

# THE TRILLION DOLLAR APARTMENT INDUSTRY

---

**How the apartment industry and  
its 35 million residents drove a trillion dollar  
contribution to the national economy**

**Stephen S. Fuller, Ph.D.**

**NATIONAL APARTMENT ASSOCIATION  
NATIONAL MULTI HOUSING COUNCIL**

# ABOUT THE REPORT

Every day construction occurs on new apartment homes. Property managers arrange for new move-ins, ensuring that each apartment is in top condition and primed for its newest resident. **Every day, the country’s 35 million apartment residents commute home from work, go out to eat or catch a movie—all of which directly contribute to our economy, supporting millions of jobs nationwide.\***

The **National Apartment Association** and the **National Multi Housing Council** partnered with academic **Stephen S. Fuller**, Ph.D., of George Mason University’s Center for Regional Analysis, to quantify the apartment industry and its 35 million residents’ contribution to the national, state and select local economies. While other studies have focused solely on the economic benefits of new apartment construction and the ongoing operation of existing apartments, this report quantifies for the first time the economic contribution of apartment renter spending activity, providing a more comprehensive view of the apartment industry’s economic clout. Dr. Fuller’s research utilizes a variety of government sources, including the U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics and U.S. Census Bureau. Additional data were provided by the National Apartment Association’s Survey of Income and Expenses in Rental Apartment Communities. **The full research methodology is available on page 48.**

**\*Source:** U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates of the population living in renter-occupied units in structures with five or more units.

## National Multi Housing Council

NMHC is a national association representing the interests of the larger and most prominent apartment firms in the U.S. NMHC’s members are the principal officers of firms engaged in all aspects of the apartment industry, including ownership, development, management and financing. NMHC advocates on behalf of rental housing, conducts apartment-related research, encourages the exchange of strategic business information and promotes the desirability of apartment living.

[www.nmhc.org](http://www.nmhc.org)



## National Apartment Association

NAA is the nation’s largest and leading professional organization with nearly 60,000 members of affiliated associations representing more than 6.6 million apartment units. Our members are recognized industry leaders who uphold the highest integrity and business practices through our Educational Institute’s professional designations. NAA’s advocacy initiatives span legislative and regulatory public policy at all levels of government to ensure apartment homes are a national priority.

[www.naahq.org](http://www.naahq.org)



**ANALYSIS BY**  
National Apartment Association  
National Multi Housing Council

**DATA AND RESEARCH BY**  
**Stephen S. Fuller, Ph.D.**  
Dwight Schar Faculty Chair and  
University Professor Director,  
Center for Regional Analysis  
George Mason University

**FEBRUARY 2013**

TABLE OF CONTENTS

6	Executive Summary
8	Today's New Housing Consumer
14	Tomorrow's Apartment Homes
20	State and Local Markets
26	Conclusion
	<b>CITY SNAPSHOTS</b>
30	Atlanta
31	Boston
32	Chicago
33	Dallas
34	Denver
35	Houston
36	Los Angeles
37	Miami
38	New York
39	Philadelphia
40	Seattle
41	Washington, D.C.
42	Metro Area Definitions
43	Summary Metro Area Data
	<b>STATE DATA</b>
44	Apartment resident spending activity
45	Existing apartment operations
46	New apartment construction
47	Notes and References
	<b>APPENDICES</b>
48	Methodology
50	Glossary

# THE TRILLION DOLLAR APARTMENT INDUSTRY

Despite the worst economy in a generation, apartments have remained a positive economic force, contributing to the nation’s economic recovery with every dollar spent by the businesses that build and operate apartments and the people who call them home.

**In 2011, apartments and their residents generated a \$1.1 trillion contribution to the national economy and supported 25.4 million jobs.**

Commissioned by the National Apartment Association and the National Multi Housing Council, Stephen S. Fuller, Ph.D., of George Mason University’s Center for Regional Analysis, developed the math behind those economic impact numbers. Fuller began by examining all the dollars directly spent on building new apartments, operating and maintaining all existing apartments and by apartment residents in their daily lives. He then analyzed those dollars to determine how many jobs that spending directly supported. Using government data, he calculated how much additional spending and jobs supported that direct spending spurred as it cycled through the economy. The final result tallied apartments’ total economic contribution and jobs supported, as well as several additional data points.

Fuller performed the same calculations for all 50 states and the District of Columbia to determine apartments’ economic clout on a state-by-state basis. While apartments provided a noteworthy economic boost to every state, the research showed that apartments played a pivotal role in the economies of eight states—California, Florida, Georgia, Maryland, New Jersey, New York, Texas and Washington—which all had shares of renter households, large stocks of existing apartments and high levels of apartment construction activity. In fact, these states accounted for more than half of all the dollars spent nationally on new apartment construction.

In addition, the report also includes similar analysis for 12 select metro areas—Atlanta, Boston, Chicago, Dallas, Denver, Houston, Los Angeles, Miami, New York, Philadelphia, Seattle and Washington, D.C. Although data limitations restrict the analysis to the economic impact of new apartment construction and ongoing apartment operations, the results show an industry poised to become an even larger economic driver in these major metropolitan areas, as demand for apartments continues to grow in these areas.

The report findings underscore the fact that while the construction of new apartment buildings and the ongoing operations of existing apartment communities create significant, positive economic effects, the economic activity generated by apartment residents cannot be overlooked; they produce an economic impact nearly four times that of the industry itself. By bringing apartment homes—and the residents who live there—into local communities, the apartment industry is building the economies of small towns and large cities across the country.

And apartment demand continues to grow. **As many as 7 million new renter households could be created this decade—about half of all new households likely to be formed.\*** Given their swelling ranks, apartments are set to become an even more powerful force in national, state and local economic development.

\*Source: NMHC calculations based on household projections from Harvard’s Joint Center for Housing Studies and the premise that 50 percent of all new households are renter-occupied.

# EXECUTIVE SUMMARY

## APARTMENTS’ ECONOMIC IMPACT IN 2011

### DIRECT SPENDING

**\$504.2 BILLION**



### ECONOMIC CONTRIBUTION

**\$1.1 TRILLION**



### TOTAL JOBS SUPPORTED

**25.4 MILLION**



**Note:** Totals may not add up due to rounding.

# TODAY'S HOUSING CONSUMER

Apartment living serves 35 million Americans' lifestyle needs, and the ranks continue to grow. The country could add as many as seven million additional renter households this decade.

**Many will choose apartment homes, increasing the magnitude of apartments' economic benefits going forward.**

## AMERICA'S APARTMENT RENTERS

The nation's nearly 100 million renters represent one-third of the housing market.<sup>1</sup> However, because of demographic shifts, economic challenges and changing consumer preferences, renter households as a whole continue to become a larger portion of the overall housing picture. Almost 3.8 million new renter households were formed between 2005 and 2010, growing their ranks from 33.7 million to 37.4 million renter households, according to the U.S. Census Bureau.<sup>2</sup>

America's renter households live in a wide variety of housing types, from single-family houses and townhomes to garden apartments and high-rises. Approximately 43 percent live in apartments, defined as renter-occupied units in buildings with five or more units in them.<sup>3</sup> These 17.1 million apartment renter households are a vital source of economic activity, as they spend a significant portion of their disposable income on goods and services.<sup>4</sup> In fact, compared to homeowners, apartment households spend 18 percent more, as a share of their disposable income, annually on retail and consumer goods within their local economies.<sup>5</sup>

## 7 million renter households could be created this decade.

From the rent checks they write to the lattes they buy from the corner coffee shop, apartment resident spending reverberates through local, state and national economies. Beyond directly supporting local businesses, apartment resident spending also stimulates additional indirect spending as businesses look to meet resident demand for goods and services. All this means significant and much-needed dollars are going back into the recovering economy at the same time that jobs are being created and supported. **In 2011, apartment resident spending activity drove approximately 80 percent of the apartment industry's total \$1.1 trillion contribution to the national economy. Resident spending also sustained nearly 90 percent of 25.4 million jobs supported by the industry as a whole.**

And those numbers are likely to increase as the economy recovers. Not only have economic concerns and changing demographic trends shifted the nation's housing preference toward renting, but a strengthening of the economy will also lead to more household formations, a key driver of all housing demand. The recession derailed the creation of roughly 2.1 million households as people doubled up or delayed moving out from their

parents' homes.<sup>6</sup> As the economy improves and household formation rates return to normalcy, as many as 7 million renter households could be created this decade. These new renter households will increase the magnitude of the apartment industry's direct and indirect economic benefits going forward.

## A RENTAL REVIVAL

The housing crisis challenged many Americans' notions of homeownership. Not only have many individuals and communities struggled with foreclosures and falling house values but also job losses, higher down payment requirements and stricter mortgage underwriting standards have made homeownership less attainable and desirable for many people.

Homeownership rates have steadily declined from a historical high of 69.2 percent in 4Q 2004 to 65.5 percent in 3Q 2012.<sup>7</sup> **For each one percentage point decline in homeownership, there is a shift of approximately 1.1 million households to the rental market.**<sup>8</sup>

In addition to developing a heightened awareness of both the risks and rewards of owning houses, people also began to place greater value on the concepts of walkability, urban revival and work-life balance, opening more people up to housing options beyond the traditional single-family house. And for almost 1.1 million households over the past four years, apartment living became the right fit for their lifestyles.<sup>9</sup>

Apartment communities offer their residents numerous advantages. Not only do residents enjoy maintenance-free living, many also benefit from a suite of services increasingly offered by apartment communities, from on-site fitness and business centers to package collection to trash removal. Apartment communities also offer many conveniences. They are typically located closer to job centers and in urban areas, and many are located in walkable neighborhoods surrounded by restaurants, theaters and shops. This allows many renters to maintain a better live-work balance by having proximity to employment opportunities as well as cultural, entertainment and retail amenities. However, apartments' real competitive advantage is flexibility. Unlike having a mortgage, renting an apartment provides mobility, allowing people to more easily pursue new opportunities, whether it be a new job or a new neighborhood.

“One out of three Americans rents;  
one out of three renters lives in an apartment,  
**that's 35 million apartment residents.”\***

\*Source: U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates of Total Population in Occupied Housing Units by Tenure by Units in Structure

## APARTMENT RESIDENT ECONOMIC IMPACT

### ECONOMIC CONTRIBUTION

**\$885.2 BILLION**



### TOTAL JOBS SUPPORTED

**22.8 MILLION**



**Note:** Totals may not add up due to rounding.

DEMOGRAPHICS DRIVING DEMAND

Continued changes in household composition are influencing demand for apartment communities.

Many of today’s apartment residents still fit one traditional image of a renter: young and single. However, the resident pool is much more diversified than that. For example, there are more apartment renter heads of household aged 35 to 66 than under 34.<sup>10</sup> Moreover, half of apartment renter households are either two-person households or larger.<sup>11</sup>

The dynamic mix of apartment residents is likely to further expand as other demographic trends accelerate. More specifically, the growth in nontraditional families and large generational shifts challenge the need for single-family houses and suggest that apartment community living could fit more of these households’ lifestyle and housing demands in the future.

There has been a long-running change in what constitutes the “typical” American household. For generations, married couples with children dominated our housing markets. This demographic trend, combined with public policy encouraging the development of our nation’s intricate highway system, contributed to explosive suburban growth. But those households have fallen from 44 percent of all households in 1960 to just 20 percent today, and that number continues to decrease.<sup>12</sup> By one estimate, **86 percent of household growth between 2000 and 2040 is expected to be those without children.**<sup>13</sup>

Moreover, young adults in their 20s and empty nesters in their 50s and older—those most likely to seek housing options other than single-family houses—will be the fastest growing population segments in the next decade.

The almost 80-million strong Generation Y, also known as the Echo Boom generation, is hitting its peak renting years.<sup>14</sup> In 2010, the oldest members of Gen Y were 33. And Generation Z, otherwise known as the Millennials, also is poised to begin to enter the housing market. By 2015, there will be 67 million people aged 20 to 34—the prime years for renting.<sup>15</sup>

But the nation’s 77 million baby boomers also are re-considering their housing needs as they move into the empty nester stage of their lives.<sup>16</sup> Some are downsizing, increasingly trading lawn work and long commutes for maintenance-free apartments and hassle-free living in downtown neighborhoods. According to data from the U.S. Department of Housing and Urban Development, 52 percent of seniors between the ages of 65 and 80 who had recently moved became renters after moving, compared to 36 percent who had been renters before moving.<sup>17</sup>

In fact, more apartment firms are targeting this population segment. In 2011, 12 percent of apartment units completed were age restricted, meaning residents had to meet a minimum age threshold, most often 55 years of age, to qualify to live there. This was an increase from eight percent of units in 2010.<sup>18</sup>

This increasing household diversification is expected not only to grow demand for apartment communities but also influence the development and design of apartment units and rental communities.

**By 2015, there will be 67 million people aged 20 to 34—the prime years for renting.**

BIG-TIME BUYING POWER

Based on average spending and after-tax earnings, apartment residents collectively had \$628.5 billion in disposable income last year. Nearly three-quarters of that amount, or \$421.5 billion, was spent on consumer goods and services produced in the United States.

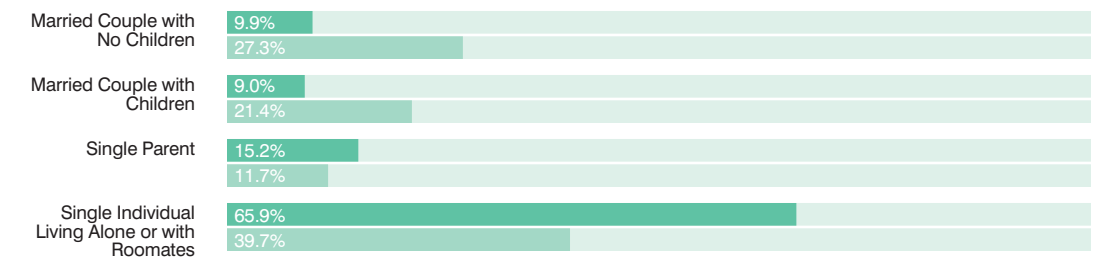
This spending activity is critical fuel in driving local, state and national economic growth. In 2011 alone, apartment resident spending contributed \$885.2 billion to the national economy.

In addition to its contribution to the overall national economy, renter spending also generated \$222.0 billion in additional personal earnings and supported 22.8 million jobs during the year. At that level, that’s more than 12 times the total number of jobs created in the U.S. in all of 2011.<sup>19</sup>

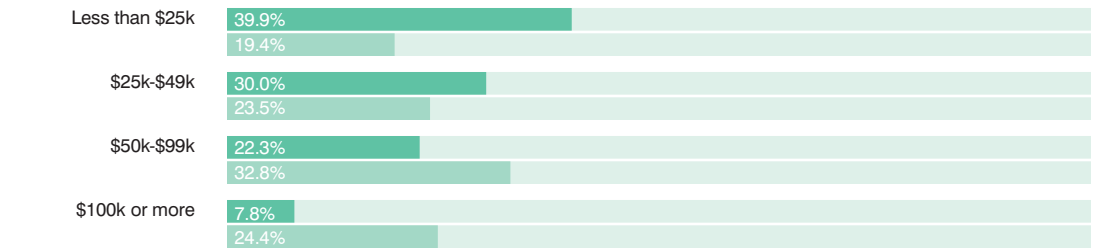
Apartment residents spent a significant portion of those available dollars on housing, food and transportation—their three largest expenditures—followed by utilities, fuels and public services; apparel and services; and entertainment. **Roughly 70.1 percent of the dollars spent on those items stayed within apartment residents’ local economy, supporting independent businesses and service providers.**

WHO ARE THE NATION’S APARTMENT RENTERS?

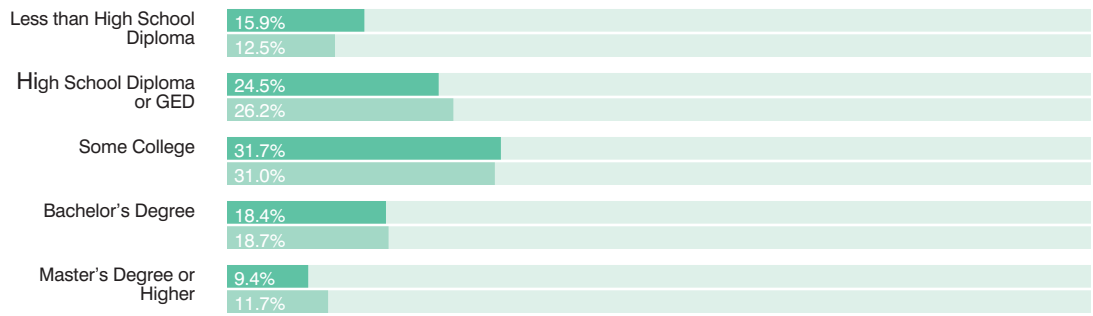
HOUSEHOLD TYPE



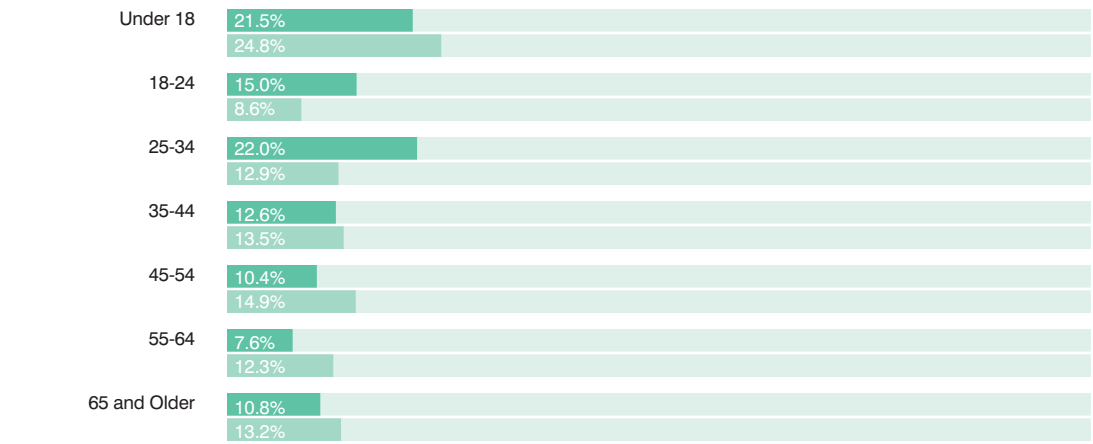
HOUSEHOLD INCOME



EDUCATION OF HOUSEHOLDER



AGE OF RESIDENTS



**KEY:** APARTMENTS (dark green bar), NATIONAL (light green bar)

Source: NMHC tabulations of U.S. Census Bureau, 2010 American Community Survey microdata.

# APARTMENT HOMES TODAY

Often overlooked as an economic contributor, the industry spent \$68 billion operating and maintaining the nation's 19.3 million apartment homes in 2011 alone.

**That's 4.5 times the amount spent on multifamily construction.**

MEETING THE DEMAND

While apartment renters do a significant amount of discretionary spending, their biggest single annual expenditure, on average, comes in the form of rent checks. Apartment renter households spend an average of 40.6 percent of their incomes on gross rent, excluding utilities. Apartment renter households spend an average of \$914 on gross monthly rent.<sup>20</sup> These dollars go to support the local businesses that own, operate and manage the nation’s 19.3 million apartment units.<sup>21</sup>

These units are housed in a variety of building structures, from smaller garden-style apartment buildings to mid-rise buildings to luxury high-rises. There’s a fairly even distribution of apartment units across building type and size. For example, 27 percent of apartment residents live in small buildings with between five and nine units and another 27 percent live in large buildings with more than 50 units.<sup>22</sup>

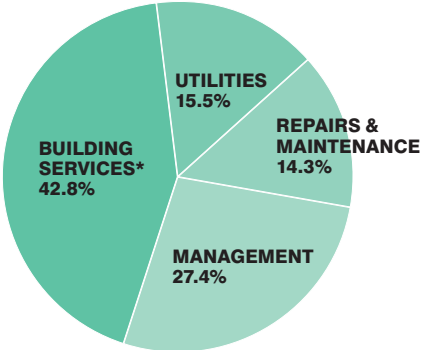
Operating and maintaining the nation’s stock of apartments entails significant expense and is often overlooked as an economic contributor. Building owners and managers have to continually spend to keep their units operational and competitive. Beyond just keeping the lights on, water running and heat working, apartment firms invest annually in repairs and improvements to maintain the health, safety and happiness of their residents. Such a competitive environment requires apartment firms to not only provide quality housing but also innovative products, services and amenities—or absorb the costs associated with higher resident turnover rates. Apartment building owners and managers spend significant dollars maintaining key community amenities, such as sports facilities (pools, basketball courts, fitness centers, yoga studios, golf simulators, etc.) or communal outdoor space (gardens, dog parks, barbecue areas, horseshoe pits, etc.) and running resident programs like movie nights, happy hours, cooking classes, charity events and fantasy sports tournaments.

The industry spent \$67.9 billion on apartment operations. Apartment operations spending directly supported local employment and business activities across four main categories: utilities (15.5 percent); repairs and maintenance (14.3 percent); management (27.4 percent); and building services, including materials and labor costs (42.8 percent).<sup>23</sup>

However, when the indirect effects of that spending are factored in, the operation and maintenance of the nation’s entire existing stock of apartments had a total economic contribution of \$182.6 billion.

Apartment operations spending also generated \$56.8 billion in personal earnings and supported a total of 2.3 million jobs. Apartment firms directly employed people in 686,000 on-site positions. These people were directly involved in managing and maintaining the properties themselves—property managers, leasing agents, maintenance workers and similar types of positions. Apartment operations indirectly supported close to an additional 1.7 million jobs across a wide variety of companies as apartment firms purchase goods and services such as office supplies, phone and Internet services or food and entertainment. These goods and services providers span numerous industries, from manufacturers to retail sales and services, health and education.

WHAT IT TAKES TO RUN AN APARTMENT



Apartment firms spent \$67.9 billion on operating, maintaining and improving their communities in 2011. Here’s how they invested their money.

\*Includes materials and labor costs.  
Source: National Apartment Association

“Such a competitive environment **requires apartment firms to not only provide quality housing but also innovative products, services and amenities**—or absorb the costs associated with higher resident turnover rates.”

APARTMENT OPERATIONS ECONOMIC IMPACT

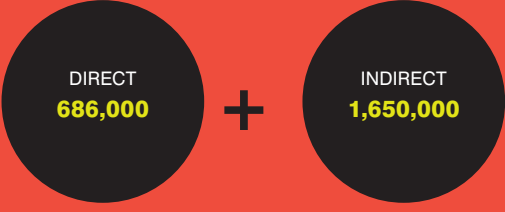
ECONOMIC CONTRIBUTION

**\$182.6 BILLION**



TOTAL JOBS SUPPORTED

**2.4 MILLION**



Note: Totals may not add up due to rounding.

“The industry is still dealing with historically low levels of apartment production and has yet to ramp up fully **to meet the estimated 300,000 net new units that need to be built per year to meet rental demand.**”

## APARTMENT CONSTRUCTION ECONOMIC IMPACT

### ECONOMIC CONTRIBUTION

**\$42.5 BILLION**

DIRECT  
**\$14.8  
BILLION**

+

INDIRECT  
**\$27.7  
BILLION**

### JOBS SUPPORTED

**323,000**

DIRECT  
**200,000**

+

INDIRECT  
**123,000**

\* Direct jobs include 121,000 on-site jobs plus 79,000 off-site jobs.

**Note:** Totals may not add up due to rounding.

## NEW APARTMENT CONSTRUCTION: ON THE RISE

While the nation's existing 19.3 million apartment units could seem a hefty stock, it's actually insufficient to meet today's burgeoning demand for rental housing.

When the for-sale housing bubble popped in 2006, its collapse took with it the mortgage and finance markets and sent the U.S. economy into a recession that lingers today. The economic decline caused private residential construction spending for multifamily units—apartments—to fall significantly.<sup>24</sup>

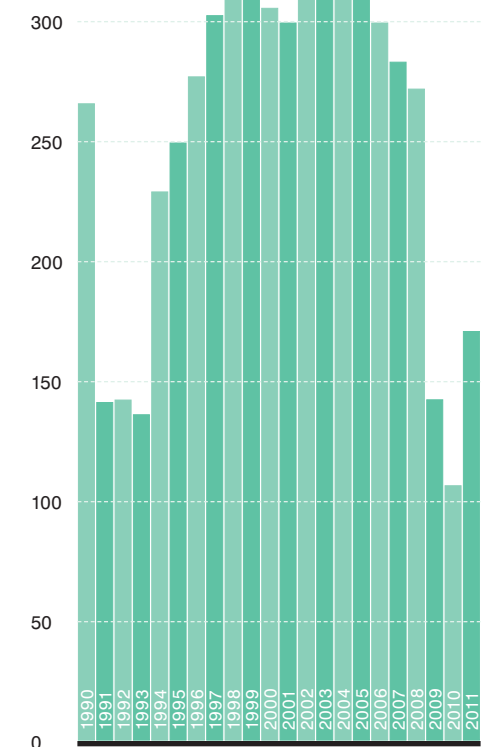
**Multifamily starts hit a low in 2009 with ground-breakings on just 97,300 new units, compared to the 10-year average of 300,000 annual starts that prevailed from 1997-2006.**<sup>25</sup> Beginning in mid-2010, apartment construction has been steadily ramping up. In 2011, 167,000 new units were started. In 2012, that number was on track to be 230,000.<sup>26</sup> Despite this improvement, the industry is still dealing with historically low levels of apartment production and has yet to ramp up fully to meet the estimated 300,000 new units that need to be built per year to meet rental demand and replace units lost from the stock, including obsolete units and those destroyed by natural disaster, demolished or converted to nonresidential use.

With supply still falling short of demand, apartment vacancies have declined significantly. According to MPF Research, the apartment vacancy rate declined to 4.6 percent in 3Q 2012, the lowest rate since 3Q 2007.<sup>27</sup> Low vacancy rates in turn have created upward pressure on rents, although much of the recent rent increases are just returning rents to their pre-recession levels.

However, even at below-normal levels, apartment construction still made a contribution to the economy by creating and supporting jobs. In 2011, the industry spent \$14.8 billion on multifamily construction, generating a total contribution of \$42.5 billion to the national economy. In addition, apartment construction spending spurred \$12.7 billion in personal earnings and supported just under 324,000 jobs. Nearly two-thirds of those jobs were directly supported by apartment construction. Of those direct jobs, roughly 121,000 were on-site positions, held by the construction managers, framers, electricians, plumbers, carpenters and the host of other trades that directly participate in the construction of a building; the remaining 79,000 were off-site positions, such as divisional or regional managers often located at corporate offices.

While the apartment industry's strengthening recovery has significantly contributed to the economy, the industry will have an expanded role going forward as construction activity catches up to demand. By October 2012, multifamily permits and starts had each already surpassed the total number for 2011.<sup>28</sup>

## MULTIFAMILY STARTS (IN THOUSANDS)



Source: U.S. Census Bureau

# STATE AND LOCAL MARKETS

**Demand for apartments remains highly concentrated in urban areas close to employment centers, public transportation and cultural outlets. Seven out of ten apartment permits issued in 2011 were in the 50 largest metro areas.\* This trend is driving the apartment market in California, Florida, Georgia, Maryland, New Jersey, New York, Texas and Washington—states that accounted for more than half of all apartment construction dollars.**

The apartment industry's recovery has been uneven, with some metro areas and submarkets seeing a strong uptick in development activity while others have experienced much less improvement.

This is due to a variety of factors, including some inventory overhang and excess vacancies in select markets, such as Las Vegas, as well as financing constraints. Moreover, capital sources today are investing most in the acquisition and development of higher-end apartment product and apartment properties in first-tier, core markets, such as New York and Los Angeles.

In 2011, 71.4 percent of all apartment building permits issued were in the 50 largest metro areas, only three percentage points lower than the all-time annual high recorded in 2004.<sup>29</sup> More interesting is that within the top metro areas an increasing share of new multifamily construction is taking place in the downtown, or central city, areas of these major metro areas. The nation's most recent economic contraction, followed by a severe construction financing crunch, caused the central city share of multifamily metro area permits to fall to a 10-year low of 20.4 percent in 2009. However, this share began to rebound in 2010 and had improved to 34.2 percent by the end of 2011.

**This trend reflects growing consumer demand for housing located in more urban locations, close to employment centers, public transportation and cultural outlets.** Because of the large upticks in apartment construction in major urban centers, 12 major metropolitan areas—Atlanta, Boston, Chicago, Dallas, Denver, Houston, Los Angeles, Miami, New York, Philadelphia, Seattle and Washington, D.C.—were selected for additional anal-

ysis. By choosing geographically and economically diverse metro areas, the analysis shows the meaningful role the apartment sector plays across the nation, significantly contributing to the economic success of some of the nation's most powerful cities and the states in which they are located. (Please see pages 28-40 for more detailed metro area data.)

Apartments have a significant role in the housing economy in each of these metro areas. Roughly 7.1 million apartment households call these areas home; on average, one out of five households in each of these metro areas rents an apartment. However, that share is much higher in metro areas such as Los Angeles and New York, where apartment resident households account for between a quarter and a third of all households in the area. Consequently, apartments make up a substantial share of the housing stock in many of these metro areas. **In fact, collectively, these 12 metro markets represent 7.8 million apartment units, or 40.4 percent of the nation's total apartment stock.**

Managing, maintaining and operating all these units is an expensive business. On average, for these 12 areas it costs \$3,859 every year to operate a single apartment. However, local market dynamics, such as the availability and cost of labor and materials, drive the annual cost per unit much higher in some metro areas. In Miami, for example, it costs \$4,824 a year to run an apartment—that's nearly \$1,000 more than the average annual per unit cost across these select metro areas. Apartment operations costs for many are also higher than the group average in Boston, Los Angeles, New York, Philadelphia and Washington, D.C.

**\*Source:** U.S. Census Bureau, U.S. Department of Housing and Urban Development.

The dollars spent operating apartment units lift the local metro area economies and collectively support more than 500,000 jobs across all 12 cities. Clearly, in cities such as Los Angeles and New York, which have very large numbers of both apartment renters and units, ongoing apartment operations stimulate a massive volume of economic activity. However, when local economic impact is evaluated on a relative basis, apartment operations have a larger economic impact in some of the smaller metro areas. For example, of all the metro areas, ongoing apartment operations generated the most significant economic impact in Dallas, where every dollar spent on apartment operations contributed \$2.28 to the local economy; similarly, apartment operations spending in Dallas supported more jobs—19.6 jobs to be exact—per \$1 million than any of the other selected metro areas.

Apartment operation is set to become an even larger economic driver in these metro areas as the apartment stock there continues to grow. Currently, there are roughly two apartment renters for every unit across these 12 cities. However, demographics and changing housing preferences are driving demand and underscoring a need for additional supply in some markets and submarkets. Many of these 12 metro areas saw a substantial contraction in apartment building construction during the housing downturn. From 2006 to 2011, for example, apartment permits plummeted 83.7 percent in Miami; similar results came out of Atlanta and Chicago, which experienced apartment permitting falloffs of 82.5 percent and 78.0 percent, respectively.

In 2011, construction spending in key renter states topped \$8.5 billion

However, as the economy and housing market have stabilized, permitting activity has rebounded in many of the hardest hit metro areas. **Denver experienced the largest year-over-year increase in apartment permits, with a spike of 133.7 percent. Dallas and Atlanta were close behind, with year-over-year jumps of 125.9 percent and 108.0 percent, respectively.**

This construction activity is a strong economic stimulus in these select metro markets. In 2011, for example, new apartment construction spending triggered more than \$1.5 billion in local economic activity in both Dallas and Washington, D.C., and more than \$2.1 billion in both Los Angeles and New York. Moreover, apartment construction supported between 10,000 and 20,000 jobs in each of these four markets. As apartment construction returns to more normalized levels, this activity will be an even more powerful economic stimulant in these metro areas than it is today.

KEY RENTER STATES

The critical concentration of apartments in these 12 select major metro areas drives not only local economic activity but also generates significant contribution to their respective state economies. Consequently, states with larger, more established cities find that the apartment industry plays a larger role in powering their state economies than states with smaller metro areas.

Combining data on the top states by share of renter households, number of apartments and construction activity, eight states stand out as key renter states, where the apartment industry plays a pivotal role in the state economies. California, New York and Texas are in a first tier, dominating the list of states with large numbers of renters and apartment units as well as high levels of new apartment construction activity. In a second tier are Florida, Georgia, Maryland, New Jersey and Washington. (A full data set is available for all 50 states and the District of Columbia beginning on page 44).

Construction spending in these key renter states topped \$8.5 billion last year, a value that accounts for more than half of all dollars spent nationally on new apartment construction. **Evaluating data on the top states by share of renter households, a value that accounts for more than half of all dollars spent nationally on new apartment construction.** Moreover, that spending collectively contributed more than \$18.8 billion to those eight state economies, a figure that represents 59.5 percent of the total economic contribution of new apartment construction spending across all 50 states and the District of Columbia.

Dollars spent on new apartment construction in Texas generated the most economic bang for the initial buck out of all 50 states, with every \$1.00 spent contributing an additional \$1.50 to the economy. Apartment construction spending in California and Georgia also ranked high in terms of generating additional economic activity. However, while the dollar volume of construction activity in states such as Illinois, Ohio, Pennsylvania and Utah was lower than in key apartment states, dollars spent on new construction activity in those areas contributed to the state economy at a higher rate than some key states, such as Florida, Maryland and New Jersey.

New apartment construction activity supported the largest number of jobs in California and Texas, although construction in Florida and Washington supported a noteworthy number of jobs relative to the amount of new apartment construction activity in those states. For example, in Florida, \$813.2 million was spent on new apartment construction, roughly \$157.5 million less than in New York. However, 15,107 jobs were tied to that construction activity in Florida, compared with 11,502 jobs in New York.

SNAPSHOT OF APARTMENTS IN SELECT METRO AREAS

Metro Area	RESIDENTS		OPERATIONS		CONSTRUCTION	
	Apartment Households	% of All Households	Apartment Units	Operations Spending	Building Permits	Construction Spending
Atlanta	327,698	17.4%	382,842	\$1.2 billion	2,390	\$178.7 million
Boston	322,481	18.5%	346,221	\$1.5 billion	2,318	\$288.2 million
Chicago	581,152	17.0%	665,815	\$2.4 billion	3,354	\$342.8 million
Dallas	513,200	22.6%	597,480	\$1.9 billion	13,592	\$725.0 million
Denver	210,942	21.1%	231,405	\$0.7 billion	2,653	\$203.9 million
Houston	431,537	21.3%	518,593	\$1.7 billion	8,008	\$429.4 million
Los Angeles	1,168,229	27.9%	1,260,953	\$5.8 billion	9,628	\$1,291.7 million
Miami	396,161	20.0%	443,777	\$2.1 billion	3,151	\$225.7 million
New York	2,057,331	30.3%	2,218,246	\$9.4 billion	13,291	\$1,144.8 million
Philadelphia	299,315	13.5%	340,980	\$1.5 billion	2,118	\$152.2 million
Seattle	289,159	21.4%	314,469	\$1.0 billion	4,778	\$507.4 million
Washington, D.C.	469,358	23.0%	518,277	\$2.1 billion	9,385	\$881.2 million
TOTAL	7,066,563	22.8%*	7,839,058	\$31.5 billion	74,666	\$6.4 billion

ECONOMIC IMPACT OF APARTMENTS IN SELECT METRO AREAS

Metro Area	OPERATIONS			CONSTRUCTION		
	Apartment Units	Economic Contribution	Total Jobs	Building Permits	Economic Contribution	Total Jobs
Atlanta	382,842	\$2.5 billion	23,031	2,390	\$396.8 million	3,383
Boston	346,221	\$2.8 billion	19,920	2,318	\$526.6 million	3,619
Chicago	665,815	\$5.2 billion	46,993	3,354	\$780.8 million	6,256
Dallas	597,480	\$4.3 billion	36,670	13,592	\$1,673.9 million	12,916
Denver	231,405	\$1.7 billion	13,032	2,653	\$430.6 million	3,246
Houston	518,593	\$3.6 billion	31,077	8,008	\$908.2 million	7,107
Los Angeles	1,260,953	\$12.0 billion	88,416	9,628	\$2,693.8 million	18,189
Miami	443,777	\$4.1 billion	38,212	3,151	\$442.0 million	3,825
New York	2,218,246	\$17.6 billion	135,047	13,291	\$2,128.6 million	15,883
Philadelphia	340,980	\$3.2 billion	25,814	2,118	\$331.1 million	2,449
Seattle	314,469	\$1.8 billion	14,548	4,778	\$1,116.4 million	8,832
Washington, D.C.	518,277	\$3.7 billion	30,904	9,385	\$1,515.8 million	11,736
TOTAL	7,839,058	\$62.6 billion	503,664	74,666	\$1.3 billion	97,440

\*Average

SNAPSHOT OF KEY APARTMENT RENTER STATES

State	RESIDENTS			OPERATIONS		CONSTRUCTION	
	Apartment Households	% of All Households	Resident Spending	Apartment Units	Operation Spending	Building Permits	Construction Spending
California	2,515,960	20.3%	\$76.0 billion	2,766,767	\$24.6 billion	22,340	\$2.9 billion
Florida	995,483	14.2%	\$23.3 billion	1,192,715	\$4.3 billion	9,680	\$0.8 billion
Georgia	452,123	13.0%	\$9.6 billion	524,406	\$1.7 billion	4,428	\$0.3 billion
Maryland	374,505	17.6%	\$12.0 billion	425,643	\$1.6 billion	4,930	\$0.4 billion
New Jersey	505,333	15.9%	\$15.1 billion	565,489	\$2.3 billion	5,864	\$0.5 billion
New York	1,967,219	27.3%	\$53.6 billion	2,147,076	\$8.5 billion	11,978	\$1.0 billion
Texas	1,508,607	17.3%	\$36.2 billion	1,769,977	\$5.4 billion	30,417	\$1.8 billion
Washington	434,197	16.7%	\$11.5 billion	474,913	\$1.5 billion	7,039	\$0.7 billion
TOTAL	8,753,427	18.7%*	\$273.3 billion	9,866,986	\$36.3 billion	96,676	\$8.5 billion
% of U.S.	51.2%	40.8%	56.3%	51.1%	53.4%	52.5%	57.3%

ECONOMIC IMPACT OF APARTMENTS IN KEY RENTER STATES

State	RESIDENTS		OPERATIONS		CONSTRUCTION	
	Economic Contribution	Total Jobs	Economic Contribution	Total Jobs	Economic Contribution	Total Jobs
California	\$159.6 billion	4,108,400	\$24.6 billion	299,513	\$6.7 billion	45,316
Florida	\$48.9 billion	1,259,770	\$8.3 billion	129,761	\$1.7 billion	15,107
Georgia	\$20.2 billion	519,241	\$3.6 billion	54,979	\$0.7 billion	5,890
Maryland	\$25.2 billion	648,986	\$3.0 billion	43,279	\$0.8 billion	5,799
New Jersey	\$31.8 billion	817,952	\$4.7 billion	56,333	\$1.1 billion	6,731
New York	\$112.5 billion	2,896,263	\$15.1 billion	192,022	\$1.8 billion	11,502
Texas	\$76.0 billion	1,956,540	\$12.4 billion	182,164	\$4.6 billion	35,000
Washington	\$24.1 billion	621,267	\$3.0 billion	44,871	\$1.5 billion	11,153
TOTAL	\$498.3 billion	12.8 million	\$74.8 billion	1,002,992	\$18.8 billion	136,498
% of U.S.	56.3%	56.3%	41.0%	42.9%	44.3%	42.2%

\*Average

However, construction spending went further to support jobs in a number of non-key apartment states than in the core apartment states. For example, every \$1 million in apartment construction spending in Texas supports roughly 19.2 jobs within the state. In contrast, \$1 million in apartment construction spending in Utah supports 21 jobs. Similar job benefits can be seen in Alabama, Maine, North Carolina, Oklahoma and South Carolina.

**While apartment construction is a strong economic driver, the operation of the 9.9 million units making up the apartment stock in these eight key states had a collective economic contribution of nearly four times that of new apartment construction to those state economies.**

Dollars spent on operating apartments in Texas and California generated the highest rates of economic contributions to their respective economies of all 50 states and the District of Columbia, with every \$1.00 spent on apartment operations returning to the economy as \$2.32 in Texas and \$2.22 in California. Other non-key states where apartment operation spending added dollars back into the state economy at high rates include Colorado, Illinois, Pennsylvania and Utah.

**People who live in apartments are the real economic engine at the state level.**

More than half of the jobs supported by the ongoing apartment operations were in California, New York and Texas; in fact, apartment operations in these three states supported more than a third of all the jobs supported by the management and operation of the nation’s existing apartments. While Texas ranked high against all states and the District of Columbia on the number of jobs supported by apartment operations spending—22.3 jobs for every \$1 million in operations spending—other non-key apartment states, such as Alabama, Louisiana, Maine, Montana, Oklahoma, South Carolina and Utah, also saw strong job support resulting from operations spending. Utah topped the list, with apartment operations supporting 23.7 jobs per \$1 million in spending.

For as far as new apartment construction and ongoing apartment operations go in generating additional economic activity, the people who live in apartments are the real economic engine at the state level. Renter spending was the highest in California, New York and Texas, reaching \$76.0 billion, \$53.6 billion and \$36.2 billion, respectively. This takeaway is unsurprising given the sheer number of renter households in these states.

However, even in states with much smaller numbers of renter households, renter spending remained a sizable contributor to the economy. For example, out of all 50 states and the District of Columbia, Wyoming has the fewest number of apartment households and yet those residents drove a nearly billion-dollar contribution to the state economy.

This economic activity means jobs and more jobs. Nationally, apartment resident household spending of \$421.5 billion, on items such as coffee, clothes and movie tickets, directly supported 11.2 million jobs. However, when the indirect effects of that spending are factored in—the barista who whips up the tasty latté has to buy more coffee beans, which supports jobs at a coffee distributor, which supports jobs at a coffee processing plant and so on up the food chain—that jobs figure grows to a total of 22.8 million jobs supported by those living in apartments.

On the state level, California, New York, Texas, Florida and Illinois took the top slots in terms of total number of jobs supported by apartment resident spending. These results are expected given the large number of apartment resident households in those states. But when the data are examined in terms of jobs supported per apartment household, other non-key renter states show significant benefit from resident spending activity. Although five key renter states nabbed top 10 positions by greatest number of jobs supported per apartment resident household, none garnered the first or second slot. Apartment resident households in Hawaii created the greatest number of jobs—1.87—per household, followed by apartment resident households in Washington, D.C., with 1.76 jobs supported per household. Apartment resident spending in Alaska, New Hampshire, Nevada and Virginia also created a significant number of jobs per apartment household.

Apartment resident households remain concentrated in a limited number of states, creating volumes of economic activity and supporting large numbers of jobs in those select states. However, apartment resident spending generates greater economic contribution and more jobs on a per apartment household basis in a number of non-key renter states, highlighting apartment residents’ role in powering less populous state economies as well.

**34.6  
MILLION**

**APARTMENT RESIDENTS LIVING IN**

**19.3  
MILLION**

**APARTMENT HOMES CONTRIBUTE**

**\$1.1  
TRILLION**

**TO THE NATIONAL ECONOMY AND SUPPORT**

**25.4  
MILLION**

**JOBS THROUGHOUT THE UNITED STATES**

## CONCLUSION

Despite the worst economy in a generation, the apartment industry made a significant, positive contribution to economic recovery.

Apartment renters spent \$421.5 billion on goods and services in 2011. As those dollars were spent in the local economy and beyond, they not only helped boost metro area and state economies and support job growth and preservation, but they also put significant dollars back into the economy—to the tune of an \$885.2 billion contribution to national GDP, an estimated \$648.8 billion of which was spent locally.

**When the economic effects of new apartment construction and ongoing apartment operations also are factored in, apartments contributed \$1.1 trillion to the national economy and supported 25.4 million jobs.**

Moreover, as the number of renters and renter households continues to grow—as many as 7 million new renter households could be created this decade—America’s apartment renters are set to become an even more significant, positive force for economic development. While this trend will start to reshape local and state economies nationwide, certain metro areas and states will experience more significant economic benefits from a burgeoning apartment market based on the concentration of apartments in their geographic area and the size and complexity of their economies.

**For this reason, it’s critical that social and political leaders and other community stakeholders further educate themselves on the value of apartments to their local jurisdictions.** To underestimate the contribution of apartment residents, builders, developers, owners and managers is to overlook future economic growth as the nation accelerates its recovery.

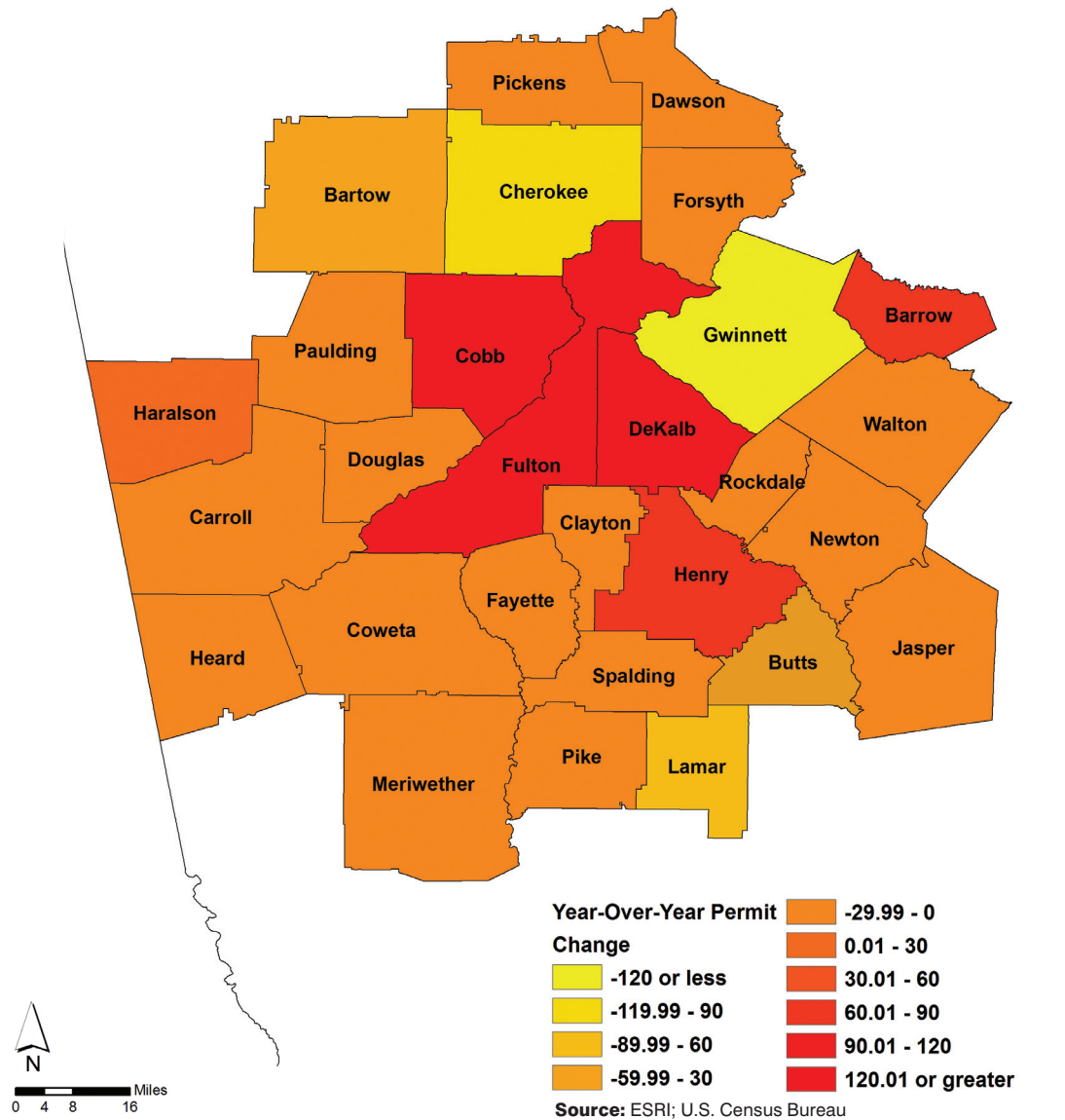
NAA and NMHC offer a wealth of educational resources—online, in person and in print—for policymakers, regulators and community leaders to better understand the evolving role the apartment industry plays at the local, state and national level. Whether it’s just needing a better grasp of the fundamentals of the industry, additional industry data by state or congressional district or specific legislative or regulatory issue information, NAA and NMHC are the go-to sources for the latest data and analysis on the financing, management and operations of the apartment industry.

Visit [www.naahq.org](http://www.naahq.org) or [www.nmhc.org](http://www.nmhc.org) for more information.

# CITY SNAPSHOTS

Because of the large upticks in apartment construction in major urban centers, 12 major metropolitan areas—Atlanta, Boston, Chicago, Dallas, Denver, Houston, Los Angeles, Miami, New York, Philadelphia, Seattle and Washington, D.C.—were selected for additional analysis.

**Collectively, these 12 metro markets represent 7.8 million apartment units, or 40.4 percent of the nation's total apartment stock.**



## Atlanta

### NEW APARTMENT CONSTRUCTION RACES TO KEEP UP WITH DEMAND

The economy in Atlanta continues to chug along, driving the metro and toward a multiyear run in employment growth. This positive jobs picture is buoying demand for apartments, which is increasing occupancy levels in apartment buildings and underscoring the need for more apartments. New apartment construction has accelerated in response to the growing demand, but the level of activity remains well below historical levels and is insufficient to meet current apartment demand.

#### RESIDENTS

Apartment Residents .....	728,372
Percent of Metro Population.....	14.0%
Apartment Households .....	327,698
Percent of Metro Households .....	17.4%

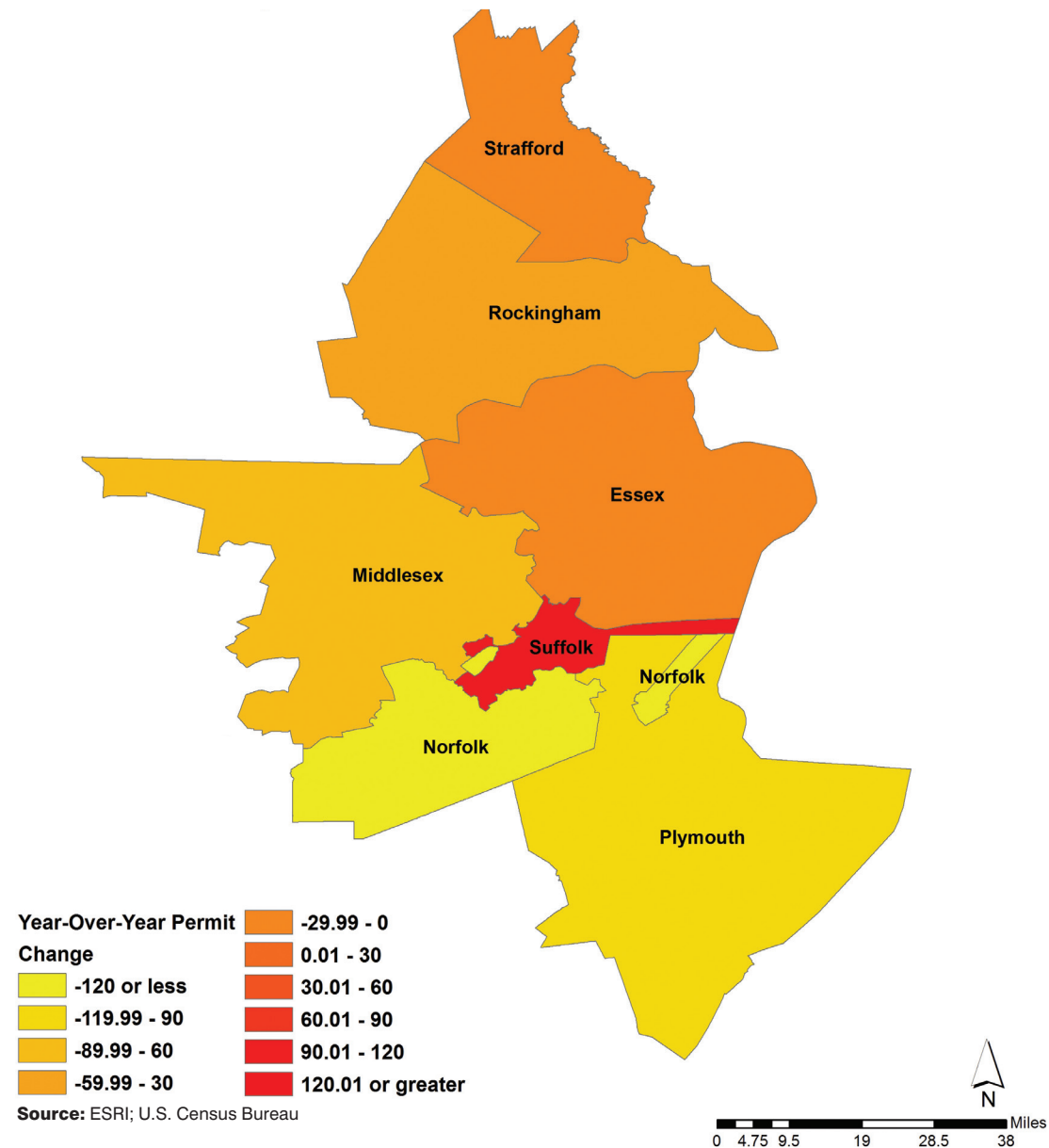
#### EXISTING APARTMENT STOCK

Apartment Units.....	382,842
Occupancy Rate* .....	92.2%
Apartment Absorptions* .....	6,256
Operations Spending .....	\$1,219,733,038
Total Contribution to Metro Economy.....	\$2,543,684,784
Total Jobs Supported .....	23,031

#### NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	2,357
Percent of Residential Building Permits.....	27.3%
Year-Over-Year Change in Apartment Permits .....	114.1%
Five-Year Change in Apartment Permits .....	-81.9%
Construction Spending .....	\$178,750,000
Total Contribution to Metro Economy.....	\$396,830,000
Total Jobs Supported .....	3,383

\*Source: MPF Research



## Boston

### APARTMENT DEMAND GROWS IN URBAN CORE AND ALONG SUBURBAN TRANSIT LINES

The Boston metro area is experiencing its strongest job growth in three years. This economic growth is fueling apartment demand in the urban core, as well as outlying areas, as people seek more affordable housing options. Construction activity is ramping up considerably to meet demand, and new unit deliveries will begin to address what's been a severe shortage of new apartment supply. High demand is also creating opportunities to transform outlying communities close to public transit.

#### RESIDENTS

Apartment Residents .....	584,585
Percent of Metro Population.....	13.3%
Apartment Households .....	322,481
Percent of Metro Households .....	18.5%

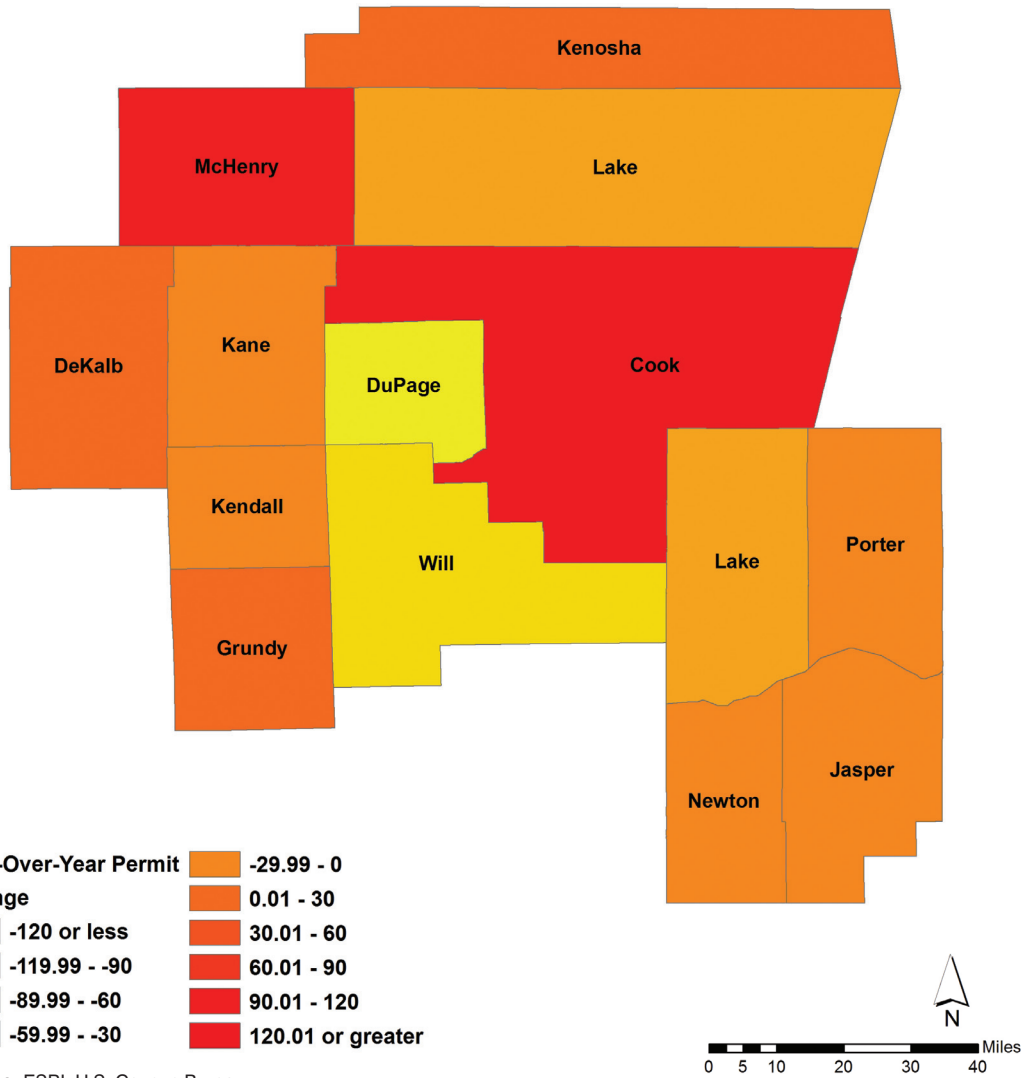
#### EXISTING APARTMENT STOCK

Apartment Units.....	346,221
Occupancy Rate* .....	96.5%
Apartment Absorptions* .....	1,438
Operations Spending .....	\$1,516,449,300
Total Contribution to Metro Economy.....	\$2,756,031,615
Total Jobs Supported .....	19,920

#### NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	2,321
Percent of Residential Building Permits.....	37.8%
Year-Over-Year Change in Apartment Permits .....	-9.2%
Five-Year Change in Apartment Permits .....	-55.6%
Construction Spending .....	\$288,200,000
Total Contribution to Metro Economy .....	\$526,640,000
Total Jobs Supported .....	3,619

\*Source: MPF Research

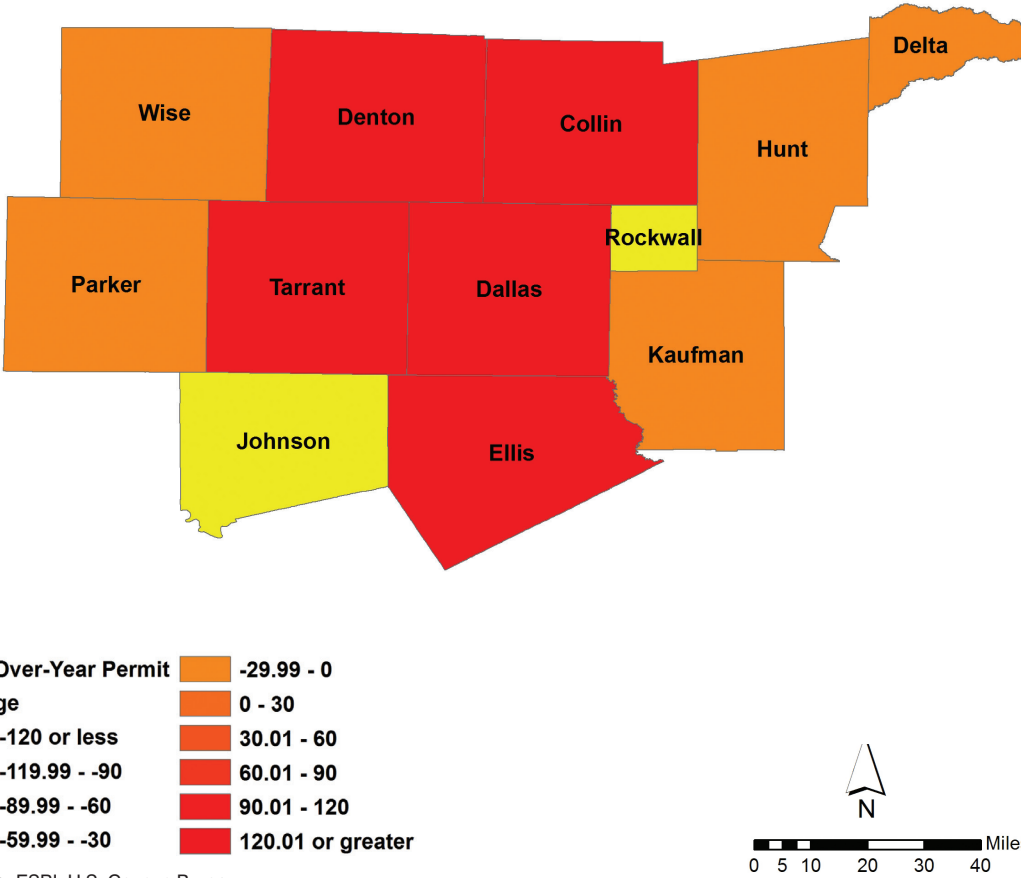


Chicago

NEW APARTMENT CONSTRUCTION ACTIVITY REMAINS CLUSTERED IN THE AREA’S URBAN CORE

Stable economic growth is fueling apartment demand. Following a slow period of construction, with few new unit deliveries, new apartment construction activity is once again picking up. The metro area’s pipeline of planned apartment projects is robust and new unit deliveries are expected to increase in the year ahead. The vast majority of the activity is concentrated in the area’s urban core rather than suburban submarkets.

RESIDENTS		NEW APARTMENT CONSTRUCTION	
Apartment Residents .....	1,121,942	Apartment Building Permits .....	3,159
Percent of Metro Population.....	12.0%	Percent of Residential Building Permits.....	41.6%
Apartment Households .....	581,152	Year-Over-Year Change in Apartment Permits .....	15.0%
Percent of Metro Households .....	17.0%	Five-Year Change in Apartment Permits .....	-77.5%
EXISTING APARTMENT STOCK		Construction Spending .....	\$342,820,000
Apartment Units.....	665,815	Total Contribution to Metro Economy .....	\$780,760,000
Occupancy Rate* .....	95.80%	Total Jobs Supported .....	6,256
Apartment Absorptions* .....	3,456	*Source: MPF Research	
Operations Spending .....	\$2,440,210,725		
Total Contribution to Metro Economy .....	\$5,233,098,688		
Total Jobs Supported .....	46,993		

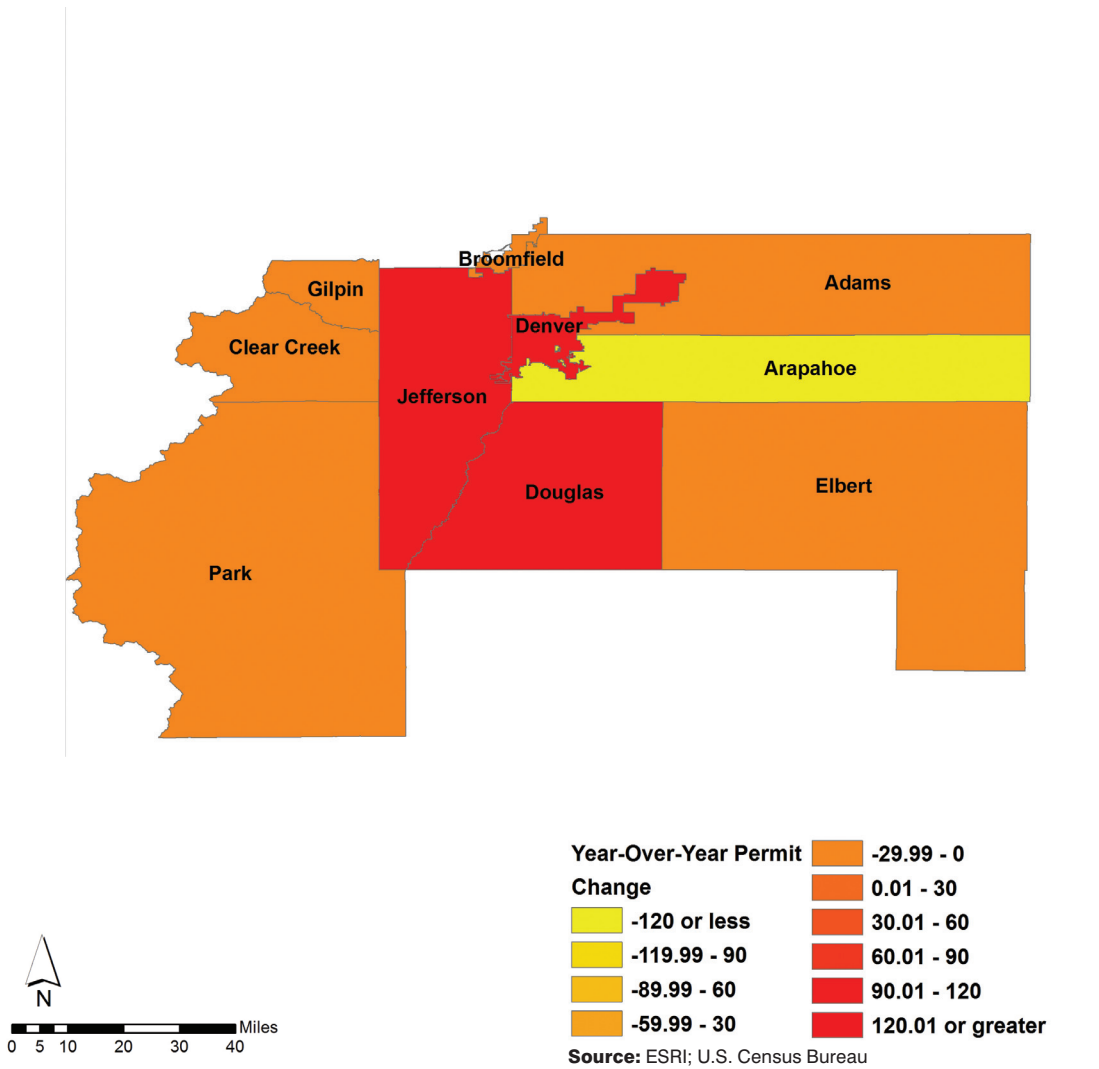


Dallas

STRONG JOB GROWTH AND FAVORABLE DEMOGRAPHICS DRIVE APARTMENT DEMAND

Favorable economic conditions are driving big job gains in Dallas, where job growth remains well above the national average. Consequently, apartment market conditions are the tightest in more than a decade. Construction activity is ramping up to address growing demand, and new unit deliveries are likely to increase through 2013. Shifting demographics will boost apartment demand going forward as the metro area’s 20- to 34-year-old population swells considerably.

RESIDENTS		NEW APARTMENT CONSTRUCTION	
Apartment Residents .....	1,109,642	Apartment Building Permits .....	11,013
Percent of Metro Population.....	17.6%	Percent of Residential Building Permits.....	41.8%
Apartment Households .....	513,200	Year-Over-Year Change in Apartment Permits .....	120.7%
Percent of Metro Households .....	22.6%	Five-Year Change in Apartment Permits .....	-77.5%
EXISTING APARTMENT STOCK		Construction Spending .....	\$725,040,000
Apartment Units.....	597,480	Total Contribution to Metro Economy.....	\$1,673,910,000
Occupancy Rate* .....	93.9%	Total Jobs Supported .....	12,916
Apartment Absorptions* .....	7,362	*Source: MPF Research	
Operations Spending .....	\$1,875,488,247		
Total Contribution to Metro Economy .....	\$4,269,723,830		
Total Jobs Supported .....	36,670		



Denver

APARTMENT CONSTRUCTION ACCELERATES BUT STRUGGLES TO MEET DEMAND

Retail growth is powering employment increases and generating new apartment demand in Denver. As a result, apartment construction activity is picking up, especially in the Denver-North submarket. In fact, Denver’s construction sector, which includes both commercial and residential construction, is expanding at one of the fastest paces in the country. This activity will result in a wave of new units delivered in the market in the coming year, but the new supply is expected to be insufficient to meet market demand.

RESIDENTS

Apartment Residents .....	404,234
Percent of Metro Population.....	16.0%
Apartment Households .....	210,942
Percent of Metro Households .....	21.1%

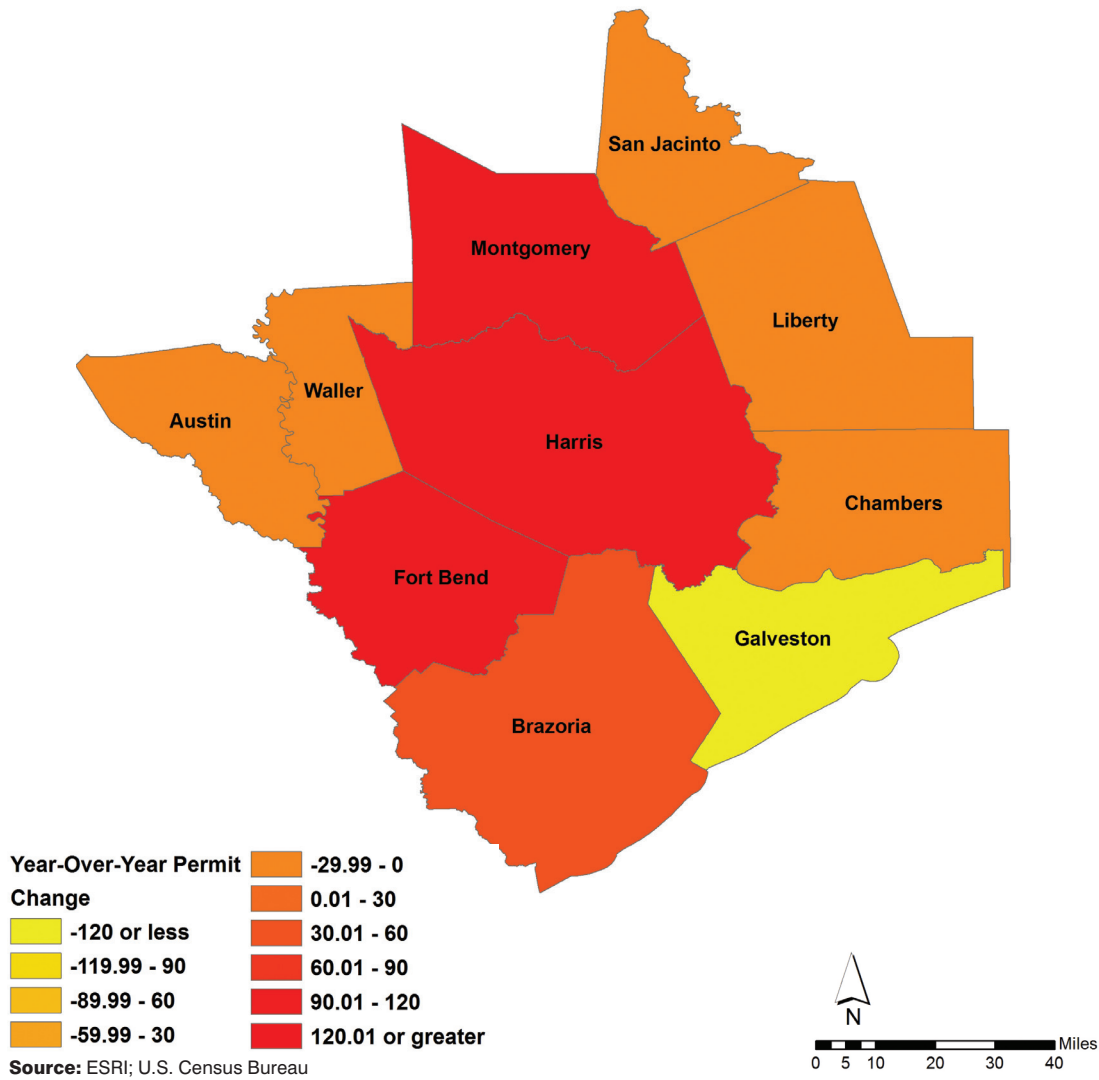
EXISTING APARTMENT STOCK

Apartment Units.....	231,405
Occupancy Rate* .....	96.3%
Apartment Absorptions* .....	4,200
Operations Spending .....	\$736,099,526
Total Contribution to Metro Economy.....	\$1,660,936,716
Total Jobs Supported .....	13,032

NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	2,782
Percent of Residential Building Permits.....	41.7%
Year-Over-Year Change in Apartment Permits .....	145.1%
Five-Year Change in Apartment Permits .....	-53.5%
Construction Spending .....	\$203,860,000
Total Contribution to Metro Economy .....	\$430,580,000
Total Jobs Supported .....	3,246

\*Source: MPF Research



Houston

NEW APARTMENT SUPPLY INCREASES, BUT ABSORPTIONS STILL OUTPACE DELIVERIES

Houston’s economy is poised to continue its robust expansion and strong job gains are fueling apartment demand and new apartment development. While construction activity has increased significantly, particularly in the Far Northwest/Montgomery County and Montrose/River Oaks submarkets, new apartment supply still falls short of absorptions. This supply-demand imbalance is driving down vacancies to its lowest level since 2006.

RESIDENTS

Apartment Residents .....	1,006,801
Percent of Metro Population.....	17.0%
Apartment Households .....	431,537
Percent of Metro Households .....	21.3%

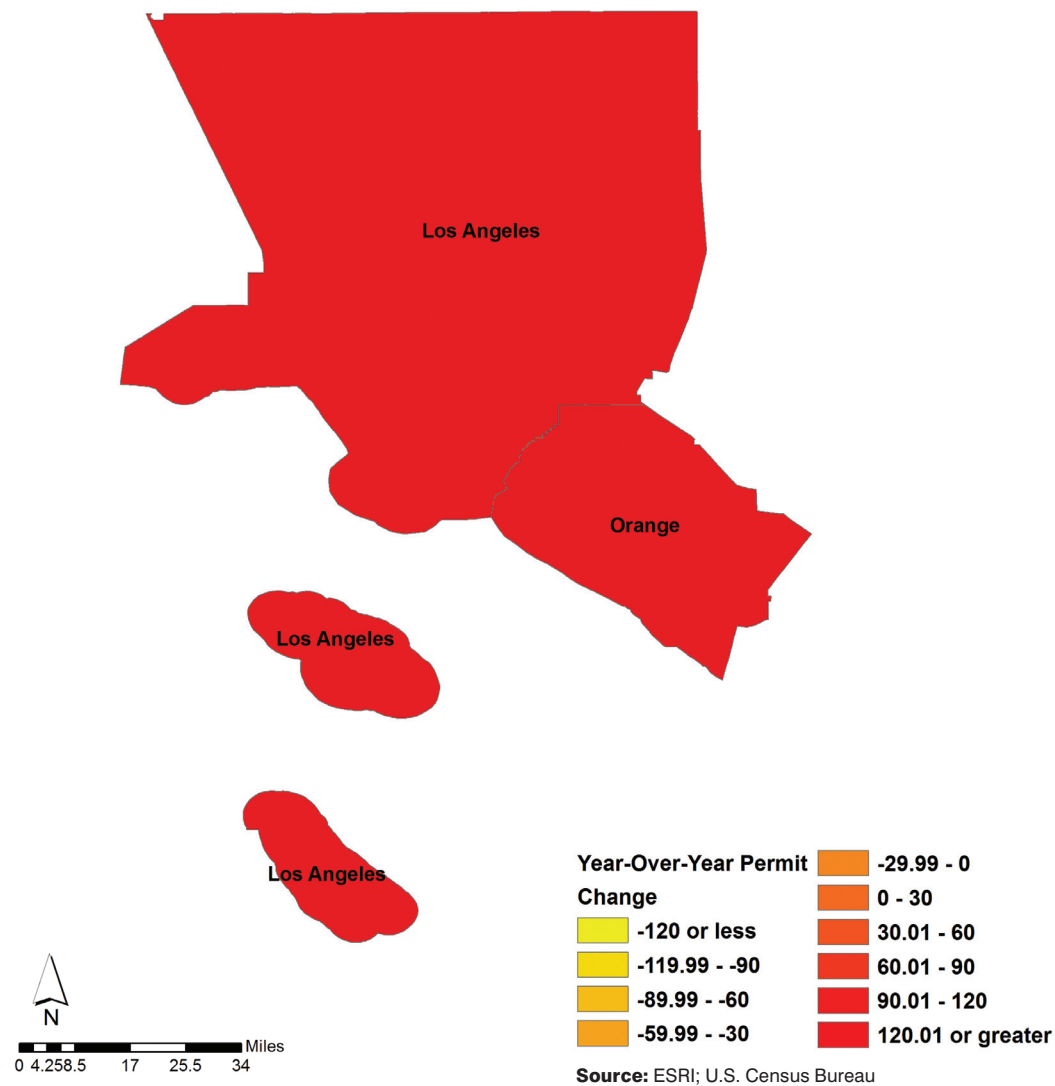
EXISTING APARTMENT STOCK

Apartment Units.....	518,593
Occupancy Rate* .....	93.0%
Apartment Absorptions* .....	14,777
Operations Spending .....	\$1,676,610,629
Total Contribution to Metro Economy .....	\$3,610,937,065
Total Jobs Supported .....	31,077

NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	8,281
Percent of Residential Building Permits.....	26.5%
Year-Over-Year Change in Apartment Permits .....	70.5%
Five-Year Change in Apartment Permits .....	-59.2%
Construction Spending .....	\$429,360,000
Total Contribution to Metro Economy .....	\$908,160,000
Total Jobs Supported .....	7,107

\*Source: MPF Research



## Los Angeles

### STABLE APARTMENT MARKET LOOKS FOR SUSTAINED SUPPLY-DEMAND BALANCE

Steady job growth, resulting in more new household formations, and continued weakness in the local for-sale housing market is benefitting the apartment sector in Los Angeles. Consequently, new apartment construction activity has gained momentum, particularly in the Westside Cities area, bringing the local market's apartment supply more in balance with demand.

#### RESIDENTS

Apartment Residents .....	2,884,052
Percent of Metro Population.....	22.9%
Apartment Households .....	1,168,229
Percent of Metro Households .....	27.9%

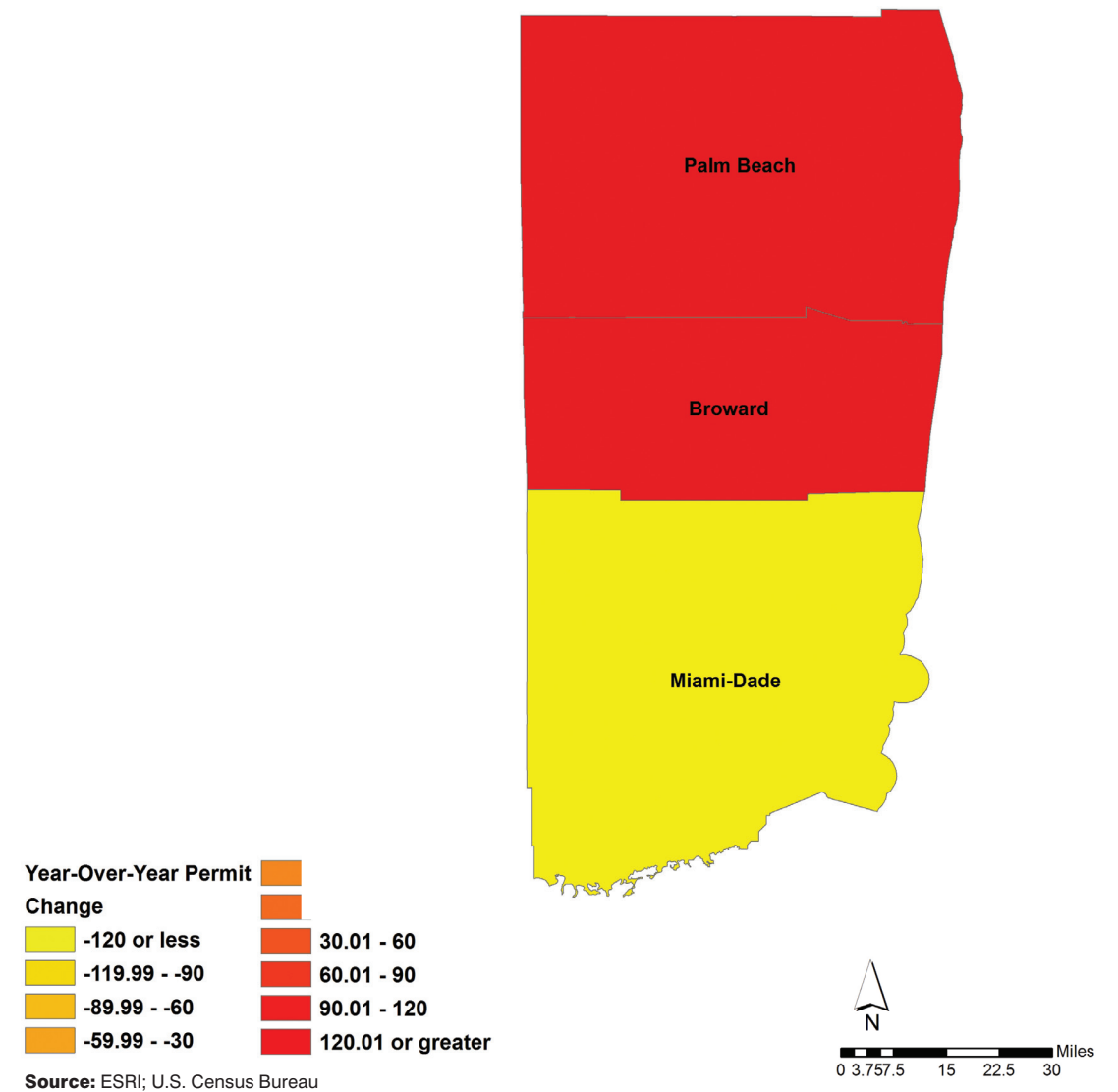
#### EXISTING APARTMENT STOCK

Apartment Units.....	1,260,953
Occupancy Rate* .....	96.7%
Apartment Absorptions* .....	5,937
Operations Spending .....	\$5,825,601,932
Total Contribution to Metro Economy .....	\$12,038,990,809
Total Jobs Supported .....	88,416

#### NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	9,628
Percent of Residential Building Permits.....	67.6%
Year-Over-Year Change in Apartment Permits .....	68.5%
Five-Year Change in Apartment Permits .....	-39.7%
Construction Spending .....	\$1,291,740,000
Total Contribution to Metro Economy.....	\$2,693,800,000
Total Jobs Supported .....	18,189

**\*Source:** MPF Research



## Miami

### DEMAND FOR HIGHER-END APARTMENTS LIKELY TO SPUR A NEW WAVE OF CONSTRUCTION

Steady job growth continues to bring Miami's employment closer to pre-recession levels, resulting in more apartment demand, particularly for more upscale apartment product. New apartment construction has begun to increase, although at a relatively tempered pace. However, a new cycle of activity is expected to begin in the near future as increasing occupancy rates and fewer vacancies underscore the need for new supply.

#### RESIDENTS

Apartment Residents .....	919,717
Percent of Metro Population.....	16.8%
Apartment Households .....	396,161
Percent of Metro Households .....	20.0%

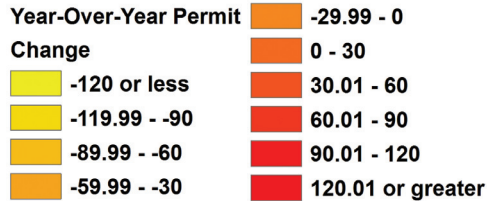
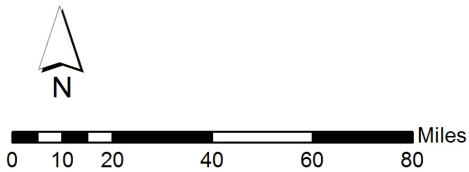
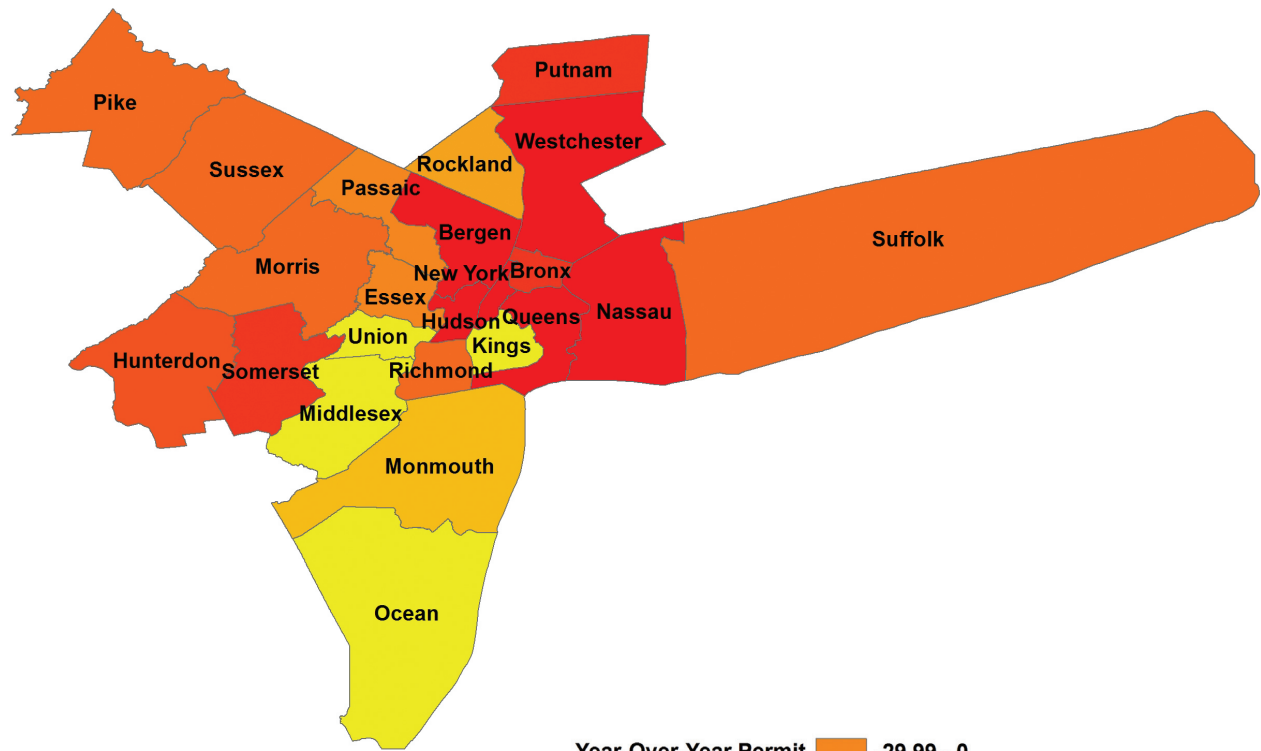
#### EXISTING APARTMENT STOCK

Apartment Units.....	443,777
Occupancy Rate* .....	92.60%
Apartment Absorptions* .....	2,205
Operations Spending .....	\$2,140,778,910
Total Contribution to Metro Economy .....	\$4,083,676,081
Total Jobs Supported .....	38,212

#### NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	3,101
Percent of Residential Building Permits.....	41.2%
Year-Over-Year Change in Apartment Permits .....	23.1%
Five-Year Change in Apartment Permits .....	-58.4%
Construction Spending .....	\$225,750,000
Total Contribution to Metro Economy .....	\$441,990,000
Total Jobs Supported .....	3,825

**\*Source:** MPF Research



Source: ESRI; U.S. Census Bureau

New York

APARTMENT MARKET TIGHTENS AS DEMAND SURGES AND AREA CONSTRAINTS LIMIT NEW SUPPLY

The technology, media and advertising sectors are picking up some of the economic slack from the weakened financial sector, driving the New York metro area’s explosive job gains in the past year. This surge in employment is not only boosting apartment demand but also generating fierce competition for existing supply. Market constraints limit the amount of supply able to be delivered; consequently, pricing is driving apartment demand in submarkets in Brooklyn and Long Island City.

RESIDENTS

Apartment Residents .....	4,694,569
Percent of Metro Population.....	25.3%
Apartment Households .....	2,057,331
Percent of Metro Households .....	30.3%

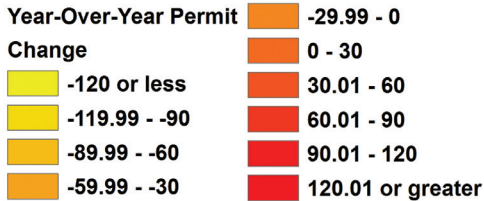
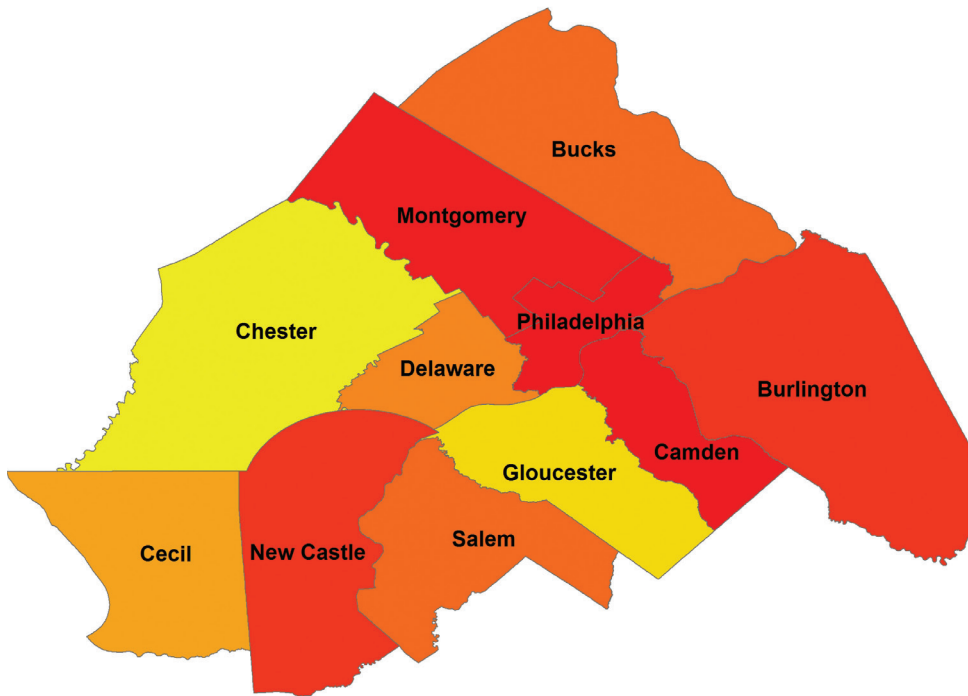
EXISTING APARTMENT STOCK

Apartment Units.....	2,218,426
Occupancy Rate* .....	94.60%
Apartment Absorptions* .....	5,270
Operations Spending .....	\$9,440,856,665
Total Contribution to Metro Economy .....	\$17,645,340,763
Total Jobs Supported .....	135,047

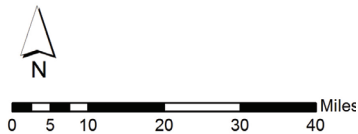
NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	13,646
Percent of Residential Building Permits.....	63.4%
Year-Over-Year Change in Apartment Permits .....	45.0%
Five-Year Change in Apartment Permits .....	-60.3%
Construction Spending .....	\$1,144,850,000
Total Contribution to Metro Economy.....	\$2,128,650,000
Total Jobs Supported .....	15,883

\*Source: MPF Research



Source: ESRI; U.S. Census Bureau



Philadelphia

IMPROVING JOBS PICTURE AND LIMITED NEW SUPPLY LIFT THE APARTMENT MARKET

The apartment market in Philadelphia continues to firm up. The local economy is recovering, driven largely by the education and health services sectors, as well as an improving financial services sector. However, the weakness in the economy over the past few years virtually stalled new apartment construction. This lack of new supply opens up opportunity for developers to move forward with new projects, particularly in downtown locations where demand is stronger.

RESIDENTS

Apartment Residents .....	510,733
Percent of Metro Population.....	8.8%
Apartment Households .....	299,315
Percent of Metro Households .....	13.5%

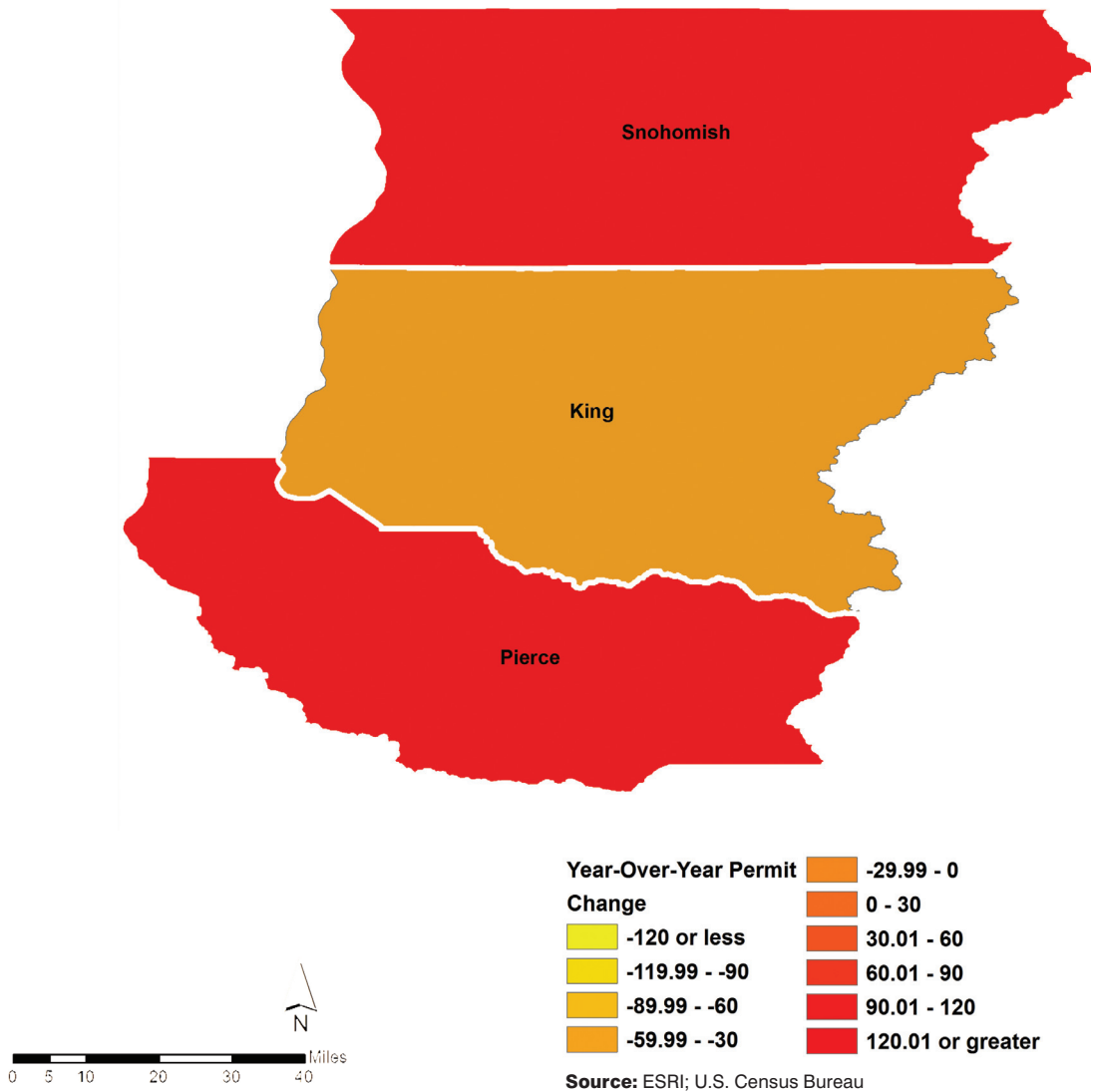
EXISTING APARTMENT STOCK

Apartment Units.....	340,980
Occupancy Rate* .....	95.4%
Apartment Absorptions* .....	2,737
Operations Spending .....	\$1,520,088,144
Total Contribution to Metro Economy.....	\$3,175,311,160
Total Jobs Supported .....	25,814

NEW APARTMENT CONSTRUCTION

Apartment Building Permits .....	2,067
Percent of Residential Building Permits.....	29.6%
Year-Over-Year Change in Apartment Permits .....	54.5%
Five-Year Change in Apartment Permits .....	-60.3%
Construction Spending .....	\$152,160,000
Total Contribution to Metro Economy.....	\$331,060,000
Total Jobs Supported .....	2,449

\*Source: MPF Research

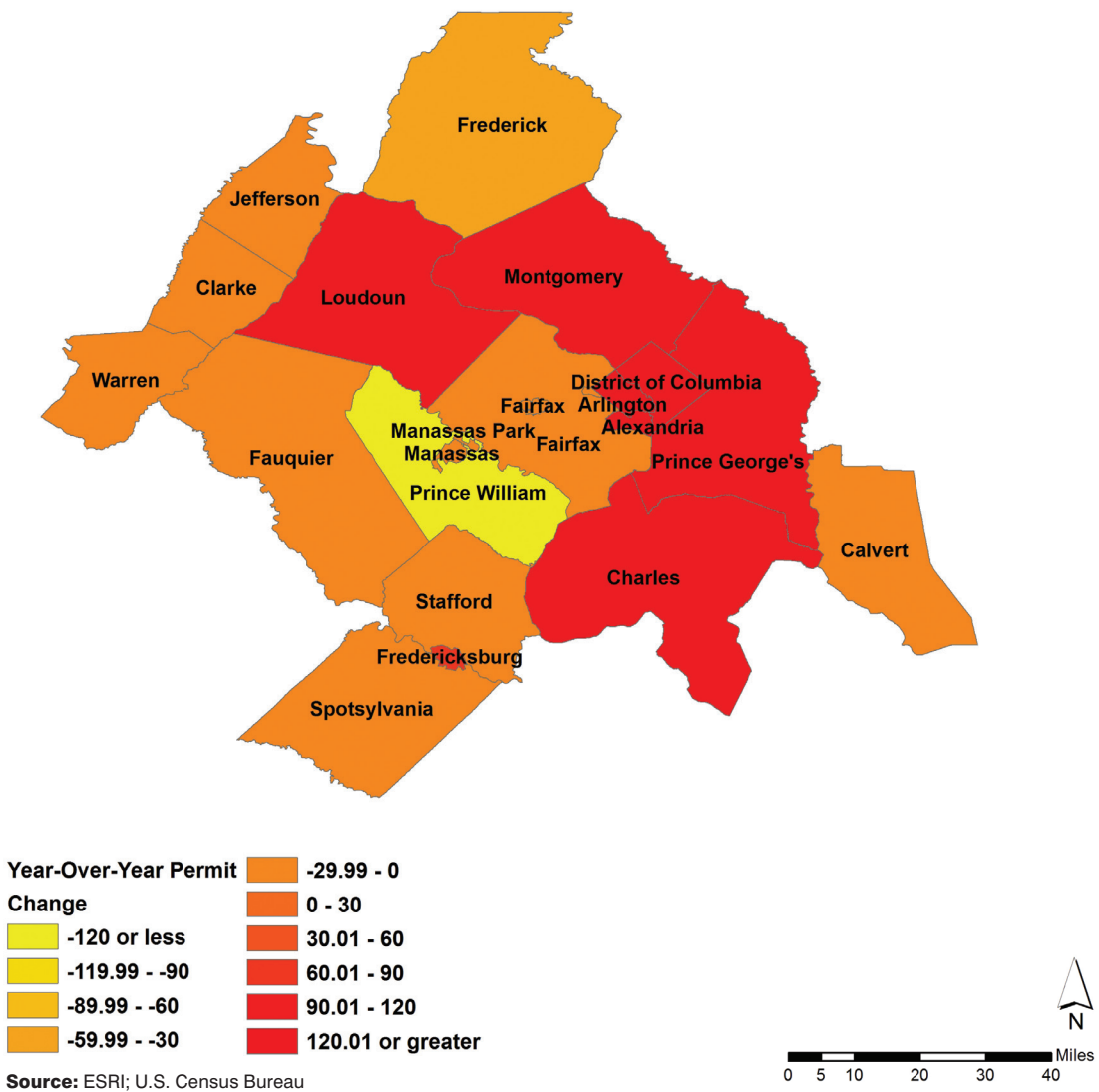


Seattle

ROBUST JOB INCREASES SPEED APARTMENT MARKET RECOVERY

The strong, tech-driven local economy continues to create a mix of blue- and white-collar jobs in Seattle, a factor that creates demand not just for apartments but also a wide variety of apartment product. As a result, construction activity is ramping up, especially in the Downtown/Capitol Hill/Queen Anne submarket. This increase in activity is likely to bring new unit deliveries closer to the five-year historical average.

RESIDENTS		NEW APARTMENT CONSTRUCTION	
Apartment Residents .....	529,477	Apartment Building Permits .....	4,778
Percent of Metro Population.....	15.7%	Percent of Residential Building Permits.....	42.5%
Apartment Households .....	289,159	Year-Over-Year Change in Apartment Permits .....	37.2%
Percent of Metro Households .....	21.4%	Five-Year Change in Apartment Permits .....	-54.6%
EXISTING APARTMENT STOCK		Construction Spending .....	\$507,390,000
Apartment Units.....	314,469	Total Contribution to Metro Economy.....	\$1,116,400,000
Occupancy Rate* .....	95.6%	Total Jobs Supported .....	8,832
Apartment Absorptions* .....	4,955	*Source: MPF Research	
Operations Spending .....	\$1,039,949,890		
Total Contribution to Metro Economy.....	\$1,845,916,646		
Total Jobs Supported .....	14,548		



Washington, D.C.

SURGE IN NEW CONSTRUCTION SHOULD COUNTERBALANCE HIGH APARTMENT DEMAND

Solid economic and employment trends over the past few years have accelerated an apartment market rebound in the Washington, D.C., metro area. The area experienced a significant uptick in new apartment construction activity, especially in Northern Virginia and downtown submarkets, where occupancy rates have been persistently high. This activity should result in a better alignment between apartment demand and supply.

RESIDENTS		NEW APARTMENT CONSTRUCTION	
Apartment Residents .....	974,102	Apartment Building Permits .....	9,745
Percent of Metro Population.....	17.7%	Percent of Residential Building Permits.....	49.6%
Apartment Households .....	469,358	Year-Over-Year Change in Apartment Permits .....	183.6%
Percent of Metro Households .....	23.0%	Five-Year Change in Apartment Permits .....	25.1%
EXISTING APARTMENT STOCK		Construction Spending .....	\$2,106,277,442
Apartment Units.....	518,277	Total Contribution to Metro Economy.....	\$1,515,800,000
Occupancy Rate* .....	95.70%	Total Jobs Supported .....	11,736
Apartment Absorptions* .....	4,619	*Source: MPF Research	
Operations Spending .....	\$2,106,277,442		
Total Contribution to Metro Economy.....	\$3,748,023,819		
Total Jobs Supported .....	30,904		

# METRO AREA DEFINITIONS

This section provides more detail on the metro areas included in this analysis. The metro definitions were provided by the United States Office of Management and Budget.

**ATLANTA-SANDY SPRINGS-MARIETTA, GA** Includes Barrow County, Bartow County, Butts County, Carroll County, Cherokee County, Clayton County, Cobb County, Coweta County, Dawson County, DeKalb County, Douglas County, Fayette County, Forsyth County, Fulton County, Gwinnett County, Haralson County, Heard County, Henry County, Jasper County, Lamar County, Meriwether County, Newton County, Paulding County, Pickens County, Pike County, Rockdale County, Spalding County and Walton County.

**BOSTON-CAMBRIDGE-QUINCY, MA-NH** Includes Essex County, Middlesex County, Norfolk County, Plymouth County and Suffolk County in Massachusetts; as well as Rockingham County and Strafford County in New Hampshire.

**CHICAGO-JOLIET-NAPERVILLE, IL-IN-WI** Includes Cook County, DeKalb County, DuPage County, Grundy County, Kane County, Kendall County, Lake County, McHenry County and Will County in Illinois; as well as Jasper County, Lake County, Newton County and Porter County in Indiana and Kenosha County, Wisconsin.

**NEW YORK-NORTHERN NEW JERSEY-LONG ISLAND, NY-NJ-PA** Includes Bronx County, Kings County, Nassau County, New York County, Putnam County, Queens County, Richmond County, Rockland County, Suffolk County and Westchester County in New York; as well as Bergen County, Essex County, Hudson County, Hunterdon County, Middlesex County, Monmouth County, Morris County, Ocean County, Passaic County, Somerset County, Sussex County and Union County in New Jersey; and Pike County in Pennsylvania.

**LOS ANGELES-LONG BEACH-SANTA ANA, CA** Includes Los Angeles County and Orange County.

**WASHINGTON-ARLINGTON-ALEXANDRIA, DC-VA-MD-WV** Includes the District of Columbia; and Calvert County, Charles County, Frederick County, Montgomery County and Prince George’s County in Maryland. Also includes Arlington County, Clarke County, Fairfax County, Fauquier County, Loudoun County, Prince William County, Spotsylvania County, Stafford County, Warren County, Alexandria City, Fairfax City, Falls Church City, Fredericksburg City, Manassas City and Manassas Park City in Virginia; and Jefferson County, West Virginia.

**DALLAS-FORT WORTH-ARLINGTON, TX** Includes Collin County, Dallas County, Delta County, Denton County, Ellis County, Hunt County, Johnson County, Kaufman County, Parker County, Rockwall County, Tarrant County and Wise County.

**HOUSTON-SUGAR LAND-BAYTOWN, TX** Includes Austin County, Brazoria County, Chambers County, Fort Bend County, Galveston County, Harris County, Liberty County, Montgomery County, San Jacinto County and Waller County.

**DENVER-AURORA-BROOMFIELD, CO** Includes Adams County, Arapahoe County, Broomfield County, Clear Creek County, Denver County, Douglas County, Elbert County, Gilpin County, Jefferson County and Park County.

**MIAMI-FORT LAUDERDALE-POMPANO BEACH, FL** Includes Broward County, Miami-Dade County and Palm Beach County.

**PHILADELPHIA-CAMDEN-WILMINGTON, PA-NJ-DE-MD** Includes Bucks County, Chester County, Delaware County, Montgomery County and Philadelphia County in Pennsylvania. Also includes Burlington County, Camden County, Gloucester County and Salem County in New Jersey; and New Castle County, Delaware and Cecil County, Maryland.

**SEATTLE-TACOMA-BELLEVUE, WA** Includes King County, Pierce County and Snohomish County.

# SUMMARY METRO AREA DATA

## IMPACT OF APARTMENT BUILDING OPERATIONS FOR SELECTED METRO AREAS IN 2010

METRO AREA	OPERATION SPENDING	TOTAL ECONOMIC CONTRIBUTION	PERSONAL EARNINGS	TOTAL JOBS
Atlanta-Sandy Springs-Marietta, GA	\$1,219,733,038	\$2,543,684,784	\$843,368,577	23,031
Boston-Cambridge-Quincy, MA	\$1,516,449,300	\$2,756,031,615	\$821,230,836	19,920
Chicago-Joliet-Naperville, IL-IN-WI	\$2,440,210,725	\$5,233,098,688	\$1,722,467,214	46,993
New York-N. New Jersey-Long Island, NY-NJ-PA	\$9,440,856,665	\$17,645,340,763	\$5,536,349,032	135,047
Los Angeles-Long Beach-Santa Ana, CA	\$5,825,601,932	\$12,038,990,809	\$3,657,759,694	88,416
Washington-Arlington-Alexandria, DC-VA-MD-WV	\$2,106,277,442	\$3,748,023,819	\$1,180,836,003	30,904
Dallas-Fort Worth-Arlington, TX	\$1,875,488,247	\$4,269,723,830	\$1,423,815,030	36,670
Houston-Sugar Land-Baytown, TX	\$1,676,610,629	\$3,610,937,065	\$1,224,910,642	31,077
Denver-Aurora-Broomfield, CO	\$736,099,526	\$1,660,936,716	\$528,106,387	13,032
Miami-Fort Lauderdale-Pompano Beach, FL	\$2,140,778,910	\$4,083,676,081	\$1,388,119,475	38,212
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	\$1,520,088,144	\$3,175,311,160	\$1,032,609,843	25,814
Seattle-Tacoma-Bellevue, WA	\$1,039,949,890	\$1,845,916,646	\$557,561,970	14,548
TOTAL	\$31,538,144,447	\$62,611,671,975	\$19,917,134,704	503,664

## IMPACT OF APARTMENT BUILDING CONSTRUCTION FOR SELECTED METROPOLITAN AREAS IN 2010

METRO AREA	CONSTRUCTION SPENDING	TOTAL ECONOMIC CONTRIBUTION	PERSONAL EARNINGS	TOTAL JOBS
Atlanta-Sandy Springs-Marietta, GA	\$178,747,491	\$396,831,745	\$131,148,541	3,383
Boston-Cambridge-Quincy, MA	\$288,201,973	\$526,641,464	\$160,682,521	3,619
Chicago-Joliet-Naperville, IL-IN-WI	\$342,820,835	\$780,757,035	\$255,718,350	6,256
New York-N. New Jersey-Long Island, NY-NJ-PA	\$1,144,849,738	\$2,128,649,229	\$704,285,790	15,883
Los Angeles-Long Beach-Santa Ana, CA	\$1,291,740,723	\$2,693,804,555	\$818,072,633	18,189
Washington-Arlington-Alexandria, DC-VA-MD-WV	\$881,177,814	\$1,515,802,075	\$482,709,206	11,736
Dallas-Fort Worth-Arlington, TX	\$725,044,929	\$1,673,908,920	\$544,288,298	12,916
Houston-Sugar Land-Baytown, TX	\$429,356,363	\$908,160,058	\$301,582,303	7,107
Denver-Aurora-Broomfield, CO	\$203,861,462	\$430,575,226	\$137,687,484	3,246
Miami-Fort Lauderdale-Pompano Beach, FL	\$225,747,935	\$441,993,032	\$152,103,295	3,825
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	\$152,156,019	\$331,061,285	\$106,831,673	2,449
Seattle-Tacoma-Bellevue, WA	\$507,385,205	\$1,116,399,665	\$350,704,653	8,832
TOTAL	\$6,371,090,486	\$12,944,584,288	\$4,145,814,748	97,440

SUMMARY STATE DATA

RENTER SPENDING BY STATE

STATE	APARTMENT HOUSEHOLDS	HOUSEHOLD SPENDING	ECONOMIC CONTRIBUTION	DIRECT JOBS	TOTAL JOBS
Alabama	165,670	\$2,907,246,174	\$6,105,561,835	77,471	157,184
Alaska	29,665	\$950,398,604	\$1,995,949,809	25,326	51,385
Arizona	330,846	\$7,968,907,653	\$16,735,651,374	212,353	430,850
Arkansas	96,788	\$1,768,812,615	\$3,714,716,316	47,135	95,633
California	2,515,960	\$75,987,998,469	\$159,583,810,783	2,024,904	4,108,400
Colorado	324,167	\$8,000,503,408	\$16,802,006,209	213,195	432,559
Connecticut	182,250	\$4,727,907,088	\$9,929,165,728	125,988	255,621
Delaware	37,251	\$913,256,515	\$1,917,947,016	24,336	49,377
District of Columbia	102,311	\$3,330,250,461	\$6,993,921,016	88,743	180,055
Florida	995,483	\$23,300,409,572	\$48,933,624,087	620,902	1,259,770
Georgia	452,123	\$9,603,760,454	\$20,169,036,189	255,918	519,241
Hawaii	78,133	\$2,709,542,300	\$5,690,360,246	72,203	146,495
Idaho	44,300	\$903,290,422	\$1,897,017,038	24,071	48,838
Illinois	699,516	\$16,362,150,184	\$34,362,456,329	436,013	884,643
Indiana	283,221	\$5,393,540,812	\$11,327,075,508	143,725	291,609
Iowa	139,164	\$2,878,048,678	\$6,044,243,630	76,693	155,606
Kansas	121,822	\$2,627,046,332	\$5,517,108,928	70,005	142,035
Kentucky	165,147	\$2,844,062,321	\$5,972,868,247	75,788	153,768
Louisiana	150,855	\$2,950,140,994	\$6,195,646,044	78,614	159,504
Maine	46,197	\$882,720,415	\$1,853,817,583	23,522	47,726
Maryland	374,505	\$12,003,493,276	\$25,208,759,781	319,865	648,986
Massachusetts	430,665	\$11,346,055,076	\$23,828,061,574	302,346	613,441
Michigan	448,123	\$8,290,663,570	\$17,411,376,968	220,927	448,247
Minnesota	328,526	\$7,122,384,717	\$14,957,852,791	189,795	385,082
Mississippi	83,683	\$1,402,839,062	\$2,946,128,440	37,382	75,846
Missouri	235,955	\$4,626,407,608	\$9,716,004,780	123,283	250,133
Montana	30,576	\$646,028,254	\$1,356,735,967	17,215	34,928
Nebraska	98,761	\$2,177,158,589	\$4,572,291,301	58,016	117,711
Nevada	185,742	\$5,117,031,510	\$10,746,373,173	136,357	276,660
New Hampshire	61,787	\$1,704,948,918	\$3,580,594,975	45,433	92,181
New Jersey	505,333	\$15,128,654,232	\$31,771,968,508	403,144	817,952
New Mexico	66,758	\$1,356,209,668	\$2,848,201,182	36,140	73,325
New York	1,967,219	\$53,568,595,965	\$112,500,406,046	1,427,479	2,896,263
North Carolina	396,445	\$8,098,038,621	\$17,006,841,726	215,794	437,832
North Dakota	52,118	\$1,132,689,035	\$2,378,781,337	30,184	61,240
Ohio	547,108	\$10,376,173,664	\$21,791,195,556	276,501	561,003
Oklahoma	135,414	\$2,736,844,990	\$5,747,699,134	72,931	147,971
Oregon	224,260	\$4,955,364,934	\$10,406,854,187	132,049	267,919
Pennsylvania	524,037	\$10,983,042,898	\$23,065,692,938	292,673	593,814
Rhode Island	59,607	\$1,292,176,899	\$2,713,724,770	34,434	69,863
South Carolina	172,423	\$3,339,269,530	\$7,012,862,131	88,984	180,542
South Dakota	42,150	\$869,129,262	\$1,825,274,550	23,160	46,991
Tennessee	265,808	\$4,995,765,927	\$10,491,701,064	133,126	270,103
Texas	1,508,607	\$36,187,710,880	\$75,998,485,577	964,319	1,956,540
Utah	96,423	\$2,343,360,635	\$4,921,335,313	62,445	126,697
Vermont	23,381	\$496,466,225	\$1,042,637,965	13,230	26,842
Virginia	433,955	\$12,828,693,630	\$26,941,778,414	341,855	693,602
Washington	434,197	\$11,490,800,973	\$24,132,045,129	306,203	621,267
West Virginia	50,168	\$807,570,490	\$1,695,993,825	21,520	43,662
Wisconsin	316,068	\$6,618,699,238	\$13,900,053,536	176,373	357,849
Wyoming	18,018	\$447,738,254	\$940,303,446	11,931	24,208
U.S. TOTAL	17,078,689	\$421,500,000,000	\$885,200,000,000	11,232,000	22,789,000

IMPACT OF APARTMENT BUILDING OPERATIONS BY STATE

STATE	OPERATIONS SPENDING	ECONOMIC CONTRIBUTION	PERSONAL EARNINGS	DIRECT ON-SITE JOBS	TOTAL JOBS
Alabama	\$551,767,800	\$1,040,638,705	\$333,591,363	6,808	18,840
Alaska	\$104,623,424	\$184,073,772	\$57,971,546	1,135	2,982
Arizona	\$1,239,779,465	\$2,360,079,400	\$778,849,297	14,043	37,085
Arkansas	\$306,028,797	\$531,104,347	\$166,015,175	3,946	10,052
California	\$11,101,997,864	\$24,611,412,896	\$7,775,898,145	98,249	299,513
Colorado	\$1,093,245,407	\$2,405,490,061	\$766,605,544	12,714	34,566
Connecticut	\$902,643,333	\$1,660,174,114	\$520,127,099	7,372	21,478
Delaware	\$168,937,297	\$299,780,923	\$78,073,493	1,493	4,007
District of Columbia	\$450,024,584	\$586,076,196	\$52,245,379	4,061	6,159
Florida	\$4,251,007,058	\$8,347,439,423	\$2,774,494,149	42,354	129,761
Georgia	\$1,739,454,384	\$3,611,418,142	\$1,150,063,923	18,622	54,979
Hawaii	\$283,058,082	\$521,825,867	\$170,014,931	3,071	8,104
Idaho	\$168,341,653	\$272,217,610	\$89,584,340	1,755	4,890
Illinois	\$2,787,455,102	\$6,067,980,070	\$1,892,334,418	28,391	79,959
Indiana	\$994,614,369	\$1,911,348,344	\$583,156,031	11,599	30,682
Iowa	\$488,447,847	\$779,551,724	\$244,797,019	5,470	14,256
Kansas	\$412,409,845	\$737,499,988	\$213,298,702	4,961	11,728
Kentucky	\$579,056,379	\$1,102,587,100	\$325,539,937	6,658	18,195
Louisiana	\$678,692,713	\$1,313,829,915	\$418,822,224	6,228	20,518
Maine	\$163,971,174	\$294,196,949	\$97,796,458	1,779	5,248
Maryland	\$1,609,780,547	\$3,020,711,020	\$917,693,552	15,115	43,279
Massachusetts	\$1,857,839,147	\$3,549,999,357	\$1,115,553,078	16,656	47,168
Michigan	\$1,782,163,271	\$3,449,234,973	\$1,121,102,241	18,627	53,502
Minnesota	\$1,384,095,115	\$2,715,388,940	\$855,877,083	12,941	39,259
Mississippi	\$304,789,373	\$544,441,721	\$169,114,243	3,581	9,905
Missouri	\$812,361,016	\$1,580,398,234	\$462,219,202	9,641	23,667
Montana	\$107,983,703	\$189,969,499	\$60,998,137	1,171	3,506
Nebraska	\$387,552,992	\$607,524,660	\$191,289,646	3,844	10,837
Nevada	\$637,504,130	\$1,102,023,936	\$360,061,568	7,747	18,228
New Hampshire	\$256,142,252	\$465,104,176	\$139,137,265	2,405	6,741
New Jersey	\$2,271,570,259	\$4,675,209,613	\$1,376,124,305	20,081	56,333
New Mexico	\$194,081,824	\$354,073,835	\$113,686,029	2,574	6,373
New York	\$8,463,772,537	\$15,097,116,304	\$4,362,147,960	76,244	192,022
North Carolina	\$1,352,016,289	\$2,501,976,043	\$804,255,543	16,273	44,267
North Dakota	\$187,441,605	\$304,312,196	\$91,653,828	2,033	5,424
Ohio	\$1,847,218,354	\$3,801,700,799	\$1,181,941,556	22,330	58,837
Oklahoma	\$438,896,200	\$883,728,076	\$275,410,394	5,490	14,852
Oregon	\$579,592,470	\$1,069,311,883	\$335,603,631	8,572	19,197
Pennsylvania	\$2,403,426,165	\$5,106,978,489	\$1,567,267,953	20,756	66,915
Rhode Island	\$262,176,612	\$463,166,683	\$136,500,103	2,318	6,349
South Carolina	\$620,147,238	\$1,182,284,416	\$371,401,778	7,234	20,570
South Dakota	\$155,109,444	\$232,444,717	\$72,343,618	1,682	4,491
Tennessee	\$878,820,446	\$1,783,813,746	\$549,407,872	10,973	27,217
Texas	\$5,352,915,705	\$12,405,661,570	\$3,864,732,875	62,853	182,164
Utah	\$335,678,652	\$727,408,556	\$229,100,881	3,753	11,704
Vermont	\$82,899,910	\$140,789,887	\$44,970,640	899	2,597
Virginia	\$1,934,864,404	\$3,732,373,557	\$1,119,620,896	17,514	54,458
Washington	\$1,519,248,007	\$3,008,119,106	\$937,585,069	16,864	44,871
West Virginia	\$170,771,693	\$299,027,570	\$89,565,706	1,974	5,157
Wisconsin	\$1,214,974,691	\$2,252,049,142	\$726,589,006	12,491	36,336
Wyoming	\$65,437,468	\$105,740,117	\$33,436,367	710	1,899
STATE TOTAL	\$67,936,828,097	\$135,990,808,369	\$42,165,671,196	686,054	1,931,126
Spillover	-	\$46,605,359,473	\$14,590,100,923		405,147
U.S. Total	\$67,936,828,097	\$182,596,167,842	\$56,755,772,120	686,054	2,336,273

IMPACT OF APARTMENT CONSTRUCTION SPENDING BY STATE

STATE	CONSTRUCTION SPENDING	ECONOMIC CONTRIBUTION	PERSONAL EARNINGS	DIRECT ON-SITE JOBS	TOTAL JOBS
Alabama	\$166,278,093	\$360,041,956	\$112,636,781	1,768	3,374
Alaska	\$16,343,634	\$29,366,241	\$9,417,202	79	209
Arizona	\$228,321,617	\$469,452,076	\$155,076,042	1,666	3,853
Arkansas	\$109,307,617	\$213,565,222	\$64,589,871	1,408	1,978
California	\$2,939,367,987	\$6,744,379,847	\$2,162,493,028	14,702	45,316
Colorado	\$333,713,415	\$753,024,321	\$241,842,112	2,887	5,815
Connecticut	\$58,162,209	\$110,915,332	\$34,908,958	502	721
Delaware	\$29,680,067	\$55,201,957	\$14,528,393	236	361
District of Columbia	\$490,124,990	\$590,159,500	\$40,631,362	2,820	810
Florida	\$813,224,288	\$1,681,747,827	\$559,823,600	6,371	15,107
Georgia	\$299,047,004	\$680,511,363	\$214,207,369	2,914	5,890
Hawaii	\$122,336,164	\$233,980,148	\$76,765,943	717	1,770
Idaho	\$32,039,645	\$57,075,423	\$18,707,948	284	578
Illinois	\$420,187,897	\$978,743,669	\$300,224,253	2,846	6,550
Indiana	\$166,410,803	\$364,988,814	\$109,648,078	1,832	2,960
Iowa	\$93,519,594	\$165,857,000	\$51,417,073	883	1,487
Kansas	\$101,653,810	\$196,019,042	\$55,614,800	1,002	1,536
Kentucky	\$95,347,448	\$203,118,669	\$58,676,820	1,525	1,777
Louisiana	\$119,351,082	\$248,297,991	\$78,616,558	1,017	2,076
Maine	\$18,800,531	\$36,580,194	\$12,118,823	260	372
Maryland	\$425,336,146	\$825,960,262	\$251,075,927	3,245	5,799
Massachusetts	\$303,373,338	\$602,226,414	\$188,273,494	1,634	3,899
Michigan	\$77,316,633	\$166,532,295	\$54,013,400	763	1,401
Minnesota	\$177,004,571	\$375,851,506	\$116,699,114	1,273	2,928
Mississippi	\$47,986,034	\$97,070,949	\$29,170,710	434	899
Missouri	\$130,284,587	\$282,313,671	\$82,613,456	1,341	2,200
Montana	\$25,097,161	\$47,308,149	\$15,311,778	334	482
Nebraska	\$69,292,124	\$116,681,007	\$36,634,746	918	1,049
Nevada	\$71,894,117	\$135,103,425	\$44,049,526	922	994
New Hampshire	\$40,158,820	\$80,626,863	\$24,436,642	311	606
New Jersey	\$492,831,381	\$1,066,733,525	\$320,192,548	3,859	6,731
New Mexico	\$25,277,646	\$47,979,501	\$15,351,115	229	446
New York	\$970,588,718	\$1,754,533,225	\$538,482,621	7,883	11,502
North Carolina	\$440,939,260	\$905,953,804	\$286,830,989	4,769	8,497
North Dakota	\$227,527,128	\$386,796,118	\$113,672,553	2,050	3,159
Ohio	\$210,298,764	\$482,824,932	\$148,134,449	2,480	4,000
Oklahoma	\$112,048,513	\$241,061,172	\$75,531,903	1,307	2,283
Oregon	\$223,322,003	\$461,025,942	\$141,630,814	1,657	3,853
Pennsylvania	\$184,808,782	\$437,608,715	\$132,637,263	1,522	3,211
Rhode Island	\$442,365	\$814,660	\$241,222	4	6
South Carolina	\$155,979,826	\$341,081,085	\$105,723,126	1,697	3,211
South Dakota	\$47,867,480	\$79,737,649	\$25,489,433	465	785
Tennessee	\$212,140,774	\$479,862,430	\$143,110,166	1,868	3,976
Texas	\$1,821,177,845	\$4,552,216,142	\$1,414,326,715	20,018	35,000
Utah	\$180,837,225	\$422,074,083	\$133,023,863	1,866	3,805
Vermont	\$29,051,908	\$53,394,502	\$17,004,082	248	524
Virginia	\$443,532,406	\$918,688,674	\$276,764,222	4,930	7,052
Washington	\$691,696,768	\$1,511,564,947	\$473,258,929	4,633	11,153
West Virginia	\$27,074,535	\$51,541,792	\$15,172,569	341	443
Wisconsin	\$194,935,412	\$407,473,491	\$129,456,607	1,970	3,417
Wyoming	\$39,658,947	\$67,622,471	\$21,296,855	409	554
STATE TOTAL	\$14,752,999,115	\$31,573,289,993	\$9,741,555,846	121,100	236,406
Spillover	-	\$10,939,988,132	\$2,950,924,213	-	87,375
U.S. Total	\$14,752,999,115	\$42,513,278,126	\$12,692,480,058	121,100	323,781

NOTES AND REFERENCES

<sup>1</sup> U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates of Total Population in Occupied Housing Units by Tenure by Units in Structure.

<sup>2</sup> U.S. Census Bureau, 2006 Housing Vacancy Survey, Table 9: Estimates of the Total Housing Inventory; U.S. Census Bureau, 2011 Housing Vacancy Survey, Table 11: Estimates of the Total Housing Inventory. Previous-year totals from each table were used to account for stock adjustments.

<sup>3</sup> U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates of tenure by units in structure.

<sup>4</sup> U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates of tenure by units in structure.

<sup>5</sup> U.S. Bureau of Labor Statistics, 2010 Consumer Expenditure Survey, Table 7: Housing tenure and type of area.

<sup>6</sup> Denk, Robert and Robert Dietz and David Crowe. “Pent-up Housing Demand: The Household Formations that Didn’t Happen—Yet.” The National Association of Home Builders. Available at <http://bit.ly/WPMrB6>.

<sup>7</sup> U.S. Census Bureau, Housing Vacancy Survey, Table 14: Homeownership rates by area.

<sup>8</sup> U.S. Census Bureau, Housing Vacancy Survey, Table 11: Estimates of the total housing inventory.

<sup>9</sup> U.S. Census Bureau, 2006 American Community Survey, Tenure by units in structure; U.S. Census Bureau, 2010 American Community Survey, Tenure by units in structure.

<sup>10</sup> U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates of age of head of household by tenure and units in structure.

<sup>11</sup> NMHC tabulations of U.S. Census Bureau, 2010 American Community Survey, Public Use Microdata.

<sup>12</sup> U.S. Census Bureau & U.S. Bureau of Labor Statistics, 2011 Current Population Survey; U.S. Census Bureau & U.S. Bureau of Labor Statistics, 1960 Current Population Survey.

<sup>13</sup> Arthur C. Nelson, Presidential Professor and Director of Metropolitan Research, University of Utah.

<sup>14</sup> U.S. Census Bureau, 2010 Census SF1, Single years of age and sex.

<sup>15</sup> U.S. Census Bureau, 2008 U.S. Population Projections, Table 12: Projections of the population by age and sex for the United States: 2010 to 2050.

<sup>16</sup> U.S. Census Bureau, 2010 Census SF1, Single years of age and sex.

<sup>17</sup> NMHC tabulations based on data available from the U.S. Department of Housing and Urban Development, 2007 American Housing Survey microdata.

<sup>18</sup> U.S. Census Bureau, “Highlights of Annual 2011 Characteristics of New Housing.” Available at <http://1.usa.gov/LvxKPE>.

<sup>19</sup> U.S. Bureau of Labor Statistics, Current Population Survey. Comparison of January 2011 and December 2011 number of employed persons 16 years and older.

<sup>20</sup> NMHC tabulations based on data available from the U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates; the U.S. Census Bureau, Housing Vacancy Survey; and the U.S. Census Bureau and U.S. Department of Housing and Urban Development’s 2009 American Housing Survey. See “methodology” section for more detailed information. The vacancy rate for apartments cited in this report is consistent with government sources and differs from vacancy rates fre-

quently cited in the media. This is due to the fact that those rates are from private data providers that survey the larger, investment-grade apartment properties rather than the entire universe of apartments.

<sup>21</sup> U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates, Total population in occupied housing units by tenure by units in structure.

<sup>22</sup> National Apartment Association, 2011 Survey of Operating Income and Expenses in Rental Apartment Communities.

<sup>23</sup> U.S. Census Bureau, Construction Spending. Available at <http://www.census.gov/construction/c30/pdf/private.pdf>.

<sup>24</sup> U.S. Census Bureau, New Residential Construction. Available at <http://www.census.gov/construction/nrc/pdf/startsan.pdf>.

<sup>25</sup> U.S. Census Bureau, New Residential Construction, September 2012 seasonally adjusted starts for units in structures with five or more units. Available at <http://www.census.gov/construction/nrc/pdf/startsan.pdf>.

<sup>26</sup> MPF Research.

<sup>27</sup> U.S. Census Bureau, New Residential Construction. Available at <http://www.census.gov/construction/pdf/bpann.pdf> and <http://www.census.gov/construction/nrc/pdf/startsan.pdf>.

<sup>28</sup> NMHC tabulations of data available from the U.S. Department of Housing and Urban Development’s State of the Cities Data Systems. Available at <http://bit.ly/odNE6>. See “Metro Area Definitions” section for jurisdictions.

<sup>29</sup> U.S. Census Bureau, 2010 American Community Survey, 1-Year Estimates, Tenure by units in structure.

METHODOLOGY

Dr. Stephen S. Fuller Ph.D., the Dwight Schar Faculty Chair and Director for the Center for Regional Analysis at George Mason University, provided the research methodology, data and base analysis for this report. This section outlines Dr. Fuller’s methodology and includes detailed definitions of key terms used and discussed in this report. In an effort to ensure accuracy and transparency in this analysis, much of the data was taken directly from government sources. However, in cases where government data were unavailable, industry estimations were used. In addition, the full scope of Dr. Fuller’s national, state and metro area data is available as part of the appendices.

DATA SOURCES

Apartment Construction

Private spending data for multifamily construction put in place in 2011 were gathered from the U.S. Census Bureau’s Value of Construction Put in Place Survey. These data are only available at the national level, however. The Census’ Building Permit Survey provides valuation of multifamily building permit data for metropolitan areas, states and the United States as a whole. (Please note that some of the multifamily building permits were for condominiums; however, that percentage is estimated to be small.) The percentage of the total U.S. valuation in each of the metropolitan areas was calculated; the same was done for all of the states and the District of Columbia. That same percentage was then applied to the total U.S. spending number from the Value of Construction Put in Place Survey, resulting in an estimate of spending for each of the states and metropolitan areas.

Apartment Operations

The total number of apartments in 2010 was estimated using several data sources from the U.S. Census. The total number of renter-occupied apartments (units in buildings with five or more units) was obtained from the 2010 American Community Survey 1-Year Estimates. To estimate the economic impact of all apartments in the United States, it was necessary to estimate the total number of apartments in the stock, including vacant apartments. Since there is no publicly available data source to obtain the number

of vacant apartments, the number was estimated using the average change in the apartment stock year-to-year from the Census Bureau and U.S. Department of Housing and Urban Development’s American Housing Survey as well as the overall rental vacancy rate from the Census Bureau’s Housing Vacancy Survey.

To estimate the total apartment stock by state, the overall rental vacancy rate for each state in 2010 was obtained. That rate for each state was then applied to the total number of occupied rental units—in structures with five or more units—in each state to get an estimate of the total apartment stock. To reconcile the total number of occupied apartments for each state with the national number, the estimates for all 50 states and the District of Columbia were summed, and the percentage of that total number was calculated for each state. Each individual state’s percentage was then multiplied by the overall U.S. stock estimate to obtain a streamlined estimate of the occupied stock. The same methodology was used for each of the metropolitan areas.

Renter Spending

The average annual expenditures for all renters in 2010 were obtained from the U.S. Bureau of Labor Statistics’ 2010 Consumer Expenditure Survey. Relevant categories of spending (food, utilities, household operations, furnishings, supplies and other retail purchases, healthcare and personal care products and services, entertainment and education) were included in a cal-

culation of what would be purchased locally by apartment residents. Some categories, such as health insurance, pensions and Social Security, were excluded. The average annual expenditures of renters for all of the relevant categories were then added up to determine the local market potential for a renter household.

Estimation of Economic Impact

The economic impact of new apartment construction, the operation of existing apartments and apartment renter spending are a function of what materials and services are being purchased, whether these are locally supplied and how labor intensive these services or products are (i.e., the more labor intensive, the greater the payroll effect, the more likely the benefits will be retained locally and the broader the impact across the retail and consumer services sectors in the local economy).

Apartment Construction and Operations

The economic impact of direct spending for apartment construction and building operations were calculated using multipliers (Regional Input-Output Modeling System, RIMS II) purchased from the Bureau of Economic Analysis of the U.S. Department of Commerce. State- and metropolitan-level multipliers were also used to report impacts at those geographic levels separately. Multipliers are different by geographic area due to the complexity of a geography’s economy. States or metropolitan areas that are able to retain more of their spending within their own economy have higher multipliers.

Construction expenditures used one category of multipliers. Operations expenditures were disaggregated into four groups: management/administrative; maintenance and repair; services to buildings; and utilities. The share of total spending associated with each of these categories of expenses was calculated based on the National Apartment Association’s 2011 Survey of Operating Income and Expenses in Rental Apartment Communities, yielding the following distribution:

Maintenance and Repairs .....	14%
Utilities.....	16%
Building Management .....	27%
Building Services (incl. materials/labor costs) .....	43%

The percentage that each category represented was used to develop aggregate multipliers weighted to reflect this mix of outlays. Those aggregate multipliers were used to calculate the overall economic impact of apartment building operations, as well as for each of the 50 states, plus the District of Columbia, and the 12 metropolitan areas.

Apartment Resident Spending

The results of the calculations using multipliers are estimates of: (1) output value—the total contribution to the United States, state and metropolitan area economies (contribution to GDP); (2) personal earnings—new earnings realized by residents of the geographic area in which the spending occurs; and (3) the jobs supported by this spending—full-time, year-round jobs throughout the geographic area.

Renter household spending information was developed independently for each state based on the number of renter households obtained from the U.S. Census Bureau’s American Community Survey. The percentage of renter spending from the Consumer Expenditure Survey was then multiplied by the median renter household income for each state to estimate the spending power for each state. That number was then multiplied by the number of renter households for each state to calculate the direct consumer spending. For the number of direct jobs supported, total consumer spending and total jobs supported, a top-down approach was selected over using state-specific job multipliers. This method avoids confusion by better accounting for spillover effects resulting from the fact that each state has some percentage of workers who live in a neighboring state (e.g., someone works in Mobile, Ala., but lives in Florida) or are not involved in producing or transporting goods and services in the state.

# GLOSSARY

**ABSORPTION** The number of units that have been introduced into the market and successfully rented.

**APARTMENT RENTER HOUSEHOLD** One or more people who occupy a single apartment unit as a primary residence.

**APARTMENT RESIDENT SPENDING ACTIVITY** The amount of money people who live in apartments spend on nonhousing-related goods and services.

**APARTMENTS** When the report refers to apartments, this term reflects rental units in buildings with five or more housing units.

**BABY BOOMERS** This term refers to the 77 million people born between 1946 and 1964.

**DIRECT IMPACT** A job or economic activity (such as spending) that is solely associated with construction or operation of an apartment unit, as well as apartment resident spending.

**ECONOMIC CONTRIBUTION** This is a total of all the spending, direct and indirect, spurred by new apartment construction, ongoing apartment operations and resident activity; that is, direct spending activities generate additional economic activity, or indirect spending, that otherwise would not have occurred. These dollars support local, state and national economies and can also be referred to economic output to Gross Regional Product (GRP), Gross State Product (GSP) or Gross Domestic Product (GDP), based on the respective geographic area (metro area, state or nation) of the analysis.

**GENERATION Y** Also known as the Echo Boom generation, this moniker refers to the roughly 77 million people born between 1977 and 1994.

**GENERATION Z** Otherwise known as Millennials, this term refers to those born between 1995 and 2016, so far totaling 66 million people.

**GROSS REGIONAL PRODUCT (GRP), GROSS STATE PRODUCT (GSP), GROSS DOMESTIC PRODUCT (GDP)** The value of goods and services produced within the economy of the respective geographic area (metro area, state or nation).

**INDIRECT IMPACT** The additional economic benefits (either in the form of spending or jobs) resulting from the accumulated additional value generated by direct impacts, either through construction or operations spending for an individual apartment unit, or from spending that occurred as a result of an apartment resident's expenditure.

**JOBS** In this analysis, all job figures are referred to as jobs supported by direct apartment industry spending because they reflect both direct and indirect employment, as well as new job creation and existing job sustainment.

**MULTIFAMILY** Term that refers to units in structures with five or more individual units. Multifamily units also include owner-occupied condominiums.

**MULTIPLIER** A number used to calculate the total economic impact of direct spending on new apartment construction, ongoing apartment operations and apartment resident activity. When one dollar is spent on something, it has an effect beyond that original expenditure. A cup of coffee bought at the local café has an effect beyond the amount of money paid into the cash register—part of the money will go toward paying the cashier while another part of the money will go toward paying the supplier that provides the café with the coffee grounds, etc. One way to measure this impact is through a multiplier. There are three types of multipliers used in this report: (1) output multiplier; (2) personal earnings multiplier; and (3) employment multiplier. The output multiplier measures the economic contri-

bution of direct spending, while the personal earnings multiplier measures the total additional wages and salaries generated by spending. The actual multiplier number is the dollars generated per dollar of direct spending. Unlike the output and personal earnings multipliers supported for every \$1 million in spending. The Bureau of Economic Analysis supplied most of the multipliers used in this analysis.

**OBSOLETE RENTAL STOCK** The inventory of apartment units that remains perpetually vacant due to age or condition. Many of these units are removed from the total stock every year, primarily through demolition.

**OPERATIONS SPENDING** Costs, also called expenditures or outlays, associated with the day-to-day operation of the apartment building inventory. These costs include maintenance and repairs, utilities, management and administrative expenses and building services such as cleaning, security and grounds maintenance. Taxes are excluded from these costs.

**PERSONAL EARNINGS** The amount of additional wages and salaries generated as direct apartment industry spending recirculates through a given geography's economy.

**PRIVATE RESIDENTIAL CONSTRUCTION SPENDING** Estimate of the total dollar value of residential construction, including both single-family and multifamily construction. Values include the cost of labor and materials, cost of architectural and engineering work, overhead costs, interest, and taxes paid during construction and contractors' profits.

**SPILLOVER EFFECTS** Direct apartment industry spending occurring in one state or metropolitan area but benefiting another state or metropolitan area's economy. This varies by geographic area depending on the complexity of the economy; the size and complexity of the geographic area's economy determines the extent to which it can provide the inputs and retain the outputs of the economic activity. For example, larger states retain a greater share of the direct spending for building operations than smaller states. At the national level, however, the spending that occurs in a separate geography's economy is captured.

**STARTS** The number of residential building construction projects begun during a specific period of time. The government publishes these numbers monthly, as they are a key economic indicator.

**TOTAL OUTPUT** The sum of direct and indirect impacts reflecting the combination of the initial spending and their subsequent accumulated value as it is cycled through the economy and contributes to GRP, GSP and GDP.

**VACANCIES** The percentage of existing apartment units that is unoccupied.



---

**NATIONAL APARTMENT ASSOCIATION**  
[www.naahq.org](http://www.naahq.org)

---

**NATIONAL MULTI HOUSING COUNCIL**  
[www.nmhc.org](http://www.nmhc.org)

**MORE INFORMATION & ANALYSIS ARE AVAILABLE AT:  
[WEAREAPARTMENTS.ORG](http://WEAREAPARTMENTS.ORG)**