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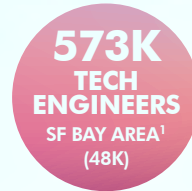
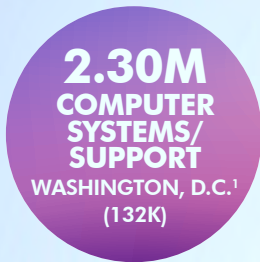
# 2016 SCORING TECH TALENT

Influencing Innovation, Economic and  
Real Estate Growth in 50 North American Markets

**CBRE**

# // takeaways

// **4.8 million tech-talent workers are specialized and concentrated across four key occupations**



// **The top ranked tech-talent markets showed strong labor pool and job growth**

### Top Large Markets<sup>2</sup>



1. SF Bay Area, CA



2. Washington, D.C.



3. Seattle, WA

### Top Small Markets<sup>2</sup>



23. Columbus, OH



24. Charlotte, NC



25. Portland, OR

// **Tech talent in the U.S. has grown by 27% or 1 million jobs over the past five years**

### Top Large Growth Markets<sup>3</sup>

**61.5%**

1. SF Bay Area, CA

**61.4%**

2. Baltimore, MD

**58.1%**

3. Phoenix, AZ

### Top Small Growth Markets<sup>3</sup>

**74.7%**

1. Charlotte, NC

**67.9%**

2. Nashville, TN

**59.0%**

3. Oklahoma City, OK

<sup>1</sup> Largest Market; <sup>2</sup> Scored on a scale of 1-100; <sup>3</sup> Tech talent growth, 2010-2015.

## // Highly educated millennials are flocking to top job markets

Highest Educational Attainment

**58.9%** 2014  
1. Seattle, WA

Top Large Market Millennial Growth

**25.8%** <sup>past 5 yrs</sup>  
1. Washington, D.C.

Top Small Market Millennial Growth

**23.7%** <sup>past 5 yrs</sup>  
1. Salt Lake City, UT

Top Tech Education Market (more degrees than jobs)

**+17K degrees** <sup>past 5 yrs</sup>  
1. Boston, MA

Top Tech Job Market (more jobs than degrees)

**+90K jobs** <sup>past 5 yrs</sup>  
1. SF Bay Area, CA

## // Tech-talent employers examine talent and real estate costs to guide location decisions

Highest Cost Markets

Lowest Cost Markets



## // Rising rents and declining vacancies have occurred in markets where tech firms cluster

Largest Rent Cost Increase

Largest Vacancy Decrease







# // contents

Scoring Tech Talent is a comprehensive analysis of labor market conditions in the U.S. and Canada for highly-skilled tech workers. The 50 largest markets were ranked according to their competitive advantages and appeal to tech employers and tech talent. The analysis also provides insight into tech talent demographics and how their growth patterns are impacting cities and real estate markets.

## // what is tech talent? 6

Tech talent is a group of highly-skilled workers in more than 20 technology-oriented occupations driving innovation across all industry sectors.

## // where are the top-ranked tech-talent markets? 8

A scorecard measuring 13 different metrics to gauge the competitive advantages of markets and their ability to attract and grow tech talent pools determined the top-ranked tech-talent markets.

## // how to find tech-talent momentum markets? 13

Tech-talent growth rates are the best and most easily quantified indicator of labor pool momentum and patterns across both large and small markets.

## // what do tech-talent markets look like? 16

Tech-talent markets are characterized by high concentrations of college-educated workers, major universities producing tech graduates and large millennial populations.

## // what are the highest- and lowest-cost markets? 24

Employee wages and office rent for a typical 500-person tech firm using 75,000 sq. ft. of office space provide insight into annual operating costs, market by market.

## // how does tech talent impact commercial real estate? 28

Markets with high concentrations or clusters of rapidly growing tech-talent employers have driven office leasing demand, causing rising rents and declining vacancies.



# // what is tech talent and why is it important?



Technological evolution continually influences the way we live and how we work. Increased access to information has altered the way we experience the world, and the interconnectivity between our phones, computers, homes and offices provides an ever seamless transition between work and play. The internet is now the backbone of commerce. It is the infrastructure for companies to compete globally for consumers, providing traditional goods and services that meet increasing consumer demands for experiences and product interaction.

The innovators behind these technological advances are highly skilled and sought after individuals totaling approximately 4.8 million workers in the U.S. across all occupational industries. Our definition of tech talent consists of 20 different occupations ranging from computer hardware engineers to information systems managers.<sup>1</sup> These positions are highly concentrated

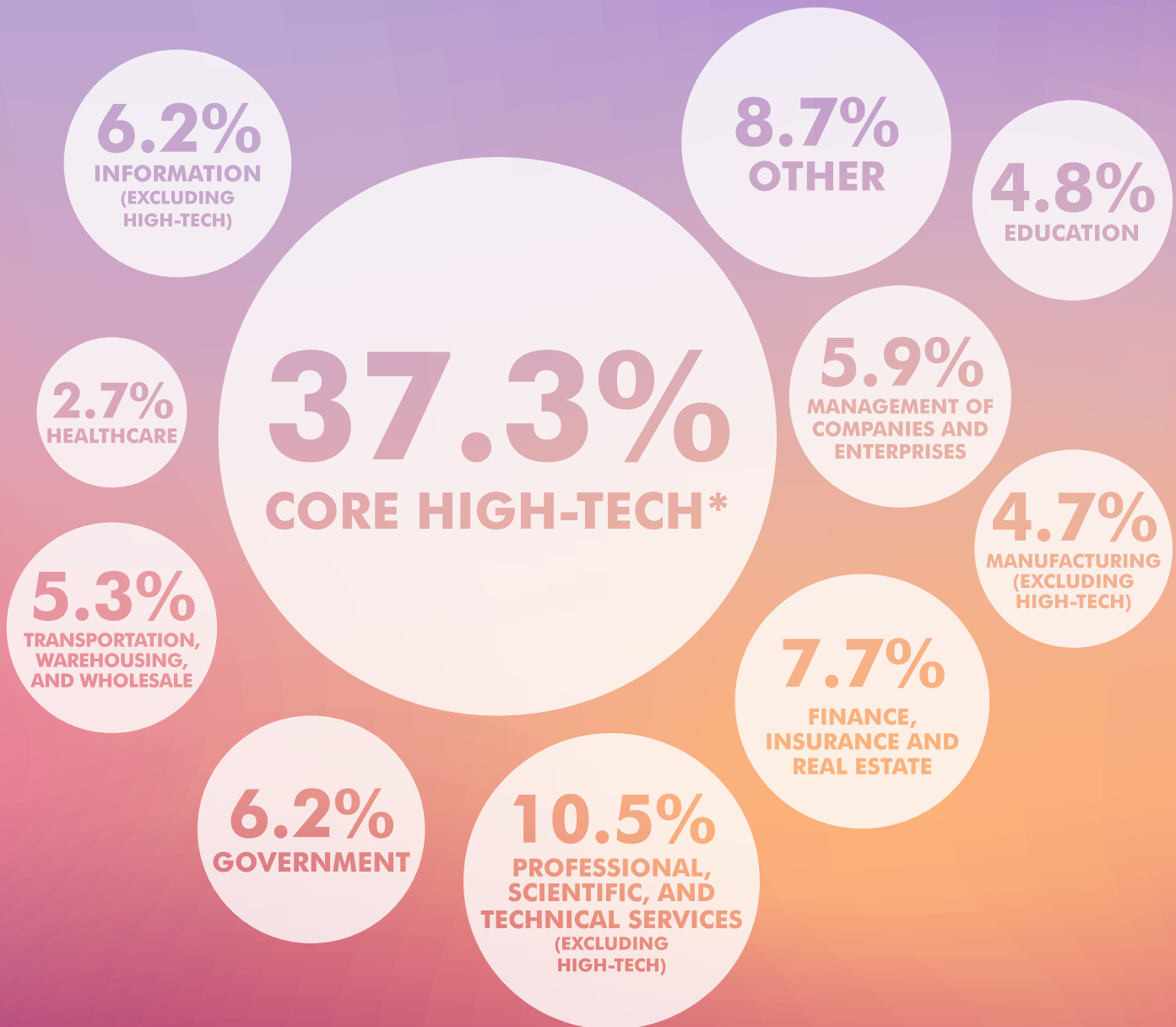
within the high-tech industry but are not limited to any one type of company and are included in all industry sectors (Figure1). Using this definition, a software developer who works for a logistics company is included in our data.

By these definitions, tech talent comprises 3.5% of the total U.S. workforce. So why pay attention to such a small percentage? Can they really have a significant impact on real estate and the economy? The number of tech-talent workers increased 27% during the past five years, adding more than 1 million jobs to the national economy-- more than three times the national average of all occupations. Tech talent is fueling new innovation and adapting technology within traditionally non-tech sectors to increase productivity and strengthen the national economy.




<sup>1</sup>Tech talent includes the following occupation categories: software developers and programmers; computer support, database and systems; technology and engineering related; and computer and information system managers.

**FIGURE 1**  
**TECH TALENT LABOR BY INDUSTRY (2015)**  
Tech Talent Occupations in Each Industry as a % of U.S. Tech Talent



\*Includes computer software and services and computer product manufacturing  
Source: U.S. Bureau of Labor Statistics (National), April 2016.



# // where are the top-ranked tech-talent markets?



Since the rise in accessibility and utilization of the internet, technology companies have spread beyond the large and well-known markets to smaller, more cost-effective and previously untapped locations. This in turn has created a rise in office demand by these companies across North America.

CBRE Research has ranked the 50 largest markets by number of tech-talent professionals in the U.S. and Canada (Figure 2). The scorecard uses 13 metrics per market, weighting each by relative importance to companies seeking tech talent. For example, tech labor costs are weighted heavier than office rents because companies allocate more capital to labor than to real

estate. Tech talent concentration metrics, or the percentage of total employment tech represents, have the highest weights because they identify clustering of talent, signifying market strength. The San Francisco Bay Area (including San Francisco, Silicon Valley and Oakland) and Washington, D.C. retained their number one and two rankings, respectively, in the 2016 CBRE Tech-Talent Scorecard compared to the previous year. Seattle and New York traded places for third and fourth, respectively, while Austin rose three spots to round out the top five markets.







**FIGURE 2**  
**TECH TALENT SCORECARD RANKINGS**  
Click on a Market to See the Full Scorecard





Source: CBRE Research; CBRE Econometric Advisors; U.S. Bureau of Labor Statistics; Statistics Canada; Moody's Analytics; The National Center of Education Statistics; National Science Foundation; Axiometrics.









# // how to find tech-talent momentum markets?



Demand for tech talent across all industries is growing in markets both large (more than 50,000 tech workers) and small (less than 50,000). Because of their size, it is easy for major gateway regions such as New York, Washington, D.C. and the San Francisco Bay Area to dominate tech-talent concentration. Thus, large and small markets were separately analyzed to highlight their advantages: Large markets tend to have a deeper pool of talent; small markets typically offer savings in both business and living costs.

The top six fastest-growing large markets increased their tech-talent pool by more than 50% over the past five years (Figure 3), with the San Francisco Bay Area and Baltimore each increasing their base by more than 60%.

Smaller tech-talent markets also grew quickly. Charlotte and Nashville grew at the fastest pace of all 50 markets surveyed, increasing 75% and 68%, respectively. Analyzing tech labor growth over two consecutive two-year periods, however, shows that momentum is slowing. Tech employment across the 50 markets surveyed grew an average of 17% between 2011 and 2013. But, between 2013 and 2015 only 10 markets met or exceeded their previous two-year pace of growth. Employment growth in tech occupations has a multiplier effect that positively impacts economic growth, which then has immense impact on commercial real estate.

**FIGURE 3**  
**TECH TALENT**  
**LABOR POOLS (2015)**  
 by Market

**Large Tech Talent Markets (> 50,000 Labor Pools)**

Geography	Tech Talent Total	Growth Rate <sup>1</sup>	by Volume <sup>2</sup>	Concentration <sup>3</sup>
SF Bay Area, CA	316,530	61.5%	120,550	10.3%
Washington, D.C.	241,230	24.0%	46,680	8.1%
New York, NY	240,810	29.1%	54,328	3.7%
Toronto, ON	179,200	35.6%	47,000	6.9%
Dallas/Ft. Worth, TX	162,060	38.0%	44,620	4.9%
Chicago, IL	136,340	34.9%	35,290	3.8%
Seattle, WA	131,660	50.2%	44,010	8.6%
Atlanta, GA	124,820	46.7%	39,710	5.0%
Los Angeles, CA	119,400	20.9%	20,660	2.9%
Boston, MA	111,290	12.9%	12,680	6.3%
Houston, TX	102,450	47.4%	32,960	3.5%
Minneapolis, MN	92,530	34.8%	23,880	4.9%
Phoenix, AZ	86,040	58.1%	31,620	4.6%
Detroit, MI	76,050	49.2%	25,080	4.0%
Philadelphia, PA	75,150	27.0%	15,970	4.0%
Denver, CO	73,800	29.1%	16,620	5.4%
Austin, TX	72,030	51.8%	24,590	7.8%
Baltimore, MD	70,340	61.4%	26,760	5.4%
San Diego, CA	67,590	47.2%	21,670	5.0%
Orange County, CA	63,290	37.3%	17,190	4.2%
Vancouver, BC	57,500	50.1%	19,200	5.4%
Raleigh-Durham, NC	55,790	39.1%	15,670	6.5%
Newark, NJ	51,020	8.8%	4,143	4.4%
St. Louis, MO	50,130	12.0%	5,360	3.8%

**Small Tech Talent Markets (< 50,000 Labor Pools)**

Geography	Tech Talent Total	Growth Rate <sup>1</sup>	by Volume <sup>2</sup>	Concentration <sup>3</sup>
Kansas City, MO	48,510	41.6%	14,260	4.7%
Charlotte, NC	47,300	74.7%	20,220	4.2%
Portland, OR	47,240	45.1%	14,680	4.3%
Columbus, OH	45,630	20.8%	7,870	4.5%
Tampa, FL	43,710	50.9%	14,740	3.6%
Pittsburgh, PA	38,930	27.8%	8,460	3.4%
Sacramento, CA	36,270	16.5%	5,140	4.1%
Cincinnati, OH	35,660	29.9%	8,210	3.5%
Orlando, FL	33,340	31.8%	8,050	3.0%
Indianapolis, IN	32,470	41.9%	9,590	3.3%
Cleveland, OH	31,700	35.1%	8,230	3.1%
Milwaukee, WI	31,130	20.6%	5,310	3.7%
Long Island, NY	30,450	26.4%	6,360	2.4%
San Antonio, TX	30,390	42.7%	9,100	3.2%
Virginia Beach, VA	28,610	38.8%	8,000	3.9%
Salt Lake City, UT	27,410	30.3%	6,370	4.2%
Nashville, TN	25,860	67.9%	10,460	2.9%
Hartford, CT	23,620	15.5%	3,170	4.1%
Miami, FL	22,760	38.3%	6,300	2.1%
Richmond, VA	22,720	16.9%	3,280	3.7%
Rochester, NY	21,010	23.0%	3,930	4.1%
Fort Lauderdale, FL	19,770	22.3%	3,600	2.5%
Omaha, NE	19,370	29.4%	4,400	4.1%
Oklahoma City, OK	18,900	59.0%	7,010	3.1%
Madison, WI	18,640	37.4%	5,070	5.0%
Jacksonville, FL	18,140	19.4%	2,950	2.9%

<sup>1</sup> 2010-2015; <sup>2</sup> 2010-2015; <sup>3</sup> 2015.  
 Source: U.S. Bureau of Labor Statistics (Metro Area) April 2016;  
 Statistics Canada (Metro Area) May 2016.







**FIGURE 4**  
**CHANGE IN MOMENTUM OF**  
**TECH TALENT LABOR POOLS**  
**(2011-2013 VS. 2013-2015)**

<b>Geography</b>	<b>Growth (2013-2015)</b>	<b>Change in Momentum (increase vs. 2011-2013)</b>
Madison, WI	16.7%	13.3%
Toronto, ON	18.0%	12.9%
Miami, FL	21.8%	8.4%
Jacksonville, FL	18.8%	5.6%
Minneapolis, MN	12.9%	4.9%
Fort Lauderdale, FL	12.3%	4.4%
Rochester, NY	8.9%	3.3%
San Antonio, TX	16.4%	3.1%
Bay Area, CA	20.3%	0.1%
Kansas City, MO	14.2%	0.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016,  
Statistics Canada (Metro Area), May 2016.

In addition to size and growth, the tech concentration—or percentage of total employment—is an influential factor in ranking markets for tech talent. The San Francisco Bay Area’s employment base contains 10.3% tech talent—the highest concentration among the top 50 markets surveyed and about three times the national average of tech-talent density. Rounding out the top five most concentrated tech markets are Seattle, Washington, D.C., Austin and Toronto with tech-talent pools ranging from 6.9% to 8.6% of their overall labor force. This sizeable concentration of highly-skilled workers offers an environment conducive to innovation.



# what do tech talent markets look like?



A common aspect of the top tech-talent markets is high educational attainment (bachelor's degree or higher). Nearly 70% of the top 50 tech-talent markets have an educational attainment rate above the U.S. average. In Seattle and Washington, D.C., more than 50% of residents over 25 years old have high educational attainment (Figure 5). In Atlanta, the San Francisco Bay Area and Minneapolis, the rate is above 48%. Education, particularly with a focus in technology<sup>2</sup>, is best analyzed through degrees completed and issued from higher educational institutions. Metro areas that produced the largest number of tech graduates using the latest data available were New York, Washington, D.C., Los Angeles

and Chicago (Figure 6). Smaller tech-talent markets that broke into the top 10 degree-granting regions include Columbus and Detroit. Dallas/Ft. Worth and Philadelphia just missed the list. Demand is high for tech-related classes and degrees, and tech-related degree completions grew an average of 73% in the top 10 markets since 2010. These numbers provide an insight into which markets will have the most new talent entering the labor pool each year.

Graduates do not always stay in the labor market where they earned their degrees; they often migrate to locations that offer the best pay or have the most job

<sup>2</sup>Tech degree fields include computer engineering and information sciences; mathematics and statistics; electrical and electronics engineering; mechanical and industrial engineering; other engineering.





opportunities. Analyzing tech-related graduation data and tech-related employment growth, Figure 7 presents the difference of where tech talent is employed and where they were educated. Tech degrees cover the most recent five-year period available (2010-2014) and tech jobs added cover the corresponding time period when most graduates would be counted in employment figures (2011-2015). The San Francisco Bay Area ranks first in tech job creation, adding nearly 90,000 more jobs than graduates. On the other end of the spectrum, the Boston, Phoenix and Los Angeles metro areas posted the deepest deficits in retention of locally educated talent.

**FIGURE 5**  
**TOP 10 MARKETS FOR**  
**EDUCATIONAL ATTAINMENT**  
**25+ Years Old,**  
**Bachelor's Degree or Higher**

Market	Educational Attainment Rate
Seattle, WA	58.9%
Washington, D.C.	55.0%
Atlanta, GA	48.9%
SF Bay Area, CA	48.7%
Minneapolis, MN	48.1%
Raleigh-Durham, NC	48.0%
Austin, TX	47.6%
Boston, MA	46.5%
Portland, OR	46.1%
Madison, WI	44.7%

Source: U.S. Census Bureau (City/County), 2014.

**FIGURE 6**  
**TOP 10 REGIONS FOR**  
**TECH DEGREE COMPLETIONS**  
**(2014)**

Market	Tech Degree Completions	Growth (2010-2014)
New York Metro <sup>1</sup>	15,032	68.1%
Washington, D.C. Metro Area <sup>2</sup>	14,775	87.6%
Los Angeles Metro <sup>3</sup>	12,679	84.6%
Chicago Metro Area <sup>4</sup>	10,454	89.2%
Phoenix Metro Area	8,954	51.7%
Boston Metro Area	7,410	83.3%
SF Bay Area Metro Area <sup>5</sup>	7,280	71.0%
Atlanta Metro Area	6,198	74.1%
Columbus Metro Area <sup>6</sup>	5,190	66.6%
Detroit Metro Area	5,025	50.9%

<sup>1</sup> Includes Long Island and Newark;

<sup>2</sup> Includes Baltimore;

<sup>3</sup> Includes Orange County;

<sup>4</sup> Includes Milwaukee;

<sup>5</sup> Includes Silicon Valley, San Francisco, SF Peninsula and Oakland;

<sup>6</sup> Includes Cleveland and Cincinnati.

Source: The National Center for Education Statistics (Region), July 2015.

**FIGURE 7**  
**WHERE ARE TECH TALENT WORKERS COMING FROM AND WHERE ARE THEY HEADED?**

Market	Tech Degrees (2010-2014)*	Tech Jobs Added (2011-2015)*	Brain Gain/Drain
SF Bay Area, CA <sup>1</sup>	30,957	120,550	89,593
Dallas/Ft. Worth, TX	19,129	44,620	25,491
Seattle, WA	19,297	44,010	24,713
Houston, TX	12,063	32,960	20,897
Austin, TX	9,758	24,590	14,832
Charlotte, NC	6,538	20,220	13,682
Washington, D.C. <sup>2</sup>	59,980	73,440	13,460
Atlanta, GA	26,285	39,710	13,425
Minneapolis, MN	14,359	23,880	9,521
Portland, OR	5,592	14,680	9,088
Tampa, FL	7,082	14,740	7,658
Nashville, TN	3,694	10,460	6,766
Kansas City, MO	7,525	14,260	6,735
San Diego, CA	15,665	21,670	6,005
Oklahoma City, OK	3,526	7,010	3,484
Columbus, OH <sup>3</sup>	20,995	24,310	3,315
Rochester, NY	842	3,930	3,088
San Antonio, TX	6,035	9,100	3,065
Omaha, NE	1,584	4,400	2,816
Detroit, MI	22,771	25,080	2,309
Denver, CO	14,509	16,620	2,111
New York, NY <sup>4</sup>	63,456	64,831	1,375
Raleigh-Durham, NC	14,347	15,670	1,323
St. Louis, MO	4,352	5,360	1,008
Jacksonville, FL	2,665	2,950	285
Hartford, CT	2,943	3,170	227
Richmond, VA	3,836	3,280	-556
Indianapolis, IN	10,316	9,590	-726
Chicago, IL <sup>5</sup>	41,928	40,600	-1,328
Virginia Beach, VA	9,503	8,000	-1,503
Madison, WI	6,686	5,070	-1,616
Salt Lake City, UT	8,490	6,370	-2,120
Sacramento, CA	9,165	5,140	-4,025
Philadelphia, PA	20,416	15,970	-4,446
Orlando, FL	12,565	8,050	-4,515
Miami, FL <sup>6</sup>	15,000	9,900	-5,100
Pittsburgh, PA	18,421	8,460	-9,961
Los Angeles, CA <sup>7</sup>	49,006	37,850	-11,156
Phoenix, AZ	44,058	31,620	-12,438
Boston, MA	29,905	12,680	-17,225

\* Tech degrees cover the most recent five-year period available (2010-2014) and tech jobs added cover the time period reflecting when most graduates would be counted in employment figures (2011-2015).

<sup>1</sup> Includes San Francisco, Oakland and Silicon Valley;

<sup>2</sup> Includes Baltimore;

<sup>3</sup> Includes Cleveland and Cincinnati;

<sup>4</sup> Includes Newark and Long Island;

<sup>5</sup> Includes Milwaukee;

<sup>6</sup> Includes Fort Lauderdale;

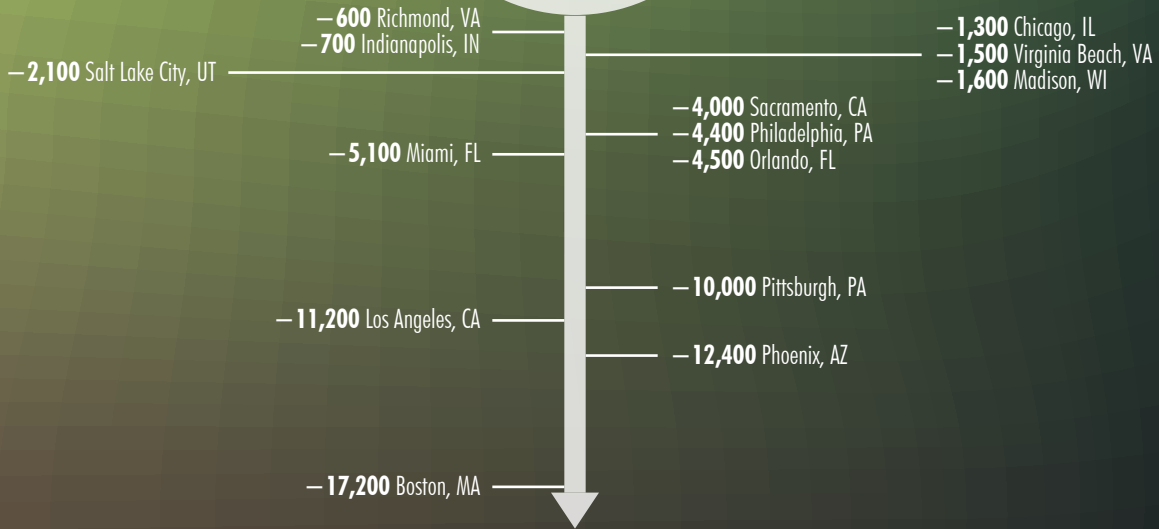
<sup>7</sup> Includes Orange County.


Source: CBRE Research, U.S. Bureau of Labor Statistics (Region) April 2016, The National Center for Educational Statistics (Region) July, 2015.

# + 89,600 SF Bay Area, CA



## BRAIN GAIN OR DRAIN?





Another notable characteristic of tech-talent markets is a high concentration of tech-savvy millennials<sup>3</sup> in their workforces. Millennials have exhibited a preference for living in cities rather than suburbs, which has helped revitalize downtown neighborhoods. Their robust entrance into the labor pool contributes greatly to the growth of tech talent within downtown areas across all 50 markets (Figure 8). Five large tech markets all increased their millennial populations by more than 10% since 2009, with Washington, D.C. leading the way at 25.8%. Five of the smaller tech markets increased their millennial populations by more than 10%, with Salt Lake City and Richmond registering the highest growth. Aided by the presence of higher educational institutions, Madison, WI, Pittsburgh and Boston rank highest for concentrations of millennials as a portion of their total urban populations, accounting for nearly 25% or more (Figure 9).

While similarities between markets cause many of them to appear equal, top tech markets distinguish

themselves from the rest with tech clusters. Tech clusters typically form around preeminent universities where companies have access to a constant flow of new talent. Stanford University is an essential catalyst for the tech clustering in Palo Alto and the San Francisco Bay Area, as is New York University for the Midtown South cluster in Manhattan. Tech clusters can also form around leading companies such as Dell in Austin that attract smaller supporting companies and spawn new ones in a region. Tech companies use these clusters to collaborate and compete with one another, thereby accelerating the innovation process. Approximately half of all tech-related jobs are concentrated in the core high-tech industry (Figure 10), consequently tech clusters are likely to form in markets with large concentrations of high-tech companies. Tech talent outside the core high-tech industry accounts for the other half of all tech workers, which are increasing efficiency across industry sectors.



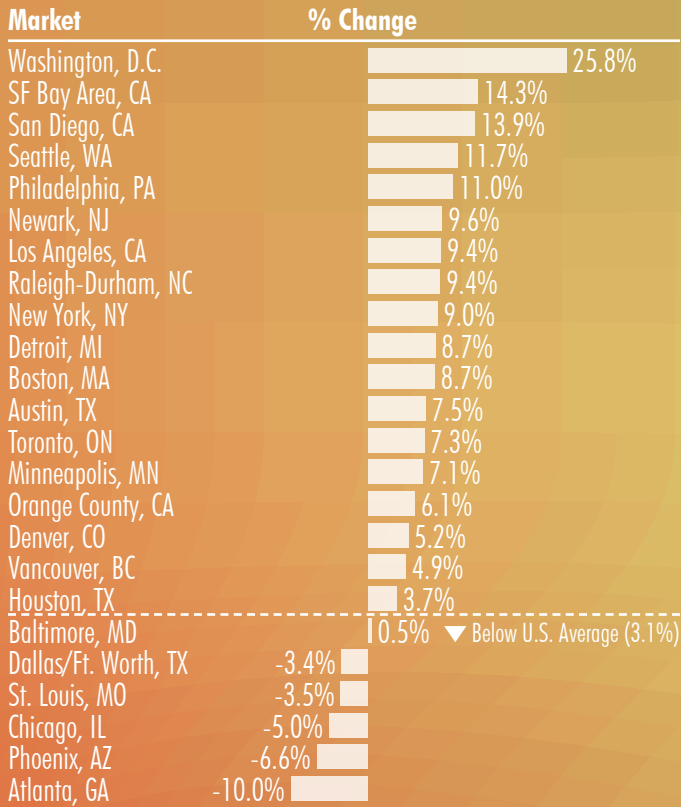
<sup>3</sup>Tech Analysis conducted in this report, includes millennials ages 20-29 years.



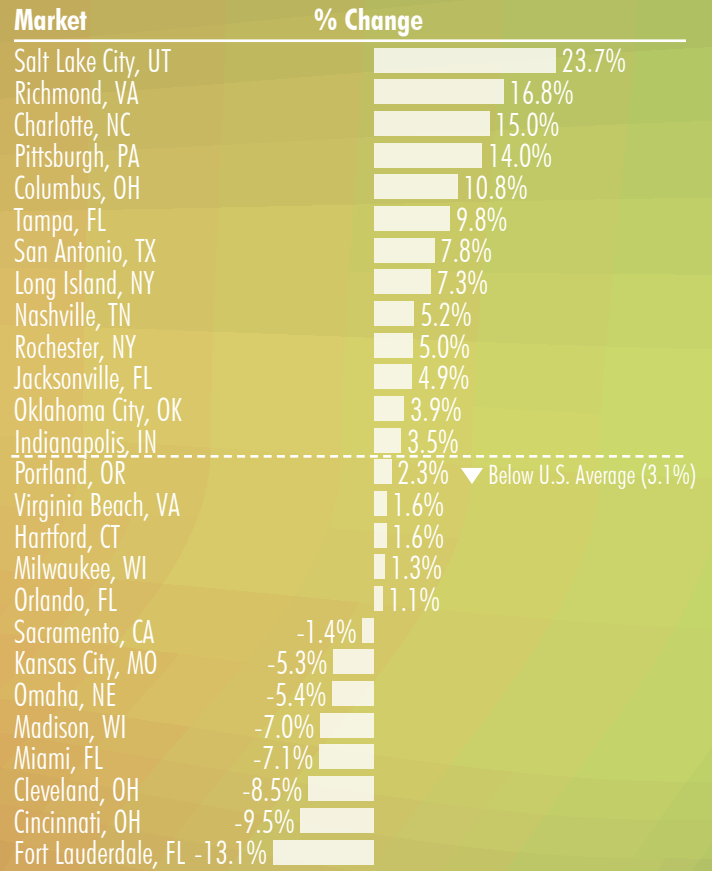


**FIGURE 8**  
**MILLENNIAL POPULATION CHANGE\* (2009-2014)**  
 by Market

**Large Tech Talent Markets (>50,000 Labor Pools)**

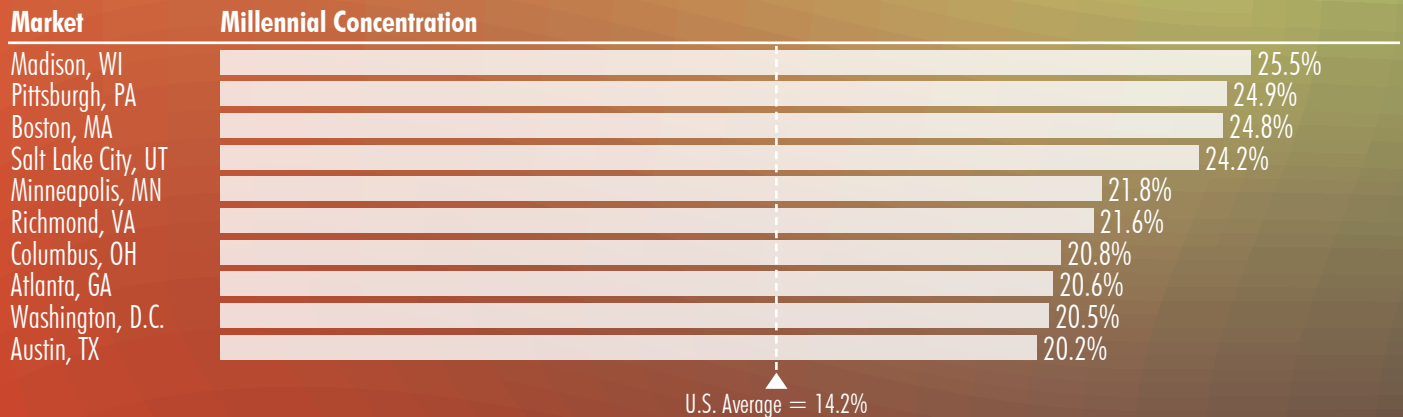


**Small Tech Talent Markets (<50,000 Labor Pools)**



\* Millennial ages 20-29 Years living in downtown areas.  
 Source: U.S. Census Bureau (City/County), 2014,  
 Envionics Analytics (Canadian Cities), 2015.

**FIGURE 9**  
**TOP 10 CONCENTRATED**  
**MILLENNIAL MARKETS\* (2014)**



\* Millennial ages 20-29 Years living in downtown areas.  
 Source: U.S. Census Bureau (City/County), 2016.

**FIGURE 10**  
**TECH TALENT LABOR CONCENTRATION (2015)**  
 by Industry



\*Includes computer software and services and computer product manufacturing  
 Source: U.S. Bureau of Labor Statistics (National), April 2016.



# what are the highest- and lowest-cost markets to operate in?



Generally, employee wages are the greatest cost for companies within tech-talent markets. These highly-skilled and educated workers require upwards of double the average non-tech salary. The San Francisco Bay Area ranked the highest for average tech worker salary at almost \$124,000 per year—approximately \$13,000 more than the next highest market, Seattle. The average tech worker wage in 16 of the top 50 tech-talent markets is above the U.S. tech worker average.

Office rent is the second highest cost for technology companies, which pursue the benefits of tech clustering and often place a higher value on specific submarkets and, in some cases, certain streets where tech talent is concentrated. This has heightened competition for office space and caused rental rates to spike in these areas. Average office rents are the highest in Manhattan, followed by the San Francisco Bay Area and Vancouver. Miami is the only small tech market among the top 10 in office rents, with an average asking rate above those of Austin and San Diego.

Combining wage and real estate costs provides insight into what a potential tech company might pay to operate in one or more of the top 50 tech-talent markets. For this comparison, U.S. averages were analyzed to determine the occupational makeup of a typical 500-employee tech company needing 75,000 sq. ft. of office space (Figure 11). Local market wages were applied to the various occupations to determine total annual wage costs by market, and local market rents were used to estimate annual rent. The San Francisco Bay Area topped the list with the highest estimated annual operating costs at more than \$56 million, followed distantly by New York, Washington, D.C., Boston and Seattle (Figure 12). These high-cost markets still attract employers seeking to push the boundaries of innovation, as well as the tech talent that makes it possible. This creates a symbiotic relationship that utilizes the clusters and promotes technological advancement.





**FIGURE 11**  
**AVERAGE U.S. TECH COMPANY OCCUPATION POOLS**

**Tech Talent  
Employees\***  
250 (50%)



**Support Non-Tech  
Employees (excluding  
Management)**  
213 (43%)

**Management**  
37 (7%)

\* Tech talent includes the following occupation categories: software developers and programmers; computer support, database and systems; technology and engineering-related; and computer information system managers  
Source: U.S. Bureau of Labor Statistics (National), April 2016.

**FIGURE 12****ESTIMATED 1 YEAR COSTS BY MARKET:  
WAGE AND RENT OBLIGATION FOR TYPICAL TECH FIRM**

Typical Tech Firm Estimates: 500 Employees, 75,000 Sq. Ft.

<b>Geography</b>	<b>Rent Cost (Avg Rent x 75,000 SF)</b>	<b>Tech Talent Wages (Avg. Wage x 250 People)</b>	<b>Support Non-Tech Wages (Avg. Wage x 213 People)</b>	<b>Management Wages (Avg. Wage x 37 People)</b>	<b>Total Estimated Cost</b>
SF Bay Area, CA	\$4,469,304	\$30,980,268	\$15,271,388	\$5,639,081	<b>\$56,360,040</b>
New York, NY	\$5,651,250	\$26,539,958	\$11,890,270	\$5,800,490	<b>\$49,881,968</b>
Washington, D.C.	\$2,737,500	\$26,402,035	\$13,916,579	\$5,115,265	<b>\$48,171,378</b>
Boston, MA	\$2,704,500	\$25,726,155	\$14,492,366	\$5,005,360	<b>\$47,928,381</b>
Seattle, WA	\$2,303,983	\$27,749,778	\$12,269,474	\$4,812,960	<b>\$47,136,195</b>
Newark, NJ	\$1,952,250	\$25,793,188	\$11,309,917	\$5,577,380	<b>\$44,632,735</b>
Orange County, CA	\$2,214,000	\$24,333,627	\$11,897,484	\$4,720,460	<b>\$43,165,571</b>
Denver, CO	\$1,882,500	\$24,107,637	\$12,188,501	\$4,877,340	<b>\$43,055,978</b>
Los Angeles, CA	\$2,698,500	\$24,066,933	\$11,409,893	\$4,602,800	<b>\$42,778,126</b>
Houston, TX	\$2,118,000	\$23,441,294	\$12,207,674	\$4,990,930	<b>\$42,757,898</b>
San Diego, CA	\$2,416,500	\$24,747,413	\$10,954,062	\$4,529,170	<b>\$42,647,145</b>
Baltimore, MD	\$1,681,500	\$24,732,948	\$11,519,076	\$4,515,850	<b>\$42,449,374</b>
Long Island, NY	\$1,938,000	\$23,043,945	\$11,806,272	\$5,219,960	<b>\$42,008,177</b>
Hartford, CT	\$1,497,750	\$23,318,150	\$11,743,193	\$4,575,790	<b>\$41,134,883</b>
Dallas/Ft. Worth, TX	\$1,716,750	\$22,596,315	\$11,964,713	\$4,703,765	<b>\$40,981,543</b>
Philadelphia, PA	\$1,970,250	\$22,197,303	\$11,927,236	\$4,856,250	<b>\$40,951,040</b>
Austin, TX	\$2,448,750	\$22,423,056	\$11,595,667	\$4,395,600	<b>\$40,863,073</b>
Minneapolis, MN	\$1,960,500	\$22,315,407	\$11,653,074	\$4,480,330	<b>\$40,409,312</b>
Raleigh-Durham, NC	\$1,796,250	\$23,097,998	\$10,767,533	\$4,636,911	<b>\$40,298,692</b>
Charlotte, NC	\$1,730,250	\$22,917,667	\$10,868,422	\$4,672,730	<b>\$40,189,069</b>
Chicago, IL	\$2,180,250	\$21,867,856	\$11,443,681	\$4,273,500	<b>\$39,765,287</b>
Atlanta, GA	\$1,683,750	\$21,928,980	\$11,122,121	\$4,445,550	<b>\$39,180,402</b>
Richmond, VA	\$1,500,930	\$21,873,044	\$11,237,963	\$4,439,630	<b>\$39,051,566</b>
Portland, OR	\$1,880,250	\$22,246,553	\$10,671,695	\$4,017,090	<b>\$38,815,589</b>
Sacramento, CA	\$1,584,000	\$22,036,822	\$10,818,286	\$4,065,190	<b>\$38,504,299</b>
Phoenix, AZ	\$1,746,750	\$21,655,417	\$10,116,099	\$3,968,250	<b>\$37,486,516</b>
St. Louis, MO	\$1,389,000	\$21,445,053	\$10,406,660	\$4,114,030	<b>\$37,354,744</b>
Milwaukee, WI	\$1,343,250	\$19,950,354	\$11,757,193	\$4,202,830	<b>\$37,253,627</b>
Columbus, OH	\$1,410,750	\$20,961,941	\$10,595,811	\$4,082,580	<b>\$37,051,082</b>
Detroit, MI	\$1,315,500	\$20,180,803	\$11,231,271	\$4,280,340	<b>\$37,007,914</b>
Miami, FL	\$2,490,750	\$19,361,483	\$10,122,212	\$4,600,950	<b>\$36,575,395</b>
Virginia Beach, VA	\$1,399,500	\$20,606,691	\$10,331,554	\$4,182,850	<b>\$36,520,595</b>
Cincinnati, OH	\$1,401,750	\$20,367,423	\$10,595,194	\$4,056,680	<b>\$36,421,047</b>
Kansas City, MO	\$1,325,250	\$20,464,454	\$10,341,379	\$4,055,570	<b>\$36,186,652</b>
Fort Lauderdale, FL	\$2,242,500	\$19,221,765	\$10,060,623	\$4,559,880	<b>\$36,084,769</b>
Cleveland, OH	\$1,322,250	\$19,657,734	\$11,025,140	\$3,975,280	<b>\$35,980,404</b>
San Antonio, TX	\$1,585,500	\$19,515,028	\$10,520,535	\$4,143,630	<b>\$35,764,693</b>
Pittsburgh, PA	\$1,617,000	\$19,261,312	\$10,467,968	\$4,380,800	<b>\$35,727,080</b>
Madison, WI	\$1,425,000	\$18,620,703	\$11,650,524	\$3,846,150	<b>\$35,542,377</b>
Rochester, NY	\$1,387,500	\$19,263,684	\$10,338,706	\$4,180,260	<b>\$35,170,150</b>
Salt Lake City, UT	\$1,668,750	\$19,797,667	\$9,765,268	\$3,784,730	<b>\$35,016,414</b>
Indianapolis, IN	\$1,346,250	\$19,046,370	\$10,734,061	\$3,706,290	<b>\$34,832,971</b>
Jacksonville, FL	\$1,382,250	\$20,012,157	\$9,113,854	\$4,311,610	<b>\$34,819,871</b>
Tampa, FL	\$1,576,500	\$19,395,595	\$9,310,772	\$4,360,080	<b>\$34,642,946</b>
Orlando, FL	\$1,508,250	\$19,621,739	\$9,302,840	\$4,150,290	<b>\$34,583,119</b>
Nashville, TN	\$1,692,750	\$19,217,966	\$10,019,681	\$3,606,020	<b>\$34,536,417</b>
Omaha, NE	\$1,375,500	\$19,644,695	\$9,181,031	\$3,962,330	<b>\$34,163,557</b>
Oklahoma City, OK	\$1,270,500	\$17,783,983	\$9,728,349	\$3,512,040	<b>\$32,294,871</b>
Toronto, ON	\$2,558,083	\$15,947,250	\$9,554,115	\$2,859,652	<b>\$30,919,100</b>
Vancouver, BC	\$2,994,750	\$15,318,750	\$8,405,832	\$2,465,240	<b>\$29,184,572</b>

Source: U.S. Bureau of Labor Statistics, April 2016; Statistics Canada, May 2016; CBRE Research (Metro Area), Q1 2016.







# How does tech talent impact commercial real estate?

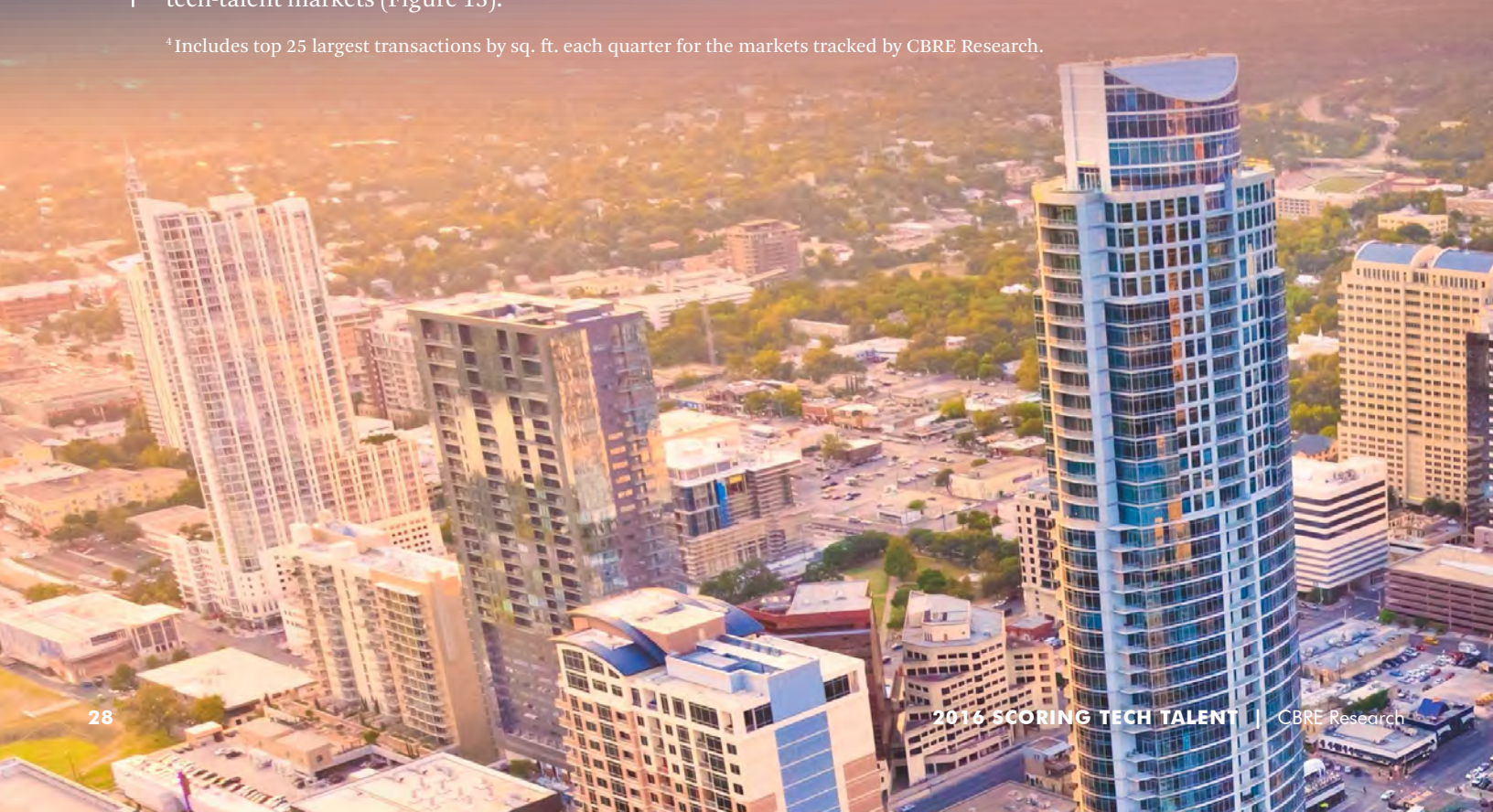


High-tech companies are the top drivers of office leasing activity in the U.S. Fueled by the addition of more than 1 million new tech jobs over the past five years, their national share of major leasing activity<sup>4</sup> increased from 11% in 2011 to 18% in 2015—the largest single share of any industry. Many tech-talent markets, especially those with high concentrations or clusters of tech companies, have seen rising rents and declining vacancies as a result. Significant demand for office space in top markets that have added tens of thousands of workers during the past five years raised rents to their highest levels and pushed down vacancy rates to their lowest. Rent growth is most pronounced in large tech markets like the San Francisco Bay Area, where rents are nearly double what they were five years ago. Even small tech markets are experiencing heightened demand, such as Nashville with the lowest vacancy rate of the top 50 tech-talent markets (Figure 13).

The in-migration of talent to these tech markets has a profound impact on residential real estate as well. Although Manhattan is the most expensive market to rent an apartment, according to Moody's Analytics, 36 of the top 50 tech-talent markets have a cost of living above the U.S. national average (Figure 14). Comparing the annual average apartment rent to the annual average tech-worker wage in each market, we found that even among the most expensive markets, tech wages are able to cover the high cost of living (Figure 15), based on standard affordability measures allocating 30% of income to housing.

Occupiers and investors can gain competitive advantage when formulating talent and real estate strategies through application of this report's major findings and trends:

<sup>4</sup>Includes top 25 largest transactions by sq. ft. each quarter for the markets tracked by CBRE Research.





- Top-ranked tech-talent markets are rich environments for innovation and talent attraction, a status that feeds upon itself and grows larger over time.
- Know where the momentum and up-and-coming markets are located, and how their unique characteristics can benefit your growth strategy.
- Identify which markets produce, attract and retain the most new tech talent.
- Surplus talent production markets (more new tech degree graduates than tech jobs) could be fertile ground for recruitment or establishment of new office locations.
- Millennial preferences for work and living locations and experiences are major drivers of tech-talent flow and ultimately innovation.
- Understanding of market-by-market operating cost differences and tech-talent pool composition helps fortify location decisions. Tech-talent flows are greatest into markets with high opportunity for career growth, innovation and compensation.
- Real estate investors would be well-positioned to diversify their portfolios by following tech-talent trends.



**FIGURE 13**  
**OFFICE ASKING RENT**  
**BY MARKET (Q1 2016)**

Market	Annual Gross Direct Asking Rent Per SF	Vacancy Rate
New York, NY	\$75.35	7.3%
SF Bay Area, CA	\$59.59	6.9%
Vancouver, BC	\$39.93	11.6%
Washington, D.C.	\$36.50	15.7%
Boston, MA	\$36.06	12.9%
Los Angeles, CA	\$35.98	14.8%
Toronto, ON	\$34.11	9.6%
Miami, FL	\$33.21	12.5%
Austin, TX	\$32.65	10.1%
San Diego, CA	\$32.22	12.5%
Seattle, WA	\$30.72	12.0%
Fort Lauderdale, FL	\$29.90	15.7%
Orange County, CA	\$29.52	9.7%
Chicago, IL	\$29.07	15.1%
Houston, TX	\$28.24	14.3%
Philadelphia, PA	\$26.27	15.1%
Minneapolis, MN	\$26.14	16.1%
Newark, NJ	\$26.03	19.9%
Long Island, NY	\$25.84	13.5%
Denver, CO	\$25.10	12.9%
Portland, OR	\$25.07	10.5%
Raleigh-Durham, NC	\$23.95	12.9%
Phoenix, AZ	\$23.29	18.8%
Charlotte, NC	\$23.07	9.3%
Dallas/Ft. Worth, TX	\$22.89	18.1%
Nashville, TN	\$22.57	6.5%
Baltimore, MD	\$22.45	13.6%
Atlanta, GA	\$22.42	17.0%
Salt Lake City, UT	\$22.25	9.8%
Pittsburgh, PA	\$21.56	11.3%
San Antonio, TX	\$21.14	16.8%
Sacramento, CA	\$21.12	16.6%
Tampa, FL	\$21.02	12.5%
Orlando, FL	\$20.11	13.8%
Richmond, VA	\$20.01	12.1%
Hartford, CT	\$19.97	16.6%
Madison, WI	\$19.00	8.4%
Columbus, OH	\$18.81	14.0%
Cincinnati, OH	\$18.69	19.9%
Virginia Beach, VA	\$18.66	14.3%
St. Louis, MO	\$18.52	15.8%
Rochester, NY	\$18.50	15.8%
Jacksonville, FL	\$18.43	16.8%
Omaha, NE	\$18.34	12.0%
Indianapolis, IN	\$17.95	15.9%
Milwaukee, WI	\$17.91	14.7%
Kansas City, MO	\$17.67	14.8%
Cleveland, OH	\$17.63	18.9%
Detroit, MI	\$17.54	18.6%
Oklahoma City, OK	\$16.94	17.4%

Source: CBRE Research (Office Market), Q1 2016.

**FIGURE 14**  
**APARTMENT ASKING RENT**  
**BY MARKET (Q1 2016)**

Market	Average Monthly Apartment Rent	Cost of Living (U.S. = 100%)
New York, NY	\$4,412	122%
SF Bay Area, CA	\$2,796	154%
Los Angeles, CA	\$2,214	122%
Boston, MA	\$2,167	118%
Long Island, NY	\$2,127	126%
Orange County, CA	\$1,981	146%
San Diego, CA	\$1,849	125%
Newark, NJ	\$1,775	127%
Miami, FL	\$1,664	110%
Washington, D.C.	\$1,646	124%
Seattle, WA	\$1,619	123%
Fort Lauderdale, FL	\$1,537	111%
Chicago, IL	\$1,503	98%
Portland, OR	\$1,346	107%
Denver, CO	\$1,341	108%
Philadelphia, PA	\$1,313	101%
Minneapolis, MN	\$1,289	101%
Sacramento, CA	\$1,281	105%
Hartford, CT	\$1,280	106%
Baltimore, MD	\$1,277	110%
Pittsburgh, PA	\$1,264	94%
Dallas/Ft. Worth, TX	\$1,209	105%
Austin, TX	\$1,177	111%
Rochester, NY	\$1,150	90%
Milwaukee, WI	\$1,134	98%
Orlando, FL	\$1,111	101%
Nashville, TN	\$1,108	102%
Madison, WI	\$1,097	101%
Tampa, FL	\$1,077	100%
Houston, TX	\$1,070	107%
Atlanta, GA	\$1,055	101%
Vancouver, BC	\$1,055	108%
Toronto, ON	\$1,021	103%
Virginia Beach, VA	\$1,020	100%
Salt Lake City, UT	\$999	106%
Charlotte, NC	\$995	99%
Raleigh-Durham, NC	\$988	100%
Richmond, VA	\$985	100%
Jacksonville, FL	\$951	101%
Detroit, MI	\$938	89%
St. Louis, MO	\$938	95%
Phoenix, AZ	\$927	105%
Kansas City, MO	\$905	97%
Cincinnati, OH	\$902	92%
San Antonio, TX	\$899	102%
Cleveland, OH	\$897	90%
Omaha, NE	\$857	94%
Columbus, OH	\$849	92%
Indianapolis, IN	\$801	92%
Oklahoma City, OK	\$709	99%

Note: New York represents Manhattan only

Source: CBRE EA (City), Axiometrics, Q1 2016, CMHC, Q4 2015.



**FIGURE 15**  
**APARTMENT RENT-TO-TECH WAGE RATIO**

<b>Market</b>	<b>Annualized Apartment Rent</b>	<b>2015 Average Annual Tech Wage</b>	<b>Rent-to-Tech Wage Ratio</b>
New York, NY	\$35,440	\$106,775	33.2%
Long Island, NY	\$25,526	\$92,176	27.7%
Los Angeles, CA	\$26,563	\$96,268	27.6%
Bay Area, CA	\$33,553	\$123,921	27.1%
Miami, FL	\$19,972	\$77,446	25.8%
Boston, MA	\$26,009	\$102,905	25.3%
Orange County, CA	\$23,776	\$97,335	24.4%
Fort Lauderdale, FL	\$18,449	\$76,887	24.0%
San Diego, CA	\$22,188	\$98,990	22.4%
Chicago, IL	\$18,041	\$87,471	20.6%
Newark, NY	\$21,298	\$104,107	20.5%
Pittsburgh, PA	\$15,165	\$77,045	19.7%
Washington, D.C.	\$19,755	\$105,608	18.7%
Vancouver, BC	\$11,422	\$61,275	18.6%
Portland, OR	\$16,147	\$88,986	18.1%
Philadelphia, PA	\$15,760	\$88,789	17.8%
Madison, WI	\$13,161	\$74,483	17.7%
Seattle, WA	\$19,423	\$110,999	17.5%
Sacramento, CA	\$15,370	\$88,147	17.4%
Toronto, ON	\$11,055	\$63,789	17.3%
Minneapolis, MN	\$15,468	\$89,262	17.3%
Nashville, TN	\$13,291	\$76,872	17.3%
Milwaukee, WI	\$13,608	\$79,801	17.1%
Orlando, FL	\$13,329	\$78,487	17.0%
Denver, CO	\$16,090	\$96,431	16.7%
Tampa, FL	\$12,927	\$77,582	16.7%
Hartford, CT	\$15,359	\$93,273	16.5%
Rochester, NY	\$12,602	\$77,055	16.4%
Dallas/Ft. Worth, TX	\$14,513	\$90,385	16.1%
Austin, TX	\$14,125	\$89,692	15.7%
Baltimore, MD	\$15,325	\$98,932	15.5%
Salt Lake City, UT	\$11,982	\$79,191	15.1%
Norfolk, VA	\$12,238	\$82,427	14.8%
Atlanta, GA	\$12,664	\$87,716	14.4%
Jacksonville, FL	\$11,406	\$80,049	14.2%
Detroit, MI	\$11,259	\$80,723	13.9%
San Antonio, TX	\$10,787	\$78,060	13.8%
Houston, TX	\$12,840	\$93,765	13.7%
Cleveland, OH	\$10,764	\$78,631	13.7%
Richmond, VA	\$11,822	\$87,492	13.5%
Cincinnati, OH	\$10,823	\$81,470	13.3%
Kansas City, MO	\$10,865	\$81,858	13.3%
St. Louis, MO	\$11,257	\$85,780	13.1%
Omaha, NE	\$10,279	\$78,579	13.1%
Charlotte, SC	\$11,941	\$91,671	13.0%
Phoenix, AZ	\$11,120	\$86,622	12.8%
Raleigh-Durham, NC	\$11,857	\$92,392	12.8%
Indianapolis, IN	\$9,608	\$76,185	12.6%
Columbus, OH	\$10,193	\$83,848	12.2%
Oklahoma City, OK	\$8,506	\$71,136	12.0%

Source: U.S. Bureau of Labor Statistics April 2016, Statistics Canada May 2016, CBRE EA, Axiometrics, Q1 2016.



# // appendix

<b>APPENDIX A: LOCAL MARKET PROFILES</b>	A2
<b>APPENDIX B: FULL REPORT DATA SUMMARY</b>	B1
WHAT IS TECH TALENT AND WHY IS IT IMPORTANT?	B2
WHERE ARE THE TOP-RANKED TECH-TALENT MARKETS?	B3
HOW TO FIND TECH-TALENT MOMENTUM MARKETS?	B4
WHAT DO TECH-TALENT MARKETS LOOK LIKE?	B6
TECH TALENT HAS UNIQUE CONCENTRATIONS ACROSS MARKETS	B10
WHAT ARE THE HIGHEST- AND LOWEST-COST MARKETS TO OPERATE IN?	B14
HOW DOES TECH TALENT IMPACT COMMERCIAL REAL ESTATE?	B17

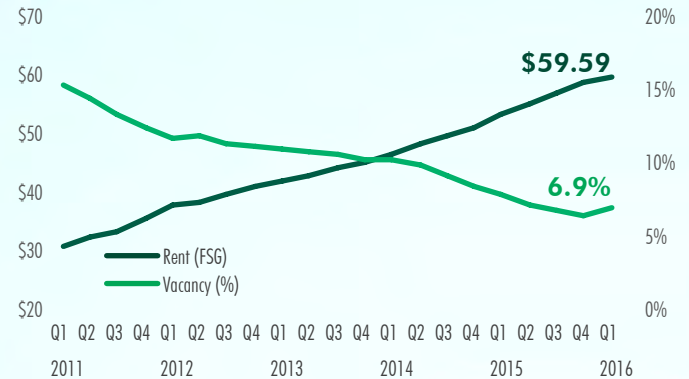


## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>316,530</b>	<b>61.5%</b>	<b>\$123,921</b>	<b>17.0%</b>
Software Developers/Programmers	143,090	62.5%	\$129,818	15.9%
Computer Support, Database & Systems	100,630	76.3%	\$104,062	22.1%
Computer & Infor. Systems Managers	24,550	56.1%	\$183,936	14.8%
Technology Engineering-Related	48,260	37.5%	\$117,316	17.0%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>389,000</b>	<b>22.0%</b>	<b>\$71,697</b>	<b>11.7%</b>
Sales	55,580	38.3%	\$96,273	7.2%
Administrative & Office Support	219,060	16.1%	\$52,364	7.9%
Business Operations & Finance	73,590	18.6%	\$97,970	12.9%
Marketing	40,770	46.0%	\$94,646	13.6%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

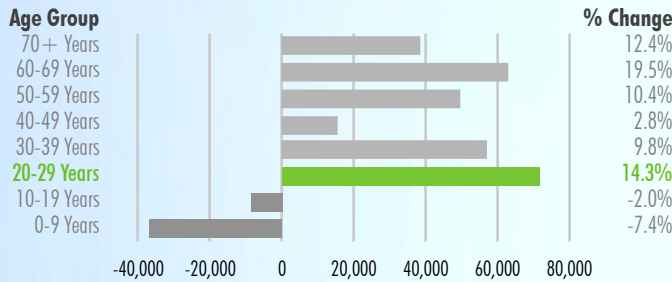
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

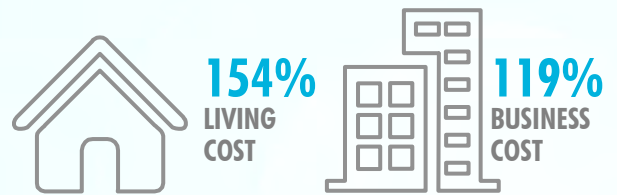
## POPULATION TRENDS

The population of millennials in their 20s grew by 71,700 (14.3%) since 2009. That's 29% of total growth in a population of 3,919,000.



Source: U.S. Census Bureau (Cities of San Francisco and Oakland, counties of Santa Clara and San Mateo), 2015.

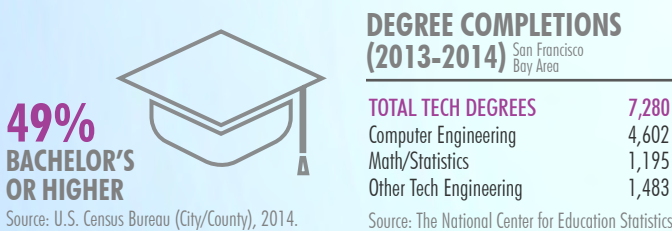
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$2,796 PER UNIT/MO.**  
**53% INCREASE SINCE 2010**

\*San Francisco, Oakland and San Jose MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



### DEGREE COMPLETIONS (2013-2014)

San Francisco Bay Area	
<b>TOTAL TECH DEGREES</b>	<b>7,280</b>
Computer Engineering	4,602
Math/Statistics	1,195
Other Tech Engineering	1,483

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
FitBit	215 Fremont St	306,000
Toshiba	55 W Trimble Rd/2610 Orchard Pkwy	216,000
Medallia	450 Concar	210,000
NVIDIA	2270 Scott Blvd	178,000
Airbnb	999 Brannan St	150,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
Stanford	472	\$5,896
UC Berkeley	468	\$4,107

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Social Finance, RET Capital, Campaign Monitor, Jand, Quixey, Udemy

Source: Pitchbook, Q3 2015.

# 12 Washington, D.C.

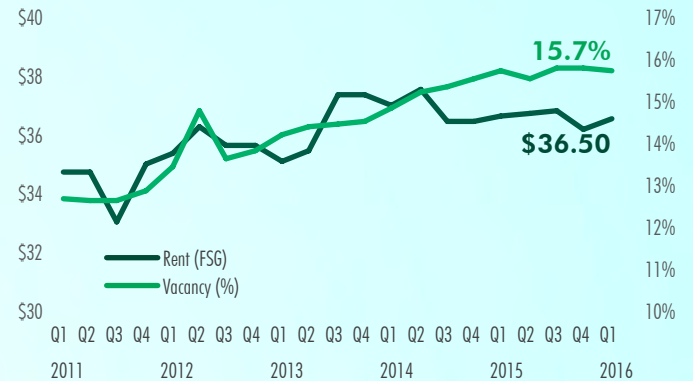
SCORE  
67.24

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>241,230</b>	<b>24.0%</b>	<b>\$105,608</b>	<b>10.6%</b>
Software Developers/Programmers	75,800	4.8%	\$109,795	9.7%
Computer Support, Database & Systems	131,980	53.6%	\$96,324	16.2%
Computer & Infor. Systems Managers	17,160	-2.3%	\$160,666	13.2%
Technology Engineering-Related	16,290	-13.1%	\$103,345	11.9%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>380,220</b>	<b>9.1%</b>	<b>\$65,336</b>	<b>7.8%</b>
Sales	34,680	41.1%	\$84,206	5.9%
Administrative & Office Support	216,190	1.0%	\$49,724	0.4%
Business Operations & Finance	85,940	10.0%	\$88,000	10.6%
Marketing	43,410	36.3%	\$83,142	12.3%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

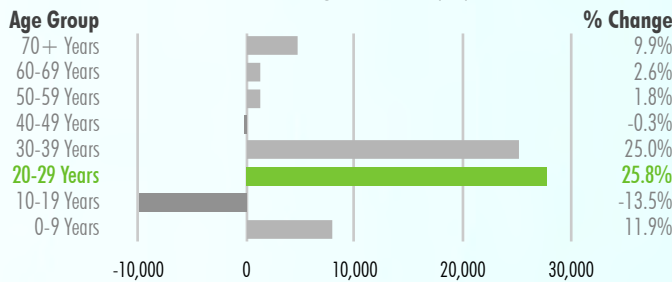
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

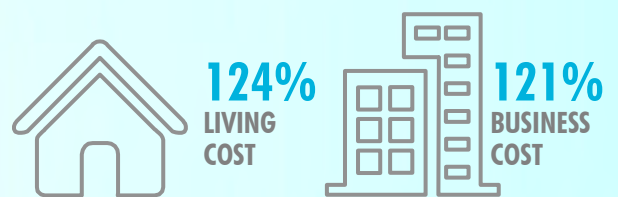
## POPULATION TRENDS

The population of millennials in their 20s grew by 27,700 (25.8%) since 2009. That's 47% of total growth in a population of 659,000.



Source: U.S. Census Bureau (City of Washington, D.C.), 2015.

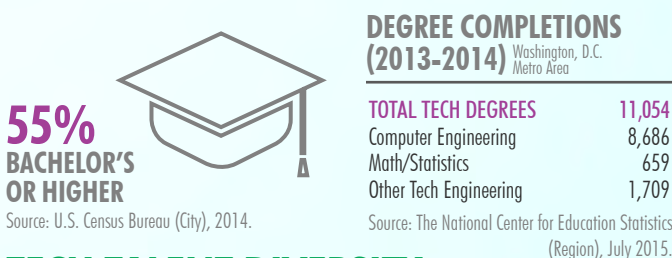
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,646 PER UNIT/MO.**  
**8% INCREASE SINCE 2010**

\*Washington, D.C. Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA(City), 2016.

## EDUCATIONAL ATTAINMENT

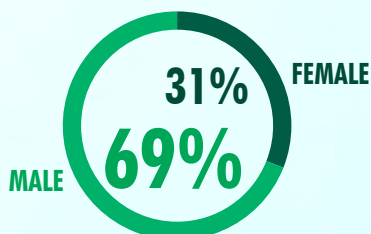


### DEGREE COMPLETIONS (2013-2014) Washington, D.C. Metro Area

TOTAL TECH DEGREES	11,054
Computer Engineering	8,686
Math/Statistics	659
Other Tech Engineering	1,709

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Computer Sciences Canada	1775 Tysons Blvd	60,000
General Electric International	1299 NW Pennsylvania Ave	55,000
Ironbow Technologies	2303 Dulles Station Blvd	47,000
Salient	8255 Greensboro Dr	33,000
TMP Worldwide	7900 Westpark Dr	15,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Maryland	156	\$1,001
Georgetown	124	\$951

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

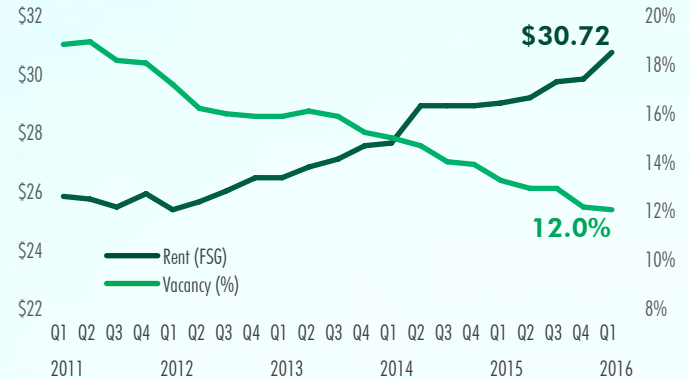
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>131,660</b>	<b>50.2%</b>	<b>\$110,999</b>	<b>19.5%</b>
Software Developers/Programmers	72,170	59.3%	\$120,322	22.8%
Computer Support, Database & Systems	41,580	59.4%	\$88,672	17.0%
Computer & Infor. Systems Managers	8,040	18.9%	\$153,220	14.3%
Technology Engineering-Related	9,870	3.8%	\$102,496	19.2%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>177,380</b>	<b>17.9%</b>	<b>\$57,603</b>	<b>6.3%</b>
Sales	16,600	-4.2%	\$69,182	-12.8%
Administrative & Office Support	109,780	16.6%	\$46,517	9.4%
Business Operations & Finance	32,830	24.0%	\$77,689	10.2%
Marketing	18,170	44.6%	\$77,715	6.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

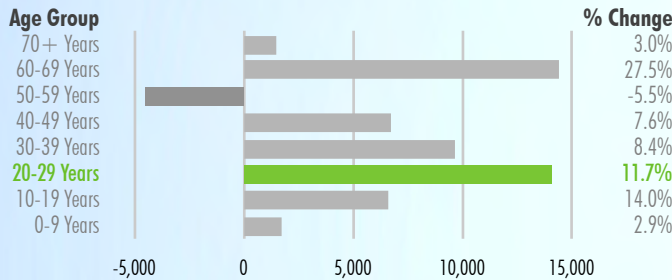
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 14,100 (11.7%) since 2009. That's 27% of total growth in a population of 668,000.



Source: U.S. Census Bureau (City of Seattle), 2015.

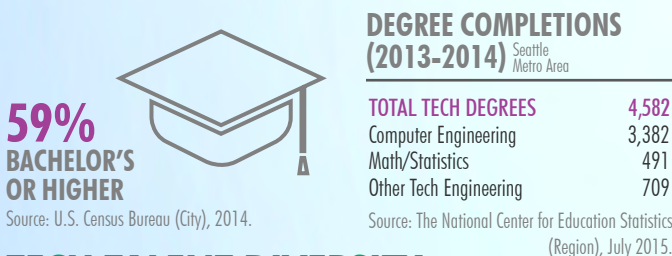
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,619 PER UNIT/MO.**  
**39% INCREASE SINCE 2010**

\*Seattle Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



### DEGREE COMPLETIONS (2013-2014) <sup>Seattle Metro Area</sup>

	TOTAL TECH DEGREES
Computer Engineering	4,582
Math/Statistics	3,382
Other Tech Engineering	491
	709

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Confidential	Lakefront Blocks, 25E/25W & 31	607,000
Confidential	Urban Union	285,000
Redfin	Hill7	112,000
Avalara	Hawk Tower	100,000
Oculus VR	Willows Commerce Park II	98,400

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Washington	142	\$930

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.



# 4 New York, NY

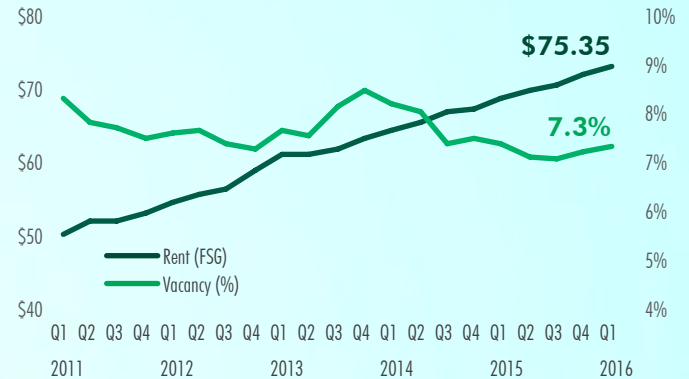
SCORE  
65.00

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>240,810</b>	<b>29.1%</b>	<b>\$106,775</b>	<b>17.4%</b>
Software Developers/Programmers	96,750	36.5%	\$106,497	18.3%
Computer Support, Database & Systems	107,790	37.8%	\$91,793	20.1%
Computer & Infor. Systems Managers	23,690	6.8%	\$176,780	17.2%
Technology Engineering-Related	12,580	-13.5%	\$105,441	29.1%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>919,410</b>	<b>11.4%</b>	<b>\$55,823</b>	<b>14.5%</b>
Sales	81,450	28.4%	\$73,487	17.7%
Administrative & Office Support	581,350	4.9%	\$38,314	10.1%
Business Operations & Finance	171,770	15.6%	\$97,024	12.8%
Marketing	84,840	52.6%	\$75,421	8.3%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

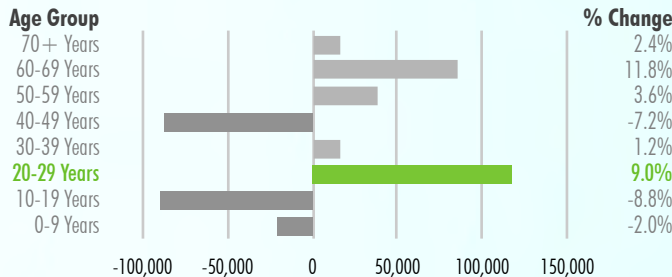
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

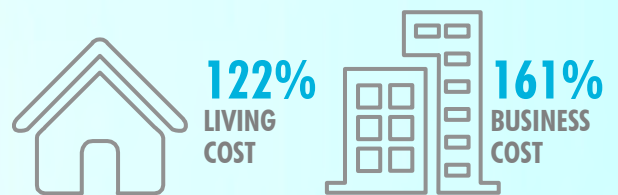
## POPULATION TRENDS

The population of millennials in their 20s grew by 117,300 (9.0%) since 2009. That's 18% greater than total growth in a population of 8,491,000.



Source: U.S. Census Bureau (City of New York), 2015.

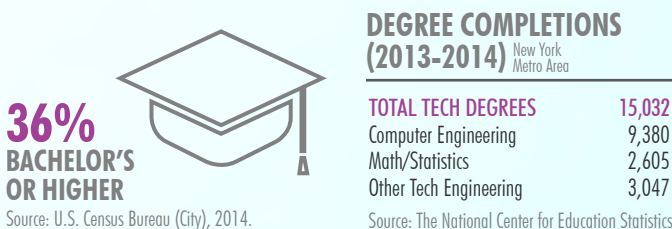
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$4,412 PER UNIT/MO.**  
**21% INCREASE SINCE 2010**

\*New York Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

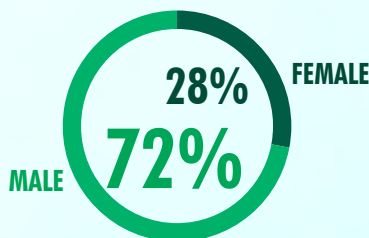


### DEGREE COMPLETIONS (2013-2014) New York Metro Area

TOTAL TECH DEGREES	15,032
Computer Engineering	9,380
Math/Statistics	2,605
Other Tech Engineering	3,047

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Confidential	1095 Avenue of the Americas	203,000
Confidential	225-233 Park Ave South	99,000
VOX Media	85 Broad St	86,000
AOL	770 Broadway	80,000
Confidential	770 Broadway	80,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
Columbia	201	\$2,332
NYU	162	\$959

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

DraftKings, Human Longevity, Denali Therapeutics, ZestFinance, Compass

Source: Pitchbook, Q3 2015.

# 15 Austin, TX

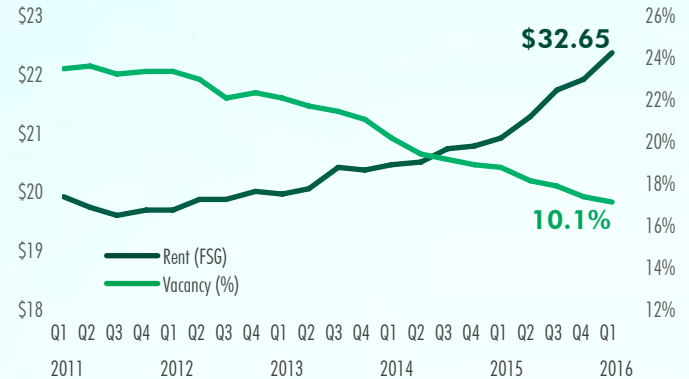
SCORE  
60.99

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>72,030</b>	<b>51.8%</b>	<b>\$89,692</b>	<b>6.8%</b>
Software Developers/Programmers	24,890	35.6%	\$94,986	0.5%
Computer Support, Database & Systems	33,280	74.0%	\$77,283	9.0%
Computer & Infor. Systems Managers	3,090	46.4%	\$154,320	20.1%
Technology Engineering-Related	10,770	37.2%	\$97,262	22.3%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>145,790</b>	<b>35.0%</b>	<b>\$54,440</b>	<b>8.0%</b>
Sales	19,570	87.3%	\$70,398	11.0%
Administrative & Office Support	92,180	23.9%	\$44,896	1.1%
Business Operations & Finance	23,070	43.0%	\$71,514	8.4%
Marketing	10,970	56.7%	\$70,262	18.7%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

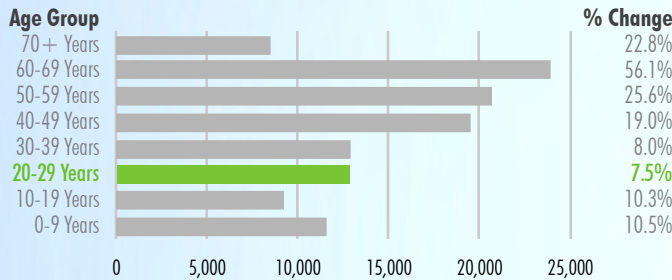
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 12,800 (7.5%) since 2009. That's 11% of total growth in a population of 913,000.



Source: U.S. Census Bureau (City of Austin), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,177 PER UNIT/MO.**  
**31% INCREASE SINCE 2010**

\*Austin Metro Area  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



**48%**  
**BACHELOR'S OR HIGHER**

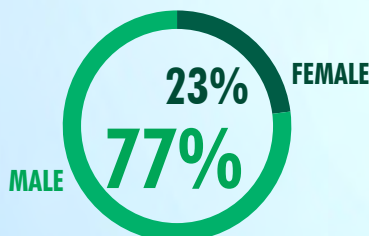
Source: U.S. Census Bureau (City), 2014.

### DEGREE COMPLETIONS (2013-2014) Austin Metro Area

TOTAL TECH DEGREES	2,403
Computer Engineering	1,410
Math/Statistics	403
Other Tech Engineering	590

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Oracle	2225 S. Lakeshore Blvd	600,000
Bazaarvoice	10901 Stonelake Blvd	140,000
Trend/Micro	11305 Alterra Blvd	75,000
OutboundEngine	98 San Jacinto Blvd	40,000
MainstreetHub	600 Congress Ave	40,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Texas	266	\$2,005

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Bazaarvoice, HomeAway, Uship, Plum, Mutual Mobile

Source: Pitchbook, Q3 2015.

# 6 Dallas/Ft. Worth, TX

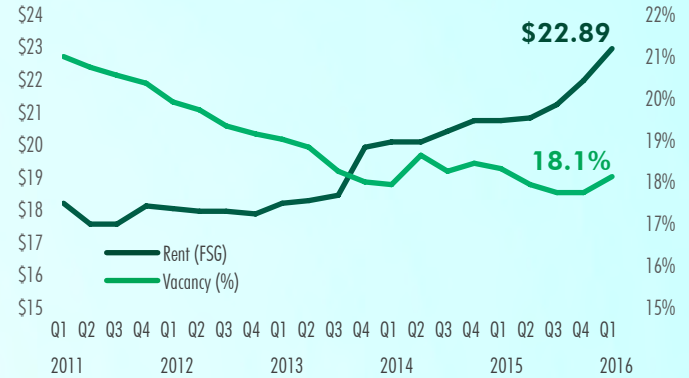
SCORE  
59.95

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>162,060</b>	<b>38.0%</b>	<b>\$90,385</b>	<b>4.8%</b>
Software Developers/Programmers	49,190	17.0%	\$97,730	4.5%
Computer Support, Database & Systems	86,400	74.7%	\$81,093	15.3%
Computer & Infor. Systems Managers	7,840	-0.1%	\$149,682	-7.3%
Technology Engineering-Related	18,630	2.9%	\$89,132	10.7%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>453,330</b>	<b>24.1%</b>	<b>\$56,172</b>	<b>14.9%</b>
Sales	50,120	61.1%	\$69,889	-8.2%
Administrative & Office Support	308,950	16.7%	\$48,054	17.6%
Business Operations & Finance	71,740	35.1%	\$76,793	10.9%
Marketing	22,520	38.8%	\$71,330	16.1%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 12,000 (-3.4%) since 2009 in a population of 2,094,000.



Source: U.S. Census Bureau (Cities of Dallas and Fort Worth), 2015

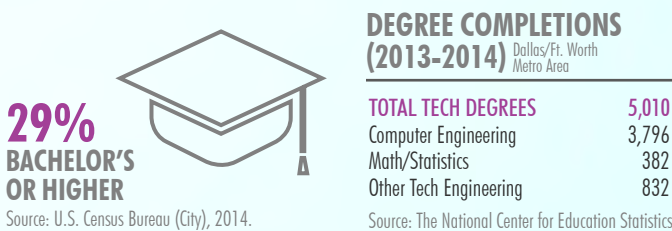
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,209 PER UNIT/MO.**  
**29% INCREASE SINCE 2010**

\*Dallas Metro Area  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

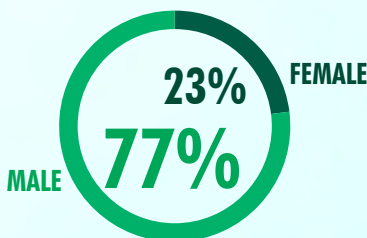


### DEGREE COMPLETIONS (2013-2014) Dallas/Ft. Worth Metro Area

Category	Count
<b>TOTAL TECH DEGREES</b>	<b>5,010</b>
Computer Engineering	3,796
Math/Statistics	382
Other Tech Engineering	832

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Maxim Integrated	14675 Dallas Pkwy	194,000
CompuCom	8383 Dominion Dr	92,300
Creston Electronics	7250 N Dallas Pkwy	56,000
Trend Micro	225 E John Carpenter Fwy	41,000
Stackpath	2021 McKinney Ave	27,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Texas	266	\$2,005

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Jade eServices, Calxeda, Jounce Therapeutics, Hotel Tonight, Casper Sleep

Source: Pitchbook, Q3 2015.

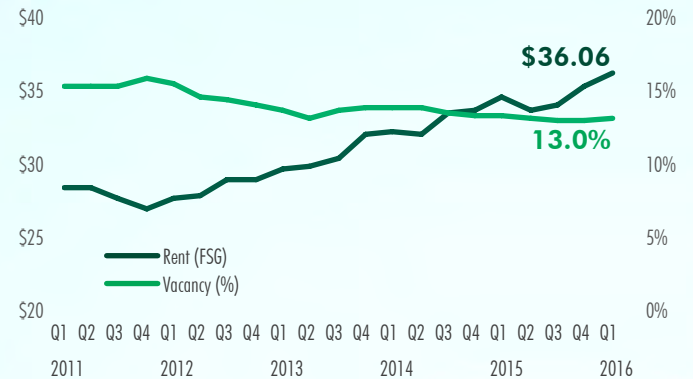


## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>111,290</b>	<b>12.9%</b>	<b>\$102,905</b>	<b>8.9%</b>
Software Developers/Programmers	44,670	8.1%	\$108,270	9.1%
Computer Support, Database & Systems	41,640	20.7%	\$86,829	10.7%
Computer & Infor. Systems Managers	11,140	24.5%	\$148,260	8.0%
Technology Engineering-Related	13,840	0.0%	\$97,447	5.4%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>227,280</b>	<b>7.0%</b>	<b>\$68,039</b>	<b>12.7%</b>
Sales	27,220	18.0%	\$92,548	3.1%
Administrative & Office Support	130,400	4.6%	\$54,506	15.0%
Business Operations & Finance	49,030	4.5%	\$88,760	12.9%
Marketing	20,630	16.8%	\$71,998	10.9%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

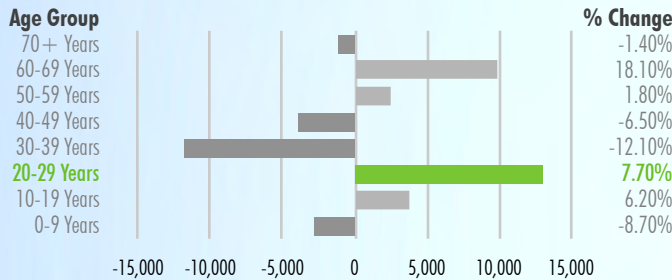
## OFFICE RENT & VACANCY TRENDS



Note: Includes Cambridge market; Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 13,000 (8.7%) since 2009. That's 20% greater than total growth in a population of 656,000.



Source: U.S. Census Bureau (City of Boston), 2015.

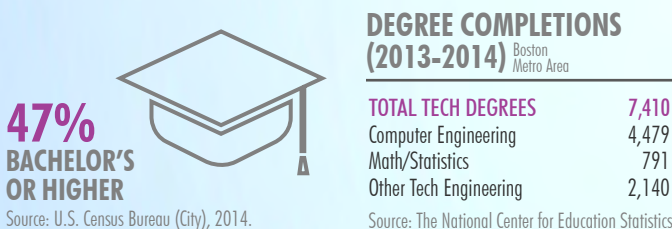
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$2,167 PER UNIT/MO.**  
**28% INCREASE SINCE 2010**

\*Boston Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

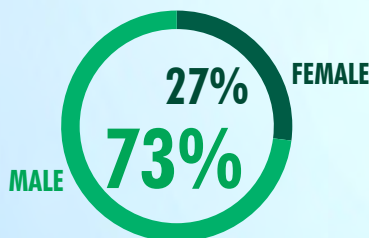


### DEGREE COMPLETIONS (2013-2014) Boston Metro Area

TOTAL TECH DEGREES	7,410
Computer Engineering	4,479
Math/Statistics	791
Other Tech Engineering	2,140

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Oracle	Network Dr	315,000
Confidential	One Memorial Dr	155,800
Veracode	65 Network Dr	92,000
CarGurus	55 Cambridge Pkwy	80,000
General Electric	33-41 Farnsworth	54,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
MIT	369	\$4,555
Harvard	359	\$4,955
Boston University	134	\$1,026
Tufts University	107	\$1,254
Boston College	93	\$499

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Langkoo, Munchery, Zenefits, Coupang, Blue Apron, Blu Homes, Bond Street Marketplace

Source: Pitchbook, Q3 2015.

# 8 Raleigh-Durham, NC

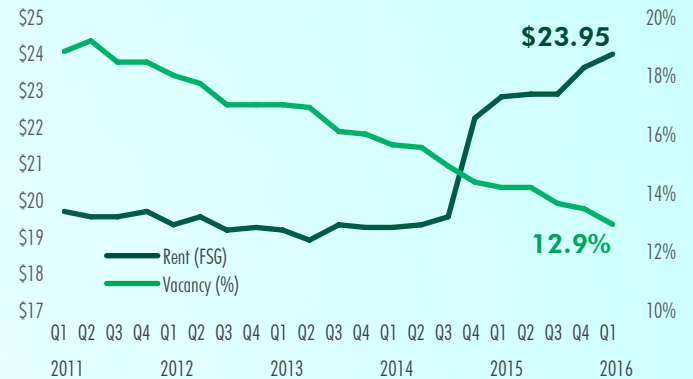
SCORE  
58.85

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>55,790</b>	<b>39.1%</b>	<b>\$92,392</b>	<b>12.9%</b>
Software Developers/Programmers	19,910	36.4%	\$99,119	13.8%
Computer Support, Database & Systems	25,250	46.8%	\$79,665	14.8%
Computer & Infor. Systems Managers	4,570	3.6%	\$133,778	14.2%
Technology Engineering-Related	6,060	55.0%	\$92,111	20.3%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>110,180</b>	<b>19.4%</b>	<b>\$50,552</b>	<b>5.5%</b>
Sales	11,400	18.6%	\$77,618	1.3%
Administrative & Office Support	73,900	19.0%	\$40,552	6.1%
Business Operations & Finance	16,600	7.4%	\$69,486	5.7%
Marketing	8,280	60.8%	\$64,578	11.5%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 11,200 (9.4%) since 2009. That's 19% of total growth in a population of 692,000.



Source: U.S. Census Bureau (Cities of Raleigh and Durham), 2015

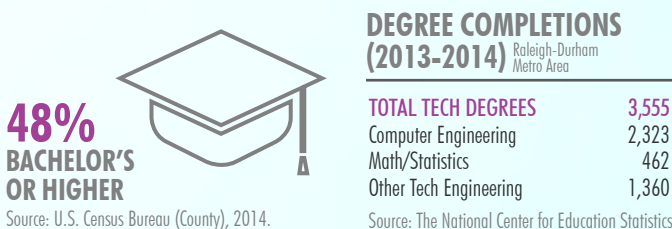
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$988 PER UNIT/MO.**  
**20% INCREASE SINCE 2010**

\*Raleigh MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

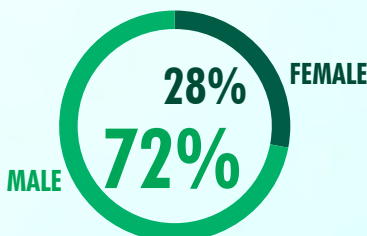


### DEGREE COMPLETIONS (2013-2014)

Raleigh-Durham Metro Area	
<b>TOTAL TECH DEGREES</b>	<b>3,555</b>
Computer Engineering	2,323
Math/Statistics	462
Other Tech Engineering	1,360

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Allscripts	4000 Cardinal at North Hills St	245,000
ChannelAdvisors	3025 Carrington Mill Blvd	137,000
Genband	4817 S. Miami Blvd	71,000
TrialCard	2250 Perimeter Park Dr	72,000
American Underground	201 W. Main St	60,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
Duke	184	\$2,443
University of North Carolina	108	\$1,104

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

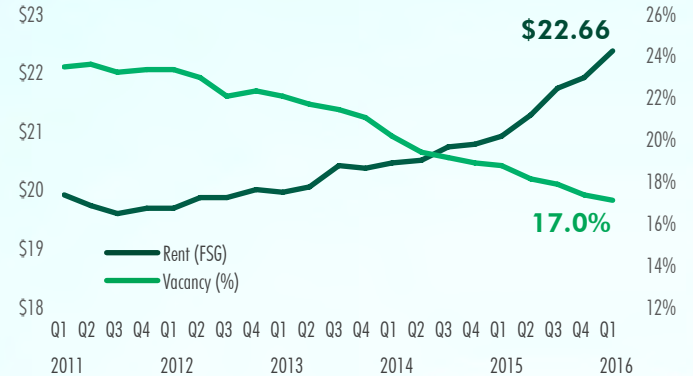
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>124,820</b>	<b>46.7%</b>	<b>\$87,716</b>	<b>8.0%</b>
Software Developers/Programmers	42,380	74.5%	\$92,885	4.1%
Computer Support, Database & Systems	61,860	40.5%	\$77,710	10.0%
Computer & Infor. Systems Managers	9,750	23.4%	\$135,950	13.8%
Technology Engineering-Related	10,830	21.7%	\$81,218	4.9%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>333,410</b>	<b>19.5%</b>	<b>\$52,217</b>	<b>8.0%</b>
Sales	36,250	69.3%	\$70,551	0.6%
Administrative & Office Support	218,770	9.7%	\$42,956	5.2%
Business Operations & Finance	55,270	23.0%	\$73,325	7.3%
Marketing	23,120	76.1%	\$60,634	4.1%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

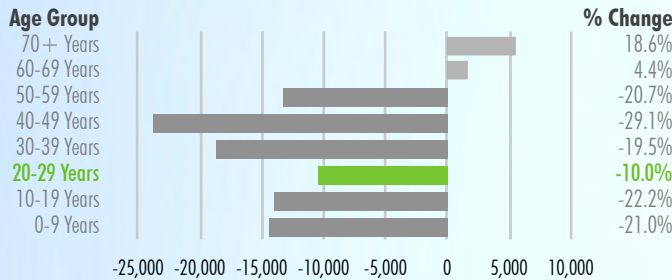
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 10,500 (-10.0%) since 2009 in a population of 456,000.



Source: U.S. Census Bureau (City of Atlanta), 2015.

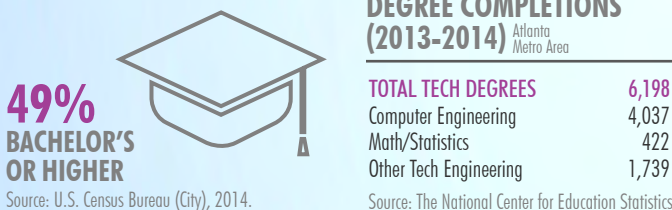
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,055 PER UNIT/MO.**  
**31% INCREASE SINCE 2010**

\*Atlanta MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

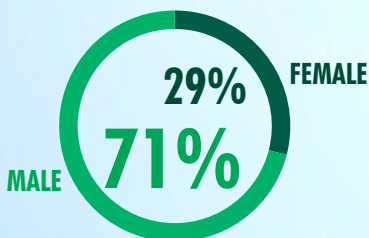


### DEGREE COMPLETIONS (2013-2014) Atlanta Metro Area

	TOTAL TECH DEGREES	6,198
Computer Engineering	4,037	
Math/Statistics	422	
Other Tech Engineering	1,739	

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Bomgar Corporation	11695 Johns Creek Pkwy	17,000
Mmodal Services, Ltd.	5430 Metric Pl	15,000
Interactive Communications International, Inc	3567 Parkway Ln	14,000
CCP Games	250 Ponce De Leon Ave	13,000
Web.com	245 Peachtree Center Ave	10,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
Georgia Tech	124	\$1,341

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.

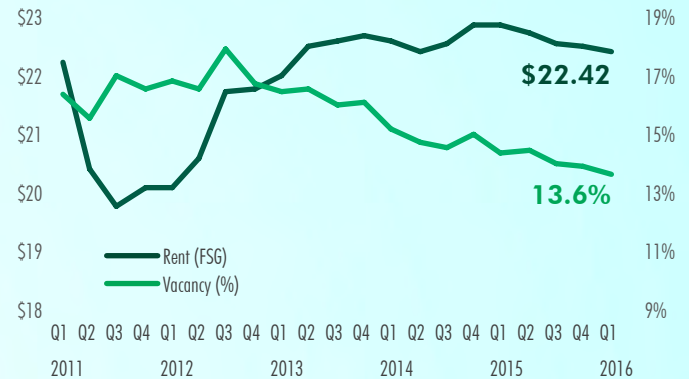


## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>70,340</b>	<b>61.4%</b>	<b>\$98,932</b>	<b>17.2%</b>
Software Developers/Programmers	19,380	35.6%	\$107,863	15.7%
Computer Support, Database & Systems	37,210	94.9%	\$89,256	22.9%
Computer & Infor. Systems Managers	4,240	11.6%	\$141,840	20.1%
Technology Engineering-Related	9,510	48.6%	\$99,459	24.3%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>167,590</b>	<b>13.7%</b>	<b>\$54,080</b>	<b>5.6%</b>
Sales	17,700	86.5%	\$71,370	-1.7%
Administrative & Office Support	110,930	2.6%	\$45,101	0.6%
Business Operations & Finance	30,360	28.6%	\$74,759	6.8%
Marketing	8,600	39.4%	\$61,318	3.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

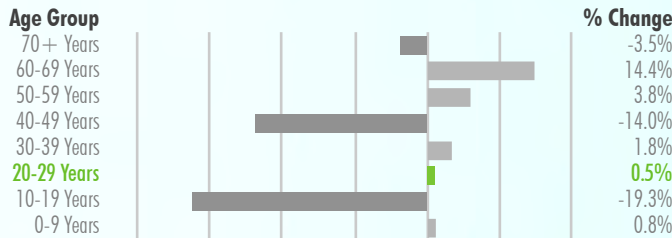
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 500 (0.5%) since 2009 in a population of 623,000.



Source: U.S. Census Bureau (City of Baltimore), 2015.

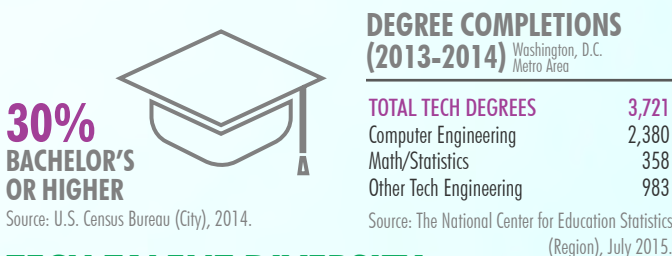
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,277 PER UNIT/MO.**  
**12% INCREASE SINCE 2010**

\*Baltimore MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Acell, Inc.	6630 Eli Whintey Dr	65,000
Fei Systems	9755 Patuxent Woods Dr.	49,000
Cyber Reliant	180 Admiral Cochrane Dr	17,000
Clampett Industries	10461 Mill Run Cir.	16,000
Confidential	135 National Business Park	13,000

Source: CBRE Research (Office Market), 2016.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Maryland	156	\$1,001
Georgetown	124	\$951

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

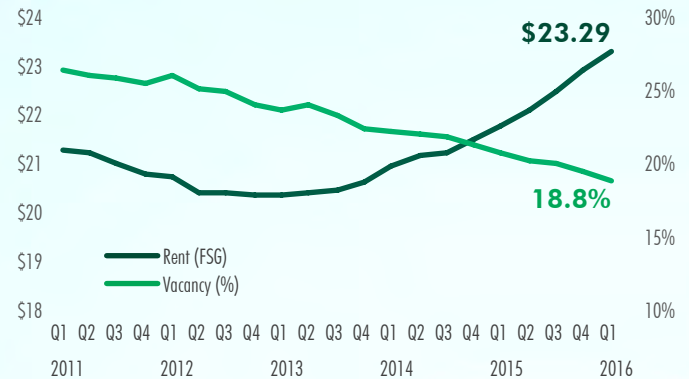
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>86,040</b>	<b>58.1%</b>	<b>\$86,622</b>	<b>10.8%</b>
Software Developers/Programmers	25,780	65.8%	\$90,563	3.1%
Computer Support, Database & Systems	43,070	76.8%	\$76,534	12.7%
Computer & Infor. Systems Managers	5,800	76.3%	\$141,530	30.3%
Technology Engineering-Related	11,390	1.5%	\$87,887	12.2%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>247,540</b>	<b>14.2%</b>	<b>\$47,493</b>	<b>1.8%</b>
Sales	24,210	53.1%	\$63,271	-11.2%
Administrative & Office Support	178,940	11.5%	\$41,543	1.5%
Business Operations & Finance	31,210	-0.2%	\$63,923	8.5%
Marketing	13,180	43.3%	\$60,397	-4.2%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

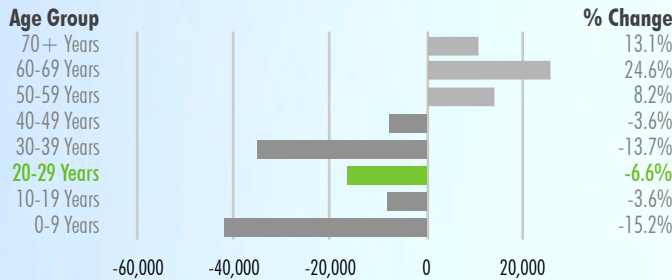
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 16,600 (-6.6%) since 2009 in a population of 1,537,000.



Source: U.S. Census Bureau (City of Phoenix), 2015.

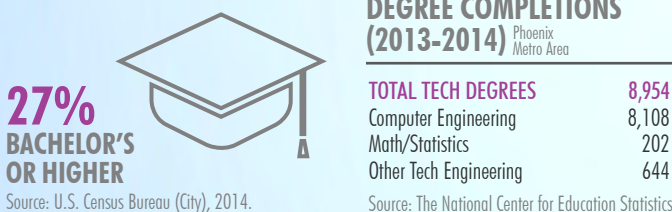
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$927 PER UNIT/MO.**  
**23% INCREASE SINCE 2010**

\*Phoenix MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Globaltranz	7350 N Dobson Rd	70,000
Hotchalk	1721 W Rio Salado Pky	41,000
SAP	SE Priest Dr/Washington St	40,000
Synergy Solutions	3141 N 3rd Ave	39,000
Multi-Systems	7600 N 15th St	23,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
N/A	N/A	N/A

**VC-Funded Companies Founded by Alumni of Top Regional Universities:**

N/A

Source: Pitchbook, Q3 2015.

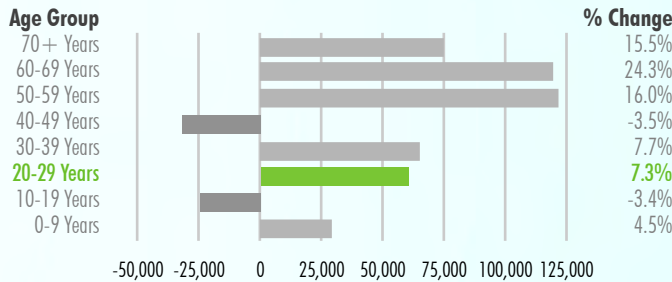
## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage*	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>179,200</b>	<b>35.6%</b>	<b>\$63,789</b>	<b>12.6%</b>
Software Developers/Programmers	52,500	45.8%	\$65,742	15.0%
Computer Support, Database & Systems	81,000	27.4%	\$60,292	10.6%
Computer & Infor. Systems Managers	17,200	48.3%	\$79,914	20.3%
Technology Engineering-Related	28,500	35.7%	\$57,664	3.6%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>285,400</b>	<b>4.6%</b>	<b>\$44,855</b>	<b>18.9%</b>
Sales	26,800	7.2%	\$43,669	8.0%
Administrative & Office Support	161,500	-7.4%	\$34,859	10.8%
Business Operations & Finance	97,100	32.3%	\$61,807	19.6%
Marketing	N/A	N/A	N/A	N/A

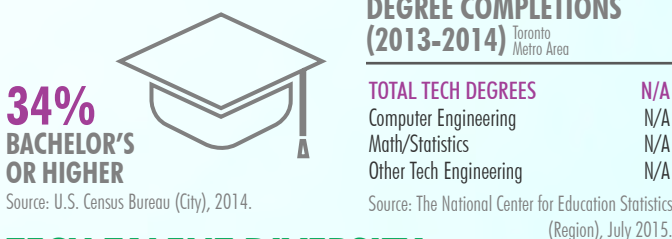
\* in USD; Source: Statistics Canada (Metro Area), May 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 60,400 (7.3%) since 2009. That's 15% of total growth in a population of 6,094,000.



## EDUCATIONAL ATTAINMENT



### DEGREE COMPLETIONS (2013-2014) Toronto Metro Area

TOTAL TECH DEGREES	N/A
Computer Engineering	N/A
Math/Statistics	N/A
Other Tech Engineering	N/A

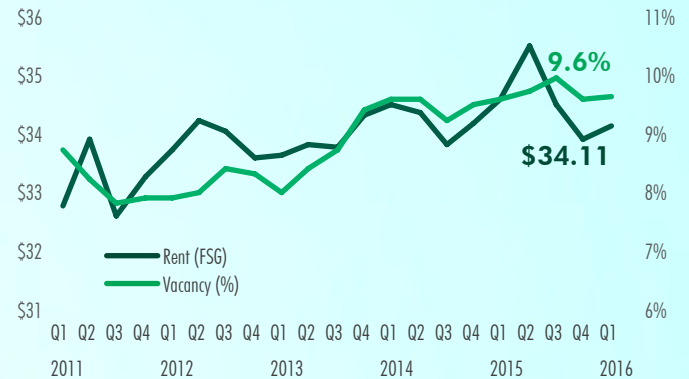
Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY

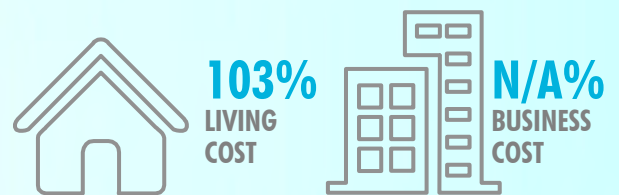


Source: U.S. Census Bureau (Metro Area), 2015.

## OFFICE RENT & VACANCY TRENDS



## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT: \$1,021 PER UNIT/MO.**  
**16% INCREASE SINCE 2010**

\*In US Dollars  
Source: Relative Costs from Numbeo (metro area), Q1 2016; Apt. rent data from CMHC (metro area), Q4 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Shopify	602-620 King St W	112,000
CaseWare	1 Toronto St	60,000
Points.com	111 Richmond St W	41,000
Zynga	110 Spadina Ave	12,000
Lighthouse Labs	46 Spanda Ave	12,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Waterloo	141	\$2,616
University of Toronto	118	\$1,523

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.



# 13 Chicago, IL

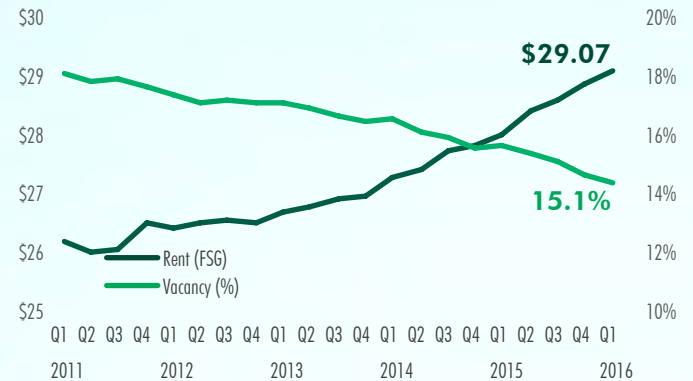
SCORE  
55.31

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>136,340</b>	<b>34.9%</b>	<b>\$87,471</b>	<b>7.7%</b>
Software Developers/Programmers	44,100	16.7%	\$89,031	2.6%
Computer Support, Database & Systems	71,660	76.2%	\$80,069	17.1%
Computer & Infor. Systems Managers	10,300	0.3%	\$132,570	13.6%
Technology Engineering-Related	10,280	-16.7%	\$87,195	13.4%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>429,270</b>	<b>4.7%</b>	<b>\$53,726</b>	<b>7.2%</b>
Sales	46,670	24.7%	\$71,029	-2.1%
Administrative & Office Support	293,940	1.2%	\$46,060	9.6%
Business Operations & Finance	65,040	8.6%	\$72,905	1.2%
Marketing	23,620	5.6%	\$62,133	6.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

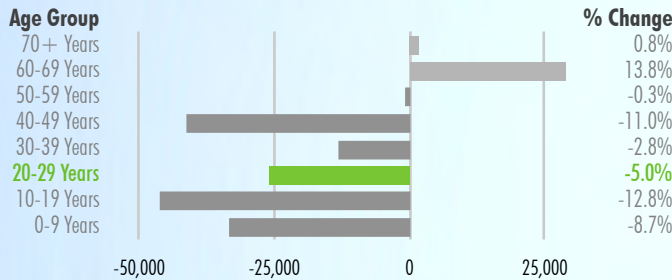
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 25,900 (-5.0%) since 2009 in a population of 2,722,000.



Source: U.S. Census Bureau (City of Chicago), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,503 PER UNIT/MO.**  
**26% INCREASE SINCE 2010**

\*Chicago Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



**36%**  
**BACHELOR'S OR HIGHER**

Source: U.S. Census Bureau (City), 2014.

### DEGREE COMPLETIONS (2013-2014) Chicago Metro Area

TOTAL TECH DEGREES	8,899
Computer Engineering	6,758
Math/Statistics	1,044
Other Tech Engineering	1,097

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Motorola Solutions	500 W Monroe St	150,300
GrubHub	111 W Washington St	131,500
Avant	222 N La Salle St	119,700
STATS, LLC	203 N La Salle ST	76,900
vAuto	1901 S Meyers Rd	67,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Illinois	217	\$2,061
Northwestern	135	\$1,337

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Nest Labs, Altiostar Networks, Tower Cloud, ShopKeep.com, Twist Bioscience

Source: Pitchbook, Q3 2015.

# 14 Orange County, CA

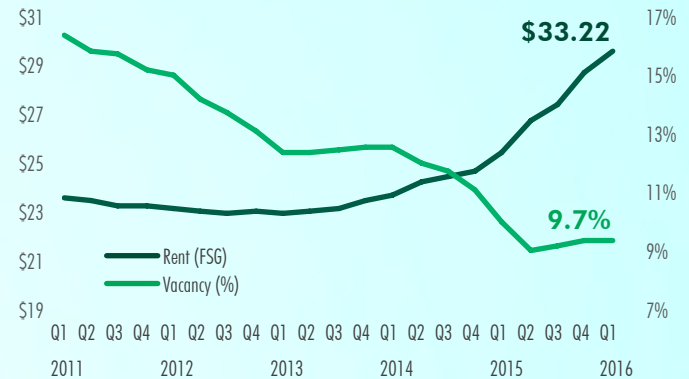
SCORE  
54.09

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>63,290</b>	<b>37.3%</b>	<b>\$97,335</b>	<b>13.4%</b>
Software Developers/Programmers	23,920	46.7%	\$103,827	12.1%
Computer Support, Database & Systems	24,030	40.2%	\$81,816	17.3%
Computer & Infor. Systems Managers	4,690	19.9%	\$138,710	3.9%
Technology Engineering-Related	10,650	21.7%	\$99,548	19.5%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>196,570</b>	<b>12.4%</b>	<b>\$55,857</b>	<b>9.9%</b>
Sales	25,700	22.3%	\$76,536	-0.2%
Administrative & Office Support	126,300	5.3%	\$44,651	8.5%
Business Operations & Finance	30,440	26.9%	\$79,000	9.4%
Marketing	14,130	40.6%	\$68,548	11.6%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

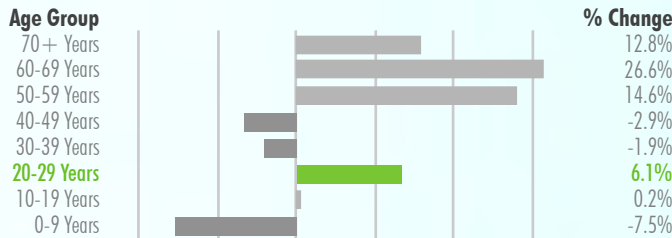
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

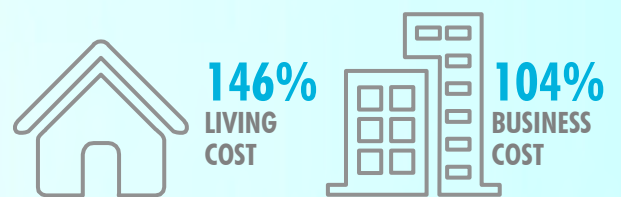
## POPULATION TRENDS

The population of millennials in their 20s grew by 26,700 (6.1%) since 2009. That's 22% of total growth in a population of 3,146,000.



Source: U.S. Census Bureau (Orange County), 2015.

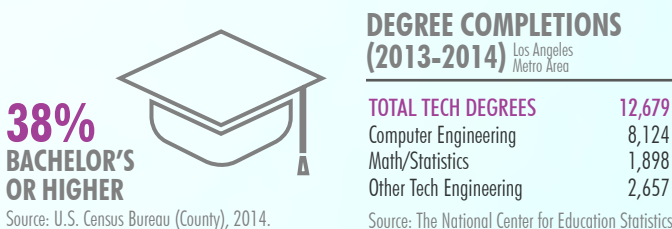
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,981 PER UNIT/MO.**  
**24% INCREASE SINCE 2010**

\*Santa Ana Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



### DEGREE COMPLETIONS (2013-2014)

Los Angeles Metro Area	
<b>TOTAL TECH DEGREES</b>	<b>12,679</b>
Computer Engineering	8,124
Math/Statistics	1,898
Other Tech Engineering	2,657

Source: The National Center for Education Statistics (Region), July 2014.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Volt Information Services	2401-2421 N Glassell St	190,000
Alteryx Inc	3345 Michelson Dr	40,200
Syspro Impact Software	959 South Coast Dr	28,800
TP-Link	145 State College Blvd	26,400
Prescribe Wellness	9701 Jeronimo Rd	24,900

Source: CBRE Research (Office Market), 2014.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of California Los Angeles	198	\$2,136
University of Southern California	180	\$1,044

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Uber, Hortonworks, Okta, Prodege, HelloFresh, Agile Energy

Source: Pitchbook, Q3 2015.

# 15 Minneapolis, MN

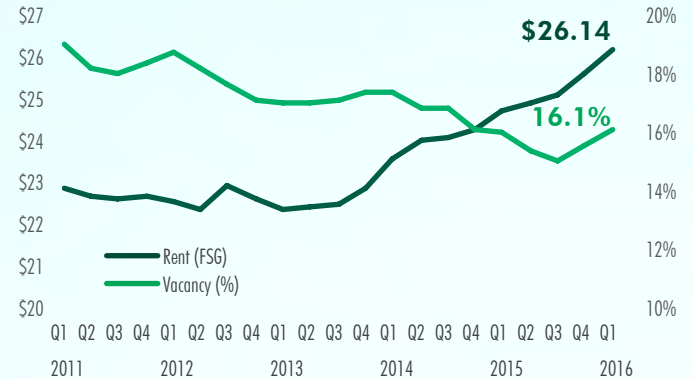
SCORE  
53.15

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>92,530</b>	<b>34.8%</b>	<b>\$89,262</b>	<b>8.9%</b>
Software Developers/Programmers	28,350	26.0%	\$92,086	6.1%
Computer Support, Database & Systems	48,150	61.5%	\$79,762	15.9%
Computer & Infor. Systems Managers	8,520	3.3%	\$136,560	13.9%
Technology Engineering-Related	7,510	-7.1%	\$85,847	10.1%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>237,310</b>	<b>19.7%</b>	<b>\$54,709</b>	<b>7.9%</b>
Sales	25,780	30.9%	\$78,052	9.3%
Administrative & Office Support	150,320	14.6%	\$44,902	5.5%
Business Operations & Finance	43,290	28.0%	\$70,856	8.5%
Marketing	17,920	32.4%	\$64,387	1.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

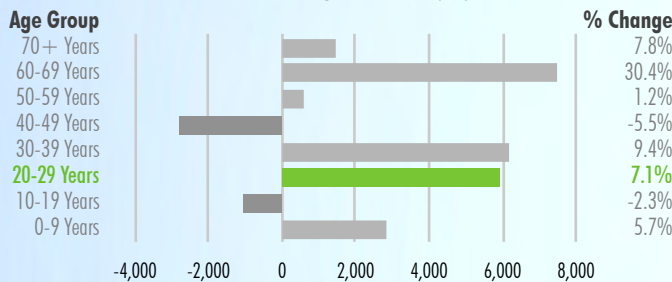
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 5,900 (7.1%) since 2009. That's 27% of total growth in a population of 407,000.



Source: U.S. Census Bureau (City of Minneapolis), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,289 PER UNIT/MO.**  
**22% INCREASE SINCE 2010**

\*Minneapolis MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



**48%**  
**BACHELOR'S OR HIGHER**

Source: U.S. Census Bureau (City), 2014.

### DEGREE COMPLETIONS (2013-2014)

Minneapolis Metro Area	
<b>TOTAL TECH DEGREES</b>	<b>3,285</b>
Computer Engineering	2,271
Math/Statistics	391
Other Tech Engineering	623

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
JAMF Software	100 Washington Ave S	52,000
SitelImprove	7807 CreekrIDGE Cir	42,000
Horizontal Integration	1600 Hwy 100	27,000
McKesson Technologies	2700 Snelling Ave	26,000
Evolution 1	5050 Lincoln Dr	24,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
N/A	N/A	N/A

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.

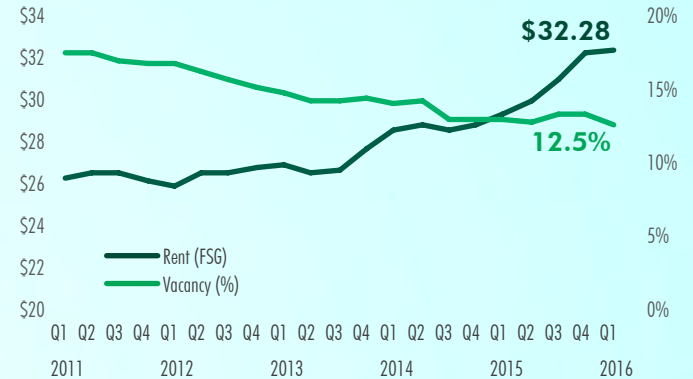


## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>67,590</b>	<b>47.2%</b>	<b>\$98,990</b>	<b>16.6%</b>
Software Developers/Programmers	23,040	41.0%	\$101,975	10.5%
Computer Support, Database & Systems	24,550	58.9%	\$83,202	22.0%
Computer & Infor. Systems Managers	4,260	28.7%	\$163,770	28.8%
Technology Engineering-Related	15,740	45.5%	\$101,712	20.3%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>155,410</b>	<b>12.1%</b>	<b>\$51,428</b>	<b>0.0%</b>
Sales	17,530	21.1%	\$68,049	-7.8%
Administrative & Office Support	104,220	7.6%	\$41,676	-4.2%
Business Operations & Finance	22,430	17.1%	\$76,094	5.6%
Marketing	11,230	38.3%	\$66,716	15.4%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

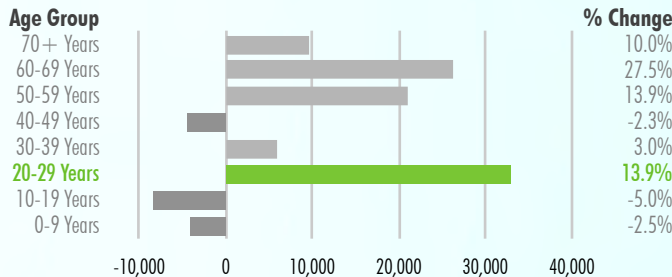
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 32,900 (13.9%) since 2009. That's 44% of total growth in a population of 1,381,000.



Source: U.S. Census Bureau (City of San Diego), 2015.

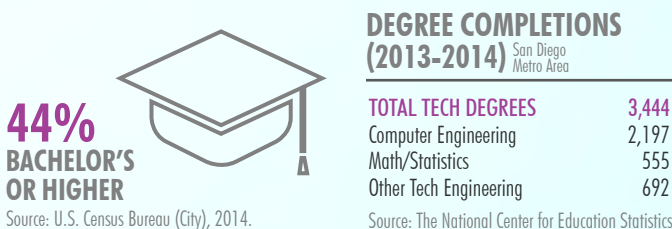
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,849 PER UNIT/MO.**  
**23% INCREASE SINCE 2010**

\*San Diego MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

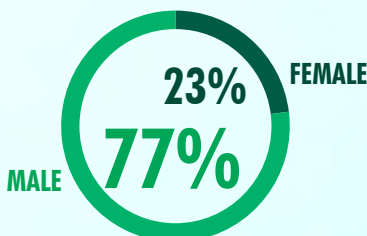


## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Laird Technologies	2091 Rutherford Rd	62,400
Confidential	6420 Sequence Dr	64,600
Quartus Engineering	9689 Towne Centre Dr	47,500
Trex	10455 Pacific Center Ct	45,000
Sony	10030 Barnes Canyon Rd	43,500

Source: CBRE Research (Office Market), 2016.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of California San Diego	154	\$1,511
University of California Los Angeles	198	\$2,136

**VC-Funded Companies Founded by Alumni of Top Regional Universities:**

N/A

Source: Pitchbook, Q3 2015.

# M7 Detroit, MI

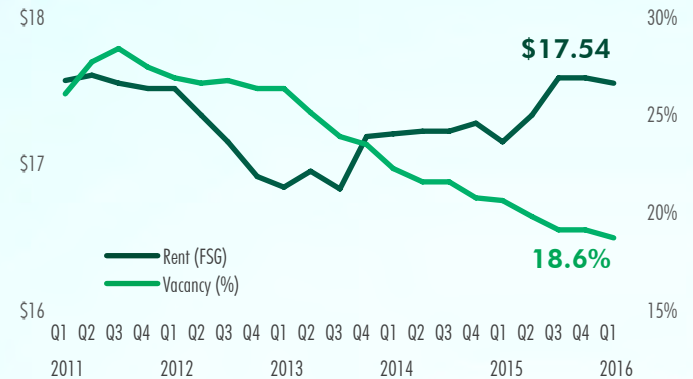
SCORE  
52.76

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>76,050</b>	<b>49.2%</b>	<b>\$80,723</b>	<b>3.4%</b>
Software Developers/Programmers	22,820	35.3%	\$86,012	8.0%
Computer Support, Database & Systems	36,600	59.9%	\$73,162	11.1%
Computer & Infor. Systems Managers	4,730	38.7%	\$124,092	-23.1%
Technology Engineering-Related	11,900	52.6%	\$76,597	3.5%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>222,340</b>	<b>11.4%</b>	<b>\$52,729</b>	<b>7.6%</b>
Sales	21,570	3.5%	\$73,170	1.3%
Administrative & Office Support	160,470	13.0%	\$45,460	7.2%
Business Operations & Finance	28,360	-0.5%	\$72,622	17.6%
Marketing	11,940	44.0%	\$66,243	10.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

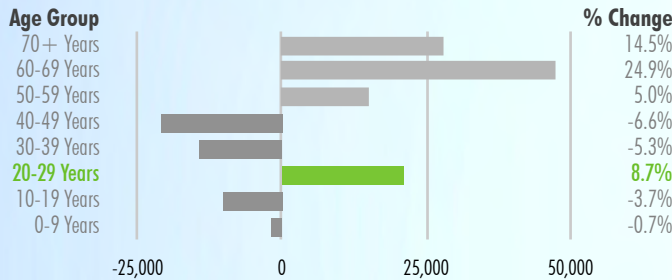
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 21,100 (8.7%) since 2009. That's 35% of total growth in a population of 2,098,000.



Source: U.S. Census Bureau (City of Detroit and Macomb/Oakland Counties), 2015.

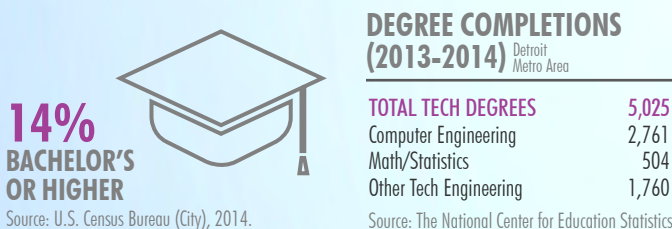
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$938 PER UNIT/MO.**  
**21% INCREASE SINCE 2010**

\*Detroit Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

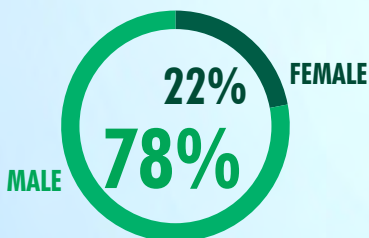


### DEGREE COMPLETIONS (2013-2014) Detroit Metro Area

TOTAL TECH DEGREES	5,025
Computer Engineering	2,761
Math/Statistics	504
Other Tech Engineering	1,760

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Confidential	Northeast Ann Arbor	140,000
Confidential	Farmington Hills	90,000
Llamasoft	400-407 E Liberty St	58,000
Confidential	Novi	50,000
Mackevision	1965 Research Dr	30,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Michigan	272	\$1,948

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

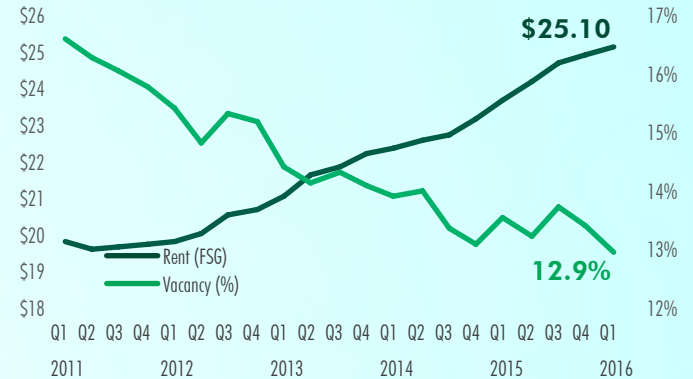
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>73,800</b>	<b>29.1%</b>	<b>\$96,431</b>	<b>15.1%</b>
Software Developers/Programmers	26,270	10.5%	\$102,381	11.6%
Computer Support, Database & Systems	35,620	56.4%	\$84,657	19.4%
Computer & Infor. Systems Managers	4,470	39.3%	\$163,230	30.4%
Technology Engineering-Related	7,440	0.1%	\$91,652	14.6%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>186,300</b>	<b>16.7%</b>	<b>\$57,223</b>	<b>15.7%</b>
Sales	22,810	39.9%	\$80,155	13.5%
Administrative & Office Support	111,880	8.9%	\$43,862	14.3%
Business Operations & Finance	38,390	24.3%	\$77,017	7.6%
Marketing	13,220	35.9%	\$73,253	20.6%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 5,900 (5.2%) since 2009. That's 11% of total growth in a population of 664,000.



Source: U.S. Census Bureau (City of Denver), 2015

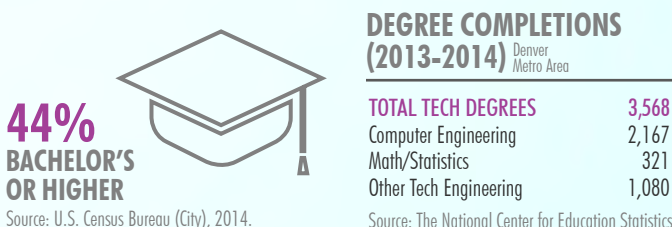
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,341 PER UNIT/MO.**  
**45% INCREASE SINCE 2010**

\*Denver MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

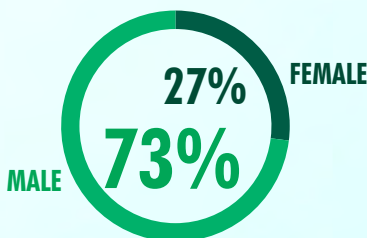


### DEGREE COMPLETIONS (2013-2014) Denver Metro Area

TOTAL TECH DEGREES	3,568
Computer Engineering	2,167
Math/Statistics	321
Other Tech Engineering	1,080

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Zoll Data	11802 Ridge Pkwy	72,000
SolidFire	1048 Pearl St	67,000
SendGrid	1801 California St	52,000
Sovrn	5541 Central Ave	39,000
ibotta	1801 California St	30,000

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Colorado	131	\$1,489

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.

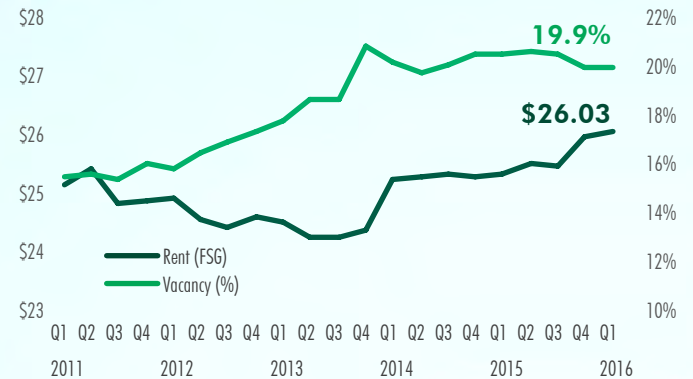


## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>51,020</b>	<b>8.8%</b>	<b>\$104,107</b>	<b>6.5%</b>
Software Developers/Programmers	18,160	8.4%	\$100,957	3.7%
Computer Support, Database & Systems	22,870	13.8%	\$92,094	11.7%
Computer & Infor. Systems Managers	5,460	-8.9%	\$166,940	12.8%
Technology Engineering-Related	4,530	-1.8%	\$101,645	6.4%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>144,190</b>	<b>3.9%</b>	<b>\$53,098</b>	<b>5.3%</b>
Sales	14,830	5.6%	\$89,792	-14.1%
Administrative & Office Support	98,920	0.2%	\$38,591	8.6%
Business Operations & Finance	22,470	11.0%	\$85,006	5.6%
Marketing	7,970	19.7%	\$74,922	14.4%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

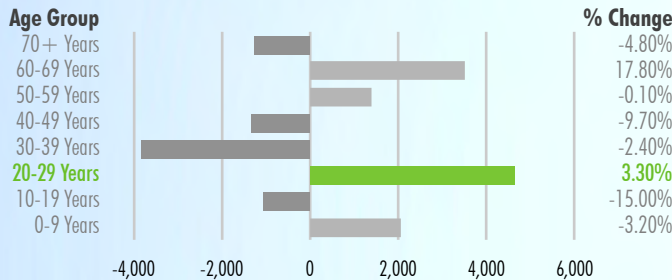
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

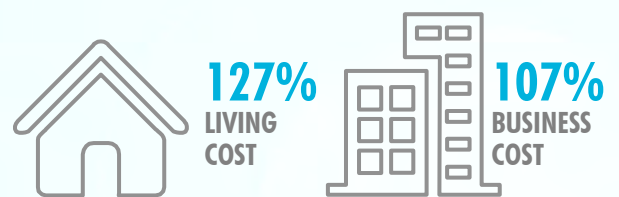
## POPULATION TRENDS

The population of millennials in their 20s grew by 4,600 (9.6%) since 2009. That's 91% greater than total growth in a population of 281,000.



Source: U.S. Census Bureau (City of Newark), 2015.

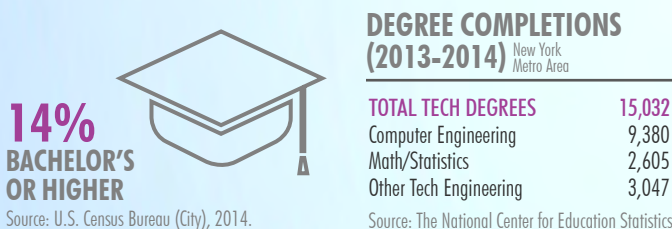
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,775 PER UNIT/MO.**  
**16% INCREASE SINCE 2010**

\*Newark Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



Source: U.S. Census Bureau (City), 2014.

Source: The National Center for Education Statistics (Region), July 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
MedAssets	1 Route 17 South	106,000
Audible	1 Washington St	67,500
Syncsort Inc.	2 Blue Hill Plaza	50,000
Jet.com	221 River St	40,000
Send Word Now Communications	500 Plaza Dr	8,100

Source: CBRE Research (Office Market), 2016.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
Columbia	201	\$2,332
Princeton	204	\$1,840

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Jet, Docker, Wimdu, Casper Sleep, Telcaro

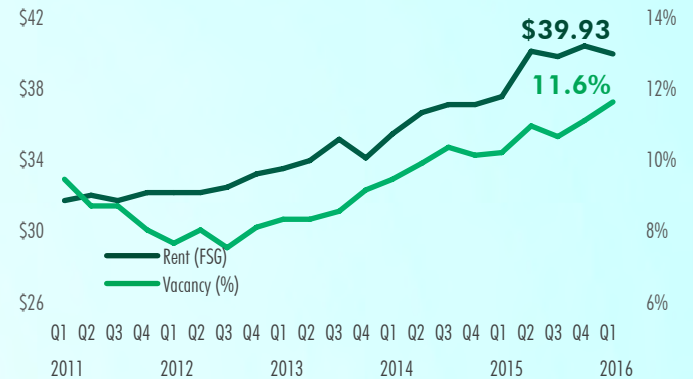
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage*	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>57,500</b>	<b>50.1%</b>	<b>\$61,275</b>	<b>10.1%</b>
Software Developers/Programmers	20,900	64.6%	\$64,317	13.0%
Computer Support, Database & Systems	21,100	68.8%	\$54,354	4.4%
Computer & Infor. Systems Managers	5,400	17.4%	\$77,684	11.8%
Technology Engineering-Related	10,100	18.8%	\$59,615	17.1%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>110,000</b>	<b>13.9%</b>	<b>\$39,464</b>	<b>11.9%</b>
Sales	11,200	16.7%	\$39,517	15.0%
Administrative & Office Support	69,800	12.9%	\$35,291	6.6%
Business Operations & Finance	29,000	15.1%	\$49,487	20.9%
Marketing	N/A	N/A	N/A	N/A

\* in USD; Source: Statistics Canada (Metro Area), May 2016.

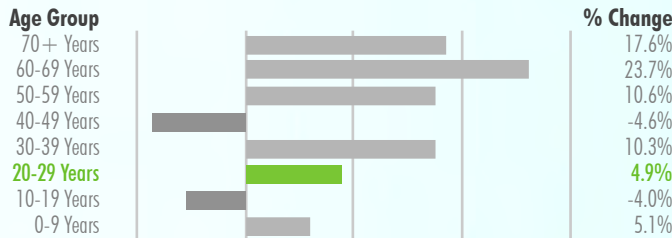
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 17,600 (4.9%) since 2010. That's 11% of total growth in a population of 2,504,000.



Source: Environics Analytics (City of Vancouver), 2015.

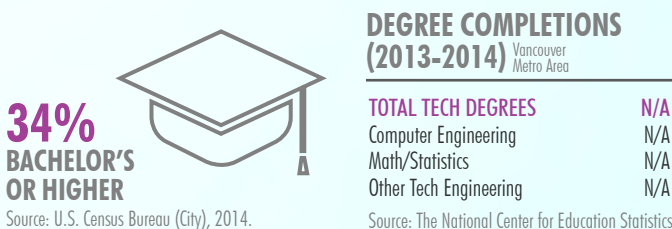
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,055 PER UNIT/MO.**  
**14% INCREASE SINCE 2010**

\*In US Dollars  
Source: Relative Costs from Numbeo (metro area), Q1 2016; Apt. rent data from CMHC (metro area), Q4 2015.

## EDUCATIONAL ATTAINMENT



### DEGREE COMPLETIONS (2013-2014) Vancouver Metro Area

TOTAL TECH DEGREES	N/A
Computer Engineering	N/A
Math/Statistics	N/A
Other Tech Engineering	N/A

Source: The National Center for Education Statistics (Region), July 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Microsemi	8555 Baxter Pl	124,000
DHX Media	380 W 5th Ave	74,000
Sierra Wireless	13811 Wireless Way	47,000
Absolute Software	1055 Dunsuir St	46,500
Bench Accounting	501 Robson St	42,000

Source: CBRE Research (Office Market), 2016.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
N/A	N/A	N/A

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

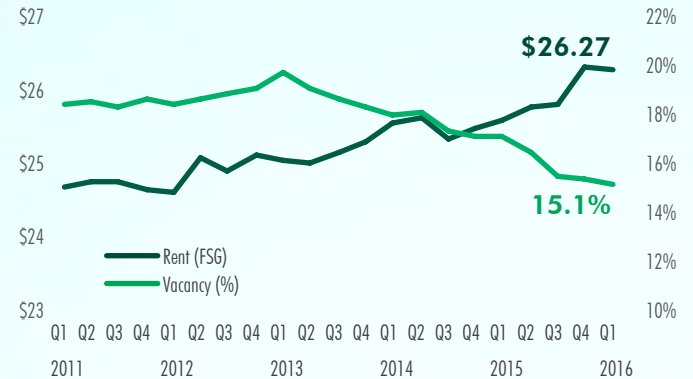
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>75,150</b>	<b>27.0%</b>	<b>\$88,789</b>	<b>3.7%</b>
Software Developers/Programmers	25,660	26.3%	\$94,184	2.8%
Computer Support, Database & Systems	38,200	36.0%	\$75,629	0.9%
Computer & Infor. Systems Managers	5,580	34.8%	\$155,676	12.1%
Technology Engineering-Related	5,710	-14.0%	\$87,224	10.5%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>257,830</b>	<b>6.7%</b>	<b>\$55,996</b>	<b>4.9%</b>
Sales	24,230	41.3%	\$81,529	5.0%
Administrative & Office Support	172,000	0.0%	\$45,580	0.0%
Business Operations & Finance	43,270	13.8%	\$77,542	4.6%
Marketing	18,330	27.1%	\$69,124	9.5%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

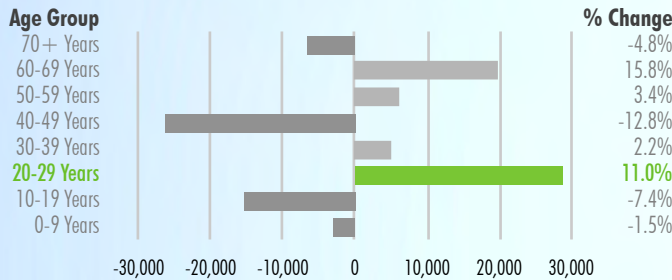
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 28,700 (11.0%) since 2009. That's 121% greater than total growth in a population of 1,560,000.



Source: U.S. Census Bureau (City of Philadelphia), 2015.

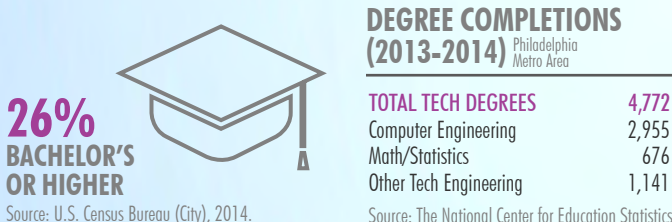
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,313 PER UNIT/MO.**  
**11% INCREASE SINCE 2010**

\*Philadelphia Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



### DEGREE COMPLETIONS (2013-2014) Philadelphia Metro Area

TOTAL TECH DEGREES	4,772
Computer Engineering	2,955
Math/Statistics	676
Other Tech Engineering	1,141

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
ABB Process Automation	101 E County Line Rd	115,000
Bracket Global	1150 Northbrook Dr	26,700
Heraeus	770 Township Line Rd	20,900
Egalet Corporation	600 Lee Rd	19,800
GSI Health	1735 Market St	15,600

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Pennsylvania	351	\$3,047
Penn State	104	\$612

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Flairon Health, Cvent, Anki, Jounce Therapeutics, Wheels Up Partners

Source: Pitchbook, Q3 2015.



# //22 Los Angeles, CA

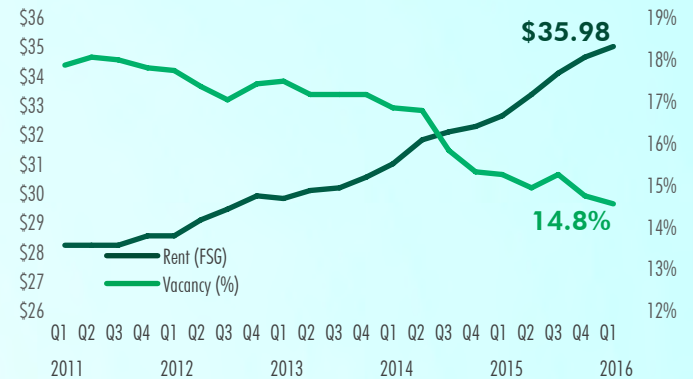
SCORE  
48.52

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>119,400</b>	<b>20.9%</b>	<b>\$96,268</b>	<b>10.8%</b>
Software Developers/Programmers	38,720	16.2%	\$103,599	11.4%
Computer Support, Database & Systems	54,690	34.5%	\$81,071	14.6%
Computer & Infor. Systems Managers	8,800	2.4%	\$152,820	13.8%
Technology Engineering-Related	17,190	6.3%	\$99,153	10.2%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>506,930</b>	<b>11.3%</b>	<b>\$53,568</b>	<b>8.2%</b>
Sales	50,560	37.7%	\$70,634	2.4%
Administrative & Office Support	344,670	5.8%	\$44,113	7.2%
Business Operations & Finance	73,620	12.7%	\$78,062	3.8%
Marketing	38,080	38.9%	\$69,127	13.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

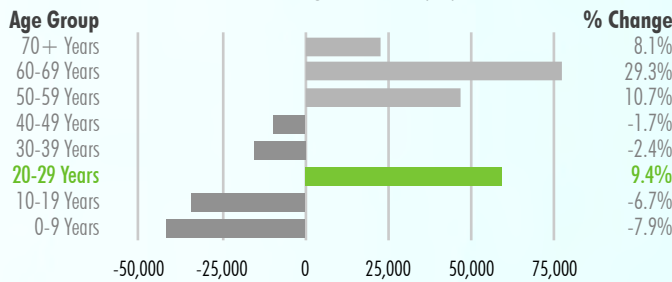
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

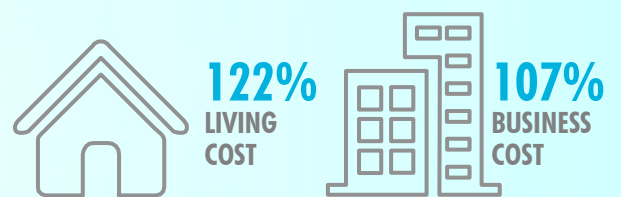
## POPULATION TRENDS

The population of millennials in their 20s grew by 59,000 (9.4%) since 2009. That's 61% of total growth in a population of 3,929,000.



Source: U.S. Census Bureau (City of Los Angeles), 2015.

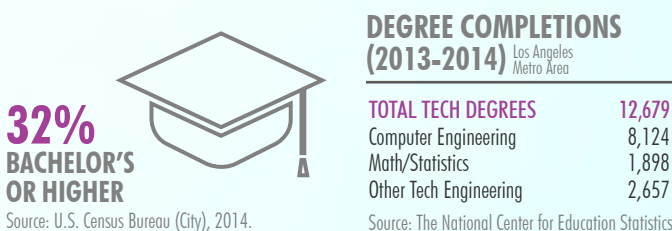
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$2,214 PER UNIT/MO.**  
**29% INCREASE SINCE 2010**

\*Los Angeles Metro Div  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Netflix	5808 Sunset Blvd	123,000
All Def Digital	1212 S Flower St	26,000
Dentsu Aegis Network	12655 Jefferson Blvd	18,000
Grindr	750 San Vicente Blvd	18,000
GoodRx	233 Wilshire Blvd	8,000

Source: CBRE Research (Office Market), 2016.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of California Los Angeles	198	\$2,136
University of Southern California	180	\$1,044

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

Hortonworks, Invitae, Flipagram, The Honest Company, Global Blood Therap.

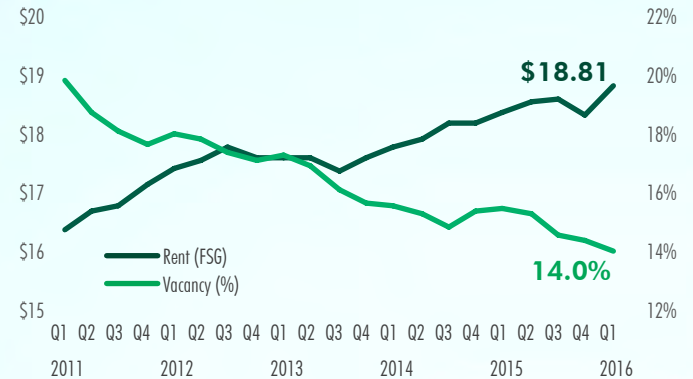
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>45,630</b>	<b>20.8%</b>	<b>\$83,848</b>	<b>9.0%</b>
Software Developers/Programmers	14,050	-4.7%	\$88,534	10.4%
Computer Support, Database & Systems	25,690	46.1%	\$75,275	10.1%
Computer & Infor. Systems Managers	3,510	22.7%	\$133,040	11.1%
Technology Engineering-Related	2,380	-7.4%	\$76,164	10.8%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>129,300</b>	<b>14.1%</b>	<b>\$49,746</b>	<b>5.4%</b>
Sales	11,770	42.0%	\$68,491	0.7%
Administrative & Office Support	87,370	8.9%	\$41,378	2.0%
Business Operations & Finance	21,260	15.1%	\$67,883	7.2%
Marketing	8,900	39.9%	\$63,777	11.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

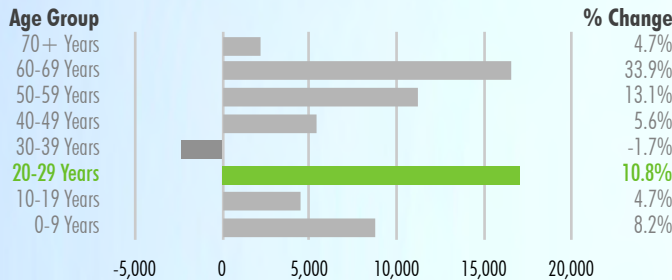
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 17,000 (10.8%) since 2009. That's 27% of total growth in a population of 836,000.



Source: U.S. Census Bureau (City of Columbus), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$849 PER UNIT/MO.**  
**20% INCREASE SINCE 2010**

\*Columbus MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



**35% BACHELOR'S OR HIGHER**

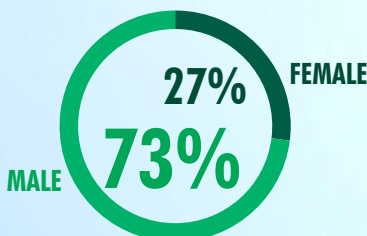
Source: U.S. Census Bureau (City), 2014.

### DEGREE COMPLETIONS (2013-2014) Columbus Metro Area

TOTAL TECH DEGREES	2,471
Computer Engineering	1,445
Math/Statistics	223
Other Tech Engineering	803

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Netsmart Technologies	5455 Rings Rd	17,900
Digital Data Technologies	2323 W 5th Ave	10,200
Confidential	350 E 1st Ave	8,900
Rocketcode	350 E 1st Ave	5,000
Westcom Solutions	651 Lakeview Plaza Blvd	2,100

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
Ohio State	94	\$547

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

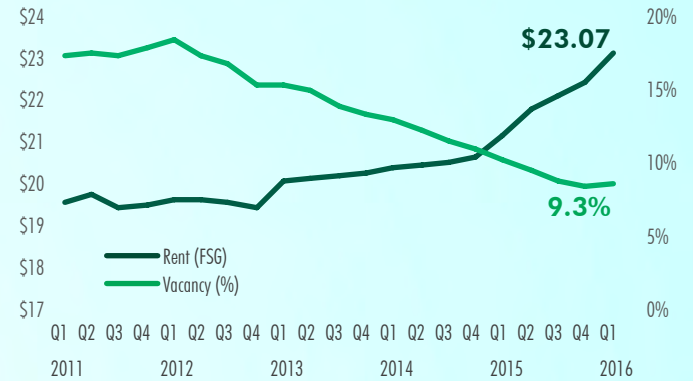
Source: Pitchbook, Q3 2015.

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>47,300</b>	<b>74.7%</b>	<b>\$91,671</b>	<b>7.7%</b>
Software Developers/Programmers	15,750	78.0%	\$95,185	6.0%
Computer Support, Database & Systems	23,710	96.8%	\$80,941	12.4%
Computer & Infor. Systems Managers	4,510	21.2%	\$139,870	11.9%
Technology Engineering-Related	3,330	35.4%	\$86,162	19.2%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>131,440</b>	<b>26.6%</b>	<b>\$51,025</b>	<b>11.0%</b>
Sales	13,420	30.2%	\$71,560	8.5%
Administrative & Office Support	93,140	28.5%	\$41,780	11.6%
Business Operations & Finance	21,520	33.2%	\$77,813	14.2%
Marketing	3,360	-30.4%	\$53,729	-6.9%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

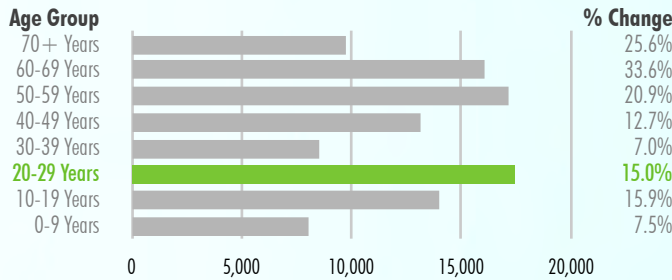
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 17,400 (15.0%) since 2009. That's 17% of total growth in a population of 810,000.



Source: U.S. Census Bureau (City of Charlotte), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,359 PER UNIT/MO.**  
**20% INCREASE SINCE 2010**

\*Charlotte MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT



**41%**  
**BACHELOR'S OR HIGHER**

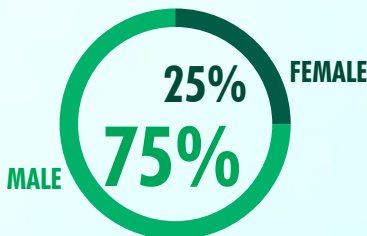
Source: U.S. Census Bureau (City), 2014.

### DEGREE COMPLETIONS (2013-2014)

Charlotte Metro Area	
<b>TOTAL TECH DEGREES</b>	<b>1,674</b>
Computer Engineering	1,243
Math/Statistics	221
Other Tech Engineering	210

Source: The National Center for Education Statistics (Region), July 2015.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Townsquare Interactive	200 S Tryon St	51,200
IMAGINE Software	8757 Red Oak Blvd	36,900
PayPal	1000 Environmental Way	34,400
Cognizant Technology Solutions	8520 Cliff Cameron Dr	30,400
Technekes	1431 W Morehead St	29,600

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
N/A	N/A	N/A

### VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.



# 125 Portland, OR

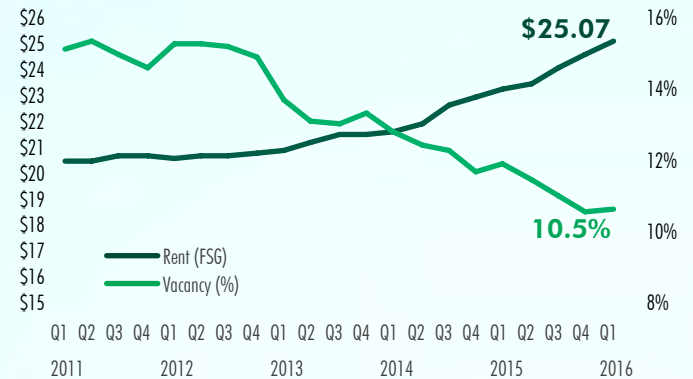
SCORE  
45.72

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>47,240</b>	<b>45.1%</b>	<b>\$88,986</b>	<b>8.9%</b>
Software Developers/Programmers	18,480	73.2%	\$94,439	5.2%
Computer Support, Database & Systems	20,890	73.9%	\$78,238	17.7%
Computer & Infor. Systems Managers	3,570	21.0%	\$126,850	1.3%
Technology Engineering-Related	4,300	-38.0%	\$86,329	11.6%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>122,620</b>	<b>11.3%</b>	<b>\$50,102</b>	<b>6.1%</b>
Sales	10,550	10.4%	\$71,860	-10.0%
Administrative & Office Support	85,680	7.8%	\$42,427	10.3%
Business Operations & Finance	18,250	12.5%	\$68,541	4.7%
Marketing	8,140	65.8%	\$61,345	-5.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

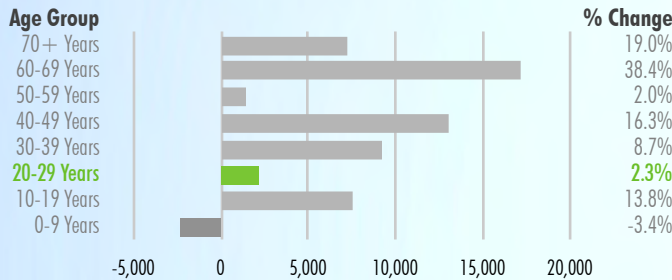
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 2,200 (2.3%) since 2009. That's 4% of total growth in a population of 619,000.



Source: U.S. Census Bureau (City of Portland), 2015.

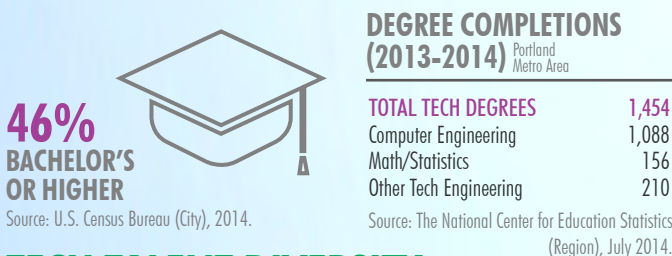
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT:**  
**\$1,346 PER UNIT/MO.**  
**44% INCREASE SINCE 2010**

\*Portland MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

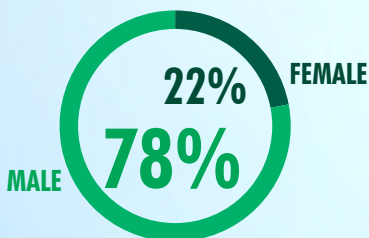


### DEGREE COMPLETIONS (2013-2014) Portland Metro Area

	TOTAL TECH DEGREES
Computer Engineering	1,088
Math/Statistics	156
Other Tech Engineering	210

Source: The National Center for Education Statistics (Region), July 2014.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Elemental Technologies	1320 SW Broadway	100,100
Wacom Technology	1455 NW Irving St	56,400
Puppet Labs	308 SW 2nd Ave	37,900
Vacasa	902-926 NW 13th Ave	37,400
Zones	2525 SW 1st Ave	31,300

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
University of Washington	142	\$930

**VC-Funded Companies Founded by Alumni of Top Regional Universities:**

N/A

Source: Pitchbook, Q3 2015.

# 126 Salt Lake City, UT

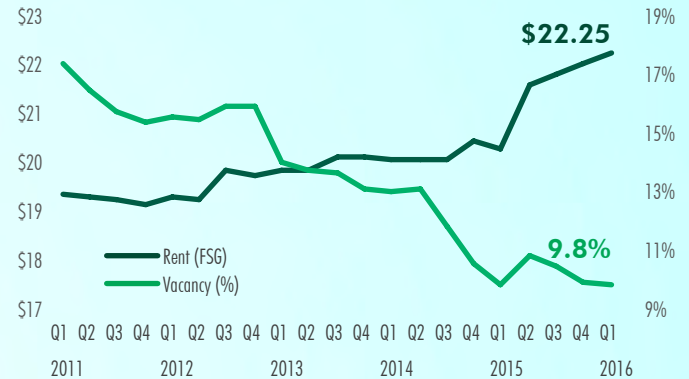
SCORE  
45.65

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH OCCUPATIONS</b>	<b>27,410</b>	<b>30.3%</b>	<b>\$79,191</b>	<b>12.6%</b>
Software Developers/Programmers	10,590	42.5%	\$88,187	8.0%
Computer Support, Database & Systems	12,920	30.5%	\$66,014	13.7%
Computer & Infor. Systems Managers	1,870	49.6%	\$121,890	13.7%
Technology Engineering-Related	2,030	-17.5%	\$76,790	15.3%
<b>TOTAL NON-TECH OCCUPATIONS</b>	<b>102,870</b>	<b>23.6%</b>	<b>\$45,846</b>	<b>7.2%</b>
Sales	13,310	82.1%	\$59,537	-15.0%
Administrative & Office Support	70,730	17.0%	\$38,181	7.4%
Business Operations & Finance	13,380	18.4%	\$67,281	9.6%
Marketing	5,450	30.4%	\$59,263	20.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

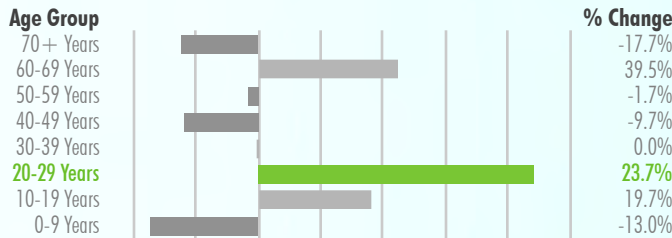
## OFFICE RENT & VACANCY TRENDS



Source: CBRE Research (Office Market), Q1 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 8,800 (23.7%) since 2009. That's 114% of total growth in a population of 191,000.



Source: U.S. Census Bureau (Salt Lake City), 2015.

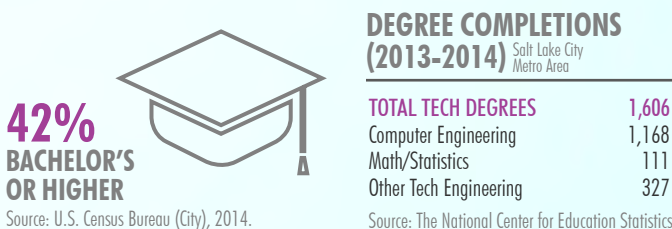
## HOUSING & RELATIVE COSTS\* (US=100)



**AVERAGE APT. RENT: \$999 PER UNIT/MO.**  
**28% INCREASE SINCE 2010**

\*Salt Lake City MSA  
Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

## EDUCATIONAL ATTAINMENT

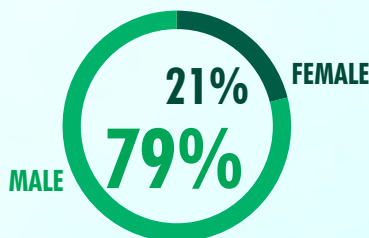


### DEGREE COMPLETIONS (2013-2014) Salt Lake City Metro Area

TOTAL TECH DEGREES	1,606
Computer Engineering	1,168
Math/Statistics	111
Other Tech Engineering	327

Source: The National Center for Education Statistics (Region), July 2014.

## TECH TALENT DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
inContact	75/95 W Townridge Pkwy	175,000
Entrata	4205 N Chapel Ridge Rd	106,000
InMoment	10355 S South Jordan Pkwy	62,700
Social Finance	2750 Cottonwood Pkwy	46,400
NUVI	2300 W Ashton Blvd	45,500

Source: CBRE Research (Office Market), 2016.

## START-UP PIPELINE

Top Regional Universities	VC-Backed Firms Founded Since 2010	Capital Raised (Millions)
BYU	153	\$1,846

VC-Funded Companies Founded by Alumni of Top Regional Universities:

N/A

Source: Pitchbook, Q3 2015.

# 127 Tampa, FL

SCORE  
45.53

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>43,710</b>	<b>50.9%</b>	<b>\$77,582</b>	<b>6.0%</b>
Software Developers/Programmers	14,070	38.9%	\$84,246	4.0%
Computer Support, Database & Systems	24,070	70.0%	\$67,964	6.6%
Computer & Infor. Systems Managers	2,230	40.3%	\$146,050	20.7%
Technology Engineering-Related	3,340	8.1%	\$73,113	10.7%
<b>TOTAL NON-TECH TALENT</b>	<b>178,570</b>	<b>12.6%</b>	<b>\$43,713</b>	<b>6.4%</b>
Sales	19,310	6.0%	\$64,344	2.2%
Administrative & Office Support	130,100	17.4%	\$36,021	6.7%
Business Operations & Finance	21,270	-11.1%	\$66,108	18.0%
Marketing	7,890	40.6%	\$59,677	15.7%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 5,100 (9.8%) since 2009. That's 35% of total growth in a population of 359,000.

Source: U.S. Census Bureau (City of Tampa), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$21.02 PSF (up 3.8%); Vacancy: 12.5% (down -920 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Vology	15950 Bay Vista Dr	59,500
BST Consultants	5925 Benjamin Center Dr	27,700
Jaeb Center for Health Research	15310 Amberly Dr	12,100

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	Tampa Metro area
Computer Engineering	1,810
Math/Statistics	1,451
Other Tech Engineering	99
	260

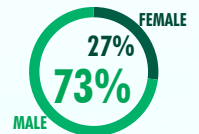
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

34% BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015..

## HOUSING & RELATIVE COSTS\* (US=100)



100% LIVING COST



99% BUSINESS COST

AVERAGE APT. RENT: \$1,077 PER UNIT/MO. 24% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Tampa MSA

# 128 Kansas City, MO

SCORE  
45.48

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>48,510</b>	<b>41.6%</b>	<b>\$81,858</b>	<b>11.0%</b>
Software Developers/Programmers	14,980	27.5%	\$87,716	9.3%
Computer Support, Database & Systems	25,370	63.8%	\$72,154	12.5%
Computer & Infor. Systems Managers	3,500	47.7%	\$124,480	16.6%
Technology Engineering-Related	4,660	0.4%	\$83,847	15.7%
<b>TOTAL NON-TECH TALENT</b>	<b>137,480</b>	<b>13.9%</b>	<b>\$48,551</b>	<b>7.1%</b>
Sales	11,220	8.8%	\$67,979	-0.3%
Administrative & Office Support	97,580	15.8%	\$41,120	6.4%
Business Operations & Finance	19,820	2.4%	\$68,237	15.8%
Marketing	8,860	30.5%	\$61,755	12.3%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 4,300 (-5.3%) since 2009 in a population of 471,000.

Source: U.S. Census Bureau (Kansas City), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$17.67 PSF (up 3.3%); Vacancy: 14.8% (down 180 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Nerderly	100 E 7th	25,000
FishTech Labs	1333 Holmes Rd	20,000
TEK Systems	7421 W 129th St	17,000

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	473
Computer Engineering	308
Math/Statistics	34
Other Tech Engineering	131

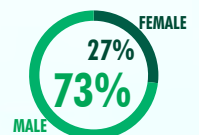
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

32% BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015..

## HOUSING & RELATIVE COSTS\* (US=100)



97% LIVING COST



93% BUSINESS COST

AVERAGE APT. RENT: \$905 PER UNIT/MO. 16% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Kansas City MSA



# //29 Pittsburgh, PA

SCORE  
43.82

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>38,930</b>	<b>27.8%</b>	<b>\$77,045</b>	<b>10.7%</b>
Software Developers/Programmers	11,790	28.6%	\$80,067	8.3%
Computer Support, Database & Systems	20,200	39.6%	\$69,439	12.9%
Computer & Infor. Systems Managers	2,660	29.1%	\$126,890	16.1%
Technology Engineering-Related	4,280	-10.3%	\$73,640	7.0%
<b>TOTAL NON-TECH TALENT</b>	<b>147,470</b>	<b>7.2%</b>	<b>\$49,145</b>	<b>10.4%</b>
Sales	10,980	45.8%	\$70,883	-5.7%
Administrative & Office Support	106,690	2.3%	\$42,553	8.9%
Business Operations & Finance	21,970	16.5%	\$67,114	14.1%
Marketing	7,830	13.8%	\$58,067	7.9%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 9,400 (14.0%) since 2009 in a population of 305,000.

Source: U.S. Census Bureau (City of Pittsburgh), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$21.56 PSF (up 9.4%); Vacancy: 11.3% (up 30 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Confluence Technologies	Nova Pl	40,000
Oculus	Schenley Pl	20,100
IKM	11 Stanwix St	15,200

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>4,505</b>
Computer Engineering	3,307
Math/Statistics	365
Other Tech Engineering	833

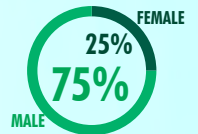
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

**38%**  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**94%**  
LIVING COST



**96%**  
BUSINESS COST

**AVERAGE APT. RENT:**  
**\$1,264 PER UNIT/MO.**  
**10% INCREASE SINCE 2010**

\*Pittsburgh MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# //30 Houston, TX

SCORE  
43.60

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>102,450</b>	<b>47.4%</b>	<b>\$93,765</b>	<b>16.1%</b>
Software Developers/Programmers	26,990	26.5%	\$98,628	10.9%
Computer Support, Database & Systems	54,590	70.2%	\$86,345	22.5%
Computer & Infor. Systems Managers	5,930	31.2%	\$151,490	20.5%
Technology Engineering-Related	14,940	29.2%	\$89,182	16.6%
<b>TOTAL NON-TECH TALENT</b>	<b>376,040</b>	<b>30.5%</b>	<b>\$57,313</b>	<b>16.1%</b>
Sales	39,830	86.6%	\$75,775	2.9%
Administrative & Office Support	255,140	20.0%	\$47,358	12.3%
Business Operations & Finance	65,670	53.1%	\$83,418	19.5%
Marketing	15,400	35.9%	\$63,178	3.8%

Source: U.S. Census Bureau (City of Houston), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 14,500 (3.7%) since 2009 in a population of 2,241,000.

Source: U.S. Census Bureau (Houston), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$28.24 PSF (up 21.9%); Vacancy: 14.3% (down 170 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
HHS Texas Management	4848 Loop Central Dr	76,200
Video Insight	800 Gessner	20,400
CACI NSS Inc.	2100 Space Park Dr	6,500

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>2,727</b>
Computer Engineering	1,830
Math/Statistics	473
Other Tech Engineering	424

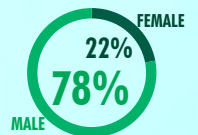
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

**30%**  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



**107%**  
LIVING COST



**101%**  
BUSINESS COST

**AVERAGE APT. RENT:**  
**\$1,070 PER UNIT/MO.**  
**25% INCREASE SINCE 2010**

\*Houston MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 31 Madison, WI

SCORE  
37.94

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>18,640</b>	<b>37.4%</b>	<b>\$74,483</b>	<b>5.8%</b>
Software Developers/Programmers	4,470	16.1%	\$80,137	0.7%
Computer Support, Database & Systems	11,470	57.3%	\$68,287	13.1%
Computer & Infor. Systems Managers	1,270	9.5%	\$110,950	6.2%
Technology Engineering-Related	1,430	12.6%	\$74,118	7.2%
<b>TOTAL NON-TECH TALENT</b>	<b>48,740</b>	<b>21.0%</b>	<b>\$54,697</b>	<b>16.1%</b>
Sales	3,440	4.9%	\$71,345	4.1%
Administrative & Office Support	32,760	16.3%	\$50,170	22.8%
Business Operations & Finance	8,200	28.3%	\$64,320	6.1%
Marketing	4,340	77.9%	\$57,495	3.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 4,700 (-7.0%) since 2009 in a population of 246,000.

Source: U.S. Census Bureau (City of Madison), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$19.00 PSF (up 11.9%); Vacancy: 8.4% (down 450 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Core BTS	3001 W Beltline Hwy	17,300
LinkEHR	3113 W Beltline Hwy	12,700
Spreadfast	1302 Deming Way	11,300

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>1,601</b>
Computer Engineering	866
Math/Statistics	193
Other Tech Engineering	542

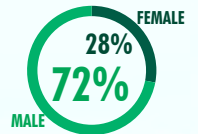
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

45%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (Metro Area), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



101%  
LIVING COST



95%  
BUSINESS COST

AVERAGE APT. RENT:  
\$1,097 PER UNIT/MO.  
13% INCREASE SINCE 2010

\*Madison MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 32 Indianapolis, IN

SCORE  
37.85

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>32,470</b>	<b>41.9%</b>	<b>\$76,185</b>	<b>8.9%</b>
Software Developers/Programmers	9,990	35.5%	\$77,239	3.8%
Computer Support, Database & Systems	17,350	51.7%	\$71,109	14.8%
Computer & Infor. Systems Managers	2,550	42.5%	\$111,210	5.3%
Technology Engineering-Related	2,580	13.2%	\$71,622	5.6%
<b>TOTAL NON-TECH TALENT</b>	<b>113,170</b>	<b>17.7%</b>	<b>\$50,395</b>	<b>5.8%</b>
Sales	13,120	30.0%	\$71,400	4.9%
Administrative & Office Support	73,950	13.3%	\$42,754	5.7%
Business Operations & Finance	18,830	16.2%	\$63,916	1.9%
Marketing	7,270	58.0%	\$55,185	6.4%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 4,700 (3.5%) since 2009. That's 11% of total growth in a population of 851,000.

Source: U.S. Census Bureau (City of Indianapolis), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$17.95 (up 3.2%); Vacancy: 15.9% (down 560 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Confidential	111 Monument Cir	227,800
Silicis Technologies	17225 Westfield Park Dr	34,700
Blue Horseshoe	11939 N Meridian	25,000

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>2,815</b>
Computer Engineering	2,505
Math/Statistics	95
Other Tech Engineering	215

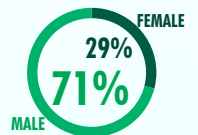
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

29%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



92%  
LIVING COST



88%  
BUSINESS COST

AVERAGE APT. RENT:  
\$801 PER UNIT/MO.  
16% INCREASE SINCE 2010

\*Indianapolis MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 33 Long Island, NY

SCORE  
37.01

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>30,450</b>	<b>26.4%</b>	<b>\$92,176</b>	<b>13.9%</b>
Software Developers/Programmers	8,900	16.2%	\$97,715	18.5%
Computer Support, Database & Systems	14,400	47.4%	\$78,372	16.2%
Computer & Infor. Systems Managers	2,660	22.0%	\$156,580	24.2%
Technology Engineering-Related	4,490	0.2%	\$87,313	1.7%
<b>TOTAL NON-TECH TALENT</b>	<b>176,990</b>	<b>6.8%</b>	<b>\$55,429</b>	<b>9.0%</b>
Sales	11,570	23.0%	\$78,192	-1.9%
Administrative & Office Support	137,500	5.8%	\$48,733	11.7%
Business Operations & Finance	20,540	2.1%	\$83,547	4.6%
Marketing	7,380	18.3%	\$66,233	2.5%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 24,500 (7.3%) since 2009 in a population of 2,862,000.

Source: U.S. Census Bureau (Nassau and Suffolk Counties), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$25.73 PSF (down 1.2%); Vacancy: 13.5% (down 190 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015)

Tenant	Address	Sq. Ft.
Verint Systems	175 Broad Hollow Rf	49,000
Mindshift Technologies	500 Commack Rd	40,900
Yardi Systems	400 Broad Hollow Rd	28,000

Source: CBRE Research (Office Market), 2015.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	15,032
Computer Engineering	9,380
Math/Statistics	2,605
Other Tech Engineering	3,047

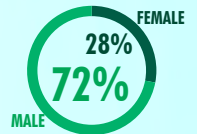
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

38%  
BACHELOR'S  
OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



AVERAGE APT. RENT:  
\$2,127 PER UNIT/MO.  
12% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Nassau Metro Div

# 34 Orlando, FL

SCORE  
36.57

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>33,340</b>	<b>31.8%</b>	<b>\$78,487</b>	<b>11.9%</b>
Software Developers/Programmers	10,320	9.8%	\$87,531	18.8%
Computer Support, Database & Systems	17,690	60.4%	\$68,226	9.8%
Computer & Infor. Systems Managers	1,510	31.3%	\$141,490	11.2%
Technology Engineering-Related	3,820	3.0%	\$76,667	13.9%
<b>TOTAL NON-TECH TALENT</b>	<b>144,560</b>	<b>20.6%</b>	<b>\$43,675</b>	<b>5.0%</b>
Sales	14,040	-7.0%	\$60,590	-3.7%
Administrative & Office Support	104,220	24.5%	\$37,113	9.4%
Business Operations & Finance	19,480	16.9%	\$62,857	7.7%
Marketing	6,820	54.6%	\$54,349	6.5%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 531 (1.1%) since 2009. That's 2% of total growth, in a population of 262,000.

Source: U.S. Census Bureau (City of Orlando), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$20.11 PSF (up 1.6%); Vacancy: 13.8% (down 630 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
Huitt-Zollars, Inc	111 N Magnolia	14,200
Purple, Rock, Scissors	121-189 S Orange Ave	5,900
Corvana Corporation	5950 Hazeltine National Dr	1,200

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	3,607
Computer Engineering	2,929
Math/Statistics	90
Other Tech Engineering	588

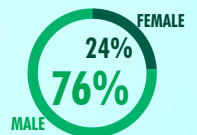
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

34%  
BACHELOR'S  
OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



AVERAGE APT. RENT:  
\$1,111 PER UNIT/MO.  
27% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Orlando MSA



# 35 Sacramento, CA

SCORE  
35.76

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>36,270</b>	<b>16.5%</b>	<b>\$88,147</b>	<b>4.4%</b>
Software Developers/Programmers	13,130	23.9%	\$95,194	5.6%
Computer Support, Database & Systems	17,260	22.8%	\$76,903	7.9%
Computer & Infor. Systems Managers	2,130	-1.8%	\$129,180	6.3%
Technology Engineering-Related	3,750	-13.0%	\$91,922	-2.8%
<b>TOTAL NON-TECH TALENT</b>	<b>111,110</b>	<b>7.4%</b>	<b>\$50,790</b>	<b>5.2%</b>
Sales	7,880	27.7%	\$68,308	-10.0%
Administrative & Office Support	78,260	0.6%	\$42,983	3.0%
Business Operations & Finance	19,390	27.2%	\$70,394	8.9%
Marketing	5,580	31.3%	\$67,418	-2.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 1,200 (-1.4%) since 2009 in a population of 485,000.

Source: U.S. Census Bureau (City of Sacramento), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$21.12 PSF (down 1.1%); Vacancy: 16.6% (down 600 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015)

Tenant	Address	Sq. Ft.
PowerSchool	150 Parkshore Dr	61,300
Oracle	6020 W Oaks Blvd	31,000
Toshiba	35 Iron Point Cir	20,900

Source: CBRE Research (Office Market), 2015.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	2,167
Computer Engineering	1,401
Math/Statistics	280
Other Tech Engineering	486

Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

30% BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



105% LIVING COST



112% BUSINESS COST

AVERAGE APT. RENT: \$1,281 PER UNIT/MO. 31% INCREASE SINCE 2010

\*Sacramento MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 36 St. Louis, MO

SCORE  
34.31

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>50,130</b>	<b>12.0%</b>	<b>\$85,780</b>	<b>12.5%</b>
Software Developers/Programmers	14,260	-2.7%	\$92,034	10.8%
Computer Support, Database & Systems	27,780	28.4%	\$75,969	16.4%
Computer & Infor. Systems Managers	3,210	5.2%	\$134,240	15.8%
Technology Engineering-Related	4,880	-10.1%	\$91,478	15.7%
<b>TOTAL NON-TECH TALENT</b>	<b>165,920</b>	<b>10.7%</b>	<b>\$48,858</b>	<b>4.0%</b>
Sales	15,030	34.1%	\$60,982	-8.5%
Administrative & Office Support	118,510	11.9%	\$41,305	2.4%
Business Operations & Finance	22,910	-11.4%	\$73,868	16.6%
Marketing	9,470	37.8%	\$63,623	13.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 2,100 (-3.5%) since 2009 in a population of 317,000.

Source: U.S. Census Bureau (City of St. Louis), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$18.52 PSF (down 1.3%); Vacancy: 15.8% (down 170 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015)

Tenant	Address	Sq. Ft.
World Wide Technology	Westport Plaza	210,000
Tapestry Solutions	12115 Lackland Rd	35,700
LockerDome	1314 Washington Ave	18,000

Source: CBRE Research (Office Market), 2015.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	885
Computer Engineering	704
Math/Statistics	38
Other Tech Engineering	143

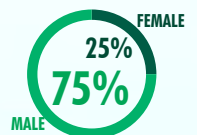
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

32% BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



95% LIVING COST



93% BUSINESS COST

AVERAGE APT. RENT: \$938 PER UNIT/MO. 22% INCREASE SINCE 2010

\*St. Louis MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 37 Milwaukee, WI

SCORE  
33.44

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>31,130</b>	<b>20.6%</b>	<b>\$79,801</b>	<b>8.9%</b>
Software Developers/Programmers	8,520	-1.4%	\$80,582	6.1%
Computer Support, Database & Systems	16,180	44.9%	\$74,149	13.6%
Computer & Infor. Systems Managers	2,530	11.9%	\$118,220	7.3%
Technology Engineering-Related	3,900	4.0%	\$76,624	11.6%
<b>TOTAL NON-TECH TALENT</b>	<b>101,630</b>	<b>9.9%</b>	<b>\$55,198</b>	<b>14.2%</b>
Sales	8,760	0.1%	\$70,621	-7.1%
Administrative & Office Support	70,800	11.9%	\$50,182	22.0%
Business Operations & Finance	15,090	-2.3%	\$68,412	14.5%
Marketing	6,980	38.8%	\$58,154	5.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 1,400 (1.3%) since 2009 in a population of 600,000.

Source: U.S. Census Bureau (City of Milwaukee), 2014.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$17.91 PSF (up 1.4%); Vacancy: 14.7% (down 380 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
JDA	20700 Swenson Dr	44,400
Decision Resources Group	411 E Wisconsin Ave	24,000
Information Systems Engineering	N17 W24222 Riverwood Dr	8,400

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	1,555
Computer Engineering	1,024
Math/Statistics	82
Other Tech Engineering	449

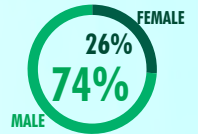
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

24% BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



98% LIVING COST



98% BUSINESS COST

AVERAGE APT. RENT: \$1,134 PER UNIT/MO. 14% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 38 Rochester, NY

SCORE  
33.06

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>21,010</b>	<b>23.0%</b>	<b>\$77,055</b>	<b>7.7%</b>
Software Developers/Programmers	6,280	16.3%	\$82,227	5.5%
Computer Support, Database & Systems	10,030	40.7%	\$66,177	9.7%
Computer & Infor. Systems Managers	1,400	22.8%	\$123,800	5.6%
Technology Engineering-Related	3,300	-3.2%	\$80,442	15.3%
<b>TOTAL NON-TECH TALENT</b>	<b>68,490</b>	<b>19.2%</b>	<b>\$48,539</b>	<b>11.7%</b>
Sales	5,140	40.1%	\$70,767	6.0%
Administrative & Office Support	50,120	19.9%	\$41,424	16.8%
Business Operations & Finance	9,340	2.1%	\$68,840	3.9%
Marketing	3,890	37.0%	\$62,083	7.4%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 2,000 (5.0%) since 2009. That's 74% of total growth in a population of 210,000.

Source: U.S. Census Bureau (City of Rochester), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$18.50 PSF (down 2.4%); Vacancy: 15.8% (down 210 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2016)

Tenant	Address	Sq. Ft.
1366 Technologies	Science and Technology Advanced Manufacturing Park (STAMP)	130,000
High Tech Rochester	The Sibley Building	68,000
Gannett	The Seneca Building	40,000

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	187
Computer Engineering	74
Math/Statistics	106
Other Tech Engineering	7

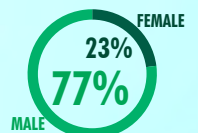
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

24% BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



90% LIVING COST



90% BUSINESS COST

AVERAGE APT. RENT: \$1,050 PER UNIT/MO. 21% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 39 Hartford, CT

SCORE  
32.96

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>23,620</b>	<b>15.5%</b>	<b>\$93,273</b>	<b>14.1%</b>
Software Developers/Programmers	7,990	36.8%	\$91,106	10.7%
Computer Support, Database & Systems	10,970	9.8%	\$83,282	12.1%
Computer & Infor. Systems Managers	2,970	-2.9%	\$140,110	26.2%
Technology Engineering-Related	1,690	8.3%	\$86,055	23.1%
<b>TOTAL NON-TECH TALENT</b>	<b>70,500</b>	<b>7.1%</b>	<b>\$55,132</b>	<b>10.2%</b>
Sales	5,690	51.3%	\$72,246	-6.9%
Administrative & Office Support	49,700	4.5%	\$47,432	12.8%
Business Operations & Finance	11,650	1.8%	\$76,313	6.8%
Marketing	3,460	12.7%	\$66,282	10.4%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 400 (1.6%) since 2009. That's 57% of total growth in a population of 125,000.

Source: U.S. Census Bureau (City of Hartford), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$19.97 PSF (up 1.7%); Vacancy: 16.6% (down 210 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Vertafore	5 Waterside Xing	15,400
Evariant	308 Farmington Ave	6,000
iDevices	136 Simsbury Rd	5,000

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>633</b>
Computer Engineering	341
Math/Statistics	99
Other Tech Engineering	193

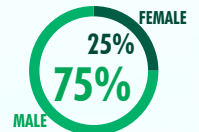
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

14%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



106%  
LIVING COST



101%  
BUSINESS COST

AVERAGE APT. RENT:  
\$1,280 PER UNIT/MO.  
12% INCREASE SINCE 2010

\*Hartford MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 40 Cleveland, OH

SCORE  
32.23

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>31,700</b>	<b>35.1%</b>	<b>\$78,631</b>	<b>11.5%</b>
Software Developers/Programmers	10,190	52.3%	\$79,361	6.9%
Computer Support, Database & Systems	16,660	45.6%	\$71,046	15.3%
Computer & Infor. Systems Managers	2,720	47.8%	\$126,700	12.0%
Technology Engineering-Related	2,130	-39.1%	\$73,080	4.4%
<b>TOTAL NON-TECH TALENT</b>	<b>114,040</b>	<b>1.3%</b>	<b>\$51,761</b>	<b>13.3%</b>
Sales	14,080	20.2%	\$73,722	14.8%
Administrative & Office Support	75,810	-2.9%	\$42,866	10.4%
Business Operations & Finance	17,070	-1.7%	\$68,981	13.1%
Marketing	7,080	29.7%	\$61,812	12.4%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 5,500 (-8.5%) since 2009 in a population of 390,000.

Source: U.S. Census Bureau (City of Cleveland), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$17.63 PSF (up 4.2%); Vacancy: 18.9% (down 460 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
IBM/Explorys	1111 Superior Ave	42,000
Park Place Technologies	5910 Landerbrook Dr	41,000
OnShift	1621 Euclid Ave	33,800

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>1,398</b>
Computer Engineering	1,075
Math/Statistics	118
Other Tech Engineering	205

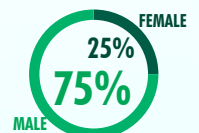
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

15%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



90%  
LIVING COST



97%  
BUSINESS COST

AVERAGE APT. RENT:  
\$897 PER UNIT/MO.  
11% INCREASE SINCE 2010

\*Cleveland MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.



# 41 Cincinnati, OH

SCORE  
31.91

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>35,660</b>	<b>29.9%</b>	<b>\$81,470</b>	<b>11.2%</b>
Software Developers/Programmers	9,470	8.5%	\$80,744	6.6%
Computer Support, Database & Systems	20,670	53.5%	\$76,028	18.4%
Computer & Infor. Systems Managers	2,900	12.4%	\$126,910	15.5%
Technology Engineering-Related	2,620	-1.9%	\$76,728	1.7%
<b>TOTAL NON-TECH TALENT</b>	<b>114,750</b>	<b>3.2%</b>	<b>\$49,743</b>	<b>8.2%</b>
Sales	14,610	33.1%	\$70,273	4.7%
Administrative & Office Support	76,420	-3.1%	\$41,590	6.2%
Business Operations & Finance	15,630	-2.4%	\$65,562	5.0%
Marketing	8,090	50.4%	\$59,111	10.5%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 6,000 (-9.5%) since 2009 in a population of 298,000.

Source: U.S. Census Bureau (City of Cincinnati), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$18.69 PSF (up 2.6%); Vacancy: 19.9% (down 340 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015)

Tenant	Address	Sq. Ft.
DK Global	4600 Montgomery Rd	172,000
Encore Technology Group	4620 Wesley Ave	95,000
iSqFt	3825 Edwards Rd	57,000

Source: CBRE Research (Office Market), 2015.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

	Columbus Metro Area
<b>TOTAL TECH DEGREES</b>	<b>1,321</b>
Computer Engineering	827
Math/Statistics	108
Other Tech Engineering	386

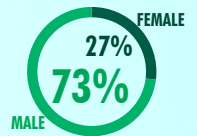
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT



Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



92% LIVING COST



97% BUSINESS COST

AVERAGE APT. RENT: \$902 PER UNIT/MO. 17% INCREASE SINCE 2010

\*Cincinnati MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 42 Nashville, TN

SCORE  
29.81

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>25,860</b>	<b>67.9%</b>	<b>\$76,872</b>	<b>15.8%</b>
Software Developers/Programmers	6,440	69.9%	\$81,878	18.4%
Computer Support, Database & Systems	13,760	64.2%	\$68,659	15.9%
Computer & Infor. Systems Managers	3,250	111.0%	\$103,650	10.4%
Technology Engineering-Related	2,410	42.6%	\$74,273	5.1%
<b>TOTAL NON-TECH TALENT</b>	<b>111,490</b>	<b>18.7%</b>	<b>\$47,041</b>	<b>8.8%</b>
Sales	11,090	25.3%	\$60,188	5.5%
Administrative & Office Support	79,700	13.9%	\$41,122	6.7%
Business Operations & Finance	15,650	29.9%	\$64,855	10.0%
Marketing	5,050	66.7%	\$56,365	14.5%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 5,700 (5.2%) since 2009. That's 15% of total growth in a population of 644,000.

Source: U.S. Census Bureau (Nashville Metro Area), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$22.57 PSF (up 21.9%); Vacancy: 6.5% (down 760 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Lyft	150 2nd Ave North	36,000
Sytel	105 Westpark Dr	22,000
Warby Parker	401 Church Str	14,400

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>848</b>
Computer Engineering	562
Math/Statistics	114
Other Tech Engineering	172

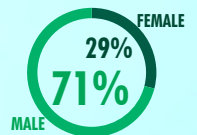
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT



Source: U.S. Census Bureau (Metro Area), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



102% LIVING COST



94% BUSINESS COST

AVERAGE APT. RENT: \$1,108 PER UNIT/MO. 36% INCREASE SINCE 2010

\*Nashville MSA

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 43 Virginia Beach, VA

SCORE  
29.57

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>28,610</b>	<b>38.8%</b>	<b>\$82,427</b>	<b>14.2%</b>
Software Developers/Programmers	7,490	35.7%	\$89,895	14.3%
Computer Support, Database & Systems	14,320	54.1%	\$74,842	16.8%
Computer & Infor. Systems Managers	1,560	30.0%	\$135,380	27.8%
Technology Engineering-Related	5,240	13.9%	\$76,714	6.8%
<b>TOTAL NON-TECH TALENT</b>	<b>82,970</b>	<b>2.5%</b>	<b>\$48,505</b>	<b>8.4%</b>
Sales	5,640	19.7%	\$66,847	21.7%
Administrative & Office Support	60,880	-1.5%	\$42,018	2.3%
Business Operations & Finance	12,950	12.0%	\$68,795	17.4%
Marketing	3,500	21.1%	\$56,706	9.1%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 1,200 (1.6%) since 2009 in a population of 451,000.

Source: U.S. Census Bureau (City of Virginia Beach), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$18.66 PSF (down 17.6%); Vacancy: 14.3% (down 90 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Prism Maritime	1416 and 1417 Kelland Dr	27,000
INIT Innovations	1420 Kristina Way	26,600
General Dynamics Advanced Information Systems	2929 Sabre St	14,300

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

	Richmond Metro Area
<b>TOTAL TECH DEGREES</b>	<b>2,113</b>
Computer Engineering	1,497
Math/Statistics	121
Other Tech Engineering	495

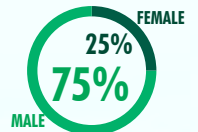
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

35%  
BACHELOR'S  
OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



AVERAGE APT. RENT:  
\$1,020 PER UNIT/MO.  
3% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Virginia Beach MSA

# 44 Omaha, NE

SCORE  
29.31

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>19,370</b>	<b>29.4%</b>	<b>\$78,579</b>	<b>9.1%</b>
Software Developers/Programmers	7,130	15.2%	\$81,425	10.3%
Computer Support, Database & Systems	9,940	43.4%	\$71,856	11.8%
Computer & Infor. Systems Managers	1,090	9.0%	\$125,070	8.4%
Technology Engineering-Related	1,210	42.4%	\$75,153	6.5%
<b>TOTAL NON-TECH TALENT</b>	<b>58,830</b>	<b>9.9%</b>	<b>\$43,103</b>	<b>-0.6%</b>
Sales	5,640	22.3%	\$61,791	-1.3%
Administrative & Office Support	38,640	6.3%	\$32,682	-8.1%
Business Operations & Finance	10,780	21.9%	\$66,018	7.3%
Marketing	3,770	1.3%	\$56,435	7.0%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 4,000 (-5.4%) since 2009 in a population of 447,000.

Source: U.S. Census Bureau (City of Omaha), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$18.34 PSF (up 6.6%); Vacancy: 12.0% (up 1,200 bps) (Q1 2016 data with change since Q4 2010)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>395</b>
Computer Engineering	385
Math/Statistics	10
Other Tech Engineering	N/A

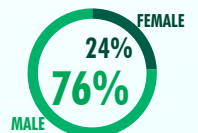
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

33%  
BACHELOR'S  
OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



AVERAGE APT. RENT:  
\$857 PER UNIT/MO.  
21% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Omaha MSA

# 45 San Antonio, TX

SCORE  
27.40

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>30,390</b>	<b>42.7%</b>	<b>\$78,060</b>	<b>8.7%</b>
Software Developers/Programmers	8,950	52.5%	\$77,465	-4.5%
Computer Support, Database & Systems	18,000	51.9%	\$73,309	17.0%
Computer & Infor. Systems Managers	1,220	0.0%	\$145,850	30.9%
Technology Engineering-Related	2,220	-5.5%	\$81,729	10.3%
<b>TOTAL NON-TECH TALENT</b>	<b>127,620</b>	<b>23.9%</b>	<b>\$49,392</b>	<b>16.2%</b>
Sales	9,250	42.1%	\$60,237	9.7%
Administrative & Office Support	95,280	20.2%	\$43,714	16.2%
Business Operations & Finance	18,110	35.7%	\$70,405	15.2%
Marketing	4,980	28.0%	\$61,480	6.7%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 17,400 (7.8%) since 2009. That's 28% of total growth in a population of 1,437,000.

Source: U.S. Census Bureau (City of San Antonio), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$21.14 PSF (up 13.9%); Vacancy: 16.8% (down 110 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Confidential	110 E Houston	25,000
ESRI	19026 Ridgewood Pky	11,500
CGI	5555 Northwest Pky	11,300

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	1,300
Computer Engineering	866
Math/Statistics	153
Other Tech Engineering	281

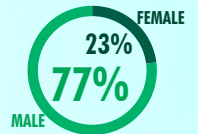
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

25%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



102%  
LIVING COST



88%  
BUSINESS COST

AVERAGE APT. RENT:  
\$899 PER UNIT/MO.  
15% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

# 46 Fort Lauderdale, FL

SCORE  
26.71

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>19,770</b>	<b>22.3%</b>	<b>\$76,887</b>	<b>10.6%</b>
Software Developers/Programmers	6,490	3.7%	\$77,432	5.5%
Computer Support, Database & Systems	10,750	46.9%	\$69,074	14.7%
Computer & Infor. Systems Managers	1,210	44.0%	\$141,430	11.4%
Technology Engineering-Related	1,320	-24.6%	\$78,668	17.2%
<b>TOTAL NON-TECH TALENT</b>	<b>116,850</b>	<b>17.6%</b>	<b>\$47,233</b>	<b>6.8%</b>
Sales	14,100	0.6%	\$70,946	12.7%
Administrative & Office Support	84,360	21.5%	\$39,446	7.3%
Business Operations & Finance	13,500	8.1%	\$67,624	9.7%
Marketing	4,890	42.2%	\$56,906	2.8%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 3,100 (-13.1%) since 2009 in a population of 176,000.

Source: U.S. Census Bureau (City of Fort Lauderdale), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$29.90 PSF (up 18.3%); Vacancy: 15.7% (down 407 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Magic Leap	800 W Sunrise	259,700
Sitrix Systems	6363 NW 6th Way	13,100
N/A	N/A	N/A

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

TOTAL TECH DEGREES	3,698
Computer Engineering	3,171
Math/Statistics	122
Other Tech Engineering	405

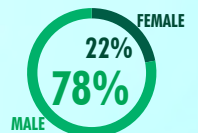
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

35%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



111%  
LIVING COST



102%  
BUSINESS COST

AVERAGE APT. RENT:  
\$1,537 PER UNIT/MO.  
27% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.



# 47 Jacksonville, FL

SCORE  
24.75

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>18,140</b>	<b>19.4%</b>	<b>\$80,049</b>	<b>19.6%</b>
Software Developers/Programmers	6,190	38.8%	\$90,971	11.5%
Computer Support, Database & Systems	9,630	14.6%	\$68,720	24.9%
Computer & Infor. Systems Managers	910	19.7%	\$130,710	12.8%
Technology Engineering-Related	1,410	-10.2%	\$76,773	17.5%
<b>TOTAL NON-TECH TALENT</b>	<b>85,710</b>	<b>6.4%</b>	<b>\$42,788</b>	<b>1.1%</b>
Sales	7,150	-6.5%	\$55,426	-11.8%
Administrative & Office Support	64,250	6.7%	\$36,826	0.9%
Business Operations & Finance	11,190	12.7%	\$64,714	9.9%
Marketing	3,120	13.5%	\$57,974	8.9%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 6,500 (4.9%) since 2009. That's 16% of total growth in a population of 853,000.

Source: U.S. Census Bureau (City of Jacksonville), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$18.43 PSF (up 6.7%); Vacancy: 16.8% (down 540 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
ADP	10407 N Centurion Pkwy	48,900
SunGuard	701 San Marco Blvd	31,500
Paperless Pay Corp	800 Water St	7,100

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>778</b>
Computer Engineering	688
Math/Statistics	45
Other Tech Engineering	45

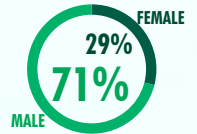
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

25%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



92%  
LIVING COST



88%  
BUSINESS COST

AVERAGE APT. RENT:  
\$951 PER UNIT/MO.  
14% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Jacksonville MSA

# 48 Richmond, VA

SCORE  
23.44

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>22,720</b>	<b>16.9%</b>	<b>\$87,492</b>	<b>11.4%</b>
Software Developers/Programmers	7,110	2.3%	\$88,548	3.7%
Computer Support, Database & Systems	12,280	36.1%	\$80,067	17.9%
Computer & Infor. Systems Managers	1,620	14.9%	\$143,590	17.0%
Technology Engineering-Related	1,710	-17.0%	\$83,276	16.6%
<b>TOTAL NON-TECH TALENT</b>	<b>81,010</b>	<b>6.3%</b>	<b>\$52,760</b>	<b>10.1%</b>
Sales	7,690	25.0%	\$78,559	18.8%
Administrative & Office Support	54,420	1.4%	\$43,356	5.5%
Business Operations & Finance	14,430	14.3%	\$70,462	8.1%
Marketing	4,470	18.3%	\$65,733	13.7%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 6,800 (16.8%) since 2009. That's 51% of total growth in a population of 218,000.

Source: U.S. Census Bureau (City of Richmond), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$20.01 PSF (up 13.4%); Vacancy: 12.1% (down 680 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Mobelux	1633-1635 W Broad St	13,100
Evatran	2219 E. Franklin St	8,000
The Payment Companies	200 South 10th St	3,900

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>875</b>
Computer Engineering	524
Math/Statistics	123
Other Tech Engineering	228

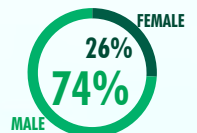
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

48%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



100%  
LIVING COST



94%  
BUSINESS COST

AVERAGE APT. RENT:  
\$985 PER UNIT/MO.  
12% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016. \*Richmond MSA

# 49 Miami, FL

SCORE  
22.61

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>22,760</b>	<b>38.3%</b>	<b>\$77,446</b>	<b>7.6%</b>
Software Developers/Programmers	6,580	41.5%	\$78,512	3.6%
Computer Support, Database & Systems	12,760	41.3%	\$70,552	8.8%
Computer & Infor. Systems Managers	1,400	50.5%	\$140,940	9.1%
Technology Engineering-Related	2,020	9.2%	\$73,518	7.8%
<b>TOTAL NON-TECH TALENT</b>	<b>151,800</b>	<b>16.0%</b>	<b>\$47,522</b>	<b>9.8%</b>
Sales	16,920	-0.4%	\$62,670	-5.5%
Administrative & Office Support	107,190	16.0%	\$40,244	17.1%
Business Operations & Finance	19,930	22.6%	\$69,034	3.9%
Marketing	7,760	49.5%	\$59,783	10.3%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s declined by 4,700 (-7.1%) since 2009 in a population of 430,000.

Source: U.S. Census Bureau (City of Miami), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$33.21 PSF (up 10.6%); Vacancy: 12.5% (down 550 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
Expedia, Inc.	701 Brickell Ave	22,400
Confidental	1450 Brickell Ave	6,100
Redzone Software	1680 Meridian Avenue	3,900

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

	Miami Metro Area
<b>TOTAL TECH DEGREES</b>	<b>3,698</b>
Computer Engineering	3,171
Math/Statistics	122
Other Tech Engineering	405

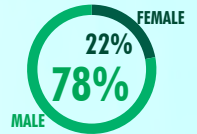
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

24%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



110%  
LIVING COST



112%  
BUSINESS COST

AVERAGE APT. RENT:  
\$1,664 PER UNIT/MO.  
26% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

\*Miami Metro Div

# 50 Oklahoma City, OK

SCORE  
20.49

## EMPLOYMENT BREAKDOWN

	Employment 2015	Growth 2010-15	Average Wage	Growth 2010-15
<b>TOTAL TECH TALENT</b>	<b>18,900</b>	<b>59.0%</b>	<b>\$71,136</b>	<b>8.4%</b>
Software Developers/Programmers	5,170	82.7%	\$75,627	12.2%
Computer Support, Database & Systems	9,010	86.2%	\$61,635	18.3%
Computer & Infor. Systems Managers	1,570	40.2%	\$99,300	15.0%
Technology Engineering-Related	3,150	1.6%	\$76,902	-1.0%
<b>TOTAL NON-TECH TALENT</b>	<b>74,510</b>	<b>9.8%</b>	<b>\$45,673</b>	<b>12.6%</b>
Sales	7,130	65.8%	\$58,400	6.4%
Administrative & Office Support	53,900	3.3%	\$40,410	10.1%
Business Operations & Finance	10,520	12.6%	\$62,239	13.5%
Marketing	2,960	41.6%	\$51,982	20.1%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

## POPULATION TRENDS

The population of millennials in their 20s grew by 3,500 (3.9%) since 2009. That's 6% of total growth in a population of 621,000.

Source: U.S. Census Bureau (Oklahoma City), 2015.

## OFFICE RENT & VACANCY TRENDS

Asking Rent: \$16.94 PSF (up 14.7%); Vacancy: 17.4% (down 190 bps) (Q1 2016 data with change since Q1 2011)

Source: CBRE Research (Office Market), Q1 2016.

## TOP TECH OFFICE DEALS (2015/2016)

Tenant	Address	Sq. Ft.
N/A	N/A	N/A

Source: CBRE Research (Office Market), 2016.

## LABOR POOL DEGREE COMPLETIONS (2013-2014)

<b>TOTAL TECH DEGREES</b>	<b>764</b>
Computer Engineering	417
Math/Statistics	106
Other Tech Engineering	241

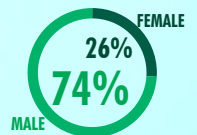
Source: The National Center for Education Statistics (Region), July 2015.

## EDUCATION ATTAINMENT

14%  
BACHELOR'S OR HIGHER

Source: U.S. Census Bureau (City), 2014.

## TECH DIVERSITY



Source: U.S. Census Bureau (Metro Area), 2015.

## HOUSING & RELATIVE COSTS\* (US=100)



127%  
LIVING COST



107%  
BUSINESS COST

AVERAGE APT. RENT:  
\$709 PER UNIT/MO.  
10% INCREASE SINCE 2010

Source: Relative Costs from Moody's Analytics (metro area), Q1 2016; Apt. rent data from CBRE EA (City), Q1 2016.

\*Oklahoma City MSA







// full report  
data summary

# // what is tech talent and why is it important?

**TABLE 1  
TECH TALENT LABOR BY INDUSTRY (2015)**

<b>Industry</b>	<b>% of Total Tech Talent Labor</b>
Core High-Tech	37.3%
Professional, Scientific, and Technical Services (Excluding High-Tech)	10.5%
Other	8.7%
Finance, Insurance and Real Estate	7.7%
Information (Excluding High-Tech)	6.2%
Government	6.2%
Management of Companies and Enterprises	5.9%
Transportation, Warehousing, and Wholesale	5.3%
Manufacturing (Excluding High-Tech)	4.7%
Education	4.8%
Health Care	2.7%

Source: U.S. Bureau of Labor Statistics (National), April 2016.

# // where are the top-ranked tech-talent markets?

**TABLE 2**  
**TECH TALENT SCORECARD RANKING**

Rank	Market	Score	Rank	Market	Score
1	Bay Area, CA	84.62	26	Salt Lake City, UT	45.65
2	Washington, D.C.	67.24	27	Tampa, FL	45.53
3	Seattle, WA	65.83	28	Kansas City, MO	45.48
4	New York, NY	65.00	29	Pittsburgh, PA	43.82
5	Austin, TX	60.99	30	Houston, TX	43.60
6	Dallas/Ft. Worth, TX	59.95	31	Madison, WI	37.94
7	Boston, MA	59.42	32	Indianapolis, IN	37.85
8	Raleigh-Durham, NC	58.85	33	Long Island, NY	37.01
9	Atlanta, GA	58.71	34	Orlando, FL	36.57
10	Baltimore, MD	58.19	35	Sacramento, CA	35.76
11	Phoenix, AZ	58.00	36	St. Louis, MO	34.31
12	Toronto, ON	55.89	37	Milwaukee, WI	33.44
13	Chicago, IL	55.31	38	Rochester, NY	33.06
14	Orange County, CA	54.09	39	Hartford, CT	32.96
15	Minneapolis, MN	53.15	40	Cleveland, OH	32.23
16	San Diego, CA	53.14	41	Cincinnati, OH	31.91
17	Detroit, MI	52.76	42	Nashville, TN	29.81
18	Denver, CO	51.68	43	Virginia Beach, VA	29.57
19	Newark, NJ	50.94	44	Omaha, NE	29.31
20	Vancouver, BC	50.90	45	San Antonio, TX	27.40
21	Philadelphia, PA	50.70	46	Fort Lauderdale, FL	26.71
22	Los Angeles, CA	48.52	47	Jacksonville, FL	24.75
23	Columbus, OH	46.73	48	Richmond, VA	23.44
24	Charlotte, NC	46.19	49	Miami, FL	22.61
25	Portland, OR	45.72	50	Oklahoma City, OK	20.49

Source: CBRE Research; CBRE Econometric Advisors; U.S. Bureau of Labor Statistics; Statistics Canada; CMHC; Moody's Analytics; The National Center of Education Statistics; National Science Foundation; Axiometrics.



# // how to find tech-talent momentum markets?

**TABLE 3  
TECH TALENT LABOR CONCENTRATION**

<b>Market</b>	<b>Tech Talent Jobs as % of Total Jobs</b>	<b>Market</b>	<b>Tech Talent Jobs as % of Total Jobs</b>
Bay Area, CA	10.3%	Hartford, CT	4.1%
Seattle, WA	8.6%	Omaha, NE	4.1%
Washington, D.C.	8.1%	Detroit, MI	4.0%
Austin, TX	7.8%	Philadelphia, PA	4.0%
Toronto, ON	6.9%	Virginia Beach, VA	3.9%
Raleigh-Durham, NC	6.5%	Chicago, IL	3.8%
Boston, MA	6.3%	St. Louis, MO	3.8%
Vancouver, BC	5.4%	Milwaukee, WI	3.7%
Denver, CO	5.4%	New York, NY	3.7%
Baltimore, MD	5.4%	Richmond, VA	3.7%
Atlanta, GA	5.0%	Tampa, FL	3.6%
San Diego, CA	5.0%	Houston, TX	3.5%
Madison, WI	5.0%	Cincinnati, OH	3.5%
Minneapolis, MN	4.9%	Pittsburgh, PA	3.4%
Dallas/Ft. Worth, TX	4.9%	Indianapolis, IN	3.3%
Kansas City, MO	4.7%	San Antonio, TX	3.2%
Phoenix, AZ	4.6%	Cleveland, OH	3.1%
Columbus, OH	4.5%	Oklahoma City, OK	3.1%
Newark, NJ	4.4%	Orlando, FL	3.0%
Portland, OR	4.3%	Nashville, TN	2.9%
Charlotte, NC	4.2%	Jacksonville, FL	2.9%
Salt Lake City, UT	4.2%	Los Angeles, CA	2.9%
Orange County, CA	4.2%	Fort Lauderdale, FL	2.5%
Sacramento, CA	4.1%	Long Island, NY	2.4%
Rochester, NY	4.1%	Miami, FL	2.1%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016.

**TABLE 4**  
**TECH TALENT LABOR POOLS**  
**BY MARKET (2015)**

Labor Pool Size	Geography	Tech Talent Total
Large Tech Talent Markets (> 50,000 Labor Pool)	Bay Area, CA	316,530
	Washington, D.C.	241,230
	New York, NY	240,810
	Toronto, ON	179,200
	Dallas/Ft. Worth, TX	162,060
	Chicago, IL	136,340
	Seattle, WA	131,660
	Atlanta, GA	124,820
	Los Angeles, CA	119,400
	Boston, MA	111,290
	Houston, TX	102,450
	Minneapolis, MN	92,530
	Phoenix, AZ	86,040
	Detroit, MI	76,050
	Philadelphia, PA	75,150
	Denver, CO	73,800
	Austin, TX	72,030
	Baltimore, MD	70,340
	San Diego, CA	67,590
	Orange County, CA	63,290
Vancouver, BC	57,500	
Raleigh-Durham, NC	55,790	
Newark, NJ	51,020	
St. Louis, MO	50,130	
Small Tech Talent Markets (< 50,000 Labor Pool)	Kansas City, MO	48,510
	Charlotte, NC	47,300
	Portland, OR	47,240
	Columbus, OH	45,630
	Tampa, FL	43,710
	Pittsburgh, PA	38,930
	Sacramento, CA	36,270
	Cincinnati, OH	35,660
	Orlando, FL	33,340
	Indianapolis, IN	32,470
	Cleveland, OH	31,700
	Milwaukee, WI	31,130
	Long Island, NY	30,450
	San Antonio, TX	30,390
	Virginia Beach, VA	28,610
	Salt Lake City, UT	27,410
	Nashville, TN	25,860
	Hartford, CT	23,620
	Miami, FL	22,760
	Richmond, VA	22,720
Rochester, NY	21,010	
Fort Lauderdale, FL	19,770	
Omaha, NE	19,370	
Oklahoma City, OK	18,900	
Madison, WI	18,640	
Jacksonville, FL	18,140	

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016;  
Statistics Canada (Metro Area), 2016.

**TABLE 5**  
**TECH LABOR POOL**  
**GROWTH RATES (2010-2015)**

Labor Pool Size	Geography	% Change	by Volume
Large Tech Talent Markets (> 50,000 Labor Pool)	Bay Area, CA	61.5%	120,550
	Baltimore, MD	61.4%	26,760
	Phoenix, AZ	58.1%	31,620
	Austin, TX	51.8%	24,590
	Seattle, WA	50.2%	44,010
	Vancouver, BC	50.1%	19,200
	Detroit, MI	49.2%	25,080
	Houston, TX	47.4%	32,960
	San Diego, CA	47.2%	21,670
	Atlanta, GA	46.7%	39,710
	Raleigh-Durham, NC	39.1%	15,670
	Dallas/Ft. Worth, TX	38.0%	44,620
	Orange County, CA	37.3%	17,190
	Toronto, ON	35.6%	47,000
	Chicago, IL	34.9%	35,290
	Minneapolis, MN	34.8%	23,880
	New York, NY	29.1%	54,328
	Denver, CO	29.1%	16,620
	Philadelphia, PA	27.0%	15,970
	Washington, D.C.	24.0%	46,680
Los Angeles, CA	20.9%	20,660	
Boston, MA	12.9%	12,680	
St. Louis, MO	12.0%	5,360	
Newark, NJ	8.8%	4,143	
Small Tech Talent Markets (< 50,000 Labor Pool)	Charlotte, NC	74.7%	20,220
	Nashville, TN	67.9%	10,460
	Oklahoma City, OK	59.0%	7,010
	Tampa, FL	50.9%	14,740
	Portland, OR	45.1%	14,680
	San Antonio, TX	42.7%	9,100
	Indianapolis, IN	41.9%	9,590
	Kansas City, MO	41.6%	14,260
	Virginia Beach, VA	38.8%	8,000
	Miami, FL	38.3%	6,300
	Madison, WI	37.4%	5,070
	Cleveland, OH	35.1%	8,230
	Orlando, FL	31.8%	8,050
	Salt Lake City, UT	30.3%	6,370
	Cincinnati, OH	29.9%	8,210
	Omaha, NE	29.4%	4,400
	Pittsburgh, PA	27.8%	8,460
	Long Island, NY	26.4%	6,360
	Rochester, NY	23.0%	3,930
	Fort Lauderdale, FL	22.3%	3,600
Columbus, OH	20.8%	7,870	
Milwaukee, WI	20.6%	5,310	
Jacksonville, FL	19.4%	2,950	
Richmond, VA	16.9%	3,280	
Sacramento, CA	16.5%	5,140	
Hartford, CT	15.5%	3,170	

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016;  
Statistics Canada (Metro Area), 2016.

# what do tech-talent markets look like?

**TABLE 6**  
**TOP 10 MARKETS FOR**  
**EDUCATIONAL**  
**ATTAINMENT**  
**25+ Years Old,**  
**Bachelor's Degree or Higher**

<b>Geography</b>	<b>Educational Attainment Rate</b>
Seattle, WA	58.9%
Washington, D.C.	55.0%
Atlanta, GA	48.9%
Bay Area, CA	48.7%
Minneapolis, MN	48.1%
Raleigh-Durham, NC	48.0%
Austin, TX	47.6%
Boston, MA	46.5%
Portland, OR	46.1%
Madison, WI	44.7%

Source: U.S. Census Bureau (City/County), 2014.

Note: Tech Degree Fields include Computer Engineering and Information Sciences; Mathematics and Statistics; Electrical and Electronics Engineering; Mechanical and Industrial Engineering; Other Engineering. ►

**TABLE 7**  
**TOP 10 REGIONS FOR TECH**  
**DEGREE COMPLETIONS**  
**(2014)**

<b>Market</b>	<b>Tech Degree Completions (2014)</b>	<b>Growth (2010-2014)</b>
New York Metro Area	15,032	68.1%
Long Island, NY		
New York, NY		
Newark, NJ		
Washington, D.C. Metro Area	14,775	87.6%
Washington, D.C.		
Baltimore, MD		
Los Angeles Metro Area	12,679	84.6%
Los Angeles, CA		
Orange County, CA		
Chicago Metro Area	10,454	89.2%
Chicago, IL		
Milwaukee, WI		
Phoenix Metro Area	8,954	51.7%
Boston Metro Area	7,410	83.3%
Bay Area Metro Area	7,280	71.0%
Silicon Valley, CA		
San Francisco, CA		
San Francisco Peninsula, CA		
Oakland, CA		
Atlanta Metro Area	6,198	74.1%
Columbus Metro Area	5,190	66.6%
Columbus, OH		
Cincinnati, OH		
Cleveland, OH		
Detroit Metro Area	5,025	50.9%

Source: The National Center for Education Statistics (Region), July 2015.



**TABLE 8**  
**WHERE ARE TECH TALENT WORKERS COMING**  
**FROM AND WHERE ARE THEY HEADED?**

<b>Market</b>	<b>Tech Degrees (2010-2014)*</b>	<b>Tech Jobs Added (2011-2015)*</b>	<b>Brain Gain/Drain</b>
SF Bay Area, CA <sup>1</sup>	30,957	120,550	89,593
Dallas/Ft. Worth, TX	19,129	44,620	25,491
Seattle, WA	19,297	44,010	24,713
Houston, TX	12,063	32,960	20,897
Austin, TX	9,758	24,590	14,832
Charlotte, NC	6,538	20,220	13,682
Washington, D.C. <sup>2</sup>	59,980	73,440	13,460
Atlanta, GA	26,285	39,710	13,425
Minneapolis, MN	14,359	23,880	9,521
Portland, OR	5,592	14,680	9,088
Tampa, FL	7,082	14,740	7,658
Nashville, TN	3,694	10,460	6,766
Kansas City, MO	7,525	14,260	6,735
San Diego, CA	15,665	21,670	6,005
Oklahoma City, OK	3,526	7,010	3,484
Columbus, OH <sup>3</sup>	20,995	24,310	3,315
Rochester, NY	842	3,930	3,088
San Antonio, TX	6,035	9,100	3,065
Omaha, NE	1,584	4,400	2,816
Detroit, MI	22,771	25,080	2,309
Denver, CO	14,509	16,620	2,111
New York, NY <sup>4</sup>	63,456	64,831	1,375
Raleigh-Durham, NC	14,347	15,670	1,323
St. Louis, MO	4,352	5,360	1,008
Jacksonville, FL	2,665	2,950	285
Hartford, CT	2,943	3,170	227
Richmond, VA	3,836	3,280	-556
Indianapolis, IN	10,316	9,590	-726
Chicago, IL <sup>5</sup>	41,928	40,600	-1,328
Virginia Beach, VA	9,503	8,000	-1,503
Madison, WI	6,686	5,070	-1,616
Salt Lake City, UT	8,490	6,370	-2,120
Sacramento, CA	9,165	5,140	-4,025
Philadelphia, PA	20,416	15,970	-4,446
Orlando, FL	12,565	8,050	-4,515
Miami, FL <sup>6</sup>	15,000	9,900	-5,100
Pittsburgh, PA	18,421	8,460	-9,961
Los Angeles, CA <sup>7</sup>	49,006	37,850	-11,156
Phoenix, AZ	44,058	31,620	-12,438
Boston, MA	29,905	12,680	-17,225

\* Tech degrees cover the most recent five-year period available (2010-2014) and tech jobs added cover the time period reflecting when most graduates would be counted in employment figures (2011-2015).

<sup>1</sup> Includes San Francisco, Oakland and Silicon Valley;

<sup>2</sup> Includes Baltimore;

<sup>3</sup> Includes Cleveland and Cincinnati;

<sup>4</sup> Includes Newark and Long Island;

<sup>5</sup> Includes Milwaukee;

<sup>6</sup> Includes Fort Lauderdale;

<sup>7</sup> Includes Orange County.

Source: CBRE Research, U.S. Bureau of Labor Statistics (Region) April 2016,  
The National Center for Educational Statistics (Region July, 2015).

**TABLE 9**  
**TOP 10 MOST CONCENTRATED**  
**MILLENNIAL MARKETS\* (2014)**

Geography	Population Concentration of Millennials
UNITED STATES	14.2%
Madison, WI	25.5%
Pittsburgh, PA	24.9%
Boston, MA	24.8%
Salt Lake City, UT	24.2%
Minneapolis, MN	21.8%
Richmond, VA	21.6%
Columbus, OH	20.8%
Atlanta, GA	20.6%
Washington, D.C.	20.5%
Austin, TX	20.2%

\*Millennials ages 20-29 Years.  
Source: U.S. Census Bureau (City/County), 2016.

**TABLE 11**  
**TOP AND BOTTOM 10 MARKETS**  
**BY GENDER DIVERSITY IN TECH**  
**OCCUPATIONS (2014)**

Geography	% Male	% Female
Washington, D.C. ▼ TOP 10 (most diverse)	69.30	30.70
Richmond, VA	69.60	30.40
Sacramento, CA	69.80	30.20
Baltimore, MD	70.20	29.80
Jacksonville, FL	70.90	29.10
Atlanta, GA	71.10	28.90
Indianapolis, IN	71.20	28.80
Nashville, TN	71.40	28.60
Madison, WI	71.60	28.40
Philadelphia, PA	71.60	28.40
Salt Lake City, UT ▼ BOTTOM 10 (least diverse)	79.40	20.60
Detroit, MI	78.42	21.58
Seattle, WA	78.20	21.80
Portland, OR	78.00	22.00
Houston, TX	77.80	22.20
Miami, FL	77.60	22.40
Fort Lauderdale, FL	77.60	22.40
San Antonio, TX	77.40	22.60
Rochester, NY	77.40	22.60
Dallas/Ft. Worth, TX	77.00	23.00

Source: U.S. Census Bureau (Metro Area), 2014.

**TABLE 10**  
**MILLENNIAL POPULATION**  
**CHANGE BY MARKET\***  
**(2009-2014)**

U.S. Average = 3.1%

Labor Pool Size	Geography	% Change
Large Tech Talent Markets (>50,000 Labor Pool)	Washington, D.C.	25.8%
	SF Bay Area, CA	14.3%
	San Diego, CA	13.9%
	Seattle, WA	11.7%
	Philadelphia, PA	11.0%
	Newark, NJ	9.6%
	Los Angeles, CA	9.4%
	Raleigh-Durham, NC	9.4%
	New York, NY	9.0%
	Detroit, MI	8.7%
	Boston, MA	8.7%
	Austin, TX	7.5%
	Toronto, ON	7.3%
	Minneapolis, MN	7.1%
	Orange County, CA	6.1%
	Denver, CO	5.2%
	Vancouver, BC	4.9%
	Houston, TX	3.7%
	Baltimore, MD	0.5%
	Dallas/Ft. Worth, TX	-3.4%
St. Louis, MO	-3.5%	
Chicago, IL	-5.0%	
Phoenix, AZ	-6.6%	
Atlanta, GA	-10.0%	
Small Tech Talent Markets (<50,000 Labor Pool)	Salt Lake City, UT	23.7%
	Richmond, VA	16.8%
	Charlotte, NC	15.0%
	Pittsburgh, PA	14.0%
	Columbus, OH	10.8%
	Tampa, FL	9.8%
	San Antonio, TX	7.8%
	Long Island, NY	7.3%
	Nashville, TN	5.2%
	Rochester, NY	5.0%
	Jacksonville, FL	4.9%
	Oklahoma City, OK	3.9%
	Indianapolis, IN	3.5%
	Portland, OR	2.3%
	Virginia Beach, VA	1.6%
	Hartford, CT	1.6%
Milwaukee, WI	1.3%	
Orlando, FL	1.1%	
Sacramento, CA	-1.4%	
Kansas City, MO	-5.3%	
Omaha, NE	-5.4%	
Madison, WI	-7.0%	
Miami, FL	-7.1%	
Cleveland, OH	-8.5%	
Cincinnati, OH	-9.5%	
Fort Lauderdale, FL	-13.1%	

\*Millennials ages 20-29 Years.

Source: U.S. Census Bureau (City/County), 2014,  
Enviroics Analytics (Cities of Toronto and Vancouver), 2015.

**TABLE 12**  
**TECH TALENT LABOR CONCENTRATION**  
**BY INDUSTRY (2015)**  
**Tech Occupations as a % of All Occupations in Each Industry**

<b>Industry</b>	<b>Tech-Talent as % of Total Industry Occupations</b>
Core High-Tech*	49.9%
Information (Excluding High-Tech)	13.9%
Management of Companies and Enterprises	12.4%
Professional, Scientific, and Technical Services (Excluding High-Tech)	7.6%
Finance, Insurance and Real Estate	4.8%
Total U.S. Employment	3.5%
Government	3.1%
Transportation, Warehousing, and Wholesale	2.2%
Manufacturing (Excluding High-Tech)	2.0%
Education	1.8%
Other	0.8%
Healthcare	0.7%

\*Includes computer software and services and computer product manufacturing.  
Source: U.S. Bureau of Labor Statistics (National), April 2016.



# tech talent has unique concentrations across markets

**TABLE 13**  
**TECH TALENT BY TYPE: SOFTWARE DEVELOPERS AND PROGRAMMERS**  
 Ranked by % of Tech Talent

Market	Software Developers & Programmers	% of Tech Talent	Market	Software Developers & Programmers	% of Tech Talent
Seattle, WA	72,170	55%	Washington, D.C.	75,800	31%
Bay Area, CA	143,090	45%	Richmond, VA	7,110	31%
New York, NY	96,750	40%	Orlando, FL	10,320	31%
Boston, MA	44,670	40%	Kansas City, MO	14,980	31%
Portland, OR	18,480	39%	Columbus, OH	14,050	31%
Salt Lake City, UT	10,590	39%	Indianapolis, IN	9,990	31%
Orange County, CA	23,920	38%	Minneapolis, MN	28,350	31%
Omaha, NE	7,130	37%	Dallas/Ft. Worth, TX	49,190	30%
Vancouver, BC	20,900	36%	Pittsburgh, PA	11,790	30%
Sacramento, CA	13,130	36%	Detroit, MI	22,820	30%
Raleigh-Durham, NC	19,910	36%	Phoenix, AZ	25,780	30%
Denver, CO	26,270	36%	Rochester, NY	6,280	30%
Newark, NJ	18,160	36%	San Antonio, TX	8,950	29%
Austin, TX	24,890	35%	Toronto, ON	52,500	29%
Philadelphia, PA	25,660	34%	Long Island, NY	8,900	29%
Jacksonville, FL	6,190	34%	Miami, FL	6,580	29%
San Diego, CA	23,040	34%	St. Louis, MO	14,260	28%
Atlanta, GA	42,380	34%	Baltimore, MD	19,380	28%
Hartford, CT	7,990	34%	Milwaukee, WI	8,520	27%
Charlotte, NC	15,750	33%	Oklahoma City, OK	5,170	27%
Fort Lauderdale, FL	6,490	33%	Cincinnati, OH	9,470	27%
Los Angeles, CA	38,720	32%	Houston, TX	26,990	26%
Chicago, IL	44,100	32%	Virginia Beach, VA	7,490	26%
Tampa, FL	14,070	32%	Nashville, TN	6,440	25%
Cleveland, OH	10,190	32%	Madison, WI	4,470	24%

Note: Software developers include: computer programmers; software application developers, software systems software developers, and web developers.  
 Source: U.S. Bureau of Labor Statistics, April 2016.

**TABLE 14**  
**TECH TALENT BY TYPE: COMPUTER, SUPPORT DATABASE & SYSTEMS**  
**Ranked by % of Tech Talent**

<b>Market</b>	<b>Computer, Support Database &amp; Systems</b>	<b>% of Tech Talent</b>	<b>Market</b>	<b>Computer, Support Database &amp; Systems</b>	<b>% of Tech Talent</b>
Madison, WI	11,470	62%	Charlotte, NC	23,710	50%
San Antonio, TX	18,000	59%	Phoenix, AZ	43,070	50%
Cincinnati, OH	20,670	58%	Virginia Beach, VA	14,320	50%
Columbus, OH	25,690	56%	Atlanta, GA	61,860	50%
Miami, FL	12,760	56%	Denver, CO	35,620	48%
St. Louis, MO	27,780	55%	Detroit, MI	36,600	48%
Tampa, FL	24,070	55%	Rochester, NY	10,030	48%
Washington, D.C.	131,980	55%	Oklahoma City, OK	9,010	48%
Fort Lauderdale, FL	10,750	54%	Sacramento, CA	17,260	48%
Richmond, VA	12,280	54%	Long Island, NY	14,400	47%
Indianapolis, IN	17,350	53%	Salt Lake City, UT	12,920	47%
Dallas/Ft. Worth, TX	86,400	53%	Hartford, CT	10,970	46%
Houston, TX	54,590	53%	Austin, TX	33,280	46%
Nashville, TN	13,760	53%	Los Angeles, CA	54,690	46%
Jacksonville, FL	9,630	53%	Raleigh-Durham, NC	25,250	45%
Orlando, FL	17,690	53%	Toronto, ON	81,000	45%
Baltimore, MD	37,210	53%	Newark, NJ	22,870	45%
Chicago, IL	71,660	53%	New York, NY	107,790	45%
Cleveland, OH	16,660	53%	Portland, OR	20,890	44%
Kansas City, MO	25,370	52%	Orange County, CA	24,030	38%
Minneapolis, MN	48,150	52%	Boston, MA	41,640	37%
Milwaukee, WI	16,180	52%	Vancouver, BC	21,100	37%
Pittsburgh, PA	20,200	52%	San Diego, CA	24,550	36%
Omaha, NE	9,940	51%	Bay Area, CA	100,630	32%
Philadelphia, PA	38,200	51%	Seattle, WA	41,580	32%

Note: Software developers include: computer programmers; software application developers, software systems software developers, and web developers.  
 Source: U.S. Bureau of Labor Statistics, April 2016.

**TABLE 15**  
**TECH TALENT BY TYPE: COMPUTER & INFORMATION SYSTEMS MANAGERS**  
**Ranked by % of Tech Talent**

<b>Market</b>	<b>Computer &amp; Information Systems Mgrs</b>	<b>% of Tech Talent</b>	<b>Market</b>	<b>Computer &amp; Information Systems Mgrs</b>	<b>% of Tech Talent</b>
Hartford, CT	2,970	13%	Richmond, VA	1,620	7%
Nashville, TN	3,250	13%	Washington, D.C.	17,160	7%
Newark, NJ	5,460	11%	Pittsburgh, PA	2,660	7%
Boston, MA	11,140	10%	Salt Lake City, UT	1,870	7%
New York, NY	23,690	10%	Madison, WI	1,270	7%
Toronto, ON	17,200	10%	Phoenix, AZ	5,800	7%
Charlotte, NC	4,510	10%	Rochester, NY	1,400	7%
Vancouver, BC	5,400	9%	St. Louis, MO	3,210	6%
Minneapolis, MN	8,520	9%	San Diego, CA	4,260	6%
Long Island, NY	2,660	9%	Detroit, MI	4,730	6%
Cleveland, OH	2,720	9%	Miami, FL	1,400	6%
Oklahoma City, OK	1,570	8%	Fort Lauderdale, FL	1,210	6%
Raleigh-Durham, NC	4,570	8%	Seattle, WA	8,040	6%
Cincinnati, OH	2,900	8%	Denver, CO	4,470	6%
Milwaukee, WI	2,530	8%	Baltimore, MD	4,240	6%
Indianapolis, IN	2,550	8%	Sacramento, CA	2,130	6%
Atlanta, GA	9,750	8%	Houston, TX	5,930	6%
Bay Area, CA	24,550	8%	Omaha, NE	1,090	6%
Columbus, OH	3,510	8%	Virginia Beach, VA	1,560	5%
Portland, OR	3,570	8%	Tampa, FL	2,230	5%
Chicago, IL	10,300	8%	Jacksonville, FL	910	5%
Philadelphia, PA	5,580	7%	Dallas/Ft. Worth, TX	7,840	5%
Orange County, CA	4,690	7%	Orlando, FL	1,510	5%
Los Angeles, CA	8,800	7%	Austin, TX	3,090	4%
Kansas City, MO	3,500	7%	San Antonio, TX	1,220	4%

Note: Software developers include: computer programmers; software application developers, software systems software developers, and web developers.  
 Source: U.S. Bureau of Labor Statistics, April 2016.



**TABLE 16**  
**TECH TALENT BY TYPE: TECHNOLOGY ENGINEERING-RELATED**  
**Ranked by % of Tech Talent**

<b>Market</b>	<b>Technology Engineering Related</b>	<b>% of Tech Talent</b>	<b>Market</b>	<b>Technology Engineering Related</b>	<b>% of Tech Talent</b>
San Diego, CA	15,740	23%	Nashville, TN	2,410	9%
Virginia Beach, VA	5,240	18%	Portland, OR	4,300	9%
Vancouver, BC	10,100	18%	Newark, NJ	4,530	9%
Orange County, CA	10,650	17%	Miami, FL	2,020	9%
Oklahoma City, OK	3,150	17%	Atlanta, GA	10,830	9%
Toronto, ON	28,500	16%	Minneapolis, MN	7,510	8%
Rochester, NY	3,300	16%	Indianapolis, IN	2,580	8%
Detroit, MI	11,900	16%	Jacksonville, FL	1,410	8%
Bay Area, CA	48,260	15%	Madison, WI	1,430	8%
Austin, TX	10,770	15%	Tampa, FL	3,340	8%
Long Island, NY	4,490	15%	Philadelphia, PA	5,710	8%
Houston, TX	14,940	15%	Chicago, IL	10,280	8%
Los Angeles, CA	17,190	14%	Richmond, VA	1,710	8%
Baltimore, MD	9,510	14%	Seattle, WA	9,870	7%
Phoenix, AZ	11,390	13%	Salt Lake City, UT	2,030	7%
Milwaukee, WI	3,900	13%	Cincinnati, OH	2,620	7%
Boston, MA	13,840	12%	San Antonio, TX	2,220	7%
Dallas/Ft. Worth, TX	18,630	11%	Hartford, CT	1,690	7%
Orlando, FL	3,820	11%	Charlotte, NC	3,330	7%
Pittsburgh, PA	4,280	11%	Washington, D.C.	16,290	7%
Raleigh-Durham, NC	6,060	11%	Cleveland, OH	2,130	7%
Sacramento, CA	3,750	10%	Fort Lauderdale, FL	1,320	7%
Denver, CO	7,440	10%	Omaha, NE	1,210	6%
St. Louis, MO	4,880	10%	New York, NY	12,580	5%
Kansas City, MO	4,660	10%	Columbus, OH	2,380	5%

Note: Software developers include: computer programmers; software application developers, software systems software developers, and web developers.  
 Source: U.S. Bureau of Labor Statistics, April 2016.

# what are the highest- and lowest-cost markets to operate in?

**TABLE 17  
TECH TALENT WAGES BY MARKET (2015)**

Market	Average Tech Talent Wage	Wage Relative to U.S. Average	Talent Wage 5 yr. Growth	Market	Average Tech Talent Wage	Wage Relative to U.S. Average	Talent Wage 5 yr. Growth
Bay Area, CA	\$123,921	137%	17%	Phoenix, AZ	\$86,622	96%	11%
Seattle, WA	\$110,999	123%	20%	St. Louis, MO	\$85,780	95%	13%
New York, NY	\$106,775	118%	17%	Columbus, OH	\$83,848	93%	9%
Washington, D.C.	\$105,608	117%	11%	Virginia Beach, VA	\$82,427	91%	14%
Newark, NJ	\$104,107	115%	7%	Kansas City, MO	\$81,858	91%	11%
Boston, MA	\$102,905	114%	9%	Cincinnati, OH	\$81,470	90%	11%
San Diego, CA	\$98,990	109%	17%	Detroit, MI	\$80,723	89%	3%
Baltimore, MD	\$98,932	109%	17%	Jacksonville, FL	\$80,049	89%	20%
Orange County, CA	\$97,335	108%	13%	Milwaukee, WI	\$79,801	88%	9%
Denver, CO	\$96,431	107%	15%	Salt Lake City, UT	\$79,191	88%	13%
Los Angeles, CA	\$96,268	106%	11%	Cleveland, OH	\$78,631	87%	12%
Houston, TX	\$93,765	104%	16%	Omaha, NE	\$78,579	87%	9%
Hartford, CT	\$93,273	103%	14%	Orlando, FL	\$78,487	87%	12%
Raleigh-Durham, NC	\$92,392	102%	13%	San Antonio, TX	\$78,060	86%	9%
Long Island, NY	\$92,176	102%	14%	Tampa, FL	\$77,582	86%	6%
Charlotte, NC	\$91,671	101%	8%	Miami, FL	\$77,446	86%	8%
Dallas/Ft. Worth, TX	\$90,385	100%	5%	Rochester, NY	\$77,055	85%	8%
Austin, TX	\$89,692	99%	7%	Pittsburgh, PA	\$77,045	85%	11%
Minneapolis, MN	\$89,262	99%	9%	Fort Lauderdale, FL	\$76,887	85%	11%
Portland, OR	\$88,986	98%	9%	Nashville, TN	\$76,872	85%	16%
Philadelphia, PA	\$88,789	98%	4%	Indianapolis, IN	\$76,185	84%	9%
Sacramento, CA	\$88,147	97%	4%	Madison, WI	\$74,483	82%	6%
Atlanta, GA	\$87,716	97%	8%	Oklahoma City, OK	\$71,136	79%	8%
Richmond, VA	\$87,492	97%	11%	Toronto, ON	\$63,789	71%	13%
Chicago, IL	\$87,471	97%	8%	Vancouver, BC	\$61,275	68%	7%

Source: U.S. Bureau of Labor Statistics (Metro Area), April 2016, Statistics Canada (Metro Area), May 2016.

**TABLE 18**  
**TYPICAL U.S. TECH COMPANY OCCUPATION POOLS**  
**500 Employees**

<b>Occupation Pools</b>	<b>Employees</b>	<b>% of Total Labor</b>
Tech Talent Employees*	250	50%
Support Non-Tech Employees (excluding Management)	213	43%
Management	37	7%

\* Tech talent includes the following occupation categories: software developers and programmers; computer support, database and systems; technology and engineering-related; and computer and information system managers.  
 Source: U.S. Bureau of Labor Statistics (National), April 2016.



**TABLE 19**

**ESTIMATED 1 YEAR COSTS BY MARKET:  
WAGE AND RENT OBLIGATION FOR TYPICAL TECH FIRM**

Typical Tech Firm Estimates: 500 Employees, 75,000 Sq. Ft.

<b>Geography</b>	<b>Rent Cost (Avg Rent x 75,000 SF)</b>	<b>Tech Talent Wages (Avg. Wage x 250 People)</b>	<b>Support Non-Tech Wages (Avg. Wage x 213 People)</b>	<b>Management Wages (Avg. Wage x 37 People)</b>	<b>Total Estimated Cost</b>
SF Bay Area, CA	\$4,469,304	\$30,980,268	\$15,271,388	\$5,639,081	<b>\$56,360,040</b>
New York, NY	\$5,651,250	\$26,539,958	\$11,890,270	\$5,800,490	<b>\$49,881,968</b>
Washington, D.C.	\$2,737,500	\$26,402,035	\$13,916,579	\$5,115,265	<b>\$48,171,378</b>
Boston, MA	\$2,704,500	\$25,726,155	\$14,492,366	\$5,005,360	<b>\$47,928,381</b>
Seattle, WA	\$2,303,983	\$27,749,778	\$12,269,474	\$4,812,960	<b>\$47,136,195</b>
Newark, NJ	\$1,952,250	\$25,793,188	\$11,309,917	\$5,577,380	<b>\$44,632,735</b>
Orange County, CA	\$2,214,000	\$24,333,627	\$11,897,484	\$4,720,460	<b>\$43,165,571</b>
Denver, CO	\$1,882,500	\$24,107,637	\$12,188,501	\$4,877,340	<b>\$43,055,978</b>
Los Angeles, CA	\$2,698,500	\$24,066,933	\$11,409,893	\$4,602,800	<b>\$42,778,126</b>
Houston, TX	\$2,118,000	\$23,441,294	\$12,207,674	\$4,990,930	<b>\$42,757,898</b>
San Diego, CA	\$2,416,500	\$24,747,413	\$10,954,062	\$4,529,170	<b>\$42,647,145</b>
Baltimore, MD	\$1,681,500	\$24,732,948	\$11,519,076	\$4,515,850	<b>\$42,449,374</b>
Long Island, NY	\$1,938,000	\$23,043,945	\$11,806,272	\$5,219,960	<b>\$42,008,177</b>
Hartford, CT	\$1,497,750	\$23,318,150	\$11,743,193	\$4,575,790	<b>\$41,134,883</b>
Dallas/Ft. Worth, TX	\$1,716,750	\$22,596,315	\$11,964,713	\$4,703,765	<b>\$40,981,543</b>
Philadelphia, PA	\$1,970,250	\$22,197,303	\$11,927,236	\$4,856,250	<b>\$40,951,040</b>
Austin, TX	\$2,448,750	\$22,423,056	\$11,595,667	\$4,395,600	<b>\$40,863,073</b>
Minneapolis, MN	\$1,960,500	\$22,315,407	\$11,653,074	\$4,480,330	<b>\$40,409,312</b>
Raleigh-Durham, NC	\$1,796,250	\$23,097,998	\$10,767,533	\$4,636,911	<b>\$40,298,692</b>
Charlotte, NC	\$1,730,250	\$22,917,667	\$10,868,422	\$4,672,730	<b>\$40,189,069</b>
Chicago, IL	\$2,180,250	\$21,867,856	\$11,443,681	\$4,273,500	<b>\$39,765,287</b>
Atlanta, GA	\$1,683,750	\$21,928,980	\$11,122,121	\$4,445,550	<b>\$39,180,402</b>
Richmond, VA	\$1,500,930	\$21,873,044	\$11,237,963	\$4,439,630	<b>\$39,051,566</b>
Portland, OR	\$1,880,250	\$22,246,553	\$10,671,695	\$4,017,090	<b>\$38,815,589</b>
Sacramento, CA	\$1,584,000	\$22,036,822	\$10,818,286	\$4,065,190	<b>\$38,504,299</b>
Phoenix, AZ	\$1,746,750	\$21,655,417	\$10,116,099	\$3,968,250	<b>\$37,486,516</b>
St. Louis, MO	\$1,389,000	\$21,445,053	\$10,406,660	\$4,114,030	<b>\$37,354,744</b>
Milwaukee, WI	\$1,343,250	\$19,950,354	\$11,757,193	\$4,202,830	<b>\$37,253,627</b>
Columbus, OH	\$1,410,750	\$20,961,941	\$10,595,811	\$4,082,580	<b>\$37,051,082</b>
Detroit, MI	\$1,315,500	\$20,180,803	\$11,231,271	\$4,280,340	<b>\$37,007,914</b>
Miami, FL	\$2,490,750	\$19,361,483	\$10,122,212	\$4,600,950	<b>\$36,575,395</b>
Virginia Beach, VA	\$1,399,500	\$20,606,691	\$10,331,554	\$4,182,850	<b>\$36,520,595</b>
Cincinnati, OH	\$1,401,750	\$20,367,423	\$10,595,194	\$4,056,680	<b>\$36,421,047</b>
Kansas City, MO	\$1,325,250	\$20,464,454	\$10,341,379	\$4,055,570	<b>\$36,186,652</b>
Fort Lauderdale, FL	\$2,242,500	\$19,221,765	\$10,060,623	\$4,559,880	<b>\$36,084,769</b>
Cleveland, OH	\$1,322,250	\$19,657,734	\$11,025,140	\$3,975,280	<b>\$35,980,404</b>
San Antonio, TX	\$1,585,500	\$19,515,028	\$10,520,535	\$4,143,630	<b>\$35,764,693</b>
Pittsburgh, PA	\$1,617,000	\$19,261,312	\$10,467,968	\$4,380,800	<b>\$35,727,080</b>
Madison, WI	\$1,425,000	\$18,620,703	\$11,650,524	\$3,846,150	<b>\$35,542,377</b>
Rochester, NY	\$1,387,500	\$19,263,684	\$10,338,706	\$4,180,260	<b>\$35,170,150</b>
Salt Lake City, UT	\$1,668,750	\$19,797,667	\$9,765,268	\$3,784,730	<b>\$35,016,414</b>
Indianapolis, IN	\$1,346,250	\$19,046,370	\$10,734,061	\$3,706,290	<b>\$34,832,971</b>
Jacksonville, FL	\$1,382,250	\$20,012,157	\$9,113,854	\$4,311,610	<b>\$34,819,871</b>
Tampa, FL	\$1,576,500	\$19,395,595	\$9,310,772	\$4,360,080	<b>\$34,642,946</b>
Orlando, FL	\$1,508,250	\$19,621,739	\$9,302,840	\$4,150,290	<b>\$34,583,119</b>
Nashville, TN	\$1,692,750	\$19,217,966	\$10,019,681	\$3,606,020	<b>\$34,536,417</b>
Omaha, NE	\$1,375,500	\$19,644,695	\$9,181,031	\$3,962,330	<b>\$34,163,557</b>
Oklahoma City, OK	\$1,270,500	\$17,783,983	\$9,728,349	\$3,512,040	<b>\$32,294,871</b>
Toronto, ON	\$2,558,083	\$15,947,250	\$9,554,115	\$2,859,652	<b>\$30,919,100</b>
Vancouver, BC	\$2,994,750	\$15,318,750	\$8,405,832	\$2,465,240	<b>\$29,184,572</b>

Source: U.S. Bureau of Labor Statistics, April 2016 and CBRE Research (Metro Area), Q1 2016, Statistics Canada (Metro Area) May, 2016.

# // how does tech talent impact commercial real estate?

**TABLE 20  
OFFICE ASKING RENT BY MARKET (Q1 2016)**

<b>Market</b>	<b>Annual Gross Direct Asking Rent</b>	<b>5 Year Growth</b>	<b>Market</b>	<b>Annual Gross Direct Asking Rent</b>	<b>5 Year Growth</b>
New York, NY	\$75.35	46%	Nashville, TN	\$22.57	22%
SF Bay Area, CA	\$59.59	95%	Atlanta, GA	\$22.45	12%
Vancouver, BC	\$39.93	4%	Baltimore, MD	\$22.42	1%
Washington, D.C.	\$36.50	26%	Salt Lake City, UT	\$22.25	15%
Boston, MA	\$36.06	27%	Pittsburgh, PA	\$21.56	9%
Los Angeles, CA	\$35.98	24%	San Antonio, TX	\$21.14	14%
Toronto, ON	\$34.11	4%	Sacramento, CA	\$21.12	-1%
Miami, FL	\$33.21	11%	Tampa, FL	\$21.02	4%
Austin, TX	\$32.65	30%	Orlando, FL	\$20.11	2%
San Diego, CA	\$32.22	23%	Richmond, VA	\$20.01	13%
Seattle, WA	\$30.72	19%	Hartford, CT	\$19.97	1%
Fort Lauderdale, FL	\$29.90	18%	Madison, WI	\$19.00	12%
Orange County, CA	\$29.52	26%	Columbus, OH	\$18.81	15%
Chicago, IL	\$29.07	11%	Cincinnati, OH	\$18.69	-4%
Houston, TX	\$28.24	22%	Virginia Beach, VA	\$18.66	-18%
Philadelphia, PA	\$26.27	6%	St. Louis, MO	\$18.52	-1%
Minneapolis, MN	\$26.14	14%	Rochester, NY	\$18.50	-2%
Newark, NJ	\$26.03	4%	Jacksonville, FL	\$18.43	3%
Long Island, NY	\$25.84	-1%	Omaha, NE	\$18.34	7%
Denver, CO	\$25.10	27%	Indianapolis, IN	\$17.95	3%
Portland, OR	\$25.07	23%	Milwaukee, WI	\$17.91	2%
Raleigh-Durham, NC	\$23.95	22%	Kansas City, MO	\$17.67	3%
Phoenix, AZ	\$23.29	9%	Cleveland, OH	\$17.63	4%
Charlotte, NC	\$23.07	18%	Detroit, MI	\$17.54	0%
Dallas/Ft. Worth, TX	\$22.89	15%	Oklahoma City, OK	\$16.94	15%

Source: CBRE Research (Office Market), Q1 2016.

**TABLE 21**  
**OFFICE VACANCY RATE BY MARKET (Q1 2016)**

<b>Market</b>	<b>Q1 2016</b>	<b>5 yrs. Ago (Q1 2011)</b>	<b>Market</b>	<b>Q1 2016</b>	<b>5 yrs. Ago (Q1 2011)</b>
Nashville, TN	6.5%	14.1%	Houston, TX	14.3%	16.0%
SF Bay Area, CA	6.9%	15.1%	Virginia Beach, VA	14.3%	15.2%
New York, NY	7.3%	8.3%	Milwaukee, WI	14.7%	18.5%
Madison, WI	8.4%	12.9%	Los Angeles, CA	14.8%	17.8%
Charlotte, NC	9.3%	17.3%	Kansas City, MO	14.8%	16.6%
Toronto, ON	9.6%	21.7%	Philadelphia, PA	15.1%	18.4%
Orange County, CA	9.7%	16.3%	Chicago, IL	15.1%	18.1%
Salt Lake City, UT	9.8%	17.3%	Washington, D.C.	15.7%	9.4%
Austin, TX	10.1%	22.3%	Fort Lauderdale, FL	15.7%	19.8%
Portland, OR	10.5%	15.1%	St. Louis, MO	15.8%	17.5%
Pittsburgh, PA	11.3%	11.0%	Rochester, NY	15.8%	17.9%
Vancouver, BC	11.6%	21.7%	Indianapolis, IN	15.9%	21.5%
Seattle, WA	12.0%	18.8%	Minneapolis, MN	16.1%	19.0%
Omaha, NE	12.0%	13.9%	Sacramento, CA	16.6%	22.6%
Richmond, VA	12.1%	18.9%	Hartford, CT	16.6%	18.7%
Miami, FL	12.5%	18.0%	San Antonio, TX	16.8%	17.9%
San Diego, CA	12.5%	17.5%	Jacksonville, FL	16.8%	21.5%
Tampa, FL	12.5%	21.7%	Atlanta, GA	17.0%	23.4%
Boston, MA	12.9%	15.3%	Oklahoma City, OK	17.4%	19.3%
Raleigh-Durham, NC	12.9%	18.8%	Dallas/Ft. Worth, TX	18.1%	19.8%
Denver, CO	12.9%	16.6%	Detroit, MI	18.6%	26.0%
Long Island, NY	13.5%	15.4%	Phoenix, AZ	18.8%	26.3%
Baltimore, MD	13.6%	16.4%	Cleveland, OH	18.9%	23.5%
Orlando, FL	13.8%	20.1%	Newark, NJ	19.9%	15.4%
Columbus, OH	14.0%	19.8%	Cincinnati, OH	19.9%	23.3%

Source: CBRE Research (Office Market), Q1 2016.



**TABLE 22**  
**APARTMENT ASKING RENT BY MARKET (Q1 2016)**

<b>Market</b>	<b>Q1 2016</b>	<b>5 Year Growth</b>	<b>Market</b>	<b>Q1 2016</b>	<b>5 Year Growth</b>
New York, NY	\$4,412	21%	Orlando, FL	\$1,111	27%
Bay Area, CA	\$2,796	53%	Nashville, TN	\$1,108	36%
Los Angeles, CA	\$2,214	29%	Madison, WI	\$1,097	13%
Boston, MA	\$2,167	28%	Tampa, FL	\$1,077	24%
Long Island, NY	\$2,127	12%	Houston, TX	\$1,070	25%
Orange County, CA	\$1,981	24%	Atlanta, GA	\$1,055	31%
San Diego, CA	\$1,849	23%	Vancouver, BC*	\$1,055	14%
Newark, NJ	\$1,775	16%	Toronto, ON*	\$1,021	16%
Miami, FL	\$1,664	26%	Virginia Beach, VA	\$1,020	3%
Washington, D.C.	\$1,646	8%	Salt Lake City, UT	\$999	28%
Seattle, WA	\$1,619	39%	Charlotte, NC	\$995	29%
Fort Lauderdale, FL	\$1,537	27%	Raleigh-Durham, NC	\$988	20%
Chicago, IL	\$1,503	26%	Richmond, VA	\$985	12%
Portland, OR	\$1,346	44%	Jacksonville, FL	\$951	14%
Denver, CO	\$1,341	45%	Detroit, MI	\$938	21%
Philadelphia, PA	\$1,313	11%	St. Louis, MO	\$938	22%
Minneapolis, MN	\$1,289	22%	Phoenix, AZ	\$927	23%
Sacramento, CA	\$1,281	31%	Kansas City, MO	\$905	16%
Hartford, CT	\$1,280	12%	Cincinnati, OH	\$902	17%
Baltimore, MD	\$1,277	12%	San Antonio, TX	\$899	15%
Pittsburgh, PA	\$1,264	10%	Cleveland, OH	\$897	11%
Dallas/Ft. Worth, TX	\$1,209	29%	Omaha, NE	\$857	21%
Austin, TX	\$1,177	31%	Columbus, OH	\$849	20%
Rochester, NY	\$1,150	21%	Indianapolis, IN	\$801	16%
Milwaukee, WI	\$1,134	14%	Oklahoma City, OK	\$709	9.8%

\* in USD.

Note: New York represents Manhattan only.  
Source: CBRE EA (City), Axiometrics, Q1 2016, CMHC, Q4 2014.

**TABLE 23**  
**COST OF LIVING RELATIVE TO U.S. AVERAGE**  
 U.S. Average = 100%

<b>Geography</b>	<b>Cost of Living</b>	<b>Geography</b>	<b>Cost of Living</b>	<b>Geography</b>	<b>Cost of Living</b>
Bay Area, CA	154%	Portland, OR	107%	Virginia Beach, VA	100%
Orange County, CA	146%	Hartford, CT	106%	Raleigh-Durham, NC	100%
Newark, NJ	127%	Salt Lake City, UT	106%	Charlotte, NC	99%
Long Island, NY	126%	Dallas/Ft. Worth, TX	105%	Oklahoma City, OK	99%
San Diego, CA	125%	Phoenix, AZ	105%	Chicago, IL	98%
Washington, D.C.	124%	Sacramento, CA	105%	Milwaukee, WI	98%
Seattle, WA	123%	Toronto, ON	103%	Kansas City, MO	97%
Los Angeles, CA	122%	Nashville, TN	102%	St. Louis, MO	95%
New York, NY	122%	Jacksonville, FL	102%	Omaha, NE	94%
Boston, MA	118%	San Antonio, TX	102%	Pittsburgh, PA	94%
Austin, TX	111%	Atlanta, GA	101%	Cincinnati, OH	92%
Fort Lauderdale, FL	111%	Madison, WI	101%	Columbus, OH	92%
Baltimore, MD	110%	Minneapolis, MN	101%	Indianapolis, IN	92%
Miami, FL	110%	Orlando, FL	101%	Cleveland, OH	90%
Denver, CO	108%	Philadelphia, PA	101%	Rochester, NY	90%
Vancouver, BC	108%	Richmond, VA	100%	Detroit, MI	89%
Houston, TX	107%	Tampa, FL	100%		

Source: Moody's Analytics, Numbeo, Q1 2016.

**TABLE 24**  
**APARTMENT RENT-TO-TECH WAGE RATIO**

<b>Market</b>	<b>Annualized Apartment Rent</b>	<b>2015 Average Annual Tech Wage</b>	<b>Rent-to-Tech Wage Ratio</b>
New York, NY	\$35,440	\$106,775	33.2%
Long Island, NY	\$25,526	\$92,176	27.7%
Los Angeles, CA	\$26,563	\$96,268	27.6%
Bay Area, CA	\$33,553	\$123,921	27.1%
Miami, FL	\$19,972	\$77,446	25.8%
Boston, MA	\$26,009	\$102,905	25.3%
Orange County, CA	\$23,776	\$97,335	24.4%
Fort Lauderdale, FL	\$18,449	\$76,887	24.0%
San Diego, CA	\$22,188	\$98,990	22.4%
Chicago, IL	\$18,041	\$87,471	20.6%
Newark, NY	\$21,298	\$104,107	20.5%
Pittsburgh, PA	\$15,165	\$77,045	19.7%
Washington, D.C.	\$19,755	\$105,608	18.7%
Vancouver, BC	\$11,422	\$61,275	18.6%
Portland, OR	\$16,147	\$88,986	18.1%
Philadelphia, PA	\$15,760	\$88,789	17.8%
Madison, WI	\$13,161	\$74,483	17.7%
Seattle, WA	\$19,423	\$110,999	17.5%
Sacramento, CA	\$15,370	\$88,147	17.4%
Toronto, ON	\$11,055	\$63,789	17.3%
Minneapolis, MN	\$15,468	\$89,262	17.3%
Nashville, TN	\$13,291	\$76,872	17.3%
Milwaukee, WI	\$13,608	\$79,801	17.1%
Orlando, FL	\$13,329	\$78,487	17.0%
Denver, CO	\$16,090	\$96,431	16.7%
Tampa, FL	\$12,927	\$77,582	16.7%
Hartford, CT	\$15,359	\$93,273	16.5%
Rochester, NY	\$12,602	\$77,055	16.4%
Dallas/Ft. Worth, TX	\$14,513	\$90,385	16.1%
Austin, TX	\$14,125	\$89,692	15.7%
Baltimore, MD	\$15,325	\$98,932	15.5%
Salt Lake City, UT	\$11,982	\$79,191	15.1%
Norfolk, VA	\$12,238	\$82,427	14.8%
Atlanta, GA	\$12,664	\$87,716	14.4%
Jacksonville, FL	\$11,406	\$80,049	14.2%
Detroit, MI	\$11,259	\$80,723	13.9%
San Antonio, TX	\$10,787	\$78,060	13.8%
Houston, TX	\$12,840	\$93,765	13.7%
Cleveland, OH	\$10,764	\$78,631	13.7%
Richmond, VA	\$11,822	\$87,492	13.5%
Cincinnati, OH	\$10,823	\$81,470	13.3%
Kansas City, MO	\$10,865	\$81,858	13.3%
St. Louis, MO	\$11,257	\$85,780	13.1%
Omaha, NE	\$10,279	\$78,579	13.1%
Charlotte, SC	\$11,941	\$91,671	13.0%
Phoenix, AZ	\$11,120	\$86,622	12.8%
Raleigh-Durham, NC	\$11,857	\$92,392	12.8%
Indianapolis, IN	\$9,608	\$76,185	12.6%
Columbus, OH	\$10,193	\$83,848	12.2%
Oklahoma City, OK	\$8,506	\$71,136	12.0%

Source: U.S. Bureau of Labor Statistics April 2016, Statistics Canada May 2016, CBRE EA, Axiometrics, CMHC Q1 2016.





# contacts

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