DELTA ASSOCIATES

# Q3

TWO THOUSAND SEVENTEEN

# PHILADELPHIA CLASS A APARTMENT MARKET REPORT

*By Subscription Only*

Prepared For Exclusive Use of Subscribers
On September 30, 2017



# Go ahead, check us out.

We got a makeover – did you notice? Our goal is to improve and deliver quality services and publications consistently and we're excited to unveil new user-friendly Mid-Atlantic quarterly reports. Explore some of the changes we made and how to take advantage of the new layout below.

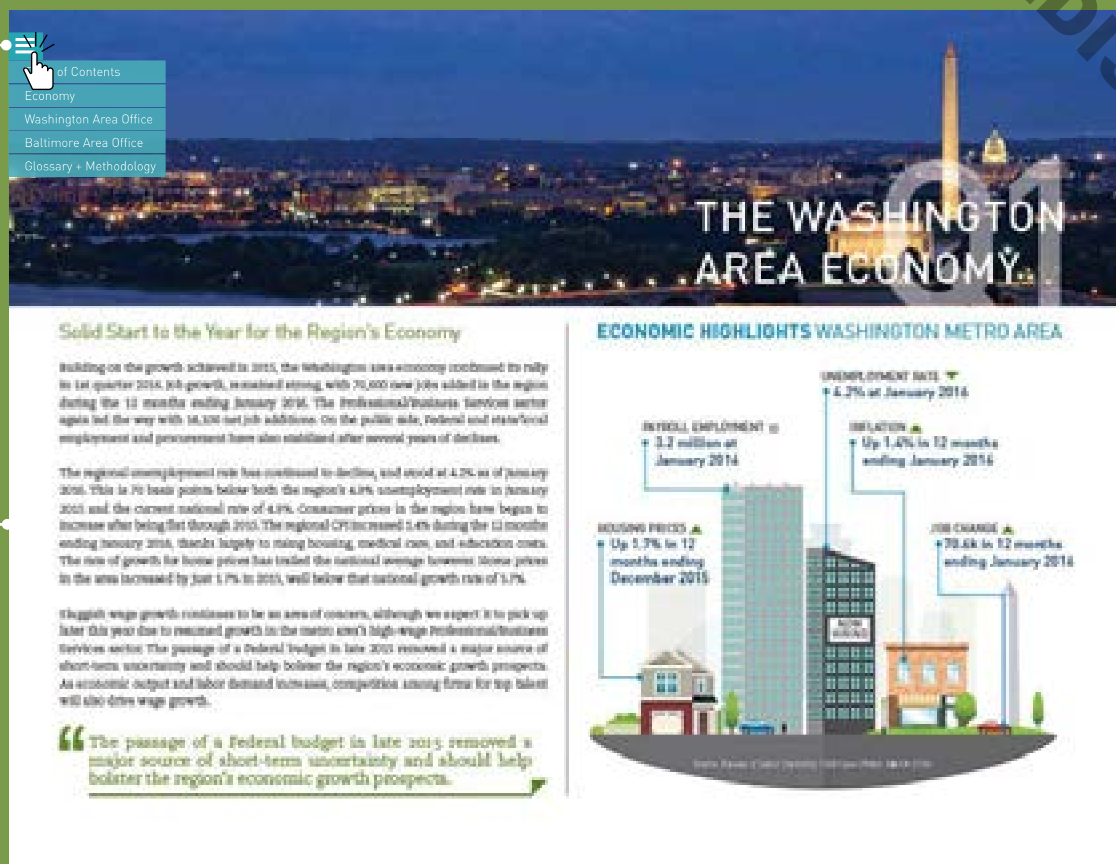


## KEEP IT MOVING

Get where you need to be at the push of a button - no, not Uber, our internal navigation menu, of course! Hover over the icon at the top left corner to expand the menu, then click to go easily to a desired section of the report. Click the icon to compress.

## TAKE IT EASY

We've reoriented our reports so each page fits completely (and legibly) on your screen. Get all the information without having to lift a finger.

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## SAME INFO, NEW GRAPHICS

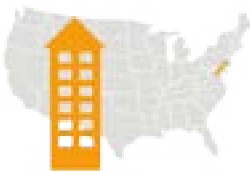
You'll find the same data and information as before, plus some. We've balanced data and graphics to bring you a more visually interesting and informative report.

# QUARTERLY PUBLICATIONS



## MULTIFAMILY MARKET


### MID-ATLANTIC CLASS A APARTMENT MARKET REPORT



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

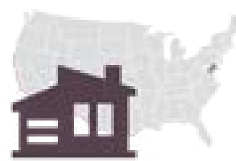
- National/regional economy analyses
- Regional condo market summary
- Regional apartment market summary
- Key market statistics for 49 submarkets and regional totals for:
  - Current rents and rent change
  - Vacancy
  - Concessions
  - Absorption
  - Development pipeline
  - Multifamily building and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


### WASHINGTON METRO AREA CLASS B APARTMENT MARKET REPORT

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

- National/regional economy analyses
- Regional apartment market summary
- Key market statistics for 30 submarkets and regional totals for:
  - Current rents and rent change
  - Vacancy
  - Concessions
- Renovation information including budget and timetable
- Multifamily building sales

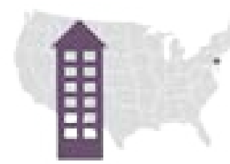

### WASHINGTON/BALTIMORE CONDOMINIUM MARKET REPORT



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

- National/regional economy analyses
- 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
  - Average lease terms and operating expenses
  - Delivered, planned and proposed SF space
  - Building and land sales
  - Investment returns
  - Cap rate trends

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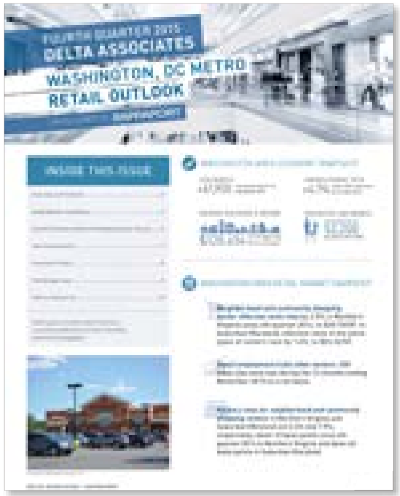
# ADDITIONAL **OFFERINGS**



## 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.

## SUBSCRIPTION-BASED


### 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.

View samples of our quarterly publications and reports at **deltaassociates.com/reports-and-publications.**

# 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

# TABLE OF CONTENTS



## 1 STATE OF THE ECONOMY



## 2 STATE OF THE PHILADELPHIA CLASS A APARTMENT MARKET



## 3 PHILADELPHIA STATISTICAL REPORT



## 4 EXPLANATION OF GEOGRAPHIC COVERAGE AND METHODOLOGY

# 1 STATE OF THE ECONOMY

# 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%.

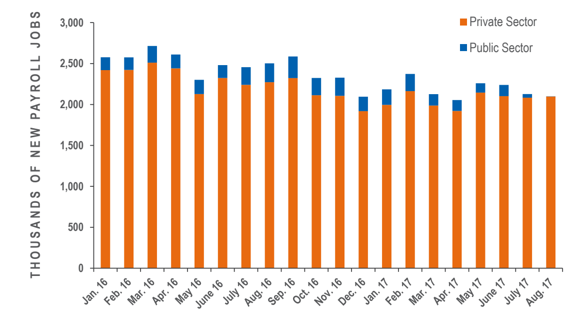
The Federal Open Market Committee (FOMC) has so far followed through on its plans for regular increases to the federal funds benchmark rate this year. It hiked interest rates by a quarter percent at both its March and June meetings, with another increase likely coming in December. In addition, the Fed 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

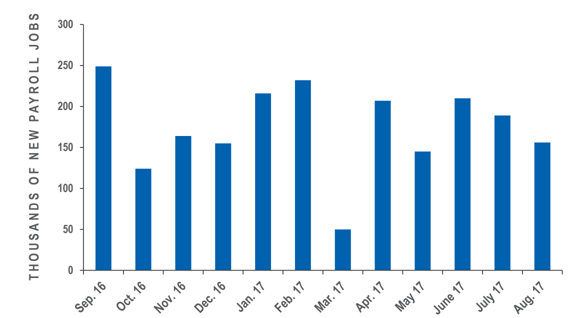
United States | Year-Over-Year




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

## PAYROLL JOB GROWTH

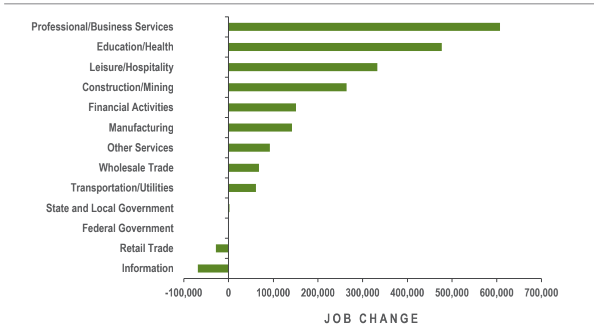
United States | Monthly




*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.

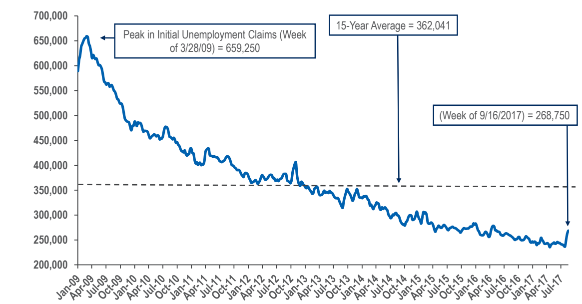
On the other side of the coin are the struggling Retail Trade and Information sectors, both of which are struggling from disruptive competition via the Internet. Combined, the two sectors saw payrolls drop by just under 100,000 during the year ending August. Unfortunately, there doesn't seem to be an 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

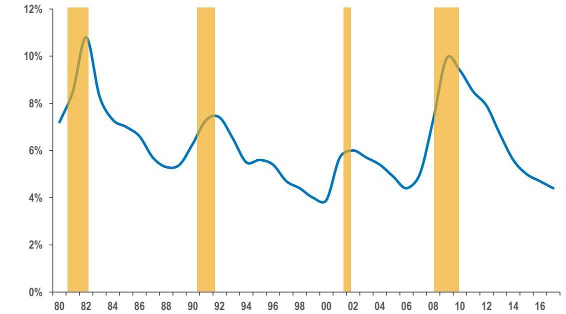
United States | Four-Week Moving Average




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

## UNEMPLOYMENT RATE

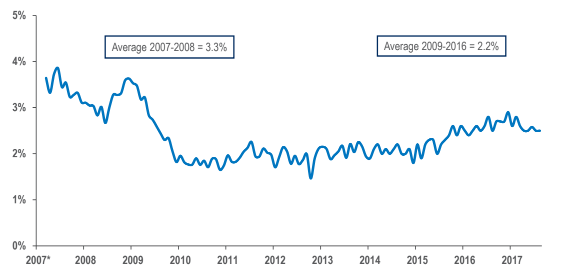
United States



*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

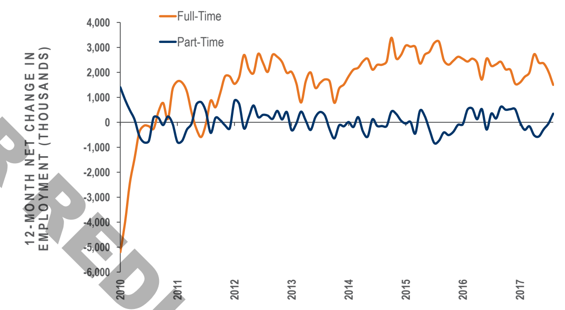
Revolving consumer credit increased at an annual rate of 3.2% in July 2017 hitting the $1 trillion mark as personal consumption picked up again during the middle part of the year. Non-revolving credit accelerated markedly at a 6.9% annual rate in July 2017, even as interest rates have steadily climbed, 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

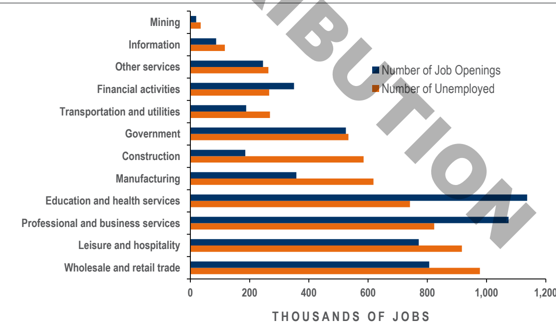
United States | 2010 – August 2017




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

## NUMBER OF UNEMPLOYED VS. JOB OPENINGS

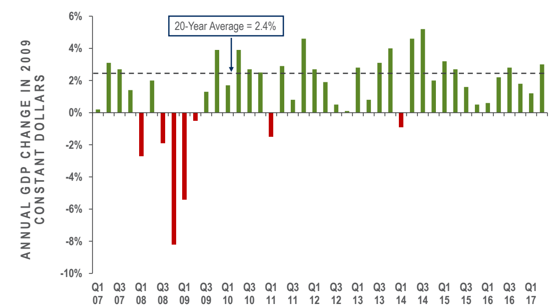
12-Month Averages Ending July 2017




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

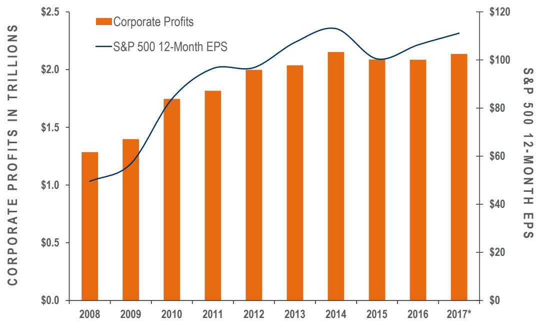
## GDP PERCENT CHANGE

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

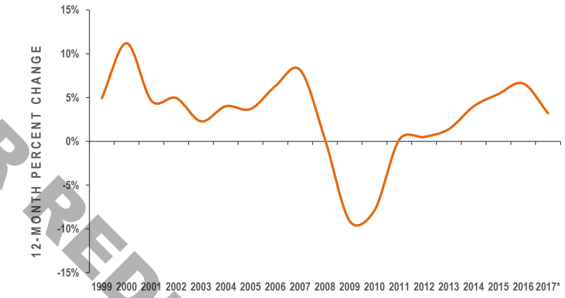
The Federal budget deficit for the 2016 fiscal year, which ended on September 30th of 2016, was $587 billion (or 3.2% of GDP), up from 2.5% in FY2015. The budget shortfall in FY2016 was a $148 billion increase over the deficit in FY2015, and marked the first federal budget deficit increase since FY2009. 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

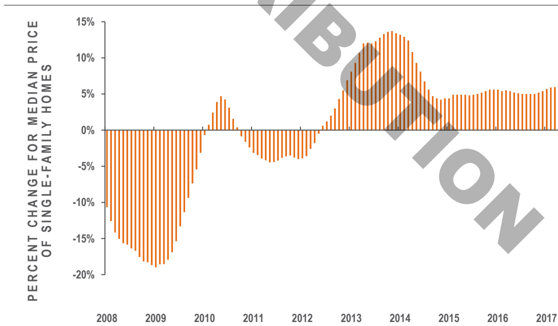
United States




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

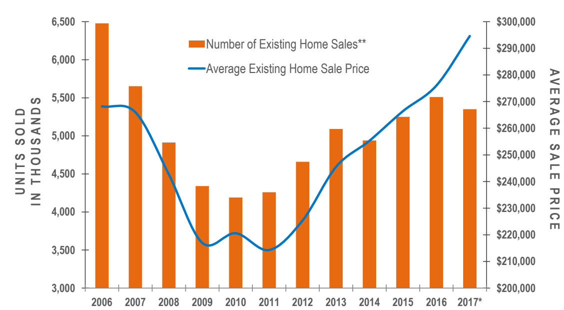
## ANNUAL CHANGE IN EXISTING HOME SALE PRICES

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.

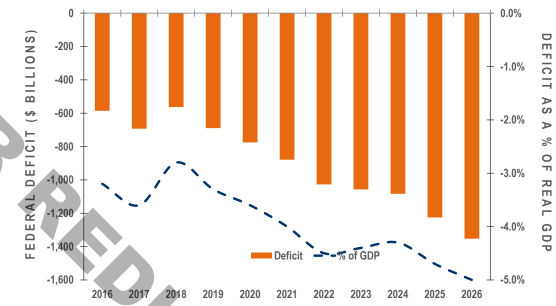
## FINANCIAL MARKETS

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.

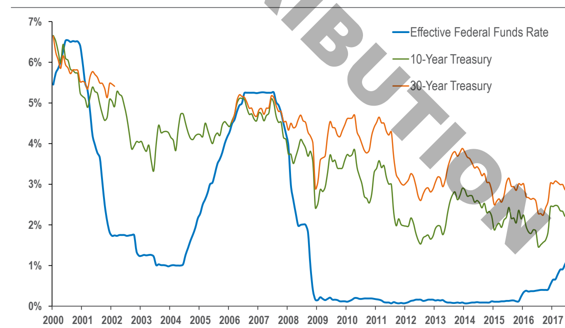
### BASELINE BUDGET PROJECTIONS

United States



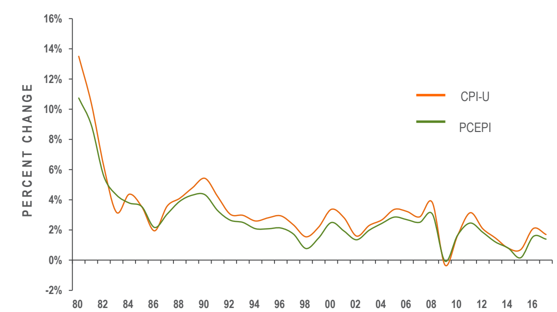

Baseline budget projections as of June 2017.
Source: Congressional Budget Office, Delta Associates; September 2017.

### 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.

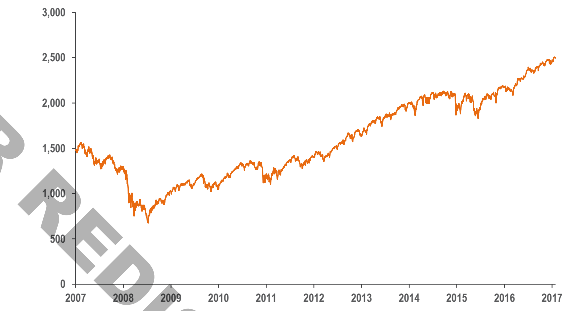
### Specifically, we believe the economic outlook is as follows:

- **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.

| 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 | | | | | |
|---|---|---|---|---|---|
| | JOB CHANGE | | | JOB CHANGE | |
| METRO AREA | # | % | METRO AREA | # | % |
| 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 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

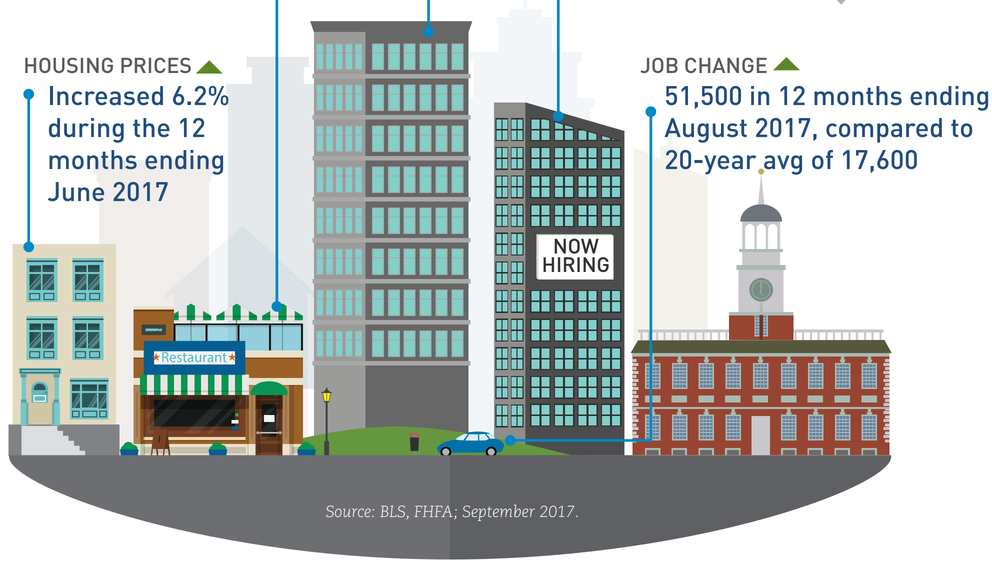
PAYROLL EMPLOYMENT
2.9 million at August 2017

INFLATION
Prices increased 0.5% during the 12 months ending July 2017

UNEMPLOYMENT RATE
5.1% at August 2017, down from 5.5% at August 2016

HOUSING PRICES
Increased 6.2% during the 12 months ending June 2017

JOB CHANGE
51,500 in 12 months ending August 2017, compared to 20-year avg of 17,600




*Source: BLS, FHFA; September 2017.*

**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

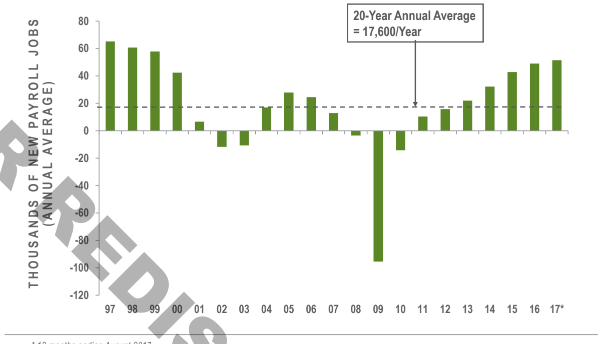
Mirroring national trends, the Professional/Business Services, Education/Health, and Leisure/Hospitality sectors led job growth in the in the Philadelphia metro area, combining for 45,000 net additions. Most other employment sectors also saw positive job growth over the period. The main exception was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

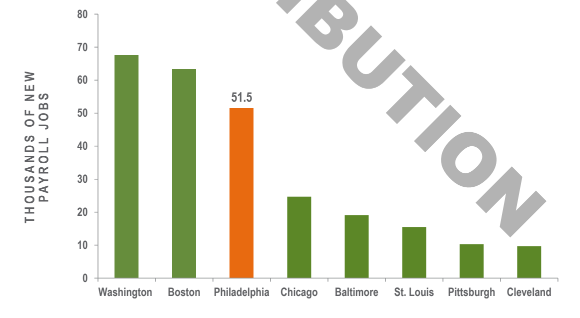


**PAYROLL JOB GROWTH**
Philadelphia Metro Area



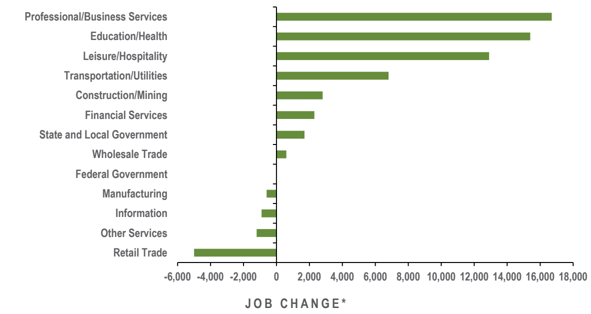

** 12 months ending August 2017*
*Source: Bureau of Labor Statistics, Delta Associates; September 2017.*

**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

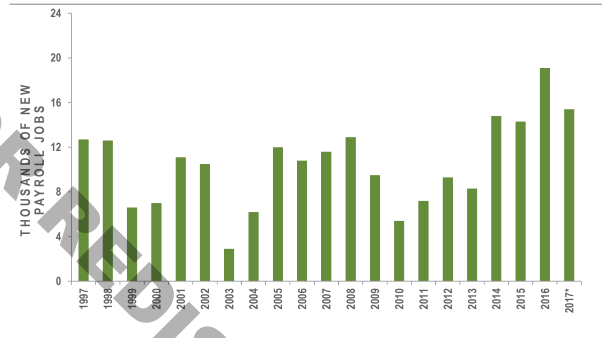
Home price inflation in the Philadelphia metro area was just shy of the national average during the 12 months ending June 2017. Average home prices increased a strong 6.2% over the year, compared to the national rate of 6.6%. Strong job growth in the region has stimulated demand for homes. This rising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

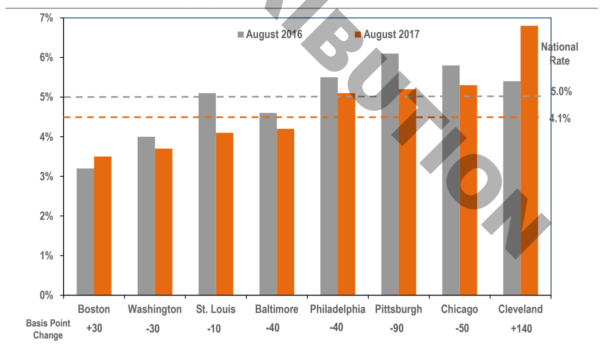
Philadelphia Metro Area




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

### UNEMPLOYMENT RATE

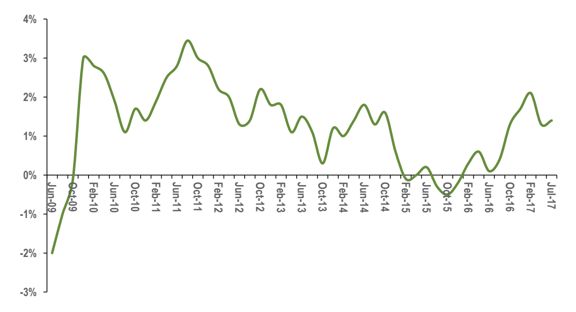
Comparable Metro Areas | August 2016 vs. August 2017




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)*

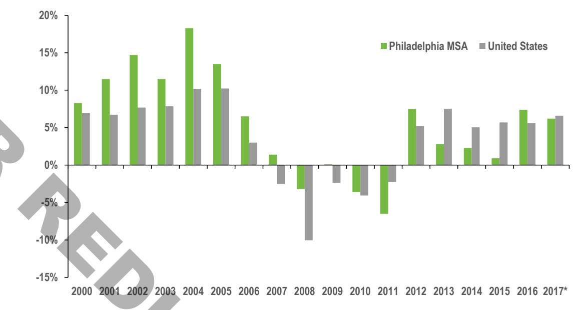
## PHILADELPHIA AREA ECONOMIC OUTLOOK

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

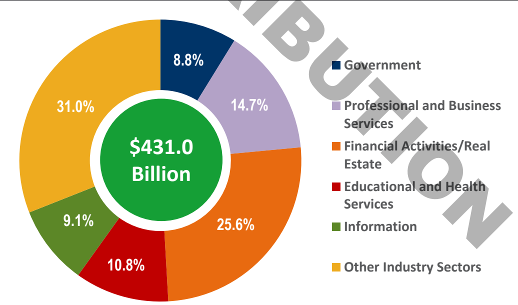
Philadelphia Metro Area vs. United States




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

### SHARE OF REGIONAL GDP

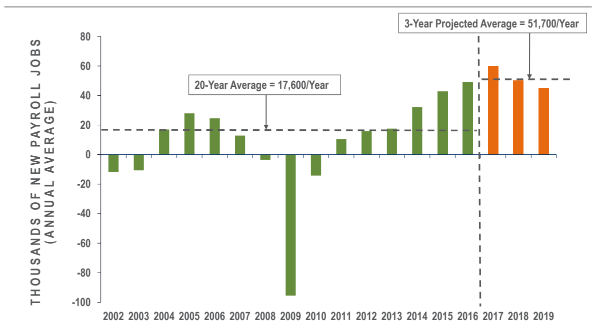
Philadelphia Metro Area | 2016




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.

# 2 STATE OF THE PHILADELPHIA CLASS A APARTMENT MARKET

# STATE OF THE PHILADELPHIA CLASS A APARTMENT MARKET

Q3



## 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:

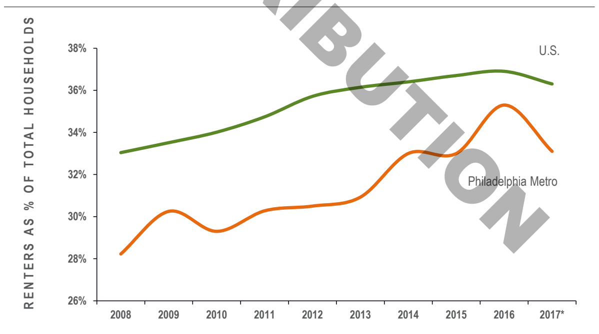
- Southern New Jersey up 3.1%
- Suburban Pennsylvania up 2.9%
- City of Philadelphia up 0.5%

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.

### RENTER HOUSEHOLDS

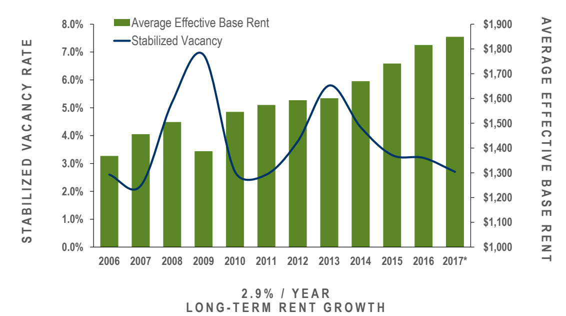
Philadelphia Metro Area vs. U.S. | 2007 - 2017




*2nd Quarter 2017 Data
Source: U.S. Census Bureau, Delta Associates; September 2017.

### EFFECTIVE RENT AND VACANCY RATE

Class A Apartments | Philadelphia Metro




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

## 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."

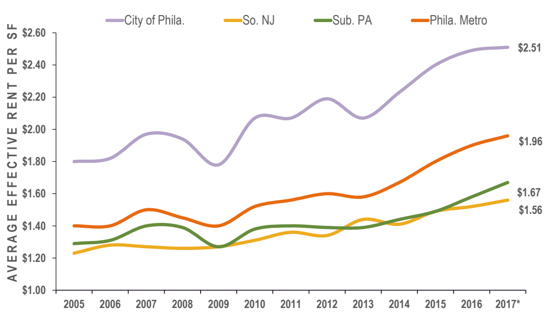
When we conduct our quarterly surveys, we obtain information on "units available to lease" – that is, physical vacancy. Obtaining the information this way, of course, may produce several important differences from "vacancy" as reported in your financial statements. Simply stated, the difference can be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

### CLASS A APARTMENT EFFECTIVE RENT PER SF

Philadelphia Metro Area | 2005 – 2017




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

## 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%).

## 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%.

## OUTLOOK

In the short run, the Philadelphia metro area apartment market will experience some pressure on occupancy and rent growth due to the large volume of new deliveries from projects currently under construction, especially in the City of Philadelphia. As these new units are absorbed (and as this new supply inevitably delays other planned projects), market conditions are expected to normalize.

The rebound in the regional job market and growth in demographic cohorts that tend to rent rather than own will benefit the rental apartment market. According to the Census Bureau, the share of renter households in the Philadelphia metro area increased by eight percentage points from 2005 to 2016, although since then, it has ticked downward slightly. Nevertheless, this trend will support demand for new product that will be delivering over the next twelve months.

In the intermediate- and long-term, we expect the renter share of Philadelphia metro area households to continue to rise through this housing cycle, supporting demand for Class A apartments. Over the next 24 months we expect annual rent growth to be below the long-term average, mostly in the city, due to more competitive market conditions. Three years from now, many submarkets will have strong development prospects.

## TABLE 2.1

**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 2.2
### 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 2.3
### 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.*

# 3 PHILADELPHIA STATISTICAL REPORT

## TABLE 3.1
### 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 3.2

### 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 3.3
### 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 3.4
### 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 3.5
### 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 3.6
### ABSORPTION SUMMARY
### RECENTLY STABILIZED APARTMENT PROJECTS
City of Philadelphia | Third Quarter 2012 - Third Quarter 2017

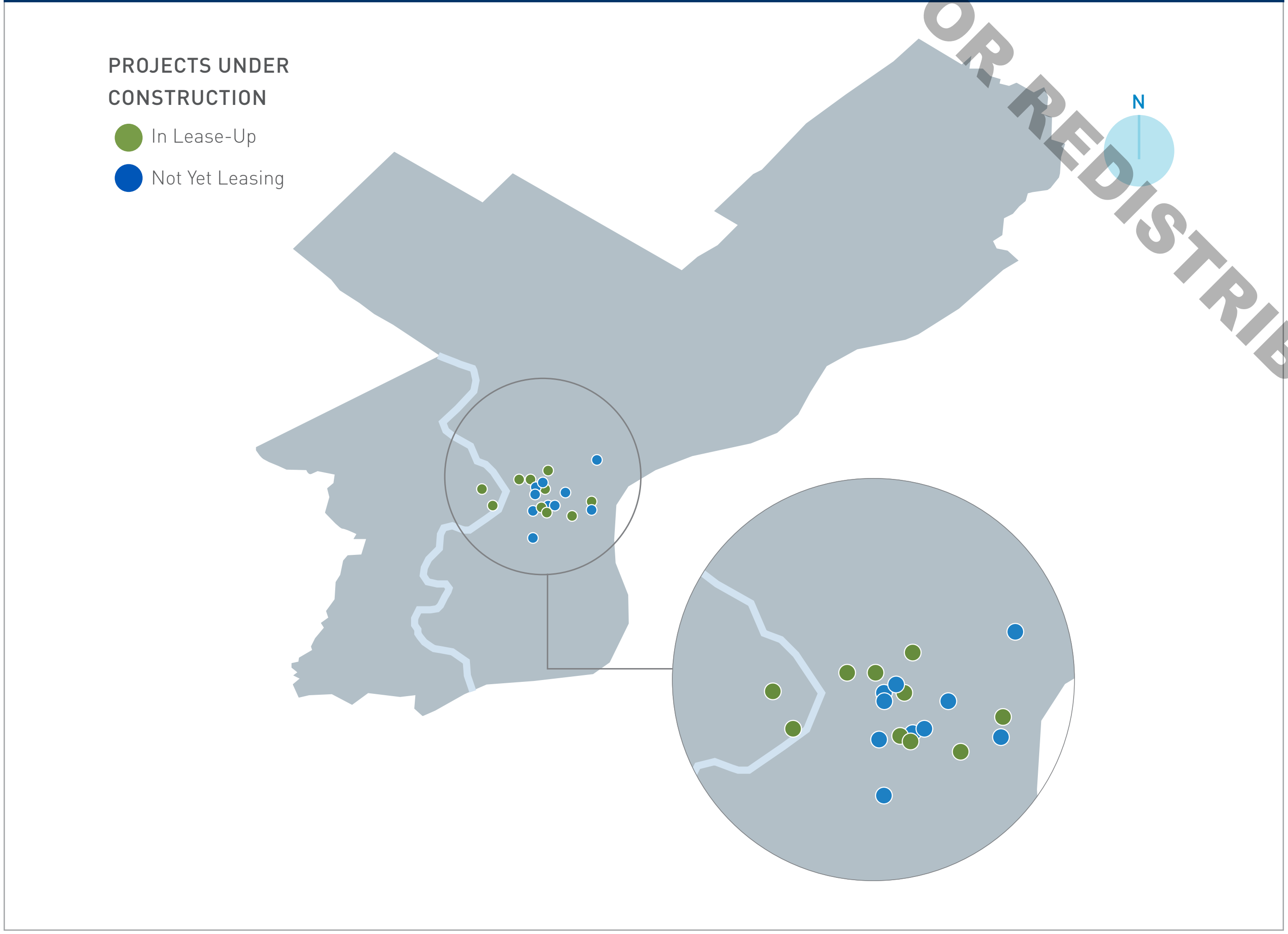
| COMP. # | PROJECT NAME | TOTAL UNITS [1] | DATE MARKETING BEGAN | DATE STABILIZED | OVERALL MONTHLY LEASE-UP PACE |
|---|---|---|---|---|---|
| 1. | The Arch | 111 | 7/12 | 2/13 | 16 |
| 2. | 2040 Market Street | 282 | 8/12 | 6/13 | 26 |
| 3. | Tower Place - Phase I | 204 | 12/12 | 5/15 | 7 |
| 4. | 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




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

## TABLE 3.7
### 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 | Inital 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 3.8
### 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 3.9
## 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 3.10
### 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 3.11
### CLASS A APARTMENT BUILDING SALES
Philadelphia Metropolitan Area
2016

| | COMPARABLE | CITY | STATE | DATE OF SALE | # OF UNITS | YEAR BUILT | SALE PRICE TOTAL | SALE PRICE 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 |
| 5. | Comparable #5 | Yardley | PA | 10/16 | 217 | 1997 | $42,500,000 | $195,853 |
| 6. | Comparable #6 | Cherry Hill | NJ | 12/16 | 200 | 1999 | $32,800,000 | $164,000 |
| | **Total/Average:** | | -- | -- | **1,318** | -- | **$247,200,000** | **$187,557** |
| **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:** | | -- | -- | **1,620** | -- | **$312,600,000** | **$192,963** |

*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 3.12
### CLASS A APARTMENT BUILDING SALES
Philadelphia Metropolitan Area
2017 Through September

| | COMPARABLE | CITY | STATE | DATE OF SALE | # OF UNITS | YEAR BUILT | SALE PRICE TOTAL | SALE PRICE 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 |
| | **Total/Average:** | | -- | -- | **644** | -- | **$145,400,000** | **$225,776** |
| **CLASS A MID-RISE/HIGH-RISE** | | | | | | | | |
| 1. | Comparable #1 | Philadelphia | PA | 7/17 | 276 | 2015 | $118,000,000 | $427,536 |
| | **Total/Average:** | | -- | -- | **276** | -- | **$118,000,000** | **$427,536** |
| | **Grand Total/Average:** | | -- | -- | **644** | -- | **$145,400,000** | **$225,776** |

*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.*


# 4 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 seven submarkets in the Philadelphia region. The map on the following page depicts the geographic areas covered in this report.

Delta Associates collects data on a statistically significant sample of the Class A product in each covered submarket. A total of approximately 21,000 units are surveyed at the end of each quarter.

## 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.

## 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.

## 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.

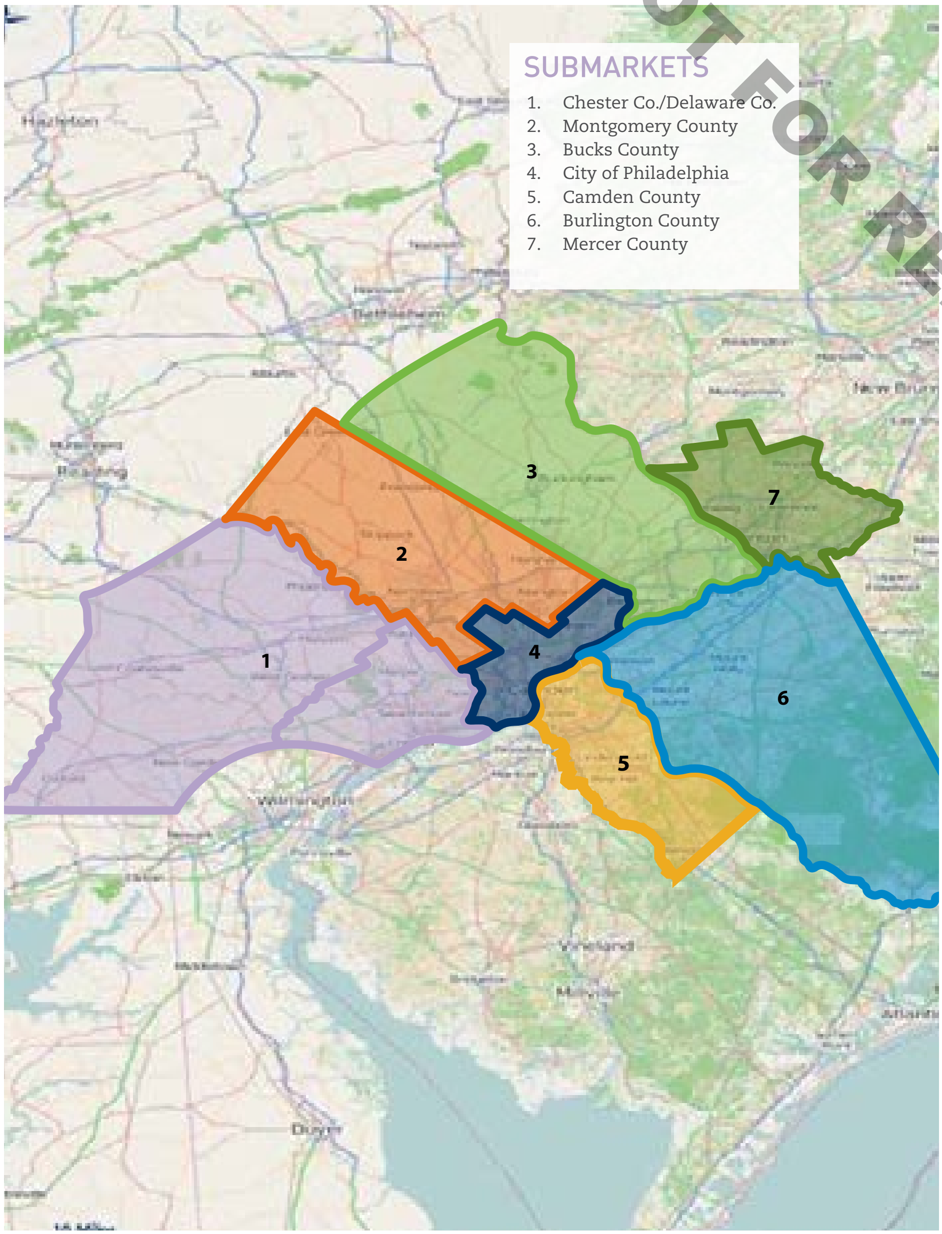
## Overall Vacancy

"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.

# PHILADELPHIA AREA
Apartment Submarkets






*Source: ESRI, Delorme, Delta Associates; September 2017.*

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