



## The 2012 Yearend Tri-boro Rental Report

This report covers the Manhattan, Brooklyn, and Queens rental markets and their relationship to and impact on each other. The growth of the outer borough rental markets has made it imperative to consider them, not only for their own importance as rapidly developing areas, but also to fully comprehend the Manhattan rental market.

This report is made in collaboration of Nancy Packes Inc., StreetEasy and On-Site.

For the rental data, we have collaborated with StreetEasy, the most comprehensive source of rental information in New York City. StreetEasy is a real estate website providing in-depth sales and rental information across all brokerages and offering consumers and professionals the power to search, sort and manage that information effectively, as well as the tools needed to stay on top of the market.

For the insightful qualitative data concerning employment and income, we have collaborated with On-Site. Founded in 1999, On-Site has grown to become the gold standard for innovation in the apartment business. On-Site's marketing, leasing and mobile tools deliver lead generation, resident qualification, document storage, e-signatures and cloud computing services. On-Site allows apartment operators to maximize occupancy, enhance quality control, maintain compliance and ensure consistent success at all levels of property operations. Since it was established, New York City has been one of On-Site's most successful markets.



## Executive Summary

### Demand

Private sector job growth in 2012 was the 5<sup>th</sup> highest since 1994 at 2.4%. Historically, in years where private sector employment grew by more than 1% (excluding 2008, when Lehman Brothers collapsed) rents increased by an average of 7.8%. Nevertheless, in 2012, despite the high level of new private sector employment, rents for studio to 2 bedroom apartments grew, on average, by only 3%.

In addition to demand from growth in private sector employment, there was substantial demand in the rental market from would be purchasers. This is because 3 bedroom sale prices have increased substantially while it is less expensive to rent a 3 bedroom home on an after tax carrying cost analysis. Because of this demand 3 bedroom rents increased by 7% in 2012.

### Supply

During the pre-Lehman period of 2000-2009, an average of 3,403 rental units and 4,309 condominiums units came to market each year. In the period after Lehman, between 2010 and 2012, the annual number of new rental units increased by 31% to 4,465, driven by the growth of Brooklyn and Queens. The annual number of condominium units declined by 60% during this period. Between 2013 and 2015, we project that the number of rental units will increase by 60% over the pre Lehman period fueled again by the growth of the boroughs. We expect that the annual number of condominium units will decline by 77% compared to the pre Lehman period.

This report correlates changes in supply with changes in average rent as well as changes in private sector head count employment against changes in average rent. The results show a very strong correlation between rent and private sector head count



employment and no correlation between rent and changes in supply. This is because annual changes in supply are very small when compared to the overall existing housing stock.

#### Conclusion

Lower wages are contributing to lower rental growth. The highly compensated finance sector is losing market share to the technology and creative industries, which typically offer lower pay. Employees of these emerging industries tend to prefer Brooklyn and Queens over Manhattan. In the outer boroughs, rent growth in 2012 was also small at 2% in Brooklyn and 4% in Queens compared to 3% in Manhattan. Still, rents in Brooklyn and Queens are lower than Manhattan and are more attractive to the lower earning technology and creative groups.

The long term trend identified in this report is that average lower per capita income of new hires will temper rental growth rates in Manhattan, Brooklyn and Queens in ways not previously seen. The early demographic trends indicate that Manhattan will primarily attract high-end renters and Brooklyn and Queens will attract more technology and creative workers.



## The Current State of the Rental Market

In the year 2012, rent increases were extremely muted in Manhattan, compared with substantial increases in 2011 (Please see chart below).

<b>Attended Rentals</b>							
<b>Manhattan</b>							
<b>Type</b>	<b>2009</b>	<b>%</b>	<b>2010</b>	<b>%</b>	<b>2011</b>	<b>%</b>	<b>2012</b>
Stu	\$ 2,311	5%	\$ 2,416	6%	\$ 2,557	7%	\$ 2,741
1 BR	\$ 3,197	5%	\$ 3,342	5%	\$ 3,521	5%	\$ 3,691
2 BR	\$ 5,302	3%	\$ 5,442	7%	\$ 5,811	5%	\$ 6,086
3 BR	\$ 9,201	2%	\$ 9,424	5%	\$ 9,898	7%	\$ 10,637
Stu-2 BR							
Avg. All	\$ 3,421	3%	\$ 3,514	9%	\$ 3,830	3%	\$ 3,954
Stu-2 BR							
Med. All	\$ 2,995	5%	\$ 3,130	7%	\$ 3,350	4%	\$ 3,475
<b>Brooklyn</b>							
<b>Type</b>	<b>2009</b>	<b>%</b>	<b>2010</b>	<b>%</b>	<b>2011</b>	<b>%</b>	<b>2012</b>
Stu	\$ 2,361	-5%	\$ 2,249	13%	\$ 2,536	-1%	\$ 2,507
1 BR	\$ 2,839	-1%	\$ 2,810	7%	\$ 2,999	4%	\$ 3,104
2 BR	\$ 3,618	12%	\$ 4,056	6%	\$ 4,310	5%	\$ 4,522
3 BR	\$ 4,986	20%	\$ 5,971	1%	\$ 6,019	9%	\$ 6,545
Stu-2 BR							
Avg. All	\$ 3,076	0%	\$ 3,091	8%	\$ 3,339	2%	\$ 3,409
Stu-2 BR							
Med. All	\$ 2,990	-5%	\$ 2,850	5%	\$ 3,000	7%	\$ 3,195
<b>Queens</b>							
<b>Type</b>	<b>2009</b>	<b>%</b>	<b>2010</b>	<b>%</b>	<b>2011</b>	<b>%</b>	<b>2012</b>
Stu	\$ 1,836	15%	\$ 2,109	4%	\$ 2,185	0%	\$ 2,191
1 BR	\$ 2,559	3%	\$ 2,640	9%	\$ 2,886	-3%	\$ 2,806
2 BR	\$ 3,439	4%	\$ 3,586	-1%	\$ 3,566	11%	\$ 3,954
3 BR			\$ 4,507				
Stu-2 BR							
Avg. All	\$ 2,715	6%	\$ 2,885	1%	\$ 2,917	4%	\$ 3,023
Stu-2 BR							
Med. All	\$ 2,510	24%	\$ 3,100	-5%	\$ 2,950	-4%	\$ 2,838

Brooklyn and Queens increases were more robust, which is understandable as the outer boroughs are enjoying disproportionate demand based on their lower but narrowing price gap and the growing appreciation of their chic lifestyle.

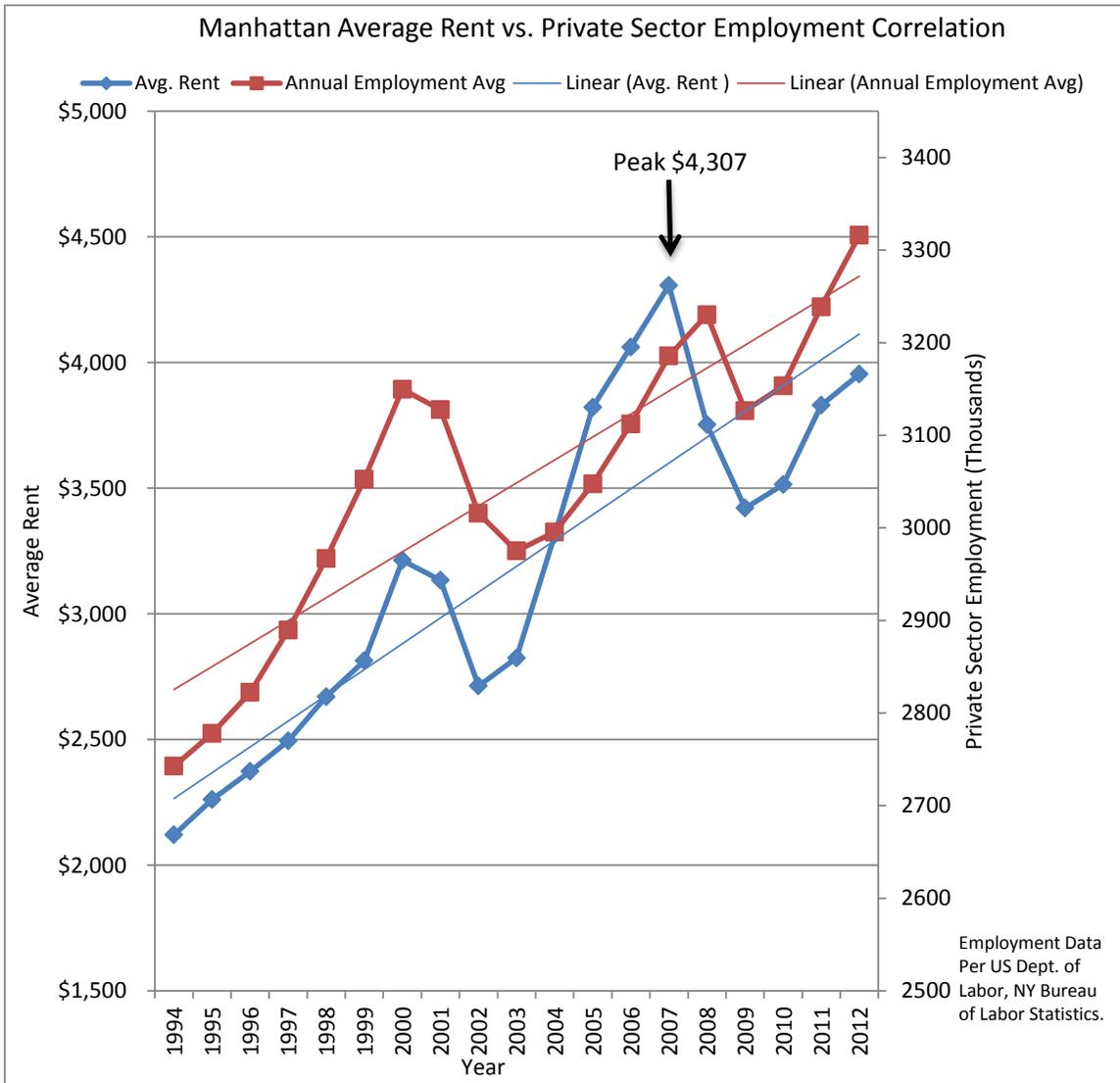
To put matters into perspective, 2012 Manhattan rental growth is below the long term annual trend rate of about 4.2% over the last 19 years (Please see chart below).

Ranked by % Change in Private Sector Employment				
Year	Avg. Rent	% Change - Rent	Annual Employment Avg*	% Change - Employment
2000	3213.2	14.2%	3149.7	3.18%
1999	2813.2	5.4%	3052.6	2.89%
2011	3830.0	9.0%	3238	2.70%
1998	2670.1	7.0%	2966.9	2.68%
2012	3954.0	3.2%	3316	2.41%
1997	2494.6	5.1%	2889.5	2.38%
2007	4307.1	6.0%	3185.6	2.36%
2006	4061.7	6.3%	3112.1	2.12%
2005	3822.3	15.3%	3047.6	1.74%
1996	2373.0	5.0%	2822.2	1.59%
2008	3753.1	-12.9%	3230.2	1.40%
1995	2260.9	6.6%	2777.9	1.28%
2010	3514.5	2.7%	3153	0.85%
2004	3314.5	17.4%	2995.6	0.69%
2001	3133.6	-2.5%	3127.7	-0.70%
2003	2824.3	4.1%	2975.1	-1.35%
2009	3421.1	-8.8%	3126.5	-3.21%
2002	2712.969	-13.4%	3015.7	-3.58%
1994	2120.9	10.2%	2742.7	

\*US Department of Labor NY- Labor Statistics

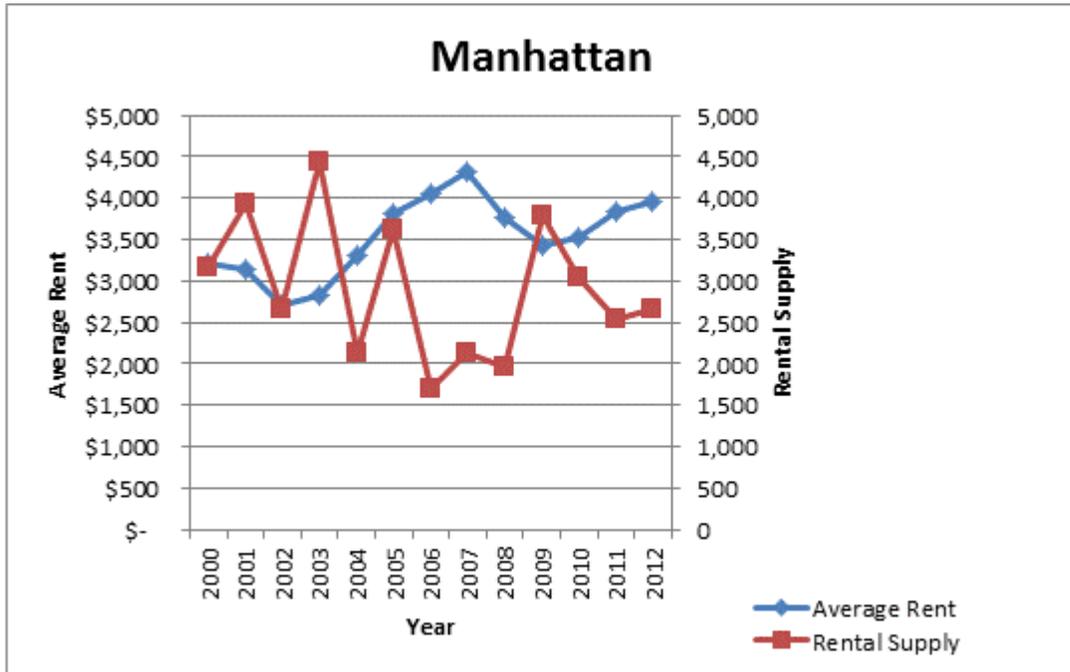
This chart is ordered by percentage change in employment from high to low. For those years where employment growth is greater than 1%, 13 years in total, annual rent growth averaged 6.2%. Only in the year 2008 did rents fall because of the financial crisis around the collapse of Lehman. For all the other years rent increases were substantial except for 2012 when the average increase was 3.2%. As the chart below shows rental cycles of growth and decline are typically tied to larger economic events, which trigger changes in employment that drive demand. The chart also shows that the trajectory of rents typically continues to accelerate during the cycle in proportion to job

growth. 2012 appears to be the first year (except for 2008) in which rent growth did not reflect job growth.



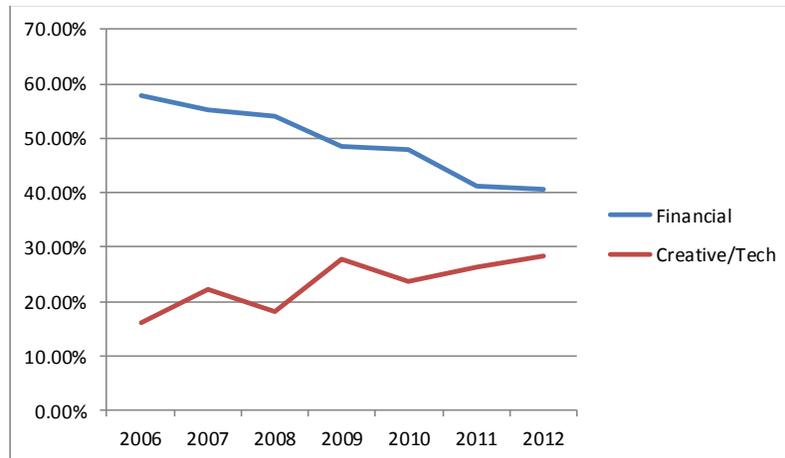
With very low new development inventory coming to market for the past several years, and with many would-be buyers choosing a rental option, the data suggest that earnings levels are impacting rent growth. Since this analysis only concerns Manhattan, the choice to rent in the outer boroughs does not really affect the analysis.

Conversely, as the chart below shows, changes in supply do not correlate to rent.



The chart below shows the changing face of employment in the area. In essence, the financial jobs market has shrunk as have the pay rates and bonuses. Fortunately, technology-related and creative jobs have more than filled the void to produce significant private sector headcount increases of 2.8% in 2011 and 3.6% in 2012, amongst the highest rates on record over the 19 year history of this report.

Share of Manhattan renter pool by industry



The financial services industry has in the past found ways to reinvent itself with new ways to generate wealth for its job holders. In the future, to rebalance this equation, financial services will also have to create substantial new jobs as the trend lines show an increasing proportion of new creative and technology jobs.

These employment trends must now carefully be considered in the development of new homes for rental and sale. The next section of this report on the relationship of Manhattan to the outer boroughs, particularly Brooklyn, further develops these themes.

### Tale of Two Boroughs

This is the tale of two boroughs, Manhattan and Brooklyn. In 2005, the first market rate attended rental building opened in downtown Brooklyn and, in less than ten years, the borough has been transformed, as has the rental market. The Manhattan rental market, that was spawned more than half a century ago by the advent of rent stabilization, has undergone dramatic change during the last eight years, as well. This evolution is ultimately the result of the low interest rate environment that has been with us for the past decade.



In an effort to counteract the economic implosion that followed the destruction of the World Trade Center, the federal government lowered interest rates. With the abundance of liquidity that followed, developers built condominiums in areas previously seen as suitable only for rentals and targeted these off-locations, including the Financial District, Brooklyn and Queens to a new market: the entry level buyer. For the first time ever, there was no bright line demarcating condominium from rental locations. The new line recalibrated the price of land, especially in Manhattan, and the effect, has persisted. As a result, it has become uneconomic to develop rental buildings in Manhattan aimed at the middle of the market based on the current price of land. There are some exceptions to this general condition: long term owners of land whose basis is low, though even these owners must weigh the rental return against the more lucrative condo investment and, also, rentals can be created in a mixed use project where other segments have a higher return.

Back in 2006, rental rates in Brooklyn were about 39% less than in Manhattan

#### Head to Head Comparison

2006 Doorman (1-2 BR)		
Manhattan	%	Brooklyn
	-	
\$ 4,930	39%	\$ 2,989

2006 Non Doorman (1-2 BR)		
Manhattan	%	Brooklyn
	-	
\$ 3,692	39%	\$ 2,270

Manhattan DM							Brooklyn DM						
Unit Type	2006	% ^	2008	2009	% ^	2012	Unit Type	2006	% ^	2008	2009	% ^	2012
Stu	\$ 2,307	9%	\$ 2,512	\$2,311	19%	\$ 2,741	Stu			\$2,233	\$2,361	6%	\$2,507
1 BR	\$ 3,406	2%	\$ 3,487	\$3,197	15%	\$ 3,691	1 BR	\$2,610	11%	\$2,898	\$2,839	9%	\$3,104
2 BR	\$ 6,453	-6%	\$ 6,042	\$5,302	15%	\$ 6,086	2 BR	\$3,367	17%	\$3,942	\$3,618	25%	\$4,522
3 BR	\$11,808	-13%	\$10,312	\$9,201	16%	\$10,637	3 BR	\$3,950	22%	\$4,837	\$4,986	31%	\$6,545
Avg.	\$ 5,994	-7%	\$ 5,588	\$5,003	16%	\$ 5,789	Avg.	\$3,309	5%	\$3,478	\$3,451	21%	\$4,170
Manhattan NDM							Brooklyn NDM						
Unit Type	2006	% ^	2008	2009	% ^	2012	Unit Type	2006	% ^	2008	2009	% ^	2012
Stu	\$ 1,997	-1%	\$ 1,984	\$1,762	22%	\$ 2,144	Stu	\$1,945	22%	\$2,370	\$1,860	19%	\$2,211
1 BR	\$ 2,678	-2%	\$ 2,612	\$2,362	16%	\$ 2,740	1 BR	\$1,924	15%	\$2,210	\$2,120	18%	\$2,510
2 BR	\$ 4,706	-19%	\$ 3,811	\$3,368	18%	\$ 3,960	2 BR	\$2,615	16%	\$3,037	\$2,783	16%	\$3,235
3 BR	\$ 7,794	-20%	\$ 6,230	\$5,111	15%	\$ 5,888	3 BR	\$3,708	11%	\$4,107	\$3,844	19%	\$4,567
Avg.	\$ 4,294	-15%	\$ 3,659	\$3,151	17%	\$ 3,683	Avg.	\$2,548	15%	\$2,931	\$2,652	18%	\$3,131

% ^ Percentage change. Avg. is based on arithmetic average of all unit types.

In the years since, Brooklyn rents have grown to nearly match Manhattan rents and various areas have developed into submarkets with different values, much like the Manhattan market.

In addition to the price of land, a second, perhaps equally important trend, spurred development in Brooklyn and Queens. At about the same time the first market rate rentals were being developed in Brooklyn in 2005, the labor market in the New York City area began a radical transformation. The financial services industry has long dominated the local economy in terms of defining the top income level and in terms of the “knock on” effect of spawning about two other jobs for every financial services job created. With the growth of the internet came a technology revolution that transformed business, beyond the use of web sites and e mail, to cloud servers and on line bill payment. The world of business has gone from manual to digital. With that change, the technology industry has exploded in size and geography, expanding beyond Silicon Valley to Silicon Alley in New York to be near the businesses it serves.

From 2005 to 2010, financial services jobs declined by one third while technology and creative jobs doubled. During the same period, tech and creative jobs grew ten times

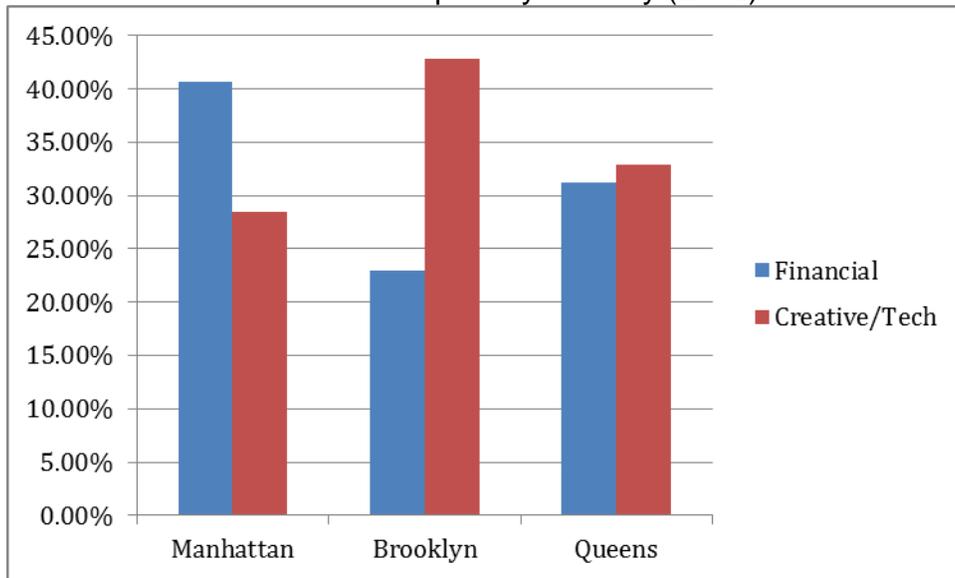


faster than NYC employment on the whole. The impact on the rental market of the choices these different employment groups make is profound.

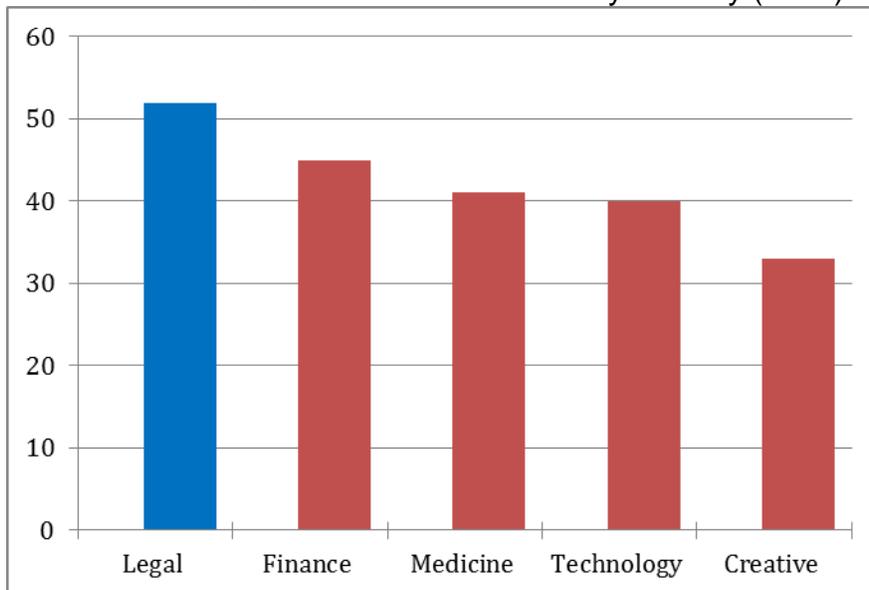
For the past ten years On-Site has tracked its data by industry. Their statistics for 2012 show that, in both Brooklyn and Queens, the number of creative and tech industry renters outnumbered the financial services industry. This is despite the greater number of financial service workers in the local area labor force. By contrast, in the Manhattan rental market in 2012, financial workers formed 41% and creative and tech workers only 28% of the renters. Thus, both groups are demonstrating area preferences that are shaping and will continue to create the destinies of these boroughs.

The amounts these groups earn and the proportion of their income spent on rent is a major part of this story. The charts below show the average monthly income and proportion of income spent on rent. While tech and finance workers earn similar amounts, tech workers are choosing to spend less of their income on rent. This choice coincides with more of the tech group choosing to rent in Brooklyn and Queens where rents are lower. Creative workers earn substantially less and spend substantially less on rent than either of these groups.

Share of renter pool by industry (2012)



Annual income/rent ratio in Manhattan by industry (2012)



The interesting question is whether these factors will tend to cap rents in Brooklyn and Queens from equaling, or exceeding Manhattan rents despite the greater level of job growth and demand from these groups.



Some insight into this question can be gained from two sources. First, as the chart above shows, if the present trend continues, tech and creative jobs will outnumber financial services jobs in the near future.

This trend implies generally lower incomes as the proportion of tech and creative workers grow. Also, finance workers, particularly where bonuses are a substantial component of income, have been earning less. Lower earnings, of necessity will translate into lower rents. A second indication of the proportion of the effect of lower incomes on rent comes from the chart below that shows unattended rental values compared to attended.

Unit Type	Studio		1 BR		2 BR		3 BR	
	Attended	Unattended	Attended	Unattended	Attended	Unattended	Attended	Unattended
Manhattan	\$ 2,741	\$ 2,144	\$ 3,691	\$ 2,740	\$ 6,086	\$ 3,960	\$10,637	\$ 5,888
Brooklyn	\$ 2,507	\$ 2,211	\$ 3,104	\$ 2,511	\$ 4,522	\$ 3,235	\$ 6,545	\$ 4,567
Queens	\$ 2,191		\$ 2,806	\$ 1,877	\$ 3,954	\$ 2,468		\$ 3,117

The extraordinary rise in the value of unattended rentals, particularly in the outer boroughs, shows that the new workers are not valuing full service buildings as much as their colleagues in law and finance.

In the past, rent growth could be charted as a direct function of private sector head count. In the future, that correlation will also be affected by changing earnings levels. Also, new development may need to take advantage of the cost efficiencies of unattended buildings and possibly fewer frills to lower rent levels while preserving operating margins.

Pipeline

The pipeline of new rental development reflects these trends. As the chart below shows, even in the recent past, about 70% of new rental development occurred in Manhattan. In 2013 and 2014, that level is reversed and 70% of new rental development is slated for Brooklyn and Queens, with a strong emphasis on Brooklyn.

Percentage of Rental Units by Borough											
Borough	2007	2008	2009	2010	2011	2012	Annual Average 2007-2012	2013	2014	Annual Average 2013-2014	Total
Manhattan	60%	83%	70%	60%	71%	57%	67%	20%	39%	30%	54%
Brooklyn	13%	11%	30%	40%	29%	24%	25%	35%	51%	43%	33%
Queens	27%	6%	0%	0%	0%	19%	9%	45%	10%	27%	14%

Number of Rental Units by Borough											
Borough	2007	2008	2009	2010	2011	2012	Annual Average 2007-2012	2013	2014	Annual Average 2013-2014	Total
Manhattan	2131	1964	3784	3048	2548	2667	2690	1087	2850	1969	20078
Brooklyn	445	266	1644	2043	1057	1145	1100	1886	3686	2786	12172
Queens	975	141	0	0	0	887	334	2404	705	1555	5112

There are factors that tend to suggest that this trend is irreversible. Manhattan's land mass is densely developed with few large areas available for new development. As evidence of this, the EDC's program to unlock residential FAR from existing school sites is hugely popular. Brooklyn, and Queens to a lesser extent, are laced with subway lines and underutilized real estate in the wake of the local manufacturing decline. The trend toward the growth of major cities, particularly New York, is the result of many factors: greater safety, both household heads in the workforce and the continued expansion of service sector employment favoring proximity to customers and clients. It seems only a matter of time for Brooklyn and Queens to continue their transformation as the new urban suburbs. The long-term market rate trend seems to be that Manhattan will be primarily dedicated to high-end rentals and condominiums and the outer boroughs to mid-level rentals and entry-level condos.



These trends are already playing out. Over the past few years, as average market rate rentals have flourished in the outer boroughs, Manhattan has seen the rise of the super rentals. These buildings feature very generous amenities programs, condo quality interior finishes, starchitecture and unit mixes with larger sized homes than the typical rental. The demand for these super rentals comes from an older and wealthier demographic that might otherwise have been compelled to buy to satisfy their lifestyle expectations. Many of these renters own a home at their preferred weekend location in the Hamptons, Westchester, Dutchess or Connecticut. Owning a second property in the City can seem superfluous with no interest deduction on a second mortgage and with a resale market that has proved that what goes up can come down and stay there for a prolonged period. Also, constraints on the availability of finance, despite historically low interest rates, particularly the requirement for larger down payments, limit the attraction of buying.

#### Rent versus Own

In analyzing pricing in the rental market, we have looked at the relationship to the sale market. The analysis below uses current values from the Nancy Packes Inc, Triboro Sale Report for unit prices and sizes for Manhattan for 2012.

It is less expensive to rent than to own a 2 or 3 bedroom home in Manhattan. For the studio and one-bedroom sizes, the rental market is higher than after-tax carrying costs in the sale market.

It is evident that there is a relationship between rental and sale market demand where, on average, younger and less affluent market participants choose to rent. The reasons include lack of means to buy and the need for flexibility in job and household changes. As a result, there is a greater net demand for studios and one-bedroom homes that



results in those prices exceeding the carrying cost of condominiums. However, as the margin increases, it prompts demand in the sale market as was evident with the increase in demand for studios in the condo market in 2012.

This analysis indicates that, both the sale and rental markets in Manhattan are a function, primarily of income and the availability and cost of finance and, to a lesser extent, of job growth and supply levels.

<b>Matrix</b>	<b>Stu</b>	<b>1 Bed</b>	<b>2 Bed</b>	<b>3 Bed</b>
Square Feet	536	776	1,307	1,964
PSF	\$ 1,060	\$ 1,117	\$ 1,221	\$ 1,450
Purchase Price	\$ 550,000	\$ 855,330	\$ 1,600,000	\$ 2,975,000
Loan Amount @ 65% LTV	\$ 357,500	\$ 555,965	\$ 1,040,000	\$ 1,933,750
Down Payment @ 35%	\$ 192,500	\$ 299,366	\$ 560,000	\$ 1,041,250
Interest Rate 30 yr fixed	4.5%	4.5%	4.5%	4.5%
Principal & Interest Payment @ 4.5%	\$ 1,811	\$ 2,817	\$ 5,270	\$ 9,798
Monthly CC @ \$1.20	\$ 643	\$ 931	\$ 1,568	\$ 2,357
Monthly RE @ \$.06 (assumes abatement)	\$ 32	\$ 47	\$ 78	\$ 118
Lost Opportunity Cost on down payment @ 3%	\$ 481	\$ 748	\$ 1,400	\$ 2,603
Total Monthly Payment	\$ 2,968	\$ 4,543	\$ 8,316	\$ 14,876
Assumed Tax Rate	50%	50%	50%	50%
Assumed Tax Savings*	\$ (670)	\$ (1,042)	\$ (1,875)	\$ (1,875)
Monthly Tax Adjusted Cost	\$ 2,298	\$ 3,501	\$ 6,441	\$ 13,001
Manhattan 2012 Doorman Rent	\$ 2,741	\$ 3,691	\$ 6,085	\$ 10,637

\*annual interest paid multiplied by the tax bracket divided by 12. Interest paid only on the 1st \$1MM is deductible.