliners of civilian drones and perhaps "air taxis" reshaping patterns of production, package delivery and commuting. Telecommuting and the gradual electrification of transport will make reliable electric grids all the more indispensable. And the displacement of coal by natural gas, and the evolution of a global market in natural gas, will necessitate more pipelines. Growing Internet usage will have to be matched by reliable high-speed connectivity via national and international grids and increasingly colossal data servers which, even if they are more efficient, will require immense quantities of energy for operation and cooling.

Far from reducing the quality of life of the working class/middle class majority in an aging America, "sprawl" or decentralization, if properly carried out, can benefit both the providers and consumers of personal services. Personal service providers with access to cars have a much greater market for their servicesparticularly if highways or expressways enlarge the number of sites or homes that they can visit. At the same time, low-cost, low-density housing in suburbs, exurbs and small-towns makes it easier for the elderly to age in place. Emergent technologies such as telemedicine and autonomous vehicles may make suburban life much less challenging for the elderly who can no longer drive. The greatest beneficiaries of an automobile-based service economy may be the low-income

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elderly and their modestly-paid caregivers.

This picture is at odds with the kind of urban futurism which envisions passenger trains whizzing past windmills and solar power panels on their way from one skyscraper metropolis to another. Certainly robocars, power lines, natural gas pipelines, and data centers are less striking and glamorous than fashionable icons of pop futurism like high-speed rail and imaginary farms inside skyscrapers. But a decentralized America built on the bones of high-capacity roads, power lines, pipelines, and airstrips can enjoy a growing economy while minimizing the de facto taxes imposed by congestion, high land prices, and other detritus of excessive density. The historic nexus among technology, decentralization and the quality of life, far from being rendered obsolete, is on the verge of being reinforced and renewed in the United States.

HURDLING THE OBSTACLES TO MILLENNIAL HOME OWNERSHIP

By Morley Winograd

If the United States could remove current obstacles holding back members of the Millennial Generation from owning homes, the value of the housing market would increase by at least one trillion dollars over the next five years. Policies that would eliminate or sharply reduce financial obstacles that are currently hindering thirty somethings who want to start raising a family in the suburbs from buying a home would enable the construction and sale of as many as five million more homes between now and 2020. Residential investment represents about five percent of the country's GDP, not counting the ancillary spending that results from such purchase.ⁱ So any sound housing policy for the United States should begin and end with programs that allow these "missing Millennials" to join the ranks of America's home owners.

HOW WE ARE FAILING THE NEXT GENERATION... AND OURSELVES

The Millennial Generation (born 1982–2003), is made up of about 95 million Americans, most of whom are now in their twenties or thirties. They have been raised to think of life as a series of hurdles to be jumped with each obstacle becoming increasingly more difficult to overcome. Part of this mentality stems from the sheer size of the generation, which created enormous peer competition for success in school. Another source of this pressure to achieve came from their parents, who constantly emphasized the importance of going to college, doing extracurricular work in high school to improve the chances of being selected to attend the college of their choice, and spending time studying, not working, to make sure their grades were good enough.ⁱⁱ This kitchen table conversation was at least partially generated by the pressure that an increasingly global economy put on family incomes as they were growing up, with particular urgency after the Great Recession.ⁱⁱⁱ

Despite the investment in education the generation has made in response to these pressures, the question remains as to whether or not Millennials will be able to fully participate in the experience of home ownership. The answer to this question will be determined both by the efforts of Millennials and also to the degree that efforts to lower the height of the hurdles in front of them are successful.

There are some people, such as Brookings Institute researcher Matthew Chingos, who don't believe the hurdles are unique to this generation. He has suggested, for instance, that student debt loads weren't high enough to really impact the housing market.^{iv, v} John McManus, an award-winning editorial and digital content director for Builder magazine, suggested any delays in home ownership were due primarily to the inherent desire to wait before making decisions in the hope something better will turn up.vi Despite evidence of mounting student debt, declines in workforce participation, and stagnant wages, these economists believe the housing issue can solve itself within the

context of existing policies and current economic growth rates.

Yet from the perspective of most young Millennials these hurdles are both very real and huge indeed. Not addressing them will impact their lives—and the nation's economy—for decades to come.

LOVE AND MARRIAGE: MILLENNIAL STYLE

From 1920 to 1940, when members of the GI Generation were about the age that Millennials are today, the median age for a first marriage was 24.4 for males and 21.3 for females, numbers that remained fairly constant until the 1980s. In the 1990s, the median age for first marriages by Generation X males rose to 26.5 and 24.5 for females.^{vii}

The early marriage age in the 50s and 60s sparked a rapid growth in suburbs; the percentage of Americans living there doubled after World War II. By 1970, 38 percent of Americans lived in the suburbs and, by 1980, 45 percent did, triple the rate of suburban home ownership than before WWII.^{viii} As of 2012, nearly 75 percent of metropolitan area residents live in suburban areas.^{ix} Overall, 44 million Americans live in the core cities of America's 51 major metropolitan areas; more than half of them live in areas that are functionally suburban or exurban with low density and high automobile use. Meanwhile, nearly 122 million Americans live in the suburbs.^x

Will Millennials reverse this pattern? Clearly they are marrying even later: the average age of first marriage in the United States as of 2011 was 28.7 for men and 26.5 for women.^{xi} This trend has caused more to linger longer in cities and postpone home ownership until much later in their lives. Furthermore, in line with their more urban existence, the fertility rate has fallen from the replacement rate of 2.1 for Generation X to 1.9 for Millennials.^{xii}

But this doesn't mean Millennials aren't interested in starting a family later in life.

A Pew Research Center report found that among those who have never married and have no children, 66 percent wanted to marry and 73 percent wanted to have children.xiii Although they may be late to the family party, the large size of the Millennial Generation, almost double that of Xers, means there are still plenty of families being formed, just not at the rate that historical precedents suggested would happen. In fact, the absolute number of household formations rose to their highest level in a decade in 2014.xiv The trend continued in 2015 as more and more Millennials entered the prime age for getting married.

These Millennial trends in marriage and parenting can be explained, in part, by the impact of the Great Recession and more than a decade of stagnant wages. But they are also due to "cultural changes over time...including more women in the workplace, the increased amount of higher education among members of the generation, particularly females, and greater social acceptance of premarital sex, birth control, and cohabitation before marriage," according to Christine Elliott and Williams Reynolds III of Deloitte University Press.^{xv} For example, one of the reasons members of the Silent Generation got married so young in the 1960s was so they could have socially acceptable sex. No such incentives exist for members of the Millennial Generation.

Liberated from the straight jacket of gender determined roles in society, female Millennials now outnumber men in every type of higher educational pursuit. Almost 40 percent of female Millennials aged 25–34 have a bachelor's degree and about half of them are married, a greater percentage than among any other educational attainment cohort. Whereas few if any female 25–34 year olds had attended graduate school in 1964, 13 percent of Millennial females of that age have reached that milestone today. All of these gains outpace college educational gains among males in the same time period.



www.whitehouse.gov/sites/default/files/docs/ millennials_report.pdf

Millennial women who are not as well educated^{xvi} and do not have any economic stake in pursuing a career have their first babies, on average, at age 19 or 20. Well-educated moms have their first child around 28 or 29, usually after they have saved some money from their participation in the workforce. The delay in childbearing is greatest among those women with graduate degrees. Their average age for having their first child is now over 31, a full decade longer than their counterparts with only a high school degree. This represents a remarkable reversal of earlier trends over the last 25 years when more educated women were more likely to have children earlier than their less well-educated peers. In all likelihood, this phenomenon represents another kitchen table conversation about family finances with more educated females having more to

lose by stepping out of the workforce and their preferred career track by having a baby than their less educated counterparts.^{xvii}



In a sense, the cultural changes that society has witnessed, driven by a new set of Millennial beliefs and values about the role of women in society, has run up against the realities of today's economy. The best solution to overcoming this obstacle would be a growing economy with wages increasing comparable to what transpired in the 1990s. Expanded parental leave policies from companies such as Facebook and Netflix introduced for both their male and female employees might also impact this trend, or at least the timing of starting a family. Other solutions designed to artificially increase wages or provide tax incentives are much less likely to overcome the strong cultural trends impacting family formation that are embedded within the Millennial psyche.

MILLENNIALS WANT A PIECE OF THE AMERICAN DREAM, IF ONLY THEY COULD AFFORD IT

Not only when they marry but also where these new families choose to reside will have an enormous impact on American living patterns for decades to

come. Despite what some of have written about Millennials being a "sharing generation" averse to owning things, the generation's actual attitudes or aspirations toward home ownership are remarkably similar to those of previous generations. An Urban Land Institute study, conducted at the end of 2014 of Americans between 19 and 36 years of age, found that Millennials remained determined to eventually own their home, with 70 percent of them planning to do so by 2020. "The Great Recession has not dimmed the generation's preference for single-family homes, mostly detached," wrote Leanne Lachman, the survey's co-author, a real estate consultant and a Columbia Business School executive in residence, in a report outlining the survey's findings.xviii

The same percentage of renters as home owners in the New York Federal Reserve's Survey of Consumer Expectations in February 2014 thought home ownership was a good or very good investment.xix Almost 65% of millennials aged 21 to 34 looked at real estate websites and apps in August, and the market share of first time home buyers of existing homes increased to 32 percent from 28 percent in July of the same year. Realtor.com's chief economist, Jonathan Smoke, found that 25-34 year olds were 70 percent more likely than the average adult to be looking for a home to buy on realtor.com. He estimated half of all home sales activity for the first half of 2015 could be attributed to first-time buyers and, according to the NAR 2015 Home Buyer and Seller Generational Trends report, Millennials comprised 68 percent of all such buyers.xx

"People who believe that Millennials are disinterested in home ownership are grossly mistaken," said Smoke. "This generation hit the job market during one of the largest recessions of all time and they've had to work hard to establish credit and save for a down payment."xxi

One solution for Millennial couples unable to qualify for a mortgage is, of course, to rent a course of action many young families just starting out in life have traditionally pursued. The New York Federal Reserve study found the number one reason renters gave for not buying a home was they didn't have enough money saved for a down payment or had too much debt. A majority also reported that their incomes were too low to support the payments on a mortgage. These responses nicely summarize the economic barriers to Millennial home ownership. As a result, the typical first-time home buyer now rents for six years before buying, up from 2.6 years in the early 1970s, according to a new analysis by Zillow.xxii The median first-time buyer is 33—in the upper range of the Millennial generation, which roughly spans ages 15 to 34. A generation ago, the median first-time buyer was about three years younger.

Ironically, many Millennials are being pushed into the home buying market by continuously rising rents that are making all forms of housing increasingly unaffordable. As Svenja Gudell pointed out, "We're also finding that-given how much rental rates are currently rising-a lot of folks are having a hard time saving for a down payment and qualifying for a mortgage."xxiii The oft violated rule of thumb says that families should not spend more than 30 percent of their budget on housing costs. But many young renters are paying more than that. "A striking 46 percent of renters ages 25 to 34—the core of the home buyer market among Millennials-spend more than 30 percent of their incomes on rent, up from 40 percent a decade earlier," according to a report by Harvard University's Joint Center of Housing Studies.xxiv

Along the coast, in cities such as



San Francisco, Los Angeles, New York, or Miami, rental costs exceed 40 percent of Millennials' median income, with many paying as much as half of their budget on rent. A minimum wage worker in Orange County, Southern California's most desirable suburban environment, would have to work 110 hours per week or over 15 hours a day to afford a one bedroom apartment where he or she worked.^{xxv} Inland, in cities such as Dallas, Houston, Chicago, and D.C., Millennials are spending just about 30 percent of their median income on rent. And the situation continues to worsen.

More striking than these regional differences is the new relationship between the costs of renting versus owning a place to live. By the fourth quarter of 2014, the average mortgage cost was just 21 percent of average household income in the Dallas area, compared to an average of 28.5 percent of a family's income being spent on rent. Across the country, it has become less costly on average for Millennials to own a home (21.4% of income) than to rent (30.1%).^{xxvi}



The percentage of income that the typical young worker (age 22 to 34) paid in rent.



Note – Washington and Dallas have yet to cross the 30% threshold, Los Angeles's mediar rent has been unaffordable since before 1979. Source: Zillow

MILLENNIALS TRYING TO BUY HOMES

For those who decide to take the plunge and buy a house, the tighter mortgage-qualification standards put in place after the Great Recession in reaction to the collapse of the financial markets when collateralized debt obligations (CDO) supposedly backed by sound mortgages turned out not to be worth the computer screens they popped up on present the first hurdle to their goal. To prevent such disasters in the future, Fannie Mae, whose reinsurance programs set the boundaries of risk that mortgage lenders will tolerate, prohibited certain types of mortgages altogether and emphasized a return to the traditional 20 percent down, thirty year term, fixed rate mortgages that had become the standard lending instrument when they were created to revive the nation's housing market after the Great Depression.

For a generation that has experienced falling wages and high levels of unemployment, this requirement can be seen as just too high a hurdle to even attempt to jump. Even if they can scrape up the money for the down payment, two-thirds of Millennials have a FICO score of under 680, limiting their ability to secure a government guaranteed mortgage and often saddling them with additional payments. Andrew Jennings, senior vice president and chief analytics officer at FICO said that "people in the 600 to 700 [credit score] range average have \$25,000 in non-mortgage debt mostly from credit cards and student loans." He pointed out that changes to the FICO score would make it easier for young adults with a thin credit history to qualify for a home loan. "One way to ease some households into ownership is to ease access to credit."xvii

Fannie Mae's Community Home Buyer program takes a step in that direction by lowering the down payment requirement for qualified buyers to just 5 percent. North Carolina and New Hampshire have also introduced programs that lower down payment requirements to 3 percent in an attempt to woo Millennials into buying a home in their state.^{xxviii} More of these programs should be enacted to knock down this particular hurdle facing Millennials.



(chart: https://www.whitehouse.gov/sites/default/files/ docs/millennials_report.pdf)

Much of their lack of credit worthiness stems from the lousy economic environment Millennials have experienced as they grew up. Americans between 18 and 34 years of age are earning less today than the same age group did in the past. The average earning of a Millennial was \$33,883 (in 2013 dollars) in the four years following the recession. This represented a drop in average wages of 9.3 percent in just a decade (after adjusting for inflation) and is the lowest average wage for this age group since 1980.xxix According to Rob Shapiro, a noted economic policy analyst, annual income gains for thirty something households (headed by Boomers) averaged 2.6 percent under Reagan and 2.4 percent under Clinton. Similarly

DEMOGRAPHIC ISSUES

aged households headed by members of Generation X under George W. Bush experienced income losses averaging 0.3 percent per year, followed by even greater losses averaging 1.8 percent per year among the first wave of Millennials in Obama's first term.^{xxx}

The situation is even worse for those with only a high school education. In a report written for the Brookings Institute in 2015, Shapiro showed that in the last century those with a high school education could expect their income to grow as they got older, even if it started from a lower base. This is no longer the case. In this century, those with only a high school education have actually experienced a drop in their earnings as they got older. Meanwhile, those with a college education not only start with an initially higher level of income, they can also expect to see their earnings grow in the course of their lives. College has become the ultimate hurdle in a Millennial's life, with failure to get a degree becoming a life sentence of lower economic opportunity.

The part about going to college that most parents worry about is not so much whether or not their child will get in and graduate, but how in the world they or their children will be able to afford to pay for their tuition bills. From 1980 to 2010 the price of tuition skyrocketed by 600 percent. In the same period, health care inflation rose by just over 200 percent. Meanwhile incomes for all but the top 5 percent of earners remained basically flat.

In many ways this crisis has been precipitated by the unwillingness or inability of government to absorb much of the burden for higher education. This follows a notion introduced by the Carnegie Commission in the 1970s that an educated workforce was not an investment that government alone should pay for, despite its proven benefits in expanding the middle class and the country's economy. Most people agreed with the report's argument that those who would benefit most directly from acquiring some sort of a degree-the student and their family—should pay an increasingly large share of its cost.



Up until 2000, future income was not dependent on college degree, but it has been ever since.

CO Campaign Rev Free College Totion Source The Brooking Instances. The Brooking Instances. The Brooking Instances. The Brooking Instances.



Result of Disinvestment has been rapid rise in price of tuition

Coupled with the inability of states, particularly after the Great Recession, to subsidize the cost of college at historical levels, this policy led to families in 2014 shouldering the majority of the cost of sending their child to college for the first time in the nation's history. Overall, the share of higher education costs paid for by students and families increased from 33 percent in 1977 to just under 50 percent in 2015. for them and for the American economy, particularly its housing industry.

Student loan debt doubled from 2007 to 2015. It now exceeds \$1.2 trillion in the United States, more than the country has borrowed to pay for all the cars on the road today.^{xxxi, xxxii} The average debt for a college graduate in 2015 was \$35,000. Eight million former college students are now in default on their student loan debt with no way to discharge that obligation



1952 1955 1958 1961 1964 1967 1970 1973 1976 1979 1982 1985 1988 1991 1994 1997 2000 2003 2006 2009 2012

Faced with the need to somehow pay for school, students and their families turned to student loans as the default solution. The result has been a disaster in bankruptcy.^{xxxiii} Only 49 percent of Millennials manage to graduate college with less than \$10,000 in debt, a major shift from the 74 percent of the Baby Boomer generation who were able to do so.^{xxxiv} According to a recent iQuantifi study, Millennials aged 21-25 shoulder an average of \$13,116 in debt. Millennials in their late 20s carry \$46,622 and Millennials in their 30s harbor an average of \$69,552.^{xxxv} All of this presents an enormous headwind that the first time home buyer must overcome.

Under these circumstances, the clearest, most compelling action to grow the housing market would be to do something about Millennials' student debt. A staggering 56 percent of Millennials between the ages of 18 and 29 who have student loan debt told Bankrate. com that they have delayed major life events because of their debt burden, with home buying the number one thing they have put off doing.^{xxxvi} Thirty percent of millennials (versus 22% of adults overall) say that student loans have forced them to delay buying a home.^{xxxvii}

To make it easier for Millennials to leap the other hurdles to home ownership without the deadweight of student debt on their back, some have proposed to go so far as to declare a "jubilee year" and have the nation simply forgive the \$1.2 billion in outstanding student loan debt. Home developers might well be a major beneficiary of such a windfall, although bailout of student loan debt at this scale is unlikely to occur any time soon for both financial and political reasons.

A smaller and more personal solution to the problem is offered by the Public Service Loan Forgiveness program. It allows students to have their loans forgiven if they work for government or for certain not-for-profit organizations. Unfortunately, the time period under which a person must serve—ten years for the federal government, for instancemakes the actual impact of this law seem more like indentured servitude to those working under its provisions.

Other solutions also exist or are under discussion. The Obama administration has greatly expanded eligibility for "income based repayment" (IBR) loans, which limit annual loan payments to a specified percentage of a person's income, usually ten percent, and are forgiven even if the debt is not fully repaid after 20 to 25 years of payments depending on the particular terms of the original student loan. Some have proposed making IBR loans the standard for all federally guaranteed student loans, while others believe they represent too much risk for the federal government to undertake. Even if this type of loan becomes more prevalent among future home buyers, it still would mean lenders would have to take ten percent of a prospective home buyer's income off the table when it comes to determining the buyers' qualifications for a mortgage, thereby lowering the value of a home the buyer might consider.

Some presidential candidates have joined the chorus in favor of allowing student loans to be refinanced, just as many people do with their home loans. About 25 million borrowers are estimated to be locked into higher rates that student loans require today. For these borrowers, such a plan, which many states have also started to explore, would reduce their loan payments by thousands of dollars early in their careers, making it more financially feasible for them to consider taking out a mortgage to buy a house.

The states of Tennessee and Oregon have gone one step further in terms of reducing the scope of this problem in the future. The Republican governor in one state and the Democratic legislature in the other enacted laws that make their community colleges tuition-free. President Obama has proposed doing the same thing for all the nation's community colleges in partnership with the states. Other communities from Kalamazoo, MI, to El Dorado, AR, have used personal or corporate philanthropy to make all levels of college tuition-free for their high school graduates.^{xxxviii} The idea continues to spread since the initial program was established in 2005 in Kalamazoo with over 30 cities now offering some form of this benefit to their youth in the hope of increasing the number of families who want to live in their community and stimulating their local economies.

More directly, new home developers and lenders could begin to accept student loans as a fact of life for the Millennial market, and generate innovative new offerings to address the issue. One idea is to rent a home to Millennials under terms that lower the price if they elect to buy it in the future, just as is done with many car leases today. One such experiment is being offered in Miami for two unit town houses whose sales price is 21 percent lower than it would be otherwise.xxxix Another would be to find lenders willing to consolidate student debt into a larger home mortgage, with the lender trading the benefits of a loan not dischargeable in bankruptcy to a theoretically safer loan that uses the physical collateral of a house. Finally, builders and banks could take advantage of the Millennial Generation's love of their parents and build housing designed not just for multi-generational living, but multi-generational financing, with different members of the family responsible for the mortgage payments at different times over the period of the loan.

WHEN MILLENNIALS DO BUY, WHERE WILL THEY LIVE?

Much has been written about where Millennials will buy a home. Some urbanists hope that Millennials will embrace the denser, less suburban lifestyle these pundits favor. Yet survey research and moves by older Millennials belie these assertions.

According to the Urban Land Institute's (ULI) most recent data,^{xl} only 13 percent of Millennials live in or near downtowns; 63 percent live in other city neighborhoods or suburbs. The number of downtown dwellers was 12 percent in ULI's 2010 survey. In fact, the Commerce Department reported that more Millennials moved to the suburbs from the city than vice versa in 2014.^{xli} So even though some young Millennials, especially right after college, do move into urban neighborhoods, which certainly benefit temporarily from their presence, most think of the suburbs when their thoughts turn to raising a family.

The National Association of Home Builders survey in January 2014 found that most of their Millennial respondents intended to purchase a single family home in the suburbs;^{xlii} another survey put the figure at 66 percent. Both studies confirmed the ULI findings that 75 percent of Millennials expected to live in a single family, detached house by the end of the decade.^{xliii} The myth of a new urban dwelling generation largely misreads the difference between "age related" effects and generational attitudes and beliefs. This misreading has impacted homebuilders who have built fewer homes that Millennials want and can afford, reducing the supply and driving up the price. The result is what economist

Jed Kolko calls the "Millennial mismatch—Millennials can afford markets where they don't live, but they can't afford many of the markets where they do live." ^{xliv}



(chart: Urban Land Institute's Gen Y and Housing report, uli.org/wp-content/uploads/ULI-Documents/Gen-Y-and-Housing.pdf)

One way this lack of affordable housing manifests itself is the continuing phenomenon of Millennials living in their parents' house. Despite their improving economic circumstances, a Pew Research Study found that about 42.2 million Millennials, or 67 percent, were living independently in 2014, compared with 42.7 million Millennials, or 71 percent, who did so before the recession in 2007. Since 2010, the percentage of Millennials moving back in with their parents actually increased from 24 percent to 26 percent.xlv While this behavior may temporarily balance the demand for housing with its supply, it greatly increases the number of Millennials missing from the country's housing market.

HOW TO GET MILLENNIALS BACK IN THE MARKET

There are, however, some examples of what would attract these missing Millennials into the housing market. Almost all of them are successful because they have built upon the most fundamental of Millennial behaviors the desire to share their experiences. And almost all of them make it possible for Millennials to afford a lifestyle they can share with families and friends.





Source: Urban Land Institute | WSJ.com

First on the frugal Millennial's wish list is the need for the house to be affordable. According to a Rent.com survey of 1,000 Millennial renters, nearly half said they moved to a different city than the one they grew up in, mostly because of the job opportunities that city presented.^{xlvi} Given the generation's strong ties to their family and their friends, this finding puts an exclamation point on how important a consideration affordability is for Millennial first time home buyers.

As Millennials continued to enter the housing market, their desire for a more affordable home became evident not just in survey data but actual buying behavior. For instance, 60 percent of those who took out a mortgage to buy a home in August 2015 in Des Moines, Iowa were 25-34 years old. The top ten markets where Millennials dominated the home buying market that month were also ones with very affordable housing prices, with the exception of Provo, Utah. The cheapest big city in America in terms of housing prices, Pittsburgh, was the only one to make the list.^{xlvii}

Beyond a place they can afford, the

10 Cities for First-Time Home Buyers

Where millennials made up the highest share of people to use a mortgage to buy a home





next thing Millennials want is to own a home they can share with their family and friends. Millennials "want to live where it's easy to have fun with friends and family, whether in the suburbs or closer in," says M. Leanne Lachman, one of the authors of the Urban Land Institute's study. "This is a generation that places a high value on work-life balance and flexibility. They will switch housing and jobs as frequently as necessary to improve their quality of life."^{xlviii}

Only about 28 percent of Millennials told the Demand Institute's Housing and Community Survey^{xlix} that they needed grocery stores and restaurants within walking distance of their next home, which is a common characteristic of urban environments. But more than half wanted such amenities to be within a short drive. This creates the demand for compact, livable communities that crop up in less-dense areas, but remain fundamentally suburban albeit with more options for walking, bike-riding and closer shopping.¹ Unfortunately, these characteristics make many places in America, particularly its large coastal metropolitan areas, off limits to young Millennial families. It's yet another hurdle they must overcome, often sacrificing their desire for shorter commutes to work and time with family to find a place to live that they can afford and safely raise their family.

When they find the place they want to live, Millennials look

for the type of housing that makes for a great living experience. It doesn't have to be large-the most common size of a first time Millennial buyer's home is less than 1,200 square feet. Half of all homes purchased by Millennials average less than 1,650 square feet and cost less than \$148,500.^{li} But it does have to be high tech with an open floor plan, making many older homes unsuitable or strictly fixer uppers for this new generation of buyers. For instance, a generation ago, formal dining rooms may have been on every buyer's wish list, but today they hold little appeal because of the way Millennials entertain. Millennials often convert space originally conceived as a dining room into a home office and move the food fest outside, weather permitting, or into the kitchen where the joys of cooking can be shared.^{lii}

A majority of Millennial home buyers believe the technological capabilities of

a house are more important than "curb appeal." More than 13 million Americans work from home and all signs point to that trend continuing, especially among high tech Millennial workers. Many of them see their home as a place to "do work," not just a place to return "after work." They want to hear about the strength of the mobile carrier's signal in the house and its Internet speeds, not the embedded infrastructure of cable wires and land lines.^{liii} Few if any of these desired attributes are present in older suburban tract housing, which further constrains the supply of houses for Millennials, presenting yet another obstacle in their path to home ownership.

Breaking the current chicken and egg standoff between the demand and supply of Millennial style housing will require developers to stop listening to those who claim that Millennials aren't interested in owning homes—or anything else—and focus on the market opportunity staring them in the face. Realtor.com's chief economist Jonathan Smoke suggests that the supply of homes for Millennials is the key to igniting the next housing boom. "Despite the increased role of Millennials in the housing market, setbacks still exist and are preventing first timers from making even more of an impact," says Smoke. "As inventory returns to more normal levels, expect the blooming of Millennial homebuyers to turn into a boom."liv

Recent research from Zillow, for instance, found that adults age 22 to 34 were actually more eager to own a home than older Americans.^{1v} If all the surveys of Millennial attitudes weren't convincing enough, the actual home buying behavior of Millennials who can afford to buy a house should finally get builders off the investment fence. According to Zillow's data, young married couples in which both partners work own homes at a rate close to or above historical norms for that demographic. Even single employed Millennials are slightly more likely to own a home than their counterparts in the 1970s, 1980s, or 1990s.^{Ivi} All that's needed, it would seem, to bring missing Millennials into the housing market is a larger supply of homes they want to buy. In short, build, builders, build.

Home building, especially construction of single-family stand-alone residences, has not rebounded as much as it should given the last few years of ultralow mortgage rates.^{lvii} For example, the number of single family housing starts and completions were both lower in June than in May of 2015, even as family formations hit highs not seen in a decade. Both of the top two reasons older Millennials gave to realtor.com for not having bought a house yet had to do with the limited supply of affordable housing. ^{lviii} It's not up to Millennials to build the houses they want to buy, it's up to those with the insights and market leadership skills to step in and create the supply and knock down this last hurdle to Millennial home ownership.

MISSING MILLENNIALS ARE A ONE TRILLION DOLLAR OPPORTUNITY

A Demand Institute survey of more than 1,000 Millennial households suggests the generation will generate \$1.66 trillion in revenue between now and 2020, using an average home sale price of \$200,000, based solely on Millennials' desire for home ownership and their arrival in the peak new starter home buying ages of 25–34 years old. If current conditions hold, it predicted the number of Millennial households would rise by 8.3 percent over the next five years, from 13.3 million to 21.6 million.

But the Institute's own data comparing existing home ownership rates among Millennials based on student debt suggests that just removing the burden of student debt would increase these numbers even more. According to their findings, debt elimination would increase the number of home owners among 25-34 year old college graduates by 24 percent, 16 percent among 25–29 year olds, and eight percent for 30-34 year olds.lix Based on the cohort's current population that would represent over five million more homeowners or \$1 trillion in new home purchases. But some portion of that population would actually be forming joint households. If 60 percent marry each other, that would still mean an additional three million new home buyers, or a roughly \$600 billion dollar increase in market sales over five years from just this one barrier-busting move.

headed by those under 40 who owe at least \$250 in monthly student loan payments has tripled since 2005 to 5.9 million. Multiplying those numbers times an average home sale price of \$200,000 leads to their \$83 billion conclusion—or \$415 billion over five years.^{1x}

Others put the impact on the housing market of missing Millennials at more than twice that level by taking a look at the entire panoply of financial hurdles the generation faces, not just student debt. A Ned Davis Research report suggested these hurdles caused a drop in demand for housing from Millennials of three million homes, for an annual market impact of \$600 billion. Their estimate suggests "missing Millennials" represent more than a 1.3 trillion dollar market opportunity over the next five years. Whether the housing market will enjoy that type of revenue growth depends a

College Degree and Debt Load Key Millennial Buyer Qualifiers



A separate analysis by John Burns Consulting argued that just the hurdle of student debt cost the U.S. housing market \$83 billion dollars in sales last year. They estimate that every \$250 in monthly student loan payments decreases home borrowing and purchasing power by \$44,000. The number of households great deal on how hard it focuses on the hurdles facing this critical home buying cohort.

Although no one is going to wave a magic wand and make student debt disappear overnight, it is possible for government to take aggressive steps to limit if not eliminate these obligations. Furthermore, easing of credit and down payment requirements would have an immediate impact on Millennials'

decision to buy a new home. More generous parental leave policies on the part of the nation's employers, either by their own initiative or government mandate, would help accelerate the pace. And policies designed to actually grow wages and expand the economy, such as easier access to affordable higher education, would certainly help a generation struggling to put together the money they need for a down payment. Longer term policy initiatives designed to increase the supply of housing are certainly worth exploring, but the likelihood that they will be put in place in time to help the bulging number of Millennials moving into early adulthood is not high. Altogether, these initiatives could add at least an extra trillion dollars to the nation's housing market and make Millennials so much more a part of that market than they are today. It's time to give the country's next great generation, Millennials, the same chance earlier generations had to become home owners. We need to help them overcome the hurdles they face in joining this coveted group of American families. Fortunately, the housing industry has it within its power to take the first steps to provide Millennials their piece of the American Dream, helping ignite a housing boom that will spark an economic boom for the entire nation.

FROM THE OLD AGE HOME TO BOOM MARKET

By Joel Kotkin and Tim Cisneros

In the coming decades, the United States, and other high-income countries, will be faced with a novel challenge—how to house a vastly expanded population of seniors. By 2050, the US population over 65 will double to 80 million. More than 10,000 baby boomers are turning 65 every day.ⁱ

This is a change of historic proportions. Since 1900, the 65+ American population has more than tripled from 4.1% in 1900 to 14.1% in 2013 (from 3.1 million to 44.7 million). In addition, the age groups have also increased substantially. In 2013, the 64–75 Figure **1**

Projected Household Growth by Age: 2015-2025 MILLION OF HOUSEHOLDS





age group (25.2 million) was 10 times larger than in 1900, the 75–84 group (13.4) million increased 70%, and the 85+ age group (6 million) is 49 times larger.ⁱⁱ

This dramatic increase in longevity suggest seniors will experience the fastest growth of any age group, including millennials. Between 2015 and 2025, the number of senior households, according to the Joint Center on Housing Studies at Harvard University, will grow by 10.7 million, compared to just 2.5 million between 35 and 44.ⁱⁱⁱ

Seniors, particularly the baby boomer generation, possess the wealth to impact the entire housing market for years to come. Boomers represent 44% of the US population, and their buying power will remain considerable. In the next five years, notes The Nielsen Company and BoomAgers, they're projected to hold 70% of US disposable income and buy 49% of total consumer-packaged goods. What's more, they stand to inherit \$15 trillion in the next 20 years. Seniors are the one age group in society to have made significant economic gains; the profile of America's affluent middle class is aging.^{iv}

Not surprisingly, many developers are targeting this market which, unlike the millennials, has the cash to buy new properties or pay higher rents.^v In the next five years, according to a Conference Board study, they will account for nearly \$1 out of every \$4 spent on home purchases and rent in the next five years. Overall, during that time, Boomers will spend \$1.9 trillion on new home purchases and \$500 billion on rent.^{vi} Remarkably, almost half plan, if they buy a new residence, to upsize into a nicer, more spacious home rather than downsizing.^{vii}

GETTING IT RIGHT ON SENIORS

To best understand the trajectory of this market, one has to focus on both the stated preferences of seniors and, more importantly, to track their actual behavior. For example, the growing tide of seniors are widely seen as fostering the "back to the city" trend. Some news reports have claimed that "millions" of aging boomers, now relieved of their children, were leaving their suburban homes for city apartments.viii Some assert that suburbs, being car oriented, will become impossible for seniors as they get older, although eventually autonomous vehicles could allow boomers to drive well into their 90s.ix

Simply put, the "back to the city" meme conflicts with both preferences and actual behavior of seniors. Seniors, according to industry research, are seven times more likely to buy a suburban house than move to a more urban location. Not surprisingly, nine of the top 10 counties for active senior housing are in suburban locations.^x "The suburbs used to be 'Ozzie and Harriet' land --- places with young families with kids," notes Brookings Institution demographer Bill Frey. "Now these same households are empty nesters, aging boomers and seniors, making these places much grayer than they've ever been before."xi

This suggests many opportunities as well for new development in the suburbs. Developments for "aging-in-place" projects are often in first-ring suburbs, which provide the pricing objectives for land, accessibility to the urban core, and short commute distances to high-end shopping. In short, the same parameters that attracted the original buyers of homes in those neighborhoods could also lure older consumers.

This trend is unlikely to change in the future. A National Association of Realtors survey found that the vast majority of buyers over 65 years old looked in suburban areas, followed by rural locales.^{xii} In contrast, relatively few seniors are likely to give up their homes for condos in the city center; a study by the Research Institute for

Figure **2**





From 2000 Census & American Community Survey 2008-2012: City Sector Model

Figure 3

Empty Nesters: To Less Dense Areas



MAJOR METROPOLITAN & SMALLER AREAS

Housing America suggested that barely 2 percent of all "empty nesters" seek an urban locale.^{xiii}

It turns out that for most seniors, at least initally, it's often about home sweet home. A 2011 survey by the real estate advisory firm RCLCO found that, among affluent empty nesters, 65% plan to stay in their current home, 14% will look for a resort-type residence, and only three % would opt for a condominium in the core city. Most of those surveyed prefer living spaces of 2000 square feet or more. RCLCO concludes that the empty nester "back to the city" condominium demand is 250,000 households nationwide, a lucrative but small market out of the 4.5 million empty nester households in the metropolitan areas studied.xiv

THE OLD OLD AND YOUNG OLD

Why are seniors, like millennials, not acting in the manner many pundits and planners have predicted? In some ways, this reflects the changing nature of the senior population. In the past, people

Figure 4

65+ Owners & Renters by Residence UNITED STATES 2009



Outside Metropolitan Areas
Suburbs
Central Cities

Source: Joint Center for housing Studies of Harward, 2014

simply got old, and usually fairly quickly departed. Once past 65, one entered heaven's waiting room, and could expect a brief future on earth, as debilitation and disease took their inevitable toll.

Yet with advances in medicine and a growing proportion of people who work in non-physically demanding jobs, the definitions are changing. As the novelist T.C. Boyle has envisioned, we increasingly have two kinds of seniors what he defines as "young old" as opposed to "old old".^{xv}

The "young old" are, by definition, active in their lives, playing sports, and engaging in varied social activities. In fact, retirement communities in Florida now sport some of the highest rates of sexually transmitted diseases --- and, as proudly asserted by one of the largest communities, the highest consumption of draft beer per capita in the state. In contrast, the "old old" tend to be those who need long-term care, a group that is also growing. It is anticipated that the number of seniors who will require longterm care will increase from 12 million in 2010 to 27 million in 2050.^{xvii} The residential projects for the "young old" are often not so different than those which might appeal to younger couples, with some modifications. These include large entertaining areas, outdoor spaces with summer kitchens and "cocktail" pools, luxurious master suites with two-person showers (of course ADAaccessible), home offices, usually two, and very little guest areas or accommodations, although office areas can be converted for



this use.

Essentially these two populations are very different. But in the near future the largest new contingent will be from the ranks of, the "young old", a group that is generally better off physically and economically than the "young old" of previous generations. They represent a new, emerging kind of demographic group, made possible by such things as advances in medical technology and careers that place less emphasis on physical labor.^{xviii}

Perhaps the biggest determinant of choices made by the "young old" will be their tendency to remain in the workplace, something that has been made more possible by the proliferation of jobs that are not physically demanding. In 2013, nearly 40 percent of men and 30 percent of women between the ages of 65 and 69 were still working, almost twice as large a segment as in the 1980s.^{xix} A recent survey found that roughly half of all boomers are still working, and forty percent will still be doing so in five years.^{xx}

Clearly the old notion of a "retirement age" is being repealed by changes in biology. When the retirement age was first set at 65 in 1881, average life expectancy was 47; today it is 84 for women and 80 for men. Employers, notes AARP researcher Eva Kaplan-Leiserson, generally find older employees have lower turnover rates, are interested in developing new skills and are very reliable.^{xxi}

Many factors are pushing older workers into entrepreneurship, including the loss of corporate jobs and the ability Figure **5**





Currently Retired
Will be Retired in Five Years

to take advantage of accumulated experience and contacts. Senior entrepreneurship rates have grown while those of others, notably millennials, have dropped.^{xxii} Continued employment and self-employment, notes Joe Verdoorn, a planner and long-time consultant to companies such as Del Webb, will keep boomers closer to suburban and exurban locales than has been predicted, at least until this generation gets too old to maintain their houses, or to take care of themselves with limited assistance.^{xxiii}

AGING IN PLACE

Whether working or not, most seniors, particularly the "young old," will likely remain in their current residence or neighborhood for decades ahead. Recent AARP studies have found that not only did some 83% of members own their own homes—with the vast majority in the suburbs—but that only one in four expressed a desire to move.^{xxiv} Seniors, notes McKinsey, tend to more content, attached to their communities, and have much equity in their homes than younger generations.^{xxv}

Seniors tend to stay for many reasons. Many seek to stay close to family, community, church and friends. They also tend to identify their house with maintaining their independence. This preference for aging in place suggests that younger seniors will remain in their Figure **6**



Kauffman Index of Entrepreneurial Activity by Age (1996-2013)

primarily suburban homes for a long time.^{xxvi} And if they move, including into an assisted living or nursing home, most will stay close to home; by some estimates fewer than two percent move to another state; certainly far fewer are moving to Florida than in previous decades.^{xxvii}

This preference to live near their longtime residence may persist

Figure 7

Top Reasons Why Retirees Would Not Leave Their Current Home



among the "old old." AARP studies have found that only one in four seniors expressed a desire to move, even at the last stages of life. Most would prefer to get long-term care close to their longtime residence.^{xxviii} Rather than try to force seniors out of their homes and neighborhoods, notes a report from the American College of Physicians, it might be better to focus on serving those aging in place, which is not only preferred but generally far less expensive.^{xxix}

There seems a strong desire among many citizens not to separate themselves from other age groups. Over two thirds of seniors over 65 also prefer to live in communities with different generations, not predominately a

Figure 8

Type of Neighbors People Prefer, by Age



community of "their own." The message from most is that they don't want to detach from the rest of society, at least until it becomes a physical necessity. ^{xxx} Clearly as the "old old" population grows, of course, the demand for nursing and assisted living facilities can be expected to expand rapidly.

These trends will place new challenges for communities, particularly the suburbs. Originally built for families, many may need to "retrofit" to accommodate older people, with provisions for new transportation and housing options, including senior oriented housing.^{xxxi} In the future, it is likely that more people will get the care they need at home. Indeed, according to the Bureau of Labor Statistics, home care aides will experience among the highest increases in employment-some 50 percent from 2012 to 2011-of any profession.^{xxxii} Ironically, many of these workers—some 28 percent—are over 55 themselves.xxxiii

Perhaps the biggest challenge will be mobility as people age. Few seniors take transit, and more flexible systems shuttles, vans, taxis, Uber and eventually autonomous cars—could help as seniors pass the age of driving comfortably.^{xxxv}

One reason for building more senior oriented housing is that much of the suburban housing stock itself is usually un-usable and substandard for long-term use as an aging-in-place structure. The standards for ADA-accessibility are rarely met and it would be too expensive to retrofit. The most advantageous option often is to buy in these transitional neighborhoods, demolish the existing structure and build new. Whether custom, or potentially from a builder delivering an "aging-in-place" product, the pricing, expected quality and requested amenities are more probably achieved in this scenario.

Top 5 Fastest Growing Occupations

20 OCCUPATIONS WITH THE HIGHEST PERCENT CHANGE OF EMPLOYMENT BETWEEN 2012-22



TOWARDS FXURBIA AND BEYOND

Mechanical

Interpreters

Remaining in traditional suburbs represents a large trend in senior housing, but, among those who choose to move, the tendency is to migrate further out rather than into the core. Between 2000 and 2010, more than 99 percent of the increase in population among people aged 65 and over in major metropolitan areas was in counties with densities below 2,500 per square mile. Movement of senior citizens to the highest density counties was limited to 0.6 percent. More than 40 percent of the senior citizen population increases in major metropolitan areas were in counties with population densities below 500 per square mile.

And what about those boomers who do choose to buy homes? A National Association of Realtors survey found that the vast majority of buyers over 65 looked in suburban areas, followed by rural locales, and finally urban locations, which received about ten percent of the all total.xxxvi Some of the hottest areas for seniors, notes author Joel Garreau, are at

the edge of the metropolitan areas, which is no problem for those seniors who can commute by computer if they wish to work.xxxvii

This trend is unlikely to change in the future. A National Association of Realtors survey found that the vast majority of buyers over 65 years old looked in suburban areas, followed by rural locales. xxxviii

Ultimately, boomers, as they age, have less of a need to be close to work, and thus have more freedom to choose locations that might offer more amenities, peace and quiet, safety and affordability. As a recent McKinsey report shows, two-thirds of people in their thirties place great emphasis on being close to work, but that number drops to six percent at 65 and above.xxxix

Critically, most seniors prefer to live, like most Americans, in single-family homes. In reality, the percentage of people over 70 inhabiting multi-unit buildings has been dropping for decades, and despite a recent uptick that started with the recession, remains at well below the 25 percent rate compared to 31 percent in 1979.^{xl} Seniors, particularly the "old old," will remain a key growth market for multi-family housing, but many will

Figure 10

Increased Purchases in Senior-related Housing

	over 50
Share who purchase a home in senior-related housing	14%
Among buyers over 50 who purchased senior related housing	
Types of home purchased:	
Detached single-family home	63%
Townhouse/Row house	8
Apartment/Condo in building with 5 or more units	12
Duplex/Apartment Condo in 2 to 4 unit building	7
Other	11
Location:	45%
Suburb/Subdivision	21
Small Town	10
Urban/Central City	7
Rural Area	17
Resort/Recreation Area	

likely stay in single family dwellings for much, later into their retirement years.^{xli}

Greater longeivity essentially creates two different markets. As more boomers

enter their 80s and above, there is likely to be an increase in the numbers living in multi-family locations. Barely 20 percent of people at 70 live in such structures, while those over 85, the number rises to close to 35 percent. This suggests that a decade or two from now, when the boomers start becoming "old old," there could be a significant market for denser housing, although given their preferences and economic factors, this will also likely take place largely outside the urban cores.^{xlii}

THE IMPORTANCE OF FAMILY CONNECTIONS

A key driver for the older population—as it is for millennials—appears to be familialism. Although the vast majority of seniors don't have children at home, estimates run that roughly eighty percent have offspring.^{xliii} So, while only one in four US families have children at home, kinship ties between generations may be greater and more common, given the longer lifespans

Figure 11



% Of Older Households Living in Multi-Unit Buildings

Buyers

over 50

that grandparents and even greatgrandparents now experience.^{xliv}

In many ways, notes author Stephanie Coontz, the family is simply shifting away from the 1950s paradigm dominated by the nuclear family towards "blended" patterns associated with the more distant past.^{xlv} In 2010, one in 10 American children lived with a grandparent, a 64 percent increase from two decades ago.^{xlvi} Even if they are not the primary caregivers, notes McKinsey, seniors rank being close to family the number one reason to move from their current home.xlvii And, as an AARP study demonstrates, the health of seniors is boosted by having more regular contact with friends and family.xlviii

The pre-eminence of family considerations among seniors can be seen in a 2014 study by the US moving company Mayflower, which found that the biggest reason seniors move is to be closer to their children and grandchildren. Similarly, as many as one in four millennials have moved to be closer to their parents, often to enjoy life in more affordable communities and receive help with raising their kids.^{xlix} Grandparents are the primary caregivers for one in five children and overall family members provide some regular child care for nearly half of the country's pre-schoolers.¹

THE RETURN OF THE MULTI-GENERATIONAL HOUSEHOLD

For much of the post-war period, Americans increasingly shifted from multi-generational to nuclear familydominated houses. Such arrangements were very common in the past, but declined, in part, because of a diminishing status for the elderly, notes Canadian sociologist William Little. Seniors, who was once seen as conveyers of culture and wisdom, and preferred caretakers for children, were increasingly shunted aside and segregated from other generations.^{li}

But in recent years, this process of atomization has reversed. The number of people over 65 living with their children grew 50 percent between 2000 and 2007, according to the US Census Bureau.^{lii} Overall, the percentage of multigenerational homes has risen from a low of 12 percent of all households in 1980 to 16.7 percent of all households in 2009.





The last time multifamily households stood at this level was in the 1950s.^{liii}

Many major developers have recently targeted this growing market segment. Pulte, Lennar, and other among the nation's largest homebuilders, have all created houses—some with separate entry ways and kitchens—that appeal to

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multigenerational households.^{Iv} Home builder company Toll Brothers has started incorporating a guest suite with a kitchenette in lieu of the traditional family room.^{Ivi}

In a 2015 report by the National Association of Realtors, over 13 percent of all new homes purchased were for multigenerational families.^{lxi} In a 2015 report by the National Association of Realtors, over 13 percent of all new homes purchased were multigenerational.^{liv}

Another major factor driving the return to multi-generational housing, notes a Pew report, has been the rise of minority households; Latinos and Asians, as well as African Americans, who have nearly twice the percentage of multi-family households as non-Hispanic whites.^{lxii} The city with the highest percentage of multi-generational houses is Norwalk, a primarily Hispanic, close-in Los Angeles suburb. The state with the highest percentage of multi-generation households is the heavily Asian/Pacific Islander Hawaii.1xiii Living together allows for greater pooling of financial resources, something very common among

immigrants. But it was also seen by some 80 percent of those in multigenerational homes to "enhance family bonds."^{lixiv}

This, like home-based work, could help explain why, contrary to predictions, house sizes have expanded.^{lxv} A new record was set in 2012, with new homes 300 square feet larger than in 2000, although often on smaller lots.^{lxvi} Census Bureau data shows that even though the past two generations of Americans have had fewer children, the size of new homes keeps rising. This trend towards larger homes may reflect in part the desire, particularly among minorities, to have enough room for their families, rather than just a vulgar lust for ostentation and space.^{lxvii}

NEW MODELS: THE EXPERIENCE OF HOUSTON'S BOOMER HOMES

Three quarters of boomers, according to the Demand Institute, are seeking "a home I can grow old in," and

Figure 12

Multi-Generation Households



SHARE OF U.S. POPULATION LIVING IN MULTI-GENERATIONAL FAMILY HOUSEHOLDS, 1940-2008 (%) nearly sixty percent prefer a single story home.^{lxviii} "Fewer than a quarter of homes occupied by people 55 and older have a full complement of features, like no-step entryways, no steps between rooms, a full bedroom and bath on the first floor and wider hallways, that make them suitable for older people, according to the Joint Center for Housing Studies of Harvard University."^{lxix}

Those seeking to fill this rapidly expanding niche need to consider some major breaks with conventional suburban design. These features include:

- No wheel-stops in the garages so there is no grade separation between parking and house interior.
- Extra wide garage interiors so that car doors can swing wide and items such as wheelchairs can be removed from vehicles and stationed besides cars for loading/unloading.
- Accessible powder rooms as guests are frequently "in the same boat" physically.
- In one community, room for a golf cart was needed for community-internal transportation.
- Wider areas around the kitchen islands and counters for additional clearance for both the cook and guests.
- An area of work counter that is at a lower elevation than the standard 36" countertop level as a "wheelchair-accessible" food prep area. Usually this area is designated as a kitchen "office" desk until needed for accessibility.
- The usea of few upper cabinets which can be hard to reach for many seniors.

OTHER MODELS

Although most will age in place, or seek out something like a "boomer" house, many others do prefer an adult only environment. Studies show that when older people reside with others their age, they have more fulfilled and enjoyable lives. They feel less alone and isolated when surrounded with friendly, sympathetic, and helpful neighbors with shared lifestyles, experiences, and values.^{lxx}

Some estimate that roughly five to eight percent of boomers will seek out this kind of housing.^{lxxi} Perhaps the most exciting development here is the construction of "elder villages," dominated by other adults, which provide social activities, sports, and green open space. All of these can be associated with better health results.^{lxxii} Today, about 170 such villages are open and 160 are in planning stages.^{lxxiii}

One innovative approach—as opposed to building large scale complexes-may be to develop so-called "green houses" which are built for ten or twelve adults. They would functions not so much as an institution, but as a group lodging where people share the kitchen facilities. This could become an alternative to the current institutionalized assisted living facilities.1xxiv Another promising development has been creating grassroots networks in "naturally occurring retirement communities," some 2000 neighborhoods, urban and suburban, where seniors increasingly predominate. These networks provide seniors with valuable access to everything from caterers and dog walkers to doctors and legal assistance and transportation services.1xxv

LOOKING AHEAD

Ultimately the housing issues facing seniors can be best met by creating new housing options for both. A mix of housing options would not only meet the demands of seniors, but may also open up more housing options for the millennial generation. If seniors remain in their houses far longer than expected, there also needs to be developed housing including what Wendell Cox calls "new Levittowns"—to accommodate the entry level buyer and young families.

Some demographers insist that homeownership will continue to decline, due largely to economic stagnation, and to the growth of minorities, many of them poorer, in the housing market. Yet this leaves seniors in a potential bind if they cannot sell their homes due to lack of qualified buyers from the next generation.^{lxxvi} If there are not reasonable alternatives for millennials, seniors may well find that their homes, particularly in some regions, may be as much an albatross as an asset.^{lxxvii}

As we have seen above, most seniors, at least the "young old" will be staying in their old homes for a protracted period of time, tying down a large part of what might have been supply for younger families. The more we can create housing alternatives for seniors of all ages—multifamily arrangements, boomer homes, communities on the periphery—the better our chance of freeing up more housing stock for the next generation so that they too can continue to achieve their own version of the American dream.



"TO THE SUBURB!" LESSONS FROM MINORITIES AND THE NEW IMMIGRANTS

By Anne Snyder

When I was in college the suburbs were vilified. It was the mid-2000s, and here we were, enlightened coeds having one last hurrah in the flat Midwestern expanse before finding our place in the world, and there really was only one world to find: the city.

A lot was fueling this. Some of us were reacting to Walmart childhoods, the big box strip malls a symbol for all that embarrassed us about America – corporate consumerism, excess materiality, a primacy on efficiency over heart. Others found in urban contrasts a call to heal social divides. But whether motivated by altruism or hipsterdom, the city seemed like the only place to live a meaningful, "authentic" existence. We were taught that the suburbs were vanilla, bland, buffers for Boomers to hibernate with their own kind. Cities, by contrast, offered risk, adventure, diversity and grit.

Fast-forward a decade, and these differences have faded and even reversed. Sure, cities in the mold of New York, San Francisco, Chicago and Los Angeles still appeal to the young and mobile. But, lately, as housing prices in the most appealing urban cores skyrocket across the country, metropolitan centers find their middle class aspirants fleeing for greener and less expensive pastures.

Today, many suburbs are remaking themselves as formidable incubators for social mobility and globalism, their sprawl punctuated by street signs in other languages, strips of ethnic eateries, selfconfident civic innovation and a fresh aura of hope.

This suburban blossoming represents an underreported shift in settlement

patterns of our new immigrants and minorities. Where "To the city! To the city!" was the unquestioned mantra of newcomers landing on Ellis Island in the first wave of mass migration between 1880 and 1924, today's Latin Americans, Asians, Africans and African Americans are voting with their feet in a new direction. "To the suburb!" – if it didn't sound like a minivan's whimper – would be the banner of the day.

SOME FACTS

It would take a hermit lifestyle not to notice the demographic sea change that's swept the United States over the last three decades. European immigration, once the mainstay of growth for the U.S., fell 32 percent, even amidst the continent's hard times, from 2010 to 2013. In 1980, Mexicans accounted for the most populous group of foreign-born at 2.2 million, followed by Germans at 849,000. By 2010, the Mexican population had more than quintupled while European immigrants had fallen from being 36.6 percent of the total foreignborn population in 1980 to 12.1 percent in 2010.ⁱ Mainland China now follows Mexico at 2.2 million, with Indians and Filipinos close behind at 1.8 million each. Today, the sending regions with the largest numerical increases in the number of immigrants living in the United States since 2010 are East Asia (up 642,000), South Asia (up 594,000), Sub-Saharan Africa (up 282,000), the Middle East (up 277,000), the Caribbean (up 269,000), and Central America (up 268,000).ⁱⁱ

The swell of these "new immigrants" has revived perennial American questions around national identity that ever undergird our migration policy debates. The issues touch almost every region, with suburbs and smaller cities in the country's interior feeling them most acutely. Where Los Angeles, New York City and Chicago were once the obvious gateways to build an American life, now the cities in the South and West are increasingly attracting the foreign-born. Since 2000, 76 percent of the growth in the immigrant population has occurred in these smaller metropolises, with Pittsburgh, Indianapolis, Oklahoma City and Columbus growing the fastest.ⁱⁱⁱ A related trend is that as of 2007, four in 10 immigrants now move directly from overseas to the suburbs, eclipsing the urban experience that had always been the landing pad.iv

The Brookings Institution came out with an important report last year detailing these shifts. In 2000, more than half of the nation's immigrants lived in the suburbs of our largest metros. According to census data from 2000-2013, that number is now up to 61 percent. More than a third of the 13.3 million new suburbanites between 2000 and 2010 were Hispanic, with whites accounting for a mere fifth of suburban growth in that same period. Between 2000 and 2012, the Asian population in suburban areas of the nation's 52 biggest metro areas grew 66.2 percent, while that in the core cities grew only by 34.9 percent." African Americans have also been steadily moving from inner cities to the suburbs. The 2010 Census showed that each one of the nation's 20 largest metro areas saw a significant decrease in their proportion of black residents, with African Americans as a group shrinking from 65 percent urban in 2000 to 49 percent in 2010.vi

The regional details are even more

Figure 1

Progression around Seattle







striking. Since 2000, the suburban immigrant population has doubled in 20 metro areas. In 53 metro areas, the suburbs accounted for more than half of immigrant growth, including nine metros in which all of the immigrant growth occurred on the periphery:

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Chicago, Cleveland, Detroit, Grand Rapids, Jackson, Los Angeles, Ogden, Rochester, and Salt Lake City. Atlanta and Seattle, long skirted by immigrants and even now ranking outside the top 10 largest immigrant destinations, each added more immigrants to their populations than did Chicago, San Francisco, Boston, or Los Angeles. Crucially, since 2000, not one metro area has seen its foreign-born population in the suburbs decrease.^{vii}

What this means is that the suburbs as a whole are now equally, if not more diverse, than the populations living in most urban cores. They also are generally less ethnically segregated. viii Go to a Starbucks in Sugar Land, Texas, and you're more likely to stand in a line resembling the United Nations than anything you'd find in the center of Manhattan. Same goes for Fairfax, Virginia, where the demographics far out-pixelate Washington, D.C. 29.5 percent of Fairfax residents are foreign born, compared to 13 percent in D.C. 16.4 percent of Fairfax's residents are also of Hispanic origin and 19.2 percent are Asian, compared to only 10.4 percent Hispanic and 4 percent Asian in D.C.^{ix} Irving City and Carrollton just outside Dallas see their foreign born comprising 35 and 28 percent of their residents, respectively, while Dallas proper caps at only 23 percent. In Washington State, 34 percent of Bellevue is foreign born, while Seattle's foreign born stands at a mere 17.7 percent.

It's important to note that this movement to the periphery does follow overall population settlement patterns observed since 2000 – it is not simply an immigrant or minority phenomenon. As elite urban hubs suffer from high housing prices, experiencing then a widening chasm between the very rich and the very poor, the suburbs have become a harbor for the middle class to find more reliable footing. And while my suburban-raised college classmates and I turned our noses up at their presumed provinciality, an Aspen/Atlantic poll from three months ago showed that most Americans still consider a family-oriented, suburban neighborhood closest to their "ideal" in terms of where to live, with 53 percent of whites, 53 percent of African Americans, 53 percent of Hispanics and 63 percent of Asians aspiring to this future.^x

Recognizing that immigrant and minority migration patterns mirror shifts undergone by the population at large, there remains a texture to the suburban shift specific to both the contexts and the aspirations of today's immigrant and minority groups, a texture laden with distinct promises and challenges as many pioneer lives on a more sprawling landscape. Here is a closer look at why the New America is suburbanizing, and what this may bode for the future.^x

THE CASE OF HOUSTON

Take a drive westward from almost any major airport today and you'll see these worlds unfurling. In Houston, now the most ethnically diverse metropolitan area in the country, its white population is increasingly concentrated inside the inner loop (particularly millennial singletons) with everyone else settling beyond. As of 2013, over half of the city's immigrant population—56 percent—live in Houston's suburban municipalities, with 80 percent of the growth of the area's foreign-born population since 2000 occurring in the suburbs.^{xi}

This diversity shapes how I live. One recent Sunday, after waking up at 6:30 AM for a game of tennis with some Vietnamese friends who'd trekked in to Houston's inner loop from Sugar Land, I



Progression around Houston







found myself traveling the world in a zip code. The court transitioned to church at an all-black Methodist congregation 32 minutes from Houston's downtown, followed by a Peruvian brunch at a rotisserie chicken eatery sitting just across the street from a large Indo-Pakistani shopping plaza. I then wandered over to the neighboring Hispanic mall known as PlazAmericas before taking a right on Bellaire Boulevard to peruse flavors of shaved ice at Chinatown's Dun Huang Plaza and sampling Korean pears at the pristine Super H, with Latino shelf-stockers backing the Korean cashiers. Café Beignets, a Vietnamese interpretation of New Orleans charm, nourished with fried dough in the middle of a "Saigon Houston Plaza" that seemed to take its aesthetic cues from Pottery Barn, Asian-accented. All manner of sacred architecture beckoned from behind the strip malls, with the Buddhist Teo Chew Temple peeking out from beneath the tree tops and a dozen Spanish and African-speaking church signs within view around the corner.

This was all a suburban version of "verges" – the vortexes where civilizations clash and conceive a fresh dynamism. Only in this case it wasn't Istanbul; it was the Beltway crossing route 59.

Houston rightly carries a reputation as one of the most welcoming cities in the U.S. While cultural traditions from elsewhere are invited to express themselves, the first question most Houstonians ask is not, "Where are you from?" but "Where are you headed?" The environment is future-oriented, open and adaptable. Buildings are torn down one month and rebuilt the next. There's something for everyone, and the more outsiders come for jobs and the hope to establish a stable and happy life, the more Houston is texturizing to reflect the values and needs of the globe within it.

"I think Houston offers people an opportunity to entrench themselves," says John Tran, a second-generation Vietnamese lawyer in his mid-thirties, living in Sugar Land, also the town of his childhood. "It's one of those places that gives people time to assimilate at the same time that it also gives them time to develop their own identity."

The sprawl invites a tension to play out between tradition and innovation, stability and risk.

"The message is: Do it your own pace, do it your way, you have a home here," Tran says.

This is a great opportunity as well for the realtors and homebuilders as they reinvent the sprawling landscape to suit the aesthetic tastes of their diversifying clientele. Local architect Tim Cisneros is currently working on a \$10 million dollar Indian wedding facility in Sugar Land that will be capped by a helipad and bridge built to withstand an elephant's weight for the groom's entrance. Cisneros serves some of Houston's most entrepreneurial immigrants, his portfolio including a Chinese museum of history and culture ("Forbidden Gardens"), multiple Indian restaurants and a Messianic Jewish worship center. Each project involves an anthropological education. Cisneros recalls:

"When I was in the running to design a Daoist temple, I had to go to this ritual. They'd put the various names of the architect candidates into a calligraphic gold pot with sparks and smoke. My job depended on whether some karma favored my name."

Cisneros now calls Houston his "favorite third world city," hinting both at its development potential and the ambience that appeals to today's new immigrants. From the tropical climate, to the zone-free real estate possibilities, to the hodge-podge aesthetic that disorients and welcomes anyone looking to make a mark, there's both a familiarity to those coming from the developing world but also a chance to enjoy greater personal space than they were allowed in cities like Seoul, Abuja or Delhi.

"The immigrants we work with," says

Cisneros, "they think they've died and gone to heaven. They don't get caught up in the fact that their father's generation wasn't born here." There's opportunity, and perhaps more importantly, a sense of limitless sky.

THE PERCEPTION OF MORE CHOICE AND OPPORTUNITY

For most of U.S. history, immigrants have been concentrated in iconic cities. Early waves of European immigrants initially moved into neighborhoods close to the factories and shops that employed them. Go to Manhattan's lower east side and you'll still catch a whiff of the German, Irish and Jewish flavor that defined this neighborhood at the turn of the 20th century. As increasing numbers of immigrants have flocked to the suburbs at the turn of this century, however, it's clear the new immigrants are reshaping the geography of opportunity.

To dig into this, I've spent the last few months interviewing national migration experts and district school superintendents, exploring the growing array of suburban social services and attending a wide variety of religious services and cultural celebrations in the most diverse county in the nation-Fort Bend, just west of Houston. What's come to the surface, amidst all the variance in regional patterns of settlement, is the issue of agency. Choice, or lack thereof, is the fault line in the nationwide trend toward suburban living. Some move because they can and choose to - the suburbs have attractive features worth pursuing. Others are forced out as they're displaced by gentrification, changes in local labor demand, and, sometimes, black-white racial tensions.

"You've got two streams of
immigrants flowing out of the urban core," says Stephen Klineberg, founder of the Houston-based Kinder Institute. "One contains the engineers, doctors and information technology professionals, many of whom are Asians and Africans that enter this country with higher educational levels than many nativeborn Anglos, and the other contains the poor and uneducated, most of whom are black and Hispanic. Where the upper middle class of Asians and Africans tend to go where the property values are higher, where the schools are good and the jobs plentiful, [poor] blacks and Hispanics are increasingly being clustered in low-cost areas, getting pushed farther and farther out."

These ethnic delineations may be too sweeping --- there are many upper income Mexicans and Africans, for example --- but Randy Capps of the Migration Policy Institute at least agrees on the pattern. "Your distressed communities are going to attract people who have no choice," he says. "The poorest people are going to be increasingly transient, namely, poor blacks and Hispanics."

For those with the capacity to move of their own accord, choice itself explains the reasons for the suburban move. Behind the practical appeal of lower housing prices, more jobs and better schools, every immigrant I interviewed alluded to the air of untapped possibilities that they no longer sensed in dense urban cores. The growing magnetism of a city like Houston, for instance, along with other suburban cities in the South and West, is in part rooted in the sense that you don't have to be a part of the establishment to move up. Social mobility is possible for those with the wherewithal to climb.

"The American Dream is alive and well here," said one restaurant owner.

"If you want to make it, you can. I haven't been able to find that possibility in other cities."

Other suburban dwellers agreed.

"Urban density doesn't grant easy permission for the imagination," said a Vietnamese couple. "Suburban landscapes at least invite you to try to make your own mark."

THE IMPORTANCE OF HOME OWNERSHIP

If more space and choice lie at the core of most minorities' hopes, buying a home seems the first logical step to securing them. For immigrants in particular, transitioning from renter to homeowner is an important milestone in committing to the United States. The question is: Where is this transition now possible? And are immigrants and minorities more willing to take the leap into far-flung coordinates because owning a home is more critical to their civic credibility than it is for today's average native citizen? Figure **3**

Percent who agree "Homeownership is an important part of the American Dream"



Base Age 21+ Source: Merrill Lynch - Age Wave, 20

There's some data to suggest that in a society increasingly accepting of a "rentership" mentality, immigrants remain more likely to strain for permanence. The national homeownership rate has been declining for ten consecutive years.^{xii} You see this pronounced especially amongst the young. Those in the prime of their adulthood, between 35 to 44 years of age, are buying homes at a low rate not seen since the 1960s. And for minorities, the numbers dip lower – the gap between white and minority home ownership is 25.5 percentage points.

However, when you look at the maps detailing migrations of minorities and immigrants, and where they tend to be growing, they are growing fastest in places where houses are being bought. According to a report by the Research Institute for Housing America, immigrants accounted for nearly 40 percent of the net growth in homeowners between 2000 and 2010; in the 1970s they represented just over 5 percent of the growth.xiii Meanwhile, the foreign born have been moving towards ownership, with renting growth happening only in the states that have become tough for prospective homeowners - e.g. California, the Washington D.C. area, New York, New Jersey, Massachusetts, Connecticut

Figure 4

Foreign Born Households



and Illinois.^{xiv} In the current decade, California and New York are projected to be the only two states where foreign-born homeowner growth declines. Texas and Florida, by contrast, are attracting foreignborn buyers in droves, with net increases of 492,000 and 342,000 projected.^{xv}

As Hispanic and Asian homeownership in particular is climbing, they're buying in the second-ring suburbs and even exurbs where they are settling in large numbers.^{xvi} We can see this by looking at maps of several major metropolitan areas such as San Francisco, New York, and Chicago.

Obviously, when home ownership is the top priority, where it can be affordably attained becomes all the more relevant. Aspiring homeowners tend to want to live around other homeowners – there's a like-attracts-like buzz of "I want to be around other people who are making it." Minorities also seem to be maintaining the more traditional American idea that homeownership equals the final seal of adulthood.

"Buying a house was important," says Tran, the 35-year old lawyer who lives with his wife in Sugar Land, a town in Fort Bend County. "It was roots being planted, physically and emotionally. If marriage was the emotional commitment, the house was the physical aspect of that."

The Trans' neighbors, an African American couple named Geoff and Robin Boykin, agree.

"As a minority, owning a home gives you a level of credibility in the community that renting won't," Boykin says. "When we first moved to this neighborhood, we rented, just to be sure, and when people would come up and ask us about it, there was an underlying feeling of embarrassment. Like we were second-class citizens. Perhaps especially because we're the only black couple in this neighborhood." Geoff grew up in Brooklyn, New York, "where you don't even think about buying." But when he met a 24-year old who owned a house in Houston, he thought, "Wait a second. Where can you buy a house at age 24?" He moved to Texas to follow suit. Southwestern sprawl offered an opportunity to get established, cheaper.

Suburbs have always been familyfriendly, at least by brand, and as Caucasian family size continues to shrink, those Hispanic and African American still having children, even three to four, kids want to be in safer, more affordable family-oriented neighborhoods.^{xvii}

"You are now more likely to have inter-generational communities in the suburbs," says Randy Capps of the Migration Policy Institute.

Tim Cisneros, the architect who serves some of Houston's most entrepreneurial immigrants, says that his clients typically want something "colonial or traditional, to show they've assimilated. They also want big, to host multi-families."

"It's now the Indians and wealthy Mexicans building the McMansions in the exurbs," says Cisneros. "In Sugar Land. Pearland. The Woodlands [just north of Houston] is like going to private Mexico now. With armies, guards, the whole nine yards of the Mexican elite."

If homeownership remains one of the more important seals of legitimacy for today's immigrants and minorities, it's also a tool for consumer status – in this case one's civic and cultural status.

"With many immigrants," Cisneros says, "the shinier it is, the more expensive they assume it to be and thus more attractive. More 'making it' in America."

On the other side of the real estate spectrum, of course, are those who are getting priced out of longstanding ethnic enclaves that lie closer to the city center. Ron Castro is a sociology and psychology teacher at Spring Woods High School in Spring Branch, a gentrifying suburb straddling Houston's second freeway loop, and says that in 15 years of teaching, house prices have climbed from \$90,000 to \$400-500,000.

"Folks I used to know can't afford to live here anymore," he says. "Everyone's saying, 'we'll be on our way out pretty soon.""

"In ten years, these mini-mansions pop up. The neighbor can't afford that. I don't see how low-income people survive another 10 to 15 years here in Spring Branch."

JOBS, SCHOOLS AND AN ECONOMY AGING BACKWARDS

Most of today's middle class economy is now found outside of central downtowns. Suburbs and exurbs accounted for 80 percent of job growth between 2010 and 2013.^{xviii} Irvine and Santa Clara in California, Bellevue just outside Seattle, and Irving, a Dallas suburb, have higher job to resident worker ratios than their closest core municipality.^{xix} The booming technology sector is adding most of its jobs to suburbanized areas like Raleigh-Durham, Dallas-Ft. Worth and Orange County, attracting high-skilled Indian and East Asian employees, in particular.xx And, as "live, work, play" locations proliferate, it isn't just a matter of where the jobs are located, but also where the highest quality of integrated living - work + leisure + community - may be found.xxi

"Sugar Land's Town Center has everything you need," says Geoff Boykin, who works for Coca Cola two miles from his home. "All the amenities – restaurants, Home Depot, a movie theater, the gym – I love the convenience."

At the same time, many suburbs are



developing multi-purpose complexes of community and leisure that complement their growing professional class, while telecommuting is on the rise, especially amongst millennials. For younger minorities and adult children of immigrants, commuting to work is no longer a must. So long as a suburb is relatively close to a freeway entrance, other desires like strong recreational possibilities and a good night life can take the front seat. The Internet has lessened the need for many to weigh the variable of long commutes.^{xxii}

Rental properties for small businesses – many of which are owned and run by immigrants – are almost universally cheaper in the suburbs. And as more and more millennials are moving to the suburbs, businesses are noticing the outflow of their consumption habits.

"My clientele here is getting older, less willing to spend," says Yoichi "Yogi" Ueno, the owner of a Japanese Sushi restaurant in Rice Village inside Houston's inner loop. A few years ago he decided to open another more casual location in Fort Bend County on Bellaire Boulevard, in part to attract the freer flow of youthful wallets.

"The well-educated, higher income younger people are having kids and moving out to exploding suburbs like Sugar Land and Katy," Ueno says. "They now have more vibrancy. I may move this restaurant out there one day. I think business may be better."

For those with kids, of course, the historic sense that the suburbs have better schools and safer streets remains true, and of acute appeal to those looking to give their offspring a secure and promising future. There's also more educational choice in the suburbs, and with lower costs of living, the possibility to send one's child to a private school becomes easier. "For many Asian families in particular," says a Vietnamese couple with one middle schooler and two elementary-age sons, "living where the schools are 'good' becomes the number one priority."

THE PRE-EXISTING CULTURAL CLIMATE

The movement of immigrants to the suburbs draws more to the same places. Just as immigrants in the first wave of mass migration went where families had already set up house and shop, today's suburbanizing immigrants report a stronger sense of belonging and feeling welcomed in the suburbs, compared with urban cores too entrenched in established legacies and racial histories to leave room for more. There is also more of a chance for coherence and authenticity in immigrant expression in the suburbs, manifested most obviously in ethnic restaurants and supermarkets, distinctive religious congregations and social networks.

"In the suburbs, I can run a sushi restaurant more like they do in Japan," says Yoichi Ueno. "Here, closer to the city, with more of an affluent and white clientele, I had to invite in a chef to introduce things like California rolls [to appease American tastes]. In Japan we don't actually sell those rolls!"

These commercial enclaves are attractive in both entrepreneurs and their customers.

"I like being in a Latina neighborhood," says high school teacher Ron Castro, who's chosen to stay in what some consider a less desirable suburb outside the loop. "There's a Fiesta out here. A carniceria."

There are also scads of religious

communities in the suburbs, the spires of sacred structures peeping just behind the strip malls. With secularism predominant in elite urban hubs, faiths from all over the world are finding welcome and freedom of expression in the wide open spaces where immigrants and minorities are settling. Religion remains a central artery for those beginning new lives, providing a sense of ethnic identity and continuity, social services and social status.

SOME BROADER OBSERVATIONS ABOUT TODAY'S SUBURBAN ECOLOGY

As I've wandered through and sampled the flavors of various suburban communities in Houston and elsewhere (including Charlotte, Dallas, northern Virginia and Chicagoland), it is clear there is a more textured political climate developing there. Most minority suburban dwellers I spoke with sounded progressive on immigration and the role of government in providing social services, and conservative on business regulation. The flourishing of the family was clearly important, even in its traditional expression, but those interviewed skirted any political commentary on that front.

The suburbs also appear to be eclipsing the city as centers for civic renewal and volunteerism, though more empirical study of this is needed. Every suburban resident I interviewed was involved in at least one local initiative, such as Moms against Drunk Driving, seasonal clean-up effort and local arts & craft festivals. This stands in stark contrast to the average single professional renting a loft downtown, most of whom are involved in loose social diasporas but otherwise see the city as a one-way consumption opportunity.xxiii

Some of this may have to do with life stage, and the higher proportion of families in suburbs—the attendant reality being that kids naturally invite parental involvement in the milieu of their upbringings. But the sense of voluntary generosity is also a testament to the growing presence (and confidence) of immigrants in the suburbs, who show higher rates of volunteering both inside their ethnic networks and, with growing levels of affluence, beyond them.

Finally, the influx of immigrants demonstrates how suburbs are where a strong sense of community can be built and sustained. I repeatedly noticed how rare I was as a single car-user in parking lots that otherwise saw piles of kids tickling each other in the back seat - particularly the case for lower to middle class Hispanic and African American neighborhoods. In a Peruvian restaurant in Fort Bend on a Sunday afternoon, I was the lone millennial eating lunch solo and scrolling through my iPhone, the other tables raucous with the laughter of children and grandfathers in church attire. It struck me that the suburbs, with all of their automobile dependence, remains a relative bastion of strong community feeling and sense of obligation. Contrary to the general academic and media portrayal of suburbs as hotbeds of alienation and anomie, they are becoming bastions against the seduction of a consumerist, individual autonomy.

COMPLEXITIES AND CHALLENGES

As stated at the outset, it is in many ways impossible to speak about "the suburbs" in a generic sense. There remain two streams of movement outward: one rooted in choice and the other in forced displacement. But there also remain important caveats to these selling points, caveats that illuminate the open questions around the future of suburban life and human flourishing within it. The first is the challenge of isolation and integration, especially as the suburbs continue pixelating in ethnic and cultural diversity.

Houston, for instance, is a city that welcomes the stranger, but its layout is sprawling, enticing for those with gumption can prove intimidating for those torn from their native support structures (or lacking them in the first place). Social services slim down the further you get from the Beltway. Public transportation is sparse, and sustaining driver's licenses can be tricky for the undocumented. Information is under-institutionalized and rife for predatory activity - immigration lawyers and mortgage brokers, both. For those with few resources, life can be a constant struggle.

Public schools feel the brunt of these rapid demographic shifts, with diversifying student populations outpacing the cultural training of teachers. H.D. Chambers is the superintendent of the most diverse district in Texas – Alief – and he says the avalanche of students coming from economically disadvantaged backgrounds (800 new Burmese refugees amongst them), combined with those coming with little to no English knowledge, make providing a strong educational experience profoundly difficult.

"I'm talking about diversity that's deeper than color of skin," Chambers says. "It's about diversity of life experiences, and what these kids face when they go home. Many of their parents can't help them. How do we teach them to interact with others? How do you prepare these sorts of kids for a global economy and the world at large?"

Not all immigrants – particularly the children of the foreign born – appreciate the suburban edition of the American Dream their parents foisted upon their upbringings.

Raj Mankad is the editor of an architecture magazine housed at Rice University, and as a child emigrated from India to a cul de sac in Mobile, Alabama. Years later, as an adult, he asked his parents why they opted for the spacious suburbs after the chaotic yet cozy density of living in India. They answered in classic 1.0 form: As an immigrant, you want to go for the opposite of what you left behind.

"We arrived with five dollars in our pockets," they told him. "We could not buy expensive things or houses in the best neighborhoods. And we grew up with very little, sharing bedrooms with all our siblings, sleeping on the floor, walking to school without shoes. So when we arrived in the United States, we wanted exactly the opposite."

Raj has since rejected a lifestyle he finds plastic for a hipper, culturally creative and environmentally conscious life with his Caucasian wife and two young kids in Houston's Montrose corridor. He rides a bike to work and aspires to start his own spiritual community inside the loop.

"I want my kids to understand their Hindu heritage, but the temples are in the suburbs, and I don't want to schlep out an hour for a religious service. I want to start my own spiritual community, but not in a conservative way."

The price may be high compared to what his Indian American peers are choosing on the periphery, but it's his preferred assimilation – honest, expensive, and full of uncomfortable tensions.



CONCLUSION

People have any number of reasons for move to suburban locales. But it's not just the cash nexus at operation here. There's also the emergence of more mysterious and fascinating blends of culture and community in ways that will shape our perceptions of what constitutes the best of American life.

Suburbs used to be a device to "protect" people from the Other. No longer. Many now foster the creation of hybrid identities, tight yet pluralistic communities, alternate information loops and various commercial experiments. As immigration in particular plays out through the quotidian experiences of today's suburban blends, the institutions and leaders within these communities could be critical to formulate policy reform, especially as it relates to questions around integration. More broadly, the suburbs will be the battleground where debates around home ownership, social mobility, and the promise and challenge of a pluralistic society will need to be waged.

If you're interested in the New America, keep an eye on your suburbs. They're not as peripheral as the horizon would suggest, and may even be at the nexus of what is next.



DESIGNING SUBURBS: BEYOND NEW URBANISM

By Rick Harrison

It is not primarily the fault of land developers that the American suburbs are thought to be dysfunctional and mundane. The blame belongs largely to the influence of boiler-plate zoning regulations combined with design consultants who seek the most minimum criteria allowed by city regulations.

Yet for all its problems, decade after decade 80% of new home purchases are not urban, but suburban. Some (architects, planners, and university professors) suggest we should emulate the dense growth of other nations not blessed with the vast area of raw land within our country, yet most of those countries as they prosper strive to emulate our American suburbs.



Figure 1 A model in the sales office of a new Suburban Development by AMARILO in Bogota, Colombia

The planning of our cities is about design. Yet, for the past quarter century a highly organized group consisting mostly of architects (acting as planners) have pushed a New Urbanist agenda that is as much about social engineering as it is design.

Their 'The Congress of New Urbanism' (cnu.org) preaches of the world to come where all people of all races and incomes live in harmony along straight streets where densely compacted homes are aligned perfectly along a tight grid. This 'New Urbanism' is exactly how cities were designed before contemporary suburbia. In this sense they are not so much new, but as they themselves suggest "neo-traditional".



Figure 2 A new development near Charleston, South Carolina using New Urbanism Design Methods

To convince others of the evils of suburbia they present the worst suburban examples lacking proper design as emblematic of their essence. Their solution is to forever banish suburban growth by whatever means necessary—usually through regulation --- that essentially eliminates choice for the consumer.

For most urban planning professors there appears to be just one singular solution: ever higher levels of density and a return towards the urban core. Young students study such models but, from my experience as a land planner, are grossly under-educated about what works in suburbia, where the majority of growth has been, and, short of a total political triumph of "progressive" planners or another catastrophic recession, will continue to take place.

One tragic result of this antisuburban meme is that very little attention is played to how to improve suburban development, where design standards have stagnated since the mid-1950s. That is, until now... A new era of innovation made possible by technological advancements solves most, if not all, of the suburban growth problems, in a manner that deflates the New Urbanist 'one solution fits all' agenda.

DENSITY HAS NOTHING TO DO WITH DESTINY

Density is the most misunderstood and misrepresented excuse to attack suburban growth. Density and affordability are two very different concepts.

New Urbanists argue their high density solution allows people of all incomes to live in harmony, yet finding any affordable (non-heavily subsidized) dwelling in a New Urban development is highly problematic. The CNU boasts of their gentrification which by definition means upper income.

It turns out that diversity has nothing to do with 'design' and everything to do with people wanting to live in neighborhoods with others, like themselves. Many conventional suburbs are far more diverse in terms of class and ethnicity than new urbanist communities, or revitalized parts of our downtowns.

Similarly, restricting how many families can be sardined into an acre of land (the definition of density) has absolutely nothing to do with affordability—if it did the New Urban projects would be the most affordable, not the most expensive.

New Urbanists are quick to point out the sprawl of new growth, completely ignoring today's environmental restrictions. If cities of the past were designed using today's wetland preservation (and buffers), shoreline buffers, slope restrictions, tree preservation, open space targets, and detention ponding, they would have sprawled also. Cities built with 2015 restrictions would likely consume 1/3rd more land area than if planned using 1915 restrictions. Much of today's sprawl is due to environmental restrictions which have counter-productive side effects—higher housing costs, less convenience, and more commute time.

Those arguing against sprawl fail to recognize that a suburban land developer's main goal is to maximize the number of units on their site, not build the least homes. Consultants hired by the developer assume maximum profit is achieved by the greatest number of homes, thus decreasing sprawl. If a developer could increase profits by proposing a 20 story multi-family building on their suburban tract of land they would seek an approval. But this runs up against demonstrated consumer preference: suburban dwellers do not commute to be on the 18th floor of a high-rise, instead they seek the most home on the largest lot within their budget.

However, a suburban problem is that higher density too often relates to 'cheapness', and can result in unsustainable growth as characterless projects decrease in value over time.



Figure 3 Unfortunately suburban higher density often equates to substandard housing as this example in Fargo, North Dakota

LOOKING FORWARD

Developers will submit site plan proposals based upon market conditions. If the market desires large lots with estate-sized homes, that is what they will pursue. If the market desires dense single family homes with no usable yard squeezed in at six per acre that's also what they will pursue.

However, because of possible forced regulations by New Urbanist, in some instances the developer may not have a choice but to submit a proposal with excessive densities when there is no market demand.

For example, in 2014 we designed a 60 acre site in Lake Elmo, Minnesota at a mandated high density. The city was forced by court order to adhere to density mandates of the Metropolitan Council, an agency who controls both transportation and sewer service for a seven county region surrounding Minneapolis and St Paul. In order to get approvals we had to design narrower than usual single family lots including high density multi-family.

However, the developer could not secure a viable multi-family builder as the market demand favored only single family. Luckily the site was located next to a medical clinic, so a high density senior housing building was proposed and was marketable, however, the single family homes would be harder to sell with a towering building in their immediate back yard. Other developers were forced to submit hundreds of multi-family units housing without residents to buy them.

That is why the New Urbanism movement and their Smart Growth agenda is so dangerous, they lead to instances where choice in density and in some cases design standards, is no longer a developer's option.

IDENTIFYING ACTUAL SUBURBAN PROBLEMS

In most of the country, city regulations allow various uses (Land Use) be placed within a certain defined boundary or zone (Zoning). Each 'Land Use' will have a set of minimum setback distances between structure and lot property lines for side, front, rear yards, and minimum lot size.

The problem with suburban zoning is that it encourages placing the highest density (the most families) in the worst locations, and the lowest density (least families) in the best locations. What constitutes the worst locations? Along noisy highways, behind loading docks of strip malls, and near loud railroad tracks. Somehow this 'transition' makes sense to City Planners who advise municipalities on growth.

Prime development land would have city water and sewer as well as provide great schools. For example, a non-serviced farm has low value, but when sewer service extends to the 80 acre corn field, developers are likely to come a calling enticing the farmer with a lucrative offer. After securing the land, the very next step is to 'plan' the project for submittal, most likely contracted with the local civil engineering firm.

In order to secure their lucrative engineering fees, the consultant offers to design a quick layout (typically for free) using the regulations most minimal dimensions to maximize the number of homes allowed on the site for a given zoning classification.



Figure 4 How ironic is it that placing high density in the worst location (overlooking loading docks) somehow makes sense?

Quality of living, vehicular and pedestrian connectivity, curb appeal, views from within the homes, and more are rarely implemented in the above scenario. Nothing in the cities minimums-based regulations require anyone to strive above 'average'! To make this bad situation worse, the 'planner' of that 80 acres is likely to use an automated CAD software system to produce a site plan in minutes using preset configurations guaranteeing the cookie-cutter look of suburbia, thus what is called 'land planning' is simply reduced to basic drafting geometry lacking any design sense.

Advances in technology have improved almost every aspect of today's living—but for land development, current software solutions have done far more harm than good.

Unanimity in ideology, and lack of innovation prevented us from addressing how to improve the places where most Americans reside.

No universities concentrate on suburban design—only dense urban design. There's little new knowledge about how to develop for the vast majority of people. Not surprising then, that a new development being proposed in 2015 is likely to be 'planned' worse than one designed in 1955! Today's generations of designers (CAD operators) lack the passion to move the land development industry forward into a new era. We desperately need a properly trained new generation of consultants and architects who focus on how to make suburbs work better, more sustainably and, not to be forgotten, make a profit for the developers.

DESIGN CANNOT PROGRESS IN A NON-COLLABORATIVE INDUSTRY

For typical suburban and urban planning, a house is envisioned as a simple rectangular footprint only. The four main professions of land development design: architecture, civil engineering, land planning, and surveying tend to fail at both communication and collaboration, even when they all work for the same company. This problem is made worse by universities that teach multiple disciplines and enforce the barriers when students graduate. You would think architectural students would participate with engineering and planning students on the same projects to learn collaboration, but that is not the case. This lack of collaboration stagnates progress in land development.

A RECIPE FOR SUSTAINABLE GROWTH

'Sustainability'; that meaningless buzzword everyone uses on their company brochures generally avoids any real definition. Solar panels and rain gardens in inefficient neighborhood site design is hardly sustainable. However, if a developer builds a more efficient neighborhood that increases living quality maintaining its value and desirability over a long life span, it's the definition of 'sustainable'.

So, given all of the problems stated above—how is it possible to achieve it?

DESIGN FOR PEOPLE FIRST:

Instead of using a software package to whip out a 200 lot site plan in less than 5 minutes, the land planner must place themselves in each and every home. They must imagine themselves in that space.



Figure 5 A new suburban project near Tucson - what quality of living do these residents have - really?

The land planner must be passionate about those that will live in the neighborhoods they design and realize that their living standards, safety, and investment are strongly influenced by the planner's efforts.

So we have to focus on very basic parts of what constitutes everyday life. What quality is the view from within the living spaces of the home? Does the street design allow a safe transit through the neighborhood maintaining traffic flow, or must the drivers contend with multiple intersections, sharp turns and pesky (trendy) roundabouts that only serve to increase both drive time and energy use? Do pedestrians cross at dangerous 4-way intersections and have only streets to walk near, or is there a dedicated pedestrian system that avoids conflicts with vehicles?

Are architectural details implemented to increase the beauty of the streetscape and to maximize the financial return for the residents? Will the neighborhood deliver a sense of pride at all income levels?

None of the above can be achieved by shoehorning in every home allowed by regulation minimums. It's also not possible to reach those goals without a more collaborative relationship between the various consultants at initial concept design stage. No software program can automate any of the above. Professors need to teach good land planning design not social engineering using methods of city planning from centuries ago.

THE MORE PROFITABLE SUSTAINABLE NEIGHBORHOOD

Putting people first seems like a noble goal, but won't all that functionality destroy the developer's profits and make suburban growth just as risky as the New Urbanism? The key here is to realize that to achieve higher profits and greater efficiency, you don't have to change the regulatory minimums, but actually seek to exceed them.

Consider the following: Suburban planning and New Urbanism places every home at the most minimal setback guaranteeing monotony and restricting views from within the homes. Structures are placed as close as possible to the outermost boundary of a tract for densification. Streets parallel each other in a straight or curved pattern as the design of a neighborhood begins at the perimeter and builds inwards until all land is consumed. Thus 'land planning' is reduced to simple geometry.

Unwittingly, this scenario not only maximized how many homes fit on the site, but also maximized the length of infrastructure (street paving, sanitary and storm sewer, utilities, sidewalks, etc.). The consumption of developed land typically forces re-grading (earthwork). Earthwork costs quickly destroy profits (not to mention trees, natural waterways, and any character of the existing land).

For centuries it's been assumed that the most minimal dimensions were the most efficient way to design. A discovery make in 1988 proved otherwise. We discovered that separating the pattern of the homes front setback line (which typically parallels the street) with a different street pattern could maintain density while significantly reducing the length of street for any given set of minimums. The discovery was unintuitive—simply provide more than the regulatory minimums and efficiency is gained—not lost!

The resulting streetscape created a park-like setting with undulating open spaces in 'coves', thus we coined the term for the method: Coving. This initial discovery led to scores of innovations that solve most suburban problems deflating arguments against suburbia.

We designed over 1,000 neighborhoods in at least 47 states and 18 countries contracted by over 300 land developers, those who desired to advance both suburban growth, as well as those involved in urban redevelopment.

EXAMPLES OF FUTURE SUBURBIA BEING BUILT TODAY

The following neighborhoods will help explain the benefits of the many innovations that grew out of the discovery of coving.

Example #1: The Enclave of Westpointe - New Braunfels, Texas

Below is the actual approved 'before plan'. With changes in water detention mandated by the city, there was 136 lots and 7,461 lineal feet of public street. There was 19 lots adjacent to the 7 acres of park. The typical lot was 8,000 square feet.



Figure 6 The original APPROVED plan for The Enclave at Westpointe

No developer or city would question the efficiency of the above design.

However, there is an enormous amount of waste in the design. Did you instantly recognize it? Neither the designer nor those at the city saw how wasteful the design is because recognizing unintentional design waste is counterintuitive and certainly not taught in planning schools.

What about travel to and from most of the homes? One of the discoveries was due to research in traffic flow. Newton's law: A body in motion tends to stay in motion. To get that body in motion (your car) takes an enormous amount of energy to reach the 25/30 MPH typical of residential streets and each stop repeats the waste. This process of acceleration to efficient cruise and stop will consume 400 feet and take approximately 20 seconds (called a 'flow cycle'). The drawing below proves for most residents the multiple intersections they encounter destroy flow. What at first looks efficient... is not.



Figure 7 Short runs with stops and turns destroys flow and wastes both time and energy

Still trying to see the waste? An efficient street has homes that front both sides, but on the above plan much of the street is consumed by side yard. This waste consumes available land with Right-of-Way and pavement, thus to maintain density the smallest possible lot must be designed. Now look at the reapproved redesign:



Figure 8 The After Plan of The Enclave at Westpointe

The redesign has only 4,973 lineal feet of public street reducing the infrastructure by 33%, or approximately \$300,000 less construction costs. The original plan had only 19 premium lots (abutting open space). The redesign has 85 lots backing into open space (all lots are more premium), resulting in \$600,000 in added value. The 136 lots average 9,395 square feet (15% more than the original typical lot), and a savvy engineer would have easily reduced both storm sewer and earthwork costs. The streets 'flow' reducing time and energy while the wide elegant meandering walks invite a stroll. The city wins with 33% less maintenance costs and a higher tax base, the developer benefits, but most importantly the people investing in living in the neighborhood and those they will eventually sell to also benefit.

Example #2: The Sutherlands - Louisiana

This site is both long and narrow, never a good combination to design a good site plan. Most land planners simply squeeze lots to the most minimal depth to maximize density:

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Figure 9 The original plan for submittal for The Southerlands

The above site plan has 91 lots requiring 5,200 feet of street (just short of a mile). At the time of this writing a lineal foot street infrastructure in the Lake Charles area was \$600. Thus about \$34,000 in infrastructure alone per lot, not including the cost of the land or site grading (earthwork).

Because of the tight distances at the entrance, the previous planner decided to place the smallest lots at the entrance cheapening the image of the development at the most important spot—the front door. The above plan lacks any sense of arrival.

The discovery of coving made it possible to rework even the most difficult of sites into a better place to live as seen below in the approved new neighborhood design:



Figure 10 The resulting redesign was approved in less than 2 months!

The new redesign creates a sense of arrival which continues all the way through the back of the neighborhood. The wide walks at the end of the cul-de-sacs are designed to handle emergency vehicles providing alternate access without having to build excess streets, while also providing increased pedestrian connectivity.

The oversized cul-de-sacs contain parks in the middle and towards the end of the road is a split island that adds landscaping and park-like space. You may think that all of this would be far too expensive to build. However the length of street plummets to 3,999 feet and there was a gain of 8 lots while also eliminating the low value miniscule lots at the entrance. The length of street suggests a construction savings of \$720,000 the oversized cul-de-sacs as well as the elegant street island and wide walks serving as alternate emergency access does add some costs. The increase of 8 lots goes directly to the developer's bottom line, however, and the added tax base to the city with reduced ongoing maintenance costs is of great advantage for the municipality.



Figure 11 Beauty and space is no longer a privilege of the wealthy

The residents all live in a unique elegant estate-like setting with large yards and great views from within their homes. The park-like streetscape with the wide meandering walks and even wider trails invite a stroll.

Both examples used coving to maintain street frontage along the setback line while reducing the length of street and related infrastructure.

Coving allowed (for the first time in the history of planning neighborhoods) compliance with existing regulations by exceeding minimum expectations and reducing construction costs, all while providing more space for homes at an equal density compared to conventional land subdivision. The cost reduction for site construction allows more funds to be used in other aspects of the development such as architectural detail, insulation, windows, landscaping, and as in the case of The Sutherlands creating landscaped islands to add neighborhood character and interest.

Example #3: Sundance Village– Dickinson, North Dakota



Figure 12 The 305 acre Sundance Viallge showing main circulation



FIgure 13 Sundance Village Linear parks ජ cascading ponds.

This next example is of a larger community. The last two examples were small sites explaining basic premises of this new era of design on relatively flat tracts of land. The same concepts to reduce infrastructure, maintain flow, and provide pedestrian connectivity scale up and down as the available acreage changes.

Larger sites can create more function and variety as well as more opportunity. This 305 acre site will house almost 1,000 families and provide a variety of services within walking distance.

The plan above shows the main trail interconnections (red) as well as the major internal streets (black) and minor streets (grey). The main trails cross the major streets at 'diffusers' which provide a safer crossing while maintaining traffic flow.

Almost all residents can get home with one turn or less (terrific 'flow').

Unlike a round-about that disrupts all traffic, a diffuser maintains flow on the higher volume street reducing time and energy, but the real advantage over the roundabout is much safer pedestrian crossing.

Most suburban cities require a percentage of the site as open space. This may be in dedicated city park or spaces exclusive to the use of the residents within the development. Each city will be different in their open space requirements. The park areas (dark green) in this particular neighborhood follow the contours of the land. The north part (upper part of the map) is on top of a hill allowing sledding (this is North Dakota!) or kite flying, and the remaining parkland follows a cascading ponding system along lower elevations. Both the trail system and drainage lead to a retail center at the southwest corner of the land (lower left). This method of design embraces the terrain and reduces storm sewer costs by embracing natural drainage flow.

To solve the problems of exclusion caused by the typical suburban transitional zoning we simply reverse the transition.



Figure 14 Reversing zoning transition makes housing inclusionary—not exclusionary. White is Single Family, Orange is Duplex.

Instead of having the highest density at neighborhood entrances, we place the lowest density and best housing at the front door. Disney's Celebration, a New Urban design, does the same thing. As

DESIGNING SUBURBS: BEYOND NEW URBANISM

price points lower, those residents drive through higher priced housing creating a sense of arrival without cheapening the feel of the development or image of the city it's located within. Single Family (white) large lots are along the main streets with smaller single family or duplex (orange) lots in pockets behind the single family. The main trails lead to a church (yellow), senior housing (pink), and retail (green). A school (not shown) is across the street from the church.

Wide meandering walks add that special touch of elegance along the street and provide added sense of scale to the undulating open space adjacent to homes.



Figure 15 Sundance Village: Creating a sense of arrival is very important

Example #4: Rivers Edge-Sugar, Utah

There is a good reason why, now, we can enter a new age of more sustainable growth. Just 40 years ago a single property intersection of a lot line with a curved street would require a half hour of tedious geometric calculations, encouraging the simpler designs of the past. Today, automated software can produce a 1,000 lot development in the same time span! Both suburban and New Urban design does not consider the living experiences within a home as tied to surrounding open spaces (if any).



Figure 16 A San Antonio project by a National home builder—no attention to how the floor plan merges with open spaces..



Figure 17 Same project as the above picture—but in aerial view. Where was 'passion' in this land plan design?

Instead of using software to produce a faster cookie-cutter plan, we can harness (and develop) technology to produce better neighborhoods. Technology makes it possible to discover better design models. New models provided the basis to create new forms of software and training. Both developers and cities have the opportunity to build better neighborhoods—if they are passionate about building better communities to invest the time and effort.



Figure 18 This neighborhood in Orno, Minnesota uses the 'BayHome' design method merging interior and exterior spaces.

This next example demonstrates the evolution of planning which merges both site design and architecture, providing a significant market edge above competing home builders. This evolution allows neighborhoods to be designed to a much higher level of detail increasing efficiency, function, value, and livability.

In 1999 Professional Builder Magazine called the BayHome method of design 'New Urbanism with a View'. It was the first time (ever) in planning, that the floor plan became a major component of the neighborhood design. This meant that communication and collaboration between all consultants (planning, architecture, engineering, and surveying) became critical at the initial design stages (also revolutionary).



Figure 19 BayHome: living space expands to adjacent open spaces and scenic views, merging planning and architecture

With just a handful of floor plan options, placing homes in a staggered relationship allows significant views both front (porch side) and side of every home. The staggering eliminates the 'alley' look of a rear serviced home while providing space for two and three car garages.

BayHomes hide parked cars and garage doors, improving the look of the street and the neighborhoods. However, they are alternatives to attached housing such as townhomes and duplex units because the yards are common as well as the maintenance of them. To achieve this design they are platted as townhomes, not traditional single family lots along a public street.

This example, Rivers Edge is typical of how BayHomes are utilized on typical suburban neighborhoods. Like normal single family homes, there are very little economic barriers serving low and high income families.



Figure 20 Rivers Edge in Sugar, Utah uses BayHomes along the arterial street (lower right) and along the river (rear of the site).

The success of BayHomes with their attention to detail allowing expanded views influenced us to wonder: Why not have this attention to detail on every home?



Figure 21 The Fellowship Church redevelopment in Detroit shows low income ADA BayHomes to house disabled Veterans.

Example #5: Viera–Melbourne area, Florida

Viera in Melbourne, Florida takes land development design to a much higher level.



Figure 22 The original Viera architecture placed along the 35' wide lots of the 'before' plan would have appeared as above

Not only does Viera harness all of the above methods of design, it also incorporates the coordination of architecture to lot shape, eliminating the largest problem in high density, narrow, single family lots (suburban and New Urban): reduced curb appeal and views.

By coordinating both architectural design and creating a consistent angle between interior and exterior 'coved' lots, the home can be widened at the front or rear:



A Shaped COVED House on 45' wide lot

Figure 23 A narrow home no longer has limited floor plan options nor the garage dominant streetscape using 'shaping'

What makes Viera unique and revolutionary, is that both developer and builder decided to throw out all the existing rectangular floor plans and make every home have the benefit of home-to-lot shaping!

The resulting neighborhood when it is built by mid-2015 will certainly challenge competing homes being built at similar densities.



Figure 24 Viera Homes on the same 35' wide minimum width as the before plan (similar density) as shown on Fig. 22!

Viera clearly demonstrates the advantages of advancements in home and land development design made possible when the consultants collaborate to take the extra effort and attention to detail needed to create sustainable suburban neighborhoods that will rival the New Urbanism, without waging war on suburbia per se.



Figure 25 Viera was the first development of many since that takes form and function to the next level.

From an economic and environmental perspective, Viera demonstrated a 38% reduction of infrastructure compared to the before plan (loosely based on New Urban design).

CONCLUSION:

If land developers stopped contracting (paying) engineering consultants for mundane plat geometry to regulatory minimums and demanded better, change would be immediate. If universities taught design and collaboration instead of social engineering, we would have hope for a better future, both suburban and urban. If consultants imagined themselves living in the neighborhoods they design, we would have change. Complacency-not the idea of suburbia—is the primary cause of unsustainable growth. Suburban developers today must rediscover of the innovation that characterized the first wave of builders, who created, however imperfectly, an unprecedented wave of property ownership and privacy. Our challenge now is not to reject suburbia but to look for something that goes beyond replicating tradition, but actually improves how we live and interact with the natural world, and each other.

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Design Notes

America's Housing Study and the graphics utilize the following:

To achieve visual harmony a modified version of the grid Jan Tschichold conceived for his book Typographie was employed.

MINION PRO Chapman's serif family, is a digital typeface designed by Robert Slimbach in 1990 for Adobe Systems. The name comes from the traditional naming system for type sizes, in which minion is between nonpareil and brevier. It is inspired by late Renaissance-era type.

BERTHOLD AKZIDENZ GROTESK is Chapman's san serif family. It is a grotesque typeface originally released by the Berthold Type Foundry in 1896 under the name Accidenz-Grotesk. It was the first sans serif typeface to be widely used and influenced many later neo-grotesque typefaces after 1950.

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Book exterior and interior design by Chapman University professor Eric Chimenti. His work has won a Gold Advertising Award, been selected for inclusion into *LogoLounge: Master Library, Volume 2 and LogoLounge Book 9*, and been featured on *visual.ly*, the world's largest community of infographics and data visualization. He has 17 years of experience in the communication design industry. To view a client list and see additional samples please visit www.behance.net/ericchimenti.



Professor Chimenti is also the founder and head of Chapman's **Ideation Lab** that supports undergraduate and faculty research by providing creative visualization and presentation support from appropriately qualified Chapman University undergraduate students. Services include creative writing, video, photography, data visualization, and all aspects of design. The students specialize in the design and presentation of complex communication problems.

Special thanks to Ideation Lab workers Annie Woodward, Jamey Siebenberg, Justin Pineda.