



Q3

TWO THOUSAND SEVENTEEN

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MID-ATLANTIC CLASS A
APARTMENT MARKET REPORT

By Subscription Only

Prepared For Exclusive Use of Subscribers
On September 30, 2017



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- Regional condo market summary
- Regional apartment market summary
- Key market statistics for 49 submarkets and regional totals for:
 - Current rents and rent change
 - Vacancy
 - Concessions
 - Absorption
 - Development pipeline
 - Multifamily building and land sales



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- Key market statistics for 30 submarkets and regional totals for:
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 - Vacancy
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A comprehensive report on condominium market conditions, focusing on the following indicators:

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- Regional apartment market summary
- Regional condo market summary
- Key market statistics for 12 submarkets and regional totals for:
 - Sales trends for new and resale condo units
 - Historic condo unit price changes
 - Development pipeline
- Additional data including:
 - Absorption pace
 - Multifamily building and land sales



PHILADELPHIA CLASS A APARTMENT MARKET REPORT



An executive summary-style report on apartment market conditions, focusing on the following indicators:

- National/Regional economy analyses
- Regional apartment market summary
- Key market statistics for all major submarkets and regional totals for:
 - Current rents and rent change
 - Vacancy
 - Concessions
 - Absorption
 - Development pipeline
 - Multifamily building sales

OFFICE MARKET



WASHINGTON/BALTIMORE OFFICE MARKET REPORT



A comprehensive report on office market conditions, focusing on the following indicators:

- National/regional economy analyses
- Metropolitan area and substate area office market summaries
- Key market statistics (All Space and Class A Space) for all major submarkets
- Additional data including:
 - Supply/demand analysis
 - Rental rate and tenant improvements data
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 - Delivered, planned and proposed SF space
 - Building and land sales
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 - Cap rate trends

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COMPLIMENTARY REPORTS



WASHINGTON AREA RETAIL OUTLOOK

In this quarterly report, Delta provides a quantitative and qualitative assessment of the Washington area retail market, with a focus on grocery-anchored shopping centers. Information is included on vacancy rates, rents, investment sales, projects of interest, and key trends in the retail market.



WASHINGTON AREA HOUSING OUTLOOK

The *Washington Area Housing Outlook* is a quarterly report in which Delta provides an assessment of the region's single-family housing market, including data on pricing, sales volume, and days on market.

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ECONOMY REPORTS

Delta's newest offering, these quarterly overviews take an in-depth look at the national and Mid-Atlantic metro area economies — Washington, Baltimore, and Philadelphia. Available individually or together, the overviews examine labor force data, GDP growth, interest rates, and employment changes from year to year.



MARKET MAKER SURVEY

This report is based on an annual survey of real estate, finance, and development experts and leaders in the Washington metro area. The results from the survey comprise this year-end report, which also addresses property performance, cap rate trends, investment returns, development costs, and business outlooks.

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The design team used the grass lands and pond that were created on the property to design interiors that act as an extension of the outdoor spaces. Using colors and patterns of nature, the modern interiors echo the textures and organic shapes found in the natural environment. While considering our tech driven lifestyle, every finish and detail was carefully selected to create an interior that blends with the outdoors and supports the way we live in the modern world.

[See more of Parc Meridian at Eisenhower Station.](#)

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annual events

[21ST ANNUAL]

WASHINGTON TRENDLINES

FEBRUARY 1, 2018



The 21st annual Washington TrendLines® event is planned for the evening of February 1, 2018 at the Ronald Reagan Building and International Trade Center in Washington, DC. TrendLines® is an invitation-only, annual presentation on the national and regional economy and commercial real estate market conditions, with an outlook for investment and development opportunities. This event will be co-sponsored by PNC Bank, Baker Tilly, and Transwestern. For an invitation to the 2018 event, or to learn more about our TrendLines presentations and reports, please send an email to Info@DeltaAssociates.com or visit TrendLinesDC.com.

[21ST ANNUAL]

WASHINGTON/ BALTIMORE MULTIFAMILY MARKET OVERVIEW & AWARDS FOR EXCELLENCE

OCTOBER 25, 2017



The 21st annual Washington/Baltimore Multifamily Market Overview and Awards will be held on October 2017 at the National Housing Center in Washington, DC. To see the list of last year's award winners, or to download the market presentation, please visit the Multifamily Awards page on our website. Please send an email to Info@DeltaAssociates.com for an application to submit your project for our consideration for the 2017 awards.

UPCOMING SPEECHES & PRESENTATIONS BY DELTA EXECUTIVES

- Lecture at GMU: October 4, 2017
- Delta's 21st Annual Washington / Baltimore Multifamily Market Overview & Awards: October 25, 2017
- NVBIA: December 2017
- 5th Tysons Real Estate Breakfast Panel: January 2018
- Annual Washington TrendLines®: February 1, 2018

RECENT SPEECHES & PRESENTATIONS GIVEN BY DELTA EXECUTIVES

- Presentation to Vanke: June 20, 2017
- Presentation to the Government of the District of Columbia, Office of the Chief Financial Officer: February 8, 2017
- Annual Washington TrendLines® 2017: February 2, 2017
- Real Estate Market Update: Economic Outlook for Metro DC Real Estate 2017 and Beyond: January 19, 2017
- Cornell University Real Estate Council: January 10, 2017
- 5th Annual Future of Downtown Baltimore: Rejuvenating Baltimore's CBD: December 13, 2016
- On the Waterfront: The Sequel: November 10, 2016
- Delta's 20th Annual Washington / Baltimore Multifamily Market Overview & Awards: October 19, 2016

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STATE OF THE
ECONOMY &
WASHINGTON/
BALTIMORE
CONDOMINIUM
MARKET

THE NATIONAL ECONOMY

Q3

U.S. Economy Rebounds But Policy Uncertainty Remains

As of the end of the third quarter of 2017, the U.S. economy remains in good shape thanks to strong consumer spending and job creation. During the 12 months ending August 2017, the national economy added a total of 2.1 million new jobs, including 156,000 in August 2017. Most employment sectors continue to see positive growth, and have been consistently adding new positions to meet renewed demand. Meanwhile, initial unemployment claims jumped to 268,750 in mid-September, and the national unemployment rate (seasonally adjusted) ticked up 10 basis points in August to 4.4%.

After yet another disappointing first quarter, real GDP rebounded markedly in the second quarter to 3.0%—the fastest pace of national economic expansion since the first quarter of 2015 and in line with our prior predictions. Consumers continue to propel the economy forward, with personal consumption increasing by 3.3% during the quarter. Looking ahead, we expect the disruption and damage caused by hurricanes Harvey, Irma, and Maria (HIM for short) to have an impact on economic growth in the third quarter, but the GDP growth rate will still be around 2.5%.

The Federal Open Market Committee (FOMC) has so far followed through on its plans for regular increases to the federal funds benchmark rate this year. It hiked interest rates by a quarter percent at both its March and June meetings, with another increase likely coming in December. In addition, the Fed has indicated that it will shortly proceed to normalize its balance sheets by winding down its security-purchase program. After an underwhelming spring, price inflation rebounded during the summer. The CPI for all urban consumers increased 1.9% over the 12 months ending August 2017, just shy of the Fed's 2.0% target.

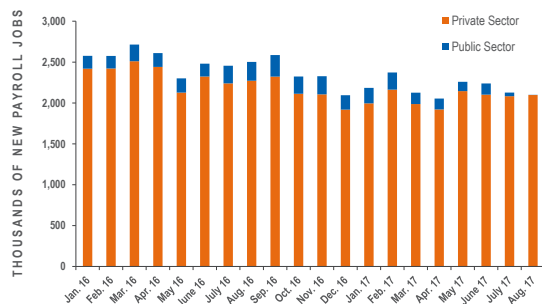
Our economic outlook for the next several months remains bullish. The largest unknown regarding the future performance of the economy is public policy. After repeated failed attempts to repeal the Affordable Care Act (AKA Obamacare), congressional Republicans and President Trump have shifted their focus to long-awaited tax reform. The president's proposal to cut corporate taxes drastically from over 40% to 20% is likely to be watered down, as it would cost the government roughly \$1.5 trillion over a decade according to most estimates.

Job growth, while still robust, appears to be slowing to a less aggressive pace as labor slack shrinks. We expect positive payroll growth to continue for the time being, but believe that the days of 200,000 monthly net additions are in the rear-view mirror. Based on the Fed's schedule of future



PAYROLL JOB GROWTH

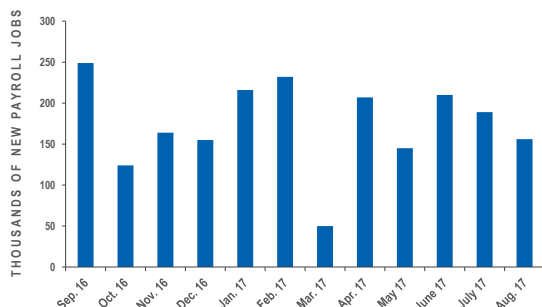
United States | Year-Over-Year



Note: Data is not seasonally adjusted. Source: Bureau of Labor Statistics, Delta Associates; September 2017.

PAYROLL JOB GROWTH

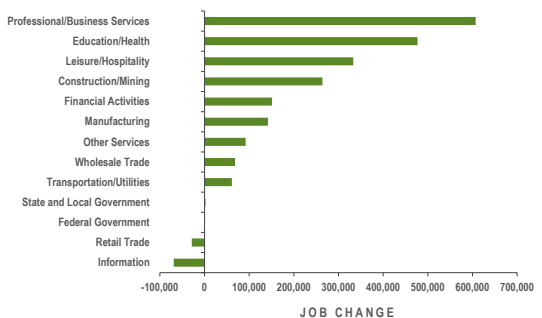
United States | Monthly



Note: Data is seasonally adjusted. Source: Bureau of Labor Statistics, Delta Associates; September 2017.

PAYROLL JOB GROWTH

United States | 12 Months Ending August 2017



Note: Data are not seasonally adjusted. Source: Bureau of Labor Statistics, Delta Associates; September 2017.

funds rate hikes and plans to shrink its balance sheet, higher interest rates in the near future is a given. However, relatively flat price inflation and continued uncertainty should keep long-term interest rate increases modest. Despite the higher cost of borrowing, we expect consumer spending to remain robust and remain the cornerstone of the national economy for the foreseeable future.

JOBS

The national economy continues to add jobs rapidly, but the pace is beginning to display signs of slowing. We have held the belief that the current rate of job creation is unsustainable in the long-term, and the economy does look to be losing some steam in that regard. July and August were the only consecutive months to experience declines in job additions (on a seasonally adjusted basis) during the 12-month period ending August 2017. In sum, the economy added 2.1 million new jobs during the period.

While the private sector has dominated the public sector in job creation throughout the recovery period, the public-sector contribution seems to be shrinking even further. Only a meager 2,000 jobs were added to government payrolls through the entire 12-month period—the lowest in any 12-month period since May 2014.

During the 12 months ending in August, monthly job growth has averaged 175,000 new positions. Seasonally-adjusted monthly job growth over the last three months are as follows:

- June 2017: 210,000
- July 2017: 189,000 (Preliminary)
- August 2017: 156,000 (Preliminary)

Most employment sectors continue to see positive growth, and have been consistently adding new positions to meet strengthened demand. This is especially true for the Professional/Business Services

and Education/Health sectors which have a pronounced shortage of qualified workers. Recently, the labor market has been tightening in the resurging Leisure/Hospitality sector. These three sectors alone account for exactly one-third of the national job growth over the 12 months ending in August.

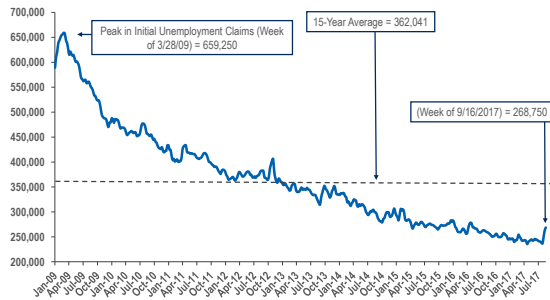
On the other side of the coin are the struggling Retail Trade and Information sectors, both of which are struggling from disruptive competition via the Internet. Combined, the two sectors saw payrolls drop by just under 100,000 during the year ending August. Unfortunately, there doesn't seem to be an end in sight to the hemorrhaging in either sector, as the parade of store closures and newspaper staff reductions continue apace. It's not all doom and gloom though. In the Retail sector, some brick-and-mortar retailers, such as Walmart and Kohl's, seem to be adapting to the shifting market successfully. In addition, niche retailers continue to outperform the overall industry.

Another area to watch is public sector job growth, which has been trending downward for months, due in no small measure to the federal government. President Trump may not have been successful in implementing wholesale layoffs of federal employees, but seems to be partially accomplishing his federal workforce reduction goals through attrition. The federal government has only recorded a single month of positive job growth in all of 2017 so far.

The Construction/Mining sector continues to be the turnaround story of the year, particularly the Mining subsector. After staggering job losses in 2015 and 2016, thanks to plunging fuel prices, the Mining subsector has entered a period of solid recovery. Unfortunately, the oil refining component suffered a significant setback in August and September caused by the disruptive and destructive effects of Hurricane Harvey along the Gulf

INITIAL UNEMPLOYMENT CLAIMS

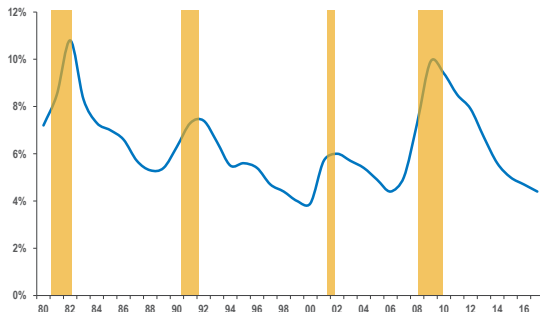
United States | Four-Week Moving Average



Note: Data are seasonally adjusted. Source: Federal Reserve Bank of St. Louis, Delta Associates, September 2017.

UNEMPLOYMENT RATE

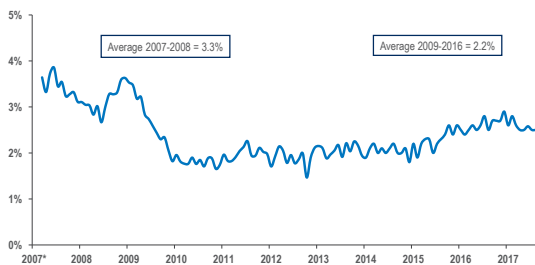
United States



Note: *Through August 2017; seasonally adjusted; shaded bars represent recessions. Source: Bureau of Labor Statistics, Delta Associates, September 2017.

AVERAGE HOURLY EARNINGS

12-Month Percentage Growth | 2007- August 2017



* Data available starting March 2007. Source: Bureau of Labor Statistics, Delta Associates, September 2017.

Coast. Mining aside, real estate construction continued to be the main driver of growth in the sector, as housing demand remains robust. In sum, the Construction/Mining sector has added 264,000 new jobs to the economy over the 12 months ending August 2017.

LABOR FORCE AND WAGES

Initial unemployment claims continued to hover around three-decade lows through most of August 2017, but jumped nearly 32,000 by mid-September. This hike is ostensibly due to the negative economic effects caused by both hurricanes Harvey and Irma in Texas and Florida, respectively. Per the Federal Reserve Bank of St. Louis, the four-week moving average of unemployment claims was 268,750 during the week ending September 16. As Florida and the Gulf Coast begin the recovery process in the near-term, we expect jobless claims to tick down some before flattening through the end of 2017 as there is little slack remaining in the labor market.

After falling to a 17-year low of 4.3% in May 2017, **the national unemployment rate** (seasonally adjusted) ticked back up 10 basis points in August to 4.4%. We expect the unusually low level of unemployment to climb above 4.5% before the end of the year.

In spite of the ever-tightening labor market, wage growth has failed to catch up. While there have been some gains in wages over the past year, much of this has been lost in recent months. During the 12-month period ending August 2017, the **national average hourly wage** increased by 2.5%. This is still lower than 3.0%+ annualized gains prior to the recession.

There are several theories explaining the lagging wage growth, including fundamental shifts in the labor market. Perhaps most apparent is an increasingly younger workforce, created in part by the retirement of baby boomers with considerably more seniority and who have been earning higher compensation. Competition from

less expensive foreign labor has also been an issue, as it creates downward pressure on domestic wages. There is also a mismatch between high-paying open positions and a lower-skilled workforce. Existing wage growth is largely being driven by high demand for skilled workers; there remains a shortage of workers with the technical skills required for positions in many industries, including Healthcare, Life Sciences, and Construction.

As of August 2017, there were 125.8 million persons employed in full-time jobs in the U.S., and 27.6 million persons employed in part-time jobs. During the 12 months ending August 2017, the number of full-time jobs increased by 1.5 million, while the number of part-time jobs increased by 347,000.

One recent trend in the U.S. economy is full-time workers receiving substantial amounts of supplemental income



“ **Real GDP rebounded in the second quarter to 3.0%—the fastest pace of national economic expansion since the first quarter of 2015.** ”

from participation in the “gig” or “sharing” economy. According to the JPMorgan Chase Institute, nearly 1% of U.S. adults earned income through a digital sharing platform in October 2015, compared to just 0.1% of adults in October 2012. Examples of popular income sources include: part-time driving for Uber, renting out a room on Airbnb, or selling products on eBay.

As of August 2017, the national job availability ratio (not seasonally adjusted) remains at 1.1. The job availability ratio measures the relationship between the number of potential applicants and the number of jobs available. On average, the fast-growing Education/Health Services, Professional/Business Services, and Financial Activities sectors had the highest number of job openings relative to the number of unemployed, each with job availability ratios lower than 1.0.

GROSS DOMESTIC PRODUCT (GDP)

After yet another disappointing first quarter, real GDP rebounded markedly in the second quarter to 3.0%—the fastest pace of national economic expansion since the first quarter of 2015 and in line with our prior predictions. Consumers continue to propel the economy forward, with personal consumption increasing by 3.3% during the quarter. Unfortunately, strong consumer spending has done little to lessen the turmoil in the brick and mortar retail sector.

Nonresidential fixed investment, federal spending, and private inventory investment also contributed to robust GDP growth. Holding back the expansion were slowdowns in residential fixed investment and state and local government expenditures.

Looking ahead, we expect the disruption and damage caused by HIM to have an impact on economic growth in the third quarter, but the GDP growth rate will still be around 2.5%. The most recent report from the Federal Reserve Bank of Philadelphia’s Survey of Professional

Forecasters projects real GDP growth at 2.6% in the third quarter of 2017. Looking further ahead, GDP growth is expected to be 2.1% in 2017, 2.4% in 2018, and 2.2% in 2019.

CORPORATE PROFITS

Following a first quarter decline, corporate profits (before taxes) were back on the upswing during the second quarter of 2017, ending the period at \$2.14 trillion (annualized and seasonally adjusted). Healthy domestic consumer spending continues to be the major driving force behind corporate earnings across most industries, while weak exports and meager productivity growth have weighed on margins. Looking forward, profit growth will remain muted as continued low unemployment places upward pressure on wage growth, increasing unit costs. However, a weaker U.S. dollar should boost real net income from business conducted overseas.

REVOLVING CREDIT

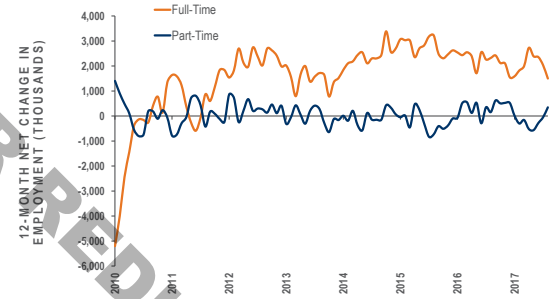
Revolving consumer credit increased at an annual rate of 3.2% in July 2017 hitting the \$1 trillion mark as personal consumption picked up again during the middle part of the year. Non-revolving credit accelerated markedly at a 6.9% annual rate in July 2017, even as interest rates have steadily climbed, reflecting the resilience of the recovery. Looking forward, we expect consumer credit growth to flatten out as interest rate hikes counterbalance strong consumer spending. Outstanding revolving credit will be most affected as it is inherently less stable than longer-term non-revolving credit.

HOUSING MARKET

Home prices in the 20 major metro areas covered by the S&P/Case-Shiller index continued their hot streak, increasing 5.8% in the 12 months ending July 2017. The Pacific Northwest cities of Seattle and Portland claimed the highest rates of appreciation over the year at 12.9% and 9.3%, respectively. The continued strong growth in home prices is causing some speculation of an

EMPLOYMENT GROWTH BY JOB STATUS

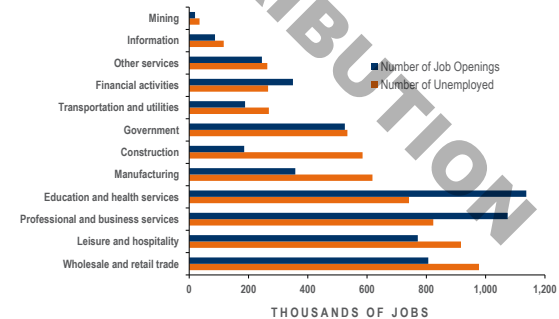
United States | 2010 – August 2017



Note: Data are seasonally adjusted. Source: Bureau of Labor Statistics, Delta Associates, September 2017.

NUMBER OF UNEMPLOYED VS. JOB OPENINGS

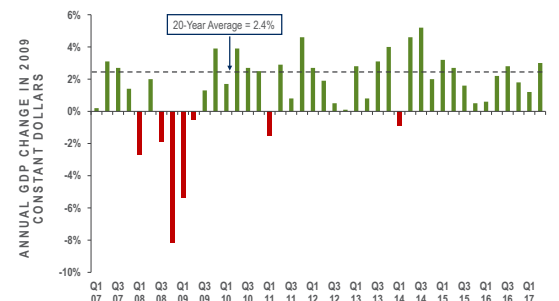
12-Month Averages Ending July 2017



Note: Based on 12-month trailing average. Data are not seasonally adjusted. Source: Bureau of Labor Statistics, Delta Associates, September 2017.

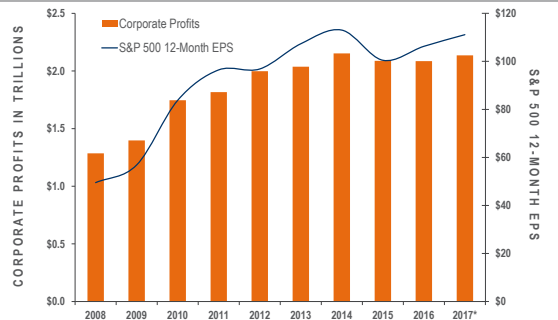
GDP PERCENT CHANGE

United States



Note: Quarters are seasonally adjusted at annual rates. Source: Bureau of Economic Analysis, Delta Associates, September 2017.

U.S. CORPORATE PRE-TAX PROFITS



*Through Q2 2017. Note: Seasonally adjusted at annual rates. EPS=Earnings Per Share. Yearly data are not seasonally adjusted. Source: Bureau of Economic Analysis, Standard and Poor's, Delta Associates, September 2017.

impending bubble. However, the combined effects of the rebounding labor market and continued low mortgage rates has kept demand high. Even with the acceleration of construction activity, supply has struggled to keep pace. The number of homes on the market relative to the number of households is still at its lowest level since the 1980s.

According to the National Association of Realtors, the annualized pace of existing home sales was 5.35 million in August 2017, up from 5.34 million a year prior. The current sales pace is the fastest seen since before the national housing crash in 2007. Sales would likely be even higher if not for a severe lack of inventory. The average sale price for an existing home was \$294,600 in August 2017, up 4.5% from \$282,000 in August 2016.

Mortgage rates have consistently been in decline since March 2017, but trended upward midway through September. Per Freddie Mac, the average commitment rate for a 30-year, conventional, fixed-rate mortgage rose to 3.83% as of September 21, up from a 2017 low of 3.78% in the two weeks prior. The increase mirrored a corresponding seven basis-point hike in the 10-year Treasury yield. We expect rates to rebound back above

4% shortly as the Fed winds down its expansionary policy in the coming period. The 2017 annual average is expected to be significantly higher than 2016's, when 30-year rates bottomed out at 3.42% in October, which was the lowest since April 2013.

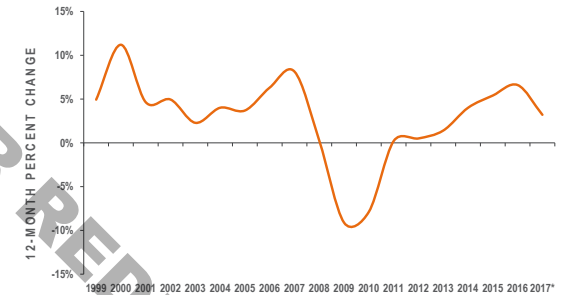
THE FEDERAL BUDGET

The Federal budget deficit for the 2016 fiscal year, which ended on September 30th of 2016, was \$587 billion (or 3.2% of GDP), up from 2.5% in FY2015. The budget shortfall in FY2016 was a \$148 billion increase over the deficit in FY2015, and marked the first federal budget deficit increase since FY2009. While the Congressional Budget Office (CBO) projects that the deficit to decline in fiscal years 2017 and 2018, it will resume its upward trajectory over at least the following eight years. The growing shortfalls would occur mainly because, under current law, growth in revenue would be outpaced by growth in spending for large federal benefit programs (primarily retirement and health care programs targeted to older people) and for interest payments on the federal debt.

Prior to being elected, President Trump proposed major increases to infrastructure and defense spending, and he has already attempted to follow through on the latter of these promises in his initial FY2018 budget proposal, which increases military spending by \$54 billion. In order to fund the increase in defense spending, as well as \$2.6 billion to construct a wall on the U.S.-Mexico border and \$1.4 billion to fund a new private "school choice" program without increasing revenues, the budget proposes an equivalent amount of cuts in discretionary spending across nearly every federal department. Under the president's proposal, only the departments of Veteran Affairs, Homeland Security, and Defense would see funding increases. The Environmental Protection Agency, State, Agriculture, and Labor departments would see massive cuts exceeding 20% of their current budgets. The scale and timeline of the administration's

REVOLVING CREDIT

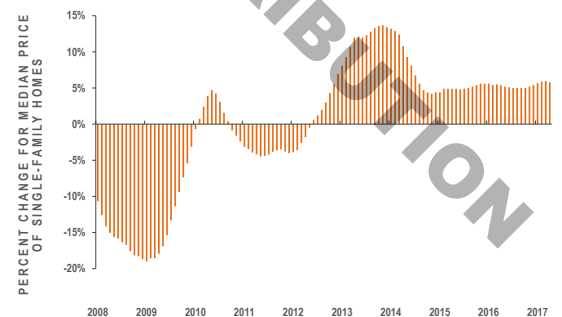
United States



*July 2017, seasonally adjusted at annual rate. Source: Federal Reserve Board, Delta Associates, September 2017.

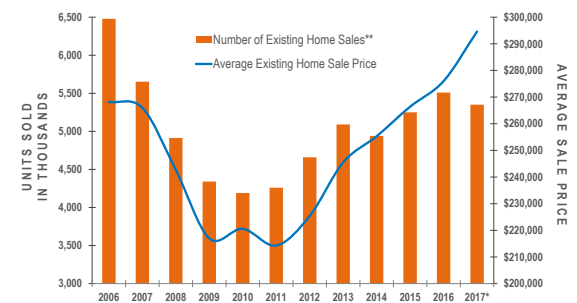
ANNUAL CHANGE IN EXISTING HOME SALE PRICES

United States



Note: Data reflect 20-city composite index. Source: S&P/Case-Shiller, Delta Associates, September 2017.

U.S. EXISTING HOME SALES VS. SALE PRICE



*Data as of August 2017. ** Seasonally adjusted annual sales rate. Source: National Association of Realtors, Delta Associates, September 2017.

proposed infrastructure investment remains up in the air, and the president recently abandoned his plans to focus on P3 partnerships, claiming that “they’re more trouble than they’re worth.”

In September, congressional Republicans and the Trump administration presented a tax reform plan with steep rate cuts. Specifically, the proposal:

1. Reduces the corporate tax rate from 35% to 20%.
2. Reduces and consolidates the individual tax rates into three brackets: 12%, 25% and 35%, doubles the standard deduction, and eliminates the personal exemption.
3. Reduces the tax on S corporations, partnerships, and sole proprietorships to 25%.

Most economists contend that the tax plan is unrealistic as proposed, since it would drastically widen the federal deficit even more than projected. This makes it unlikely that it will pass Congress in its current form.

INTEREST RATES AND INFLATION

The Federal Open Market Committee (FOMC) has so far followed through on its plans for regular increases to the federal funds benchmark rate this year. It hiked interest rates by a quarter percent at both its March and June meetings, with another increase likely coming in December. In addition, the Fed has indicated that it will shortly proceed to normalize its balance sheets by winding down its security-purchase program. The decision to end quantitative easing is driven mainly by strong consumer spending and the tight labor market. Unfortunately, weak inflation continues to be a concern, at least in the short term.

Consumer price inflation started off the year strong, but weakened in the spring. However, the rate of price growth has shown signs of rebounding over the summer. The CPI for all urban consumers increased 1.9% over the 12 months

ending August 2017, just shy of the Fed's 2.0% target. The increase was driven heavily by a sizeable 10.4% increase in gas prices as well as 3.3% increase in shelter costs. The personal consumption expenditure price index (PCEPI), which takes into account changes in consumption habits as people substitute some goods and services for others, experienced a lesser increase of 1.4% during the 12 months ending July 2017.

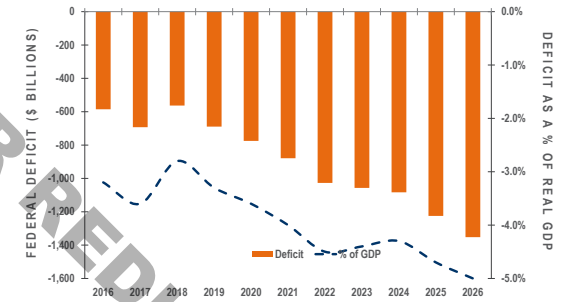
FINANCIAL MARKETS

U.S. financial markets have continued the strong bull market run through 2017, and the third quarter was no exception. The stock market returned to stability for much of 2016 as the economic recovery continued unhindered by turmoil overseas. Immediately following the presidential election, the stock market began a strong rally, in the process breaking record highs. On August 2, 2017, the Dow Jones Industrial Average crested 22,000 for the first time. The S&P 500 index stood at 2,496.84 as of market close on September 26, 2017, up 16.3% from a year ago. By comparison, total S&P 500 price returns in 2016 were 12.0%.

Much of the recent stock market gains can be attributed to the promises of President Trump to cut corporate taxes and alleviate federal regulations in the coming years. As such, continued positive performance in the marketplace is heavily dependent on the timing and framework of the new administration’s policies. In September, the Trump administration proposed a tax reform plan that would lower the corporate tax rate to 20% and the pass-through business rate to 25%. The plan already faces stiff opposition from Democrats in Congress and skepticism from analysts. If promised tax cuts, which are a major factor behind the current lofty market caps, don’t materialize as planned, there could be a profoundly negative reaction in financial markets.

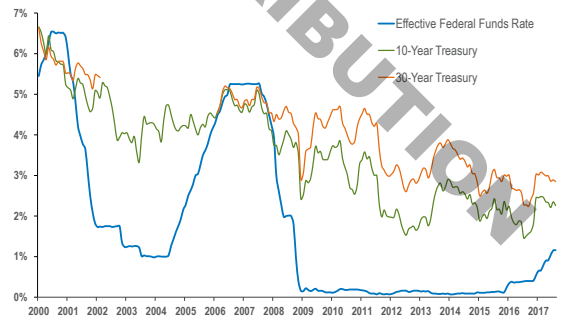
BASELINE BUDGET PROJECTIONS

United States



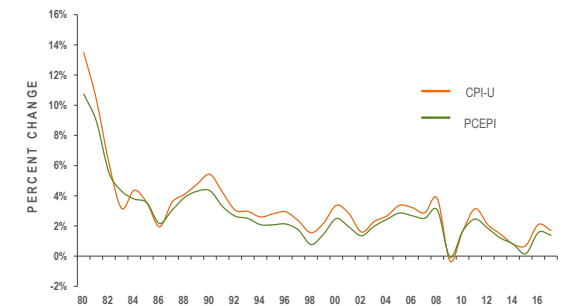
Baseline budget projections as of June 2017. Source: Congressional Budget Office, Delta Associates, September 2017.

SELECTED U.S. GOVERNMENT INTEREST RATES



Data are non seasonally adjusted monthly averages. 30-Year Treasury not issued between March 2002-Dec. 2005. Source: Federal Reserve Economic Data (FRED), Delta Associates, September 2017.

U.S. INFLATION AND PERSONAL CONSUMPTION EXPENDITURE INDEX



Note: *CPI-U and PCEPI through July 2017. Data reflects 12-month percent change. Source: Federal Reserve Economic Database (FRED), Delta Associates, September 2017.

The looming U.S. debt ceiling could also have major market implications in the latter part of the year if Congress does not act preemptively, presenting a major downside risk. In what mostly amounts to just kicking the can down the road, Congress raised the debt ceiling in September to allow the federal government to pay its obligations for the next three months.

ECONOMIC OUTLOOK

Our economic outlook for the next several months remains bullish. Consumer sales, the labor market, and business spending remain fundamentally strong. Lost economic activity due to severe weather in some parts of the country will result in a modest pullback in GDP growth in the third quarter, but we expect it to rebound. Overseas, the outlook is murkier and less upbeat, but a number of G7 nations—particularly Canada, Japan, and Germany—have recorded robust economic growth so far this year.

Domestically, the largest unknown regarding the future performance of the economy is public policy. After repeated failed attempts to repeal Obamacare, congressional Republicans and President Trump have shifted their focus to long-awaited tax reform. However, the president's proposal to cut corporate taxes drastically from over 40% to 20% is likely to be watered down, as it would cost the government roughly \$1.5 trillion over a decade according to most estimates. The administration has also pledged to boost infrastructure spending across the nation, which would provide another considerable boost to the economy. However, in September, President Trump abandoned his preference for public-private partnerships in rebuilding the nation's infrastructure, preferring instead to increase the burden of states and localities. Overall, non-defense federal spending is expected to be flat in the period ahead.

Job growth, while still robust, appears to be slowing to a less aggressive pace as labor slack shrinks. We expect positive payroll growth to continue for the time being, but believe that the days of 200,000 monthly net additions are in the rear-view mirror. With a prolonged recovery cycle comes a prolonged wait for wage increases, but as discussed previously, there remain other fundamental factors at play that could be placing downward pressure on wage growth. Nevertheless, we believe material wage growth will arrive before the end of the cycle.

Based on the Fed's schedule of future funds rate hikes and plans to shrink its balance sheet, higher interest rates in the near future is a given. However, relatively flat price inflation and continued uncertainty should keep long-term interest rate increases modest. Despite the higher cost of borrowing, we expect consumer spending to remain robust and remain the cornerstone of the national economy for the foreseeable future.

Specifically, we believe the economic outlook is as follows:

- **Real GDP growth:** 2.5% in 2017.
- **Payroll jobs:** 1.8 million additions in 2017.
- **Housing:** Price appreciation between 4.5% and 5.0% in 2017.
- **Unemployment rate:** 4.7% at end of 2017.
- **Federal funds rate:** Three 25 basis-point increases in 2017.
- **Interest rates:** Moderately up in 2017.
- **Inflation:** 1.9% in 2017.

NATIONAL PAYROLL JOB GROWTH SUMMARY

The U.S. economy gained 2.10 million payroll jobs over the 12 months ending August 2017 at an annual rate of 1.4%. This compares to the 25-year annual average of 1.3 million jobs at a 1.1% average growth rate.

S&P 500 INDEX



Note: CPI-U and PCEPI through July 2017. Data reflects 12-month percent change.
Source: Federal Reserve Economic Database (FRED), Delta Associates, September 2017.



“Lost economic activity due to severe weather in some parts of the country will result in a modest pullback in GDP growth in the third quarter, but we expect it to rebound.”

US PAYROLL JOB GROWTH		
YEAR	JOB CHANGE	% CHANGE
2017*	2,097,000	1.4%
2016	2,463,000	1.7%
2015	2,885,000	2.1%
2014	2,577,000	1.9%
2013	2,206,000	1.6%
2012	2,243,000	1.7%
2011	1,571,000	1.2%
2010	-952,000	-0.7%
2009	-5,929,000	-4.3%
2008	-757,000	-0.5%
2007	1,546,000	1.1%
2006	2,402,000	1.8%
2005	2,264,000	1.7%
2004	1,440,000	1.1%
2003	-302,000	-0.2%
2002	-1,438,000	-1.1%

* 12 months ending in August 2017.

12-MONTH PAYROLL EMPLOYMENT CHANGE THROUGH AUGUST 2017						
METRO AREA	JOB CHANGE		METRO AREA	JOB CHANGE		
	#	%		#	%	
New York	145,900	1.5%	Tampa-St. Petersburg	39,600	3.1%	
Dallas/Ft. Worth	96,700	2.8%	Phoenix	34,900	1.8%	
Atlanta	86,400	3.2%	Denver-Boulder	33,900	2.1%	
LA Basin			Las Vegas	30,300	3.2%	
Los Angeles/Long Beach/Glendale	37,200	0.9%	Charlotte	30,200	2.6%	
Orange County (Santa Ana/Anaheim/Irvine)	900	0.1%	Raleigh-Durham	30,100	3.3%	
Riverside/San Bernardino/Ontario	34,100	2.5%	Cincinnati	29,900	2.8%	
Total LA Basin	72,200	1.0%	Portland (OR)	29,100	2.5%	
Washington, DC	67,600	2.1%	Nashville	28,700	3.0%	
Boston (Metropolitan NECTA)	63,400	2.3%	Chicago	24,700	0.5%	
South Florida			San Antonio	23,000	2.3%	
West Palm Beach/Boca Raton	15,700	2.6%	Columbus (OH)	22,300	2.1%	
Fort Lauderdale	26,200	3.2%	Austin	21,200	2.1%	
Miami/Miami Beach/Kendall	19,300	1.7%	Indianapolis	19,200	1.8%	
Total South Florida	61,200	2.4%	San Diego	19,200	1.3%	
Houston	53,500	1.8%	Baltimore	19,100	1.4%	
Seattle	52,400	2.7%	Kansas City	17,200	1.6%	
Philadelphia	51,500	1.8%	Jacksonville	16,900	2.5%	
San Francisco Bay Area			Salt Lake City	16,800	2.4%	
San Jose/Sunnyvale/Santa Clara	11,000	1.0%	Sacramento	16,000	1.7%	
San Francisco/San Mateo/Redwood City	19,000	1.7%	St. Louis	15,500	1.1%	
Oakland/Fremont/Hayward	19,400	1.7%	Pittsburgh	10,300	0.9%	
Total Bay Area	49,400	1.5%	Cleveland	9,700	0.9%	
Detroit (Detroit/Warren/Livonia)	44,900	2.3%	Memphis	9,500	1.5%	
Minneapolis-St. Paul	44,800	2.3%	Oklahoma City	9,200	1.5%	
Orlando	40,000	3.3%	New Orleans	1,600	0.3%	

THE WASHINGTON AREA ECONOMY

Economic Growth Accelerates in Third Quarter

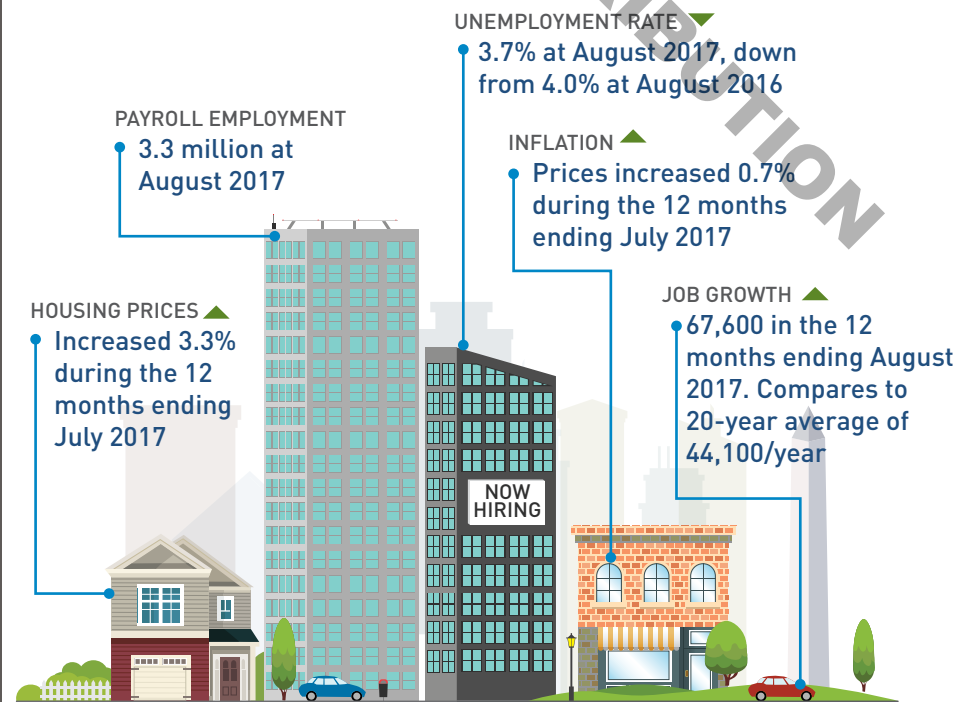
After slowing down somewhat earlier in the year, the pace of job growth has picked up again in the Washington metro area. A net total of 67,600 jobs were added to the Washington area economy during the 12 months ending August 2017, led again by the Education/Health Services and Professional/Business Services sectors. During the 12-month period ending August 2017, the total number of jobs in the Washington region grew at an annual rate of 2.1%, compared to a national rate of 1.4%. The unemployment rate in the Washington metro area stood at 3.7% as of August 2017, down 30 basis points from August 2016.

Consumer price growth in the Baltimore/Washington region showed little movement in the third quarter, reflecting national price stagnation. Consumer prices across the region in July 2017 were just 0.7% higher than they were a year prior, compared to 1.7% nationally. Regional gasoline prices stalled in the third quarter, after an extended period of robust growth, increasing just 1.6% over the 12 months ending July 2017. Home prices in the region increased 3.3% in the 12 months ending August 2017, compared to 5.8% nationwide.

We expect additional growth through the end of the year, as job growth remains robust and consumer spending strong. That said, there does remain significant downside potential regarding the policies of the new presidential administration and their effects on the region's economy, which is still heavily dependent on federal spending.

“ Amazon’s RFP announcement for a second headquarters has sent regional economic development officials in a frenzy, as they rush to put together proposals for the highly-sought after award.

ECONOMIC HIGHLIGHTS WASHINGTON METRO AREA

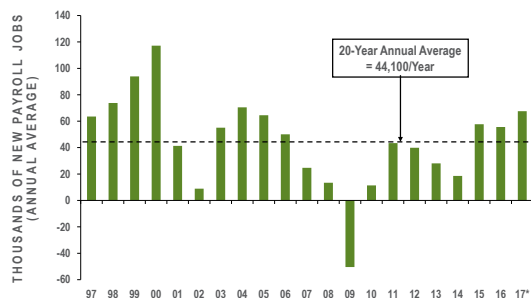


Source: Bureau of Labor Statistics, S&P/Case-Shiller, September 2017.

The tech industry has become a bright spot for the Washington region in recent years. In 2016 alone, tech firms 2U, RainKing Software, Optoro, and Opower expanded their operations in the region and committed to hiring additional workers in the near future. Likewise, coworking firms, which cater to tech startups, have been on a path of rapid expansion in the Washington area. Amazon's RFP announcement for a second headquarters has sent regional economic development officials in a frenzy, as they rush to put together proposals for the highly-sought after award. If selected, the tech behemoth's second headquarters would bring 50,000 new well-paying jobs to the region over a decade, and would undoubtedly have positive spillover effects for the entire regional economy.

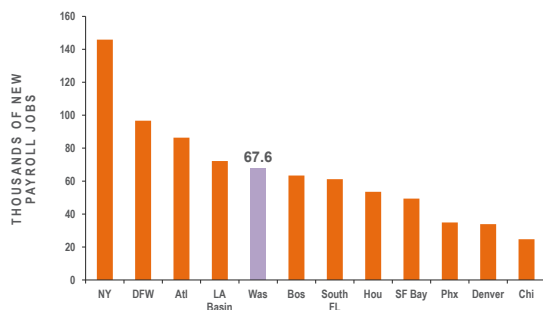
PAYROLL JOB GROWTH

Washington Metro Area



PAYROLL JOB GROWTH

Selected Large Metro Areas | 12 Months Ending August 2017



PAYROLL JOBS

After slowing down somewhat earlier in the year, the pace of job growth has picked up again in the Washington metro area. This falls in line with our predictions last quarter of a coming "resurgence in job growth." A net total of 67,600 jobs were added to the Washington area economy during the 12 months ending August 2017, which was well above the long-term annual average of 44,300. During the 12-month period ending August 2017, the total number of jobs in the Washington region grew at an annual rate of 2.1%, compared to a national rate of 1.5%. The Washington region ranked 5th among its peers in total job growth. As of August 2017, the total non-farm payroll in the Washington metro area stood at 3.3 million.

PAYROLL JOBS BY SECTOR

As has been the case through most of the recovery period, the booming Education/Health and Professional/Business Services sectors lead job growth in the 12 months ending August 2017, totaling 36,200 combined. The resurging Washington area Leisure/Hospitality sector augmented that total with 14,400 jobs over the 12-month period. Payroll additions in most of the region's other employment sectors was positive, but below 10,000.

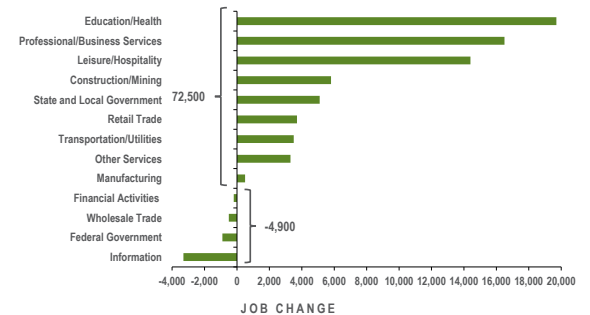
Job losses in the local Information sector continued to pile up in the third quarter, mirroring national trends as traditional publishing and media industries continue to rapidly contract. The sector experienced a 3,300 reduction in payroll positions during the 12 months ending August 2017. As we projected last quarter, the 12-month Federal Government job growth figure turned negative (-900) as of August. If President Trump follows through on his policy goals, we can certainly expect even more reductions in the size of the regional federal workforce in future periods. On the bright side, State and Local Governments picked up the slack in the public sector adding 5,100 jobs in the 12 months ending August 2017.

TRENDS IN EMPLOYMENT BY MAJOR SECTOR Washington Metro Area			
	AUGUST 2017	12-MONTH CHANGE	20-YEAR ANNUAL AVERAGE
Education/Health	444.9	19.7	1.4
Professional/Bus. Svcs.	762.7	16.5	6.4
Leisure/Hospitality	346.4	14.4	1.9
Construction/Mining	165	5.8	15.2
State and Local Govt.	312.4	5.1	10.0
Retail Trade	282.5	3.7	1.8
Transportation/Utilities	67.8	3.5	1.7
Other Services	199.9	3.3	-0.1
Manufacturing	54.7	0.5	-1.0
Financial Activities	159.1	-0.2	0.2
Wholesale Trade	62.4	-0.5	-1.0
Federal Government	365.9	-0.9	4.3
Information	71.2	-3.3	3.5
Total	3,294.90	67.6	44.1

Note: In thousands of payroll jobs. Data are not seasonally adjusted.
Source: BLS, Delta Associates; September 2017.

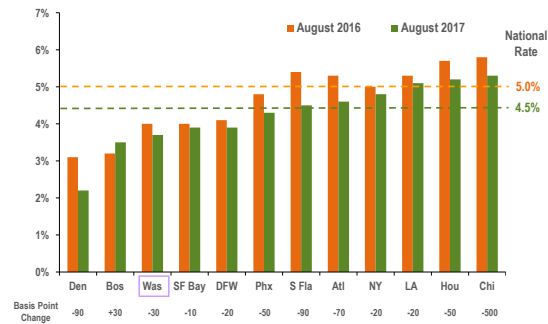
PAYROLL JOB GROWTH

Washington Metro Area | 12 Months Ending August 2017



UNEMPLOYMENT RATE

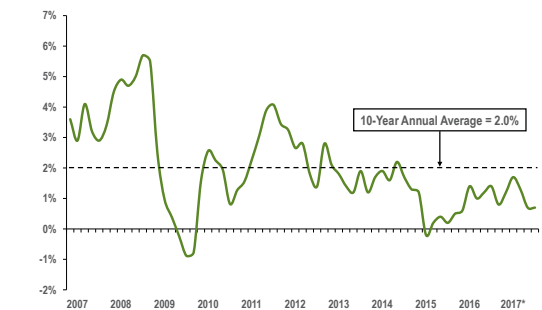
Large Metro Areas | August 2016 vs. August 2017



Source: Bureau of Labor Statistics, Delta Associates, September 2017.

CONSUMER PRICE INDEX (CPI)

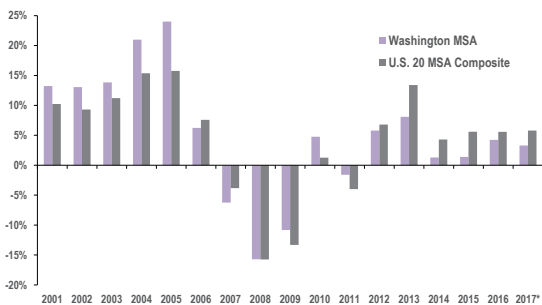
Washington/Baltimore Region



Note: Data is 12 month change ending in each period, through July 2017.
Source: Bureau of Labor Statistics, Delta Associates, September 2017.

CHANGE IN HOUSE PRICES

Washington MSA vs. U.S. 20-MSA Composite



*12 months ending July 2017.
Source: S&P/Case-Shiller, Delta Associates, September 2017.

UNEMPLOYMENT RATE

The unemployment rate in the Washington metro area stood at 3.7% as of August 2017, down 30 basis points from August 2016. The region's unemployment rate is currently the third lowest among its peer metropolitan areas, trailing Denver and Boston. The rate is also 80 basis points lower than the national rate of 4.5% as of August 2017. We expect the Washington metro area's unemployment rate to continue to decline into the 3.0% - 3.3% range before the end of the year, then tick upwards as the federal workforce shrinks.

REGIONAL CONSUMER PRICE INDEX

Consumer price growth in the Baltimore/Washington region showed little movement in the third quarter, reflecting national price stagnation. Consumer prices across the region in July 2017 were just 0.7% higher than they were a year prior, compared to 1.7% nationally. After several quarters of robust growth, regional gasoline prices stalled in the third quarter, up just 1.6% over the 12 months ending July 2017. Household energy costs showed more significant appreciation over the period, rising 3.4%. We expect future CPI reports will show considerable increases in energy prices in reflection of rising gas prices following energy infrastructure damage caused by Hurricane Harvey in late August.

HOUSING PRICES

After lagging the rest of the country by a wide margin in terms of growth, home prices in the Washington metro area have been very slow to catch up. According to the S&P/Case-Shiller Home Price Index, home prices in the region increased 3.3% in the 12 months ending July 2017, compared to 5.8% nationwide. Looking ahead, we expect steady growth in home prices, although rising inventory and interest rates will place some downward pressure on prices.





REGIONAL GDP

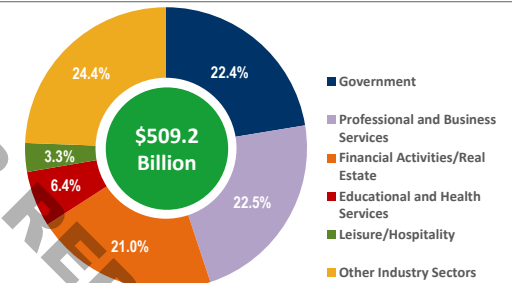
The total GDP produced in the Washington metro area in 2016 was \$509.2 billion (in current dollars). This was a 3.2% increase from the estimated \$493.7 billion in 2015, and just matched the 3.2% annual growth rate for all metro areas in the United States. Economic activity in the private sector totaled \$394.9 billion in 2016, which was a 3.3% increase over 2015, while total activity in the public sector was \$114.3 billion, just 2.8% higher than in 2015. The fastest growing economic sector in the Washington area during 2016 was Leisure/Hospitality which grew 4.6%, contributing \$16.6 billion to regional GDP.

While the Federal government remains the largest single contributor to the Washington area economy, its share of spending is shrinking. Federal government spending (direct expenditures and procurement) was 36% of GRP in 2015 (2016 figures were not directly reported). We expect this share to be reduced to 27% by 2020, as private sector economic growth will accelerate while Federal spending will remain flat, or possibly contract.

A major share of Federal spending in the Washington metro area economy is for procurement – the government’s purchase of goods and services from the private sector. After decreasing slightly in 2015, procurement spending in the Washington region increased 3.8% to \$73.8 billion in 2016. Because these dollars drive private sector investment and job growth, they have a much greater secondary economic impact than dollars spent on Federal payroll.

SHARE OF REGIONAL GDP

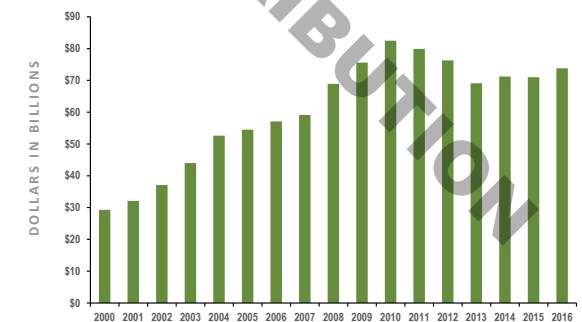
Washington Metro Area | 2016



Note: Percentages may not total 100% due to rounding. Source: Bureau of Economic Analysis/Delta Associates, September 2017.

FEDERAL PROCUREMENT SPENDING

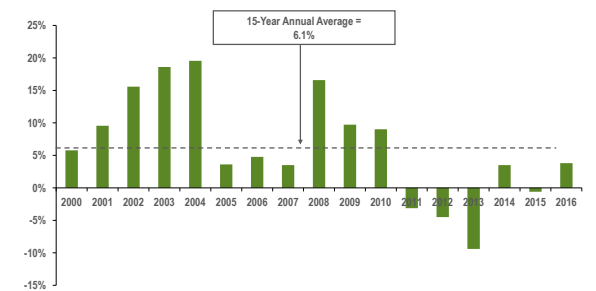
Washington Metro Area 2000-2016



Source: US Census, Consolidated Federal Funds Report and USAspending.gov, Delta Associates, September 2017.

ANNUAL CHANGE IN FEDERAL PROCUREMENT SPENDING

Washington Metro Area (Current Dollars) 2000-2016



Source: George Mason University Center for Regional Analysis, Delta Associates, September 2017.

SIDEBAR: THE COMPETITION TO SECURE AMAZON'S HQ2

In early September, Amazon released a RFP for the development of a second national headquarters somewhere in North America (note that this means it could be located outside of the U.S.). The new headquarters would be a \$5 billion investment and provide 50,000 new full-time jobs paying an average of over \$100,000 a year. Amazon's existing headquarters in Seattle has been a boon to the city, with over \$85.8 billion in direct and indirect economic activity since Amazon moved their headquarters to Seattle in 2010.

Therefore, it comes as no surprise that hundreds of large cities and counties across the country are scrambling to put together RFP responses for submission by the October 19 deadline. Of course, this includes many of the Washington region's jurisdictions. While discussion of a single bid for the entire metro area surfaced early in the process, things quickly devolved into most jurisdictions submitting their own response in addition to a regional bid. WMATA has also thrown its hat into the ring, offering to join any regional bid by leveraging its valuable portfolio of transit-adjacent real estate.

Here is a brief overview of the building/site "preferences" specified in the HQ2 RFP:

- Within 30 miles of a population center.
- Within 45 minutes of an international airport.
- No more than two miles from "major highways and arterials."
- Must have direct access to rail, subway/metro, and/or bus routes.
- Provide for 500,000 SF of office space in 2019 and eight million SF of office space by 2027+.

While these are not strict requirements, the selection of available development sites in the densely-populated Washington region that satisfy all of them is actually very slim. Nevertheless, at least five jurisdictions (likely more) in the region have stated that they plan to submit bids to Amazon, including: the District of Columbia, Montgomery and Prince George's counties in Maryland, and Loudoun and Arlington counties in Virginia. This doesn't include other proposals in Maryland and Virginia from cities and counties outside of the immediate Washington area, including Baltimore City and Virginia Beach. Regardless of the separate bids coming from the region, it's clear that the Washington area has distinct advantages over most other metro areas including: a highly-educated workforce, a plethora of transit options, and three major airports.



The University of Maryland's Discover District in College Park. Future home of Amazon's HQ 2? (Source: COPT)

WASHINGTON AREA ECONOMIC OUTLOOK

The Washington area economy continues to expand, although the rate of growth has ebbed and flowed so far this year, mirroring national patterns. We expect additional growth through the end of the year, as job growth remains robust and consumer spending strong. That said, there does remain significant downside potential regarding the policies of the new presidential administration and their effects on the region's economy, which is still heavily dependent on federal spending.

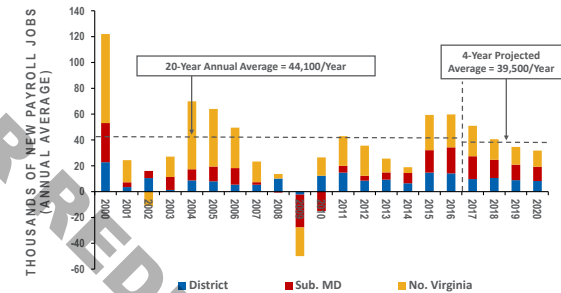
President Trump's initial FY2018 budget proposal to Congress prompts immediate cause for concern since it calls for steep budget cuts to nearly every federal agency. Some agencies stand to lose over 20% of their current budgets, including the Environmental Protection Agency, State, Agriculture, and Labor departments. Under the president's proposal, only the departments of Veteran Affairs, Homeland Security, and Defense would see funding increases. On top of the budget uncertainty is the looming debt ceiling which will need to be raised again before the end of the year, after a brief reprieve was passed by Congress in September.

The tech industry has become a bright spot for the Washington region in recent years. In 2016 alone, tech firms 2U, RainKing Software, Optoro, and Opower expanded their operations in the region and committed to hiring additional workers in the near future. Likewise, coworking firms, which cater to tech startups, have been on a path of rapid expansion in the Washington area. No doubt the most lucrative potential prize for the region is Amazon's planned second headquarters. If selected, the tech behemoth's second headquarters would bring 50,000 new well-paying jobs to the region over a decade, and would undoubtedly have positive spillover effects for the entire regional economy. A number of area jurisdictions have already indicated plans to submit bids (see sidebar).

Overall, we predict that 51,000 new jobs will be created in the region in 2017 (primarily in the private sector) with the pace of annual job growth slowly declining in subsequent years. Overall, we expect annual job growth in the metro area to average 39,500 over the next four years. The Washington metro area has a wealth of assets – a highly skilled workforce, access to international markets, high-quality education, and vast cultural resources – that will continue to give it a competitive advantage over other large metro areas in the long-run.

PAYROLL JOB GROWTH

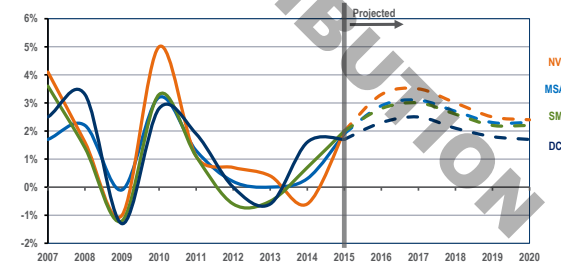
Washington Metro Area



Source: Bureau of Labor Statistics, George Mason University Center for Regional Analysis, Delta Associates; September 2017.

ECONOMIC OUTLOOK (GRP), 2007-2020

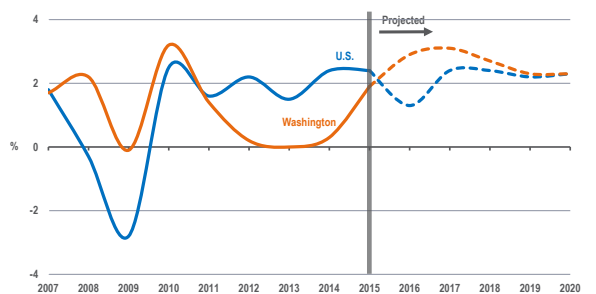
Washington Area and Sub-State Areas (Annual % Change)



Source: Bureau of Labor Statistics, George Mason University Center for Regional Analysis, Delta Associates; September 2017.

U.S. GDP AND WASHINGTON AREA GRP

2007 – 2020 (Annual % Change)



Source: IHS Economics, GMU Center for Regional Analysis, Delta Associates; September 2017.

“ The tech industry has become a bright spot for the Washington region in recent years. ”

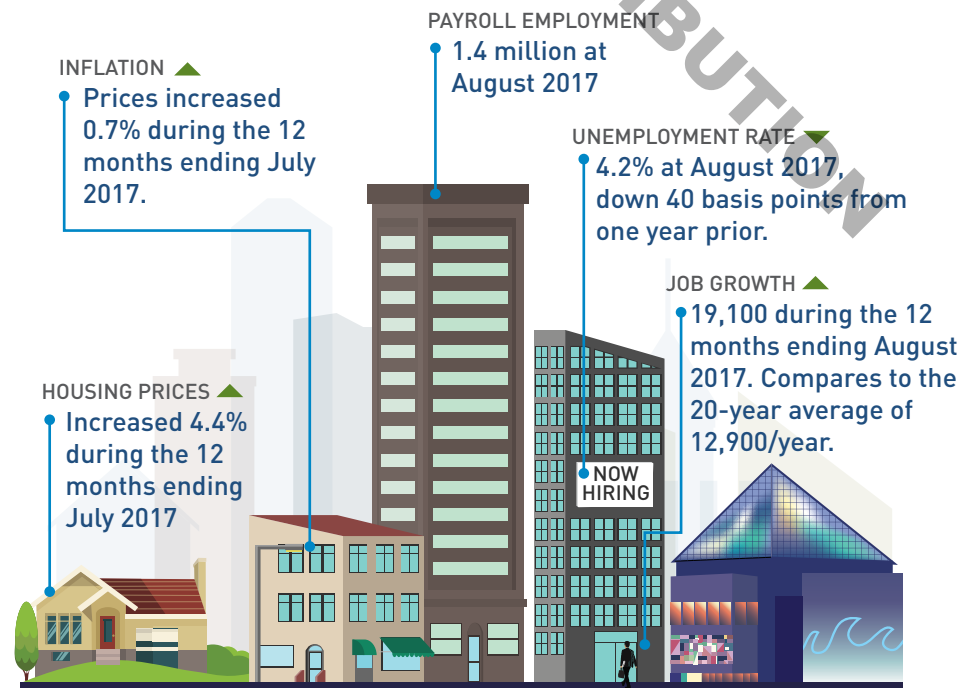
THE BALTIMORE AREA ECONOMY

Pace of Job Growth Picks Up As Economy Expands

Payroll job growth in the Baltimore metro area resumed its brisk pace during the third quarter after recovering from some second quarter weakness. The region added 19,100 jobs during the 12 months ending August 2017, well over the long-term average of 12,900/year. The nationwide struggles of the brick-and-mortar retail industry continues to be reflected in Baltimore's job growth this year. In the metro area, the Wholesale Trade and Retail Trade sectors shed a combined 3,400 jobs during the 12 months ending August 2017. The Baltimore metro area's unemployment rate was 4.2% (not seasonally adjusted) as of August 2017, down 40 basis points from August 2016, and 30 basis points below the national average. Baltimore's current unemployment rate ranks in the lower range among its peer metro areas, and we expect it to remain under 5% in 2017.

Once dominated by manufacturing, the Baltimore economy has become diversified over the past few decades. Despite the shift to a more service-oriented economy, the Baltimore area is not totally abandoning its industrial past. Amazon is finalizing plans to open its second fulfillment center in the area—an 855,000 SF facility at the Tradepoint Atlantic industrial site in Baltimore County. The online retail giant will join Under Armour and FedEx at the site, which have also recently announced plans to operate large distribution facilities there. Even bigger news from Amazon is the announcement of their search for a second headquarters, and Baltimore plans to enter a bid.

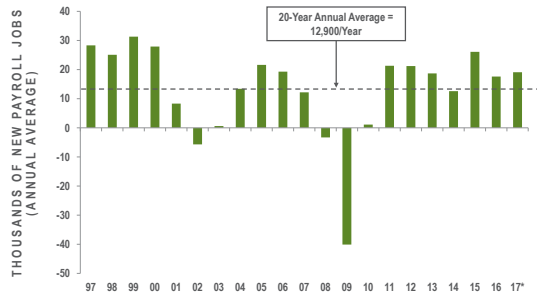
ECONOMIC HIGHLIGHTS BALTIMORE METRO AREA



Source: BLS, FHFA: September 2017.

PAYROLL JOB GROWTH

Baltimore Metro Area

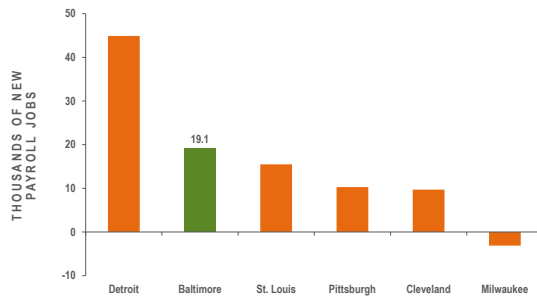


*12 months ending August 2017.

Source: Bureau of Labor Statistics, Delta Associates; September 2017.

PAYROLL JOB GROWTH

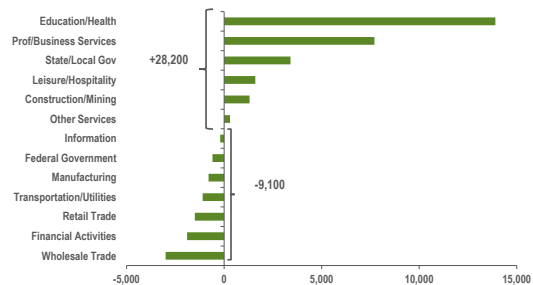
Comparable Metro Areas | 12 Months Ending August 2017



Source: Bureau of Labor Statistics, Delta Associates; September 2017.

PAYROLL JOB GROWTH

Baltimore Metro Area | 12 Months Ending August 2017



Source: Bureau of Labor Statistics, Delta Associates; September 2017.

We expect the Baltimore area economy to see additional growth through the remainder of 2017 and beyond. The regional economy is fundamentally sound and performing very well in comparison to its traditional peers. As the Baltimore region continues its transition from an economy dominated by manufacturing and distribution, we expect the share of jobs in the Professional/Business Services, Education/Health, and Financial Activities sectors to increase substantially. We expect an average of 14,400 new jobs will be added to the regional economy annually between 2017 and 2019.

PAYROLL JOBS

Job growth in the Baltimore metro area accelerated beyond the midpoint of 2017. The region added 19,100 jobs during the 12 months ending August 2017, well over the long-term average of 12,900/year. Baltimore's labor market continues to be robust, reflecting the healthy regional economy. Over seven years have passed since the region last recorded a negative 12-month job growth figure. As of August 2017, total payroll employment in the Baltimore region stood at 1.41 million jobs.

JOB GROWTH BY SECTOR

Unlike many other regions of the country, including the neighboring Washington metro area, Baltimore's total net payroll additions mask what is really a mixed bag in terms of sector to sector performance. Seven of the thirteen primary BLS job sectors recorded negative job growth in the 12 months ending August 2017, totaling -9,100. The six positive sectors more than compensated for the losses with 28,200 net total additions, but it does indicate a minor cause for concern as it can create inequality between available positions and the qualifications of jobseekers, and an overreliance on a handful of sectors over the long-term increases exposure to severe economic downturns.

TRENDS IN EMPLOYMENT BY MAJOR SECTOR
Baltimore Metro Area | In Thousands

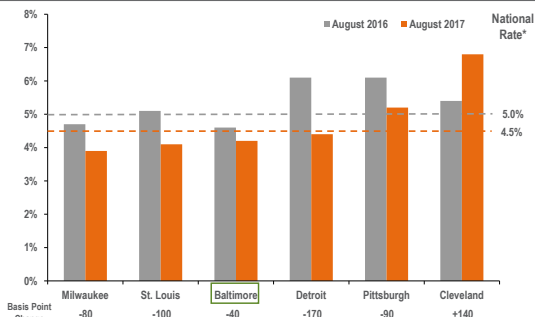
	AUGUST 2017	12-MONTH CHANGE	20-YEAR ANNUAL AVERAGE
Education/Health	281.0	13.9	4.9
Professional/Bus. Svcs.	244.4	7.7	5.0
State/Local Govt.	168.2	3.4	0.7
Leisure/Hospitality	143.2	1.6	1.9
Construction/Mining	80.8	1.3	0.8
Other Services	58.2	0.3	0.5
Information	16.6	-0.2	-0.2
Federal Government	50.8	-0.6	0.2
Manufacturing	53.3	-0.8	-2.4
Transportation/Utilities	51.0	-1.1	0.7
Retail Trade	138.5	-1.5	0.3
Financial Activities	78.6	-1.9	0.3
Wholesale Trade	50.7	-3.0	0.1
Total	1,415.3	19.1	12.9

Note: In thousands of payroll jobs. Data are not seasonally adjusted. Sum of columns may not equal total due to rounding.
Source: BLS, Delta Associates; September 2017.



UNEMPLOYMENT RATES

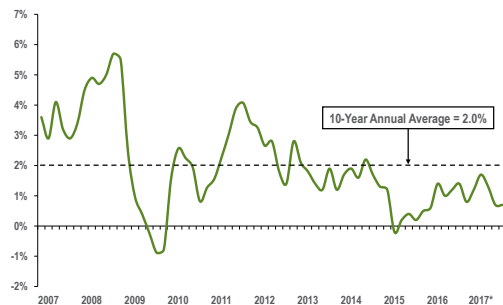
Comparable Metro Areas | August 2016 vs. August 2017



Source: Bureau of Labor Statistics, Delta Associates, September 2017.

CONSUMER PRICE INDEX (CPI)

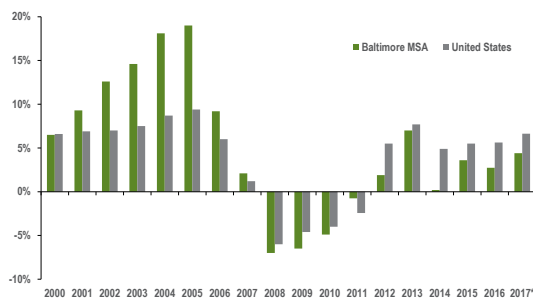
Washington/Baltimore Region



Note: Data is 12 month change ending in each period, through July 2017.
Source: Bureau of Labor Statistics, Delta Associates, September 2017.

CHANGE IN HOUSE PRICES

Baltimore Metro Area vs. United States



Note: Seasonally adjusted purchase-only price. *12-month change at June 2017.
Source: Federal Housing Finance Agency, Delta Associates, September 2017.

The Education/Health Services and Professional Business Services sectors continue to be the foundation of economic growth in the Baltimore metro area, accounting for 77% of the positive job growth in the metro area, with 21,600 additions combined. The State/Local Government, Leisure/Hospitality, Construction/Mining, and Other Services sectors were the only other employment sectors in the region to experience positive job growth during the 12-month period.

The nationwide struggles of the brick-and-mortar retail industry continues to be reflected in Baltimore's job growth this year. In the metro area, the Wholesale Trade and Retail Trade sectors shed a combined 3,400 jobs during the 12 months ending August 2017. There has been some good news for the sector in the Baltimore area though, as Amazon is nearing an agreement to construct an 855,000 SF fulfillment center employing 1,500 at the Tradeport Atlantic industrial site in Baltimore County. The Financial Activities sector continues to struggle, losing 1,900 jobs between August 2016 and August 2017, but the sector does have some promising future prospects. In 2016, Morgan Stanley announced plans to lease additional office space in downtown Baltimore and add 800 new jobs over the next four years.

UNEMPLOYMENT RATE

The Baltimore metro area's unemployment rate was 4.2% (not seasonally adjusted) as of August 2017, down 40 basis points from August 2016, and 30 basis points below the national average. Baltimore's current unemployment rate ranks in the lower range among its peer metro areas, and we expect it to remain under 5% in 2017.

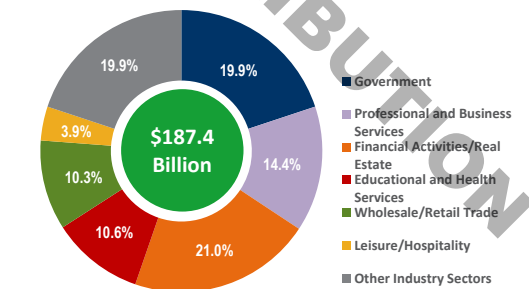
REGIONAL CONSUMER PRICE INDEX

Consumer price growth in the Baltimore/Washington region showed little movement in the third quarter, reflecting national price stagnation. Consumer prices across the region in July 2017 were just 0.7% higher than

they were a year prior, compared to 1.7% nationally. After several quarters of robust growth, regional gasoline prices stalled in the third quarter, up just 1.6% over the 12 months ending July 2017. Household energy costs showed more significant appreciation over the period, rising 3.4%. We expect future CPI reports will show considerable increases in energy prices in reflection of rising gas prices following energy infrastructure damage caused by Hurricane Harvey in late August.

SHARE OF REGIONAL GDP

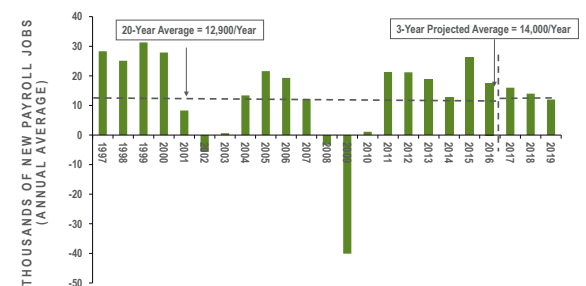
Baltimore Metro Area | 2016



Note: Percentages may not total to 100% due to rounding

JOB GROWTH

Baltimore Metro Area



Source: Bureau of Labor Statistics, Delta Associates, September 2017.

SIDEBAR: BALTIMORE'S CASE FOR AMAZON'S HQ2

In early September, Amazon released a RFP for the development of a second national headquarters somewhere in North America (note that this means it could be located outside of the U.S.). The new headquarters would be a \$5 billion investment and provide 50,000 new full-time jobs paying an average of over \$100,000 a year. Amazon's existing headquarters in Seattle has been a boon to the city, with over \$85.8 billion in direct and indirect economic activity since Amazon moved their headquarters to Seattle in 2010.

Here is a brief overview of the building/site "preferences" specified in the HQ2 RFP:

- Within 30 miles of a population center.
- Within 45 minutes of an international airport.
- No more than two miles from "major highways and arterials."
- Must have direct access to rail, subway/metro, and/or bus routes.
- Provide for 500,000 SF of office space in 2019 and eight million SF of office space by 2027+.

Almost immediately following the announcement, state and local public officials decided to throw Baltimore City's hat into the ring, as the economic impact would be a major boon for the city, which has seen steady economic growth but has lagged many of its peers and suffered from an ongoing population decline. Regionwide support for the bid has already coalesced around a single development site—Sagamore's 235-acre Port Covington development. Of course, Baltimore would be in contention with potentially hundreds of other cities from across the continent (the RFP specified "North American" cities), particularly its larger neighbor to the southwest, but it does boast some distinct advantages:

- The rare availability of a 235-acre, largely vacant development site with highway and future transit access a few miles from downtown.
- A rapidly growing tech sector.
- A strategic position along the Northeast Corridor between DC and Philadelphia.
- Lower occupancy costs and cost of living for employees compared to the Washington region.



Rendering of the Port Covington mixed-use development with the future Under Armour headquarters on the left. (Source: Sagamore Development)

HOUSING PRICES

Home prices in the Baltimore metro area increased 4.4% during the 12 months ending June 2017, according to the Federal Housing Finance Agency (FHFA), a significantly quicker pace than 2.7% in 2016. With a limited supply of new housing in the metro area, but growing demand, home price appreciation in the Baltimore metro crept closer to the national average of 5.5% over the 12 months ending June 2017.

REGIONAL GDP

The Baltimore metro area's total Gross Domestic Product (GDP) in 2016 was \$187.4 billion. This was a 4.4% increase over 2015, and higher than the 3.2% average growth experienced by all 382 of the nation's metropolitan areas. Economic activity in the private sector grew 4.9% over the year, or nearly twice the 2.7% rate of growth experienced by the public sector. The Financial Activities/Real Estate sector just narrowly beat out Government to lead all sectors in economic contributions at \$39.3 billion, or 21% of the total value of goods and services produced in the Baltimore region. The Professional/Business Services, Education/Health, and Manufacturing sectors round out the top 5 economic sectors in the metro area in 2016. The fastest growing economic node was Financial Activities (8.4%), while Mining was the only sector that contracted (-10.4%).

BALTIMORE AREA ECONOMIC OUTLOOK

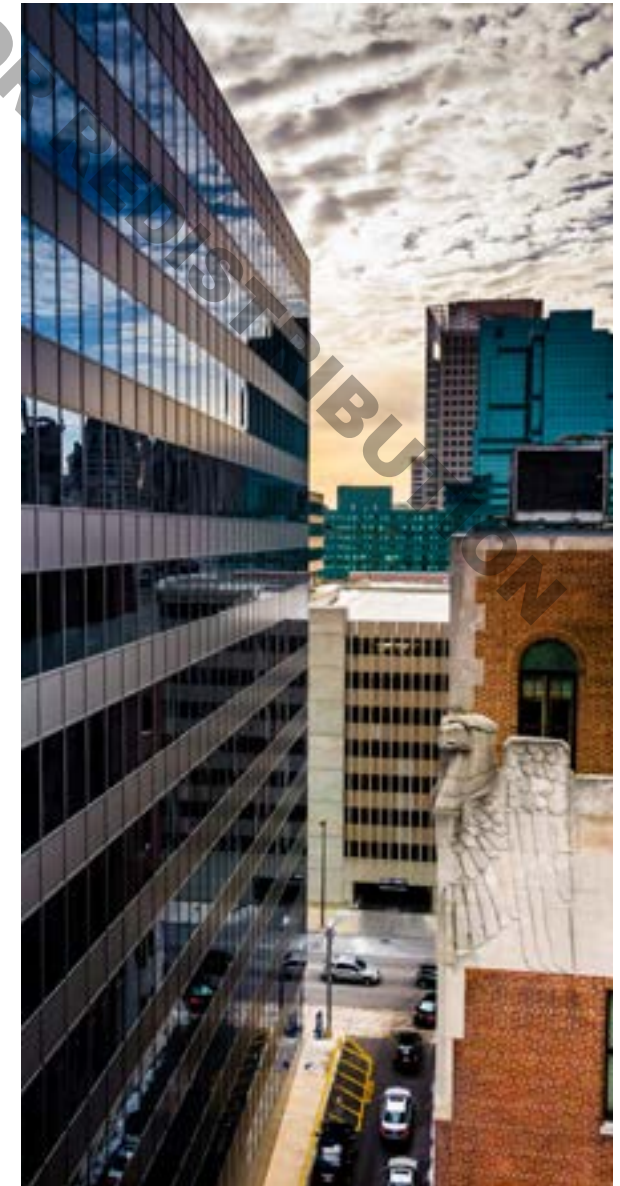
Three-quarters of the way through 2017, the Baltimore metro area economy continues to perform well and we expect continued improvement through the end of the year. Job growth will continue to be above-average, although the pace will gradually decline in coming years. Most promising is the strong growth in higher-paying job sectors, particularly Professional/Business Services and Education/Health Services, the latter of which is quickly becoming the dominant growth sector in the region.

The region's largest private firms, such as Under Armour, Sinclair Broadcasting, and McCormick continue to grow and expand, benefiting the regional economy. Importantly for Baltimore City, is the growing trend of companies seeking to relocate to walkable, urban environments. In the third quarter, two companies currently located in the Baltimore suburbs announced that they would relocate their headquarters to the city. The first announcement came from Howard Bancorp, which announced plans to consolidate its headquarters (now located in Ellicott City in Howard County) into the former headquarters of the recently acquired 1st Mariner Bank in Baltimore's Canton neighborhood. Rapidly growing weight-loss company Medifast also announced plans to relocate its headquarters to Baltimore City, specifically the burgeoning Harbor East mixed-use district. The company's current headquarters is located in Owings Mills in Baltimore County. Perhaps the biggest relocation prospect for the city is Amazon's HQ2 (see sidebar).

Once dominated by manufacturing, the Baltimore economy has become diversified over the past few decades. Finance, healthcare, education, federal agency, government contractor, and tech employers account for the bulk of the region's economic activity. Innovative entrepreneurship has taken off in recent years in both Baltimore City and its suburbs. The region's low cost of living relative to Washington and other nearby metro areas, its affordable office space, and its anchor educational institutions have created a very appealing environment for startups.

The ongoing major concern moving forward is the persistently high level of violent crime in Baltimore City. After dropping to the lowest level in decades in the early 2010's, the city's violent crime rate climbed sharply following the civil unrest in May 2015 and has yet to come back down. The elevated crime rate could possibly deter new residents and businesses

alike, which could threaten the region's recent run of economic success. Nevertheless, we project that the region will add an average of 14,000 new jobs per year between 2017 and 2019.



THE PHILADELPHIA AREA ECONOMY

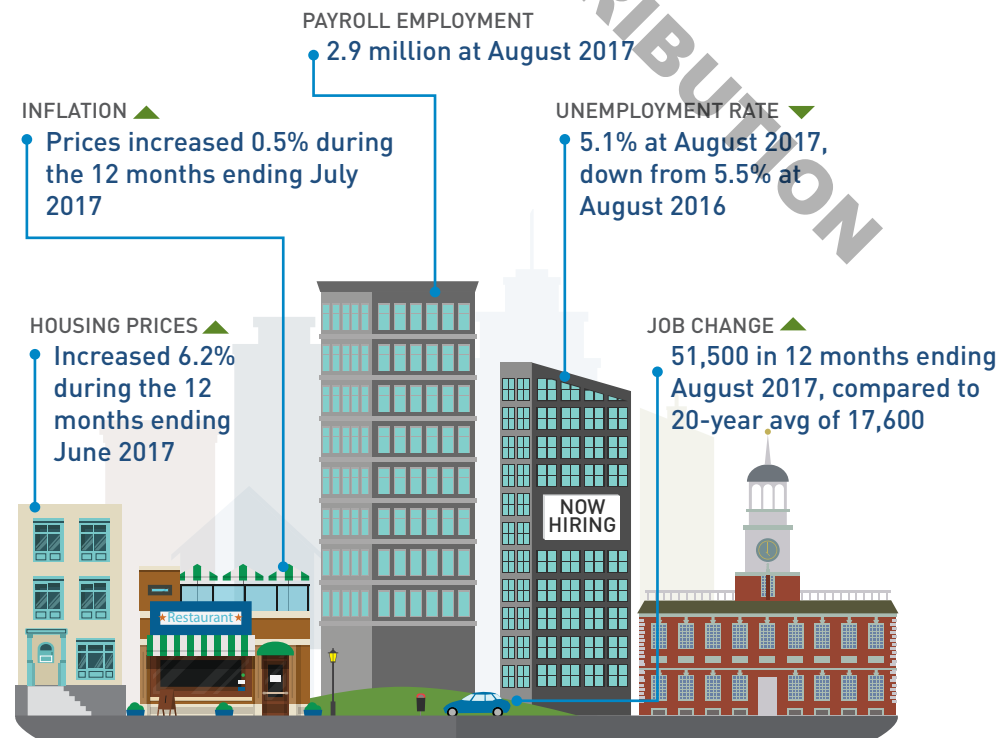
Philadelphia Overtakes Peers As Economy Strengthens Further

The economic recovery in the Philadelphia metro area has yet to slow down. A total of 51,500 new jobs were added to the regional economy during the 12 months ending August 2017. Mirroring national trends, the Professional/Business Services, Education/Health, and Leisure/Hospitality sectors led job growth in the Philadelphia metro area, combining for 45,000 net additions. The regional unemployment rate declined by 40 basis points to 5.1% between August 2016 and August 2017.

As job growth has driven up demand for housing, home prices have risen accordingly. Average home prices increased a strong 6.2% over the year ending June 2017, compared to the national rate of 6.6%. Despite the growth in housing costs, overall inflation has remained low so far in 2017, with consumer prices in the Philadelphia metro area increasing just 1.4% during the 12 months ending August 2017.

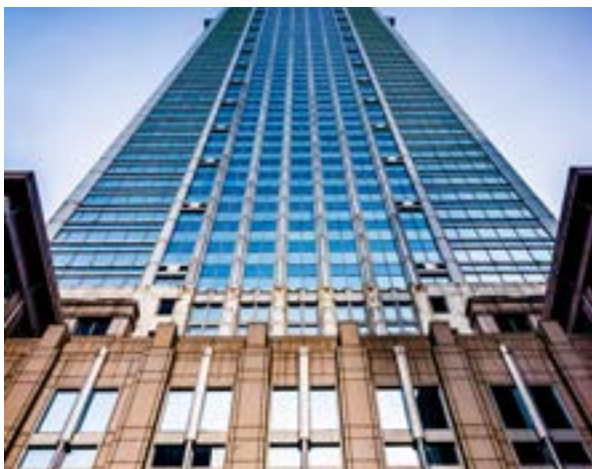
All indicators point to continued economic growth in the Philadelphia metro area in the period ahead. We project the region's economy to add an average of 51,700 new jobs annually between 2017 and 2019. Strong job creation in the region's key economic sectors, such as Education/Health Services and Professional/Business Services, will produce spin-off effects in a variety of sectors from Construction to Financial Services. This, in turn, will support retail spending, office demand, and the housing market, as well as make the region more attractive to an economically and demographically diverse labor force.

ECONOMIC HIGHLIGHTS PHILADELPHIA METRO AREA



TRENDS IN EMPLOYMENT BY MAJOR SECTOR Philadelphia Metro Area In Thousands			
	AUGUST 2017	12-MONTH CHANGE	20-YEAR ANNUAL AVERAGE
Education/Health Services	622.9	15.4	6.3
Professional/Bus. Svcs.	479.0	16.7	10.2
Transportation/Utilities	105.8	6.8	0.8
Leisure/Hospitality	284.1	12.9	4.3
Construction/Mining	120.6	2.8	0.7
Financial Services	216.5	2.3	0.7
State/Local Government	262.3	1.7	-0.7
Wholesale Trade	120.1	0.6	0.3
Retail Trade	297.0	-5.0	0.2
Other Services	119.3	-1.2	0.9
Federal Government	51.5	0.0	0.7
Information	46.1	-0.9	-0.7
Manufacturing	179.1	-0.6	-5.9
Total	2,904.3	51.5	17.6

Note: In thousands of payroll jobs. Data are not seasonally adjusted.
Source: Bureau of Labor Statistics, Delta Associates; September 2017.



PAYROLL JOBS

Job growth continued apace in the Delaware Valley during the third quarter of 2017. The regional economy added 51,500 new jobs during the 12 months ending August 2017. As of August 2017, total employment in the Philadelphia metro area stood at 2.90 million—the seventh highest in the nation. We expect robust job growth to persist through the remainder of 2017, before cooling somewhat in following years.

JOB GROWTH BY SECTOR

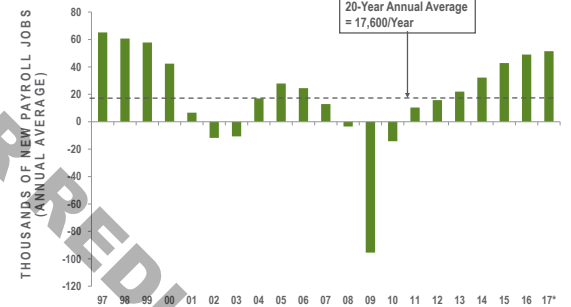
Mirroring national trends, the Professional/Business Services, Education/Health, and Leisure/Hospitality sectors led job growth in the Philadelphia metro area, combining for 45,000 net additions. Most other employment sectors also saw positive job growth over the period. The main exception was the Retail Trade sector which experienced a job loss of negative 5,000.

“Eds-and-meds” has remained one of the key drivers of the Philadelphia area economy. The life sciences industry in particular has become a strong growth center for the regional economy. According to the Greater Philadelphia Life Sciences Report published in January 2017, there are over 1,200 life sciences establishments in the region, providing 48,900 direct jobs and generating \$24.6 billion dollars in real economic impact. Anchoring the industry are more than 50 colleges and universities, including six medical schools.

Education/Health Services institutions in the Philadelphia metro area channel economic activity to other sectors. This is most readily apparent in the uptick in construction jobs in the region, which is partly due to the expansion of university-linked medical research campuses in the area. UPenn and Penn Medicine invested \$932 million in construction and renovation and created about 10,300 jobs for Pennsylvania residents in 2015.

PAYROLL JOB GROWTH

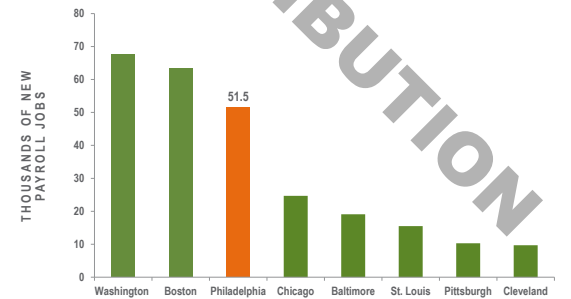
Philadelphia Metro Area



* 12 months ending August 2017
Source: Bureau of Labor Statistics, Delta Associates; September 2017.

PAYROLL JOB GROWTH

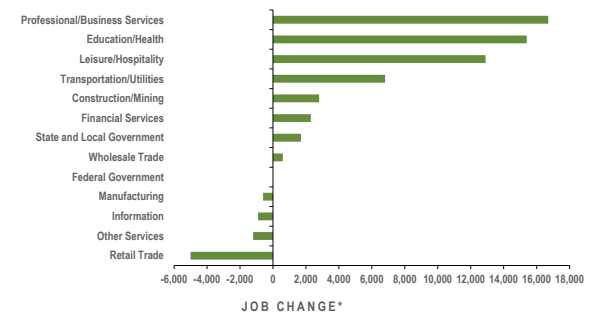
Comparable Metro Areas | 12 Months Ending August 2017



Source: Bureau of Labor Statistics, Delta Associates; September 2017.

PAYROLL JOB GROWTH

Philadelphia Metro Area



* 12 months ending in August 2017
Source: Bureau of Labor Statistics, Delta Associates; September 2017.

UNEMPLOYMENT RATE

As the Philadelphia metro area's employment base expands at a vigorous pace, there has been a corresponding decline in unemployment. The regional unemployment rate declined by 40 basis points to 5.1% between August 2016 and August 2017. Greater confidence in the Philadelphia labor market has encouraged more residents to enter the labor force, providing upward pressure on the unemployment rate. We expect unemployment to continue its decline through the end of 2017 as the pool of potential job seekers diminishes.

REGIONAL CONSUMER PRICE INDEX

Consumer price growth in the Philadelphia metro area continued to be moderate in the third quarter. Average prices increased just 1.4% over the 12 months ending August 2017. The increase was due largely to a 1.9%



increase in housing prices and an 18.1% increase in gasoline prices. Food prices and medical care costs remained largely flat over the 12-month period, while Education and communication costs declined 3.2%. We expect inflation to continue to be relatively weak through the end of the year, although there should be a considerable hike in gas prices following energy infrastructure damage caused by Hurricane Harvey in late August.

HOUSING PRICES

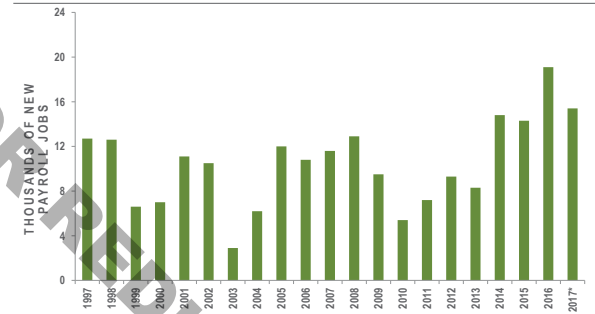
Home price inflation in the Philadelphia metro area was just shy of the national average during the 12 months ending June 2017. Average home prices increased a strong 6.2% over the year, compared to the national rate of 6.6%. Strong job growth in the region has stimulated demand for homes. This rising demand combined with relatively limited new construction has helped drive up housing prices.

REGIONAL GDP

The total value of all goods and services produced in the Philadelphia metro area in 2016 was \$431.0 billion (in current dollars). This was a 3.2% increase from the estimated \$417.7 billion in 2015, and just matched the 3.2% annual growth rate for all metro areas in the United States. Economic activity in the private sector totaled \$393.9 billion in 2016, which was a 3.4% increase over 2015, while total activity in the public sector was \$38.1 billion, just 0.7% higher than in 2015. The fastest growing economic sector in the Philadelphia metro area during 2016 was Financial Activities/Real Estate which grew 4.6%, while Agriculture/Forestry/Fishing was the only sector that contracted (-7.5%). The Financial/Real Estate Activities also lead all sectors in economic contributions at \$110.6 billion, or 26% of the total value of goods and services produced in the Philadelphia region.

EDUCATION/HEALTH SERVICES JOB GROWTH

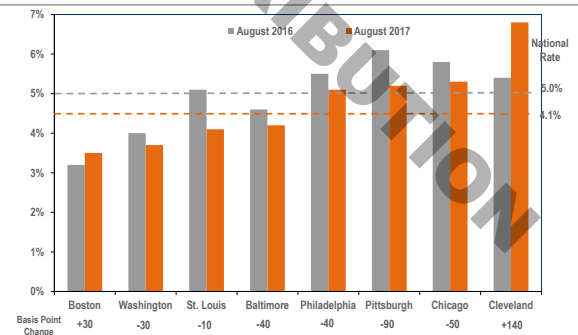
Philadelphia Metro Area



* 12 Months ending August 2017
Source: Bureau of Labor Statistics, Delta Associates, September 2017.

UNEMPLOYMENT RATE

Comparable Metro Areas | August 2016 vs. August 2017



Source: Bureau of Labor Statistics, Delta Associates, September 2017.

CONSUMER PRICE INDEX (CPI)

Philadelphia Metro Area



Note: Data are 12 months ending in each period, through August 2017.
Source: Bureau of Labor Statistics, Delta Associates, September 2017.

SIDEBAR: POSSIBLE PHILADELPHIA LOCATIONS FOR AMAZON'S HQ2

In early September, Amazon released a RFP for the development of a second national headquarters somewhere in North America (note that this means it could be located outside of the U.S.). The new headquarters would be a \$5 billion investment and provide 50,000 new full-time jobs paying an average of over \$100,000 a year. Amazon's existing headquarters in Seattle has been a boon to the city, with over \$85.8 billion in direct and indirect economic activity since Amazon moved their headquarters to Seattle in 2010.

Here is a brief overview of the building/site "preferences" specified in the HQ2 RFP:

- Within 30 miles of a population center.
- Within 45 minutes of an international airport.
- No more than two miles from "major highways and arterials."
- Must have direct access to rail, subway/metro, and/or bus routes.
- Provide for 500,000 SF of office space in 2019 and eight million SF of office space by 2027+.

The race to nab the new Amazon headquarters is in full-swing across the country, and the Philadelphia region is no exception. Similarly to the tri-state Washington area, many individual jurisdictions in the Philadelphia region are planning on submitting their own bids, instead of sticking to just one regionwide response (as recommended in Amazon's RFP). So far, public officials in Philadelphia, Camden (NJ), Bensalem, and Wilmington (DE) have all announced that they would be competing for HQ2. Philadelphia has seemingly emerged as one of the early favorites, both regionally and nationally, to secure the headquarters due to the availability of multiple sites that fully satisfy most or all of the RFP requirements, its mushrooming tech industry, and its strategic location on the Northeast Corridor midway between DC and New York. Below are the specific sites that will be submitted in Philadelphia's bid:

- Schuylkill Yards: 14-acre mixed-use development surrounding 30th Street Rail Station.
- uCity Square: 14-acre mixed-use innovation and entrepreneurship hub in University City.
- Navy Yard: 1,200-acre campus that was formerly occupied by a military base and is already home to 150 employers.



Caption: Rendering of Schuylkill Yards development in Philadelphia with 30th Street Station in center. (Source: Brandywine Realty Trust)

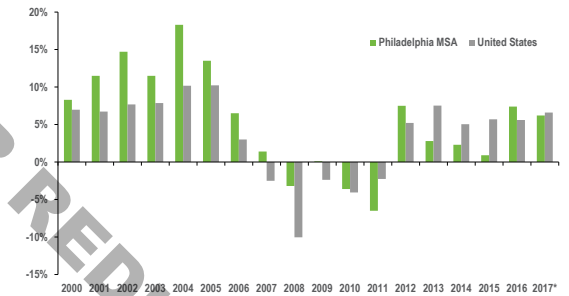
PHILADELPHIA AREA ECONOMIC OUTLOOK

We expect the Philadelphia metro area's economy to continue growing briskly through the remainder of the year, before calming a bit in following years. We project the region's economy to add an average of 51,700 new jobs annually between 2017 and 2019. The region's economic expansion will be driven by its backbone: the Education/Health Services sector. Institutions in the sector, such as the University of Pennsylvania, Villanova University, Drexel University, and Temple University, serve as hubs that provide well-paying jobs, foster startups, and stimulate real estate development. Other major employers, such as Comcast and Aramark, are also helping to propel the regional economy forward. Like scores of other metro areas across the U.S., jurisdictions in the Philadelphia region are aggressively pursuing the opportunity to secure Amazon's proposed HQ2 site and its 50,000 new employees (see sidebar).



CHANGE IN HOUSE PRICES

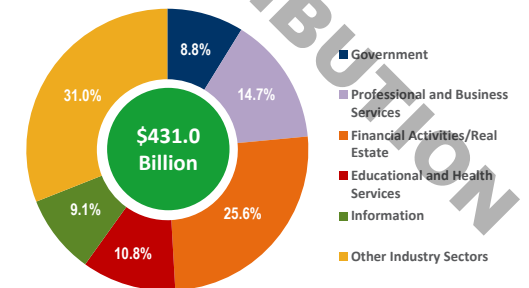
Philadelphia Metro Area vs. United States



Note: Seasonally adjusted purchase-only prices; 12-month change at June 2017.
Source: Federal Housing Finance Agency, Delta Associates, September 2017.

SHARE OF REGIONAL GDP

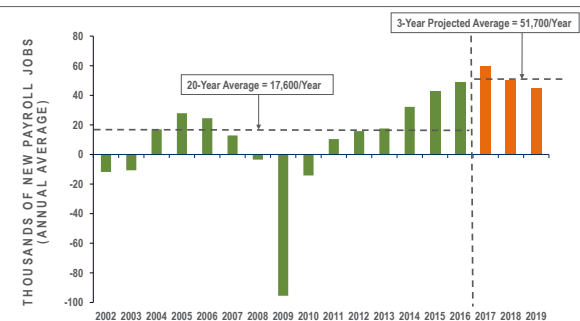
Philadelphia Metro Area | 2016



Note: Percentages may not total 100% due to rounding.
Source: Bureau of Economic Analysis, Delta Associates, September 2017.

JOB GROWTH

Philadelphia Metro Area



Source: Bureau of Labor Statistics, Delta Associates, September 2017.

WASHINGTON CONDOMINIUM MARKET OVERVIEW

Q3

NET SALES VOLUME



276 THIRD QUARTER 2017
1,332 PAST 12 MONTHS
1,664 PRIOR 12-MONTH PERIOD

PIPELINE AT SEPTEMBER 2017



2,776 UNSOLD NEW CONDO UNITS
11.9 MONTHS OF INVENTORY

PRICES



NEW UNITS
▲ 0.6%



RESALES
▼ -0.7%

CONCESSIONS

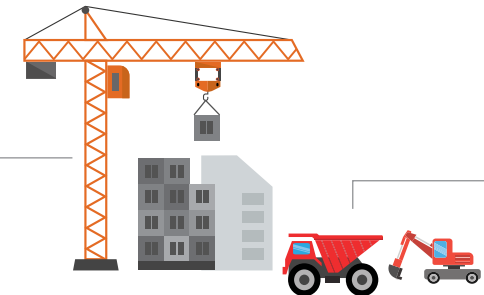


0.8%
AT SEPTEMBER 2017

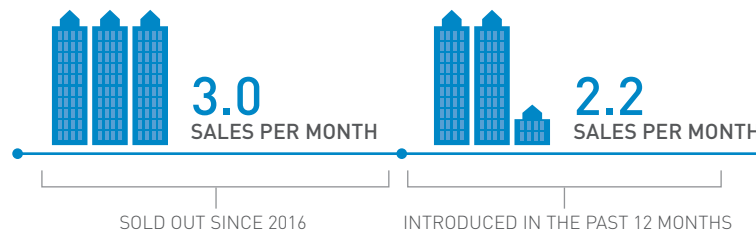
1.0%
AT SEPTEMBER 2016

CONSTRUCTION STARTS (UNITS)

PROJECTED STARTS IN 2017 2,597
STARTS IN 2016 1,842



MONTHLY SALES PACE



CONSTRUCTION DELIVERIES (UNITS)

PROJECTED DELIVERIES IN 2017 923
DELIVERIES IN 2016 1,355

BALTIMORE CONDOMINIUM MARKET OVERVIEW

Q3

NET SALES VOLUME



5 THIRD QUARTER 2017
 35 PAST 12 MONTHS
 26 PRIOR 12-MONTH PERIOD

PIPELINE AT SEPTEMBER 2017



177 UNSOLD NEW CONDO UNITS
 40.8 MONTHS OF INVENTORY

PRICES



NEW UNITS
 ▼ -4.1%



RESALES
 ▲ 3.1%

CONCESSIONS

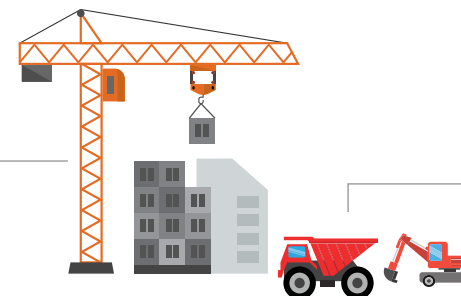


1.1%
 AT SEPTEMBER 2017

0.1%
 AT SEPTEMBER 2016

CONSTRUCTION STARTS (UNITS)

PROJECTED STARTS IN 2017 23
 STARTS IN 2016 35



MONTHLY SALES PACE



1.9
 SALES PER MONTH

N/A
 SALES PER MONTH

SOLD OUT SINCE 2008

INTRODUCED IN THE PAST 12 MONTHS

CONSTRUCTION DELIVERIES (UNITS)

PROJECTED DELIVERIES IN 2017 62
 DELIVERIES IN 2016 0

NOT FOR REDISTRIBUTION

2

STATE OF THE MID-ATLANTIC CLASS A APARTMENT MARKET

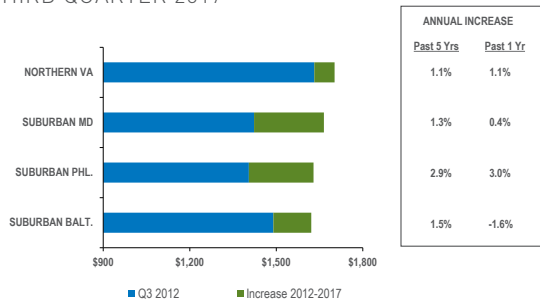


A Snapshot of the Class A Apartment Market

Q3 TRENDS

ANNUAL AVERAGE EFFECTIVE RENT GROWTH

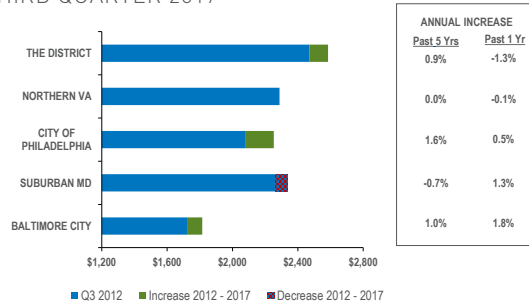
MID-ATLANTIC CLASS A LOW-RISE APARTMENTS THIRD QUARTER 2017



Source: Delta Associates, September 2017.

ANNUAL AVERAGE EFFECTIVE RENT GROWTH

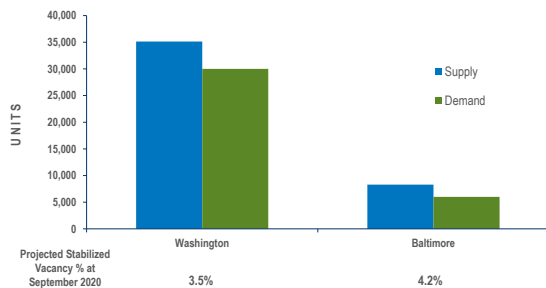
MID-ATLANTIC CLASS A MID AND HIGH-RISE APARTMENTS THIRD QUARTER 2017



Source: Delta Associates, September 2017.

SUPPLY/DEMAND RELATIONSHIP

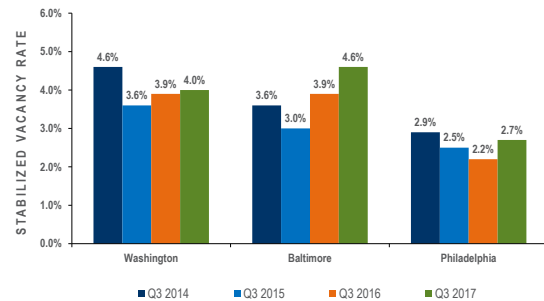
MID-ATLANTIC CLASS A APARTMENT MARKETS NEXT 36 MONTHS: PERIOD ENDING SEPTEMBER 2020



Source: Delta Associates, September 2017.

STABILIZED VACANCY RATES

MID-ATLANTIC CLASS A APARTMENT MARKETS



Source: Delta Associates, September 2017.



Washington continues to experience above-average Class A absorption with 11,126 Class A units absorbed in the 12-month period ending September 2017. Absorption including class B product totaled 11,333 units.



Metro area Class A rents barely budged over the year with an increase of just 0.2%. For Class A and Class B combined, metro area rents increased by 0.7%.



The stabilized vacancy rate for all classes of investment grade apartments decreased by 40 basis points over the past year and now stands at 2.9%. Class A vacancy experienced a 10 basis-point increase from last year to 4.0%.



The 36-month development pipeline is up from a year ago to 35,137 units; the pipeline increased in all three substate areas.



12,270 units started construction in the 12-month period ending September 2017. During the third quarter, 2,296 units started construction.



Meanwhile, 11,735 units delivered in the 12-month period ending September 2017 and another 11,371 are scheduled to deliver in the 12-month period ending September 2018.

STATE OF THE MID-ATLANTIC CLASS A APARTMENT MARKET Q3

WASHINGTON METRO AREA

SUBURBAN MARYLAND ABSORPTION LAGS THE DISTRICT AND NORTHERN VIRGINIA; RENT GROWTH SLOWS

Annual Class A apartment absorption in the Washington metro area continued above 10,000 units for the third straight quarter, and remained well-above the long-term average. Oncoming supply has been above 30,000 units since 2011 and rent growth has been below-average for at least the same amount of time. Metro area vacancy experienced an increase of 10 basis points to 4.0% from a year ago. The District continues to see new supply push vacancy upward while rent growth in the city is negative.

RENTS

Metro area effective rents for all classes of investment-grade apartments rose by 0.7% in the 12-month period ending September 2017. Class A rents increased by just 0.2%. Rent growth for Class A low-rise product outperformed mid- and high-rise product in the Northern Virginia suburbs, while mid- and high-rise product in Suburban Maryland outperformed low-rise product. Meanwhile, District rents experienced a decline of 1.3% over the year.

VACANCY

The Washington metro area stabilized vacancy for all classes of apartments is 2.9%, down 40 basis points from a year ago.

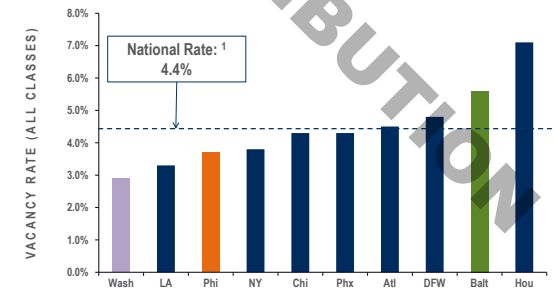
- The September 2017 vacancy rate for stabilized Class A apartments in the Washington metro area is up 10 basis points from a year ago to 4.0%.
 - Low-rise stabilized vacancy is up 20 basis points to 4.0%.
 - Mid and high-rise stabilized vacancy is down 10 basis points to 4.0%.

LEASE-UP

Per project lease-up pace for projects currently in lease-up was 17 units per month, the same as it was a year ago. There are 64 projects in active lease-up today, the same as it was at Q3 2016. The monthly lease-up pace per project has remained in a tight range over the years, even though the number of projects in lease-up has fluctuated from 28 (average pace of 18 units) in 2012 to 70 (average pace of 15 units) in 2015.

APARTMENT VACANCY RATES

Major Apartment Markets



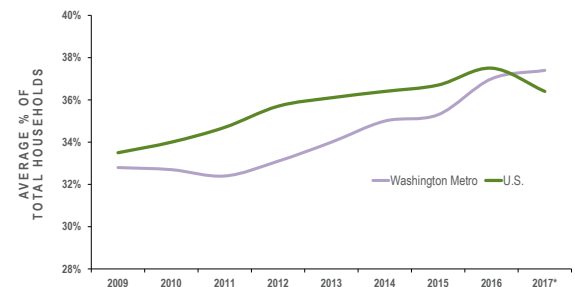
¹ The 82 largest apartment markets in the U.S.

² 2nd Quarter 2017 REIS data

Source: REIS, Delta Associates, September 2017.

RENTER HOUSEHOLDS

Washington Metro vs. U.S. | 2009 – 2017



^{*}2nd Quarter 2017 Data

Source: U.S. Census, Delta Associates, September 2017.



PIPELINE

The pipeline of likely deliveries over the next 36 months decreased slightly from the second quarter and currently stands at 35,137 units. It appears that the development pipeline is reaching a plateau and will soon start its cyclical decline. Condo conversion will not help much, as only 7% of the 21,325 units currently under construction (but not yet leasing) metro-wide are of a scale of suitable for switching to condominiums before delivery. So far in the cycle, a handful of apartment projects, ranging in size from 60 to 200 units, have switched to condominiums (and a few have subsequently switched back to apartments). An exception is The Haven at National Harbor, a 248-unit project in Prince George's County that recently switched from apartments to condos.

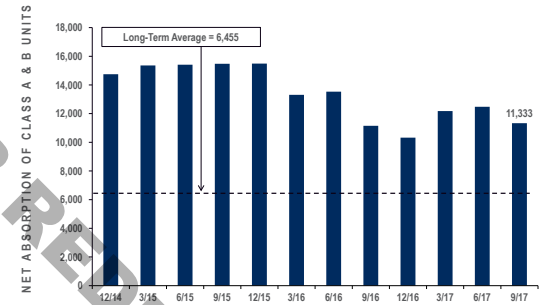
STARTS

In the 12-month period ending September 2017, 12,270 units started construction metro-wide. Seven projects with 2,296 units started construction in the third quarter.



ANNUAL NET APARTMENT ABSORPTION

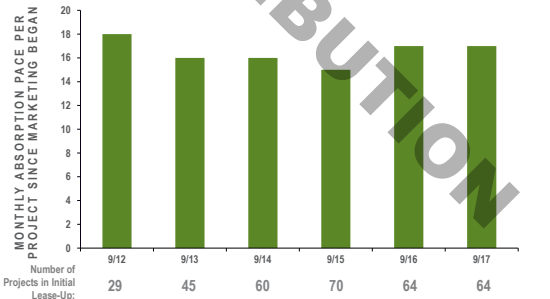
Class A & B Units | Washington Metro



Source: Delta Associates, September 2017.

ABSORPTION PACE PER PROJECT PER MONTH

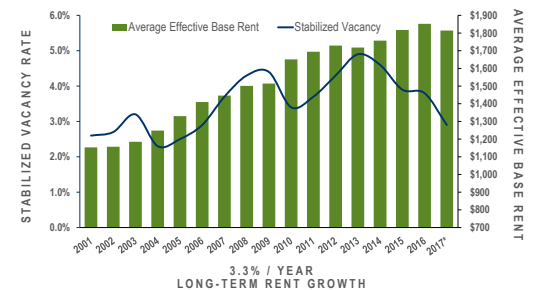
For Projects in Initial Lease-Up | Washington Metro



Source: Delta Associates, September 2017.

EFFECTIVE RENTAL RATE AND VACANCY RATE

All Types and Classes of Apartments | Washington Metro



*As of 3rd Quarter. Source: Delta Associates, September 2017.

DELIVERIES

An estimated 11,371 units are slated for delivery in the 12-month period ending September 2018, a 3% decrease over the 11,735 units delivered in the past 12 months. Deliveries are expected to slightly increase to 11,387 units in the 12-month period ending September 2019. Seventy-nine percent of these expected deliveries are under construction at third quarter 2017.

RETURN ON INVESTMENT

Total return on apartment investment (cash flow plus appreciation, as reported by NCREIF) in the Washington market continues to track below the national average. The annual total return for the 12-month period ending June 2017 was 5.29%, significantly off the cyclical peak of 28.64% in 2010. Washington was early to recover from the 2009 recession and early to peak in investment returns. Investors seeking the risk adjusted safety of Washington apartments bid up prices even as rent growth was slowing – contributing to lower overall returns.

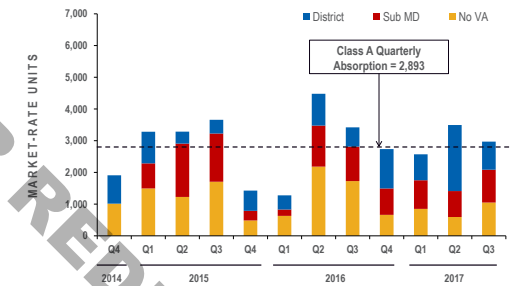
SUPPLY/DEMAND STATISTICS

ABSORPTION, DELIVERIES, STARTS, & PIPELINE SUMMARY				
	NOVA	SUB-MD	DISTRICT	METRO-WIDE
NET ABSORPTION CLASS A & B				
Q4 16 - Q3 17	4,884	2,891	3,558	11,333
Q4 15 - Q3 16	5,238	3,473	2,442	11,153
Q4 14 - Q3 15	7,387	2,910	3,864	14,161
DELIVERIES				
Q4 16 - Q3 17	3,156	3,584	4,995	11,735
Projected:				
Q4 17 - Q3 18	4,424	2,125	4,822	11,371
Q4 18 - Q3 19	4,210	2,440	4,737	11,387
Q4 19 - Q3 20	1,433	1,203	1,473	4,109
STARTS:				
Q3 2017	1,521	347	428	2,296
Q4 16 - Q3 17	4,225	3,077	4,968	12,270
36 -MONTH PIPELINE¹				
At 9/2017	12,275	8,889	13,973	35,137
At 9/2016	11,468	8,787	12,662	32,917
At 9/2015	12,567	9,228	10,551	32,346

¹ Includes vacant units in projects leasing up, units under construction and units expected to begin construction and deliver in the the next 36 months. Materialization rate changed in Q1 2017 from 24% to 32%.

CLASS A APARTMENT DELIVERIES

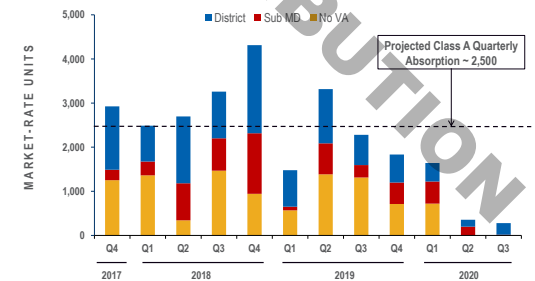
Washington Metro | 2014 - 2017



Source: Delta Associates, September 2017

PROJECTED DELIVERIES

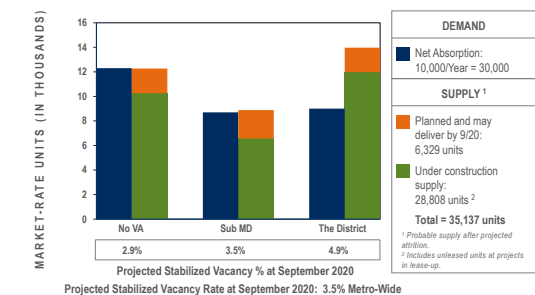
36-Month Development Pipeline | Washington Metro | 2017 - 2020



Source: Delta Associates, September 2017

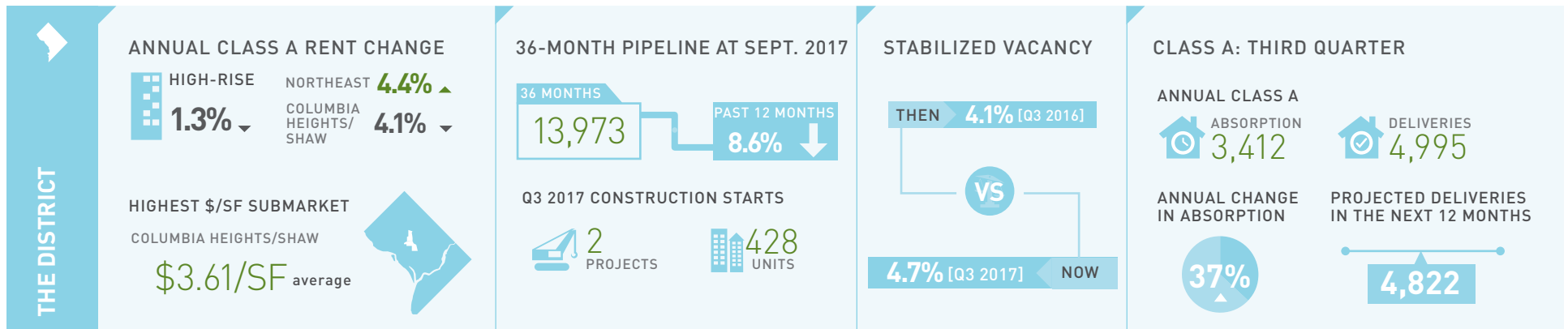
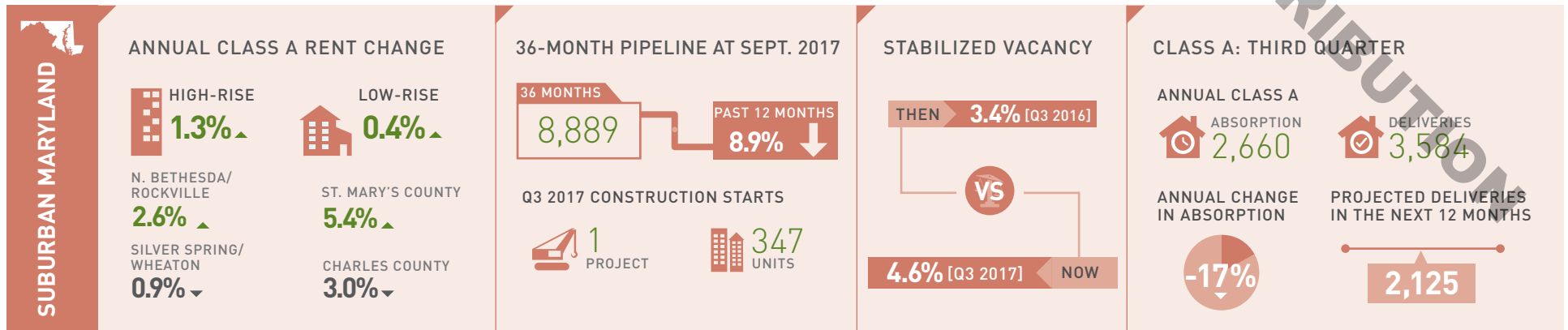
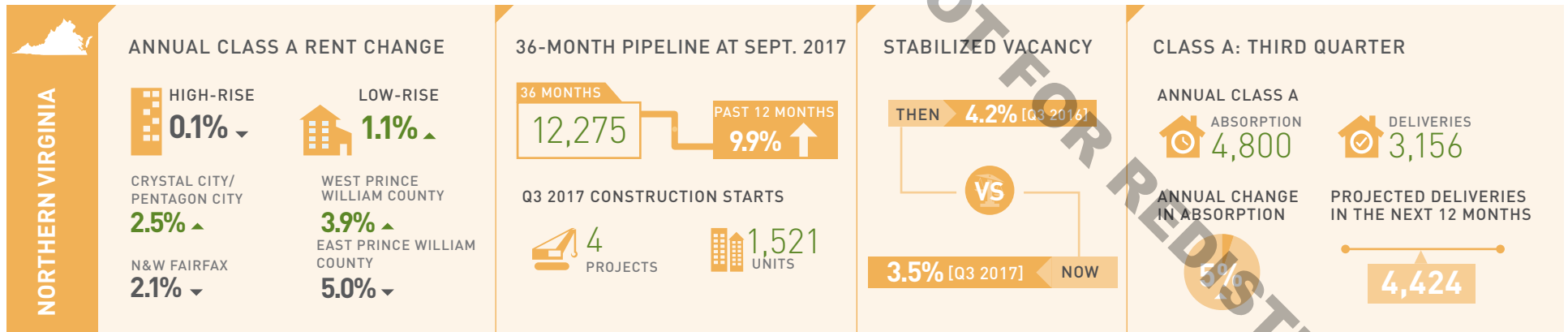
DEMAND AND SUPPLY PROJECTIONS

Washington Metro Class A Apartment Market
September 2017 – September 2020



Source: Delta Associates, September 2017

SUBSTATE RECAP





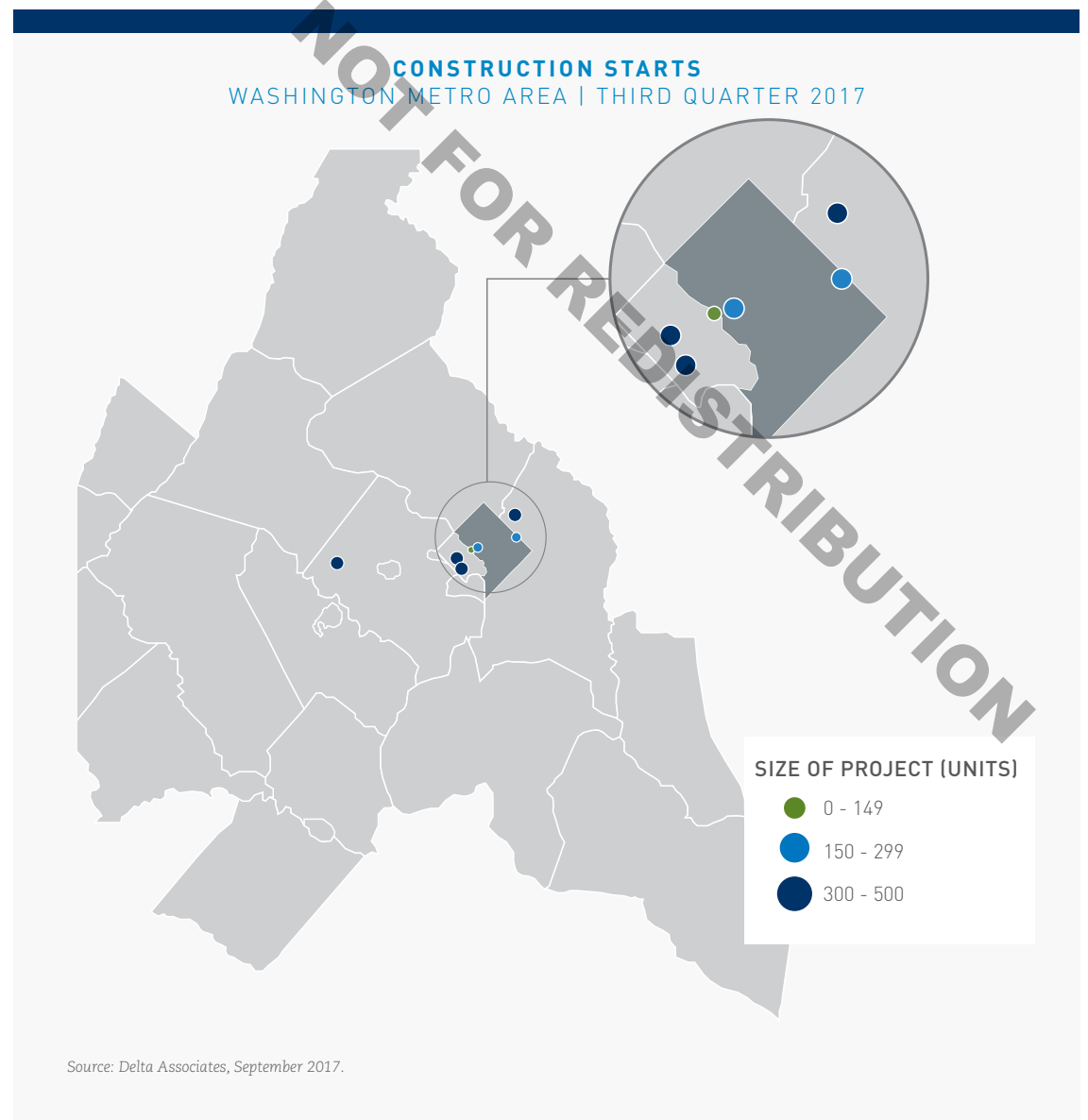
Northern Virginia absorption increased slightly from a year ago. Absorption over the year was led by N&W Fairfax high-rise (1,488 units), followed by Crystal City/Pentagon City high-rise (744 units) and Rosslyn/Ballston Corridor of Arlington high-rise (590 units). Meanwhile, low-rise rent growth significantly outperformed high-rise product over the year. Stabilized vacancy decreased 70 basis points from a year ago, again due to low-rise submarkets outperforming high-rise product. The 36-month development pipeline increased compared to last quarter by nearly 10%. Deliveries are projected to increase by 40% in over the next 12 months compared to what came online over the past year.



Suburban Maryland's annual absorption decreased 17% from a year ago. N. Prince George's County low-rise (836 units) and N. Bethesda/Rockville high-rise (470 units) led in absorption over the year, followed by Frederick low-rise (357 units). Stabilized vacancy increased 10 basis points from a year ago. Pipeline decreased by about 9% from last quarter and deliveries are expected to decrease by 41% in the 12-month period ending September 2018 compared to what came online over the past year. Rising low-rise rents offset falling mid- and high-rise rents resulting in a small combined increase of 0.7%.



Annual absorption in **The District** was up 37% from a year ago, with the Capitol Hill/Riverfront/SW submarket experiencing a significant increase (up 157%). Stabilized vacancy increased 30 basis points over the year, and rents decreased from one year ago, which is not a surprise given the amount of new product that entered the market in recent months. What is surprising is the submarkets where most of the new supply has entered the market - Capitol Hill/Riverfront/SW and NoMa/H Street, outperformed the District as a whole. The Capitol Hill/Riverfront/SW submarket was one of two submarkets where rents increased, while in NoMa/H Street, rent change was negative, but was better than the District average. Vacancy also decreased in these two submarkets, while the city-wide rate increased. This indicates these areas of the city are benefiting from new residents at the expense of some of the more established areas of the District.



WASHINGTON INVESTMENT SALES

With \$2.24 billion of multifamily Class A building transaction volume in 25 trades in 2016, sales volume was 14% lower than 2015. The average per-unit price for 2016 sales was 18.3% lower than 2015 for low-rise units (at \$218,195), while high-rise prices were up 7.4% from 2015 (at \$428,720).

Through early September, 18 Class A multifamily sales have closed this year (low-rise and mid-/high-rise properties), accounting for more than 5,137 units with a combined value of \$1.45 billion.

A total of nine multifamily land sales closed in 2016, totaling nearly \$200 million, with the capacity for more than 3,000 multifamily units, compared with \$149 million in sales during the same time period in 2015 with the capacity for more than 2,800 units. So far in 2017, 12 multifamily land sales have been recorded that can accommodate more than 2,500 units at a combined value of nearly \$198 million.

GROWING DEMAND

Class A apartment absorption in the Washington area was 11,126 units in the 12-month period ending September 2017 – well above the 10-year annual average. Contributing factors to these strong results include:

- A plentiful supply of new apartments.
- An increase in the types of jobs and income categories that tend to generate demand for rental apartments rather than ownership housing.
- An increase in the overall share of renter households vs. owners.
- An increase in Millennial households that tend to prefer to rent rather than own.

This “new normal” level of apartment absorption since 2014 has almost consistently kept annual absorption

above 10,000 units. While job growth is strong and supply remains plentiful, the wave of new Millennial households that helped the region absorb a record 13,249 apartments in calendar year 2015 appears to be slowly subsiding. We project annual demand averaging 10,000 Class A units over the next three years with 2017 being the strongest year within the projection period. Our projected average annual demand is lower than the 11,258 units absorbed in the 12-month period ending September 2017, but substantially higher than the 10-year average.

SUPPLY/DEMAND AND RENT OUTLOOK

Although the 36-month pipeline is high across the metro area, absorption has been running well above the long-term average in recent years, which has kept vacancy in check. When the prior year’s absorption is compared to the development pipeline at the submarket level, 14 low-rise



MARKET RATE APARTMENT DEVELOPMENT PIPELINE

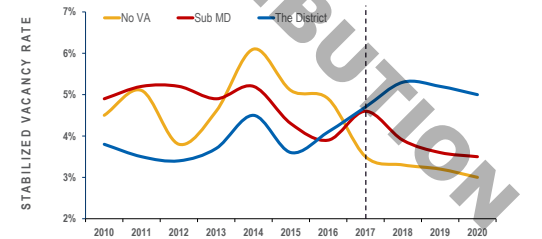
Washington Metro | 2007 – 2017



*As of 3rd Quarter. Source: Delta Associates, September 2017.

CLASS A APARTMENT VACANCY RATE

Washington Metro | Fourth Quarter 2010 - 2020

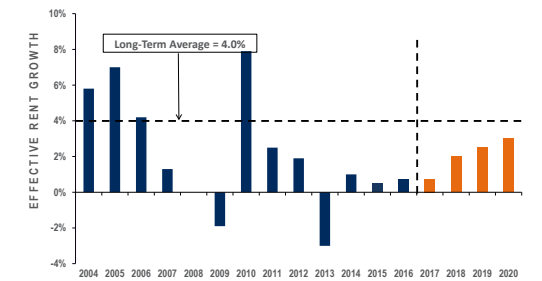


Year	Washington Metro Vacancy
2010	4.6%
2011	5.0%
2012	4.2%
2013	4.7%
2014	5.6%
2015	4.6%
2016	4.5%
2017	4.0%
2018	3.9%
2019	3.8%
2020	3.6%

Source: Delta Associates, September 2017.

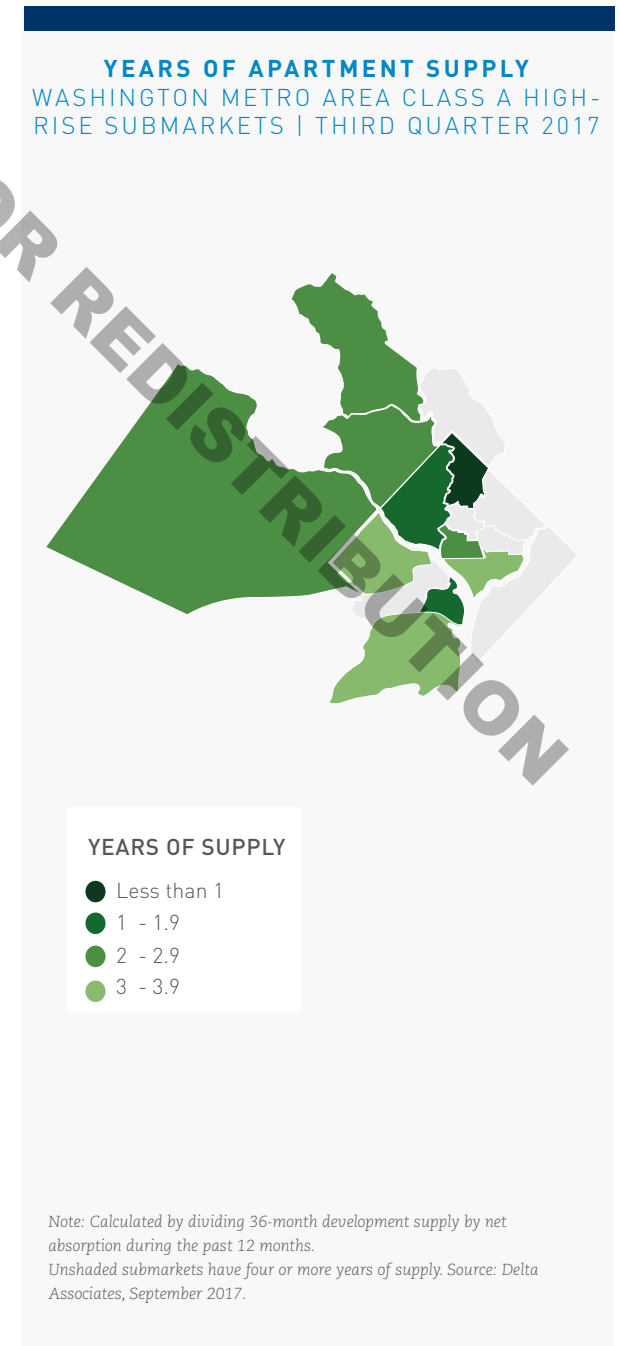
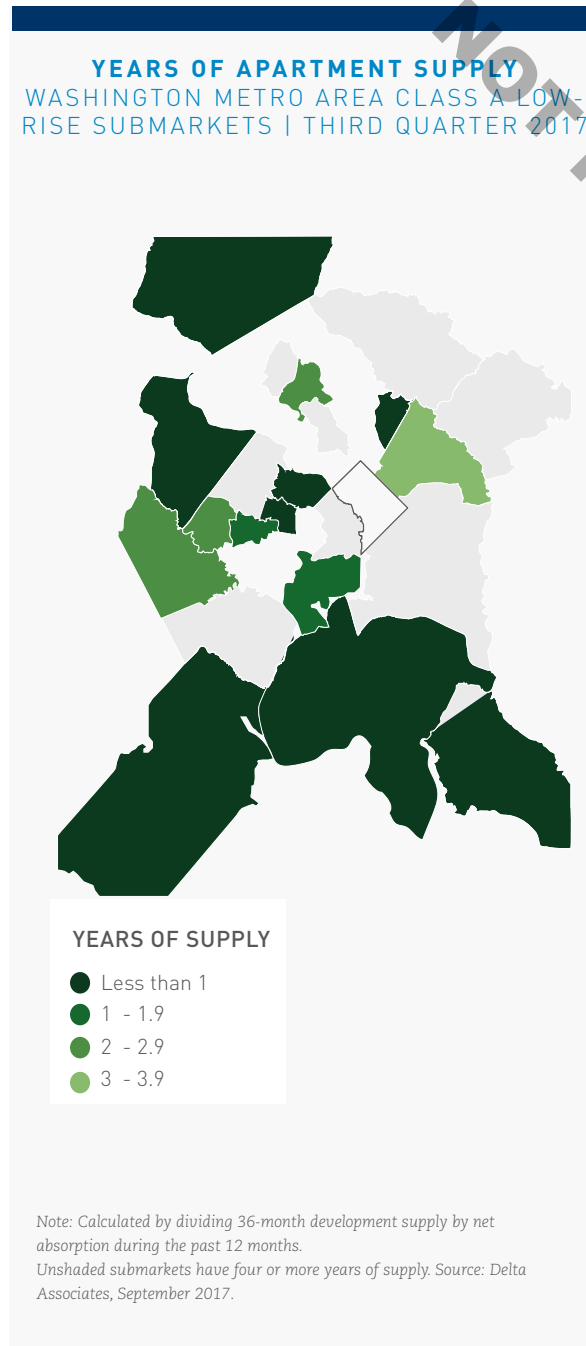
ANNUAL CLASS A APARTMENT RENT GROWTH

Washington Metro | 2004 - 2020



Source: Delta Associates, September 2017.

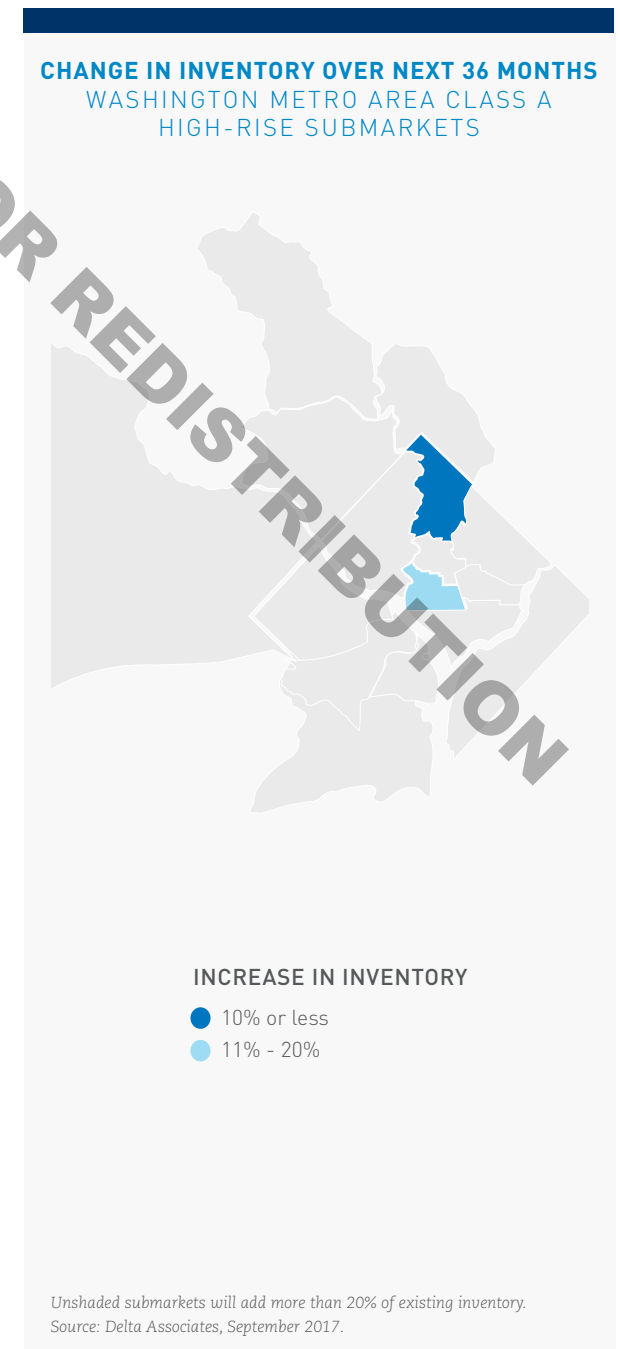
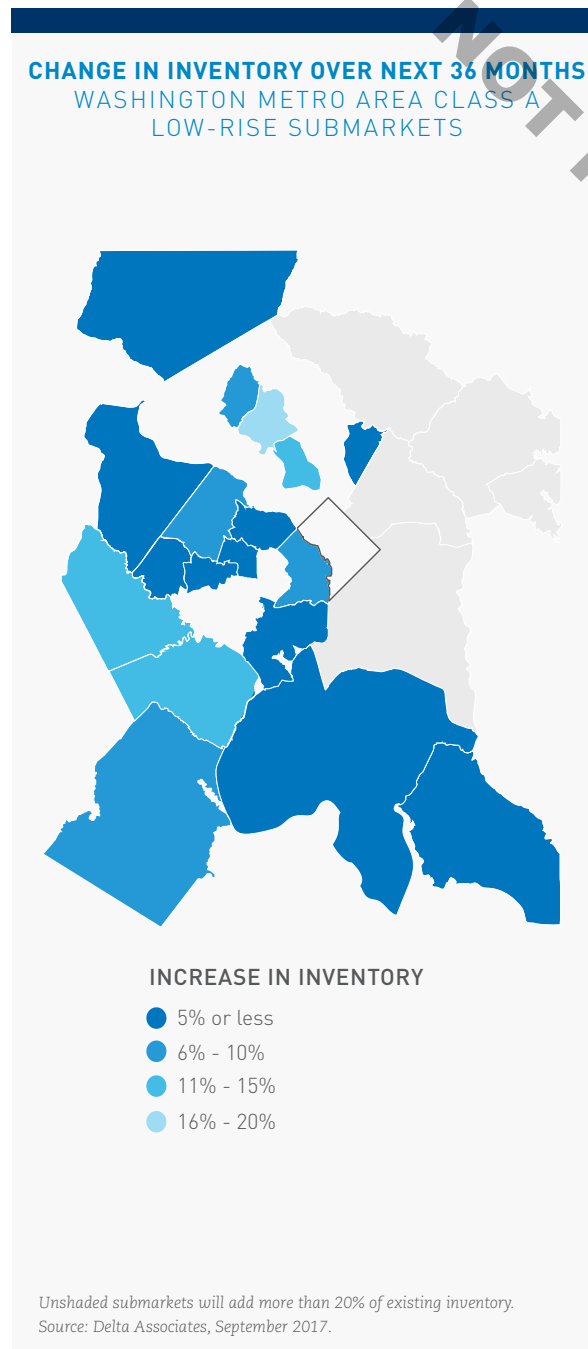
submarkets in Northern Virginia and Suburban Maryland – mostly outside the Beltway – have less than four years of supply (or one year’s worth of product overhang). Nine of these submarkets have less than two years of supply and could be considered supply-constrained. There are also 10 high-rise submarkets that have less than four years of supply; three of these have less than two years of supply. This suggests there are still development opportunities in the metro area, despite an overall market perception of supply. (See heat maps to the right.)



Another way of looking at the development pipeline at the submarket level is new supply relative to existing inventory. In all but seven low-rise submarkets, the projected oncoming supply over the next 36 months represents less than 10% of existing inventory. Among high-rise submarkets, there is only one submarket (Upper GA) where oncoming supply makes up less than 10% of existing inventory. In submarkets where new pipeline represents a relatively smaller increase in inventory, negative impacts on vacancy and rent growth will be less than in other locations. (See heat maps on the right.)

Given projected absorption and the delivery schedule of projects currently under construction, we expect the region-wide vacancy rate for stabilized Class A apartment properties will be 50 basis points lower in three years than it is today – 3.5%. There will be a significant variance in conditions among submarkets.

Rents have thus far held up surprisingly well despite increased competition over the past couple of years, thanks to strong absorption. Also aiding the Class A market has been strong occupancy in the Class B market. However, rent growth for low-rise Class A product is outperforming mid- and high-rise product. We expect regional Class A rent growth to remain below the long-term average over the next three years, increasing by 0.75% in 2017 and by 2.0% - 2.5% in 2018 and 2019.



BALTIMORE METRO AREA

NEW DEVELOPMENT ATTRACTING RESIDENTS TO BALTIMORE

The Baltimore metro area continued to register strong absorption in the 12-month period ending September 2017 – 1,930 units compared to 2,008 units in the same period a year prior. Nearly 40% of the apartment absorption in the metro area was in Baltimore City. Meanwhile, the development pipeline is down slightly from a year ago, but up from last quarter. Rents fell 0.7% over the year and vacancy was up by 70 basis points. Only two projects began construction in the third quarter and four so far in 2017. Total return on apartment investment (cash flow plus appreciation, as reported by NCREIF) in the Baltimore market was 5.32% in the 12-month period ending June 2017 – well below the national average.

THIRD QUARTER 2017 HIGHLIGHTS

- **Stabilized vacancy** for the Baltimore metro area is up 70 basis points from last year to 4.6%. Vacancy in the suburbs increased by 120 basis points to 4.5% while in Baltimore City, it decreased 50 basis points to 5.0%.
- **Average effective rents** in the metro area are \$1,674 (\$1.73 per SF). Rents are down over the year 0.7% metro-wide. Harford County was the only suburban submarket that experienced a rent increase over the past 12 months. Rents fell by 1.9% in the Southern suburbs and 1.2% in the Northern suburbs. Meanwhile, rents in Baltimore City rose by 1.8%.
- **The supply pipeline** metro-wide is down less than 1% compared to the pipeline in September 2016. About 8,300 units are under construction or planned for delivery in the next 36 months in the metro area after attrition, similar to one year ago. The submarkets where the development pipeline increased from a year ago were Howard County/ Columbia (up 4%) and Downtown (up 25%).

- **Per project lease-up pace** for the 22 actively marketing projects in the Baltimore area currently averages 16 units per month, which compares to an average of 15 units per project per month a year ago. Projects that recently stabilized have an average lease-up pace of 10 units per month.
- **Apartment building sales** in 2016 were \$805.2 million (\$213,817 per unit) across 14 transactions – 12 low-rise and two mid-/high-rise buildings. This volume is more than double that of 2015, which had just under \$400 million in transactions, led by the record-breaking price for Union Wharf, which sold for \$121.5 million, or \$432,384 per unit. Through early September, five transactions in low-rise buildings valued at a total of \$292.4 million (\$238,653 per unit) and one transaction in a high-rise building valued at a total of \$73.3 million (\$241,118 per unit) closed so far in 2017.

We project that strong Class A apartment absorption – due to recent demographic and lifestyle shifts that generate rental demand – will help lessen the impact of an increase in supply. Five of the eight submarkets we track have less than four years of apartment supply based on absorption over the past 12 months. In addition, two submarkets will add less than 10% of existing inventory over the next 36 months. Baltimore’s supply/demand relationship indicates that vacancy rates will decrease

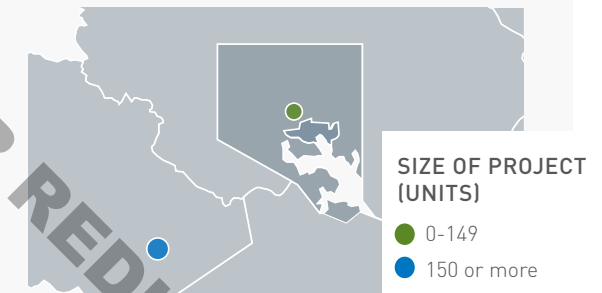
EFFECTIVE RENT AND VACANCY RATE

Class A Apartments | Baltimore Metro



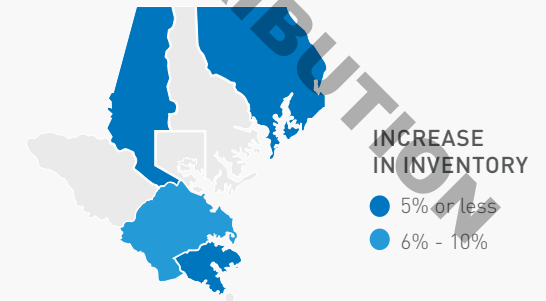
*As of 3rd Quarter.
Source: Delta Associates, September 2017.

CONSTRUCTION STARTS BALTIMORE METRO AREA | THIRD QUARTER 2017



Source: Delta Associates, September 2017.

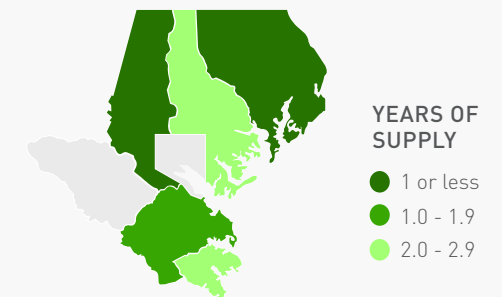
CHANGE IN INVENTORY OVER NEXT 36 MONTHS BALTIMORE METRO AREA | THIRD QUARTER 2017



Unshaded submarkets will add more than 20% of existing inventory.

Source: Delta Associates, September 2017.

YEARS OF APARTMENT SUPPLY BALTIMORE METRO AREA | THIRD QUARTER 2017



Note: Calculated by dividing 36-month development supply by net absorption during the past 12 months.

Unshaded submarkets have four or more years of supply. Source: Delta Associates, September 2017.

40 basis points to 4.2% by third quarter 2020; however, we expect vacancy to fluctuate during this three-year period. Rents will likely grow only slightly over the next 24 to 36 months, below the long-term average.

PHILADELPHIA METRO AREA

STRONG ABSORPTION BODES WELL FOR THE CITY AS VACANCY INCREASES IN THE PA SUBURBS

Rent growth was slightly below the long-term average while vacancy rates increased metro-wide. The pipeline of likely deliveries over the next 36 months in the city remained elevated, but declined slightly from the third quarter of 2016 as some projects have been delayed. Increased construction may restrain rent growth and push up vacancy rates in the near-term.

The metro area Class A stabilized vacancy rate increased by 30 basis points from a year ago to 2.7% at third quarter 2017. Increases in stabilized vacancy in Suburban Pennsylvania were offset by decreases in Southern New Jersey and the City of Philadelphia during the same time period.

- Stabilized vacancy in Southern New Jersey fell 60 basis points from 1.9% last year at this time to 1.3%.
- Suburban Pennsylvania stabilized vacancy increased by 140 basis points from September 2016 to 3.6%.
- Stabilized vacancy decreased by 20 basis points in the City of Philadelphia from 2.4% one year ago to 2.2%.

Rents increased in all suburban submarkets and the City of Philadelphia. Here are the effective rent changes by sub-area for the 12-month period ending September 2017:

- Southern New Jersey up 3.1%
- Suburban Pennsylvania up 2.9%
- City of Philadelphia up 0.5%

Metro-wide, effective rents rose 2.1% in the 12-month period ending September 2017. Average metro-wide effective rents at third quarter 2017 are \$1,856, or \$1.96 per SF. Effective rents average \$2,253 (\$2.51 per SF) for high-rise product in the City of Philadelphia and \$1,629 (\$1.65 per SF) for low-rise product in the suburbs.

Apartment building sales volume in 2016 was \$237.3 million in five transactions, a 75% decrease from 2015. Through early September, three transactions in low-rise buildings valued at a total of \$145.4 million (\$225,776 per unit) and one high-rise building transaction valued at a total of \$118 million (\$427,536 per unit) closed so far in 2017.

CITY OF PHILADELPHIA

The demand for quality rental apartments in Philadelphia remains strong thanks to lifestyle, economic, and demographic trends that favor apartment living. While absorption increased by 59% over the year to 1,588 units compared to 997 units the prior year, rents in the 12-month period ending September 2017 increased by just 0.5%.

New construction activity has experienced an uptick since this time last year – six construction starts occurred in the past 12 months, with three projects starting construction in the third quarter. While new construction activity has increased, the development pipeline decreased slightly, though it remains elevated. At September 2017, 4,397 units are in the

36-month development pipeline after attrition, a decrease of 2.5% from a year ago. Per project lease-up lease up for the 10 actively marketing projects in the City of Philadelphia currently averages 10 units per month.

In the near-term, this supply/demand relationship indicates that stabilized vacancy will be slightly higher in three years than it is today. Rent growth will likely remain below the long-term average in the short-term, as new product comes online.

SUBURBAN PENNSYLVANIA

In Suburban Pennsylvania, effective rents increased by 2.9% over the past 12 months. Rents increased in all submarkets, led by Bucks County (9.4%), and followed by Montgomery County (2.4%) and Delaware & Chester Counties (1.3%).

Meanwhile, the stabilized vacancy rate in Suburban Pennsylvania increased to 3.6% in September 2017 from 2.2% a year ago. Stabilized vacancy increased in Montgomery County (up 170 basis points to 4.4%), Delaware & Chester Counties (up 120 basis points to 3.4%) and Bucks County (up 30 basis points to 1.4%).

EFFECTIVE RENT AND VACANCY RATE

Class A Apartments | Philadelphia Metro



*As of 3rd Quarter
Source: Delta Associates, September 2017.

A WORD ABOUT OUR DEFINITION OF VACANCY RATE

We sometimes hear from apartment developers and managers that their portfolio vacancy rate is 200 to 400 basis points higher than the numbers we report, which places them under unfair investor scrutiny. While we state methodological matters at the end of our report (Section 5), we thought it appropriate to describe here our term “vacancy.”

When we conduct our quarterly surveys, we obtain information on “units available to lease” – that is, physical vacancy. Obtaining the information this way, of course, may produce several important differences from “vacancy” as reported in your financial statements. Simply stated, the difference can be characterized as:

Delta’s Definition: Available units to lease

Operating Statement Vacancy: Economic vacancy

Our definition (available units) may therefore be understated compared to yours (economically vacant) by our exclusion of units occupied by non-paying tenants (which we cannot know), and of units not available for lease, such as employee units and model apartments. We estimate that this adds about 100 to 150 basis points to your definition of vacancy, as compared with ours. Our vacancy rate may also be understated, compared with yours, by our exclusion of what are economically vacant, on-notice units for which a lease to occupy in the future has been signed (hence, they are not currently available to lease). We estimate that this potentially adds another 150 to 200 basis points to your definition of vacancy, as compared to ours.

SOUTHERN NEW JERSEY

In Southern New Jersey, effective rents increased by 3.1% over the past 12 months. Burlington County effective rents were up 1.9% and Camden County rents increased 4.2% in the 12-month period ending September 2017. Rent growth in Mercer County was 1.8%.

The stabilized vacancy rate in Southern New Jersey is down 60 basis points, to 1.3% as of September 2017. The vacancy rate in Camden County went down to 1.6% in the third quarter 2017 from 2.8% last year at this time. Burlington County also experienced a decline in vacancy, from 1.3% one year ago to 0.9%. Lastly, Mercer County saw a decrease of 130 basis points to 2.3%.

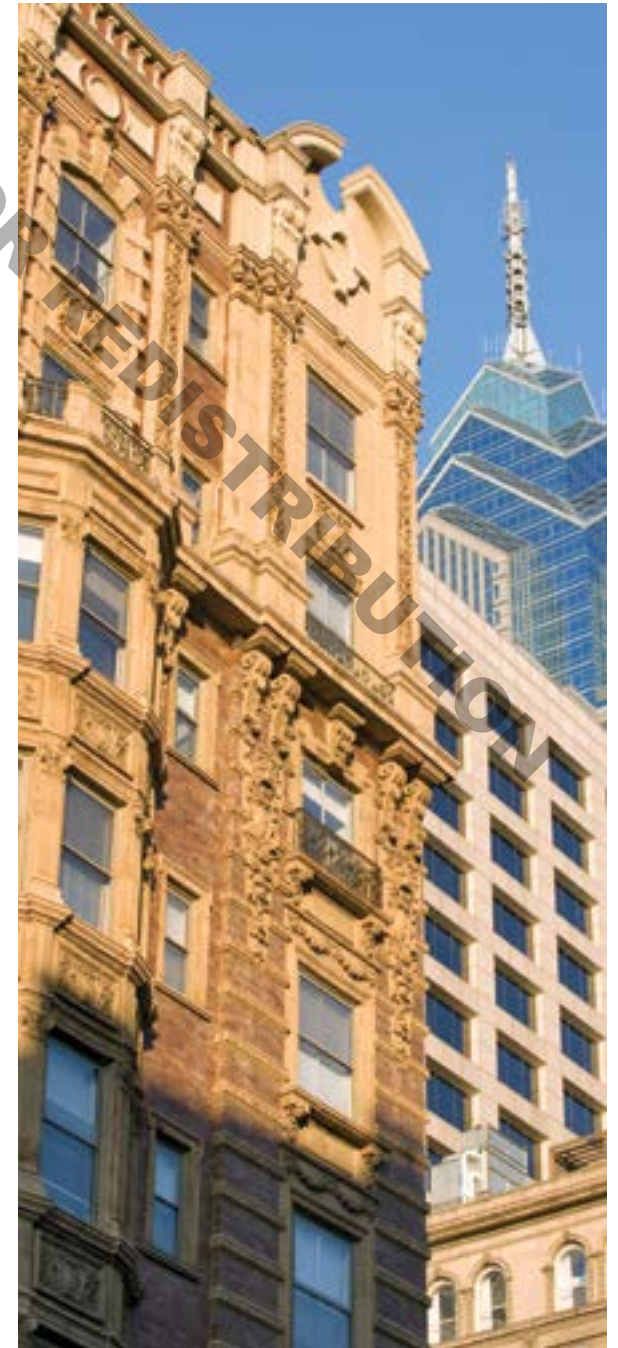


TABLE 2.1
PROJECTED THIRD QUARTER 2020 VACANCY RATES
 Washington Metro Area | Class A Apartment Market
 As of Third Quarter 2017

	Northern Virginia	Suburban Maryland	The District	Metro Area Total
Inventory (units)				
Stabilized Inventory at 9/17	69,077	36,972	24,889	130,938
Pipeline Through 9/20 w/ attrition ¹	<u>12,275</u>	<u>8,889</u>	<u>13,973</u>	<u>35,137</u>
Inventory at 9/20	81,352	45,861	38,862	166,075
Supply vs. Demand (units)				
Vacant Units at 9/17 ²	2,418	1,702	1,167	5,301
New Supply Through 9/20	<u>12,275</u>	<u>8,889</u>	<u>13,973</u>	<u>35,137</u>
Available Units Through 9/20	14,693	10,591	15,140	40,438
Underlying Demand Through 9/20 ³	12,300	8,700	9,000	30,000
Vacant Units at 9/20	2,393	1,891	6,140	10,438
Vacancy Rate at Third Quarter 2017				
Overall Vacancy at 9/17 ⁴	5.4%	8.0%	12.7%	7.6%
Stabilized Vacancy at 9/17	3.5%	4.6%	4.7%	4.0%
Projected Vacancy Rate at Third Quarter 2020				
Overall Vacancy at 9/20 ^{4,5}	2.9%	4.1%	15.8%	6.3%
Stabilized Vacancy at 9/20	2.9%	3.5%	4.9%	3.5%

¹ Available units in apartment buildings currently under construction plus those planned to deliver by Third Quarter 2020 totals 48,743 units.

We assume 32% of the planned units will materialize, making a 36-month pipeline of 35,137 units. See deliveries by year 2020 on Tables 3.13, 3.14, 3.17, 3.18, 3.21, and 3.22.

² In stabilized projects only.

³ Projected annual underlying demand: Northern VA - 4,100 units; Suburban MD - 2,900 units; The District - 3,000 units.

Underlying demand projections are driven by job growth, lifestyle changes, demographics and other factors cited in the preceding text.

36-Month Average/Year for Metro Area = 10,000 units.

⁴ Includes vacant units in projects still in initial lease-up.

⁵ Assumes an attrition rate averaging 68% for planned units in the 36-month pipeline in Northern Virginia, Suburban Maryland, and The District.

Source: Delta Associates; September 2017.

TABLE 2.2
RENTAL UNIT ABSORPTION SUMMARY
 Washington Metro Area | Investment Grade Class A and Class B Apartments
 12-Month Period Ending September 2017

	Northern Virginia	Suburban Maryland	The District	Metro Area Total
Class A Unit Absorption	4,800	2,660	3,666	11,126
Class B Unit Absorption	84	231	(108)	207
Total Absorption	4,884	2,891	3,558	11,333

Source: Delta Associates; September 2017.

TABLE 2.3
PROJECTED THIRD QUARTER 2020 VACANCY RATES
 Baltimore Metro Area | Class A Apartment Market
 As of Third Quarter 2017

	Southern Suburbs	Northern Suburbs	Baltimore City	Metro Area Total
Inventory (units)				
Stabilized Inventory at 9/17	12,058	9,499	7,438	28,995
Pipeline Through 9/20 w/ attrition ¹	<u>2,874</u>	<u>742</u>	<u>4,620</u>	<u>8,236</u>
Inventory at 9/20	14,932	10,241	12,058	37,231
Supply vs. Demand (units)				
Vacant Units at 9/17 ²	632	336	372	1,346
New Supply Through 9/20	2,874	742	4,620	8,236
Available Units Through 9/20	3,506	1,078	4,992	9,582
Underlying Demand Through 9/20 ³	2,400	720	2,880	6,000
Vacant Units at 9/20	1,106	358	2,112	3,582
Vacancy Rate at Third Quarter 2017				
Overall Vacancy at 9/17 ⁴	9.5%	4.2%	15.2%	9.4%
Stabilized Vacancy at 9/17	5.2%	3.5%	5.0%	4.6%
Projected Vacancy Rate at Third Quarter 2020				
Overall Vacancy at 9/20 ^{4,5}	7.4%	3.5%	17.5%	9.6%
Stabilized Vacancy at 9/20	4.0%	3.2%	5.3%	4.2%

¹ Available units in apartment buildings currently under construction plus those planned to deliver by Third Quarter 2020 totals 11,595 units. We assume 35% of the planned units will materialize, making a 36-month pipeline of 8,236 units. See deliveries by year 2020 on Tables 4.5 and 4.6.

² In stabilized projects only.

³ Projected annual underlying demand: Southern Suburbs - 800 units; Northern Suburbs - 240 units; Baltimore City - 960 units.

Underlying demand projections are driven by job growth, lifestyle changes, demographics and other factors cited in the preceding text.

36-Month Average/Year for Metro Area = 2,000 units.

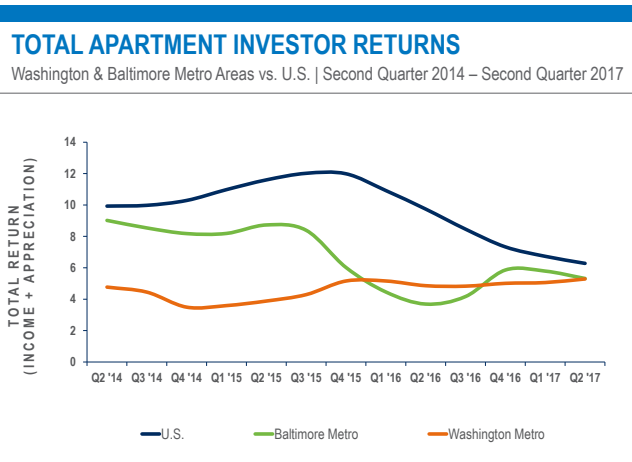
⁴ Includes vacant units in projects still in initial lease-up.

⁵ Assumes an attrition rate averaging 65% for planned units in the 36-month pipeline in the Southern Suburbs, Northern Suburbs, and Baltimore City.

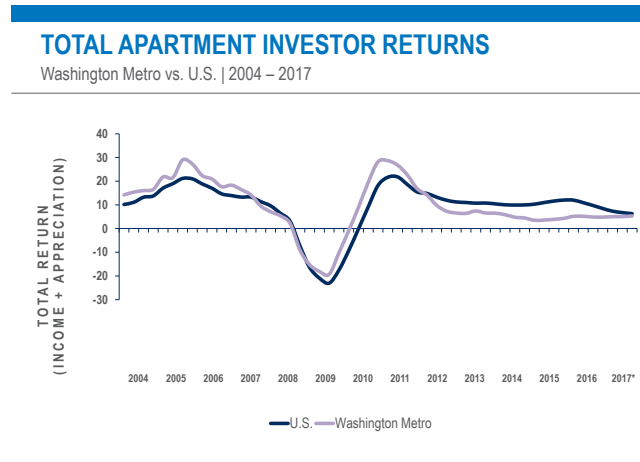
Source: Delta Associates; September 2017.

TABLE 2.4 NATIONAL COUNCIL OF REAL ESTATE INVESTMENT FIDUCIARIES Return Index Investment Grade Apartment Properties 12 Months Ending June 2017 ¹	
METRO AREA	12-MONTH TOTAL RETURN ¹
Denver	9.48%
Phoenix	8.50%
Atlanta	7.07%
Dallas	6.91%
Boston	6.84%
National Average	6.28%
Austin	5.52%
Baltimore	5.32%
Washington	5.29%
Chicago	3.64%
Houston	-2.03%

¹ NCREIF compiles returns based on its members' \$70 billion apartment portfolio. The index includes both current income and estimated capital appreciation returns. Source: Delta Associates, based on trailing 12-month data in NCREIF "Real Estate Performance Report: Second Quarter 2017".



Source: NCREIF, Delta Associates, September 2017.



*As of 2nd Quarter. Source: NCREIF, Delta Associates, September 2017.

TABLE 2.5
MEDIAN INCOME AND EXPENSE DATA COMPARISON BY PROPERTY TYPE:
 Market-Rate Rental Properties in Washington MSA

	GARDEN			ELEVATOR		
Total Number of Properties	87			35		
Total Number of Units	26,719			7,385		
REVENUE	\$/SF	\$/UNIT	% OF GPI	\$/SF	\$/UNIT	% OF GPI
Rents -- Apartments	18.88	17,431	94.8	30.73	24,721	93.6
Rents -- Garage/Parking	0.17	172	0.7	0.94	747	2.6
Rents -- Storage/Offices	0.48	412	2.2	1.03	961	4.1
Gross Possible Rents	19.13	17,648	95.5	31.20	25,387	96.5
Concessions	0.16	124	0.8	0.05	47	0.2
Vacancies/Rent Loss	1.05	962	5.1	1.57	1,693	6.1
Total Rents Collected	17.64	16,084	88.1	28.97	22,594	87.6
Other Income	1.05	990	4.8	1.24	1,093	3.6
Gross Possible Income ("GPI")	20.39	18,576	100.0	32.68	26,321	100.0
Total Collections	18.87	16,839	93.9	29.35	23,394	93.8
EXPENSES						
Management Fee	0.71	648	3.7	0.94	721	2.9
Other Administrative	1.22	1,010	5.7	1.11	1,124	3.6
Supplies	0.09	84	0.5	0.07	58	0.2
Heating Fuel -- Common Areas only	0.03	32	0.2	0.16	150	0.6
Common Areas & Apts	0.65	573	3.5	0.41	409	1.9
Electricity -- Common Areas only	0.16	140	0.7	0.62	508	1.6
Common Areas & Apts	0.80	462	3.3	1.10	1,107	3.9
Water/Sewer -- Common Areas Only	0.48	460	2.1	0.56	478	1.6
Common Areas & Apts	0.72	619	3.6	0.74	738	3.2
Gas ----- Common Areas Only	0.05	45	0.2	0.15	93	0.4
Common Areas & Apts	0.45	281	1.2	0.16	184	0.7
Building Services	0.26	219	1.2	0.49	447	1.7
Other Operating Costs	0.05	42	0.2	0.15	124	0.5
Security	0.03	37	0.2	0.10	93	0.3
Grounds Maintenance	0.24	214	1.3	0.15	118	0.5
Maintenance & Repairs	0.63	589	3.2	0.97	846	3.3
Painting/Decorating	0.27	239	1.3	0.24	227	0.8
Real Estate Taxes	2.02	1,765	9.3	2.67	2,448	8.6
Other Tax/Fee/Permit Costs	0.05	44	0.2	0.09	60	0.2
Insurance	0.26	231	1.3	0.26	220	0.8
Recreational/Amenities Costs	0.07	68	0.4	0.03	26	0.1
Other Payroll	1.10	1,032	5.4	1.51	1,017	3.8
Total Operating Expenses	7.78	7,101	36.9	11.45	9,152	34.1
Net Operating Income	10.67	10,222	53.7	16.34	15,608	60.0

Source: Institute of Real Estate Management, Conventional Apartments: Income/Expense Analysis, 2017 edition.

Notes:

- Reflects operating data for the year ending 2016.
- Because data are medians, detailed amounts may not add precisely to totals, and percentages may not add to 100.
- Data **exclude** federally assisted apartment buildings.
- For utilities: Electricity and Gas expense categories are not to include any heating expense, according to instructions to respondents.
 - "Common Areas Only" represents the median cost of that utility in the common areas of the building (and not its use, if any, in the residential units).
 - "Common Areas & Apts." provides the median cost of the utility in the common areas and in the individual apartments. This row also includes any buildings where the utility is used only in the apartments but is still paid for by the management.
- Payroll expenses: data contributors were instructed to **INCLUDE** related payroll expenses when reporting the following expense categories: Other Administrative Costs, Security, Grounds Maintenance, Painting and Decorating (Interior Only), and Recreational Amenities. All remaining payroll expenses, including the amount paid to janitors, maids, and interior maintenance personnel, were to be reported in the expense category "Other Payroll". The IREM publication also provides a line item "Payroll Recap" recapitulating [that is, cumulating] all the various PAYROLL expenses reported in any of those categories.
- The operating expenses reported by IREM do **NOT** reflect such items as ground rent, mortgage interest, amortization, depreciation, income taxes, or capital expenditures for alterations, improvements, or remodeling of occupied or public areas -- and so the "Net Operating Income" amounts shown in the tables are what is sometimes termed EBITDAR income.

TABLE 2.6
MEDIAN INCOME AND EXPENSE DATA COMPARISON BY PROPERTY TYPE:
 Market-Rate Rental Properties in Baltimore MSA

	GARDEN			ELEVATOR		
Total Number of Properties		43			10	
Total Number of Units		9,837			1,430	
REVENUE	\$/SF	\$/UNIT	% OF GPI	\$/SF	\$/UNIT	% OF GPI
Rents -- Apartments	15.02	14,079	98.6	21.59	17,414	96.6
Rents -- Garage/Parking	0.12	89	0.6	0.64	517	3.4
Rents -- Storage/Offices	0.09	86	0.7	0.75	570	3.6
Gross Possible Rents	15.12	14,079	99.5	21.89	17,783	100.0
Concessions	0.15	145	1.1	0.16	139	0.9
Vacancies/Rent Loss	0.86	804	6.3	0.90	766	3.9
Total Rents Collected	13.64	12,356	91.4	19.30	16,396	95.5
Other Income	0.69	609	3.9	0.53	555	3.4
Gross Possible Income ("GPI")	15.28	14,477	100.0	23.19	17,783	100.0
Total Collections	14.06	12,617	92.3	19.99	16,648	95.6
EXPENSES						
Management Fee	0.59	530	3.9	0.75	692	4.9
Other Administrative	1.27	1,144	8.0	1.84	1,562	10.7
Supplies	0.18	159	0.8	0.20	173	0.9
Heating Fuel -- Common Areas only	0.07	50	0.5	0.34	294	1.6
Common Areas & Apts	0.16	164	0.8	0.42	437	2.8
Electricity -- Common Areas only	0.16	151	1.0	0.31	413	2.5
Common Areas & Apts	0.50	473	1.5	0.98	979	5.5
Water/Sewer -- Common Areas Only	0.15	146	0.9	0.31	326	1.3
Common Areas & Apts	0.49	459	2.4	0.50	444	2.8
Gas ----- Common Areas Only	0.15	133	0.8	0.67	249	2.3
Common Areas & Apts	0.03	24	0.1	0.39	331	2.1
Building Services	0.19	160	1.1	0.19	127	0.8
Other Operating Costs	0.05	54	0.3	0.00	0	0.0
Security	0.02	11	0.1	0.04	22	0.2
Grounds Maintenance	0.13	121	0.8	0.04	37	0.2
Maintenance & Repairs	1.00	969	6.1	1.48	996	6.3
Painting/Decorating	0.22	200	1.4	0.34	207	1.5
Real Estate Taxes	1.20	1,149	8.0	1.73	1,246	7.8
Other Tax/Fee/Permit Costs	0.01	7	0.1	0.02	22	0.1
Insurance	0.27	249	1.8	0.40	350	2.1
Recreational/Amenities Costs	0.06	54	0.4	0.10	87	0.6
Other Payroll	1.46	1,286	9.7	1.77	1,548	9.5
Total Operating Expenses	7.12	7,029	47.6	10.03	8,578	53.8
Net Operating Income	6.73	6,775	45.3	7.79	6,816	41.8

Source : Institute of Real Estate Management, Conventional Apartments: Income/Expense Analysis, 2017 edition.

Notes:

- Reflects operating data for the year ending 2016.
- Because data are medians, detailed amounts may not add precisely to totals, and percentages may not add to 100.
- Data **exclude** federally assisted apartment buildings.
- For utilities: Electricity and Gas expense categories are not to include any heating expense, according to instructions to respondents.
 - "Common Areas Only" represents the median cost of that utility in the common areas of the building (and not its use, if any, in the residential units).
 - "Common Areas & Apts." provides the median cost of the utility in the common areas and in the individual apartments. This row also includes any buildings where the utility is used only in the apartments but is still paid for by the management.
- Payroll expenses: data contributors were instructed to **INCLUDE** related payroll expenses when reporting the following expense categories: Other Administrative Costs, Security, Grounds Maintenance, Painting and Decorating (Interior Only), and Recreational Amenities. All remaining payroll expenses, including the amount paid to janitors, maids, and interior maintenance personnel, were to be reported in the expense category "Other Payroll". The IREM publication also provides a line item "Payroll Recap" recapitulating [that is, cumulating] all the various PAYROLL expenses reported in any of those categories.
- The operating expenses reported by IREM do NOT reflect such items as ground rent, mortgage interest, amortization, depreciation, income taxes, or capital expenditures for alterations, improvements, or remodeling of occupied or public areas -- and so the "Net Operating Income" amounts shown in the tables are what is sometimes termed EBITDAR income.

TABLE 2.7
MEDIAN INCOME AND EXPENSE DATA COMPARISON BY PROPERTY TYPE:
 Market-Rate Rental Properties in Philadelphia MSA

	GARDEN			ELEVATOR		
Total Number of Properties		28			13	
Total Number of Units		5,651			3,661	
REVENUE	\$/SF	\$/UNIT	% OF GPI	\$/SF	\$/UNIT	% OF GPI
Rents -- Apartments	15.22	13,380	95.8	23.12	19,564	87.4
Rents -- Garage/Parking	0.47	544	2.2	1.10	919	4.2
Rents -- Storage/Offices	0.18	175	1.0	1.66	1,382	6.3
Gross Possible Rents	15.42	13,380	95.8	25.26	21,434	93.5
Concessions	0.03	21	0.2	0.12	110	0.4
Vacancies/Rent Loss	0.90	802	5.8	1.18	1,171	4.6
Total Rents Collected	14.52	12,404	90.0	23.61	18,711	85.7
Other Income	0.62	561	4.2	1.44	1,542	6.6
Gross Possible Income ("GPI")	16.21	13,676	100.0	26.28	21,893	100.0
Total Collections	15.23	12,668	94.2	24.72	20,709	95.4
EXPENSES						
Management Fee	0.58	505	3.7	0.65	498	2.5
Other Administrative	0.98	807	6.2	0.67	559	3.7
Supplies	0.04	39	0.3	0.08	58	0.3
Heating Fuel -- Common Areas only	0.07	76	0.5	0.23	219	1.0
Common Areas & Apts	0.59	461	3.0	0.53	493	2.4
Electricity -- Common Areas only	0.14	112	0.8	0.41	237	1.5
Common Areas & Apts	0.26	265	3.7	0.68	635	3.4
Water/Sewer -- Common Areas Only	0.68	675	3.8	0.35	347	1.3
Common Areas & Apts	0.68	530	4.2	0.55	429	2.8
Gas ----- Common Areas Only	0.10	72	0.7	0.09	73	0.3
Common Areas & Apts	0.33	233	2.1	0.70	747	2.7
Building Services	0.23	174	1.3	0.99	707	3.3
Other Operating Costs	0.15	167	1.0	0.72	586	2.6
Security	0.13	111	0.8	0.66	638	2.6
Grounds Maintenance	0.28	267	1.9	0.12	123	0.4
Maintenance & Repairs	0.48	444	3.2	0.67	438	3.4
Painting/Decorating	0.24	187	1.6	0.19	162	0.8
Real Estate Taxes	1.46	1,270	8.8	1.95	1,728	7.6
Other Tax/Fee/Permit Costs	0.10	87	0.7	0.22	121	0.7
Insurance	0.39	361	2.9	0.34	265	1.3
Recreational/Amenities Costs	0.05	39	0.3	0.02	23	0.1
Other Payroll	1.15	995	8.0	1.52	1,000	5.9
Total Operating Expenses	6.34	5,785	43.7	8.89	7,107	32.5
Net Operating Income	8.61	6,820	50.6	15.63	13,273	58.3

Source : Institute of Real Estate Management, Conventional Apartments: Income/Expense Analysis, 2017 edition.

Notes:

- Reflects operating data for the year ending 2016.
- Because data are medians, detailed amounts may not add precisely to totals, and percentages may not add to 100.
- Data **exclude** federally assisted apartment buildings.
- For utilities: Electricity and Gas expense categories are not to include any heating expense, according to instructions to respondents.

"Common Areas Only" represents the median cost of that utility in the common areas of the building (and not its use, if any, in the residential units).

"Common Areas & Apts." provides the median cost of the utility in the common areas and in the individual apartments. This row also includes any buildings where the utility is used only in the apartments but is still paid for by the management.

- Payroll expenses: data contributors were instructed to **INCLUDE** related payroll expenses when reporting the following expense categories: Other Administrative Costs, Security, Grounds Maintenance, Painting and Decorating (Interior Only), and Recreational Amenities. All remaining payroll expenses, including the amount paid to janitors, maids, and interior maintenance personnel, were to be reported in the expense category "Other Payroll". The IREM publication also provides a line item "Payroll Recap" recapitulating [that is, cumulating] all the various PAYROLL expenses reported in any of those categories.

- The operating expenses reported by IREM do **NOT** reflect such items as ground rent, mortgage interest, amortization, depreciation, income taxes, or capital expenditures for alterations, improvements, or remodeling of occupied or public areas -- and so the "Net Operating Income" amounts shown in the tables are what is sometimes termed EBITDAR income.

TABLE 2.8
MEDIAN INCOME AND EXPENSE DATA COMPARISON BY PROPERTY TYPE:
 Market-Rate Rental Properties in the Mid-Atlantic Region

	GARDEN			ELEVATOR		
Total Number of Properties	297			83		
Total Number of Units	69,801			16,680		
REVENUE	\$/SF	\$/UNIT	% OF GPI	\$/SF	\$/UNIT	% OF GPI
Rents -- Apartments	14.59	12,958	95.4	23.15	29	92.8
Rents -- Garage/Parking	0.13	129	0.7	0.60	1	2.5
Rents -- Storage/Offices	0.10	90	0.7	1.48	2	5.9
Gross Possible Rents	14.60	12,958	95.9	24.56	30	96.4
Concessions	0.09	82	0.6	-0.11	0	0.4
Vacancies/Rent Loss	0.76	694	5.2	1.26	2	5.3
Total Rents Collected	13.57	12,222	88.8	22.40	28	87.6
Other Income	0.79	671	4.8	1.21	2	4.5
Gross Possible Income ("GPI")	15.14	13,643	100.0	25.65	31	100.0
Total Collections	14.24	12,639	94.1	24.15	29	93.9
EXPENSES						
Management Fee	0.61	546	3.9	0.78	621	3.1
Other Administrative	0.99	832	6.4	1.33	1,166	6.5
Supplies	0.06	45	0.3	0.08	58	0.3
Heating Fuel -- Common Areas only	0.04	37	0.3	0.16	151	0.7
Common Areas & Apts	0.38	308	2.5	0.41	357	1.7
Electricity -- Common Areas only	0.13	115	0.8	0.40	353	1.5
Common Areas & Apts	0.60	473	3.7	0.95	788	3.8
Water/Sewer -- Common Areas Only	0.50	475	3.2	0.50	443	1.8
Common Areas & Apts	0.65	568	4.2	0.65	477	2.9
Gas ----- Common Areas Only	0.04	34	0.2	0.09	83	0.4
Common Areas & Apts	0.19	153	1.1	0.21	184	1.1
Building Services	0.16	147	1.1	0.24	186	1.0
Other Operating Costs	0.05	44	0.2	0.24	196	0.7
Security	0.04	38	0.3	0.08	86	0.3
Grounds Maintenance	0.25	224	1.7	0.12	103	0.5
Maintenance & Repairs	0.62	569	4.1	0.76	666	3.3
Painting/Decorating	0.22	193	1.4	0.24	207	1.0
Real Estate Taxes	1.18	1,075	7.8	1.94	1,687	8.2
Other Tax/Fee/Permit Costs	0.02	15	0.1	0.06	50	0.2
Insurance	0.27	245	1.8	0.29	250	1.5
Recreational/Amenities Costs	0.08	71	0.5	0.03	26	0.1
Other Payroll	1.06	955	7.1	1.23	986	4.5
Total Operating Expenses	6.59	5,943	43.0	9.47	7,575	37.0
Net Operating Income	7.68	6,820	50.5	14.17	11,386	55.4

Source: Institute of Real Estate Management, Conventional Apartments: Income/Expense Analysis, 2017 edition.

Notes:

- Reflects operating data for the year ending 2016.
- Because data are medians, detailed amounts may not add precisely to totals, and percentages may not add to 100.
- Data **exclude** federally assisted apartment buildings.
- For utilities: Electricity and Gas expense categories are not to include any heating expense, according to instructions to respondents.

"Common Areas Only" represents the median cost of that utility in the common areas of the building (and not its use, if any, in the residential units).

"Common Areas & Apts." provides the median cost of the utility in the common areas and in the individual apartments. This row also includes any buildings where the utility is used only in the apartments but is still paid for by the management.

- Payroll expenses: data contributors were instructed to INCLUDE related payroll expenses when reporting the following expense categories: Other Administrative Costs, Security, Grounds Maintenance, Painting and Decorating (Interior Only), and Recreational Amenities. All remaining payroll expenses, including the amount paid to janitors, maids, and interior maintenance personnel, were to be reported in the expense category "Other Payroll". The IREM publication also provides a line item "Payroll Recap" recapitulating [that is, cumulating] all the various PAYROLL expenses reported in any of those categories.

- The operating expenses reported by IREM do NOT reflect such items as ground rent, mortgage interest, amortization, depreciation, income taxes, or capital expenditures for alterations, improvements, or remodeling of occupied or public areas -- and so the "Net Operating Income" amounts shown in the tables are what is sometimes termed EBITDAR income.

TABLE 2.9
MEDIAN INCOME AND EXPENSE DATA COMPARISON BY PROPERTY TYPE:
 Market-Rate Rental Properties in the United States

	GARDEN			ELEVATOR		
Total Number of Properties	2,552			358		
Total Number of Units	578,951			80,620		
REVENUE	\$/SF	\$/UNIT	% OF GPI	\$/SF	\$/UNIT	% OF GPI
Rents -- Apartments	13.38	11,902	93.8	22.55	19,377	93.8
Rents -- Garage/Parking	0.14	128	0.9	0.48	435	2.0
Rents -- Storage/Offices	0.12	107	0.9	1.05	961	3.6
Gross Possible Rents	13.49	11,970	94.2	23.17	19,575	96.5
Concessions	0.05	45	0.3	-0.09	73	0.4
Vacancies/Rent Loss	0.91	807	5.9	1.56	1,369	6.6
Total Rents Collected	12.22	10,765	86.6	20.95	17,445	87.3
Other Income	0.85	764	6.0	1.04	876	3.9
Gross Possible Income ("GPI")	14.38	12,790	100.0	24.30	21,041	100.0
Total Collections	13.10	11,685	93.3	22.25	18,605	93.0
EXPENSES						
Management Fee	0.48	444	3.3	0.72	613	2.9
Other Administrative	0.67	617	4.3	1.19	1,038	4.8
Supplies	0.04	35	0.3	0.07	58	0.3
Heating Fuel -- Common Areas only	0.04	37	0.3	0.11	86	0.5
Common Areas & Apts	0.27	223	1.9	0.41	297	1.9
Electricity -- Common Areas only	0.15	136	1.0	0.38	334	1.4
Common Areas & Apts	0.26	231	2.7	0.83	698	3.5
Water/Sewer -- Common Areas Only	0.40	365	2.2	0.44	373	1.6
Common Areas & Apts	0.57	520	4.1	0.54	440	2.7
Gas ----- Common Areas Only	0.03	23	0.2	0.15	108	0.4
Common Areas & Apts	0.13	100	0.9	0.12	81	0.7
Building Services	0.13	117	1.0	0.25	216	1.1
Other Operating Costs	0.08	64	0.6	0.23	195	0.8
Security	0.04	31	0.2	0.06	52	0.3
Grounds Maintenance	0.22	206	1.8	0.17	142	0.8
Maintenance & Repairs	0.50	452	3.4	0.74	584	3.0
Painting/Decorating	0.18	166	1.3	0.23	195	0.8
Real Estate Taxes	1.12	1,004	7.8	2.22	1,824	9.0
Other Tax/Fee/Permit Costs	0.02	17	0.1	0.04	33	0.2
Insurance	0.27	245	1.8	0.36	290	1.4
Recreational/Amenities Costs	0.03	25	0.2	0.03	26	0.1
Other Payroll	0.73	656	5.0	1.02	821	4.0
Total Operating Expenses	5.45	4,942	37.2	9.14	7,563	37.2
Net Operating Income	7.61	6,836	54.4	12.97	10,569	53.4

Source: Institute of Real Estate Management, Conventional Apartments: Income/Expense Analysis, 2017 edition.

Notes:

- Reflects operating data for the year ending 2016.
- Because data are medians, detailed amounts may not add precisely to totals, and percentages may not add to 100.
- Data **exclude** federally assisted apartment buildings.
- For utilities: Electricity and Gas expense categories are not to include any heating expense, according to instructions to respondents.
 - "Common Areas Only" represents the median cost of that utility in the common areas of the building (and not its use, if any, in the residential units).
 - "Common Areas & Apts." provides the median cost of the utility in the common areas and in the individual apartments. This row also includes any buildings where the utility is used only in the apartments but is still paid for by the management.
- Payroll expenses: data contributors were instructed to **INCLUDE** related payroll expenses when reporting the following expense categories: Other Administrative Costs, Security, Grounds Maintenance, Painting and Decorating (Interior Only), and Recreational Amenities. All remaining payroll expenses, including the amount paid to janitors, maids, and interior maintenance personnel, were to be reported in the expense category "Other Payroll". The IREM publication also provides a line item "Payroll Recap" recapitulating [that is, cumulating] all the various PAYROLL expenses reported in any of those categories.
- The operating expenses reported by IREM do **NOT** reflect such items as ground rent, mortgage interest, amortization, depreciation, income taxes, or capital expenditures for alterations, improvements, or remodeling of occupied or public areas -- and so the "Net Operating Income" amounts shown in the tables are what is sometimes termed EBITDAR income.



NOT FOR REDIST

3

WASHINGTON
STATISTICAL
REPORT

TABLE 3.1
ESTIMATED EFFECTIVE RENT AND STABILIZED VACANCY RATE FOR INVESTMENT GRADE CLASS A AND CLASS B APARTMENTS
 Washington Metropolitan Area
 Third Quarter 2017

	GEOGRAPHIC AREA						WASHINGTON METRO AREA AVERAGE	
	NORTHERN VIRGINIA		SUBURBAN MARYLAND		THE DISTRICT			
CLASS A APARTMENTS	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT
Low-Rise	3.5%	\$1,702	4.8%	\$1,665	N/A	N/A	4.0%	\$1,687
Mid & High-Rise	3.5%	\$2,288	4.2%	\$2,188	4.7%	\$2,585	4.1%	\$2,387
Total Class A	3.5%	\$1,952	4.6%	\$1,828	4.7%	\$2,585	4.0%	\$2,044
Comparison at 9/16	4.2%	\$1,921	3.4%	\$1,814	4.1%	\$2,625	3.9%	\$2,018
Comparison at 9/12	3.0%	\$1,825	5.2%	\$1,697	3.5%	\$2,627	3.9%	\$1,867
CLASS B APARTMENTS	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT
Low-Rise	1.5%	\$1,605	2.5%	\$1,453	N/A	N/A	2.0%	\$1,528
Mid & High-Rise	2.6%	\$1,884	2.3%	\$1,756	2.9%	\$2,048	2.6%	\$1,889
Total Class B	2.0%	\$1,731	2.5%	\$1,513	2.9%	\$2,048	2.2%	\$1,669
Comparison at 9/16	2.2%	\$1,706	2.7%	\$1,502	1.6%	\$2,060	2.3%	\$1,652
Comparison at 9/12	3.2%	\$1,632	4.8%	\$1,423	1.5%	\$1,915	3.6%	\$1,573
CLASS A & B APARTMENTS	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT	VACANCY	EFF RENT
Total Class A and B	2.5%	\$1,813	3.2%	\$1,612	4.0%	\$2,393	2.9%	\$1,814
Comparison at 9/16	3.4%	\$1,840	3.1%	\$1,677	3.6%	\$2,531	3.3%	\$1,883
Comparison at 9/12	3.1%	\$1,740	5.0%	\$1,582	2.9%	\$2,416	3.8%	\$1,744

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.2
RENT GROWTH FOR INVESTMENT GRADE CLASS A AND CLASS B APARTMENTS
 Washington Metropolitan Area
 Third Quarter 2017

	GEOGRAPHIC AREA			WASHINGTON METRO AREA AVERAGE
	NORTHERN VIRGINIA	SUBURBAN MARYLAND	THE DISTRICT	
CLASS A APARTMENTS				
Annual Rent Growth Since September 2016 ¹				
Low-Rise	1.1%	0.4%	N/A	0.8%
Mid & High-Rise	-0.1%	1.3%	-1.3%	-0.3%
Total Class A	0.5%	0.7%	-1.3%	0.2%
Annual Rent Growth Since September 2012				
Total Class A	1.4%	1.5%	-0.3%	1.8%
CLASS B APARTMENTS				
Annual Rent Growth Since September 2016 ¹				
Low-Rise	1.5%	0.9%	N/A	1.2%
Mid & High-Rise	1.4%	0.0%	-0.6%	0.7%
Total Class B	1.5%	0.7%	-0.6%	1.0%
Annual Rent Growth Since September 2012				
Total Class B	1.2%	1.2%	1.4%	1.2%
CLASS A & B APARTMENTS				
Annual Rent Growth Since September 2016 ¹				
Low-Rise	1.4%	0.8%	N/A	1.1%
Mid & High-Rise	0.9%	0.5%	-1.0%	0.3%
Total Class A and B	1.1%	0.7%	-1.0%	0.7%
Annual Rent Growth Since September 2012				
Total Class A and B	0.8%	0.4%	-0.2%	0.8%

¹ Same-store rent comparison.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.3
KEY MARKET INDICATORS FOR CLASS A RENTAL LOW-RISE APARTMENTS ¹
 Summary | Suburban Washington Area
 Third Quarter 2017

MARKET INDICATOR	GEOGRAPHIC AREA						SUBURBAN WASHINGTON AREA TOTAL/AVERAGE
	NORTHERN VIRGINIA SUBMARKETS			SUBURBAN MARYLAND SUBMARKETS			
	CLOSE IN	OUTER	TOTAL	CLOSE IN	OUTER	TOTAL	
Number of Units Surveyed	20,709	19,736	40,445	20,319	6,040	26,359	66,804
Rent Levels (Avg. of All Unit Sizes)							
Face Rent	\$1,858	\$1,584	\$1,725	\$1,747	\$1,468	\$1,683	\$1,708
Concession as a % of Face Rents	0.9%	1.8%	1.3%	1.1%	1.0%	1.1%	1.2%
Effective Rent	\$1,841	\$1,555	\$1,702	\$1,728	\$1,454	\$1,665	\$1,687
Effective Rent per Square Foot	\$1.91	\$1.56	\$1.74	\$1.76	\$1.40	\$1.68	\$1.71
Annual Effective Rent Increase							
- Since 1998	3.3%	3.9%	3.6%	3.2%	3.5%	3.2%	3.5%
- Since 9/30/12	0.8%	1.4%	1.1%	0.9%	2.4%	1.3%	1.1%
- Since 9/30/16 ²	1.3%	1.1%	1.1%	0.4%	0.8%	0.4%	0.8%
Vacancy September 2017							
Overall ³	4.4%	4.5%	4.5%	7.2%	8.6%	7.5%	5.7%
Stabilized ⁴	3.7%	3.2%	3.5%	4.9%	4.3%	4.8%	4.0%
Vacancy September 2016							
Overall ³	4.8%	6.8%	5.8%	7.8%	4.3%	7.0%	6.3%
Stabilized ⁴	4.3%	4.5%	4.4%	2.9%	3.2%	2.9%	3.8%
Absorption Trends							
# of Market Rate Units Absorbed Over the Past 12 Months	330	1,193	1,523	1,226	352	1,578	3,101
For Comparison							
12-Month Period Ending 9/30/2016	321	970	1,291	1,782	389	2,171	3,462
Supply Projections							
Number of Market Rate Units Under Construction and Available Plus Planned That Are Likely to Be Delivered in the Next 36 Months ⁵	1,212	1,611	2,824	5,017	150	5,167	7,991
For Comparison							
at 9/30/2016	1,124	1,453	2,577	4,623	595	5,218	7,795

¹ Includes walk-up and elevator-served apartments of one to four stories.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on tables 3.14 through 3.15 and tables 3.18 through 3.19. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.4
KEY MARKET INDICATORS FOR CLASS A RENTAL LOW-RISE APARTMENTS ¹
 Selected Submarkets | Close-In Northern Virginia
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET						SUBTOTAL - CLOSE-IN SUBMARKETS	SUBTOTAL - OUTER SUBMARKETS	NORTHERN VIRGINIA TOTAL/AVERAGE
	ALEXANDRIA/ ARLINGTON ²	TYSONS CORNER	VIENNA/ MERRIFIELD	FAIR OAKS	RESTON/ HERNDON	S AND E FAIRFAX			
Number of Units Surveyed	5,595	1,279	1,350	4,063	5,450	2,972	20,709	19,736	40,445
Rent Levels (Avg. of All Unit Sizes)									
Face Rent	\$1,970	\$1,926	\$1,968	\$1,816	\$1,743	\$1,836	\$1,858	\$1,584	\$1,725
Concession as a % of Face Rents	1.4%	0.0%	0.8%	0.3%	0.9%	1.4%	0.9%	1.8%	1.3%
Effective Rent	\$1,943	\$1,926	\$1,953	\$1,811	\$1,728	\$1,810	\$1,841	\$1,555	\$1,702
Effective Rent per Square Foot	\$2.04	\$2.11	\$2.00	\$1.90	\$1.72	\$1.90	\$1.91	\$1.56	\$1.74
Annual Effective Rent Increase									
- Since 1998	3.6%	3.1%	3.5%	3.6%	2.8%	N/A	3.3%	3.9%	3.6%
- Since 9/30/12	0.1%	0.7%	0.9%	1.0%	1.3%	0.9%	0.8%	1.4%	1.1%
- Since 9/30/16 ³	0.2%	3.6%	2.1%	1.1%	1.9%	0.8%	1.3%	1.1%	1.1%
Vacancy September 2017									
Overall ⁴	3.4%	4.8%	2.9%	2.4%	4.2%	9.9%	4.4%	4.5%	4.5%
Stabilized ⁵	3.4%	4.8%	2.9%	2.4%	4.2%	5.2%	3.7%	3.2%	3.5%
Vacancy September 2016									
Overall ⁴	4.2%	4.6%	4.1%	7.0%	4.3%	4.2%	4.8%	6.8%	5.8%
Stabilized ⁵	4.2%	4.6%	4.1%	4.2%	4.3%	4.3%	4.3%	4.5%	4.4%
Absorption Trends									
# of Market Rate Units Absorbed Over the Past 12 Months	46	7	10	168	5	94	330	1,193	1,523
For Comparison									
12-Month Period Ending 9/30/2016	42	0	48	78	126	27	321	970	1,291
Supply Projections									
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁶	516	0	0	213	342	142	1,212	1,611	2,824
For Comparison									
at 9/30/2016	93	80	0	199	362	390	1,124	1,453	2,577

¹ Includes walk-up and elevator-served apartments of one to four stories.

² Includes portions of Fairfax County.

³ Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

⁴ Includes actively marketing projects.

⁵ Excludes actively marketing projects.

⁶ See list of under construction and planned projects on tables 3.14 through 3.15 and tables 3.18 through 3.19. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.5
KEY MARKET INDICATORS FOR CLASS A RENTAL LOW-RISE APARTMENTS ¹
 Selected Submarkets | Outer Northern Virginia
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET					SUBTOTAL - OUTER SUBMARKETS	SUBTOTAL - CLOSE-IN SUBMARKETS	NORTHERN VIRGINIA TOTAL/AVERAGE
	EASTERN LOUDOUN COUNTY	CENTREVILLE	EAST PRINCE WILLIAM COUNTY	WEST PRINCE WILLIAM COUNTY	FREDERICKSBURG			
Number of Units Surveyed	6,662	2,794	3,493	3,604	3,183	19,736	20,709	40,445
Rent Levels (Avg. of All Unit Sizes)								
Face Rent	\$1,687	\$1,600	\$1,593	\$1,526	\$1,413	\$1,584	\$1,858	\$1,725
Concession as a % of Face Rents	2.4%	0.4%	3.3%	0.1%	2.1%	1.8%	0.9%	1.3%
Effective Rent	\$1,646	\$1,593	\$1,540	\$1,524	\$1,384	\$1,555	\$1,841	\$1,702
Effective Rent per Square Foot	\$1.63	\$1.76	\$1.59	\$1.44	\$1.33	\$1.56	\$1.91	\$1.74
Annual Effective Rent Increase								
- Since 1998	3.4%	3.5%	3.9%	3.8%	5.3%	3.9%	3.3%	3.6%
- Since 9/30/12	1.3%	1.1%	0.1%	1.4%	3.0%	1.4%	0.8%	1.1%
- Since 9/30/16 ²	1.2%	3.2%	-5.0%	3.9%	2.4%	1.1%	1.3%	1.1%
Vacancy September 2017								
Overall ³	3.2%	1.8%	6.1%	2.0%	10.9%	4.5%	4.4%	4.5%
Stabilized ⁴	3.2%	1.8%	6.1%	2.0%	2.8%	3.2%	3.7%	3.5%
Vacancy September 2016								
Overall ³	7.2%	5.5%	6.8%	9.7%	3.8%	6.8%	4.8%	5.8%
Stabilized ⁴	4.7%	5.5%	4.7%	3.4%	3.8%	4.5%	4.3%	4.4%
Absorption Trends								
# of Market Rate Units Absorbed Over the Past 12 Months	559	53	1	223	357	1,193	330	1,523
For Comparison								
12-Month Period Ending 9/30/2016	259	(16)	502	52	173	970	321	1,291
Supply Projections								
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	217	115	458	490	332	1,611	1,212	2,824
For Comparison								
at 9/30/2016	437	78	206	231	502	1,453	1,124	2,577

¹ Includes walk-up and elevator-served apartments of one to four stories.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on tables 3.14 through 3.15 and tables 3.18 through 3.19. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.6
KEY MARKET INDICATORS FOR CLASS A RENTAL LOW-RISE APARTMENTS ¹
 Selected Submarkets | Close-In Suburban Maryland
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET						SUBTOTAL - CLOSE- IN SUBMARKETS	SUBTOTAL - OUTER SUBMARKETS	SUBURBAN MARYLAND TOTAL/AVERAGE
	ROCKVILLE/ N. BETHESDA	GAITHERSBURG	GERMANTOWN	BURTONSVILLE	N. PRINCE GEORGE'S COUNTY	S. PRINCE GEORGE'S COUNTY			
Number of Units Surveyed	4,634	2,668	2,122	1,627	6,153	3,115	20,319	6,040	26,359
Rent Levels (Avg. of All Unit Sizes)									
Face Rent	\$1,909	\$1,677	\$1,647	\$1,481	\$1,760	\$1,748	\$1,747	\$1,468	\$1,683
Concession as a % of Face Rents	1.3%	0.7%	1.2%	0.2%	1.8%	0.0%	1.1%	1.0%	1.1%
Effective Rent	\$1,884	\$1,666	\$1,627	\$1,478	\$1,728	\$1,748	\$1,728	\$1,454	\$1,665
Effective Rent per Square Foot	\$1.89	\$1.68	\$1.54	\$1.68	\$1.79	\$1.77	\$1.76	\$1.40	\$1.68
Annual Effective Rent Increase									
- Since 1998	2.5%	2.8%	3.6%	3.2%	3.5%	3.5%	3.2%	3.5%	3.2%
- Since 9/30/12	0.0%	0.1%	2.1%	2.2%	1.0%	1.3%	0.9%	2.4%	1.3%
- Since 9/30/16 ²	-0.6%	2.8%	1.8%	1.8%	-1.2%	1.4%	0.4%	0.8%	0.4%
Vacancy September 2017									
Overall ³	5.5%	7.2%	6.3%	1.4%	10.7%	6.6%	7.2%	8.6%	7.5%
Stabilized ⁴	5.3%	4.9%	6.3%	1.4%	4.3%	6.6%	4.9%	4.3%	4.8%
Vacancy September 2016									
Overall ³	7.8%	4.9%	6.0%	2.0%	12.5%	5.4%	7.8%	4.3%	7.0%
Stabilized ⁴	2.5%	4.9%	4.5%	1.7%	2.1%	2.7%	2.9%	3.2%	2.9%
Absorption Trends									
# of Market Rate Units Absorbed Over the Past 12 Months	119	161	(45)	4	836	151	1,226	352	1,578
For Comparison									
12-Month Period Ending 9/30/2016	678	28	137	49	325	565	1,782	389	2,171
Supply Projections									
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	542	436	138	0	2,475	1,426	5,017	150	5,167
For Comparison									
at 9/30/2016	430	582	276	0	2,662	674	4,623	595	5,218

¹ Includes walk-up and elevator-served apartments of one to four stories.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on tables 3.14 through 3.15 and tables 3.18 through 3.19. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

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TABLE 3.7
KEY MARKET INDICATORS FOR CLASS A RENTAL LOW-RISE APARTMENTS ¹
 Selected Submarkets | Outer Suburban Maryland
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET			SUBTOTAL- OUTER SUBMARKETS	SUBTOTAL- CLOSE-IN SUBMARKETS	SUBURBAN MARYLAND TOTAL/AVERAGE
	FREDERICK	CHARLES COUNTY	ST. MARY'S COUNTY			
Number of Units Surveyed	3,337	1,460	1,243	6,040	20,319	26,359
Rent Levels (Avg. of All Unit Sizes)						
Face Rent	\$1,448	\$1,600	\$1,366	\$1,468	\$1,747	\$1,683
Concession as a % of Face Rents	1.4%	0.0%	1.2%	1.0%	1.1%	1.1%
Effective Rent	\$1,428	\$1,600	\$1,350	\$1,454	\$1,728	\$1,665
Effective Rent per Square Foot	\$1.39	\$1.49	\$1.32	\$1.40	\$1.76	\$1.68
Annual Effective Rent Increase						
- Since 1998	3.3%	3.7%	3.5%	3.5%	3.2%	3.2%
- Since 9/30/12	3.0%	0.1%	3.3%	2.4%	0.9%	1.3%
- Since 9/30/16 ³	0.7%	-3.0%	5.4%	0.8%	0.4%	0.4%
Vacancy September 2017						
Overall ³	12.2%	5.0%	3.1%	8.6%	7.2%	7.5%
Stabilized ⁴	4.4%	5.0%	3.1%	4.3%	4.9%	4.8%
Vacancy September 2016						
Overall ³	4.5%	7.3%	0.2%	4.3%	7.8%	7.0%
Stabilized ⁴	2.5%	7.3%	0.2%	3.2%	2.9%	2.9%
Absorption Trends						
# of Market Rate Units Absorbed Over the Past 12 Months	357	32	(37)	352	1,226	1,578
For Comparison						
12-Month Period Ending 9/30/2016	250	108	31	389	1,782	2,171
Supply Projections						
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	150	0	0	150	5,017	5,167
For Comparison						
at 9/30/2016	595	0	0	595	4,623	5,218

¹ Includes walk-up and elevator-served apartments of one to four stories.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on tables 3.14 through 3.15 and tables 3.18 through 3.19. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

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TABLE 3.8
KEY MARKET INDICATORS FOR CLASS A RENTAL HIGH-RISE APARTMENTS
 Summary | Washington Metropolitan Area
 Third Quarter 2017

MARKET INDICATOR	GEOGRAPHIC AREA			WASHINGTON METRO AREA TOTAL/AVERAGE
	NORTHERN VIRGINIA	SUBURBAN MARYLAND	THE DISTRICT	
Number of Units Surveyed	30,254	11,986	27,325	69,565
Rent Levels (Avg. of All Unit Sizes)				
Face Rent	\$2,321	\$2,225	\$2,622	\$2,423
Concession as a % of Face Rents	1.4%	1.7%	1.4%	1.5%
Effective Rent	\$2,288	\$2,188	\$2,585	\$2,387
Effective Rent per Square Foot	\$2.60	\$2.42	\$3.14	\$2.78
Annual Effective Rent Increase				
- Since 1998	4.0%	2.6%	2.3%	3.1%
- Since 9/30/12	0.0%	-0.7%	0.9%	0.2%
- Since 9/30/16 ¹	-0.1%	1.3%	-1.3%	-0.3%
Vacancy September 2017				
Overall ²	6.7%	9.1%	12.7%	9.5%
Stabilized ³	3.5%	4.2%	4.7%	4.1%
Vacancy September 2016				
Overall ²	9.0%	9.6%	8.2%	8.8%
Stabilized ³	3.8%	4.4%	4.1%	4.0%
Absorption Trends				
# of Market Rate Units Absorbed Over the Past 12 Months	3,277	1,082	3,666	8,025
For Comparison				
12-Month Period Ending 9/30/2016	3,269	1,020	2,496	6,785
Supply Projections				
# of Market Rate Units Under Construction and Available Plus Planned for Delivery in the Next 36 Months ⁴	9,451	3,721	13,973	27,145
For Comparison				
at 9/30/2016	8,891	3,568	12,662	25,121

¹ Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

² Includes actively marketing projects.

³ Excludes actively marketing projects.

⁴ See list of under construction and planned projects on tables 3.14 through 3.15, tables 3.18 through 3.19, and tables 3.22 through 3.23. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

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TABLE 3.9
KEY MARKET INDICATORS FOR CLASS A RENTAL HIGH-RISE APARTMENTS
 Selected Submarkets | Northern Virginia
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET					NORTHERN VIRGINIA TOTAL/AVERAGE
	ALEXANDRIA	ROSSLYN/ BALLSTON CORRIDOR OF ARLINGTON	CRYSTAL CITY/ PENTAGON CITY	SOUTH ARLINGTON	N & W FAIRFAX ¹	
Number of Units Surveyed	6,212	9,048	5,083	2,197	7,714	30,254
Rent Levels (Avg. of All Unit Sizes)						
Face Rent	\$2,140	\$2,485	\$2,382	\$2,066	\$2,306	\$2,321
Concession as a % of Face Rents	1.6%	0.6%	2.5%	0.9%	1.7%	1.4%
Effective Rent	\$2,106	\$2,470	\$2,322	\$2,047	\$2,266	\$2,288
Effective Rent per Square Foot	\$2.39	\$2.92	\$2.63	\$2.23	\$2.48	\$2.60
Annual Effective Rent Increase						
- Since 1998	4.3%	4.1%	3.3%	N/A	N/A	4.0%
- Since 9/30/12	0.4%	0.6%	1.0%	-0.6%	-1.4%	0.0%
- Since 9/30/16 ²	-1.2%	0.9%	2.5%	0.1%	-2.1%	-0.1%
Vacancy September 2017						
Overall ³	6.3%	8.4%	5.7%	3.0%	6.8%	6.7%
Stabilized ⁴	4.5%	3.0%	4.8%	3.0%	2.7%	3.5%
Vacancy September 2016						
Overall ³	12.5%	4.5%	5.8%	8.5%	13.7%	9.0%
Stabilized ⁴	3.0%	4.1%	3.3%	3.3%	4.4%	3.8%
Absorption Trends						
# of Market Rate Units Absorbed Over the Past 12 Months	430	590	744	25	1,488	3,277
For Comparison						
12-Month Period Ending 9/30/2016	1,111	224	358	153	1,423	3,269
Supply Projections						
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	1,554	2,143	1,282	824	3,648	9,451
For Comparison						
at 9/30/2016	1,504	1,561	1,663	177	3,985	8,891

¹ Includes cities of Fairfax and Falls Church.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on tables 3.14 through 3.15. Under construction includes unleased units in projects not yet stabilized. Accounts for attrition.

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TABLE 3.10
KEY MARKET INDICATORS FOR CLASS A RENTAL HIGH-RISE APARTMENTS
 Selected Submarkets | Suburban Maryland
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET			SUBURBAN MARYLAND TOTAL/AVERAGE
	BETHESDA	N. BETHESDA/ ROCKVILLE	SILVER SPRING/ WHEATON	
Number of Units Surveyed	3,106	4,821	4,059	11,986
Rent Levels (Avg. of All Unit Sizes)				
Face Rent	\$2,736	\$2,093	\$1,991	\$2,225
Concession as a % of Face Rents	3.1%	1.2%	0.9%	1.7%
Effective Rent	\$2,652	\$2,068	\$1,974	\$2,188
Effective Rent per Square Foot	\$2.90	\$2.20	\$2.30	\$2.42
Annual Effective Rent Increase				
- Since 1998 ¹	3.5%	2.5%	2.0%	2.6%
- Since 9/30/12	0.3%	-1.2%	-0.8%	-0.7%
- Since 9/30/16 ²	1.5%	2.6%	-0.9%	1.3%
Vacancy September 2017				
Overall ³	7.4%	4.5%	15.9%	9.1%
Stabilized ⁴	4.0%	4.5%	4.1%	4.2%
Vacancy September 2016				
Overall ³	14.6%	11.1%	4.0%	9.6%
Stabilized ⁴	4.9%	4.5%	4.0%	4.4%
Absorption Trends				
# of Market Rate Units Absorbed Over the Past 12 Months	346	470	266	1,082
For Comparison				
12-Month Period Ending 9/30/2016	180	807	33	1,020
Supply Projections				
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	784	1,312	1,626	3,721
For Comparison				
at 9/30/2016	712	1,571	1,286	3,568

¹ Average annual rent increase in Silver Spring/Wheaton is from 2004.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on tables 3.18 and 3.19. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

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TABLE 3.11
KEY MARKET INDICATORS FOR CLASS A RENTAL HIGH-RISE APARTMENTS
 Selected Submarkets | The District
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET							THE DISTRICT TOTAL/AVERAGE
	UPPER NW	CENTRAL	COLUMBIA HEIGHTS/SHAW	NOMA/ H STREET	CAPITOL HILL/ RIVERFRONT/SW	NORTHEAST	UPPER GA	
Number of Units Surveyed	2,095	7,427	4,003	6,237	4,713	2,090	760	27,325
Rent Levels (Avg. of All Unit Sizes)								
Face Rent	\$2,929	\$2,886	\$2,753	\$2,443	\$2,477	\$2,163	\$2,154	\$2,622
Concession as a % of Face Rents	0.4%	1.2%	1.9%	1.2%	2.7%	0.6%	0.2%	1.4%
Effective Rent	\$2,917	\$2,852	\$2,700	\$2,413	\$2,410	\$2,149	\$2,150	\$2,585
Effective Rent per Square Foot	\$3.37	\$3.46	\$3.61	\$3.04	\$3.02	\$2.74	\$2.77	\$3.14
Annual Effective Rent Increase								
- Since 1998	4.3%	1.7%	N/A	N/A	N/A	N/A	N/A	2.3%
- Since 9/30/12	0.8%	0.5%	2.2%	-0.2%	1.6%	1.4%	0.2%	0.9%
- Since 9/30/16 ¹	-1.7%	-2.4%	-4.1%	-1.2%	3.2%	4.4%	-0.8%	-1.3%
Vacancy September 2017								
Overall ²	8.3%	5.1%	14.5%	17.0%	18.0%	19.8%	3.3%	12.7%
Stabilized ³	3.6%	4.5%	6.0%	4.4%	4.5%	5.6%	3.3%	4.7%
Vacancy September 2016								
Overall ²	18.7%	7.5%	4.9%	5.0%	12.1%	7.5%	9.1%	8.2%
Stabilized ³	6.2%	3.7%	3.6%	5.1%	4.7%	1.6%	5.0%	4.1%
Absorption Trends ⁴								
# of Market Rate Units Absorbed Over the Past 12 Months	248	344	358	935	1,655	74	52	3,666
For Comparison ⁴								
12-Month Period Ending 9/30/2016	381	188	460	173	644	534	116	2,496
Supply Projections								
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	460	939	1,869	3,987	5,609	1,052	0	13,973
For Comparison ⁴								
at 9/30/2016	260	1,316	1,310	3,942	4,801	871	51	12,662

¹ Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

² Includes actively marketing projects.

³ Excludes actively marketing projects.

⁴ Substate total includes some projects that do not fall into the identified submarkets.

⁵ See list of under construction and planned projects on tables 3.22 through 3.23. Accounts for attrition. Substate total includes some projects that do not fall into the identified submarkets.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

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TABLE 3.12
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
WASHINGTON METROPOLITAN AREA
 Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TOTAL UNITS ¹	DATE LEASING BEGAN	DATE OF DELIVERY	UNITS ABSORBED	MONTHLY ABSORPTION PACE PER QUARTER				OVERALL LEASE-UP PACE SINCE MARKETING BEGAN	CURRENT CONCESS. AS A % OF FACE RENT
						Q4 '16	Q1 '17	Q2 '17	Q3 '17		
LOW-RISE APARTMENTS											
1.	Modera Westside Laurel, Maryland	456	2/16	4/16	364	20	11	23	10	18	7%
2.	Urban Green Urbana, Maryland	354	8/16	8/16	218	34	5	12	13	17	5%
3.	Bainbridge Jefferson Place Frederick, Maryland	228	1/17	5/17	214	N/A	-- 3	-- 3	19	27	0%
4.	Evolution at Towne Center Laurel, Maryland	320	3/17	5/17	166	N/A	N/A	40	16	28	N/A
5.	Abberly Waterstone Stafford, Virginia	288	4/17	7/17	56	N/A	N/A	-- 3	19	11	5%
6.	700 Constitution Washington, DC	139	4/17	5/17	62	N/A	N/A	13	12	12	0%
7.	The Remy - Phase I New Carrollton, Maryland	278	8/17	9/17	27	N/A	N/A	N/A	27	27	N/A
MID-RISE APARTMENTS											
8.	Verde at Greenbelt Station Greenbelt, Maryland	302	4/16	4/16	277	13	24	12	35	16	8%
9.	Hanover Shady Grove Rockville, Maryland	316	5/16	5/16	292	19	18	22	4	18	8%
10.	Monument Village College Park, Maryland	235	5/16	5/16	142	8	6	17	6	9	6%
11.	Ascend Apollo Largo, Maryland	500	6/16	10/16	308	13	21	20	11	21	N/A
12.	Solaire Bethesda Bethesda, Maryland	118	7/16	9/16	103	8	8	3	14	7	8%
13.	Haden Tysons Corner, Virginia	340	7/16	8/16	249	-- 3	21	23	3	18	N/A
14.	Apollo H Street Washington, DC	398	9/16	11/16	219	10	23	24	16	18	2%
15.	Abberly at Southpoint Fredericksburg Virginia	280	9/16	12/16	180	3	25	17	15	15	2%
16.	The Majestic at Watkins Mill Gaithersburg, Maryland	243	10/16	10/16	170	29	2	-- 3	-- 3	15	0%
17.	Belvoir Square Fort Belvoir, Virginia	248	11/16	3/17	106	1	5	16	13	11	8%
18.	Windmill Parc - Phase II Dulles Town Center, Virginia	112	1/17	3/17	88	N/A	-- 2	-- 3	-- 3	11	N/A

TABLE 3.12
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
WASHINGTON METROPOLITAN AREA
 Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TOTAL UNITS ¹	DATE LEASING BEGAN	DATE OF DELIVERY	UNITS ABSORBED	MONTHLY ABSORPTION PACE PER QUARTER				OVERALL LEASE-UP PACE SINCE MARKETING BEGAN	CURRENT CONCESS. AS A % OF FACE RENT
						Q4 '16	Q1 '17	Q2 '17	Q3 '17		
MID-RISE APARTMENTS (CONTINUED)											
19.	Camden Shady Grove Rockville, Maryland	399	2/17	2/17	151	N/A	28	14	27	22	N/A
20.	South Cathedral Mansions Washington, DC	136	2/17	2/17	54	N/A	3	14	3	8	N/A
21.	Highgate at the Mile Tysons Corner, Virginia	329	4/17	5/17	198	N/A	N/A	41	39	40	8%
22.	Reed Row Washington, DC	118	5/17	6/17	49	N/A	N/A	22	9	12	8%
23.	The Modern at Art Place Washington, DC	379	5/17	8/17	60	N/A	N/A	50	3	15	0%
24.	880 P Washington, DC	138	5/17	8/17	30	N/A	N/A	26	1	8	0%
25.	The Daley Rockville, Maryland	256	5/17	5/17	40	N/A	N/A	18	7	13	N/A
26.	The Edison Washington, DC	149	5/17	8/17	33	N/A	N/A	-- 2	11	8	0%
27.	Ten at Clarendon Arlington, Virginia	137	5/17	7/17	39	N/A	N/A	-- 2	13	10	0%
28.	The Loren Falls Church, Virginia	165	6/17	6/17	31	N/A	N/A	N/A	10	10	0%
29.	Aperture at Reston Station Reston, Virginia	371	7/17	8/17	7	N/A	N/A	N/A	4	4	N/A
30.	13th U Washington, DC	117	8/17	8/17	31	N/A	N/A	N/A	31	31	0%
31.	AVA Wheaton Wheaton, Maryland	319	8/17	8/17	36	N/A	N/A	N/A	36	36	N/A
32.	Central Silver Spring, Maryland	212	8/17	8/17	39	N/A	N/A	N/A	39	39	N/A
33.	Brookland Press Washington, DC	284	8/17	11/17	18	N/A	N/A	N/A	18	18	N/A
HIGH-RISE APARTMENTS											
34.	BLVD Reston Station Reston, Virginia	360	11/15	3/16	300	17	16	29	(5)	14	0%
35.	The Bartlett Arlington, Virginia	699	3/16	6/16	669	-- 3	35	31	(0)	37	8%
36.	7770 Norfolk Avenue Bethesda, Maryland	200	3/16	3/16	177	9	7	5	(1)	10	N/A

TABLE 3.12
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
WASHINGTON METROPOLITAN AREA
 Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TOTAL UNITS ¹	DATE LEASING BEGAN	DATE OF DELIVERY	UNITS ABSORBED	MONTHLY ABSORPTION PACE PER QUARTER				OVERALL LEASE-UP PACE SINCE MARKETING BEGAN	CURRENT CONCESS. AS A % OF FACE RENT
						Q4 '16	Q1 '17	Q2 '17	Q3 '17		
HIGH-RISE APARTMENTS (CONTINUED)											
37.	Flats 8300 Bethesda, Maryland	287	3/16	5/16	246	6	7	13	15	14	8%
38.	Parc Meridian Alexandria, Virginia	472	4/16	5/16	453	38	24	26	10	25	1%
39.	Dock 79 Washington, DC	280	5/16	9/16	271	12	20	16	10	17	0%
40.	5333 Connecticut Washington, DC	242	5/16	6/16	221	--	--	20	15	14	0%
41.	Latitude Arlington, Virginia	251	7/16	9/16	143	--	--	12	13	10	8%
42.	The Hepburn Washington, DC	195	7/16	8/16	157	9	6	14	10	11	4%
43.	Element 28 Bethesda, Maryland	88	8/16	1/17	59	3	2	8	6	5	10%
44.	m. Flats Crystal City Arlington, Virginia	182	8/16	10/16	148	8	14	10	16	11	N/A
45.	e-lofts Alexandria Alexandria, Virginia	200	9/16	11/16	106	1	10	-- 3	-- 3	9	8%
46.	Ore 82 Washington, DC	227	10/16	11/16	224	32	22	11	21	20	3%
47.	Anthology Washington, DC	307	10/16	11/16	260	21	20	27	25	24	0%
48.	Berkshire 15 Washington, DC	96	11/16	11/16	78	17	7	9	4	8	8%
49.	One Hill South Washington, DC	382	1/17	3/17	229	N/A	43	34	14	29	N/A
50.	Union on Queen Arlington, Virginia	113	1/17	1/17	89	N/A	44	1	(0)	11	2%
51.	F1rst Residences Washington, DC	275	2/17	4/17	170	N/A	6	37	18	24	8%
52.	Camden NoMa - Phase II Washington, DC	405	2/17	2/17	218	N/A	28	29	34	31	3%
53.	Central Place Arlington, Virginia	377	2/17	1/17	184	N/A	37	49	(0)	26	0%
54.	The Pearl Silver Spring, Maryland	276	2/17	2/17	95	N/A	-- 2	20	12	14	0%
55.	Eliot on 4th Washington, DC	365	3/17	5/17	164	N/A	N/A	28	27	27	8%

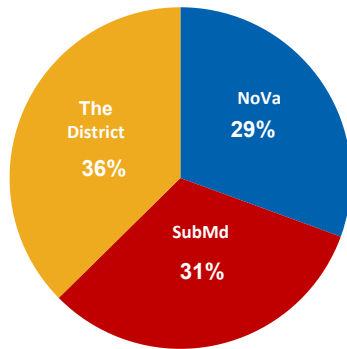
TABLE 3.12
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
WASHINGTON METROPOLITAN AREA
 Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TOTAL UNITS ¹	DATE LEASING BEGAN	DATE OF DELIVERY	UNITS ABSORBED	MONTHLY ABSORPTION PACE PER QUARTER				OVERALL LEASE-UP PACE SINCE MARKETING BEGAN	CURRENT CONCESS. AS A % OF FACE RENT
						Q4 '16	Q1 '17	Q2 '17	Q3 '17		
HIGH-RISE APARTMENTS (CONTINUED)											
56.	The Vintage Washington, DC	85	4/17	4/17	56	N/A	N/A	15	9	11	8%
57.	AVA NoMa Washington, DC	438	4/17	5/17	219	N/A	N/A	60	33	44	0%
58.	Incanto Washington, DC	101	5/17	9/17	16	N/A	N/A	2	5	4	N/A
59.	The Channel Washington, DC	348	5/17	10/17	48	N/A	N/A	2	15	12	N/A
60.	Core Silver Spring, Maryland	240	5/17	5/17	101	N/A	N/A	77	8	25	N/A
61.	455 Eye Washington, DC	174	5/17	6/17	153	N/A	N/A	76	26	38	0%
62.	Insignia on M Washington, DC	324	5/17	5/17	152	N/A	N/A	47	35	38	12%
63.	The Henri Rockville, Maryland	225	5/17	8/17	101	N/A	N/A	41	20	25	N/A
64.	The Rixey Arlington, Virginia	256	8/17	9/17	55	N/A	N/A	N/A	55	55	N/A
	at Third Quarter 2017	17,134	--	--	9,619	--	--	--	--	17	3%
	at Third Quarter 2016	18,522	--	--	10,029	--	--	--	--	17	3%
	at Third Quarter 2015	18,639	--	--	11,548	--	--	--	--	16	4%
	at Third Quarter 2014	18,987	--	--	9,886	--	--	--	--	15	4%
	at Third Quarter 2013	13,857	--	--	7,361	--	--	--	--	16	8%
	at Third Quarter 2012	8,448	--	--	3,343	--	--	--	--	18	8%
	at Third Quarter 2011	5,045	--	--	3,248	--	--	--	--	17	7%

TABLE 3.12
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
WASHINGTON METROPOLITAN AREA
 Third Quarter 2017

SUBSTATE SHARE OF ACTIVELY MARKETING CLASS A APARTMENT UNITS

Washington Metro | Third Quarter 2017



¹ Includes only market-rate units.
² Projects began leasing after this publication had gone to press.
³ Property did not participate in our survey.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.
 Last update: September 2017.

UNIT VOLUME AND OVERALL LEASE-UP PACE OF ACTIVELY MARKETING CLASS A APARTMENT PROJECTS

Washington Metro | Third Quarter 2011 - 2017

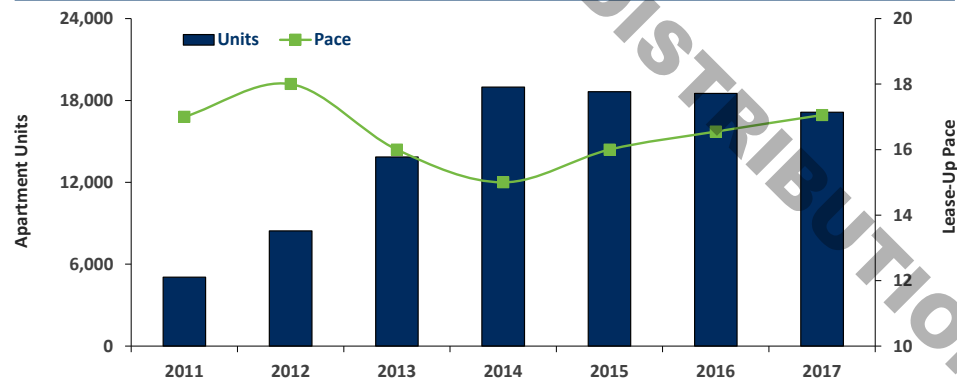


TABLE 3.13 ABSORPTION SUMMARY CLASS A APARTMENT PROJECTS WASHINGTON METROPOLITAN AREA Third Quarter 2014 Through Third Quarter 2017						
COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS	DATE MARKETING BEGAN	DATE DELIVERED	DATE STABILIZED
1.	The Woodley Washington, DC	High-Rise	212	7/14	7/14	2/16
2.	2 M Street Washington, DC	High-Rise	297	7/14	8/14	8/15
3.	Elevation at Washington Gateway Washington, DC	High-Rise	367	7/14	8/14	11/15
4.	Arcadia Run - Phase II Manassas, Virginia	Low-Rise	160	7/14	9/14	11/15
5.	Tellus Arlington, Virginia	High-Rise	254	7/14	8/14	5/16
6.	Modera Tempo Alexandria, Virginia	Mid-Rise	492	7/14	10/14	2/17
7.	Meridian at Mt. Vernon Triangle - Phase II Washington, DC	High-Rise	395	8/14	10/14	2/16
8.	The Shelby Alexandria, Virginia	Mid-Rise	210	8/14	9/14	11/15
9.	Takoma Central Washington, DC	Mid-Rise	150	8/14	2/15	11/15
10.	Windmill Parc Dulles, Virginia	Mid-Rise	214	8/14	1/15	11/15
11.	The Swift Washington, DC	Mid-Rise	200	8/14	9/14	2/16
12.	The Drake Washington, DC	High-Rise	201	9/14	9/14	5/15
13.	Dorchester West Washington, DC	Mid-Rise	117	9/14	9/14	8/15
14.	Jefferson at Market Place Washington, DC	High-Rise	227	9/14	9/14	11/15
15.	Avalon Potomac Yard (fmly. The Alric) Alexandria, Virginia	Mid-Rise	323	9/14	9/14	2/16
16.	Parc Riverside Washington, DC	High-Rise	287	9/14	12/14	2/16
17.	The Esplanade National Harbor, Maryland	Mid-Rise	262	9/14	1/15	5/16
18.	2001 Clarendon Blvd. Arlington, Virginia	Mid-Rise	154	10/14	10/14	5/15
19.	Orchard Bridge Manassas, Virginia	Low-Rise	368	10/14	10/14	8/15
20.	VITA Tysons Corner, Virginia	High-Rise	390	10/14	5/15	5/17
21.	Cathedral Commons Washington, DC	Mid-Rise	123	11/14	1/15	11/15

TABLE 3.13 ABSORPTION SUMMARY CLASS A APARTMENT PROJECTS WASHINGTON METROPOLITAN AREA Third Quarter 2014 Through Third Quarter 2017						
COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS	DATE MARKETING BEGAN	DATE DELIVERED	DATE STABILIZED
22.	East of Market Frederick, Maryland	Low-Rise	160	11/14	9/15	2/16
23.	The Maxwell Arlington, Virginia	Mid-Rise	163	12/14	1/15	2/16
24.	C Street Flats Laurel, Maryland	Mid-Rise	142	12/14	4/15	2/16
25.	The Links at Geneagles Waldorf, Maryland	Low-Rise	213	12/14	1/15	6/16
26.	450 K (fmy. m. Flats Mount Vernon Triangle) Washington, DC	High-Rise	233	12/14	1/15	5/16
27.	Lex at Waterfront Station Washington, DC	High-Rise	211	12/14	12/14	5/16
28.	The Bradley Braddock Road Station Alexandria, Virginia	High-Rise	165	1/15	3/15	5/16
29.	The Colonel Washington, DC	Mid-Rise	64	1/15	2/15	8/15
30.	7001 Arlington at Bethesda Bethesda, Maryland	High-Rise	119	1/15	4/15	2/16
31.	Station 650 Alexandria, Virginia	Mid-Rise	193	1/15	2/15	2/16
32.	Avalon Falls Church Falls Church, Virginia	Low-Rise	330	1/15	2/15	8/16
33.	Kensington Place - Phase II Woodbridge, Virginia	Low-Rise	183	2/15	3/15	11/15
34.	Modera Mosaic Merrifield, Virginia	Mid-Rise	217	2/15	8/15	2/16
35.	The Terano Rockville, Maryland	Mid-Rise	182	2/15	5/15	8/16
36.	Mallory Square - Ph. I Rockville, Maryland	Low-Rise	315	2/15	3/15	2/17
37.	The Perry at Park Potomac Apartments Potomac, Maryland	Mid-Rise	297	3/15	7/15	2/17
38.	Station House Washington, DC	High-Rise	349	3/15	3/15	8/16
39.	Verde Pointe Arlington, Virginia	High-Rise	187	3/15	6/15	11/16
40.	Aspire Apollo Camp Springs, Maryland	Low-Rise	417	3/15	6/15	5/17
41.	Upton at Rockville Rockville, Maryland	High-Rise	223	4/15	5/15	11/16
42.	The Frasier Alexandria, Virginia	Mid-Rise	249	4/15	4/15	11/16

TABLE 3.13 ABSORPTION SUMMARY CLASS A APARTMENT PROJECTS WASHINGTON METROPOLITAN AREA Third Quarter 2014 Through Third Quarter 2017						
COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS	DATE MARKETING BEGAN	DATE DELIVERED	DATE STABILIZED
43.	Flats at Bethesda Avenue Bethesda, Maryland	High-Rise	124	4/15	6/15	5/17
44.	The Sutton Woodbridge, Virginia	Low-Rise	420	4/15	6/15	5/17
45.	Tapestry Largo Station Upper Marlboro, Maryland	Mid-Rise	318	4/15	6/15	5/17
46.	The Acadia at Metropolitan Park Arlington, Virginia	High-Rise	411	4/15	6/15	5/17
47.	The Parker at Huntington Metro Alexandria, Virginia	Mid-Rise	306	5/15	9/15	5/17
48.	Pallas Apartments at Pike & Rose North Bethesda, Maryland	High-Rise	287	5/15	7/15	5/17
49.	Gables Upper Rock - Phase II North Rockville, Maryland	Mid-Rise	241	5/15	7/15	5/16
50.	Modera Avenir Place Phase II Merrifield, Virginia	Mid-Rise	353	5/15	7/15	11/16
51.	Fort Totten Square - Phase I Washington, DC	Mid-Rise	345	5/15	6/15	2/17
52.	Pike 3400 Arlington, Virginia	Mid-Rise	256	5/15	7/15	2/17
53.	Halstead Square - The Lanes Vienna, Virginia	Mid-Rise	166	6/15	7/15	11/16
54.	2255 Wisconsin Avenue Washington, DC	Mid-Rise	81	6/15	8/15	2/16
55.	Alta Liberty Mill Germantown, Maryland	Mid-Rise	278	6/15	7/15	5/17
56.	1600 Pennsylvania Avenue Washington, DC	Mid-Rise	69	7/15	7/15	2/16
57.	Bainbridge Shady Grove Rockville, Maryland	Mid-Rise	417	7/15	8/15	8/16
58.	Notch 8 Alexandria, Virginia	Mid-Rise	241	7/15	8/15	11/16
59.	The Shay Washington, DC	Mid-Rise	227	8/15	10/15	2/17
60.	Atlantic Plumbing Washington, DC	High-Rise	281	9/15	9/15	11/16
61.	Station Square at Cosner's Corner Ph. II Fredericksburg, Virginia	Low-Rise	120	9/15	12/15	8/16
62.	Nouvelle Tysons Corner, Virginia	High-Rise	384	9/15	10/15	5/17
63.	The Hecht Warehouse Washington, DC	Mid-Rise	331	10/15	12/15	8/17

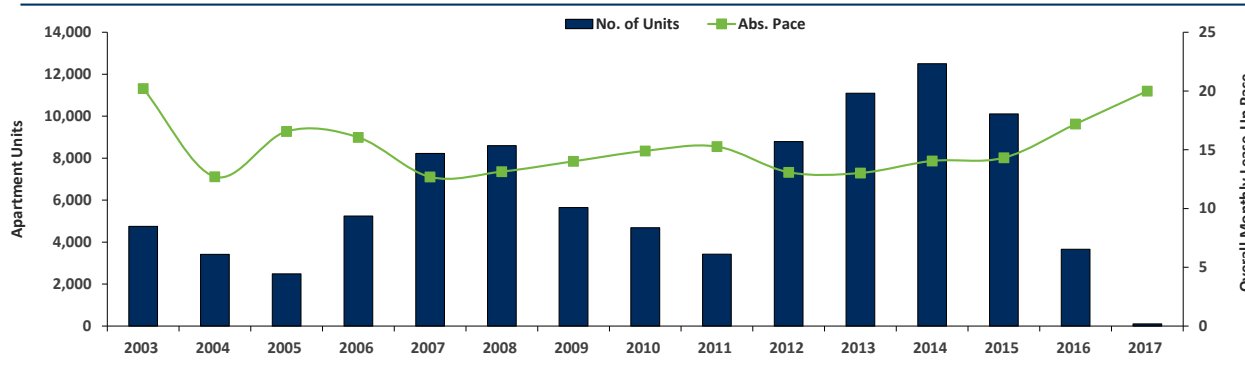
TABLE 3.13 ABSORPTION SUMMARY CLASS A APARTMENT PROJECTS WASHINGTON METROPOLITAN AREA Third Quarter 2014 Through Third Quarter 2017						
COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS	DATE MARKETING BEGAN	DATE DELIVERED	DATE STABILIZED
64.	Galvan Rockville, Maryland	Mid-Rise	302	10/15	12/15	8/17
65.	West Broad Falls Church, Virginia	High-Rise	267	11/15	3/16	5/17
66.	The Corcoran at 14th Washington, DC	Mid-Rise	32	11/15	12/15	2/16
67.	The Flats at Neabsco Woodbridge, Virginia	Mid-Rise	186	12/15	12/15	2/17
68.	Modera Fairfax Ridge Fairfax, Virginia	Low-Rise	178	12/15	12/15	8/17
69.	Park Van Ness Washington, DC	Mid-Rise	243	1/16	4/16	8/17
70.	Park Chelsea at the Collective Washington, DC	High-Rise	434	1/16	6/16	8/17
71.	Tenley View Washington, DC	Mid-Rise	60	1/16	3/16	11/16
72.	Arris Washington, DC	High-Rise	256	2/16	3/16	5/17
73.	Silver Collection at Cosner's Corner Fredericksburg, Virginia	Low-Rise	270	3/16	6/16	5/17
74.	Willow & Maple Washington, DC	Low-Rise	89	4/16	4/16	5/17
75.	The Elms at Signal Hill Station Manassas Park, Virginia	Low-Rise	296	4/16	6/16	8/17
76.	Palisades at Manassas Park - Ph. I Manassas Park, Virginia	Low-Rise	168	5/16	9/16	8/17
77.	Elms at Arcola Arcola, Virginia	Low-Rise	224	5/16	5/16	5/17
78.	Lincoln at Discovery Square Herndon, Virginia	Mid-Rise	342	7/16	8/16	5/17
79.	Avalon Laurel Laurel, Maryland	Low-Rise	311	7/16	8/16	8/17
80.	Lincoln at Tinner Hill Falls Church, Virginia	Mid-Rise	224	7/16	8/16	8/17
81.	Adaire Tysons Corner, Virginia	High-Rise	400	8/16	8/16	8/17
82.	The Aspen DC Washington, DC	High-Rise	133	9/16	8/16	8/17
83.	Elysium Fourteen Washington, DC	High-Rise	56	9/16	10/16	8/17
84.	The Bixby - The Lofts at Captiol Quarter Washington, DC	Low-Rise	156	10/16	12/16	8/17

TABLE 3.13
ABSORPTION SUMMARY | CLASS A APARTMENT PROJECTS
WASHINGTON METROPOLITAN AREA
Third Quarter 2014 Through Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS	DATE MARKETING BEGAN	DATE DELIVERED	DATE STABILIZED
85.	Palisades at Manassas Park - Ph. II Manassas Park, Virginia	Low-Rise	100	3/17	6/17	8/17
Overall Total/Average (1996-Present):			124,950	--	--	--
Those That Began Marketing in 2003: Total/Average:			4,750	--	--	--
Those That Began Marketing in 2004: Total/Average:			3,418	--	--	--
Those That Began Marketing in 2005: Total/Average:			2,485	--	--	--
Those That Began Marketing in 2006: Total/Average:			5,243	--	--	--
Those That Began Marketing in 2007: Total/Average:			8,226	--	--	--
Those That Began Marketing in 2008: Total/Average:			8,592	--	--	--
Those That Began Marketing in 2009: Total/Average:			5,649	--	--	--
Those That Began Marketing in 2010: Total/Average:			4,687	--	--	--
Those That Began Marketing in 2011: Total/Average:			3,424	--	--	--
Those That Began Marketing in 2012: Total/Average:			8,786	--	--	--
Those That Began Marketing in 2013: Total/Average:			11,090	--	--	--
Those That Began Marketing in 2014: Total/Average:			12,500	--	--	--
Those That Began Marketing in 2015: Total/Average:			10,111	--	--	--
Those That Began Marketing in 2016: Total/Average:			3,662	--	--	--
Those That Began Marketing in 2017: Total/Average:			100	--	--	--

MARKETING STARTS AND OVERALL MONTHLY LEASE-UP PACE FOR STABILIZED PROJECTS

Washington Metro Area | 2003-2017



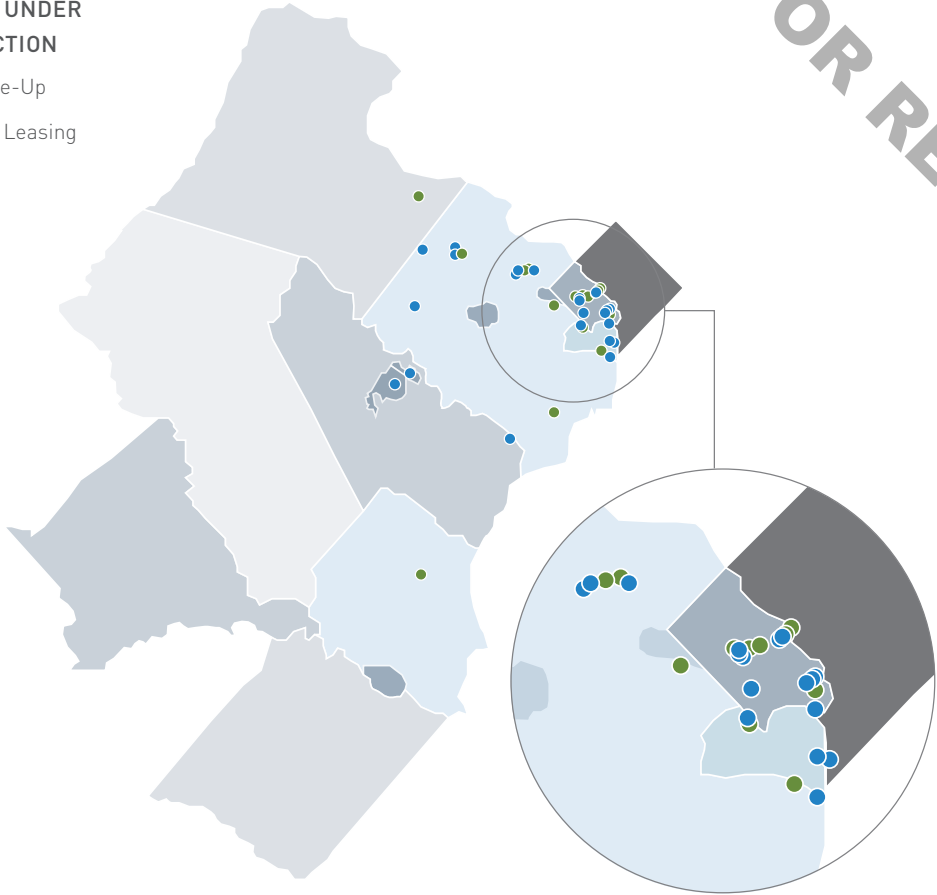
¹ Includes months of pre-leasing activity.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.
 Last update: September 2017.

MAP 3.1
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING | NORTHERN VIRGINIA
Third Quarter 2017

PROJECTS UNDER CONSTRUCTION

- In Lease-Up
- Not Yet Leasing



Source: Delta Associates Last update: September 2017.

TABLE 3.14
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 Northern Virginia
 Third Quarter 2017

Project Name/Location	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
City of Alexandria									
1 The Thornton	Mid-Rise	Alexandria	Foulger-Pratt	369	0	369	1/2018	3/2018	6/2018
2 The Dalton	High-Rise	Braddock Metro	Trammell Crow Company	270	0	270	Q4 2017	Q4 2017	1/2018
3 Parc Meridian	High-Rise	Eisenhower	Paradigm	472	453	19	4/2016	Q2 2016	Q3 2016
4 Gables Old Town North	Mid-Rise	Old Town North	Gables Residential	223	0	223	Q3 2018	Q3 2018	Q4 2018
5 e-lofts Alexandria	High-Rise	West Alexandria	Novus Residences	200	106	94	9/2016	11/2016	12/2016
6 The Gateway Alexandria	Mid-Rise	West Alexandria	Abramson Properties	278	0	278	Q3 2019	Q4 2019	Q4 2019
Arlington County									
7 672 Flats	Mid-Rise	Ballston	Penrose Group	164	0	164	12/2017	2/2018	3/2018
8 750 N. Glebe Rd	High-Rise	Ballston	B.F. Saul	491	0	491	N/A	Q1 2020	Q1 2020
9 Ballston Quarter	High-Rise	Ballston	Forest City Washington	406	0	406	Q3 2018	Q4 2018	Q4 2018
10 The Rixey	High-Rise	Ballston	The Shooshan Co.	256	55	201	8/2017	9/2017	9/2017
11 Cherry Hill Apartments	Low-Rise	Cherrydale	Dittmar	93	0	93	Q1 2019	Q2 2019	Q2 2019
12 Ten at Clarendon	Mid-Rise	Clarendon	Clark Realty Capital	135	59	76	5/2017	7/2017	7/2017
13 Columbia Pike Village Center	Mid-Rise	Columbia Pike	Orr Partners	365	0	365	Q1 2019	Q2 2019	Q3 2019
14 The Trove	Mid-Rise	Columbia Pike	Washington REIT	401	0	401	Q3 2019	Q3 2019	Q3 2020
15 m. Flats Crystal City	High-Rise	Crystal City	Kettler	182	148	34	8/2016	10/2016	12/2016
16 The Altaire - North	High-Rise	Crystal City	LCOR	150	0	150	Q2 2018	Q3 2018	Q4 2018
17 The Altaire - South	High-Rise	Crystal City	LCOR	286	0	286	Q2 2018	Q3 2018	Q4 2018
18 Gables Pointe 14	High-Rise	Fort Myer	Gables Residential	331	0	331	Q3 2018	Q4 2018	Q1 2019
19 The Bartlett	High-Rise	Pentagon City	JBG Smith	699	669	30	5/2016	6/2016	Q4 2016
20 VIA Pentagon City	High-Rise	Pentagon City	Kimco Redevelopment Group	440	0	440	Q1 2019	Q1 2019	4/2019
21 National Gateway - Phase II	High-Rise	Potomac Yard	Property Reserve, Inc	342	0	342	Q1 2018	Q2 2018	Q2 2018
22 Central Place	High-Rise	Rosslyn	JBG Smith	377	184	193	2/2017	1/2017	Q2 2017
23 Union on Queen	High-Rise	Rosslyn	Bozzuto	113	89	24	1/2017	1/2017	1/2017
24 Latitude	High-Rise	Virginia Square	Penrose Group	251	143	108	7/2016	9/2016	12/2016
Fairfax County ¹									
21 The Preserve at Westfields	Mid-Rise	Chantilly	Elm Street Development	572	0	572	Q2 2019	Q3 2019	Q3 2019
22 Belvoir Square	Mid-Rise	Fort Belvoir	Chesapeake Realty Partners	248	106	142	11/2016	3/2017	5/2017
23 Station on Silver	Mid-Rise	Herndon	Woodfield Investments	342	0	342	Q4 2017	Q4 2017	Q3 2018
24 Aperture at Reston Station	Mid-Rise	Reston	Bozzuto	371	7	364	7/2017	Q3 2017	Q3 2017
25 BLVD Reston Station	High-Rise	Reston	Comstock	360	300	60	11/2015	3/2016	4/2016
26 VY	Mid-Rise	Reston	JBG Smith	385	0	385	10/2017	11/2017	Q1 2018
27 The Signature	High-Rise	Reston Town Center	Boston Properties	427	0	427	Q4 2017	Q1 2018	Q3 2018
28 Haden	Mid-Rise	Tysons Corner	JLB Partners	340	249	91	7/2016	8/2016	12/2016
29 Highgate at the Mile	Mid-Rise	Tysons Corner	Kettler	329	198	131	4/2017	5/2017	Q4 2017
30 Kingston at Anderson Park	High-Rise	Tysons Corner	LCOR	256	0	256	Q4 2017	Q4 2017	Q1 2018
31 Lumen at Tysons	High-Rise	Tysons Corner	Lennar	318	0	318	Q2 2018	Q3 2018	Q2 2019
32 The Boro - Tower A1	High-Rise	Tysons Corner	Kettler	323	0	323	Q2 2019	Q2 2019	Q3 2019
33 The Boro - Tower A3	High-Rise	Tysons Corner	Kettler	78	0	78	Q2 2019	Q2 2019	Q3 2019
34 The Loren	Mid-Rise	Seven Corners	Bozzuto	165	31	134	6/2017	6/2017	Q3 2017
Loudoun County									
47 Windmill Parc - Phase II	Mid-Rise	Dulles	Lerner Enterprises	112	88	24	1/2017	3/2017	6/2017

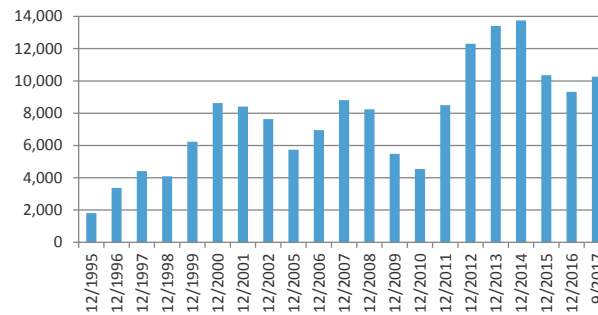
TABLE 3.14 RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING Northern Virginia Third Quarter 2017										
Project Name/Location	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete	
Prince William County ²										
48 Park Towers	Mid-Rise	Manassas Park	Talal Hassan	202	0	202	Q3 2018	Q3 2018	Q3 2018	
49 Abberly Avera	Low-Rise	Prince William	HHHunt	288	0	288	Q2 2018	Q3 2018	Q3 2018	
50 Rivergate - Phase I	Mid-Rise	Woodbridge	IDI Group	402	0	402	Q4 2017	Q1 2018	Q2 2018	
Stafford, Spotsylvania, City of Fredericksburg										
53 Abberly at Southpoint	Mid-Rise	Southpoint	HHHunt	280	180	100	9/2016	12/2016	Q3 2017	
54 Abberly Waterstone	Low-Rise	Stafford	HHHunt	288	56	232	4/2017	7/2017	1/2018	
Total:	-	-	-	13,380	3,121	10,259	-	-	-	

¹ Includes cities of Fairfax and Falls Church.

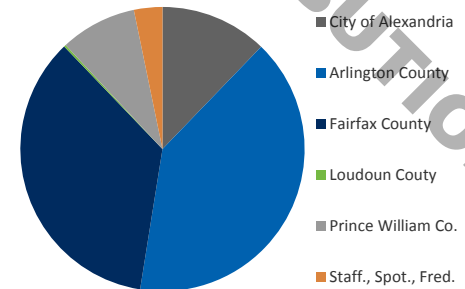
² Includes cities of Manassas and Manassas Park.

Comparison to Prior Years Available Units in Projects Under Construction at:	
Date	# Units
9/2017	10,259
12/2016	9,320
12/2015	10,357
12/2014	13,750
12/2013	13,405
12/2012	12,304
12/2011	8,496
12/2010	4,547
12/2009	5,480
12/2008	8,242
12/2007	8,807
12/2006	6,949
12/2005	5,741
12/2004	6,253
12/2003	7,574
12/2002	7,630
12/2001	8,410
12/2000	8,633

Available Units in Projects Under Construction



of Available Market Rate Units



Note: This Table may include some projects listed on Table 3.11

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.15
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
City of Alexandria								
1 Braddock Gateway Phase II	High-Rise	Braddock Metro	258	Yes	Yes	Yes	No	7/2018
2 Cameron Park	Mid-Rise	Cameron Station	391	No	No	No	No	Q1 2018
3 Carlyle Plaza Two South	High-Rise	Carlyle	382	Yes	Yes	No	No	Q4 2017
4 2901 Eisenhower Avenue Phase I	High-Rise	Eisenhower	323	Yes	Yes	No	No	Q4 2017
Arlington County								
5 4201 Fairfax Drive	Mid-Rise	Ballston	72	No	No	No	No	Q4 2017
6 Carpool Site	High-Rise	Ballston	330	Yes	Yes	No	No	Q4 2017
Fairfax County¹								
7 e-lofts at 5600 Columbia Pike	Mid-Rise	Bailey's Crossroads	157	Yes	Yes	No	No	Q4 2017
8 Trinity Centre	Mid-Rise	Centreville	310	Yes	Yes	Yes	No	Q3 2017
9 Scout on the Circle	Mid-Rise	Fair Oaks	400	Yes	Yes	Yes	No	Q4 2017
10 Fairfax Towne Center	Mid-Rise	Fairfax	175	Yes	No	No	No	Q1 2018
11 Arrowbrook Centre - Ph. I	Mid-Rise	Herndon	177	Yes	Yes	Yes	No	Q4 2017
12 Huntington Crossing	Mid-Rise	Huntington	256	No	No	No	No	Q2 2018
13 South Alex	Mid-Rise	Huntington	346	Yes	Yes	Yes	No	Q1 2018
14 Fairfax Gateway	Mid-Rise	Kamp Washington	379	Yes	Yes	Yes	No	Q1 2018
15 Reston Heights - Phase II	Mid-Rise	Reston	200	Yes	Yes	Yes	No	Q1 2018
16 Highland District - Ph. I	High-Rise	Tysons Corner	320	Yes	No	No	No	Q1 2018
17 Founders Row	Mid-Rise	Falls Church	299	Yes	Yes	No	No	Q1 2018
Loudoun County								
18 Fox Gate	Mid-Rise	Chantilly	110	Yes	Yes	Yes	No	Q4 2018
19 The Hub	High-Rise	Dulles	412	Yes	No	No	No	Q4 2017

TABLE 3.15
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Prince William County ²								
20 Neabsco Commons - Phase II	Mid-Rise	Woodbridge	150	Yes	Yes	Yes	No	2017
Total:	-	-	5,447	-	-	-	-	-
Total with Attrition:	-	-	2,015	-	-	-	-	-

¹ Includes cities of Fairfax and Falls Church.

² Includes cities of Manassas and Manassas Park.

Comparison to Prior Years

Estimate of Next 18 - 36 Month Pipeline as of:

Date	# Units
9/2017	5,447
12/2016	7,612
12/2015	6,716
12/2014	9,746
12/2013	11,325
12/2012	13,078
12/2011	13,253
12/2010	12,490
12/2009	9,398
12/2008	10,022
12/2007	11,875
12/2006	5,284
12/2005	1,333
12/2004	5,043
12/2003	6,155
12/2002	6,189
12/2001	8,025
12/2000	7,677

Note: Projects planned to deliver their first units in the next 36 months. See Table 2.1 for materialization factor. If we have missed your project, please contact us. Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.16
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
City of Alexandria								
1 200 Stovall St.	High-Rise	Carlyle	525	No	No	No	No	N/A
2 Eisenhower Block 11	High-Rise	Carlyle	375	Yes	Yes	Yes	No	N/A
3 Eisenhower Block 12	High-Rise	Carlyle	380	Yes	Yes	No	No	N/A
4 Eisenhower Block 4 & 5	High-Rise	Carlyle	400	No	No	No	No	Q1 2019
5 2901 Eisenhower Avenue Phase II	High-Rise	Eisenhower	190	Yes	Yes	No	No	Q2 2019
6 Beauregard Town Center - Block F1	Mid-Rise	West Alexandria	183	No	No	No	No	N/A
7 Beauregard Town Center - Block G	Mid-Rise	West Alexandria	390	No	No	No	No	N/A
8 Beauregard Town Center - Other Phases	Mid-Rise	West Alexandria	800	No	No	No	No	N/A
9 Landmark Mall Redevelopment	Mid-Rise	West Alexandria	400	Yes	Yes	No	No	N/A
Arlington County								
10 4040 Wilson Blvd.	High-Rise	Ballston	244	Yes	Yes	Yes	No	Q2 2018
11 4610 North Fairfax Drive	High-Rise	Ballston	238	No	No	No	No	N/A
12 Clarendon West - Phase I	Mid-Rise	Clarendon	244	Yes	Yes	Yes	No	N/A
13 Clarendon West - Phase II	Mid-Rise	Clarendon	330	Yes	Yes	Yes	No	N/A
14 2400 Columbia Pike	Mid-Rise	Columbia Pike	105	Yes	Yes	No	No	N/A
15 Wakefield Manor Redevelopment	High-Rise	Courthouse	104	Yes	Yes	Yes	No	N/A
16 1770 Crystal Dive	High-Rise	Crystal City	650	N/A	N/A	N/A	N/A	N/A
17 Airport Plaza Phase IV	High-Rise	Crystal City	208	Yes	Yes	Yes	No	N/A
18 Century Center Addition	High-Rise	Crystal City	302	No	No	No	No	N/A
19 Crystal House III	Mid-Rise	Crystal City	252	Yes	No	No	No	N/A
20 Plaza V	High-Rise	Crystal City	353	No	No	No	No	N/A
21 Riverhouse	Mid-Rise	Pentagon City	933	No	No	No	No	N/A
22 Seven and Eight Metropolitan Park	High-Rise	Pentagon City	826	Yes	Yes	No	No	N/A
23 Six Metropolitan Park	High-Rise	Pentagon City	577	Yes	Yes	Yes	No	N/A
24 1400 block of Key Blvd	High-Rise	Rosslyn	130	No	No	No	No	N/A
25 1555 Wilson - East Tower	High-Rise	Rosslyn	561	Yes	Yes	No	No	N/A
26 1555 Wilson - West Tower	High-Rise	Rosslyn	331	Yes	Yes	No	No	N/A
27 1901 N. Moore Street	High-Rise	Rosslyn	285	Yes	No	No	No	N/A
28 Rosslyn Plaza -Redev.	High-Rise	Rosslyn	550	Yes	Yes	Yes	No	N/A

TABLE 3.16
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Fairfax County ¹								
29 AMF Annandale Lanes Site	High-Rise	Annandale	310	Yes	Yes	No	No	N/A
30 Columbia Crossroads	Mid-Rise	Bailey's Crossroads	350	Yes	Yes	No	No	N/A
31 Fair Lakes expansion	Mid-Rise	Fair Lakes	650	Yes	Yes	No	No	N/A
32 Layton Hall Apartments	Mid-Rise	Fairfax City	342	Yes	Yes	Yes	No	N/A
33 Graham Park Plaza Redevelopment	Mid-Rise	Falls Church	140	No	Yes	No	No	Q1 2019
34 Arrowbrook Centre - D2	Mid-Rise	Herndon	300	No	No	No	No	N/A
35 Arrowbrook Centre - Ph. II	Mid-Rise	Herndon	108	Yes	Yes	Yes	No	N/A
36 Dulles Technology Drive	Mid-Rise	Herndon	370	Yes	Yes	Yes	No	N/A
37 Woodland Park East - Block D	Mid-Rise	Herndon	375	Yes	N/A	N/A	N/A	N/A
38 Woodland Park Waterview	Mid-Rise	Herndon	386	N/A	N/A	N/A	N/A	N/A
39 Huntington Avenue Site	High-Rise	Huntington	141	No	No	No	No	N/A
40 Kings Crossing - Ph. III	Mid-Rise	Huntington	350	Yes	No	No	No	9/2018
41 Riverside Redevelopment	Mid-Rise	Huntington	767	No	No	No	No	Q4 2018
42 Kingstowne Towne Center	High-Rise	Kingstowne	800	No	No	No	No	N/A
43 Ashby Apartments addition	High-Rise	McLean	175	No	No	No	No	N/A
44 11111 Sunset Hills Road	Mid-Rise & TH	Reston	175	N/A	N/A	N/A	N/A	N/A
45 1808 Michael Faraday Drive	Mid-Rise	Reston	261	No	No	No	No	N/A
46 Commerce Metro Center - Phase I	Mid-Rise	Reston	200	Yes	Yes	Yes	No	N/A
47 Commerce Metro Center - Phase II	High-Rise	Reston	300	No	No	No	No	N/A
48 Lincoln at Commerce Center	Mid-Rise	Reston	260	N/A	N/A	N/A	N/A	N/A
49 Lincoln at Commerce Park	Mid-Rise	Reston	260	No	No	No	No	N/A
50 Midline (multiple phases)	Mid-Rise	Reston	504	No	No	No	No	Q1 2019
51 Reston Station Promenade	High-Rise	Reston	500	Yes	Yes	No	No	N/A
52 St. Johns Wood redevelopment	Mid-Rise	Reston	467	Yes	No	No	No	N/A
53 TBD	High-Rise	Reston	1,097	No	No	No	No	N/A
54 Excelsior Parc	High-Rise	Reston Town Center	457	Yes	Yes	Yes	No	N/A
55 8200 Greensboro Drive	High-Rise	Tysons Corner	384	Yes	Yes	Yes	No	N/A
56 8333 Greensboro Drive	High-Rise	Tysons Corner	162	No	No	No	No	N/A
57 Arbor Row - Phase II	Mid-Rise	Tysons Corner	223	Yes	Yes	No	No	N/A
58 Arbor Row (Block A-2)	High-Rise	Tysons Corner	356	Yes	Yes	Yes	No	N/A
59 Highland District - Other Phases	High-Rise	Tysons Corner	1,194	Yes	No	No	No	N/A
60 International Place	Mid-Rise	Tysons Corner	250	Yes	Yes	No	No	N/A
61 Park Crest Three	High-Rise	Tysons Corner	236	Yes	Yes	Yes	No	N/A
62 Sunburst at Spring Hill Metro	High-Rise	Tysons Corner	720	No	No	No	No	N/A

TABLE 3.16
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Fairfax County¹ continued								
63 The Commons - Other Phases	High-Rise	Tysons Corner	1,835	Yes	No	No	No	N/A
64 The Residences at Tysons II	High-Rise	Tysons Corner	460	Yes	Yes	No	No	2018
65 Towers Crescent (Bldg D)	High-Rise	Tysons Corner	266	Yes	Yes	Yes	No	Q2 2019
66 Towers Crescent (Bldg E)	High-Rise	Tysons Corner	266	Yes	Yes	Yes	No	2021
67 Towers Crescent (Bldg G)	High-Rise	Tysons Corner	266	Yes	Yes	Yes	No	2023
68 Tysons Central Clyde's - Bldg. D	High-Rise	Tysons Corner	288	Yes	No	No	No	2018
69 Tysons Central NVCommercial - Bldg. C	High-Rise	Tysons Corner	240	Yes	No	No	No	Q2 2019
70 Tysons West	Low-Rise	Tysons Corner	320	Yes	Yes	Yes	No	N/A
71 Tysons West	Mid-Rise	Tysons Corner	750	Yes	No	No	No	N/A
72 Westpark Plaza - Ph. I	High-Rise	Tysons Corner	432	Yes	Yes	No	No	N/A
73 Westpark Plaza - Ph. II	High-Rise	Tysons Corner	600	Yes	Yes	No	No	N/A
74 Fairlee-Metro West - Phase I	Mid-Rise	Vienna Metro	314	Yes	Yes	No	No	N/A
75 Fairlee-Metro West - Phase II	Mid-Rise	Vienna Metro	314	Yes	Yes	No	No	N/A
76 Fairlee-Metro West - Phase III	Mid-Rise	Vienna Metro	272	Yes	Yes	No	No	N/A
77 Applebee's Site	Mid-Rise	Falls Church	277	Yes	Yes	No	No	N/A
78 Falls Church City Center	High-Rise	Falls Church	412	Yes	Yes	No	No	N/A
79 Founder's Row	Mid-Rise	Falls Church	322	Yes	Yes	No	No	N/A
Loudoun County								
80 Goose Creek Village North	Mid-Rise	Ashburn	230	No	No	No	No	N/A
81 Loudoun Parkway Center South	Mid-Rise	Ashburn	560	No	No	No	No	N/A
82 Kincora - Phase I	Low-Rise	Broad Run	550	Yes	Yes	No	No	N/A
83 Kincora - Phase II	Low-Rise	Broad Run	150	Yes	Yes	No	No	N/A
84 Lansdowne Towne Center	Mid-Rise	Lansdowne	50	No	No	No	No	N/A
85 Somerset Park Addition	Low-Rise	Leesburg	42	Yes	No	No	No	N/A
Prince William County²								
86 Wellington Glen - Ph. III-V	Low-Rise	Manassas	316	Yes	No	No	No	N/A

TABLE 3.16
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Stafford, Spotsylvania, City of Fredericksburg								
87 The Garrison at Stafford	Low-Rise	Stafford	453	N/A	N/A	N/A	N/A	N/A
Total:			34,421					

¹ Includes cities of Fairfax and Falls Church.

² Includes cities of Manassas and Manassas Park.

Comparative Longer Term Pipeline For Market Rate Apartments as of:	
Date	# Units
9/2017	34,421
12/2016	29,962
12/2015	31,756
12/2014	27,314
12/2013	23,984
12/2012	17,601
12/2011	14,858
12/2010	9,876
12/2009	15,009
12/2008	13,670
12/2007	8,578
12/2006	9,700
12/2005	8,019
12/2004	3,472
12/2003	8,612
12/2002	11,745
12/2001	7,273
12/2000	8,977

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.17
SUMMARY OF PROJECTS PLANNED EITHER AS CONDOMINIUM OR RENTAL
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Prmts. Issued?	Est. Constr. Start Date
City of Alexandria								
1 Braddock Gateway Phase III	High-Rise	Braddock Metro	300	N/A	N/A	N/A	N/A	N/A
2 Eisenhower Block 24	Mid-Rise	Carlyle	225	Yes	No	No	No	2020
3 Eisenhower Block 25A	Mid-Rise	Carlyle	175	Yes	No	No	No	2020
4 700 North Washington Street	Mid-Rise	North Old Town	30	No	No	No	No	Q4 2016
5 Oakville Triangle Redevelopment	Mid-Rise	Potomac Yard	900	Yes	Yes	No	No	Q3 2019
6 Potomac Yard Redev. - Other Phases	Mid-Rise	Potomac Yard	2,775	Yes	Yes	Yes	No	N/A
Arlington County								
7 Pentagon Centre - Ph. II	High-Rise	Pentagon City	264	Yes	Yes	Yes	No	N/A
8 Rosslyn Gateway - Phase III	High-Rise	Rosslyn	200	No	No	No	No	N/A
Fairfax County ¹								
9 The Rocks	High-Rise	Dulles	411	Yes	Yes	No	No	N/A
10 Fairfax Corner	Mid-Rise	Fairfax	290	Yes	Yes	Yes	No	N/A
11 Woodland Park East - Block C	Mid-Rise	Herndon	180	Yes	N/A	N/A	N/A	N/A
12 Huntington Club Redevelopment	High-Rise	Huntington	1,700	N/A	No	N/A	No	N/A
13 Fairways I & II Redevelopment	Low-Rise	Reston	673	No	No	No	No	N/A
14 Lake Anne Village Center	Mid-Rise & TH	Reston	835	No	No	No	No	N/A
15 Reston Gateway	High-Rise	Reston	1,710	N/A	N/A	N/A	N/A	N/A
16 Spectrum North - I	High-Rise	Reston Town Ctr	643	Yes	Yes	Yes	No	N/A
17 Spectrum North - II	High-Rise	Reston Town Ctr	237	Yes	Yes	No	No	N/A
18 Spectrum South	High-Rise	Reston Town Ctr	546	Yes	Yes	Yes	No	N/A
19 Springfield Town Center	Mid-Rise	Springfield	1,913	Yes	Yes	Yes	No	N/A
20 Capital One site	High-Rise	Tysons Corner	984	Yes	No	No	No	N/A
21 Dominion Square - east land bay	High-Rise	Tysons Corner	500	N/A	N/A	N/A	N/A	N/A
22 Dominion Square - west land bay	High-Rise	Tysons Corner	740	No	No	No	No	N/A
23 Perseus at Spring Hill Metro	High-Rise	Tysons Corner	272	No	No	No	No	N/A
24 Scott's Run Station North	High-Rise	Tysons Corner	371	No	No	No	No	N/A
25 Scott's Run Station South	High-Rise	Tysons Corner	1,506	Yes	Yes	No	No	N/A
26 Tysons Central Clyde's - Building E	High-Rise	Tysons Corner	195	N/A	N/A	N/A	N/A	N/A
27 Tysons Future - Phase II-IV	High-Rise	Tysons Corner	902	Yes	Yes	No	No	N/A

TABLE 3.17
SUMMARY OF PROJECTS PLANNED EITHER AS CONDOMINIUM OR RENTAL
 Northern Virginia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Loudoun County								
28 Gramercy District	High-Rise	Ashburn	590	No	No	No	No	2019
29 Loudoun Metro Park - Phase I	Mid-Rise	Ashburn	150	No	No	No	No	N/A
30 Loudoun Metro Park - Phase II	Mid-Rise	Ashburn	542	No	No	No	No	N/A
31 Loudoun Station Phase II	High-Rise	Ashburn	250	No	No	No	No	N/A
32 One Loudoun	Mid-Rise	Ashburn	291	Yes	No	No	No	2017
33 Waterside	Low-Rise	Chantilly	2,500	No	No	No	No	N/A
34 Dulles Town Center	Low-Rise	Dulles	650	No	No	No	No	N/A
35 Loudoun Center	TH-Style	Dulles	774	No	No	No	No	N/A
Prince William County ²								
36 Potomac Shores - Other Phases	Mid-Rise & TH	Dumfries	1,700	Yes	Yes	No	No	N/A
37 Freedom Park	Low-Rise	Prince William	788	No	No	No	No	N/A
38 Prince William Overlook	Low-Rise	Woodbridge	150	No	No	No	No	N/A
Total:	-	-	27,862	-	-	-	-	-

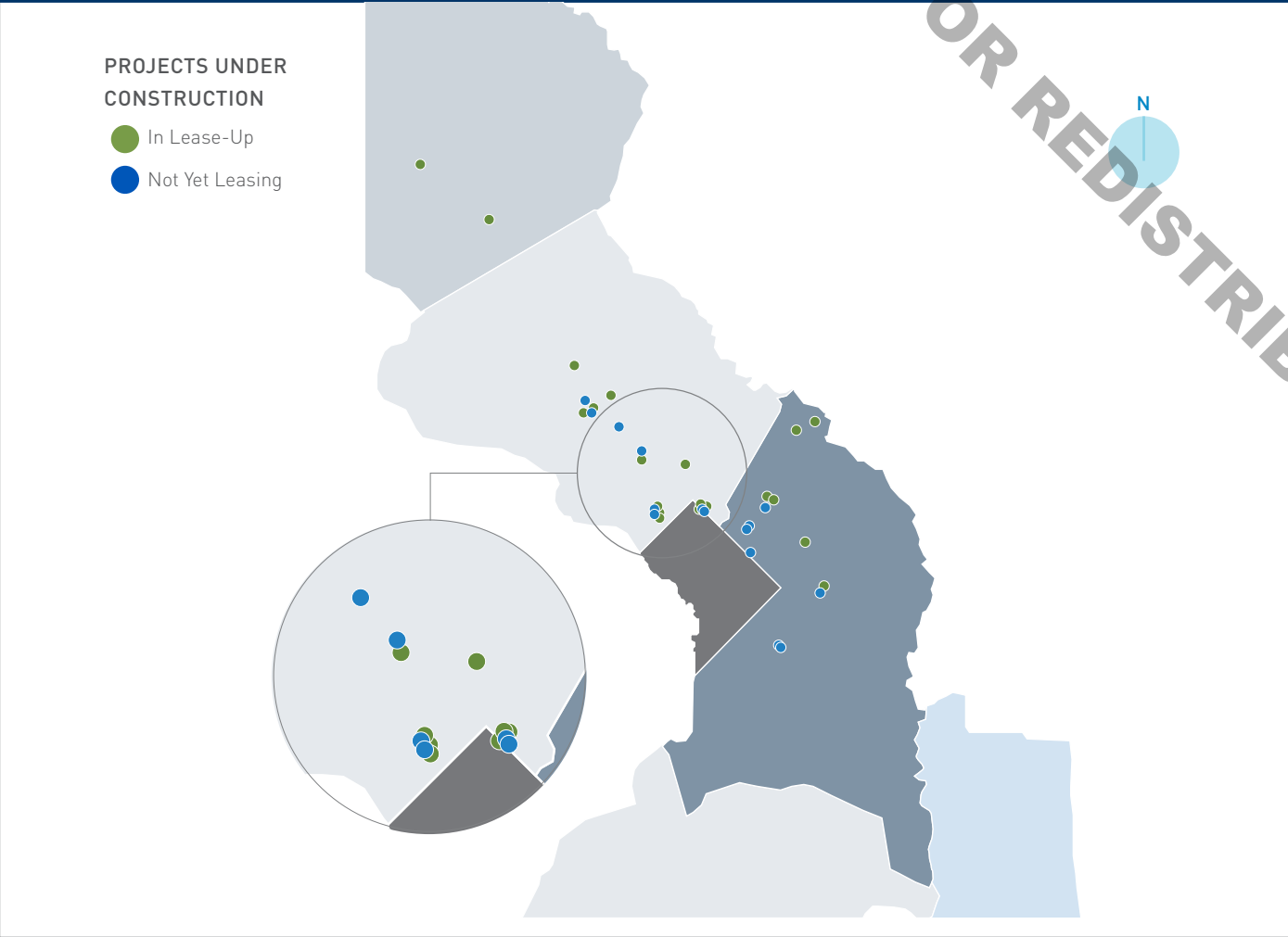
¹ Includes cities of Fairfax and Falls Church.

² Includes cities of Manassas and Manassas Park.

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MAP 3.2
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING | SUBURBAN MARYLAND
Third Quarter 2017



Source: Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100.
Last update: September 2017.

TABLE 3.18
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 Suburban Maryland
 Third Quarter 2017

Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
Frederick County									
1 Bainbridge Jefferson Place	Low-Rise	Frederick	Bainbridge Cos.	228	214	14	1/2017	1/2017	4/2017
2 Urban Green	Low-Rise	Urbana	Matan Companies	354	218	136	Q3 2016	Q3 2016	Q2 2017
Montgomery County									
3 4850 Rugby	High-Rise	Bethesda	Donohoe	187	0	187	Q3 2018	Q4 2018	Q4 2018
4 7770 Norfolk Ave.	High-Rise	Bethesda	Ross Development	200	177	23	3/2016	3/2016	2/2016
5 Element 28	High-Rise	Bethesda	Kettler	88	59	29	8/2016	10/2016	Q4 2016
6 Flats 8300	High-Rise	Bethesda	Stonebridge Associates	287	246	41	3/2016	5/2016	Q2 2016
7 Solaire Bethesda	Mid-Rise	Bethesda	Washington Property Company	118	103	15	7/2016	9/2016	9/2016
8 West Lane	Mid-Rise	Bethesda	SJG Properties	95	0	95	Q4 2017	Q1 2018	5/2018
9 The Majestic at Watkins Mill	Mid-Rise	Gaithersburg	BP Realty	243	170	73	10/2016	10/2016	Q4 2016
10 Washingtonian North	Mid-Rise	Gaithersburg	Camden	310	0	310	Q2 2018	Q2 2018	Q4 2018
11 The Henri	High-Rise	North Bethesda	Federal Realty Investment Trust	225	101	124	Q2 2017	Q3 2017	Q4 2017
12 Camden Shady Grove	Mid-Rise	North Rockville	Camden	399	151	248	Q1 2017	Q1 2017	Q1 2018
13 Hanover Shady Grove	Mid-Rise	North Rockville	Hanover Development	316	292	24	Q2 2016	Q2 2016	Q3 2016
14 Mallory Square - Ph. II	Low-Rise	North Rockville	Woodfield Investments	315	0	315	Q3 2018	Q4 2018	Q2 2019
15 The Metropolitan Rockville Town Center	Mid-Rise	Rockville	Kettler	235	0	235	10/2017	11/2017	1/2018
16 The Daley	Mid-Rise & TH	Shady Grove	Bozzuto	256	40	216	Q2 2017	Q2 2017	Q4 2017
17 Central	Mid-Rise	Silver Spring	Grosvenor America	212	39	173	Q3 2017	Q3 2017	Q3 2017
18 Core	High-Rise	Silver Spring	Willco Companies	240	101	139	Q2 2017	Q2 2017	Q3 2017
19 Solaire Ripley East	High-Rise	Silver Spring	Washington Property Company	338	0	338	Q4 2018	Q4 2018	Q2 2019
20 Studio Plaza - Phase I	Mid-Rise	Silver Spring	Fairfield Residential	331	0	331	Q2 2018	Q2 2018	Q1 2019
21 The Pearl	High-Rise	Silver Spring	Tower Companies	276	95	181	2/2017	2/2017	6/2017
22 1900 Chapman	Mid-Rise	Twinbrook	JLB Partners	271	0	271	Q3 2018	Q3 2018	Q4 2018
23 AVA Wheaton	Mid-Rise	Wheaton	AvalonBay	319	36	283	8/2017	Q3 2017	Q1 2018

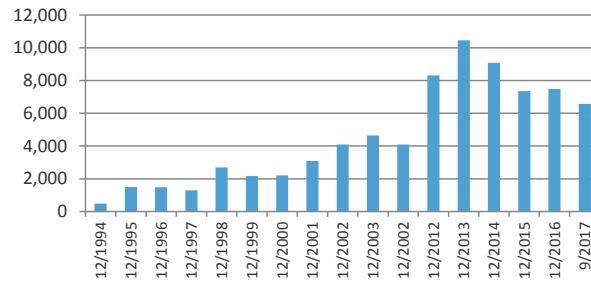
TABLE 3.18
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 Suburban Maryland
 Third Quarter 2017

Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
Prince George's County									
24 Allure Apollo	Low-Rise	Branch Ave. Metro	Peter Schwartz	384	0	384	Q2 2018	Q3 2018	Q2 2019
25 Chelsea East	Low-Rise	Branch Ave. Metro	Wood Partners	208	0	208	Q4 2017	Q1 2018	Q2 2018
26 Studio 3807	Low-Rise	Brentwood	Landex Development	147	0	147	Q1 2018	Q2 2018	Q2 2018
27 Hampton Park	Mid-Rise	Capitol Heights	Velocity Capital	250	0	250	Q1 2020	Q1 2020	Q2 2020
28 Fuse 47	Mid-Rise	College Park	Wood Partners	275	0	275	2019	2019	2019
29 Monument Village	Mid-Rise	College Park	Monument Realty	235	142	93	Q2 2016	Q2 2016	Q2 2016
30 Verde at Greenbelt Station	Mid-Rise	Greenbelt	Atapco Properties	302	277	25	4/2016	Q3 2016	1/2017
31 Belcrest Plaza - Phase II	High-Rise	Hyattsville	Percontee	347	0	347	Q4 2018	Q4 2018	Q1 2019
32 The Edition	Mid-Rise	Hyattsville	Fore Property Company	351	0	351	Q1 2019	Q2 2019	Q2 2019
33 Ascend Apollo	Mid-Rise	Largo	Peter Schwartz	500	308	192	6/2016	10/2016	Q4 2016
34 Evolution at Towne Centre Laurel	Low-Rise	Laurel	Wood Partners	320	166	154	3/2017	5/2017	Q3 2017
35 Modera Westside	Low-Rise	Laurel	Mill Creek Residential Trust	456	364	92	2/2016	4/2016	Q4 2016
36 The Remy - Phase I	Low-Rise	New Carrollton	Berman Enterprises	278	27	251	Q3 2017	9/2017	Q2 2017
Total:				9,896	3,326	6,570			

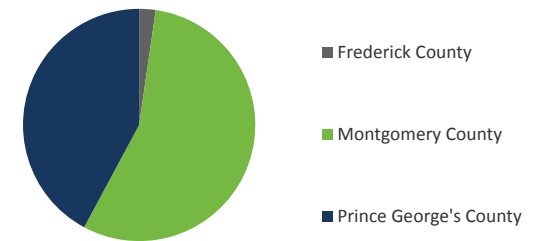
Comparison to Prior Years*	
Available Units in Projects Under Construction at:	
Date *	# Units
9/2017	6,570
12/2016	7,488
12/2015	7,356
12/2014	9,085
12/2013	10,456
12/2012	8,316
12/2011	5,776
12/2010	2,312
12/2009	3,344
12/2008	6,716
12/2007	8,033
12/2006	5,563
12/2005	3,926
12/2004	5,185
12/2003	4,641
12/2002	4,097
12/2001	3,097
12/2000	2,202

* Dates prior to 12/2015 include available units in projects under construction in Howard and Anne Arundel counties.

Available Units in Projects Under Construction



of Available Market Rate Units



Note: This Table may include some projects listed on Table 3.11

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.19
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 Suburban Maryland
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Montgomery County								
1 4820 Auburn Avenue	High-Rise	Bethesda	50	Yes	Yes	Yes	No	Q3 2018
2 7272 Wisconsin Avenue	High-Rise	Bethesda	420	N/A	N/A	N/A	N/A	N/A
3 7900 Wisconsin Avenue	High-Rise	Bethesda	308	Yes	Yes	Yes	Yes	10/2017
4 TBA	Mid-Rise	Bethesda	200	No	No	No	No	Q3 2018
5 Garnkirk Farms Apartments	Low-Rise	Clarksburg	163	Yes	Yes	Yes	No	Q1 2019
6 Magnolia	Low-Rise	Gaithersburg	156	Yes	Yes	Yes	No	Q1 2018
7 Elms at Century	Low-Rise	Germantown	243	Yes	Yes	Yes	No	Q4 2017
8 Gables Pike District	Mid-Rise	North Bethesda	389	Yes	Yes	Yes	No	Q4 2017
9 Lake Waverly - Phase I	Mid-Rise	North Bethesda	382	Yes	Yes	Yes	No	Q1 2018
10 North Bethesda Center - Ph. III	Mid-Rise	North Bethesda	258	Yes	No	No	No	Q3 2018
11 Elizabeth House III	Mid-Rise	Silver Spring	161	Yes	Yes	Yes	No	Q1 2018
12 Falkland Chase North Ph. I	High-Rise	Silver Spring	370	Yes	Yes	Yes	No	Q2 2018
13 Avalon at Twinbrook	Mid-Rise	Twinbrook	208	Yes	Yes	No	No	8/2018
14 St. Elmo Apartments	High-Rise	Woodmont Triangle	181	No	No	No	No	Q1 2018

TABLE 3.19
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 Suburban Maryland
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Prince George's County								
15 South Lake	Low-Rise	Bowie	390	Yes	Yes	No	No	Q2 2018
16 Artisan at 4100	Low-Rise	Brentwood	84	Yes	Yes	Yes	Yes	Q4 2017
17 Capitol Heights Metro	Mid-Rise	Capitol Heights Metro	550	Yes	No	No	No	Q4 2017
18 College Park - Quality Inn site	Mid-Rise	College Park	370	No	No	No	No	Q2 2018
19 The Boulevard at 9091	Mid-Rise	College Park	238	Yes	Yes	Yes	Yes	Q2 2018
20 The Crescents at Largo Town Center	Mid-Rise	Largo	352	Yes	Yes	Yes	No	Q3 2018
21 New Carrollton Metro – Rental	Low-Rise	New Carrollton	250	Yes	Yes	Yes	No	Q4 2017
22 The Remy - Phase II	Low-Rise	New Carrollton	225	Yes	Yes	No	No	2018
23 Riverdale Park - Phase I	Mid-Rise	Riverdale Park	234	Yes	Yes	Yes	No	Q4 2017
24 Riverdale Park - Phase II	Mid-Rise	Riverdale Park	76	Yes	Yes	Yes	No	2018
25 Riverdale Park - Phase III	Mid-Rise	Riverdale Park	310	Yes	Yes	Yes	No	Q4 2017
26 Westphalia Center - Phase I	Mid-Rise	Westphalia	250	Yes	Yes	Yes	No	Q1 2018
Total:	-	-	6,818	-	-	-	-	-
Total with Attrition:			2,318					

Comparison to Prior Years* Estimate of Next 18 - 36 Month Pipeline as of:

Date *	# Units
9/2017	6,818
12/2016	7,221
12/2015	8,992
12/2014	15,073
12/2013	15,879
12/2012	13,318
12/2011	16,222
12/2010	9,599
12/2009	6,019
12/2008	6,927
12/2007	6,676
12/2006	6,598
12/2005	4,450
12/2004	5,836
12/2003	3,622
12/2002	2,198
12/2001	3,366
12/2000	4,387

* Dates prior to 12/2015 include units in Howard and Anne Arundel counties.

Note: Projects planned to deliver their first units in the next 36 months. See Table 2.1 for materialization factor. If we have missed your project, please contact us.

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.20
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Suburban Maryland
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Montgomery County								
1 4885 Edgemoor	High-Rise	Bethesda	150	No	No	No	No	Q2 2019
2 7316 Wisconsin Avenue	High-Rise	Bethesda	254	N/A	N/A	N/A	N/A	N/A
3 8280 Wisconsin Avenue	High-Rise	Bethesda	167	Yes	Yes	No	No	Q1 2019
4 Bainbridge Bethesda Metro	High-Rise	Bethesda	225	Yes	Yes	No	No	N/A
5 Ourisman Ford Site	Mid-Rise	Bethesda	297	Yes	No	No	No	N/A
6 TBA	High-Rise	Bethesda	536	Yes	Yes	No	No	Q2 2019
7 Tommy Joe's Site	High-Rise	Bethesda	225	No	No	No	No	N/A
8 Chevy Chase Lake - Building B1b	High-Rise	Chevy Chase	283	Yes	Yes	No	No	Q1 2018
9 Chevy Chase Lake - Building B2	Mid-Rise	Chevy Chase	183	Yes	Yes	No	No	Q1 2018
10 Kentlands Apartments	Mid-Rise	Gaithersburg	295	Yes	N/A	N/A	N/A	N/A
11 The Empress at Watkins Mill	Low-Rise	Gaithersburg	252	Yes	Yes	Yes	No	N/A
12 The Lotus at Watkins Mill	Mid-Rise	Gaithersburg	210	Yes	Yes	Yes	No	N/A
13 The Remington at Watkins Mill	Mid-Rise	Gaithersburg	378	Yes	No	No	No	N/A
14 Residences at Olde Towne	Low-Rise	Gaithersburg Olde Town	162	Yes	Yes	Yes	No	N/A
15 Suites 355	Low-Rise	Gaithersburg Olde Town	227	Yes	Yes	Yes	No	N/A
16 Milestone Business Park	Mid-Rise	Germantown	485	N/A	Yes	N/A	N/A	N/A
17 Kensington MARC site	Mid-Rise	Kensington	68	Yes	No	No	No	N/A
18 East Village - Phase I	Mid-Rise	North Bethesda	334	Yes	Yes	Yes	No	N/A
19 East Village - Phase II	Mid-Rise	North Bethesda	203	Yes	No	No	No	N/A
20 Lake Waverly - Phase II	Mid-Rise	North Bethesda	232	Yes	Yes	Yes	No	N/A
21 Metro Pike Center Site	High-Rise	North Bethesda	320	Yes	Yes	No	No	N/A
22 North Bethesda Center - Ph. IV	High-Rise	North Bethesda	279	Yes	No	No	No	N/A
23 North Bethesda Market - Ph III	Mid-Rise	North Bethesda	335	Yes	Yes	Yes	No	N/A
24 Rock Spring Centre - DRI	Mid-Rise	North Bethesda	117	Yes	Yes	Yes	No	N/A
25 White Flint Gateway - Parcel A	High-Rise	North Bethesda	652	No	No	No	No	N/A
26 White Flint Gateway - Parcel B	Mid-Rise	North Bethesda	287	No	No	No	No	N/A
27 White Flint View	High-Rise	North Bethesda	165	Yes	Yes	Yes	No	N/A
28 Upton at Rockville - Phase II	High-Rise	Rockville	400	Yes	Yes	Yes	No	Q3 2018
29 Rockville Metro Plaza III	Mid-Rise	Rockville Town Center	240	Yes	No	No	No	N/A
30 8787 Georgia Avenue	High-Rise	Silver Spring	305	No	No	No	No	2019
31 900 Thayer Avenue	Mid-Rise	Silver Spring	124	Yes	Yes	No	No	N/A
32 Bonifant Plaza	Mid-Rise	Silver Spring	150	Yes	Yes	No	No	N/A
33 Falkland Chase North Ph. II	High-Rise	Silver Spring	496	Yes	No	No	No	N/A
34 Long Branch Town Center	Mid-Rise	Silver Spring	675	No	No	No	No	N/A
35 Silver Spring Park	Mid-Rise	Silver Spring	50	Yes	Yes	Yes	No	N/A
36 Solaire Ripley II	High-Rise	Silver Spring	374	No	Yes	No	No	Q2 2019
37 Studio Plaza - Phase II	High-Rise	Silver Spring	284	Yes	Yes	N/A	No	N/A
38 The Blairs - Other Phases	High-Rise	Silver Spring	1,300	Yes	Yes	No	No	2018
39 Halpine View Redevelopment	Low-Rise	Twinbrook	1,730	No	No	No	No	N/A
40 Twinbrook - Remaining Phases	High-Rise	Twinbrook	999	Yes	Yes	Yes	No	N/A
41 Twinbrook Metroplace - Ph. I	High-Rise	Twinbrook	347	Yes	Yes	Yes	No	N/A
42 Wheaton Grandview	High-Rise	Wheaton	151	Yes	No	No	No	N/A
43 White Flint - A-East Building	High-Rise	White Flint	333	N/A	N/A	N/A	N/A	N/A
44 White Flint - A-West Building	High-Rise	White Flint	280	N/A	N/A	N/A	N/A	N/A
45 White Flint - B-East Building	High-Rise	White Flint	289	N/A	N/A	N/A	N/A	N/A
46 White Flint - B-West Building	High-Rise	White Flint	315	N/A	N/A	N/A	N/A	N/A

TABLE 3.20
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Suburban Maryland
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Prince George's County								
47 Monroe Gardens Redevelopment	Low-Rise	Bladensburg	125	Yes	Yes	Yes	No	N/A
48 Melford Village	Low-Rise & TH	Bowie	1,412	No	Yes	No	No	N/A
49 Capitol Heights Metro	Mid-Rise	Capitol Heights	200	No	No	No	No	N/A
50 Autoville Drive Site	Low-Rise	College Park	500	Yes	No	No	No	N/A
51 WMATA College Park lot	Mid-Rise	College Park	430	No	No	No	No	N/A
52 Woodmore Towne Centre	Mid-Rise	Glenarden	108	Yes	Yes	Yes	No	N/A
53 Greenbelt Place	Mid-Rise	Greenbelt	450	Yes	Yes	No	No	N/A
54 Greenbelt Station	Low-Rise	Greenbelt	302	Yes	Yes	Yes	No	N/A
55 Belcrest Plaza - Other Phases	High-Rise	Hyattsville	1,740	No	No	No	No	N/A
56 Landy Property - Phase I	Low-Rise	Hyattsville	218	Yes	Yes	Yes	No	N/A
57 Landy Property - Phase II	Mid-Rise	Hyattsville	203	Yes	No	No	No	N/A
58 Largo Centre West	Mid-Rise	Largo	532	Yes	Yes	Yes	No	N/A
59 Hawthorne Place - Phase I	Mid-Rise	Laurel	303	Yes	Yes	Yes	No	N/A
60 Hawthorne Place - Phase II	Mid-Rise	Laurel	405	Yes	Yes	Yes	No	N/A
61 The Oxford	High-Rise	Oxon Hill	195	No	No	No	No	N/A
62 Riverdale Park - Phase IV	Mid-Rise	Riverdale Park	200	Yes	Yes	Yes	No	Q3 2018
63 Cambridge Place at Westphalia	Low-Rise	Upper Marlboro	301	Yes	Yes	Yes	No	N/A
64 The Riverfront at West Hyattsville Metro	Low-Rise	West Hyattsville	300	No	No	No	No	N/A
Total:	-	-	24,087	-	-	-	-	-

Comparative Longer Term Pipeline	
For Market Rate Apartments as of:	
Date *	# Units
9/2017	24,087
12/2016	22,541
12/2015	21,119
12/2014	28,034
12/2013	31,843
12/2012	23,549
12/2011	22,934
12/2010	20,270
12/2009	18,005
12/2008	12,203
12/2007	15,963
12/2006	10,661
12/2005	15,139
12/2004	10,047
12/2003	13,452
12/2002	11,327
12/2001	10,973
12/2000	8,830

* Dates prior to 12/2015 include available units in projects under construction in Howard and Anne Arundel Counties.

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.21
SUMMARY OF PROJECTS PLANNED EITHER AS CONDOMINIUM OR RENTAL
 Suburban Maryland
 Third Quarter 2017

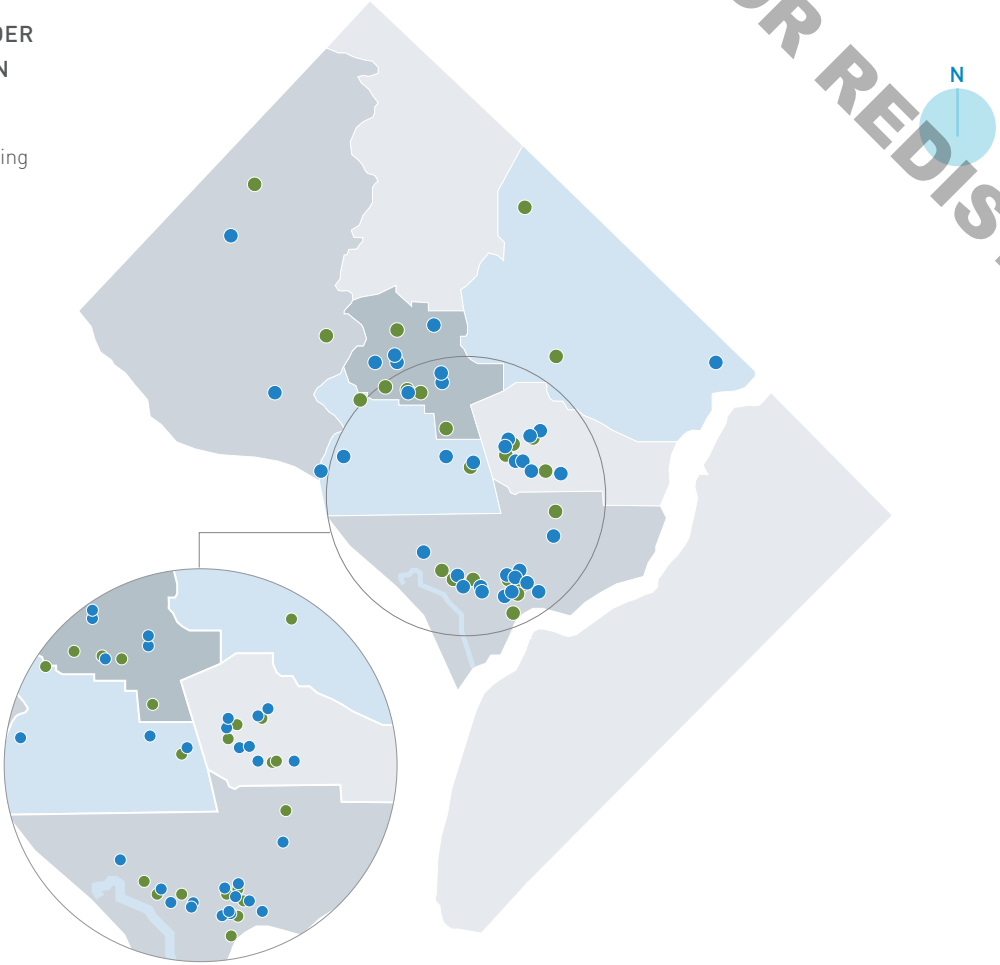
Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Montgomery County								
1 Westwood	Mid-Rise	Bethesda	750	Yes	Yes	No	No	Q1 2018
2 7316 Wisconsin	High-Rise	Bethesda	290	N/A	N/A	N/A	N/A	N/A
3 Olde Towne Gaithersburg	Mid-Rise	Gaithersburg	240	No	No	No	No	N/A
4 Glenmont Metro	Low-Rise	Glenmont Metro	250	Yes	Yes	Yes	No	5/2018
5 North Bethesda Center - Ph. V	High-Rise	North Bethesda	279	Yes	No	No	No	N/A
6 Pike & Rose - Add. Phases	Mid-Rise	North Bethesda	687	Yes	Yes	No	No	N/A
7 White Flint Mall - Ph I	Mid-Rise	North Bethesda	1,138	No	No	No	No	N/A
8 Twinbrook Metroplace - Ph. III	Mid-Rise	Twinbrook	223	Yes	Yes	No	No	N/A
9 White Flint Mall - Ph II	Mid-Rise	White Flint	384	No	No	No	No	N/A
10 White Flint Mall - Ph III	High-Rise	White Flint	601	No	No	No	No	N/A
Prince George's County								
11 Amber Ridge	Mid-Rise	Bowie	186	Yes	Yes	No	No	2018
12 The Villages at Timothy Branch II	Mid-Rise	Brandywine	245	Yes	Yes	No	No	N/A
13 People's Harbor	Mid-Rise	Colmar Manor	175	No	No	No	No	N/A
14 Konterra Town Center East - Other Ph	Mid-Rise	Konterra	3,900	Yes	Yes	Yes	No	N/A
15 Konterra Town Center East - Ph I	Mid-Rise	Konterra	600	Yes	Yes	Yes	No	2018
16 Midtown North - Other Phases	Mid-Rise	National Harbor	302	Yes	Yes	Yes	No	N/A
17 Midtown North Block X	Mid-Rise	National Harbor	250	Yes	Yes	Yes	No	N/A
18 National Harbor - Other Phases	Mid-Rise	National Harbor	1,500	Yes	Yes	Yes	No	N/A
19 New Carrollton Metro Station Development - Other Phases	High-Rise	New Carrollton	545	Yes	No	No	No	Q3 2017
20 Suitland Town Center	Mid-Rise	Suitland Metro	678	No	No	No	No	N/A
21 Marlton	Mid-Rise	Upper Marlboro	397	No	No	No	No	N/A
22 West Hyattsville Commons - Ph I	Mid-Rise	West Hyattsville	320	Yes	No	No	No	N/A
23 West Hyattsville Commons- Ph II, III, IV	Mid-Rise	West Hyattsville	963	Yes	No	No	No	N/A
24 Westphalia Center - Other Phases	Mid-Rise	Westphalia	484	Yes	Yes	Yes	No	N/A
Total:	-	-	15,387	-	-	-	-	-

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

MAP 3.3
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING | DISTRICT OF COLUMBIA
Third Quarter 2017

PROJECTS UNDER CONSTRUCTION
● In Lease-Up
● Not Yet Leasing



Source: Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100.
Last update: September 2017.

NOT FOR REDISTRIBUTION

TABLE 3.22
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 District of Columbia
 Third Quarter 2017

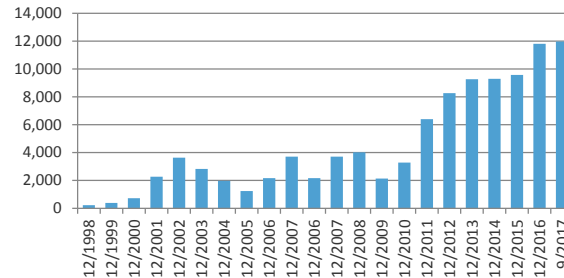
Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
Capitol Hill/Riverfront/SW									
1 700 Constitution	Low-Rise	Capitol Hill	Urban Structures LLC	139	62	77	4/2017	5/2017	Q2 2017
2 Residences at Eastern Market	Mid-Rise	Capitol Hill	Eastbanc	112	0	112	Q4 2017	Q4 2017	Q4 2017
3 1221 Van	High-Rise	Capitol Riverfront	JBG Smith	279	0	279	11/2017	Q4 2017	Q1 2018
4 1250	High-Rise	Capitol Riverfront	Jair Lynch	440	0	440	Q1 2019	Q1 2019	Q2 2019
5 2 Eye Street - Phase I	High-Rise	Capitol Riverfront	RCP	355	0	355	2019	2019	2019
6 Agora at The Collective	High-Rise	Capitol Riverfront	William C. Smith & Co.	321	0	321	Q4 2017	Q4 2017	Q1 2018
7 Dock 79	High-Rise	Capitol Riverfront	MRP Realty	280	271	9	5/2016	9/2016	9/2016
8 F1rst Residences	High-Rise	Capitol Riverfront	McCaffery Interests	275	170	105	2/2017	4/2017	Q2 2017
9 Insignia on M	High-Rise	Capitol Riverfront	Donohoe	324	152	172	Q2 2017	Q2 2017	Q2 2017
10 One Hill South	High-Rise	Capitol Riverfront	Ruben Companies	382	229	153	1/2017	3/2017	Q2 2017
11 Ore 82	High-Rise	Capitol Riverfront	Greystar	227	224	3	10/2016	Q4 2016	Q1 2017
12 Parc Riverside - Phase II	High-Rise	Capitol Riverfront	Toll Brothers Apartment Living	308	0	308	Q1 2019	Q2 2019	Q3 2019
13 Square 769N	High-Rise	Capitol Riverfront	Urban-Atlantic	143	0	143	Q1 2018	Q2 2018	Q3 2018
14 The Guild	Mid-Rise	Capitol Riverfront	Forest City Washington	153	0	153	Q3 2018	Q3 2018	Q4 2018
15 West Half Apartments	High-Rise	Capitol Riverfront	JBG Smith	390	0	390	Q2 2019	Q2 2019	Q3 2019
16 1331 Maryland Avenue SW	High-Rise	SW Waterfront	Republic Properties	373	0	373	Q4 2018	Q3 2019	Q3 2019
17 301 M Street	High-Rise	SW Waterfront	The Bernstein Companies	150	0	150	Q1 2018	Q1 2018	Q2 2018
18 Eliot on 4th	High-Rise	SW Waterfront	Forest City Washington	365	164	201	3/2017	5/2017	5/2017
19 Incanto	High-Rise	SW Waterfront	Hoffman Madison Waterfront	101	16	85	5/2017	9/2017	Q4 2017
20 Riverside Baptist site	High-Rise	SW Waterfront	PN Hoffman	156	0	156	Q3 2018	Q4 2018	Q4 2018
21 The Channel	High-Rise	SW Waterfront	Hoffman Madison Waterfront	348	48	300	5/2017	10/2017	Q4 2017
22 The View at Waterfront	High-Rise	SW Waterfront	Mill Creek Residential Trust	267	0	267	Q3 2018	Q4 2018	Q1 2019
23 Valo	High-Rise	SW Waterfront	Trammell Crow Company	198	0	198	Q1 2018	Q2 2018	Q3 2018
Central									
24 Boathouse	Mid-Rise	Foggy Bottom	Urban Investment Partners LLC	228	0	228	7/2018	8/2018	11/2018
25 The Hepburn	High-Rise	Kalorama	Lowe Enterprises	195	157	38	7/2016	Q3 2016	Q3 2016
26 Columbia Place	High-Rise	Mt. Vernon Square	Quadrangle	214	0	214	Q1 2018	Q1 2018	Q2 2018
27 455 Eye	High-Rise	Mt. Vernon Triangle	Equity Residential	174	153	21	Q2 2017	6/2017	9/2017
28 The Lydian	High-Rise	Mt. Vernon Triangle	Quadrangle	324	0	324	Q1 2018	Q2 2018	Q2 2018
29 Square 37 - East	High-Rise	West End	Eastbanc	93	0	93	Q4 2017	Q4 2017	Q4 2017
Columbia Heights/Shaw									
30 1777 Columbia Road	Mid-Rise	Adams Morgan	Beztak Properties	80	0	80	Q2 2018	Q3 2018	Q3 2018
31 Modera Embassy	Mid-Rise	Adams Morgan	Mill Creek Residential Trust	126	0	126	Q3 2018	Q3 2018	Q2 2019
32 Reed Row	Mid-Rise	Adams Morgan	Kettler	118	49	69	5/2017	6/2017	Q3 2017
33 2601 16th Street	Mid-Rise	Meridian Hill	Jair Lynch	206	0	206	Q4 2018	Q4 2018	Q4 2018
34 The Vintage	High-Rise	Mt. Pleasant	Valor Development	85	56	29	4/2017	4/2017	4/2017
35 Linens of the Week/Alsco	Mid-Rise	Park View	Holladay	227	0	227	Q1 2018	Q2 2018	Q2 2018
36 880 P	Mid-Rise	Shaw	Roadside Development	138	30	108	Q2 2017	Q3 2017	Q3 2017
37 13th U	Mid-Rise	U Street	JBG Smith	117	31	86	8/2017	8/2017	8/2017
38 Atlantic Plumbing (Parcel C)	High-Rise	U Street	JBG Smith	225	0	225	Q1 2019	Q2 2019	Q2 2019
39 Berkshire 15	High-Rise	U Street	Berkshire Communities	96	78	18	Q4 2016	Q4 2016	Q4 2016
40 Sherman Avenue Apartments	Mid-Rise	U Street	RISE	287	0	287	Q4 2018	Q4 2018	Q4 2018
41 The Sonnet	High-Rise	U Street	Trammell Crow Company	288	0	288	Q1 2018	Q2 2018	Q3 2018

TABLE 3.22
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 District of Columbia
 Third Quarter 2017

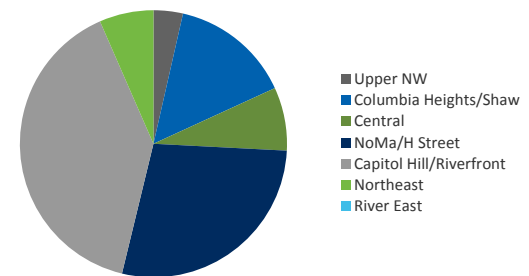
Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
NoMa/H Street									
42 315 H Street	Mid-Rise	H Street	MRP Realty	112	0	112	Q2 2018	Q2 2018	Q2 2018
43 Anthology	High-Rise	H Street	Benthall Kennedy	307	260	47	10/2016	Q4 2016	Q4 2016
44 Apollo H Street	Mid-Rise	H Street	Insight Property Group LLC	398	219	179	9/2016	11/2016	5/2017
45 Avec at 901 H Street	Mid-Rise	H Street	The Rappaport Cos	385	0	385	Q1 2018	Q4 2019	Q4 2019
46 100 K Street	High-Rise	NoMa	Equity Residential	222	0	222	Q2 2018	Q2 2018	Q3 2018
47 33 N Street	High-Rise	NoMa	Wood Partners	350	0	350	Q4 2017	Q1 2018	Q2 2018
48 AVA NoMa	High-Rise	NoMa	AvalonBay	438	219	219	Q2 2017	Q2 2017	Q2 2018
49 Camden NoMa - Phase II	High-Rise	NoMa	Camden	405	218	187	Q1 2017	Q1 2017	Q3 2017
50 RESA	High-Rise	NoMa	Skanska Commercial Development USA	326	0	326	Q4 2018	Q4 2018	Q4 2018
51 Union Place - Phase I & II	High-Rise	NoMa	Toll Brothers Apartment Living	472	0	472	Q2 2018	Q3 2018	Q4 2018
52 1270 4th Street NE	High-Rise	Union Market	Trammell Crow Residential	430	0	430	2018	Q4 2018	Q4 2018
53 Highline at Union Market	High-Rise	Union Market	Level 2 Development	305	0	305	Q4 2018	Q4 2018	Q1 2019
54 The Edison	Mid-Rise	Union Market	LCOR	149	33	116	Q2 2017	8/2017	Q3 2017
Northeast									
55 Brookland Press	Mid-Rise	Brentwood	Douglas Development	284	18	266	Q3 2017	Q4 2017	Q4 2017
56 Fort Lincoln	Mid-Rise	Fort Lincoln	Fort Lincoln New Town Corp.	200	0	200	Q1 2019	Q2 2019	Q2 2019
57 The Modern at Art Place	Mid-Rise	Fort Totten	Cafritz Foundation	379	60	319	Q2 2017	9/2017	Q3 2017
Upper Northwest									
58 The Glover House	High-Rise	Burleith	JBG Smith	225	0	225	Q1 2019	Q1 2019	Q2 2019
59 5333 Connecticut	High-Rise	Chevy Chase DC	Cafritz Foundation	242	221	21	5/2016	6/2016	Q2 2016
60 4000 Brandywine Street	Mid-Rise	Tenleytown	Urban Investment Partners LLC	98	0	98	11/2017	1/2018	1/2018
61 South Cathedral Mansions	Mid-Rise	Woodley Park	CAS Riegler	136	54	82	Q1 2017	Q2 2017	Q2 2017
Total:				15,170	3,192	11,978			

Comparison to Prior Years	
Available Units in Projects Under Construction at:	
Date	# Units
9/2017	11,978
12/2016	11,815
12/2015	9,573
12/2014	9,298
12/2013	9,274
12/2012	8,274
12/2011	6,398
12/2010	3,286
12/2009	2,137
12/2008	4,017
12/2007	3,717
12/2006	2,167
12/2005	1,242
12/2004	1,972
12/2003	2,822
12/2002	3,631
12/2001	2,277
12/2000	726

Available Units in Projects Under Construction



of Available Market Rate Units



Note: This Table may include some projects listed on Table 3.11
 Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.23
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 District of Columbia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Capitol Hill/Riverfront/SW								
1 Beckert's Park	Mid-Rise	Capitol Hill	296	Yes	No	No	No	Q3 2018
2 Lockwood Apartments	Mid-Rise	Capitol Hill	132	Yes	Yes	Yes	No	10/2017
3 1st & K St - Ph. I	High-Rise	Capitol Riverfront	400	No	No	No	No	Q4 2017
4 71 Potomac	High-Rise	Capitol Riverfront	253	No	No	No	No	Q4 2017
5 818 Potomac Avenue SE	Mid-Rise	Capitol Riverfront	72	N/A	N/A	N/A	No	Q4 2017
6 Capper Carrollsburg - Square 739	High-Rise	Capitol Riverfront	257	Yes	Yes	No	No	Q2 2018
7 Capper Carrollsburg - Square 768	High-Rise	Capitol Riverfront	235	Yes	Yes	No	No	Q2 2018
8 Square 740	High-Rise	Capitol Riverfront	275	N/A	No	No	No	Q4 2017
9 The Garrett at The Collective	High-Rise	Capitol Riverfront	375	Yes	Yes	Yes	No	Q4 2017
10 1401 Pennsylvania Ave SE	Mid-Rise	Hill East	154	Yes	Yes	Yes	Yes	Q4 2017
11 Hill East Ph. 1	Mid-Rise	Hill East	248	Yes	Yes	Yes	No	12/2017
12 1319 South Capitol Street	High-Rise	South Capitol	200	Yes	No	No	No	Q4 2017
13 555 E Street	High-Rise	SW Waterfront	136	No	No	No	No	Q4 2017
14 The Kiley on 4th	Mid-Rise	SW Waterfront	271	Yes	Yes	Yes	No	1/2018
Central								
15 1701 14th Street	Mid-Rise	Logan Circle	80	N/A	N/A	N/A	N/A	Q4 2017
Columbia Heights/Shaw								
16 Carver Hall	Low-Rise	LeDroit Park	62	Yes	Yes	Yes	N/A	Q1 2018
17 Slowe Hall	Low-Rise	LeDroit Park	100	Yes	Yes	Yes	N/A	Q1 2018
18 965 Florida Avenue	Mid-Rise	U Street	300	Yes	No	No	No	Q4 2017
NoMa/H Street								
19 Eckington Yards East	Mid-Rise	Eckington	226	Yes	Yes	Yes	No	Q2 2018
20 Valvaere	High-Rise	H Street	278	No	No	No	No	Q4 2017
21 300 M Street	Mid-Rise	NoMa	389	Yes	Yes	Yes	No	Q4 2017
22 DCHA HQ - Phase I	High-Rise	NoMa	400	Yes	Yes	Yes	No	Q1 2018
23 Storey Park	High-Rise	NoMa	460	Yes	Yes	Yes	No	Q4 2017
24 Washington Gateway - Ph II	High-Rise	NoMa	342	No	No	No	No	Q1 2018
25 1300 Fourth Street NE	Mid-Rise	Union Market	107	N/A	N/A	N/A	N/A	N/A
26 500 Morse Street	High-Rise	Union Market	248	Yes	Yes	Yes	No	Q4 2018
Northeast								
27 680 Rhode Island - Ph. I	Mid-Rise	Brentwood	400	No	No	No	No	Q1 2018
28 RIA Block 7	Mid-Rise	Brentwood	106	Yes	Yes	Yes	No	1/2018
29 901 Monroe	Mid-Rise	Brookland	212	Yes	Yes	Yes	No	Q1 2018
30 Fort Totten Metro	Mid-Rise	Fort Totten	310	No	No	No	No	Q4 2017

TABLE 3.23
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 District of Columbia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
River East								
31 Skyland Town Center - Block 2	Mid-Rise	Hillcrest	216	Yes	Yes	Yes	Yes	Q4 2017
Upper NW								
32 Broadcast	Mid-Rise	Tenleytown	131	No	No	No	No	6/2018
Total:	-	-	7,671	-	-	-	-	-
Total with Attrition:	-	-	1,994	-	-	-	-	-

Comparison to Prior Years
 Estimate of Next 18 - 36 Month Pipeline as of:

Date	# Units
9/2017	7,671
12/2016	6,712
12/2015	5,604
12/2014	6,680
12/2013	6,840
12/2012	7,947
12/2011	7,945
12/2010	5,978
12/2009	6,182
12/2008	5,386
12/2007	4,955
12/2006	2,160
12/2005	1,832
12/2004	1,178
12/2003	1,196
12/2002	1,735
12/2001	1,705
12/2000	2,149

Note: Projects planned to deliver their first units in the next 36 months. See Table 2.1 for materialization factor. If we have missed your project, please contact us.

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 3.24
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 District of Columbia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Capitol Hill/Riverfront								
1 1800 Half Street	High-Rise	Buzzard Point	300	No	No	No	No	2020
2 1900 Half Street	High-Rise	Buzzard Point	405	Yes	Yes	Yes	No	N/A
3 Riverpoint	High-Rise	Buzzard Point	425	No	No	No	No	N/A
4 1000 South Capitol Street	High-Rise	Capitol Riverfront	320	N/A	N/A	N/A	N/A	N/A
5 1333 M Street - Ph. I	High-Rise	Capitol Riverfront	218	Yes	No	No	No	N/A
6 1st & K St - Ph. II	High-Rise	Capitol Riverfront	400	No	No	No	No	2019
7 One Hill South - Phase II	High-Rise	Capitol Riverfront	300	No	No	No	No	Q2 2018
8 The Yards - Parcel L	High-Rise	Capitol Riverfront	216	No	No	No	No	N/A
9 WASA site - G1 parcel	High-Rise	Capitol Riverfront	322	No	No	No	No	N/A
10 WASA site - G2 parcel	High-Rise	Capitol Riverfront	230	No	No	No	No	N/A
11 Randall School - East Building	High-Rise	South Capitol	245	Yes	No	No	No	2019
12 Randall School - West Building	High-Rise	South Capitol	244	Yes	Yes	Yes	No	Q1 2019
13 The Bard	Mid-Rise	SW Waterfront	93	No	No	No	No	N/A
14 The Wharf - Parcel 8	High-Rise	SW Waterfront	115	Yes	No	No	No	Q2 2018
15 Town Center North	High-Rise	SW Waterfront	140	No	No	No	No	Q1 2019
16 Waterfront Station - NE Parcel	High-Rise	SW Waterfront	310	No	No	No	No	2019
Central								
17 90 Blagden Alley	Mid-Rise	Mt. Vernon Square	112	Yes	Yes	Yes	No	N/A
18 4th and K - Ph. I	High-Rise	Mt. Vernon Triangle	450	Yes	Yes	Yes	No	Q3 2018
19 The Cantata	High-Rise	Mt. Vernon Triangle	268	Yes	Yes	Yes	No	Q2 2020
Columbia Heights/Shaw								
20 1309-1315 Clifton Street	Mid-Rise	Columbia Heights	153	No	No	No	No	N/A
21 Parcel 42	High-Rise	Shaw	83	No	No	No	No	Q4 2019
NoMa/H Street								
22 Eckington Park	Mid-Rise	Eckington	300	No	No	No	No	Q4 2018
23 Atlas District - Phase II	Mid-Rise	H Street	173	Yes	Yes	Yes	No	N/A
24 51 N Street	High-Rise	NoMa	200	Yes	Yes	Yes	No	N/A
25 Burnham Place	High-Rise	NoMa	250	No	No	No	No	Q1 2019
26 Central Armature Works site	High-Rise	NoMa	400	No	No	No	No	Q2 2018
27 DCHA HQ - Phase II	High-Rise	NoMa	307	Yes	Yes	Yes	No	Q2 2022
28 DCHA HQ - Phase III	High-Rise	NoMa	290	Yes	Yes	Yes	No	Q1 2023
29 Press House at Union District	High-Rise	NoMa	370	No	No	No	No	N/A
30 Sursum Corda - Ph 2	High-Rise	NoMa	649	No	No	No	No	N/A
31 500 Penn St	High-Rise	Union Market	273	No	No	No	No	N/A
32 Market Terminal A1	Mid-Rise	Union Market	244	No	No	No	No	N/A
33 Market Terminal A2	High-Rise	Union Market	147	No	No	No	No	N/A
34 Market Terminal B	Mid-Rise	Union Market	97	No	No	No	No	N/A
35 Market Terminal C2	Mid-Rise	Union Market	229	No	No	No	No	N/A
36 Union Market North	High-Rise	Union Market	231	No	No	No	No	N/A

TABLE 3.24
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 District of Columbia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Northeast								
37 RIA Blocks 1 & 4	Mid-Rise	Brentwood	475	Yes	Yes	Yes	N/A	1/2023
38 RIA Blocks 2, 3, 5, & 6	Mid-Rise	Brentwood	828	Yes	Yes	Yes	N/A	1/2020
39 Brookland Metro Site	Mid-Rise	Brookland	252	No	No	No	No	Q3 2020
40 Monroe Street Market - Block E	Mid-Rise	Brookland	100	Yes	Yes	Yes	No	N/A
41 Art Place at Fort Totten - Phase II	Mid-Rise	Fort Totten	400	Yes	No	No	No	N/A
42 NewCityDC	Mid-Rise	Ivy City	422	N/A	No	N/A	No	N/A
River East								
43 Reunion Square	Low-Rise	Anacostia	130	No	No	No	No	N/A
44 4049 South Capitol St	Mid-Rise	Bellevue	150	N/A	N/A	N/A	N/A	N/A
45 Congress Heights Metro	High-Rise	Congress Heights	208	No	No	No	No	N/A
46 Skyland Town Center - Block 3	Mid-Rise	Hillcrest	80	Yes	Yes	Yes	No	N/A
47 Skyland Town Center - Block 4	Mid-Rise	Hillcrest	70	Yes	Yes	Yes	No	N/A
48 Parkside - Parcel F	Mid-Rise	Riverside Terrace	360	Yes	No	No	No	N/A
Upper GA								
49 Murry's Georgia Avenue Site	Mid-Rise	Petworth	100	No	No	No	No	N/A
50 Shepard Park Gateway Project	Mid-Rise	Shepard Park	199	No	No	No	No	N/A
51 Takoma WMATA parcel	Mid-Rise	Takoma	210	No	No	No	No	N/A
52 Walter Reed Town Center	Mid-Rise	Takoma	300	N/A	No	No	No	N/A
Upper NW								
53 The Ladybird	Mid-Rise	AU Park	175	No	No	No	No	N/A
54 Georgetown Day School Campus Expansion	Mid-Rise	Tenleytown	290	No	No	No	No	N/A
55 2660 Woodley Road NW	Mid-Rise	Woodley Park	115	No	No	No	No	N/A
Total:			14,373					

Comparative Longer Term Pipeline For Market Rate Apartments as of:	
Date	# Units
9/2017	14,373
12/2016	16,775
12/2015	12,045
12/2014	10,869
12/2013	8,812
12/2012	6,587
12/2011	5,717
12/2010	5,990
12/2009	7,685
12/2008	8,284
12/2007	5,306
12/2006	2,728
12/2005	3,614
12/2004	1,798
12/2003	2,948
12/2002	3,091
12/2001	4,210
12/2000	3,160

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TABLE 3.25
SUMMARY OF PROJECTS PLANNED EITHER AS CONDOMINIUM OR RENTAL
 District of Columbia
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Capitol Hill/Riverfront/SW								
1 1333 M Street - Ph. II	High-Rise	Capitol Riverfront	133	No	No	No	No	N/A
2 1333 M Street - Ph. III	High-Rise	Capitol Riverfront	234	No	No	No	No	N/A
3 1333 M Street - Ph. IV	High-Rise	Capitol Riverfront	88	No	No	No	No	N/A
4 2 Eye Street - Phase II	High-Rise	Capitol Riverfront	170	Yes	Yes	Yes	No	N/A
5 1001 South Capitol Street Phase I and II	High-Rise	SW Waterfront	600	No	No	No	No	N/A
6 300 7th Street	High-Rise	SW Waterfront	370	Yes	Yes	Yes	No	N/A
Central								
7 Capitol Crossing	High-Rise	East End	100	Yes	Yes	Yes	No	2020
Columbia Heights/Shaw								
8 3212 Georgia Avenue	Mid-Rise	Park View	105	No	No	No	No	N/A
9 631 P Street	Mid-Rise	Shaw	59	No	No	No	No	Q3 2017
NoMa/H Street								
10 Eckington Yards West	High-Rise	Eckington	465	Yes	Yes	Yes	No	Q2 2018
11 1124 Florida Avenue NE	Mid-Rise	H Street	52	No	No	No	No	N/A
12 1701 H Street	High-Rise	H Street	166	N/A	N/A	N/A	N/A	Q1 2018
13 NoMa Station II-IV	High-Rise	NoMa	700	No	No	No	No	N/A
14 Gallaudet	Mid-Rise	Union Market	1,800	No	No	No	No	2019
Northeast								
15 McMillan Redevelopment	Mid-Rise	Bloomingdale	531	No	No	No	No	2017
16 680 Rhode Island - Ph. II	Mid-Rise	Brentwood	575	No	No	No	No	2022
17 680 Rhode Island - Ph. III	Mid-Rise	Brentwood	580	No	No	No	No	2026
River East								
18 Barry Farm	Mid-Rise	Barry Farm	1,056	Yes	No	No	No	N/A
19 Parkside - Other Phases	Mid-Rise	Riverside Terrace	750	Yes	No	No	No	N/A
Upper GA								
20 The Parks at Walter Reed	Mid-Rise	Brightwood	1,277	No	No	No	No	2018
Upper NW								
21 4000 Wisconsin Avenue NW	Mid-Rise	Tenleytown	650	N/A	N/A	N/A	N/A	N/A
Total:			10,461					

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TABLE 3.26
CLASS A APARTMENT BUILDING SALES
 Washington Metropolitan Area
 2016

COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE		
						TOTAL	PER UNIT	
CLASS A LOW-RISE								
1.	Comparable #1	Germantown	MD	1/16	544	1986	\$97,600,000	\$179,412
2.	Comparable #2	Woodbridge	VA	1/16	264	1986	\$57,586,566	\$218,131
3.	Comparable #3	Bowie	MD	1/16	478	1999	\$101,878,367	\$213,135
4.	Comparable #4	Largo	MD	1/16	242	2008	\$56,756,903	\$234,533
5.	Comparable #5	Waldorf	MD	1/16	491	2009	\$107,003,493	\$217,930
6.	Comparable #6	Alexandria	VA	3/16	240	2014	\$69,500,000	\$289,583
7.	Comparable #7	Leesburg	VA	3/16	108	2006	\$23,500,000	\$217,593
8.	Comparable #8	Fredericksburg	VA	3/16	314	2012	\$61,250,000	\$195,064
9.	Comparable #9	Alexandria	VA	3/16	290	2012	\$70,200,000	\$242,069
10.	Comparable #10	Ashburn	VA	6/16	630	2000	\$136,000,000	\$215,873
11.	Comparable #11	Hyattsville	MD	7/16	478	2008	\$110,000,000	\$230,126
12.	Comparable #12	Fredericksburg	VA	9/16	150	2001	\$23,750,000	\$158,333
13.	Comparable #13	Frederick	MD	9/16	297	2006	\$61,000,000	\$205,387
14.	Comparable #14	Germantown	MD	10/16	326	2001	\$70,300,000	\$215,644
15.	Comparable #15	Woodbridge	VA	11/16	420	2015	\$104,000,000	\$247,619
Total/Average:		--	--	--	5,272	--	\$1,150,325,329	\$218,195
CLASS A MID-RISE/HIGH-RISE								
1.	Comparable #1	Alexandria	VA	2/16	323	2014	\$108,300,000	\$335,294
2.	Comparable #2	Washington	DC	2/16	190	2004	\$119,000,000	\$626,316
3.	Comparable #3	Washington	DC	3/16	257	2012	\$94,875,000	\$369,163
4.	Comparable #4	Washington	DC	5/16	308	2008	\$81,200,000	\$263,636
5.	Comparable #5	Arlington	VA	5/16	300	2001	\$120,300,000	\$401,000
6.	Comparable #6	Bethesda	MD	6/16	359	2016	\$207,000,000	\$576,602
7.	Comparable #7	Washington	DC	9/16	141	2013	\$47,000,000	\$333,333
8.	Comparable #8	Arlington	VA	9/16	269	2009	\$102,000,000	\$379,182
9.	Comparable #9	Washington	DC	9/16	96	2016	\$53,560,000	\$557,917
10.	Comparable #10	Washington	DC	10/16	307	2016	\$160,000,000	\$521,173
Total/Average:		--	--	--	2,550	--	\$1,093,235,000	\$428,720
Grand Total/Average:		--	--	--	7,822	--	\$2,243,560,329	\$286,827

Note: Delta Associates no longer provides the name of each project listed above except to appraisal clients of the firm and those who provide this type of transaction data to Delta. If you wish a list of project names and you qualify to receive same, email your request to: info@DeltaAssociates.com.

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TABLE 3.27
CLASS A APARTMENT BUILDING SALES
 Washington Metropolitan Area
 2017 Through September

COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE		
						TOTAL	PER UNIT	
CLASS A LOW-RISE								
1.	Comparable #1	Alexandria	VA	3/17	360	2007	\$91,500,000	\$254,167
2.	Comparable #2	Moorefield Station	VA	4/17	413	2009	\$96,000,000	\$232,446
3.	Comparable #3	North Bethesda	MD	6/17	386	2002	\$63,800,000	\$165,285
4.	Comparable #4	Southern Gateway	VA	6/17	476	1989	\$74,400,000	\$156,303
5.	Comparable #5	Southern Gateway	VA	6/17	200	1989	\$26,100,000	\$130,500
6.	Comparable #6	Woodbridge	VA	7/17	308	2015	\$75,800,000	\$246,104
Total/Average:		--	--		2,143	--	\$427,600,000	\$199,533
CLASS A MID-RISE/HIGH-RISE								
1.	Comparable #1	Beltsville	MD	2/17	433	2013	\$92,250,000	\$213,048
2.	Comparable #2	Arlington	VA	2/17	191	2014	\$90,000,000	\$471,204
3.	Comparable #3	Arlington	VA	2/17	187	2014	\$98,300,000	\$525,668
4.	Comparable #4	Alexandria	VA	3/17	264	2007	\$70,100,000	\$265,530
5.	Comparable #5	Arlington	VA	4/17	265	2016	\$143,000,000	\$539,623
6.	Comparable #6	Alexandria	VA	4/17	276	2013	\$100,500,000	\$364,130
7.	Comparable #7	Washington	DC	6/17	378	2015	\$114,142,948	\$301,965
8.	Comparable #8	Falls Church	VA	7/17	104	2014	\$43,000,000	\$413,462
9.	Comparable #9	Arlington	VA	8/17	404	1989	\$144,000,000	\$356,436
10.	Comparable #10	Rockville	MD	8/17	109	2008	\$28,600,000	\$262,385
11.	Comparable #11	Rockville	MD	8/17	241	2008	\$63,200,000	\$262,241
12.	Comparable #12	Rockville	MD	8/17	142	2008	\$37,200,000	\$261,972
Total/Average:		--	--		2,994	--	\$1,024,292,948	\$342,115
Grand Total/Average:		--	--		5,137	--	\$1,451,892,948	\$282,634

Note: Delta Associates no longer provides the name of each project listed above except to appraisal clients of the firm and those who provide this type of transaction data to Delta. If you wish a list of project names and you qualify to receive same, email your request to: info@DeltaAssociates.com.

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TABLE 3.28
SUMMARY OF MULTIFAMILY LAND SALES
 Washington Metropolitan Area
 2016

COMPARABLE	CITY	STATE	DATE OF SALE	PARCEL SIZE (ACRES)	TOTAL # OF PLANNED UNITS	AFFORDABLE DWELLING UNITS (ADU's/MPDU's)	TOTAL SALES PRICE	SALE PRICE PER UNIT	SALE PRICE PER MARKET RATE UNITS ONLY	SALES PRICE PER GROSS SF
LOW-RISE										
1. Comparable #1	Reston	VA	9/16	5.0	457	0	\$30,250,000	\$66,193	\$66,193	\$139
MID-RISE/HIGH-RISE										
1. Comparable #1	Tysons Corner	VA	1/16	1.4	398	80	\$24,750,000	\$62,186	\$77,830	\$406
2. Comparable #2	Washington	DC	2/16	0.4	120	0	\$11,000,000	\$91,667	\$91,667	\$701
3. Comparable #3	Washington	DC	4/16	0.4	59	5	\$10,500,000	\$177,966	\$177,966	\$689
4. Comparable #4	Dulles Town Center	VA	6/16	N/A	650	78	\$14,600,000	\$22,462	\$25,524	N/A
5. Comparable #5	Bethesda	MD	6/16	0.2	58	8	\$4,650,000	\$80,172	\$93,000	\$562
6. Comparable #6	Washington	DC	7/16	2.0	800	0	\$63,500,000	\$79,375	\$79,375	\$729
7. Comparable #7	Washington	DC	8/16	0.4	112	0	\$9,700,000	\$86,607	\$86,607	\$557
8. Comparable #8	Alexandria	VA	11/16	4.4	352	0	\$31,000,000	\$88,068	\$88,068	\$162

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TABLE 3.29
SUMMARY OF MULTIFAMILY LAND SALES
 Washington Metropolitan Area
 2017 Through September

COMPARABLE	CITY	STATE	DATE OF SALE	PARCEL SIZE (ACRES)	TOTAL # OF PLANNED UNITS	AFFORDABLE DWELLING UNITS (ADU's/MPDU's)	TOTAL SALES PRICE	SALE PRICE PER UNIT	SALE PRICE PER MARKET RATE UNITS ONLY	SALES PRICE PER GROSS SF
LOW-RISE										
1. Comparable #1	McNair	VA	1/17	12.0	351	46	\$26,125,001	\$74,430	\$85,656	\$50
2. Comparable #2	Leesburg	VA	2/17	77.0	475	0	\$19,120,000	\$40,253	\$40,253	\$6
3. Comparable #3	Washington	DC	4/17	0.2	22	0	\$3,400,000	\$154,545	\$154,545	\$459
4. Comparable #4	Capitol Heights	MD	5/17	6.3	250	0	\$7,000,000	\$28,000	\$28,000	\$26
5. Comparable #5	Alexandria	VA	6/17	0.2	49	0	\$5,600,000	\$114,286	\$114,286	\$857
MID-RISE/HIGH-RISE										
1. Comparable #1	Washington	DC	1/17	0.5	72	0	\$7,150,000	\$99,306	\$99,306	\$328
2. Comparable #2	Reston	VA	3/17	2.0	260	0	\$11,000,000	\$42,308	\$42,308	\$126
3. Comparable #3	Washington	DC	5/17	14.7	422	0	\$66,000,000	\$156,398	\$156,398	\$103
4. Comparable #4	Silver Spring	MD	5/17	1.0	440	66	\$10,864,633	\$24,692	\$29,050	\$252
5. Comparable #5	Arlington	VA	6/17	0.8	365	0	\$23,500,000	\$64,384	\$64,384	\$658
6. Comparable #6	Rockville	MD	7/17	2.9	271	46	\$12,200,000	\$38,486	\$45,018	\$97
7. Comparable #7	Washington	DC	7/17	0.6	132	13	\$6,300,000	\$43,448	\$47,727	\$263

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4 BALTIMORE STATISTICAL REPORT



TABLE 4.1
KEY MARKET INDICATORS FOR CLASS A RENTAL APARTMENTS
 Selected Submarkets | Baltimore Metropolitan Area¹
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET										BALTIMORE METRO AREA TOTAL/AVERAGE
	HOWARD COUNTY/COLUMBIA	N ANNE ARUNDEL COUNTY	ANNAPOLIS	SUBTOTAL-SOUTHERN SUBURBS	WEST & NW BALTIMORE COUNTY	EAST AND NE BALTIMORE COUNTY	HARFORD COUNTY	SUBTOTAL-NORTHERN SUBURBS	SUBTOTAL-BALTIMORE SUBURBS	BALTIMORE CITY	
Number of Units Surveyed	4,667	6,339	1,659	12,665	4,638	3,140	1,808	9,586	22,251	8,382	30,633
Rent Levels (Avg. of All Unit Sizes)											
Face Rent	\$1,779	\$1,698	\$1,924	\$1,757	\$1,514	\$1,621	\$1,378	\$1,523	\$1,657	\$1,889	\$1,720
Concession as a % of Face Rents	1.6%	4.3%	1.1%	2.9%	1.9%	0.0%	0.7%	1.0%	2.1%	1.8%	2.0%
Effective Rent	\$1,750	\$1,625	\$1,902	\$1,707	\$1,485	\$1,621	\$1,369	\$1,508	\$1,621	\$1,855	\$1,685
Effective Rent per Square Foot	\$1.71	\$1.62	\$2.03	\$1.71	\$1.31	\$1.64	\$1.32	\$1.42	\$1.58	\$2.16	\$1.74
Annual Effective Rent Increase											
- Since 1998	3.9%	3.4%	4.3%	3.7%	3.3%	4.2%	3.4%	3.6%	3.7%	N/A	3.7%
- Since 9/30/12	1.6%	0.5%	3.1%	1.3%	1.7%	1.6%	2.8%	1.9%	1.5%	1.0%	1.4%
- Since 9/30/16 ²	-0.5%	-3.5%	-0.1%	-1.9%	-2.6%	-1.2%	2.4%	-1.2%	-1.6%	1.8%	-0.7%
Vacancy September 2017											
Overall ³	9.4%	9.9%	7.9%	9.5%	3.6%	5.6%	3.2%	4.2%	7.2%	15.2%	9.4%
Stabilized ⁴	5.0%	5.5%	5.1%	5.2%	3.6%	3.8%	3.1%	3.5%	4.5%	5.0%	4.6%
Vacancy September 2016											
Overall ³	3.3%	5.6%	1.5%	4.2%	2.8%	12.6%	5.9%	6.6%	5.2%	12.1%	7.1%
Stabilized ⁴	3.0%	4.8%	1.6%	3.7%	2.8%	1.9%	3.9%	2.7%	3.3%	5.5%	3.9%
Absorption Trends											
# of Market Rate Units Absorbed Over the Past 12 Months	221	588	121	930	(23)	339	50	366	1,296	757	2,053
For Comparison											
12-Month Period Ending 9/30/2016	433	318	61	812	2	171	269	442	1,254	754	2,008
Supply Projections											
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	1,886	658	329	2,873	0	732	10	742	3,615	4,620	8,235
For Comparison											
at 9/30/2016	1,815	986	494	3,294	0	916	48	964	4,258	4,130	8,388

¹ Includes walk-up and elevator-served apartments of one to four stories with the exception of Baltimore City which includes high-rise structures.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on Tables 4.5 and 4.6. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 4.2
KEY MARKET INDICATORS FOR INVESTMENT GRADE CLASS A RENTAL APARTMENTS
 Selected Submarkets | Baltimore City, Maryland ¹
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET		BALTIMORE CITY TOTAL/AVERAGE
	DOWNTOWN	FELLS POINT/INNER HARBOR	
Number of Units Surveyed	5,311	3,071	8,382
Rent Levels (Avg. of All Unit Sizes)			
Face Rent	\$1,653	\$2,296	\$1,889
Concession as a % of Face Rents	2.1%	1.5%	1.8%
Effective Rent	\$1,619	\$2,262	\$1,855
Effective Rent per Square Foot	\$1.98	\$2.48	\$2.16
Annual Effective Rent Increase			
- Since 9/30/12	1.6%	-0.1%	1.0%
- Since 9/30/16 ²	-0.5%	5.9%	1.8%
Vacancy September 2017			
Overall ³	8.0%	27.7%	15.2%
Stabilized ⁴	6.1%	3.1%	5.0%
Vacancy September 2016			
Overall ³	14.7%	7.5%	12.1%
Stabilized ⁴	5.6%	5.4%	5.5%
Absorption Trends			
# of Market Rate Units Absorbed Over the Past 12 Months	478	279	757
For Comparison			
12-Month Period Ending 9/30/2016	763	(9)	754
Supply Projections			
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁵	2,549	2,071	4,620
For Comparison			
at 9/30/2016	2,037	2,093	4,130

¹ Includes low-rise and garden style apartments, mid-rise apartments, high-rise apartments and warehouse conversions.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

⁵ See list of under construction and planned projects on Tables 4.5 and 4.6. Includes conversions. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last Update: September 2017.

TABLE 4.3
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
BALTIMORE METROPOLITAN AREA
 Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TOTAL UNITS ¹	DATE LEASING BEGAN	DATE OF DELIVERY	UNITS ABSORBED	MONTHLY ABSORPTION PACE PER QUARTER				OVERALL LEASE-UP PACE SINCE MARKETING BEGAN	CURRENT CONCESS. AS A % OF FACE RENT
						Q4' 16	Q1' 17	Q2' 17	Q3' 17		
LOW-RISE APARTMENTS											
1.	Winter's Run Bel Air, Maryland	288	1/16	4/16	278	(2)	4	6	5	14	4%
2.	Alexan Concorde - Ph. I Linthicum, Maryland	310	8/16	8/16	233	18	8	18	20	18	17%
3.	The Elms at Shannon's Glen Jessup, Maryland	364	11/16	11/16	268	55	2	45	24	27	N/A
4.	Bluestream - Phase II Elkridge, Maryland	168	1/17	4/17	114	N/A	--	--	12	14	N/A
5.	The Southerly Towson, Maryland	175	1/17	3/17	118	N/A	--	--	11	15	0%
MID-RISE APARTMENTS											
6.	Icon Residences at the Rotunda Baltimore, Maryland	379	3/16	3/16	332	63	2	13	(3)	18	0%
7.	Avalon Hunt Valley Hunt Valley, Maryland	332	7/16	8/16	319	32	11	36	11	23	0%
8.	The James Annapolis, Maryland	236	7/16	8/16	200	21	17	12	5	14	2%
9.	Alta Wilde Lake Columbia, Maryland	230	8/16	10/16	165	-- 2	-- 2	15	16	13	2%
10.	500 Park Baltimore, Maryland	153	2/17	6/17	100	N/A	4	11	21	14	0%
11.	Banner Hill Baltimore, Maryland	349	4/17	7/17	24	N/A	N/A	3	6	5	4%
12.	Calvert Street Lofts Baltimore, Maryland	56	4/17	9/17	10	N/A	N/A	-- 2	3	2	N/A
13.	The Residences at Annapolis Junction Annapolis Junction, Maryland	384	5/17	8/17	51	N/A	N/A	5	15	13	N/A
14.	Flats @703 Towson, Maryland	105	5/17	9/17	34	N/A	N/A	-- 2	11	9	N/A
15.	m.flats Downtown Columbia Columbia, Maryland	267	7/17	11/17	3	N/A	N/A	N/A	2	2	N/A
16.	Hanover Cross Street Baltimore, Maryland	299	8/17	8/17	41	N/A	N/A	N/A	41	41	0%

TABLE 4.3
ABSORPTION SUMMARY | ACTIVELY LEASING CLASS A APARTMENT PROJECTS
BALTIMORE METROPOLITAN AREA
 Third Quarter 2017

COMP. #	PROJECT NAME/LOCATION	TOTAL UNITS ¹	DATE LEASING BEGAN	DATE OF DELIVERY	UNITS ABSORBED	MONTHLY ABSORPTION PACE PER QUARTER				OVERALL LEASE-UP PACE SINCE MARKETING BEGAN	CURRENT CONCESS. AS A % OF FACE RENT
						Q4' 16	Q1' 17	Q2' 17	Q3' 17		
HIGH-RISE APARTMENTS											
17.	10 Light Baltimore, Maryland	419	9/15	10/15	370	11	15	15	4	15	0%
18.	Anthem House Baltimore, Maryland	292	4/17	6/17	120	N/A	N/A	40	14	24	8%
19.	Lakehouse Columbia, Maryland	160	5/17	7/17	80	N/A	N/A	20	20	20	0%
20.	Highland Haus Apartments Baltimore, Maryland	65	7/17	9/17	10	N/A	N/A	N/A	5	5	N/A
21.	2 Hopkins Baltimore, Maryland	183	8/17	8/17	24	N/A	N/A	N/A	24	24	N/A
22.	The Arundel Hanover, Maryland	233	8/17	8/17	37	N/A	N/A	N/A	37	37	N/A
at Third Quarter 2017		5,447	--	--	2,931	--	--	--	--	16	2%
at Third Quarter 2016		3,575	--	--	1,816	--	--	--	--	15	3%

¹ Includes only market-rate units.

² Property did not participate in our survey.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.
 Last update: September 2017.

TABLE 4.4
ABSORPTION SUMMARY
RECENTLY STABILIZED APARTMENT PROJECTS
 Baltimore Metropolitan Area | 2006 - 2017

COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS ¹	DATE MARKETING BEGAN	DATE STABILIZED	OVERALL MONTHLY LEASE-UP PACE
1.	Greenwich Place at Town Center Owings Mills, Maryland	Low-Rise	332	6/06	6/09	9
2.	1901 West Annapolis, MD	Mid-Rise	282	7/06	5/08	12
3.	Crescent at Fells Point (Swan's Wharf) Baltimore, Maryland	Mid-Rise	252	7/06	11/08	9
4.	The Lodge at Seven Oaks Odenton, Maryland	Low-Rise	396	2/07	2/09	17
5.	The Excalibur (frmly. Gallery at Avalon) Pikesville, Maryland	Low-Rise	147	3/07	6/09	5
6.	Arbors at Arundel Preserve Hanover, Maryland	Low-Rise	496	4/07	5/08	35
7.	The Zenith Baltimore, Maryland	High-Rise	191	5/07	8/09	7
8.	The Eden Baltimore, Maryland	Mid-Rise	270	5/07	11/09	9
9.	Regatta Bay Annapolis, Maryland	Low-Rise	194	7/07	5/08	18
10.	Ashbury Courts Laurel, Maryland	Low-Rise	119	11/07	11/08	9
11.	Belmont Station Elkridge, Maryland	Low-Rise	177	12/07	8/08	20
12.	39 West Lexington Baltimore, Maryland	High-Rise	181	1/08	8/10	26
13.	Elms at Stoney Run - Phase I Hanover, Maryland	Low-Rise	280	11/08	5/10	15
14.	Domain Brewers Hill Baltimore, Maryland	Mid-Rise	180	12/08	5/10	11
15.	Mariner Bay at Annapolis Town Centre Annapolis, Maryland	High-Rise	208	2/09	8/10	11
16.	Professional Arts Building Baltimore, Maryland	Mid-Rise	90	2/09	12/10	4
17.	The Renaissance & Jazz at the Quarter Towson, Maryland	Low-Rise	432	3/09	3/11	18
18.	Penniman Park at Elkridge Town Center Elkridge, Maryland	Low-Rise	254	5/09	8/10	16

TABLE 4.4
ABSORPTION SUMMARY
RECENTLY STABILIZED APARTMENT PROJECTS
 Baltimore Metropolitan Area | 2006 - 2017

COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS ¹	DATE MARKETING BEGAN	DATE STABILIZED	OVERALL MONTHLY LEASE-UP PACE
19.	Towson Promenade Towson, Maryland	Low-Rise	376	5/09	9/11	14
20.	Elms at Stoney Run - Phase II Hanover, Maryland	Low-Rise	106	1/10	5/10	21
21.	The Fitzgerald Baltimore, Maryland	Mid-Rise	280	4/10	9/11	16
22.	Palisades of Towson Towson, Maryland	Mid-Rise	357	8/10	12/12	13
23.	The Reserve at Stoney Creek - Ph. I Pasadena, Maryland	Low-Rise	88	9/10	5/11	10
24.	Mission Place Jessup, Maryland	Low-Rise	201	10/10	2/12	12
25.	Enclave at Emerson Laurel, Maryland	Low-Rise	164	12/10	11/11	14
26.	Residences at Arundel Preserve Hanover, Maryland	Mid-Rise	242	6/11	2/12	27
27.	The View at Mill Run Owings Mills, Maryland	Low-Rise	375	6/11	12/13	13
28.	Arbors at Baltimore Crossroads White Marsh, Maryland	Low-Rise	365	8/11	5/14	11
29.	McHenry Row Baltimore, Maryland	Mid-Rise	250	9/11	2/13	15
30.	The Riverside Apartments Aberdeen, Maryland	Low-Rise	212	4/12	2/13	21
31.	The Haven at Odenton Gateway Odenton, Maryland	Low-Rise	252	4/12	6/13	18
32.	1111 Light Street Baltimore, Maryland	Mid-Rise	93	5/12	9/13	6
33.	Orchard Meadows at North Ridge Columbia, Maryland	Low-Rise	144	7/12	6/13	12
34.	1901 South Charles Baltimore, Maryland	Low-Rise	178	8/12	12/13	11
35.	Groveton Green Owings Mills, Maryland	Low-Rise	226	9/12	9/13	25
36.	Hanover Brewers Hill Baltimore, Maryland	Mid-Rise	440	12/12	8/15	14

TABLE 4.4
ABSORPTION SUMMARY
RECENTLY STABILIZED APARTMENT PROJECTS
 Baltimore Metropolitan Area | 2006 - 2017

COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS ¹	DATE MARKETING BEGAN	DATE STABILIZED	OVERALL MONTHLY LEASE-UP PACE
37.	The Beacon at Waugh Chapel Crofton, Maryland	Mid-Rise	298	1/13	2/15	12
38.	Union Wharf Baltimore, Maryland	Mid-Rise	281	1/13	2/16	7
39.	The Palisades at Arundel Preserve Hanover, Maryland	Mid-Rise	330	2/13	8/14	18
40.	Village at Odenton Station Odenton, Maryland	Low-Rise	235	2/13	11/13	11
41.	Mill. No. 1 Baltimore, Maryland	Low-Rise	84	3/13	8/14	5
42.	Crosswinds at Annapolis Town Center Annapolis, Maryland	Mid-Rise	215	4/13	11/14	11
43.	Flats 170 at Academy Yard Odenton, Maryland	Mid-Rise	369	4/13	2/15	17
44.	Brompton House Elkridge, Maryland	Low-Rise	254	5/13	8/14	17
45.	521 St. Paul Street Baltimore, Maryland	Mid-Rise	69	8/13	5/14	8
46.	Metro Crossing Owings Mills, Maryland	Mid-Rise	250	8/13	3/15	13
47.	Verde at Howard Square Elkridge, Maryland	Mid-Rise	300	8/13	11/15	11
48.	The Gunther Baltimore, Maryland	Mid-Rise	162	9/13	5/15	8
49.	101 Ellwood Baltimore, Maryland	Mid-Rise	140	9/13	11/15	5
50.	Marketplace at Fells Point Baltimore, Maryland	Mid-Rise	177	9/13	2/16	6
51.	301 N. Charles Street Baltimore, Maryland	Mid-Rise	97	1/14	11/14	10
52.	Paragon at Columbia Overlook Elkridge, Maryland	Low-Rise	320	1/14	8/15	16
53.	The Lenore Baltimore, Maryland	High-Rise	102	2/14	5/15	7
54.	520 Park Baltimore, Maryland	Low-Rise	171	3/14	3/15	14

TABLE 4.4
ABSORPTION SUMMARY
RECENTLY STABILIZED APARTMENT PROJECTS
 Baltimore Metropolitan Area | 2006 - 2017

COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS ¹	DATE MARKETING BEGAN	DATE STABILIZED	OVERALL MONTHLY LEASE-UP PACE
55.	Creekside Village Glen Burnie, Maryland	Low-Rise	208	3/14	2/15	19
56.	The Riverside Apartments II Aberdeen, Maryland	Low-Rise	188	4/14	2/16	8
57.	Jefferson Square at Washington Hill Baltimore, Maryland	Mid-Rise	304	6/14	5/16	13
58.	Algonquin Apartments Baltimore, Maryland	High-Rise	56	9/14	2/15	11
59.	The Metropolitan Downtown Columbia Columbia, Maryland	Mid-Rise	364	9/14	11/16	26
60.	The Winthrop Towson, Maryland	Mid-Rise	295	10/14	8/16	13
61.	Laurel Gardens Laurel, Maryland	Low-Rise	114	1/15	11/15	11
62.	The Equitable Building Baltimore, Maryland	High-Rise	189	1/15	5/16	11
63.	2 E. Wells Baltimore, Maryland	Mid-Rise	153	2/15	8/16	8
64.	Orchard Park Apartments - Addition Ellicott City, Maryland	Low-Rise	40	5/15	8/15	11
65.	26 Calvert Baltimore, Maryland	High-Rise	171	5/15	11/16	9
66.	111 Heath Lofts Baltimore, Maryland	Mid-Rise	59	7/15	11/15	9
67.	Woodfield Oxford Square Hanover, Maryland	Low-Rise	210	7/15	8/16	16
68.	Enclave at Box Hill Abingdon, Maryland	Low-Rise	240	8/15	8/16	19
69.	Remington Row Baltimore, Maryland	Mid-Rise	108	2/16	11/16	11

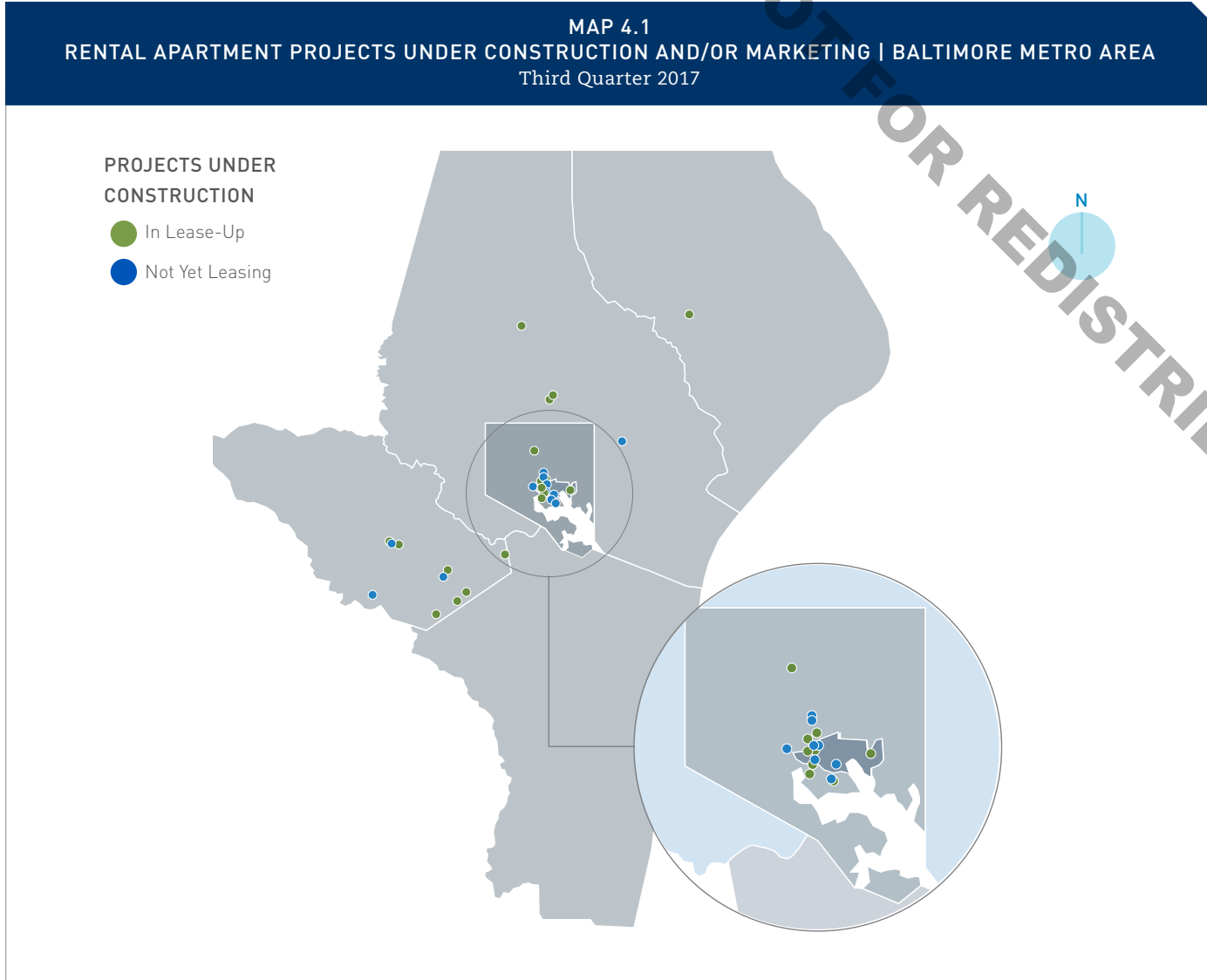
TABLE 4.4
ABSORPTION SUMMARY
RECENTLY STABILIZED APARTMENT PROJECTS
 Baltimore Metropolitan Area | 2006 - 2017

COMP. #	PROJECT NAME/LOCATION	TYPE OF PROJECT	TOTAL UNITS ¹	DATE MARKETING BEGAN	DATE STABILIZED	OVERALL MONTHLY LEASE-UP PACE
70.	1305 Dock Street Baltimore, Maryland	High-Rise	103	3/16	11/16	12
71.	Creekstone Village - Phase II Pasadena, Maryland	Low-Rise	112	7/16	8/17	10
Overall Total/Average (1996-Present):			26,051	--	--	13
Those That Began Marketing in 2003: Total/Average:			711	--	--	13
Those That Began Marketing in 2004: Total/Average:			730	--	--	11
Those That Began Marketing in 2005: Total/Average:			1,741	--	--	12
Those That Began Marketing in 2006: Total/Average:			866	--	--	10
Those That Began Marketing in 2007: Total/Average:			1,990	--	--	13
Those That Began Marketing in 2008: Total/Average:			641	--	--	15
Those That Began Marketing in 2009: Total/Average:			1,360	--	--	13
Those That Began Marketing in 2010: Total/Average:			1,196	--	--	14
Those That Began Marketing in 2011: Total/Average:			1,232	--	--	14
Those That Began Marketing in 2012: Total/Average:			1,545	--	--	14
Those That Began Marketing in 2013: Total/Average:			3,164	--	--	10
Those That Began Marketing in 2014: Total/Average:			2,105	--	--	14
Those That Began Marketing in 2015: Total/Average:			1,176	--	--	12
Those That Began Marketing in 2016: Total/Average:			323	--	--	12

¹ Includes market rate units only.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.

Last update: September 2017.



Source: Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100.
Last update: September 2017.

TABLE 4.5
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
Anne Arundel County									
1 Maris	Mid-Rise	Annapolis	Lennar	293	0	293	Q4 2017	Q4 2017	Q1 2018
2 The James	Mid-Rise	Annapolis	JLB Partners	236	200	36	7/2016	Q3 2016	Q4 2016
3 The Arundel	High-Rise	Hanover	Southern Management	233	37	196	8/2017	8/2017	10/2017
4 The Elms at Shannon's Glen	Low-Rise	Jessup	Elm Street Development	364	268	96	Q4 2016	10/2016	Q1 2017
5 Alexan Concorde - Ph. I	Low-Rise	Linthicum	Trammell Crow Residential	310	233	77	Q3 2016	8/2016	12/2016
Baltimore County									
6 Avalon Hunt Valley	Mid-Rise	Hunt Valley	AvalonBay	332	319	13	7/2016	8/2016	Q2 2017
7 Overlook at Franklin Square	Low-Rise	Rosedale	Klein Enterprises	356	0	356	Q4 2017	Q4 2017	12/2018
8 Flats @703	Mid-Rise	Towson	Federal Realty Investment Trust	105	34	71	Q2 2017	9/2017	8/2017
9 The Southerly	Low-Rise	Towson	Taylor Property Group, LLC	175	118	57	1/2017	3/2017	3/2017
Baltimore City									
10 1 Light Street	High-Rise	Downtown	J.J. Clarke Enterprises Inc.	262	0	262	Q2 2018	Q3 2018	Q3 2018
11 10 Light	High-Rise	Downtown	Metropolitan Partnership Ltd.	419	370	49	9/2015	10/2015	Q2 2016
12 2 Hopkins	High-Rise	Downtown	LIVEbe Communities	183	24	159	2017	Q3 2017	Q3 2017
13 225 N. Calvert Street	High-Rise	Downtown	Monument Realty	347	0	347	Q4 2017	Q4 2017	Q1 2018
14 Calvert Street Lofts	Mid-Rise	Downtown	Zahlco Development	56	10	46	4/2017	9/2017	Q3 2017
15 The Residences at 300 St. Paul Place	High-Rise	Downtown	NA	280	0	280	Q4 2017	Q1 2018	Q1 2018
16 Hanover Cross Street	Mid-Rise	Federal Hill	Hanover Development	299	41	258	Q3 2017	Q3 2017	Q2 2018
17 Liberty Harbor East	High-Rise	Fells Point	Bozzuto	282	0	282	Q2 2018	Q2 2018	Q3 2018
18 1405 Point	High-Rise	Harbor Point	Beatty Development	289	0	289	10/2017	1/2018	1/2018
19 Highland Haus Apartments	High-Rise	Highlandtown	Garver Development	65	10	55	7/2017	9/2017	9/2017
20 Anthem House	High-Rise	Locust Point	Bozzuto	292	120	172	4/2017	Q2 2017	7/2017
21 Anthem House II	Mid-Rise	Locust Point	Bozzuto	52	0	52	Q1 2018	Q1 2018	Q2 2018
22 Porter St. Apartments	Mid-Rise	Locust Point	Mark Sapperstein	223	0	223	Q4 2017	Q4 2017	Q4 2017
23 9 East Mount Royal	Mid-Rise	Mid-Town Belvedere	Zahlco Development	65	0	65	Q4 2018	Q1 2019	Q1 2019
24 500 Park	Mid-Rise	Mt. Vernon	The Time Group	153	100	53	2/2017	6/2017	Q2 2017
25 414 Light Street	High-Rise	Otterbein	Questar	394	0	394	Q1 2018	3/2018	Q3 2018
26 Banner Hill	Mid-Rise	Otterbein	ZOM	349	24	325	4/2017	7/2017	2/2018
27 CenterWest	Mid-Rise	Poppleton	La Cite Development	209	0	209	Q2 2018	Q3 2018	12/2018
28 Nelson Kohl Apartments	Mid-Rise	Station North	SA+A Development	103	0	103	Q4 2017	Q1 2018	Q1 2018
29 Icon Residences at the Rotunda	Mid-Rise	Wyman Park	Hekemian & Co. Inc.	379	332	47	3/2016	3/2016	Q2 2016
Harford County									
30 Winter's Run	Low-Rise	Fallston	Klein Enterprises	288	278	10	1/2016	4/2016	Q3 2016

TABLE 4.5
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
Howard County									
31	The Residences at Annapolis Junction	Annapolis Junction	Somerset Construction Co.	384	51	333	5/2017	8/2017	12/2017
32	Alta Wilde Lake	Columbia	Wood Partners	230	165	65	8/2016	10/2016	Q4 2016
33	Lakehouse	Columbia	Costello Construction	160	80	80	5/2017	7/2017	Q3 2017
34	m.flats Downtown Columbia	Columbia	Kettler	267	3	264	7/2017	11/2017	1/2018
35	TEN.M Downtown Columbia	Columbia	Kettler	170	0	170	10/2017	1/2018	1/2018
36	Bluestream - Phase II	Elkridge	Murn Development	168	114	54	1/2016	4/2017	6/2017
37	The Vine	Laurel	Buchs Family LP	240	0	240	2018	2018	Q2 2018
38	Verde II	Port Capital Drive	Atapco	344	0	344	Q2 2019	Q3 2019	Q3 2019
Total:	-	-	-	9,356	2,931	6,425	-	-	-

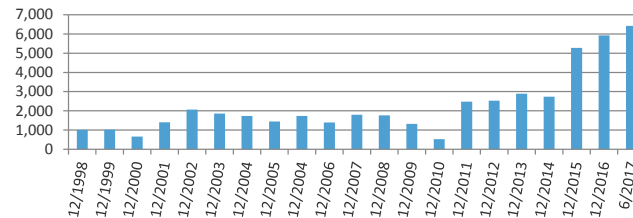
Comparison to Prior Years	
Available Units in Projects Under Construction at:	
Date *	# Units
9/2017	6,425
12/2016	5,924
12/2015	5,280
12/2014	2,735
12/2013	2,893
12/2012	2,527
12/2011	2,476
12/2010	523
12/2009	1,323
12/2008	1,768
12/2007	1,797
12/2006	1,393
12/2005	1,443
12/2004	1,730
12/2003	1,855
12/2002	2,064
12/2001	1,401
12/2000	660

* Dates prior to 12/2015 exclude available units in projects under construction in Howard and Anne Arundel Counties.

Note: This table may include some projects listed on Table 4.3

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

Available Units in Projects Under Construction



of Available Market Rate Units

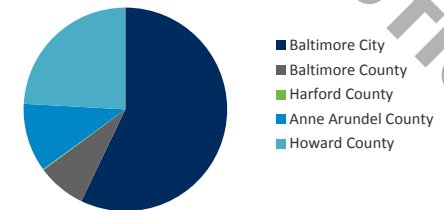


TABLE 4.6
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Anne Arundel County								
1 Waugh Chapel - Ph II	Mid-Rise	Gambrills	244	Yes	Yes	Yes	No	Q4 2017
2 Academy Yards Phase II	Mid-Rise	Odenton	277	Yes	Yes	Yes	No	Q2 2018
3 Odenton Town Square - Phase I	Low-Rise	Odenton	305	No	No	No	No	Q3 2018
Baltimore County								
3 Towson Circle Redevelopment	Mid-Rise	Towson	371	No	No	No	No	Q4 2017
4 Greenleigh at Crossroads	Mid-Rise	White Marsh	300	Yes	Yes	N/A	No	Q4 2017
Baltimore City								
5 3400 Boston Street	Mid-Rise	Canton	244	No	No	No	No	3/2018
6 325 West Baltimore Street	High-Rise	Downtown	321	Yes	Yes	Yes	No	Q4 2017
7 Mechanic Centre - Phase I	High-Rise	Downtown	306	Yes	Yes	Yes	Yes	2017
8 The Hendler	Mid-Rise	Downtown	296	Yes	Yes	Yes	No	Q1 2018
9 Yard 56	Mid-Rise	Dundalk	200	Yes	Yes	No	No	2018
10 Bainbridge Federal Hill	Mid-Rise	Federal Hill	224	Yes	Yes	Yes	No	10/2017
11 Fox Industries Building	Low-Rise	Hampden	90	Yes	N/A	N/A	Yes	7/2017
12 Della Notte Restaurant Site	High-Rise	Little Italy	385	Yes	Yes	Yes	No	Q1 2018
13 The Overlook at Roland Park	Mid-Rise	Roland Park	148	Yes	Yes	Yes	Yes	2018
14 Jefferson Square at Washington Hill - Ph. II	Mid-Rise	Washington Hill	216	Yes	Yes	Yes	No	Q1 2018
15 The Woodberry	Mid-Rise	Woodberry	283	Yes	Yes	No	No	Q4 2017

TABLE 4.6
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
Howard County								
16 Merriweather District: The Crescent	Low-Rise	Downtown Columbia	350	No	No	No	No	Q4 2017
17 The Park at Locust Thicket	Mid-Rise	Elkridge	352	Yes	No	No	No	Q3 2017
18 Dartmoor Place Apartments	Mid-Rise	Hanover	258	Yes	Yes	No	No	Q4 2017
Total:	-	-	5,170	-	-	-	-	-
Total with Attrition:	-	-	1,810	-	-	-	-	-

Comparison to Prior Years
 Estimate of Next 18 - 36 Month Pipeline as of:

Date	# Units
9/2017	5,170
12/2016	3,791
12/2015	6,732
12/2014	4,041
12/2013	2,158
12/2012	2,764
12/2011	2,522
12/2010	2,157
12/2009	2,911
12/2008	2,342
12/2007	1,691
12/2006	2,780
12/2005	2,102
12/2004	1,511
12/2003	1,818
12/2002	1,835
12/2001	1,364
12/2000	1,917

* Dates prior to 12/2015 exclude available units in projects under construction in Howard and Anne Arundel Counties.

Note: Projects planned to deliver their first units in the next 36 months. Probability of materialization is estimated using an attrition rate of 65% of total units planned. If we have missed your project, please contact us.

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 4.7
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg Pmts Issued?	Est. Constr. Start Date
Anne Arundel County								
1 Hanover Landing	Low-Rise	Hanover	613	No	No	No	No	N/A
2 Parkway Motel Site	Mid-Rise	Jessup	279	No	No	No	No	N/A
3 Concorde Circle - Ph. II	Low-Rise	Linthicum	300	No	No	No	No	N/A
Baltimore County								
4 Metro Center at Owings Mill - Add'l. Ph.	Low-Rise	Owings Mills	1,450	Yes	Yes	No	No	N/A
5 Towson Row	High-Rise	Towson	250	Yes	Yes	No	No	N/A
Baltimore City								
6 300 E. Pratt Street	High-Rise	Downtown	385	No	No	No	No	N/A
7 300 W. Baltimore Street	High-Rise	Downtown	175	No	No	No	No	N/A
8 Flour House Apartments	Mid-Rise	Downtown	175	Yes	No	No	No	N/A
9 Mechanic Centre - Phase II	High-Rise	Downtown	170	Yes	No	No	No	N/A
10 Shot Tower Metro	High-Rise	Downtown	226	No	No	No	No	N/A
11 Dock II	High-Rise	Federal Hill	345	Yes	No	No	No	N/A
12 Jackson's Wharf	Mid-Rise	Fells Point	207	Yes	Yes	Yes	No	N/A
13 103 S. Gay St	Mid-Rise	Inner Harbor	130	N/A	N/A	N/A	N/A	N/A
14 Whitehall Cotton Mill	Low-Rise	Jones Falls	27	No	No	No	No	N/A
15 814 N. Charles Street	High-Rise	Mt. Vernon	142	Yes	No	No	No	N/A
16 Five and Dime	Mid-Rise	West Side	300	Yes	Yes	Yes	No	N/A
17 University Lofts	High-Rise	West Side	230	N/A	N/A	N/A	N/A	N/A

TABLE 4.7
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg Pmts Issued?	Est. Constr. Start Date
Howard County								
18 Bluestream - Phase III	Low-Rise	Elkridge	950	Yes	Yes	No	No	N/A
19 Normandy Shopping Ctr. Redev.	Low-Rise	Ellicott City	200	Yes	No	No	No	N/A
20 Oxford Square - Ph. IV	Mid-Rise	Hanover	258	Yes	Yes	No	No	N/A
21 Ashbury Courts - Phase II	Low-Rise	Laurel	140	Yes	No	No	No	N/A
22 Laurel Park Station	Mid-Rise	Laurel	31	Yes	Yes	No	No	N/A
Total:	-	-	6,983	-	-	-	-	-

**Comparative Longer Term Pipeline
 For Market Rate Apartments as of:**

Date	# Units
9/2017	6,983
12/2016	9,234
12/2015	9,234
12/2014	6,440
12/2013	6,667
12/2012	3,768
12/2011	4,568
12/2010	3,147
12/2009	3,102
12/2008	3,742
12/2007	2,796
12/2006	2,299
12/2005	3,942
12/2004	3,079
12/2003	2,121
12/2002	2,984
12/2001	3,461
12/2000	2,750

* Dates prior to 12/2015 exclude available units in projects under construction in Howard and Anne Arundel Counties.

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 4.8
SUMMARY OF PROJECTS PLANNED EITHER AS CONDOMINIUM OR RENTAL
 Baltimore Metropolitan Area
 Third Quarter 2017

Project Name	Project Type	Location	# of Mkt Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg Pmts Issued?	Est. Constr. Start Date
Anne Arundel County								
1 Cedar Hill - Phase II	Low-Rise	Brooklyn	160	Yes	Yes	No	No	N/A
2 Patapsco Place	TH-Style	Brooklyn Park	135	Yes	Yes	Yes	No	N/A
3 Arundel Gateway	Low-Rise & TH	Laurel	1,410	No	No	No	No	N/A
4 Odenton Town Square - Phase II	Low-Rise	Odenton	400	No	No	No	No	N/A
5 Odenton Town Square - Phase III	Mid-Rise	Odenton	96	No	No	No	No	N/A
Baltimore County								
6 Cowenton South	Low-Rise	Perry Hall	373	Yes	Yes	Yes	No	N/A
Baltimore City								
7 HarborView South	High-Rise	Federal Hill	750	No	No	No	No	N/A
8 Harbor Point - later phases	Mid-Rise	Inner Harbor	600	Yes	No	No	No	N/A
Total:	-	-	3,924	-	-	-	-	-

Note: Unless you provide data for this table, names of sponsors are no longer available to subscribers. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 4.9
CLASS A APARTMENT BUILDING SALES
 Baltimore Metropolitan Area
 2016

COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE		
						TOTAL	PER UNIT	
CLASS A LOW-RISE								
1.	Comparable #1	Laurel	MD	1/16	75	2014	\$16,400,000	\$218,667
2.	Comparable #2	Owings Mills	MD	1/16	174	2002	\$34,125,000	\$196,121
3.	Comparable #3	Parkville	MD	1/16	69	1984	\$11,580,000	\$167,826
4.	Comparable #4	Parkville	MD	4/16	189	1984	\$32,770,000	\$173,386
5.	Comparable #5	Annapolis	MD	4/16	158	2000	\$30,100,000	\$190,506
6.	Comparable #6	Elkridge	MD	4/16	634	1989	\$119,450,000	\$188,407
7.	Comparable #7	White Marsh	MD	4/16	212	1991	\$37,450,000	\$176,651
8.	Comparable #8	Glen Burnie	MD	6/16	352	2000	\$64,781,144	\$184,037
9.	Comparable #9	Elkridge	MD	8/16	320	2014	\$86,000,000	\$268,750
10.	Comparable #10	Owings Mills	MD	9/16	520	1993	\$91,000,000	\$175,000
11.	Comparable #11	Owings Mills	MD	9/16	226	2013	\$51,250,000	\$226,770
12.	Comparable #12	Owings Mills	MD	10/16	324	2002	\$61,600,000	\$190,123
Total/Average:		--	--	--	3,253	--	\$636,506,144	\$195,667
CLASS A MID-RISE/HIGH-RISE								
1.	Comparable #1	Baltimore	MD	3/16	73	1930	\$26,800,000	\$367,123
2.	Comparable #2	Baltimore	MD	9/16	440	2013	\$141,928,000	\$322,564
Total/Average:		--	--	--	513	--	\$168,728,000	\$328,904
Grand Total/Average:		--	--	--	3,766	--	\$805,234,144	\$213,817

Note: Delta Associates no longer provides the name of each project listed above except to appraisal clients of the firm and those who provide this type of transaction data to Delta. If you wish to obtain a list of project names and you qualify to receive same, email your request to: info@DeltaAssociates.com.

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Phone: (202) 778-3100. Last update: September 2017.

TABLE 4.10
CLASS A APARTMENT BUILDING SALES
 Baltimore Metropolitan Area
 2017 Through September

COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE		
						TOTAL	PER UNIT	
CLASS A LOW-RISE								
1.	Comparable #1	Hanover	MD	2/17	248	2014	\$65,700,000	\$264,919
2.	Comparable #2	Odenton	MD	3/17	298	2013	\$83,650,000	\$280,705
3.	Comparable #3	Odenton	MD	6/17	212	2016	\$50,200,000	\$236,792
4.	Comparable #4	Owings	MD	7/17	348	1999	\$64,800,000	\$186,207
5.	Comparable #5	Laurel	MD	8/17	119	2008	\$28,000,000	\$235,294
Total/Average:		--	--		1,225	--	\$292,350,000	\$238,653
CLASS A MID-RISE/HIGH-RISE								
1.	Comparable #1	Baltimore	MD	6/17	304	2015	\$73,300,000	\$241,118
Total/Average:		--	--		304	--	\$73,300,000	\$241,118
Grand Total/Average:		--	--		1,529	--	\$365,650,000	\$239,143

Note: Delta Associates no longer provides the name of each project listed above except to appraisal clients of the firm and those who provide this type of transaction data to Delta. If you wish to obtain a list of project names and you qualify to receive same, email your request to: info@DeltaAssociates.com.

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Phone: (202) 778-3100. Last update: September 2017.

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5

PHILADELPHIA STATISTICAL REPORT



TABLE 5.1
KEY MARKET INDICATORS FOR CLASS A RENTAL APARTMENTS
 Summary | Philadelphia Metropolitan Area
 Third Quarter 2017

MARKET INDICATOR	GEOGRAPHIC AREA				PHILADELPHIA METRO AREA TOTAL/AVERAGE
	SUBURBAN PENNSYLVANIA	SOUTHERN NEW JERSEY	SUBTOTAL-PHILADELPHIA SUBURBS	CITY OF PHILADELPHIA	
Number of Units Surveyed	12,039	3,769	15,808	9,013	24,821
Rent Levels (Avg. of All Unit Sizes)					
Face Rent	\$1,673	\$1,583	\$1,652	\$2,369	\$1,912
Concession as a % of Face Rents	1.7%	0.1%	1.4%	4.9%	3.0%
Effective Rent	\$1,644	\$1,581	\$1,629	\$2,253	\$1,856
Effective Rent per Square Foot	\$1.67	\$1.56	\$1.65	\$2.51	\$1.96
Annual Effective Rent Increase					
- Since 9/30/12	2.9%	2.7%	2.9%	1.6%	2.4%
- Since 9/30/16 ¹	2.9%	3.1%	3.0%	0.5%	2.1%
Vacancy September 2017					
Overall ²	7.5%	1.3%	6.0%	14.1%	8.9%
Stabilized ³	3.6%	1.3%	3.0%	2.2%	2.7%
Vacancy September 2016					
Overall ²	10.6%	1.9%	8.6%	16.4%	11.4%
Stabilized ³	2.2%	1.9%	2.1%	2.4%	2.2%

¹ Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

² Includes actively marketing projects.

³ Excludes actively marketing projects.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.

Last Update: September 2017.

TABLE 5.2
KEY MARKET INDICATORS FOR CLASS A LOW-RISE RENTAL APARTMENTS ¹
 Selected Submarkets | Suburban Pennsylvania
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET			SUBURBAN PENNSYLVANIA TOTAL/AVERAGE
	MONTGOMERY COUNTY	DELAWARE & CHESTER COUNTIES	BUCKS COUNTY	
Number of Units Surveyed	5,359	4,957	1,723	12,039
Rent Levels (Avg. of All Unit Sizes)				
Face Rent	\$1,715	\$1,643	\$1,628	\$1,673
Concession as a % of Face Rents	2.2%	1.5%	1.1%	1.7%
Effective Rent	\$1,678	\$1,619	\$1,610	\$1,644
Effective Rent per Square Foot	\$1.72	\$1.63	\$1.65	\$1.67
Annual Effective Rent Increase				
- Since 9/30/12	3.1%	3.0%	2.2%	2.9%
- Since 9/30/16 ²	2.4%	1.3%	9.4%	2.9%
Vacancy September 2017				
Overall ³	10.1%	5.6%	4.5%	7.5%
Stabilized ⁴	4.4%	3.4%	1.4%	3.6%
Vacancy September 2016				
Overall ³	14.3%	10.0%	1.3%	10.6%
Stabilized ⁴	2.7%	2.2%	1.1%	2.2%

¹ Includes walk-up and elevator-served apartments of one to four stories.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.

Last Update: September 2017.

TABLE 5.3
KEY MARKET INDICATORS FOR CLASS A LOW-RISE RENTAL APARTMENTS ¹
 Selected Submarkets | Southern New Jersey and Mercer County
 Third Quarter 2017

MARKET INDICATOR	SUBMARKET		SOUTHERN NEW JERSEY TOTAL/AVERAGE	MERCER COUNTY
	CAMDEN COUNTY	BURLINGTON COUNTY		
Number of Units Surveyed	2,074	1,695	3,769	1,929
Rent Levels (Avg. of All Unit Sizes)				
Face Rent	\$1,664	\$1,485	\$1,583	\$1,893
Concession as a % of Face Rents	0.1%	0.1%	0.1%	0.2%
Effective Rent	\$1,662	\$1,483	\$1,581	\$1,889
Effective Rent per Square Foot	\$1.62	\$1.50	\$1.56	\$1.80
Annual Effective Rent Increase				
- Since 9/30/12	2.5%	3.0%	2.7%	3.0%
- Since 9/30/16 ²	4.2%	1.9%	3.1%	1.8%
Vacancy September 2017				
Overall ³	1.6%	0.9%	1.3%	2.3%
Stabilized ⁴	1.6%	0.9%	1.3%	2.3%
Vacancy September 2016				
Overall ³	2.8%	1.3%	1.9%	3.6%
Stabilized ⁴	2.8%	1.3%	1.9%	3.6%

¹ Includes garden and low-rise style apartments, mid-rise apartments, high-rise apartments, and warehouse conversions.

² Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

³ Includes actively marketing projects.

⁴ Excludes actively marketing projects.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.

Last Update: September 2017.

TABLE 5.4
KEY MARKET INDICATORS FOR CLASS A RENTAL HIGH-RISE APARTMENTS

City of Philadelphia
 Third Quarter 2017

MARKET INDICATOR	CITY OF PHILADELPHIA
Number of Units Surveyed	9,013
Rent Levels (Avg. of All Unit Sizes)	
Face Rent	\$2,369
Concession as a % of Face Rents	4.9%
Effective Rent	\$2,253
Effective Rent per Square Foot	\$2.51
Annual Effective Rent Increase	
- Since 1988	3.1%
- Since 9/30/12	1.6%
- Since 9/30/16 ¹	0.5%
Vacancy September 2017	
Overall ²	14.1%
Stabilized ³	2.2%
Vacancy September 2016	
Overall ²	16.4%
Stabilized ³	2.4%
Absorption Trends	
# of Market Rate Units Absorbed Over the Past 12 Months	1,588
For Comparison	
12-Month Period Ending 9/30/2016	997
Supply Projections	
# of Market Rate Units Under Construction & Available Plus Planned for Delivery in the Next 36 Months ⁴	4,319
For Comparison	
at 9/30/2016	4,509

¹ Excludes projects that were not actively marketing at date of previous survey, i.e. same project/unit price comparison.

² Includes actively marketing projects.

³ Excludes actively marketing projects.

⁴ See list of under construction and planned projects on Tables 5.7 and 5.8. Accounts for attrition.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.

Last Update: September 2017.

TABLE 5.5
ABSORPTION SUMMARY
ACTIVELY MARKETING RENTAL APARTMENT PROJECTS
 City of Philadelphia | Third Quarter 2017

COMP. #	PROJECT NAME	TOTAL UNITS ¹	UNITS ABSORBED ¹	DATE MARKETING BEGAN	OVERALL MONTHLY LEASE-UP PACE
1.	The Griffin	217	198	1/16	10
2.	AKA University City	105	69	6/16	5
3.	Dalian on the Park	293	203	8/16	16
4.	Divine Lorraine	101	49	8/16	4
5.	North by Northwest - The North Building	270	100	9/16	8
6.	Hanover North Broad	339	98	1/17	12
7.	Bridge	131	55	2/17	8
8.	Vue 32	164	54	5/17	14
9.	1213 Walnut	322	48	8/17	48
10.	Lyndon at the Curtis	63	18	9/17	36
Total/Average:		2,005	892	--	10

¹ Includes market rate units only.

Source: Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.
 Last update: September 2017

TABLE 5.6
ABSORPTION SUMMARY
RECENTLY STABILIZED APARTMENT PROJECTS
 City of Philadelphia | Third Quarter 2012 - Third Quarter 2017

COMP. #	PROJECT NAME	TOTAL UNITS ¹	DATE MARKETING BEGAN	DATE STABILIZED	OVERALL MONTHLY LEASE-UP PACE
1.	The Arch	111	7/12	2/13	16
2.	2040 Market Street	282	8/12	6/13	26
3.	Tower Place - Phase I	204	12/12	5/15	7
4.	2116 Chestnut Street	321	2/13	2/15	13
5.	Goldtex Building	163	3/13	2/15	7
6.	The Sansom	104	4/13	2/14	10
7.	320 Walnut	77	5/13	11/13	13
8.	The Granary	227	5/13	11/14	12
9.	Icon	206	11/13	5/15	11
10.	Station at Manayunk	149	1/14	8/15	8
11.	Southstar Lofts	79	2/14	2/15	6
12.	Croydon Hall	127	4/14	2/15	12
13.	1900 Arch	246	4/14	2/15	24
14.	31 Brewerytown	64	8/14	8/15	5
15.	AQ Rittenhouse	110	12/14	5/16	6
16.	3737 Chestnut	276	2/15	8/16	15
17.	Avenir on Fifteenth	180	3/15	8/16	11
18.	The Shirt Corner	59	5/15	11/15	10
19.	3601 Market Street	363	5/15	2/17	17
20.	1900 Arch - Phase II	55	6/15	2/16	7
21.	Mural Lofts	56	7/15	8/16	4
22.	1919 Market Street	321	2/16	5/17	21
23.	The Fairmount at Brewerytown	161	4/16	5/17	12
24.	The Collins Apartments	112	5/16	11/16	16
25.	One Water Street	235	7/16	5/17	21
26.	The Annex	36	2/17	8/17	6
	Total/Average:	4,324	--	--	12

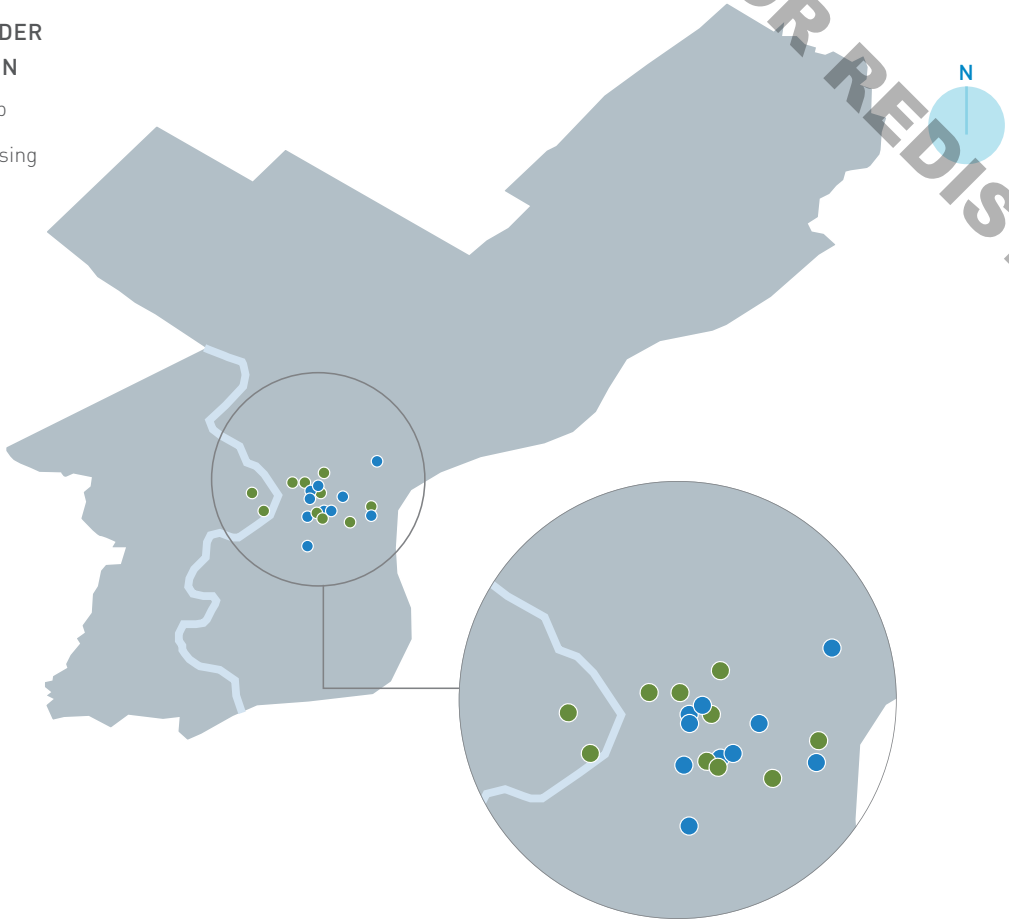
¹ Includes market rate units only.

Source: Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100.

Last update: September 2017

MAP 5.1
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING | CITY OF PHILADELPHIA
Third Quarter 2017

- PROJECTS UNDER CONSTRUCTION
- In Lease-Up
 - Not Yet Leasing



Source: Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006; Phone: (202) 778-3100.
Last update: September 2017.

TABLE 5.7
RENTAL APARTMENT PROJECTS UNDER CONSTRUCTION AND/OR MARKETING
 City of Philadelphia
 Third Quarter 2017

Project Name	Project Type	Location	Sponsor(s)	# of Mkt. Rate Units	# of Units Absorbed	# of Available Units	Date Pre-Lsg. Begins	Initial Occup. Date	Date Constr. Complete
1 Lincoln Square	High-Rise	Avenue of the Arts	Alterra Property Group	322	0	322	Q3 2018	Q3 2018	12/2018
2 North by Northwest - The North Building	High-Rise	Callowhill	Forest City	286	100	186	9/2016	11/2016	Q4 2016
3 The Alexander	High-Rise	Callowhill	Property Reserve, Inc	258	0	258	Q4 2017	Q4 2017	Q4 2017
4 Eastern Tower	High-Rise	Chinatown	Philadelphia Chinatown Development	119	0	119	Q2 2019	Q3 2019	Q3 2019
5 Franklin Tower Residences	High-Rise	Logan Square	PMC Property Group	360	0	360	Q3 2017	Q3 2017	Q3 2017
6 Hanover North Broad	Mid-Rise	Logan Square	Hanover Development	339	98	241	1/2017	1/2017	Q4 2017
7 1213 Walnut	High-Rise	Market East	The Goldenberg Group	322	48	274	Q3 2017	Q3 2017	Q4 2017
8 The Griffin	High-Rise	Market East	MRP Realty	217	198	19	1/2016	4/2016	Q2 2016
9 Bridge	High-Rise	Old City	Brown Hill Development	131	55	76	Q1 2017	4/2017	Q3 2017
10 The National	Mid-Rise	Old City	Buccini/Pollin Group	192	0	192	Q2 2018	Q2 2018	Q2 2018
11 The Beacon	High-Rise	Rittenhouse	Pearl Properties	100	0	100	Q4 2017	Q4 2017	Q1 2018
12 Dalian on the Park	High-Rise	Rodin Square	Dalian Development	293	203	90	Q3 2016	9/2016	Q4 2016
13 Liberty Square	Mid-Rise	South Kensington	Blackstone Development	201	0	201	2018	2018	2018
14 Divine Lorraine	High-Rise	Spring Garden	EB Realty Management Corp.	101	49	52	Q3 2016	1/2017	4/2017
15 The Hamilton Phase I	High-Rise	Spring Garden	Radnor Property Group	279	0	279	2/2018	8/2018	Q3 2018
16 AKA University City	High-Rise	University City	Brandywine Realty Trust	105	69	36	6/2016	Q2 2017	Q2 2017
17 Vue32	High-Rise	University City	Radnor Property Group	164	54	110	Q2 2017	7/2017	Q3 2017
18 Lyndon at the Curtis	High-Rise	Washington Square	Scully Company	63	18	45	9/2017	10/2017	12/2017
19 East Market - Phase II	High-Rise	Washington Square West	National Real Estate Advisors	240	0	240	Q2 2018	Q2 2018	Q3 2018
20 The Ludlow	High-Rise	Washington Square West	National Real Estate Advisors	321	0	321	Q4 2017	Q4 2017	Q4 2017
Total:	-	-	-	4,413	892	3,521	-	-	-

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 5.8
RENTAL PROJECTS PLANNED TO DELIVER OVER THE NEXT 36 MONTHS
 City of Philadelphia
 Third Quarter 2017

	Project Name	Project Type	Location	# of Mkt. Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg. Pmts. Issued?	Est. Constr. Start Date
1	9th and Washington	Mid-Rise	Bella Vista	78	No	No	No	No	Q4 2017
2	Graduate Square	Mid-Rise	Grays Ferry	64	Yes	Yes	Yes	Yes	11/2016
3	Edgewater - Ph. II	High-Rise	Logan Square	240	Yes	Yes	Yes	No	2018
4	River Walk - Phase I	High-Rise	Logan Square	321	Yes	Yes	No	No	Q4 2017
5	MIC Tower	High-Rise	Market East	342	Yes	Yes	Yes	No	N/A
6	Penn's Point Riverside	Mid-Rise	Northern Liberties	169	Yes	Yes	Yes	No	Q4 2017
7	Spring Garden View	Mid-Rise	Northern Liberties	30	Yes	Yes	No	No	2017
8	401 Race	Low-Rise	Old City	216	Yes	Yes	No	No	N/A
9	1911 Walnut	High-Rise	Rittenhouse Square	299	Yes	Yes	No	No	N/A
10	Dwell at 2nd Street - Ph. I	Mid-Rise	South Kensington	210	Yes	Yes	Yes	No	Q1 2018
11	The Hamilton Phase II	High-Rise	Spring Garden/Logan Square	311	Yes	Yes	Yes	No	Q1 2020
	Total:	-	-	2,280	-	-	-	-	
	Total with Attrition:	-	-	798	-	-	-	-	

Note: Projects planned to deliver their first units in the next 36 months. Probability of materialization is estimated using an attrition rate of 65% of total units planned. If we have missed your project, please contact us.

Note: Names of sponsors are no longer available to subscribers, unless you provide data for this table. If you provide data for this table and wish to know select

sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 5.9
SUMMARY OF LONGER-TERM PLANNED/RUMORED RENTAL APARTMENT PROJECTS
 City of Philadelphia
 Third Quarter 2017

	Project Name	Project Type	Location	# of Mkt Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg Pmts Issued?	Est. Constr. Start Date
1	Broad & Washington	Mid-Rise	Avenue of the Arts	800	Yes	No	No	No	N/A
2	709 Chestnut Street	High-Rise	Center City	304	Yes	Yes	No	No	N/A
3	Ridge Flats	Mid-Rise	East Falls	206	N/A	N/A	N/A	N/A	N/A
4	The Ridge Flats	Mid-Rise	East Falls	206	Yes	Yes	No	No	N/A
5	1421 East Columbia Avenue	Mid-Rise	Fishtown	54	No	No	No	No	N/A
6	Edward Corner Building	High-Rise	Fishtown	180	Yes	Yes	No	No	N/A
7	2100 Hamilton	High-Rise	Logan Square	120	No	No	No	No	N/A
8	River Walk - Phase II	High-Rise	Logan Square	291	Yes	Yes	No	No	N/A
9	Artisan Lofts	High-Rise	LoMo	151	Yes	Yes	Yes	No	N/A
10	Pier 12	Mid-Rise	Old City	120	No	No	No	No	N/A
11	Pincus Bro. Maxwell Building	Mid-Rise	Old City	70	No	No	No	No	N/A
12	Renaissance Plaza	High-Rise	Old City	1,350	Yes	Yes	Yes	Yes	N/A
13	George W. Childs Elementary	Low-Rise	Pointe Breeze	63	Yes	Yes	No	No	N/A
14	The Heid Building	Mid-Rise	Poplar	96	N/A	N/A	N/A	N/A	11/2018
15	3750 Lancaster Avenue	Mid-Rise	Powelton Village	300	No	No	No	No	N/A
16	19th + Chestnut	High-Rise	Rittenhouse Square	250	No	No	No	No	N/A
17	2012 Chestnut St.	High-Rise	Rittenhouse Square	160	N/A	N/A	N/A	N/A	N/A
18	Soko Lofts	Mid-Rise	South Kensington	320	Yes	Yes	Yes	Yes	N/A
19	1401 S. Columbus Blvd	Mid-Rise	South Philadelphia	435	No	No	No	No	N/A
20	2401 Washington Avenue	Mid-Rise	South Philadelphia	113	Yes	No	No	No	N/A
21	Liberty on the River - Phase I	High-Rise	South Philadelphia	264	Yes	Yes	Yes	No	N/A
22	Tower Place - Ph. II	High-Rise	Spring Garden	150	No	No	No	No	N/A
23	4125-23 Chestnut	Mid-Rise	Spruce Hill	130	N/A	N/A	N/A	N/A	N/A
24	4224 Baltimore Avenue	Mid-Rise	University City	132	Yes	Yes	Yes	No	N/A
25	4400 Chestnut	Mid-Rise	Walnut Hill	150	No	No	No	No	N/A
26	Quaker Building	High-Rise	West Poplar	350	N/A	N/A	N/A	N/A	N/A
	Total:	-	-	6,765					

Note: Names of sponsors are no longer available to subscribers unless they provide data for this table. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 5.10
SUMMARY OF PROJECTS PLANNED EITHER AS CONDOMINIUM OR RENTAL
 City of Philadelphia
 Third Quarter 2017

	Project Name	Project Type	Location	# of Mkt Rate Units	Proper Zoning?	Initial Approvals?	Site Plan Approved	Bldg Pmts Issued?	Est. Constr. Start Date
1	Front & Richmond	High-Rise	Fishtown	124	Yes	No	No	No	N/A
2	Penn's Point	High-Rise	Fishtown	535	Yes	No	No	No	N/A
3	Festival Pier	High-Rise	Penn's Landing	550	N/A	N/A	N/A	N/A	N/A
4	19th & Walnut	High-Rise	Rittenhouse Square	300	No	No	No	No	N/A
5	Penn's Landing Tower	High-Rise	South Philadelphia	230	Yes	Yes	Yes	No	N/A
6	Independence Pointe	Mid-Rise	Tacony	1,200	No	No	No	No	N/A
	Total:	-	-	2,939					

Note: Names of sponsors are no longer available to subscribers unless they provide data for this table. If you provide data for this table and wish to know select sponsors' names, e-mail your request to info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street, NW, Suite 1010, Washington, DC 20006. Phone: (202) 778-3100. Last Update: September 2017.

TABLE 5.11
CLASS A APARTMENT BUILDING SALES
 Philadelphia Metropolitan Area
 2016

COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE		
						TOTAL	PER UNIT	
CLASS A LOW-RISE								
1.	Comparable #1	Burlington	NJ	1/16	163	1980	\$17,300,000	\$106,135
2.	Comparable #2	Concord	PA	4/16	280	2003	\$66,100,000	\$236,071
3.	Comparable #3	Royersford	PA	7/16	216	2009	\$37,500,000	\$173,611
4.	Comparable #4	West Chester	PA	9/16	242	1992	\$51,000,000	\$210,744
Total/Average:		--	--		901	--	\$171,900,000	\$190,788
CLASS A MID-RISE/HIGH-RISE								
1.	Comparable #1	Philadelphia	PA	2/16	302	1983	\$65,400,000	\$216,556
Total/Average:		--	--		302	--	\$65,400,000	\$216,556
Grand Total/Average:		--	--		1,203	--	\$237,300,000	\$197,257

Note: Delta Associates no longer provides the name of each project listed above except to appraisal clients of the firm and those who provide this type of transaction data to Delta. If you wish to obtain a list of project names and you qualify to receive same, email your request to: info@DeltaAssociates.com.

Source: Compiled by Delta Associates, 1717 K Street NW, Suite 1010, Washington, DC 20006.

Phone: (202) 778-3100. Last update: September 2017.

TABLE 5.12
CLASS A APARTMENT BUILDING SALES
 Philadelphia Metropolitan Area
 2017 Through September

COMPARABLE	CITY	STATE	DATE OF SALE	# OF UNITS	YEAR BUILT	SALE PRICE		
						TOTAL	PER UNIT	
CLASS A LOW-RISE								
1.	Comparable #1	Exton	PA	2/17	405	1996	\$102,700,000	\$253,580
2.	Comparable #2	Conshohocken	PA	3/17	41	1983	\$6,400,000	\$156,098
3.	Comparable #3	Limerick	PA	5/17	198	1999	\$36,300,000	\$183,333
4.	Comparable #4	Conshohocken	PA	6/17	310	2017	\$27,188,636	\$87,705
Total/Average:		--	--	--	954	--	\$172,588,636	\$180,911
CLASS A MID-RISE/HIGH-RISE								
1.	Comparable #1	Plymouth Meeting	PA	1/17	398	2015	\$201,000,000	\$505,025
2.	Comparable #2	Philadelphia	PA	7/17	276	2015	\$118,000,000	\$427,536
Total/Average:		--	--	--	674	--	\$319,000,000	\$473,294
Grand Total/Average:		--	--	--	1,628	--	\$491,588,636	\$301,959

Note: Delta Associates no longer provides the name of each project listed above except to appraisal clients of the firm and those who provide this type of transaction data to Delta. If you wish to obtain a list of project names and you qualify to receive same, email your request to: info@DeltaAssociates.com.

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EXPLANATION
OF GEOGRAPHIC
COVERAGE AND
METHODOLOGY

METHODOLOGY AND GLOSSARY

Market Area Coverage

Delta Associates currently surveys Class A garden and high-rise apartment units in 49 submarkets in the Mid-Atlantic Region. The maps on the following pages depict the geographic areas covered in this report.

Delta Associates collects data on a majority of the Class A product in each covered submarket. A total of approximately 700 properties are surveyed by Delta Associates at the close of each quarter – accounting for approximately 130,000 units. This is believed to be approximately 85% of the estimated 153,000 Class A units existing in the Washington region as of this publication date.

Product Definition

“Class A” product is defined by Delta Associates generally as built in 1991 or later and offering a separate clubhouse, decorated model units, two bedroom/two bath units, and a large community amenity package most often including a fitness center and swimming pool. The tenant pays gas and/or electric in addition to telephone and cable television. The projects are typically 200+ units except in submarkets where quality product is scarce.

Stabilized Vacancy

“Stabilized Vacancy” as used herein is the rate of “available units” in stabilized properties. Once a property achieves 95% occupancy, it is considered “stabilized” and stays in our pool of stabilized properties even if it falls below 95% at a subsequent reporting date.

We obtain information on “available units” when conducting our surveys. Obtaining the information this way may produce several important differences from “vacancy” as reported in financial statements. Simply stated, the difference can be characterized as:

- Delta’s: Available units to lease
- Financial statement: Economic vacancy

The number of “available units” is understated compared to “economically vacant” by our exclusion of units occupied by non-paying tenants and those not available for lease, such as employee units and model apartments. We estimate that this reduces our “available units” (vacancy rate) estimate by about 100 to 150 basis points. Our vacancy is also understated compared to financial reporting by our exclusion of economically vacant, on-notice units for which a lease to occupy in the future has been signed. We estimate that this reduces our vacancy rate estimate by another 150 to 200 basis points.

Introduction of New, Actively Marketing Units

New communities are added to submarket surveys as soon as they begin pre-leasing units. The overall current asking and effective rents and rents per square foot of gross leasable area include these new communities. However, in comparing current quarter rents to previous year rents, these new communities are excluded until they have been marketing for one full year. This is done so as to dilute the impact on rent rate increases often associated with newly introduced product.

Face Rent

Face rent is the asking rent for each unit, excluding any concessions or rent specials given. Delta Associates quotes the weighted average asking base rent for each sub-market – the asking rent for a first floor unit without any premiums for fireplaces, views, etc.

Effective Rent

Effective rent deducts from face rent any concessions or rent specials for any unit type offered at a surveyed project. Typically, concessions are used selectively to lease weaker floor plans or surplus units.

Overall Vacancy

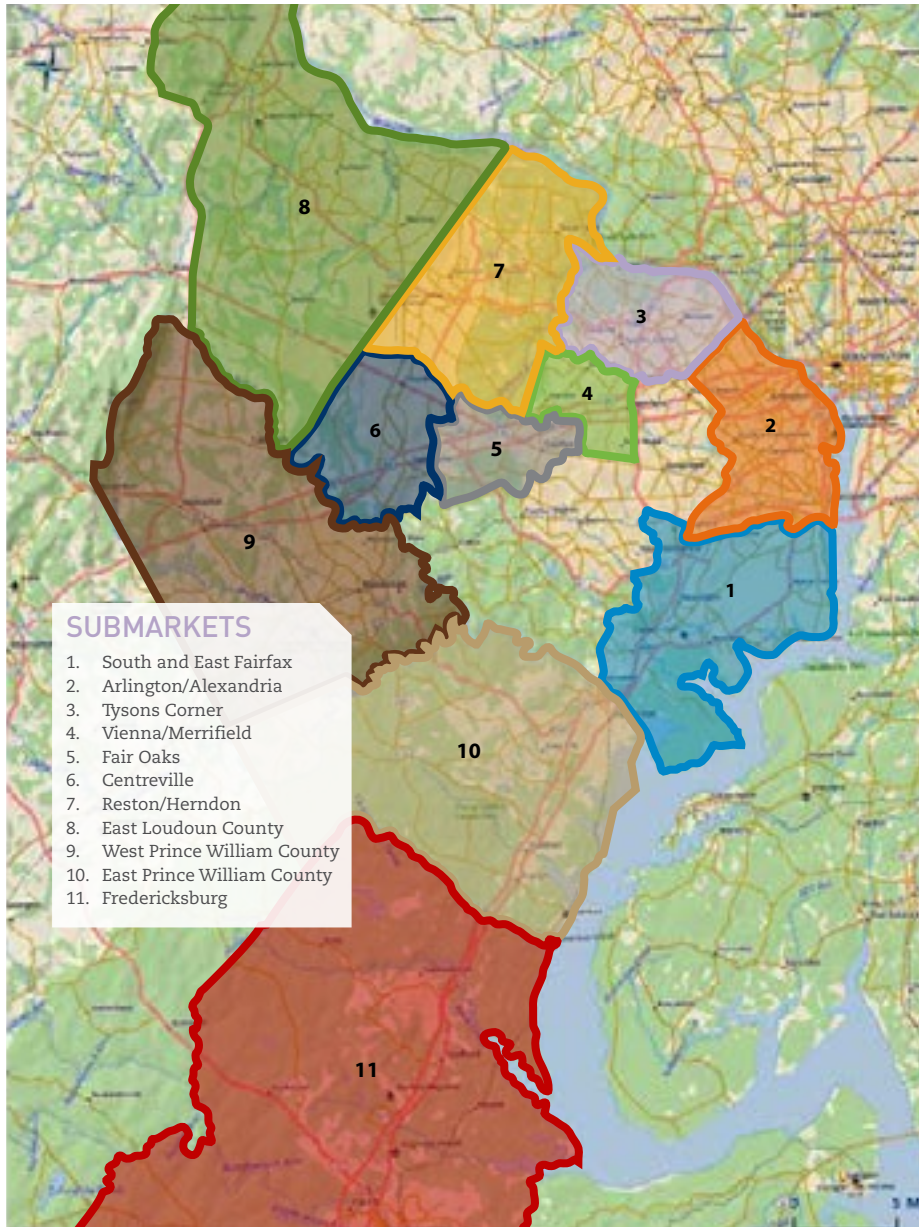
“Overall vacancy” is defined to include all physically vacant, unrented units in all projects surveyed, including those in actively marketing communities. Therefore, the overall vacancy figures include new, unrented units still in initial lease-up.

Planning Pipeline

The planning pipeline includes projects in the advanced planning stages. This pipeline, as defined here, does not include all projects being planned. To be included on this list, a planned community typically would have financing and approvals in place. Some communities are included if Delta Associates feels that financing and/or site plan approval are imminent, and are so noted.

NORTHERN VIRGINIA

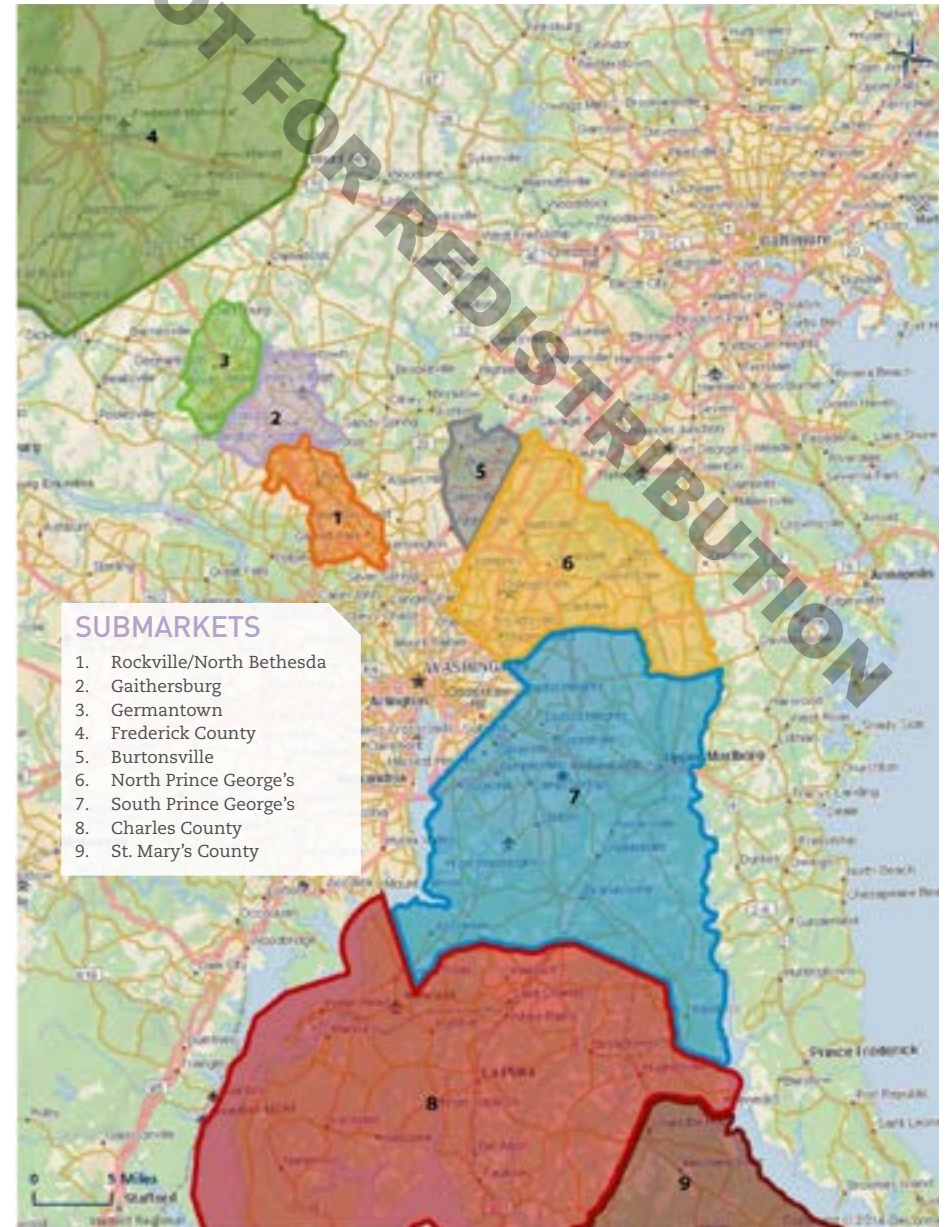
Low-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017

SUBURBAN MARYLAND

Low-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017

VIRGINIA AND MARYLAND

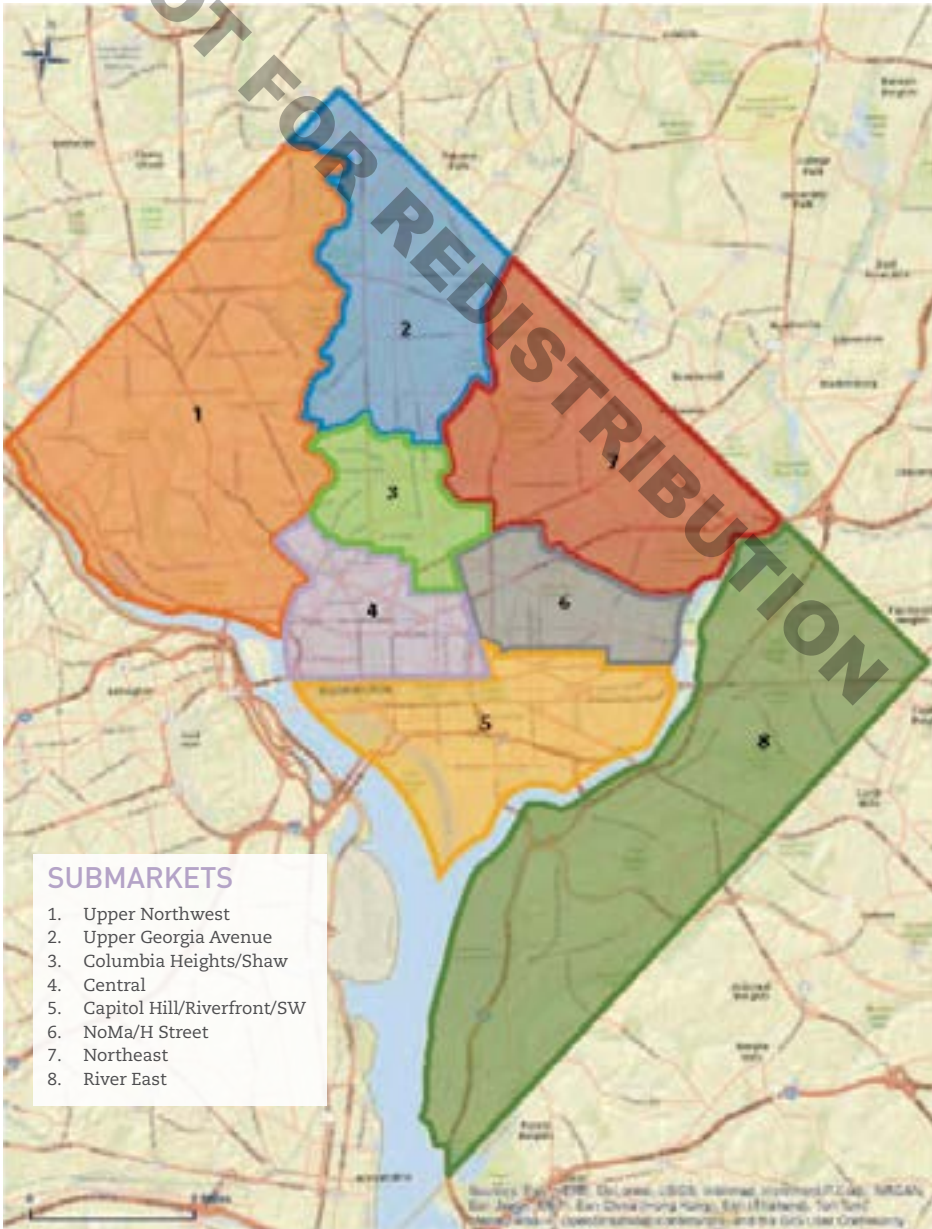
High-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017

DISTRICT OF COLUMBIA

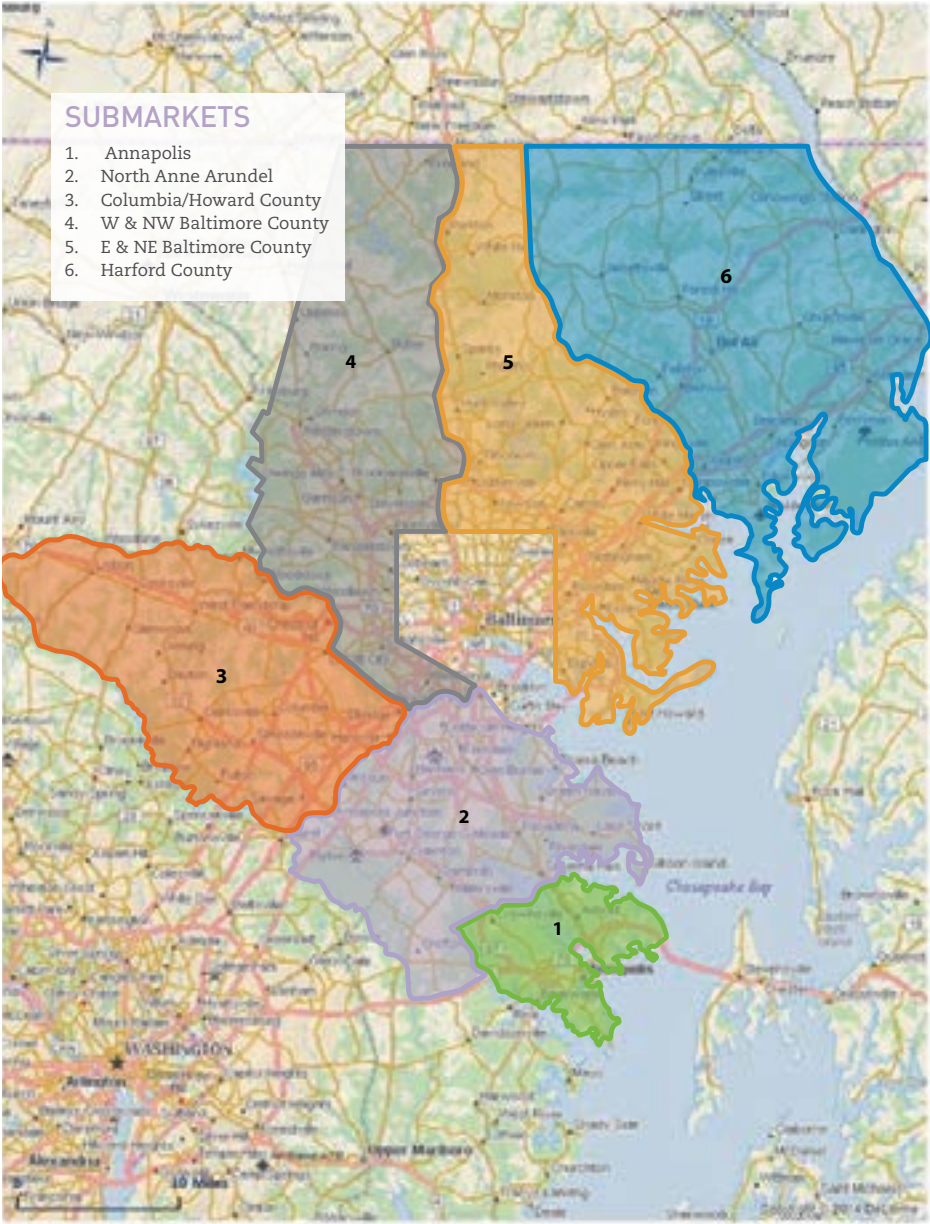
High-Rise Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017

SUBURBAN BALTIMORE

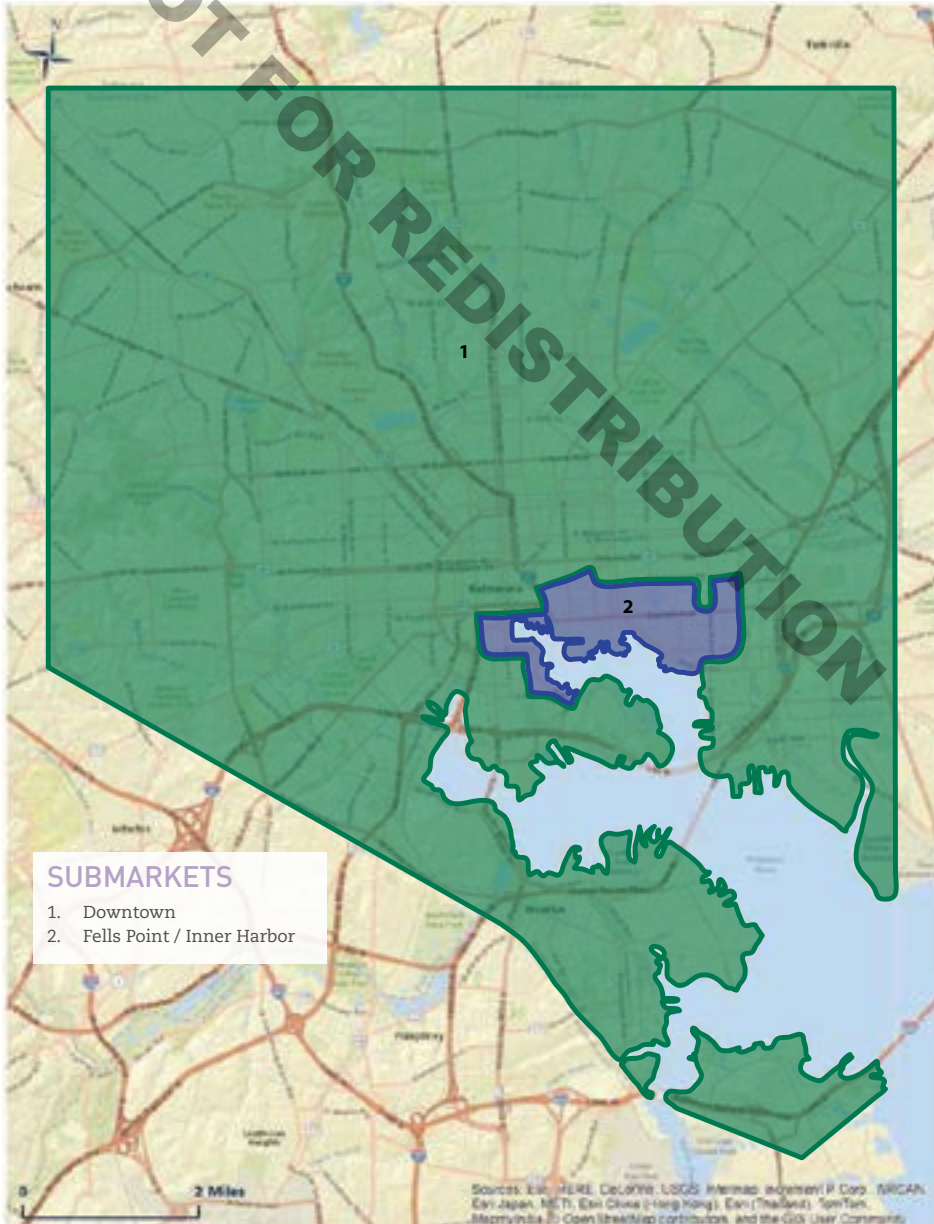
Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017

BALTIMORE CITY

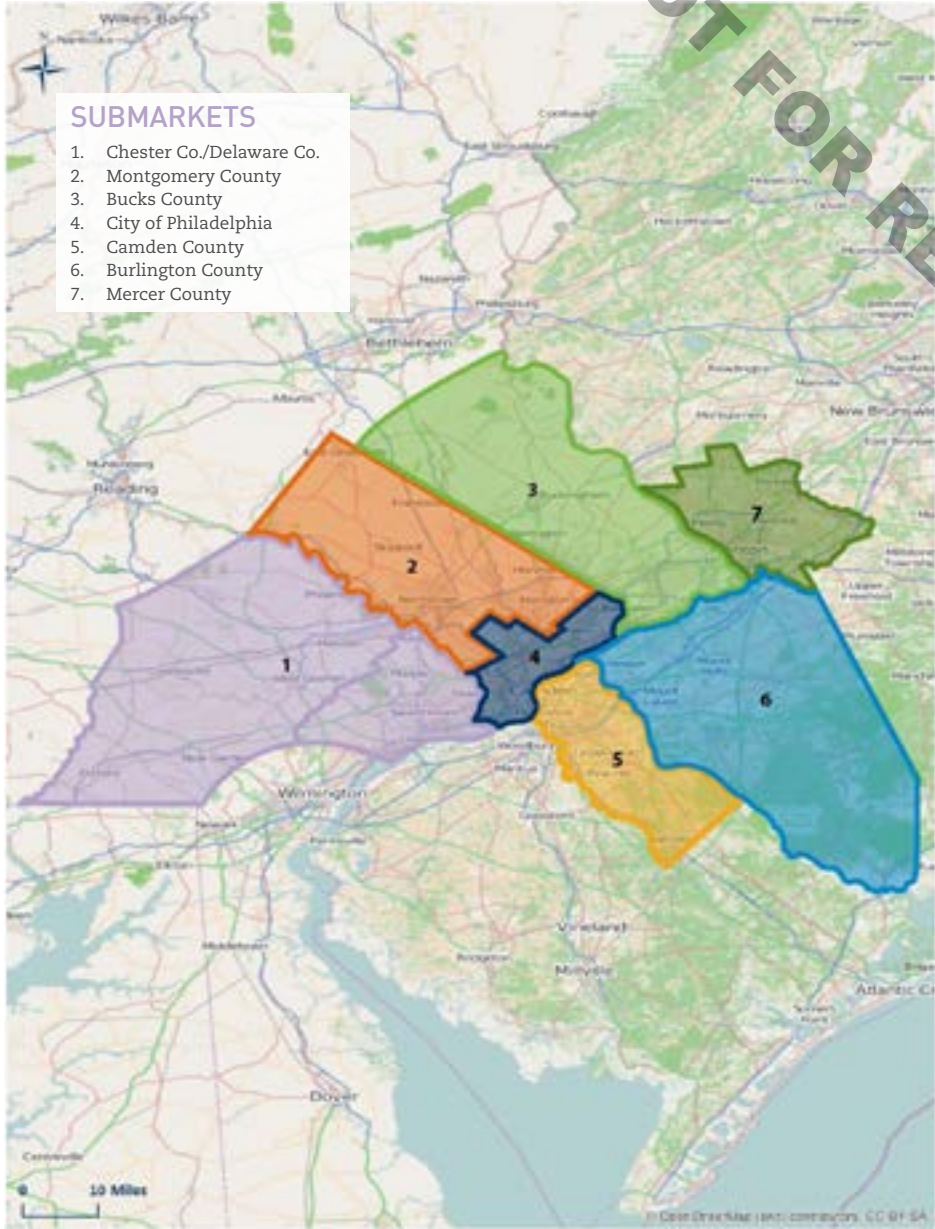
Apartment Submarkets



Source: ESRI, Delorme, Delta Associates; September 2017

PHILADELPHIA AREA

Apartment Submarkets



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Source: ESRI, Delorme, Delta Associates; September 2017

PHOTOGRAPHY CREDITS

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**MILL CREEK
RESIDENTIAL TRUST**
Avenir Place, Vienna, VA

*Delta Associates' 2014 Winner of Best
Best Lease-Up Pace for a Northern
Virginia Apartment Community*

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THE JBG COMPANIES
Notch 8, Alexandria, VA

*Delta Associates' 2016 Winner of Best
Washington/Baltimore Apartment
Community*

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THE BAINBRIDGE COMPANIES
*Bainbridge Shady Grove Metro,
Rockville, MD*

*Delta Associates' 2016 Winner of Best
Lease-Up Pace For A Suburban Maryland
Apartment Community*

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THE BOZZUTO GROUP
Enclave at Box Hill, Abingdon, MD

*Delta Associates' 2014 Winner of
Best Lease-Up Pace For A Baltimore
Apartment Community*





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