

PHILADELPHIA HOUSE PRICE INDICES

October 23, 2017



DREXEL UNIVERSITY
Lindy Institute
for Urban Innovation

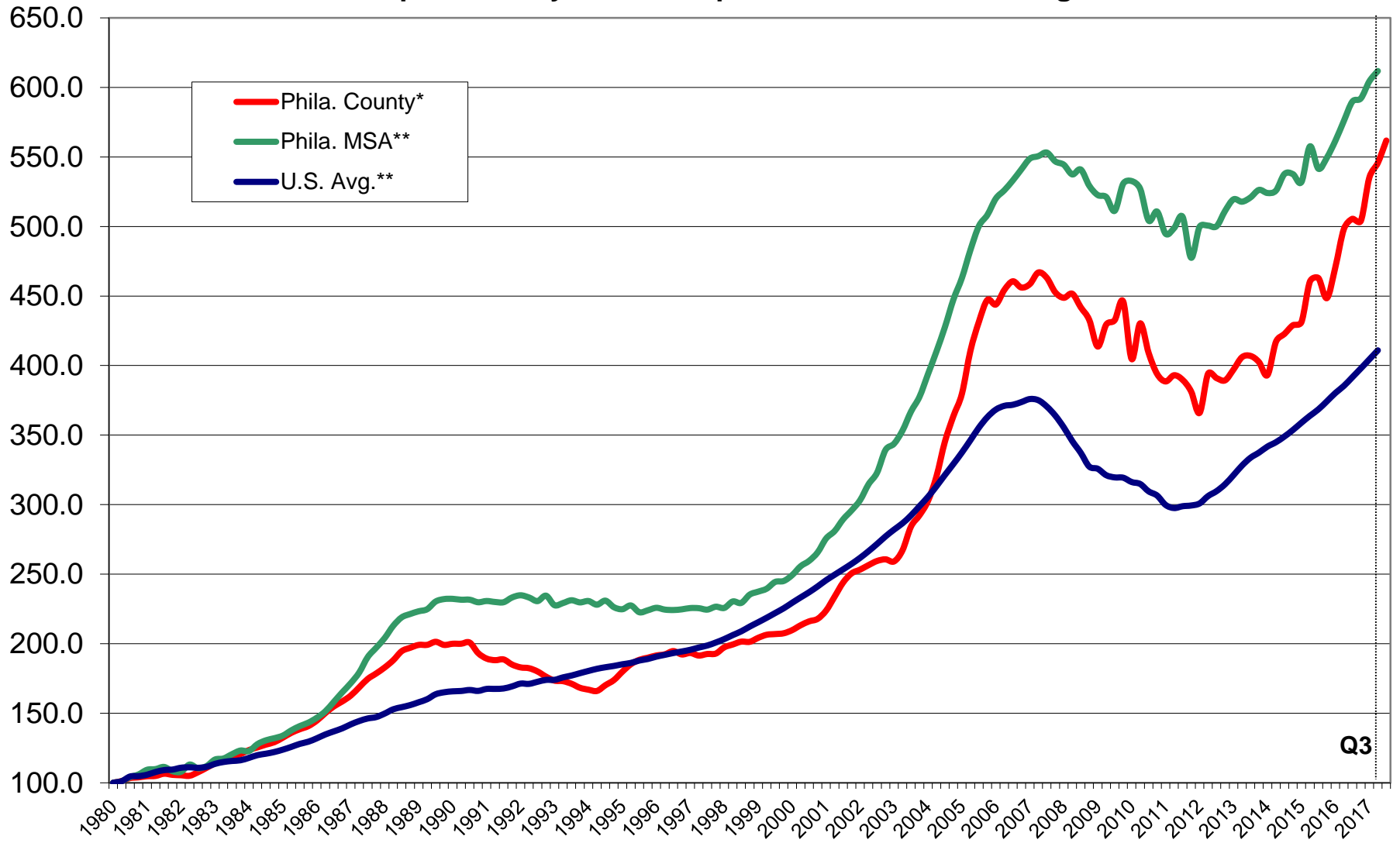
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***Disclaimers and Acknowledgments:** The Lindy Institute for Urban Innovation at Drexel University provides this report free of charge to the public. The report is produced by Kevin C. Gillen Ph.D.. The author thanks Azavea.com, the Philadelphia Office of Property Assessment, the Federal Housing Finance Agency, Case-Shiller MacroMarkets LLC, RealtyTrac, Zillow.com, Trulia.com and the NAHB for making their data publicly available. © 2016, Drexel University, All Rights Reserved.*



House Price Indices 1980-2017: 1980Q1=100 Philadelphia County v. Philadelphia MSA and U.S. Average



* Empirically estimated by Kevin C. Gillen, Ph.D.

**Courtesy of the Federal Housing Finance Agency (FHFA).

These HPIs are current through 2016Q4 only.

“MSA”=Metropolitan Statistical Area, which is the entire 10-county region.

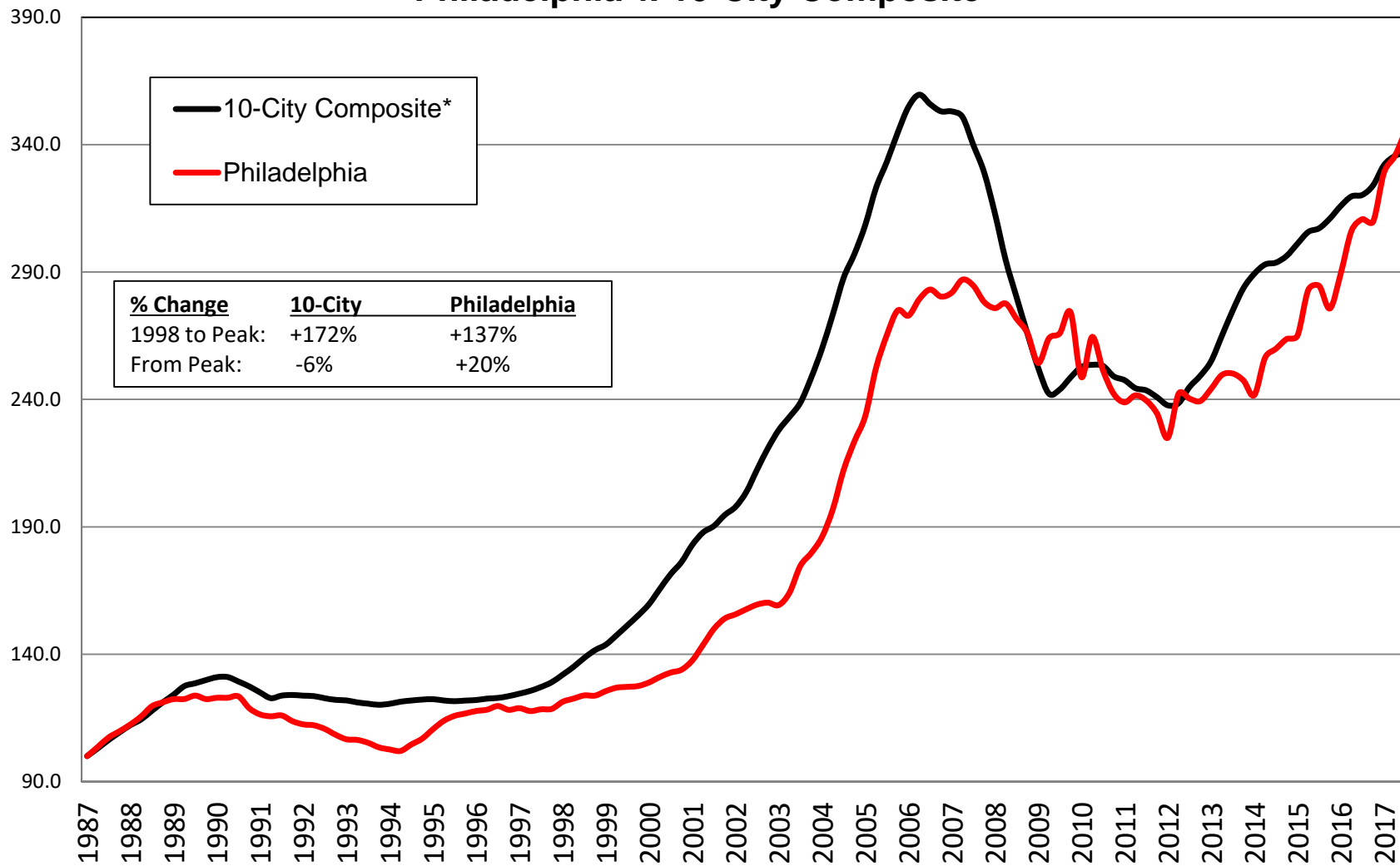
Total House Price Appreciation Rates by Geographic Market

Period	Philadelphia County*	Philadelphia MSA**	U.S.A.**
38-Year	172.6%	181.1%	141.3%
10-Year	19.3%	10.5%	9.1%
1-Year	10.6%	6.0%	6.4%
1-Quarter	2.9%	1.2%	1.6%

*Empirically estimated by Kevin C. Gillen Ph.D.

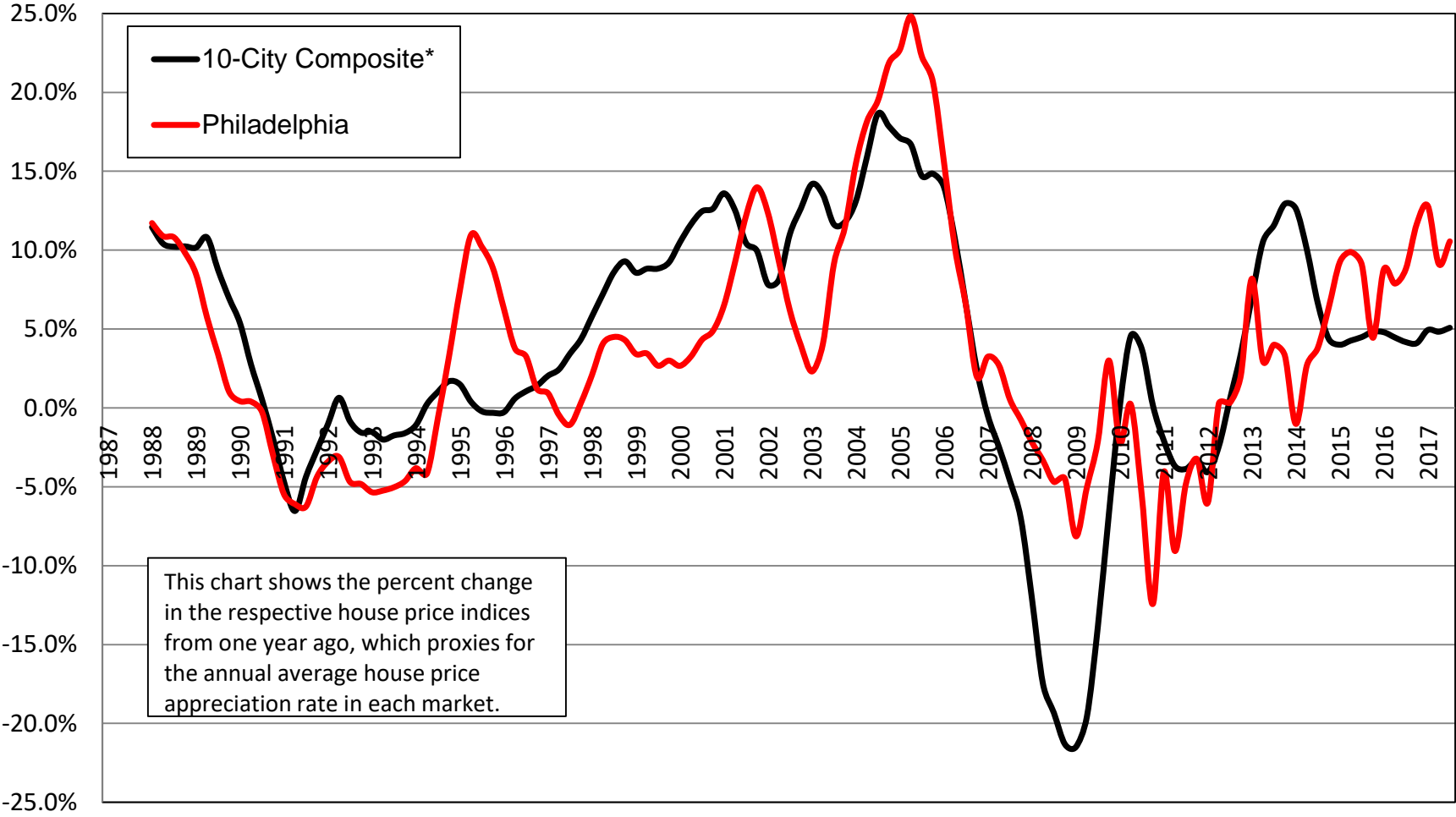
**Source: U.S. Federal Housing Finance Agency (FHFA). These numbers are through 2017Q2 only. “MSA”=“Metropolitan Statistical Area”, which is the entire 10-county region.

House Price Appreciation 1987-2017: Philadelphia v. 10-City Composite



*Source: S&P/Case-Shiller. The 10-City Composite index includes Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, and Washington, DC. It does not include Philadelphia.

YoY House Price Change (%) 1987-2017: Philadelphia v. 10-City Composite

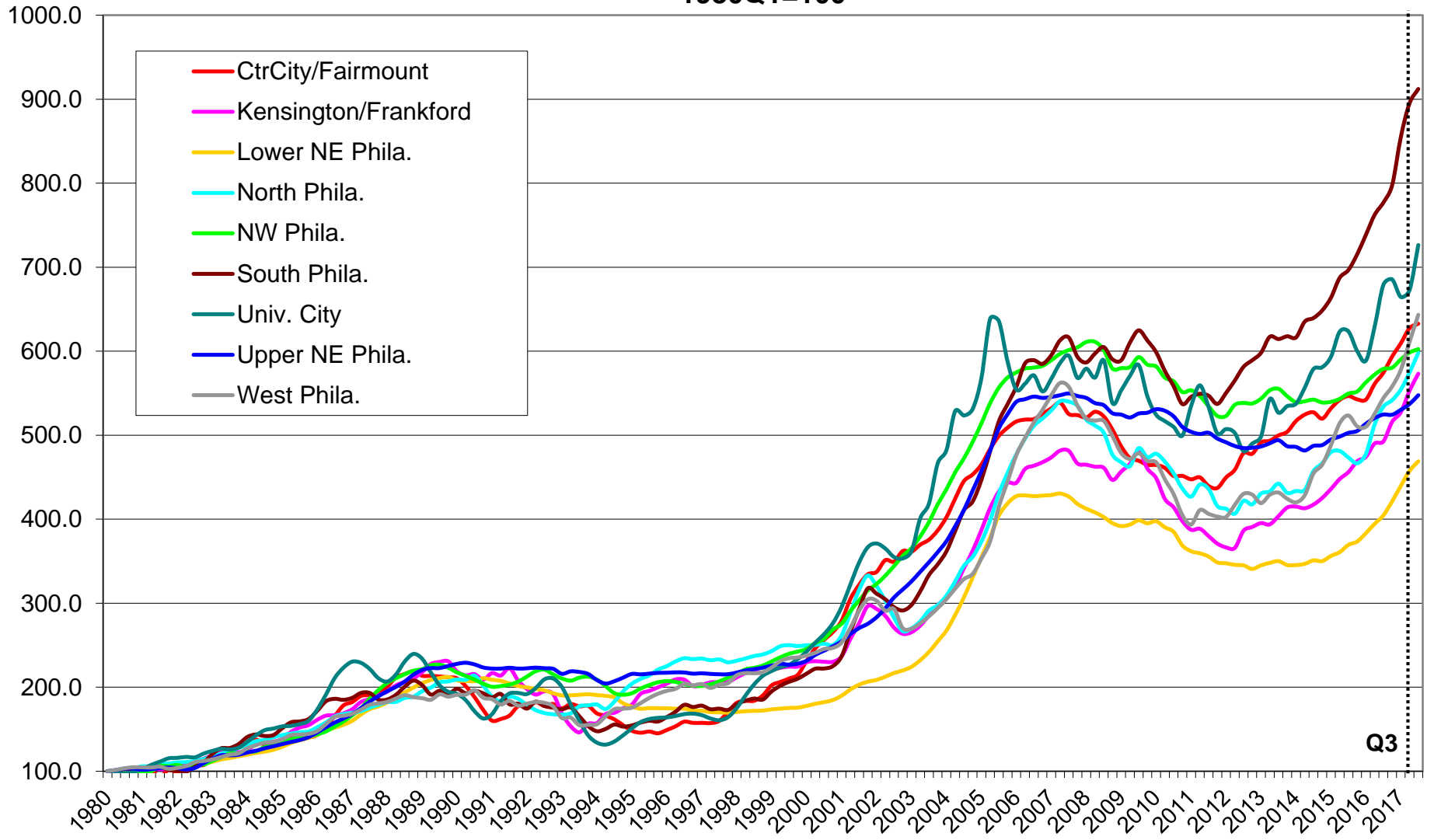


This chart shows the percent change in the respective house price indices from one year ago, which proxies for the annual average house price appreciation rate in each market.

*Source: S&P/Case-Shiller. The 10-City Composite index includes Boston, Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco, and Washington, DC. It does not include Philadelphia.

Philadelphia House Price Indices by Neighborhood: 1980-2017

1980Q1=100



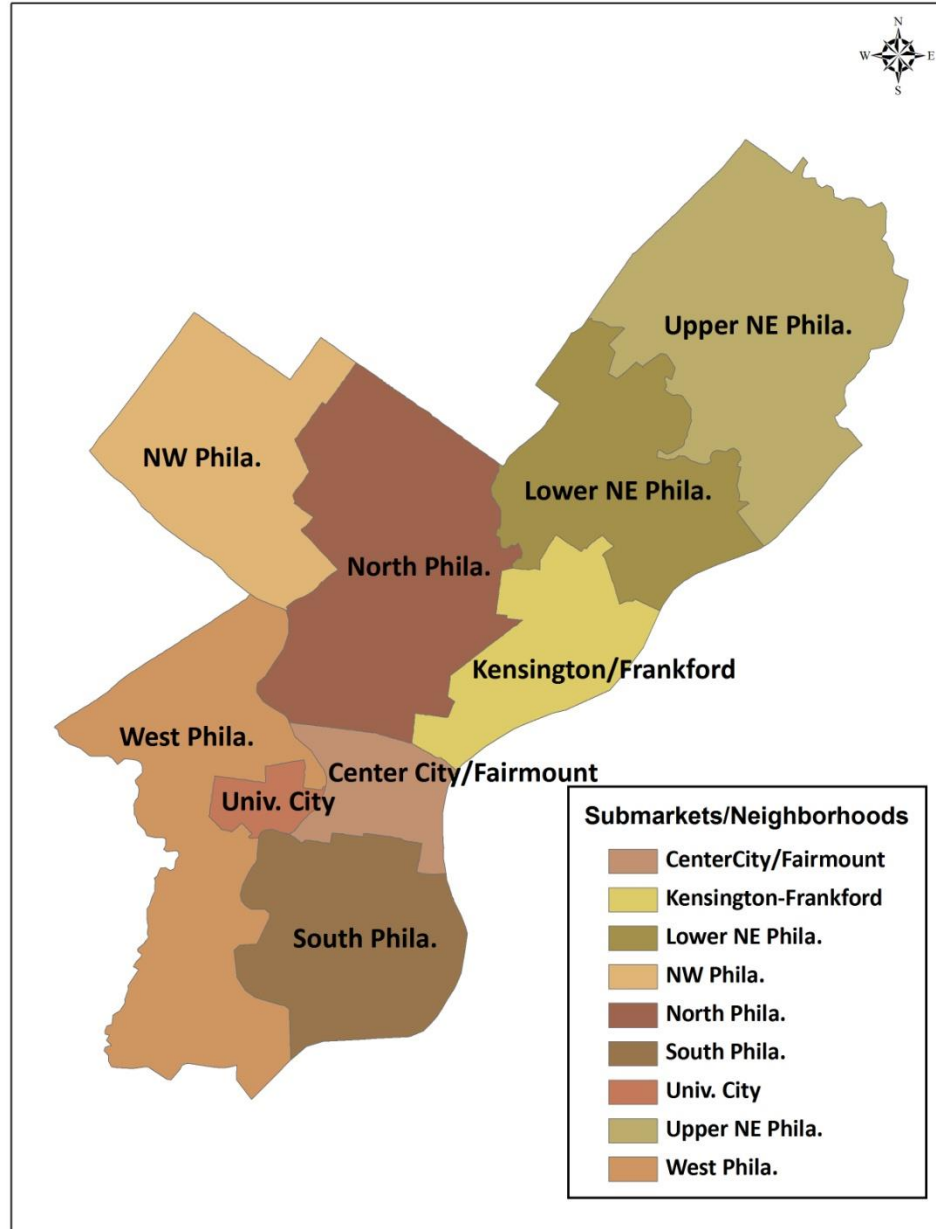
* All indices empirically estimated by Kevin C. Gillen, Ph.D.

Philadelphia House Price Appreciation Rates by Neighborhood

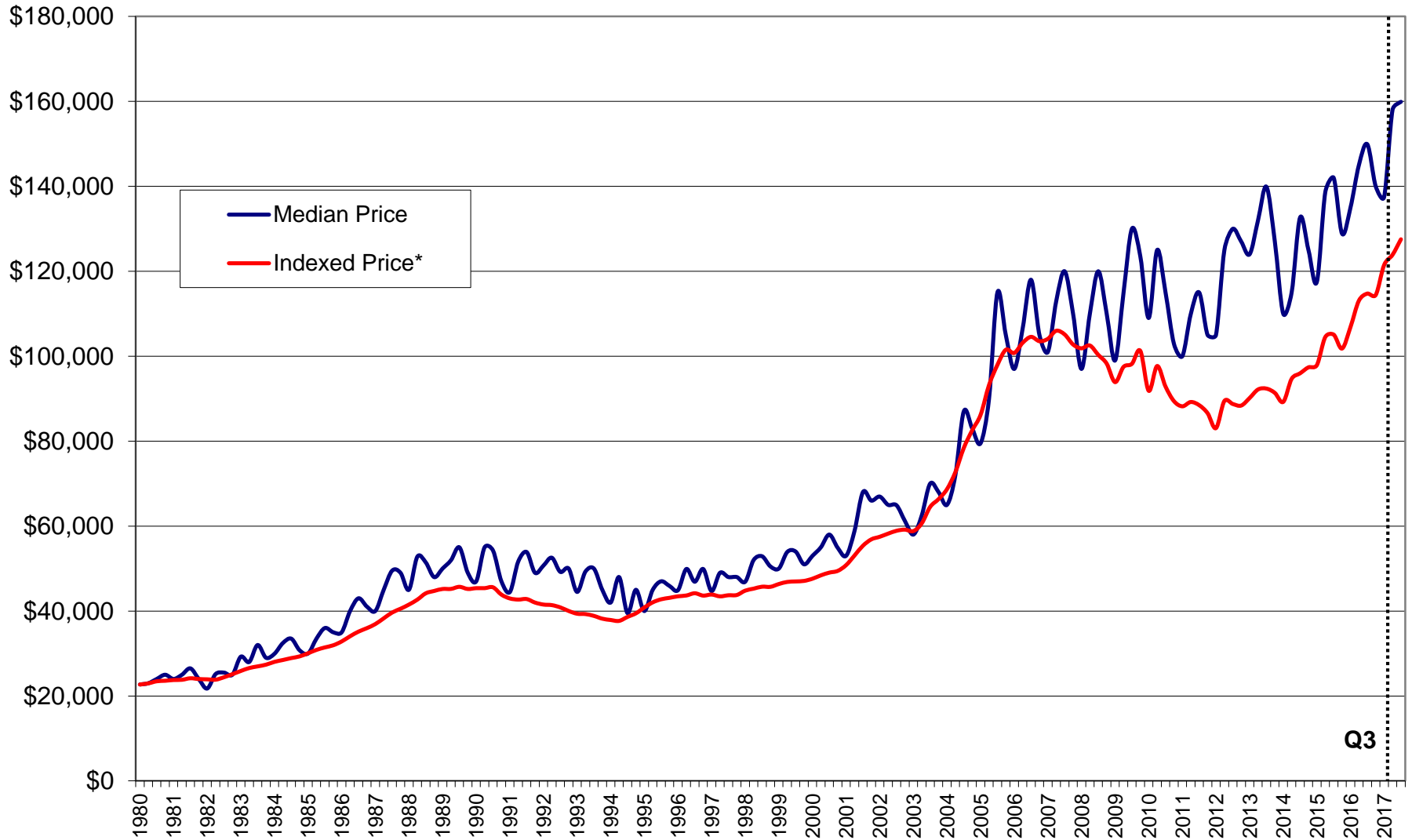
Period	Center City/ Fairmount	Kensington /Frankford	Lower NE Phila.	North Phila.	NW Phila.	South Phila.	Univ. City	Upper NE Phila.	West Phila.
38-year	184.5%	174.6%	154.5%	178.9%	179.6%	221.1%	198.3%	170.0%	186.2%
10-year	18.6%	17.5%	9.4%	10.2%	0.2%	39.2%	20.0%	-0.4%	14.3%
1-Year	9.7%	15.1%	14.8%	11.4%	4.0%	16.0%	6.7%	4.3%	16.8%
1-Quarter	0.8%	3.6%	2.4%	4.0%	0.7%	1.9%	7.7%	1.9%	5.1%

This table gives the total % change in average house values by neighborhood, through 2017 Q3, from different starting points in time.

Philadelphia Submarket Boundaries



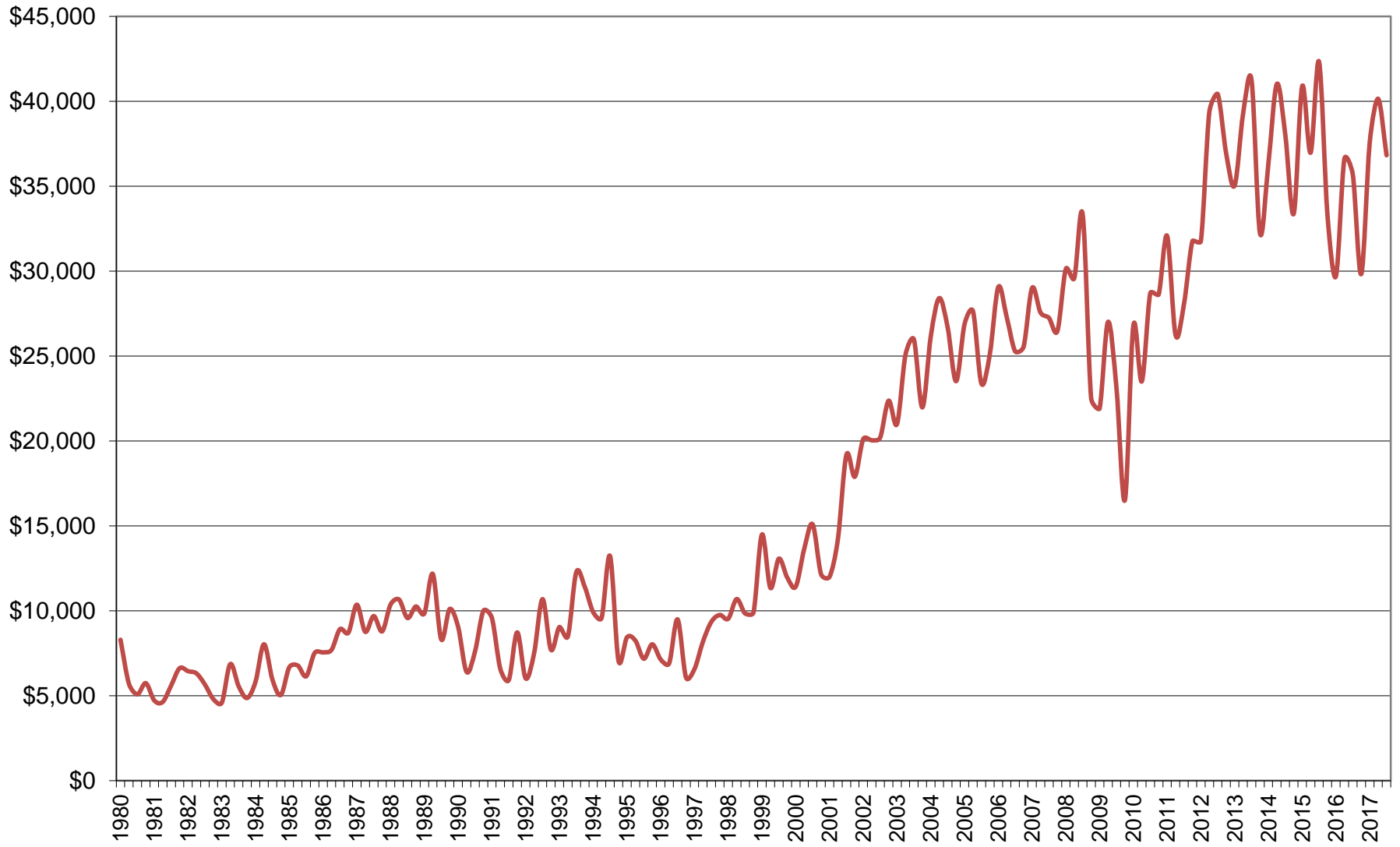
Median Philadelphia House Price v. Indexed Philadelphia House Price 1980-2017



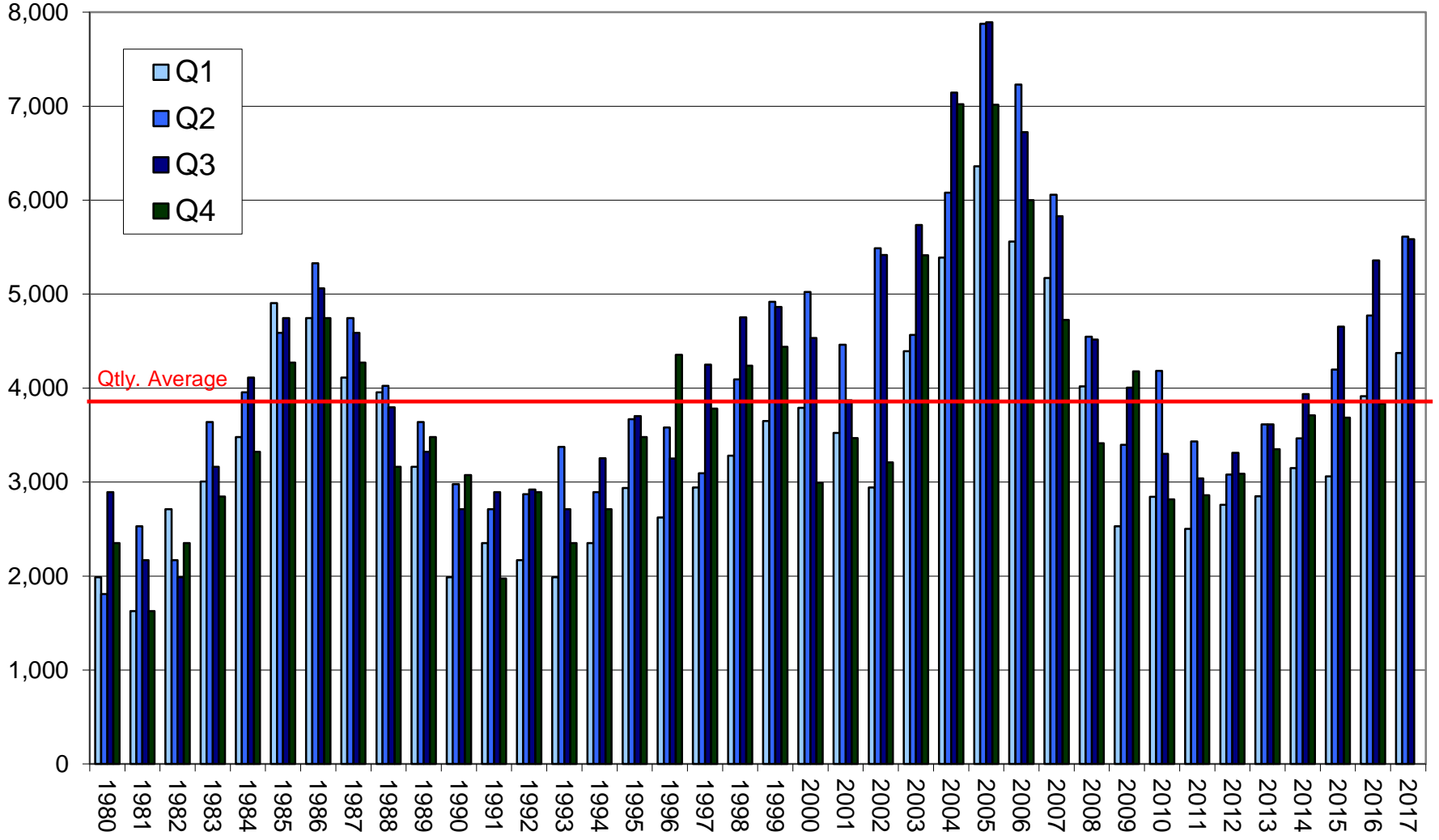
* Empirically estimated by Kevin C. Gillen, PhD

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Average House Price Minus Median House Price: 1980-2017

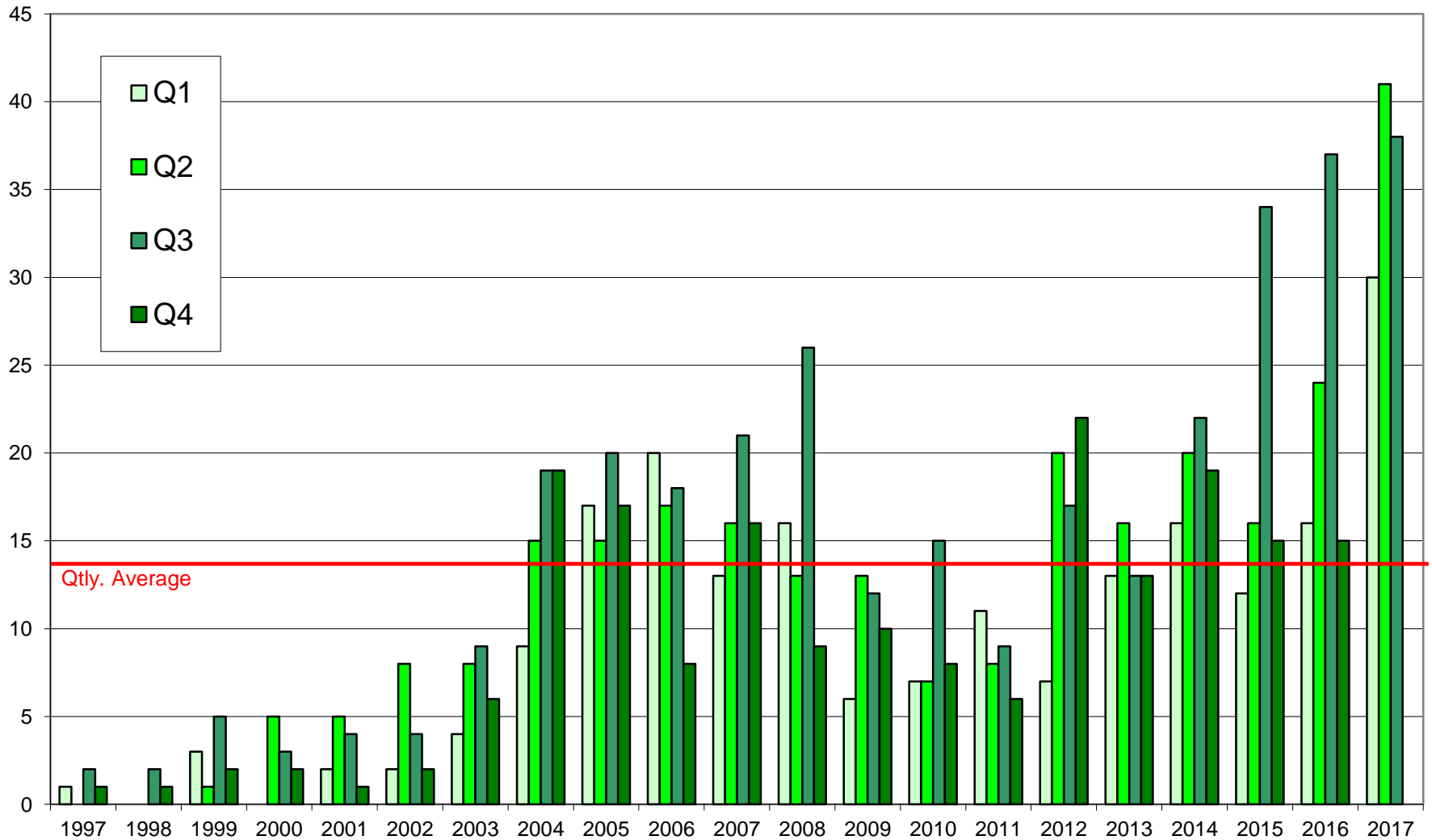


Number of Philadelphia House Sales* per Quarter: 1980-2017



*Only arms-length transactions between private sector entities were included in these numbers.

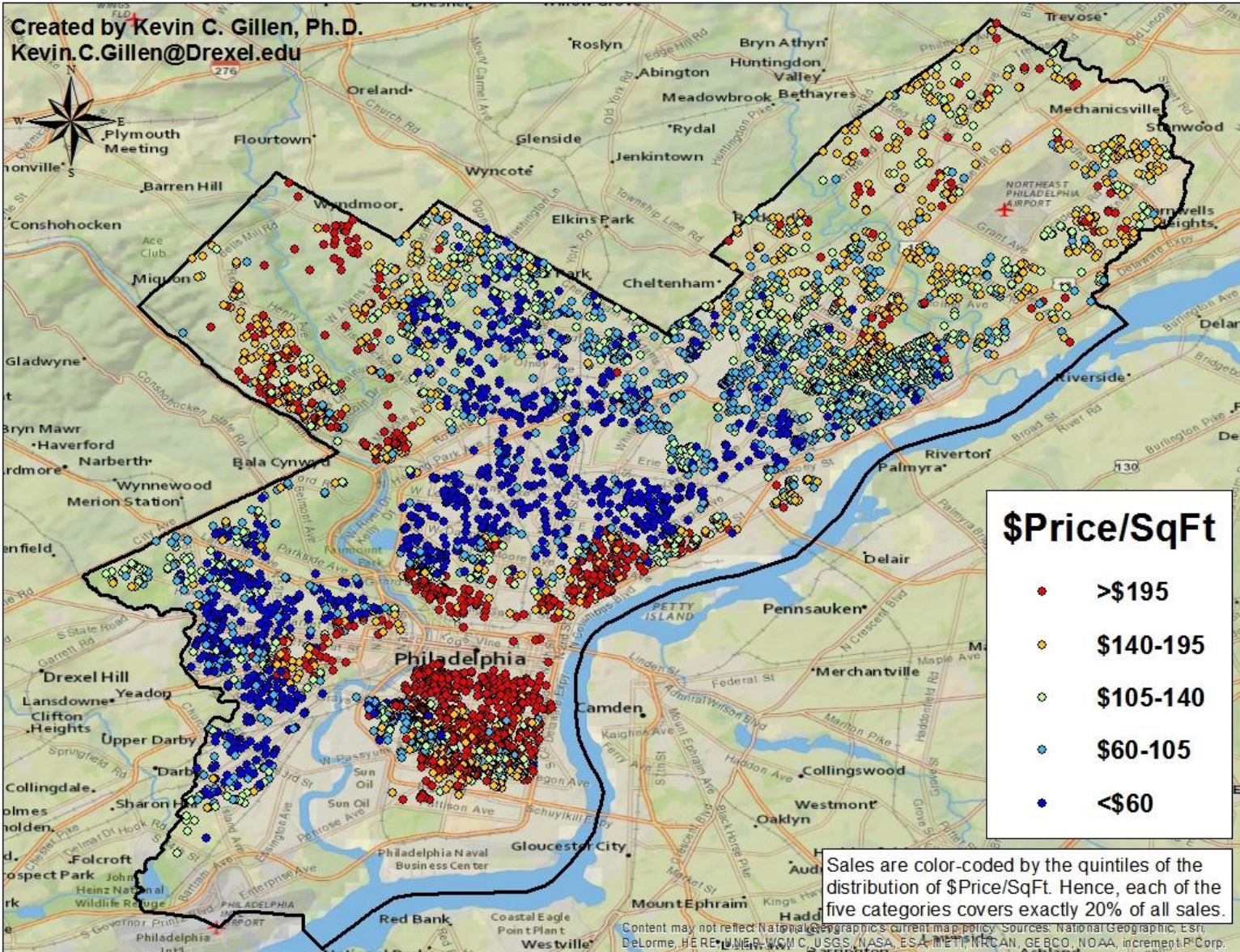
Number of Philadelphia Home Sales* per Quarter with Price >=\$1 Million: 1997-2017



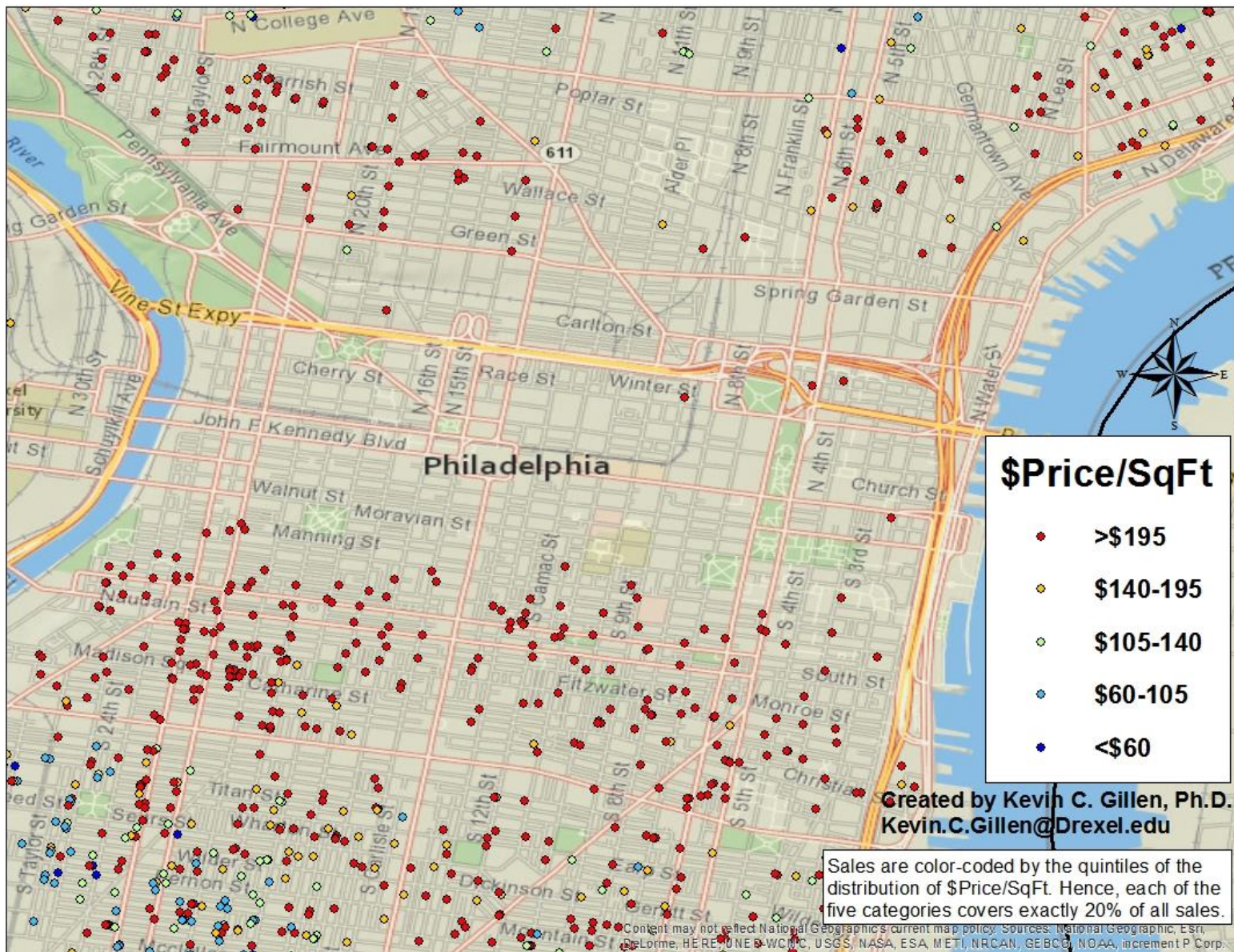
*Only arms-length transactions between private sector entities were included in these numbers.

Philadelphia House Sales in 2017 Q3

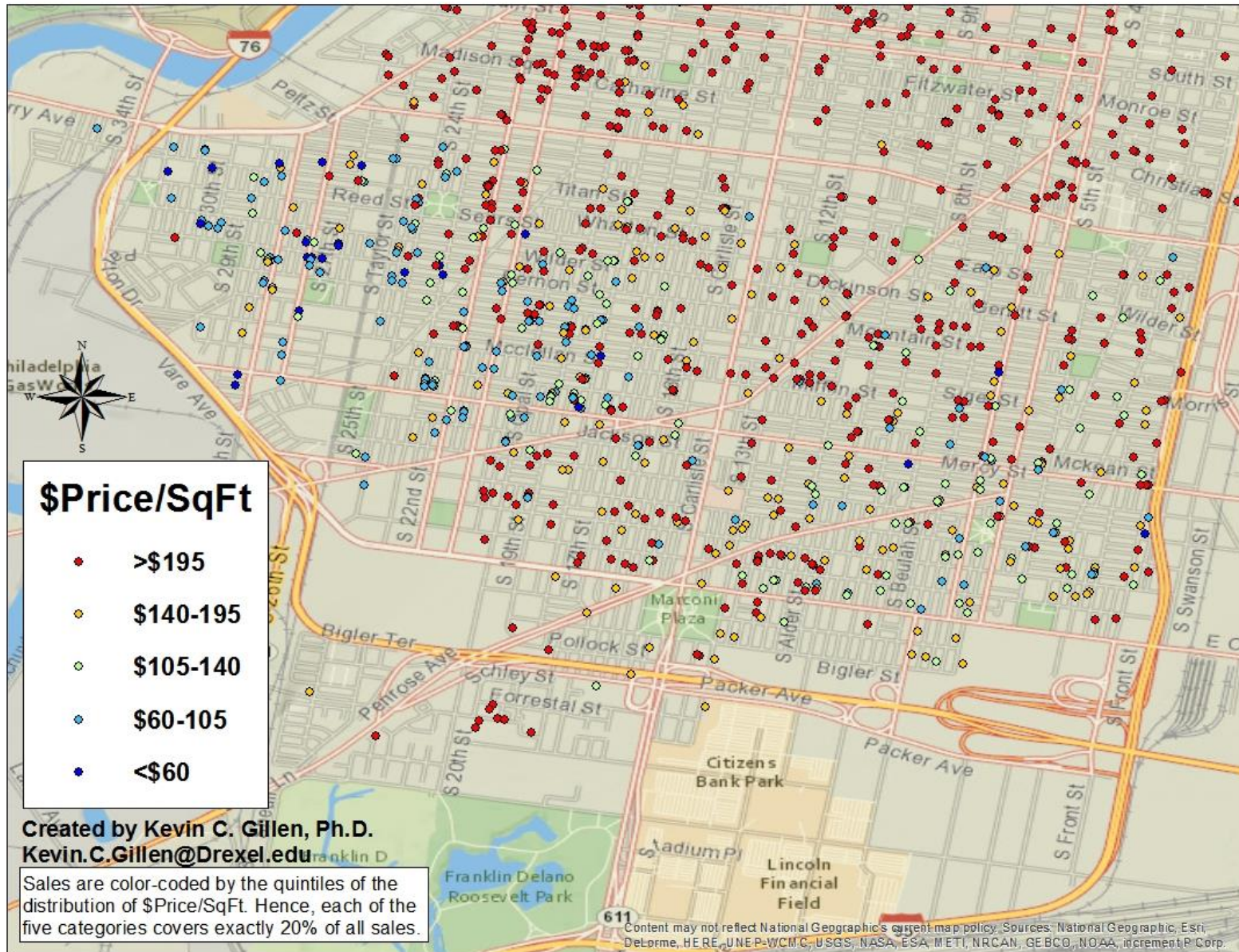
Created by Kevin C. Gillen, Ph.D.
Kevin.C.Gillen@Drexel.edu



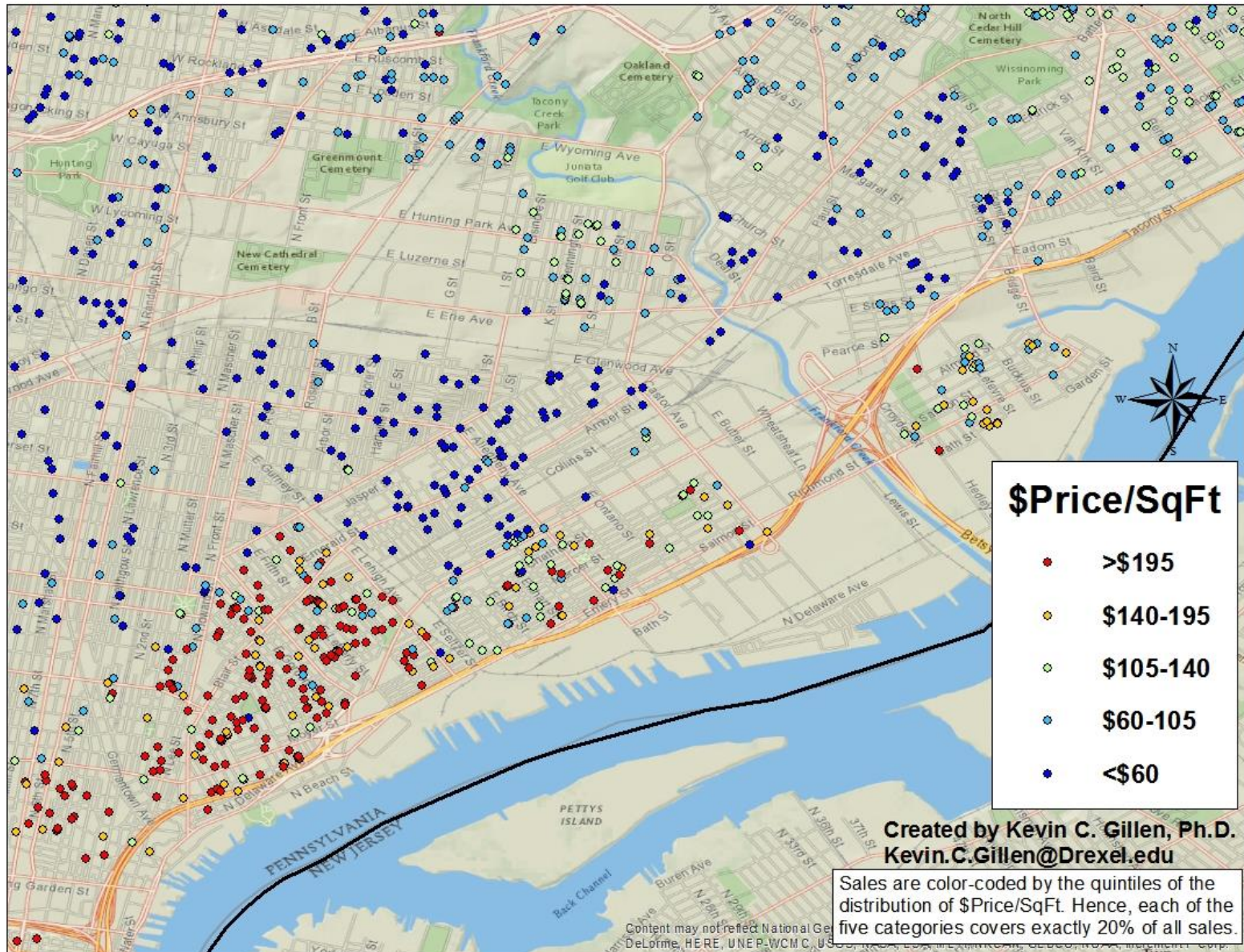
Center City House Sales in 2017 Q3



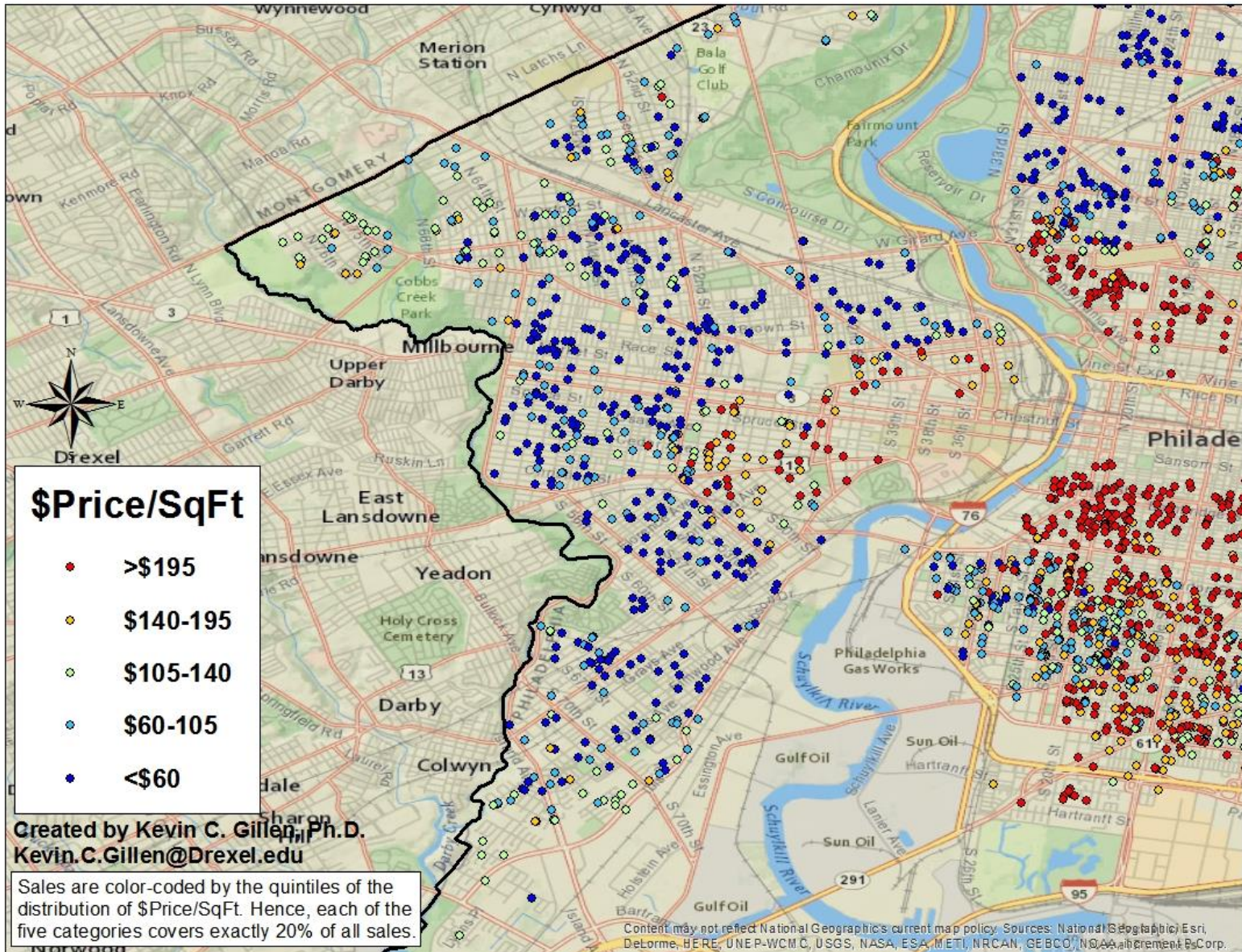
South Philadelphia House Sales in 2017 Q3



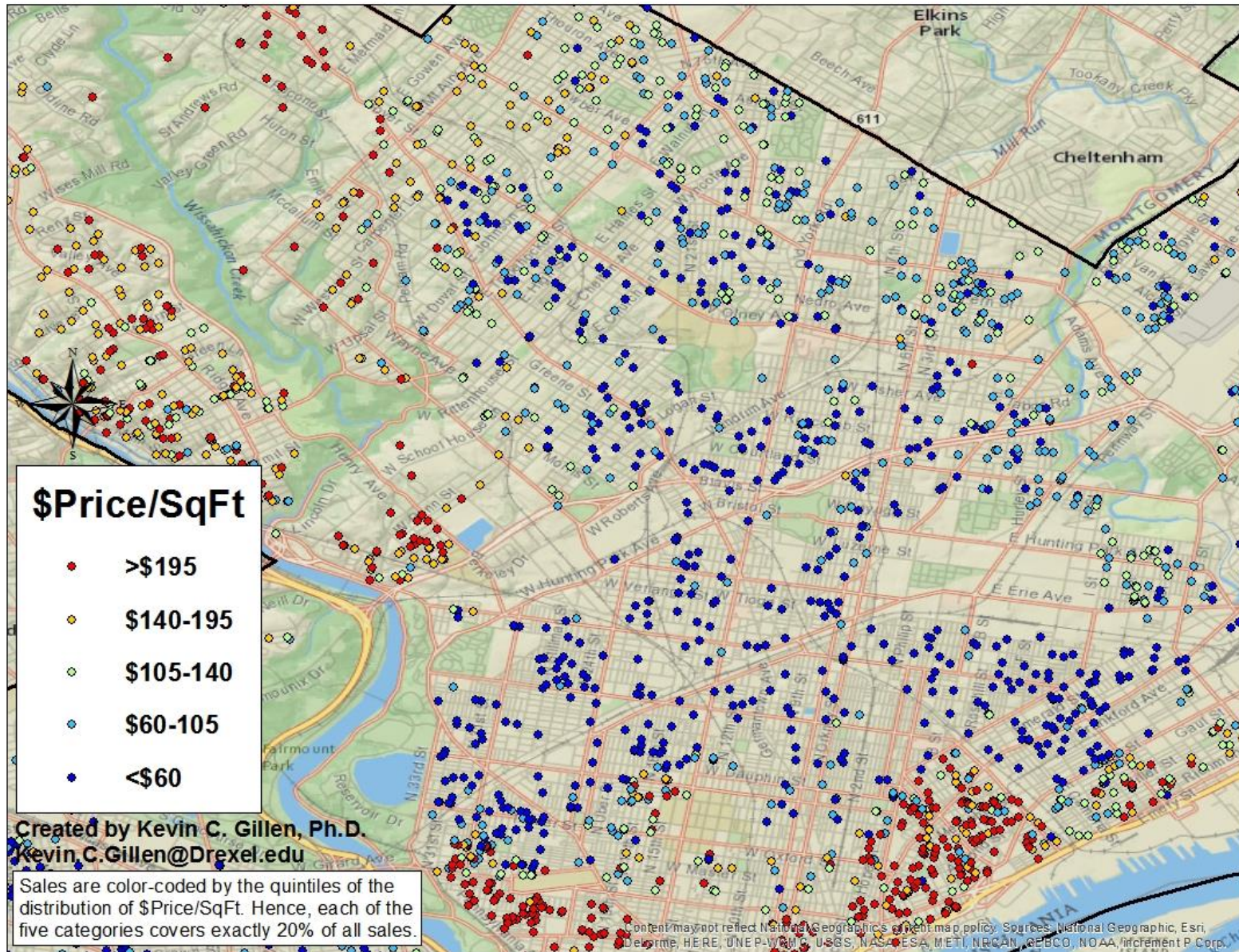
Kensington/Frankford House Sales in 2017 Q3



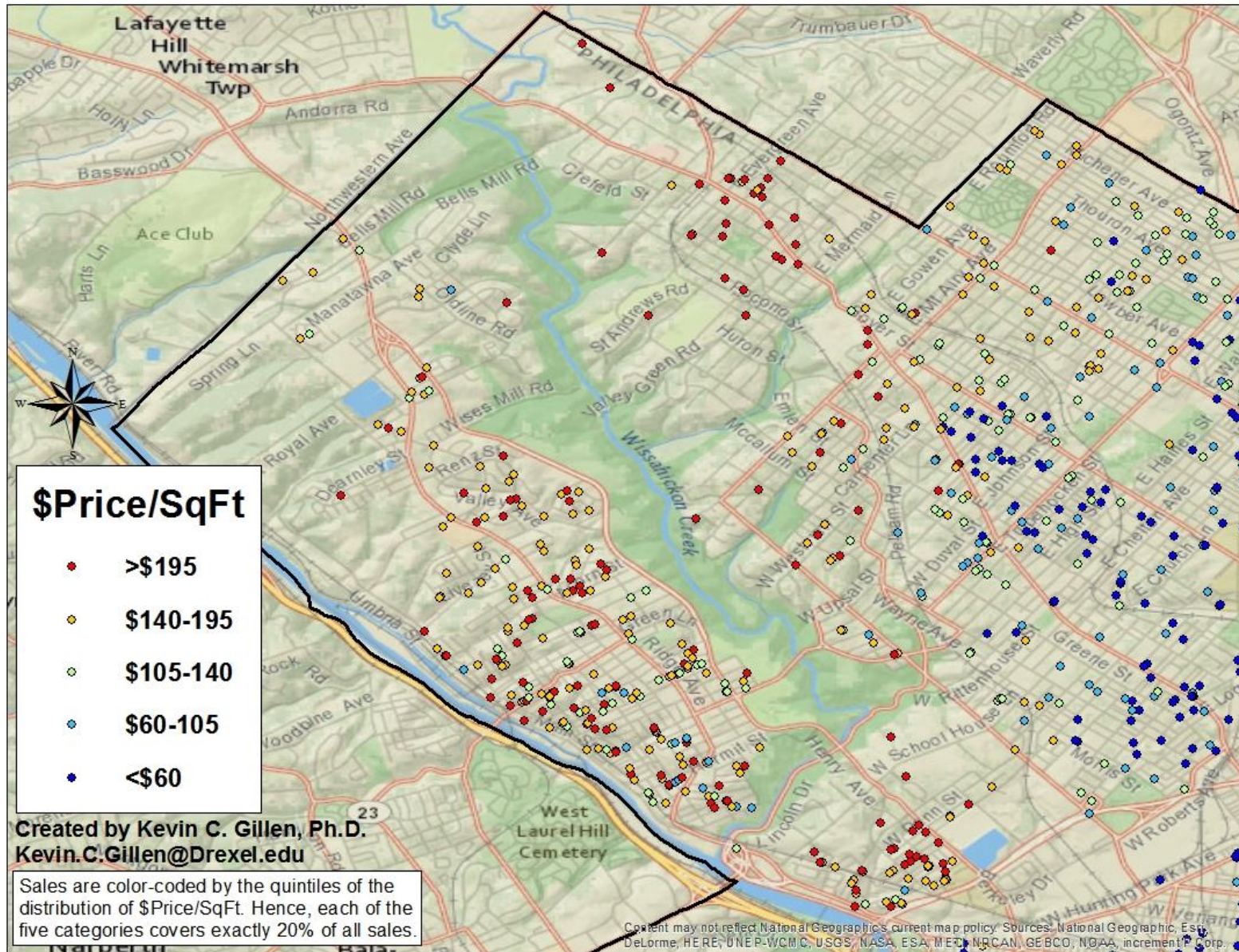
West Philadelphia House Sales in 2017 Q3



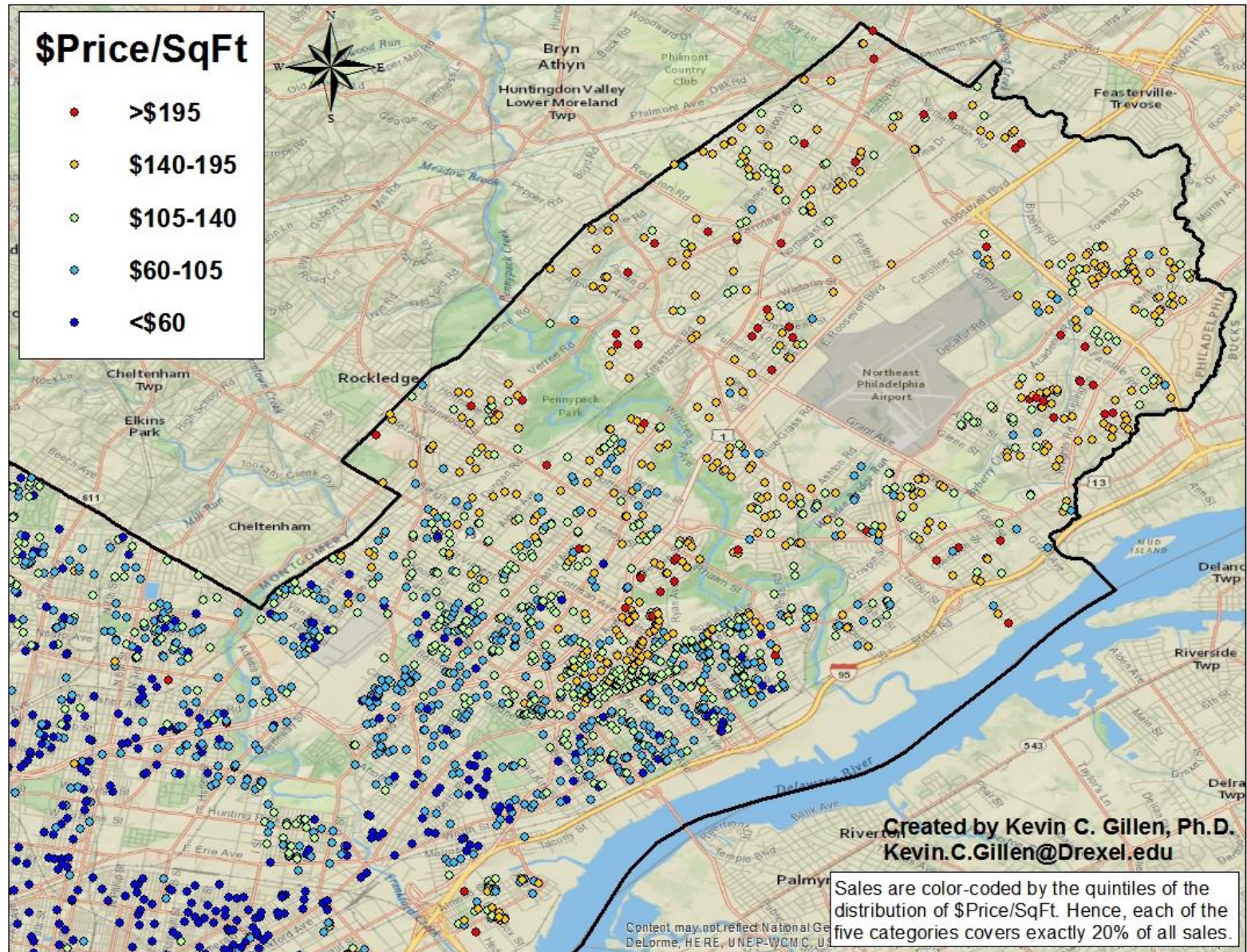
North Philadelphia House Sales in 2017 Q3



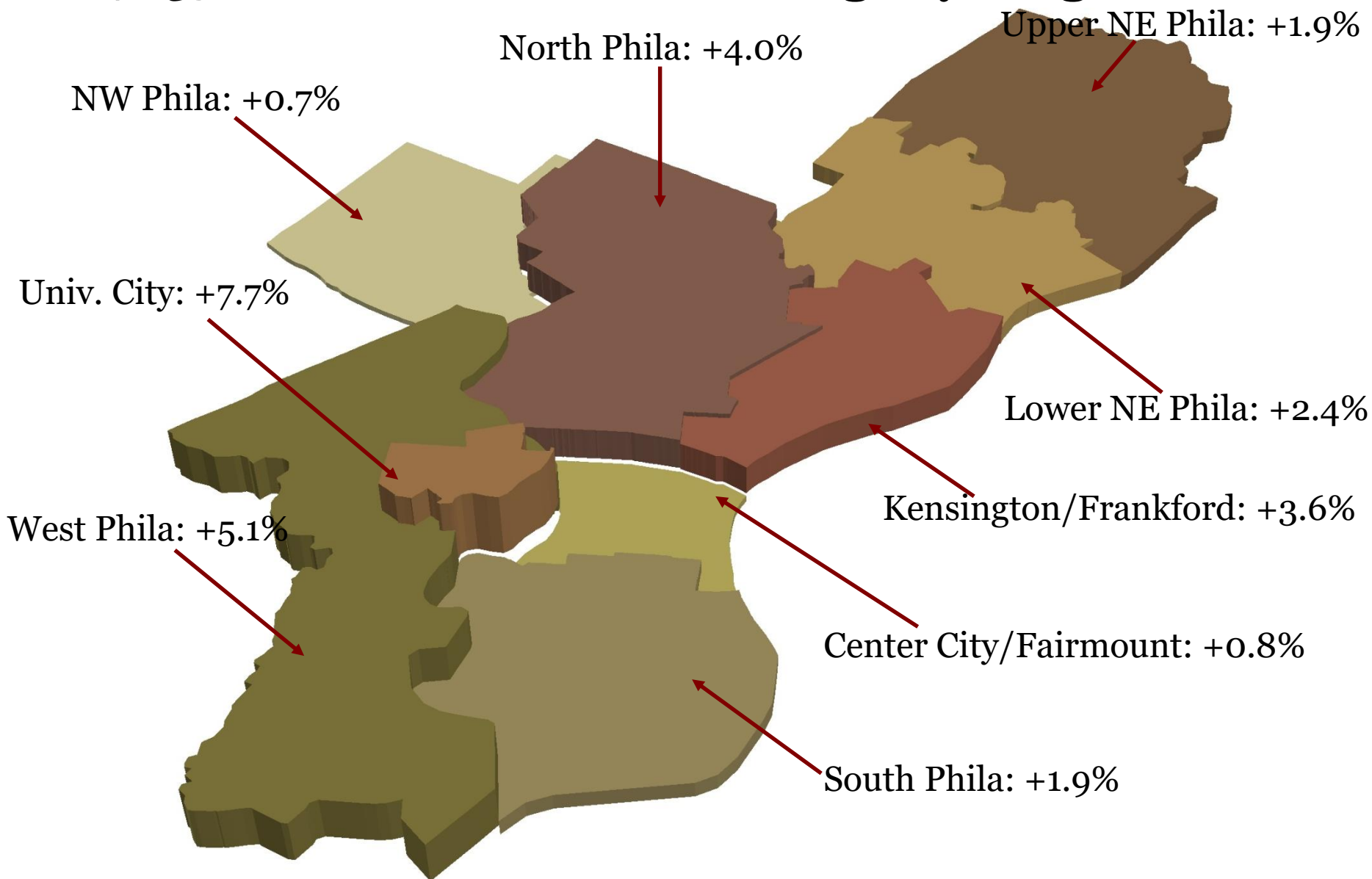
Northwest Philadelphia House Sales in 2017 Q3



Northeast Philadelphia House Sales in 2017 Q3



2017 Q3 House Price Rate of Change by Neighborhood



Note: Each neighborhood is extruded by its average change in house values during 2017 Q3 in order to reflect its growth (or depreciation) rate relative to other neighborhoods.

+ \$1 Million Dollar House Sales in 2017 Q3

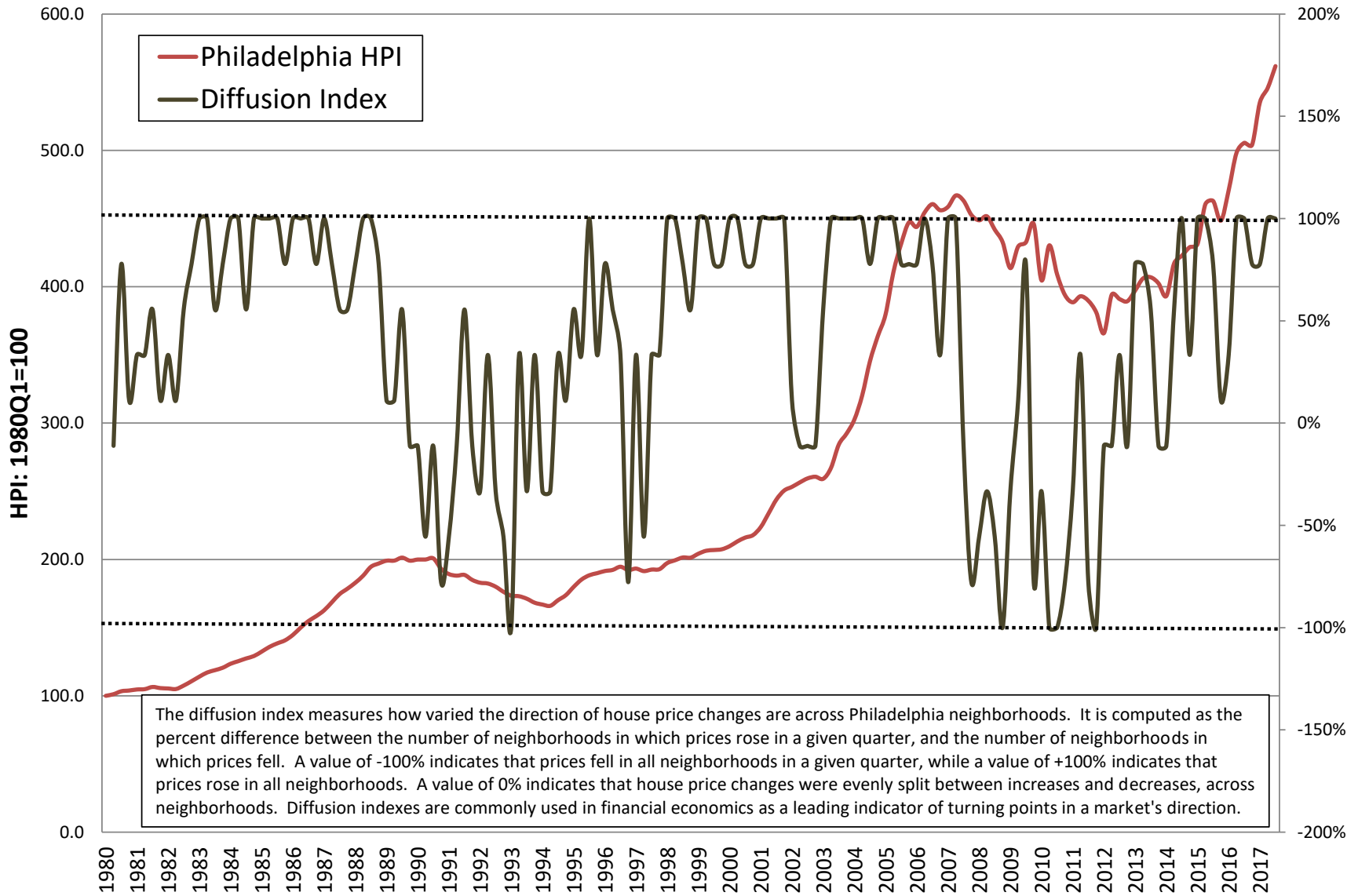
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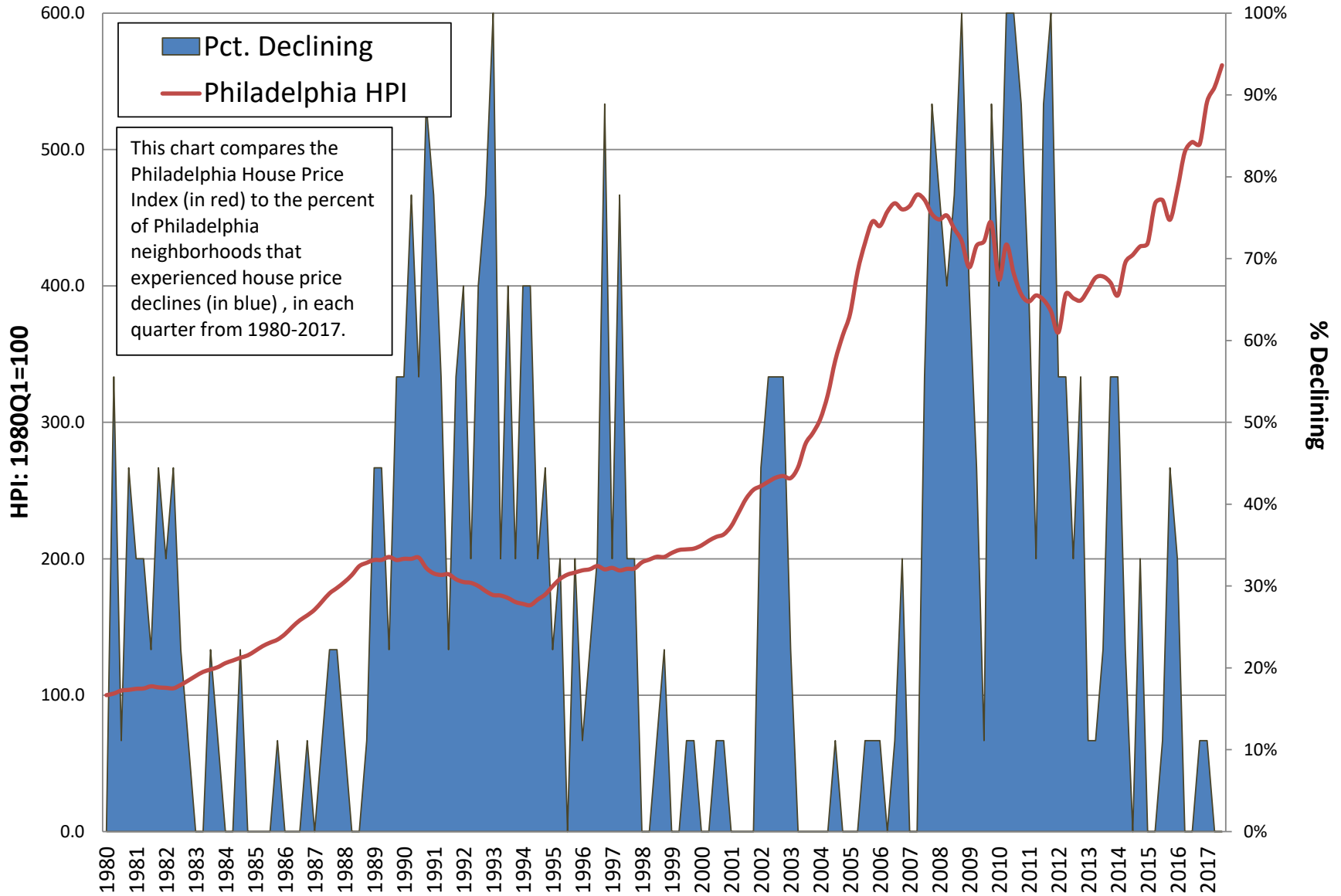
PRICE	ADDRESS
\$1,000,000	606 CHRISTIAN ST
\$1,019,210	2218 RITTENHOUSE SQ
\$1,025,000	242 S 21ST ST
\$1,050,000	812 S 10TH ST
\$1,080,000	1716 ADDISON ST
\$1,105,000	7316 ELBOW LN
\$1,130,000	308 CYPRESS ST
\$1,175,000	715 W MOUNT AIRY AVE
\$1,180,000	1315 PINE ST
\$1,200,000	513 DELANCEY ST
\$1,208,000	333 S 07TH ST
\$1,240,000	1338 KATER ST
\$1,250,000	3504 HAMILTON ST
\$1,305,000	324 S 15TH ST
\$1,310,000	233 GASKILL ST
\$1,350,000	1933 PINE ST
\$1,375,000	1634 PINE ST
\$1,375,000	2028 PINE ST
\$1,437,500	734 BAINBRIDGE ST
\$1,465,000	8432 PROSPECT AVE
\$1,550,000	708 S SARTAIN ST
\$1,600,000	8133 SEMINOLE AVE
\$1,680,000	1019 CLINTON ST
\$1,725,000	179 HILLCREST AVE
\$1,760,000	114 PINE ST
\$1,795,000	8016 SEMINOLE AVE
\$1,900,000	2028 DELANCEY PL
\$1,960,000	2318 DELANCEY PL
\$1,961,250	4130 CHERRY LN
\$2,000,000	1321 RIDGE AVE
\$2,050,000	242 S 03RD ST
\$2,100,000	417 PINE ST
\$2,100,000	926 SPRUCE ST
\$2,335,000	1531 SPRUCE ST
\$2,350,000	412 S 21ST ST
\$2,450,000	8800 TOWANDA AVE
\$2,460,000	613 SAINT ANDREW RD
\$2,700,000	530 SPRUCE ST

Content may not reflect National Geographic's current map policy. Sources: National Geographic, DeLorme, HERE, UNER, WCM, USGS, NASA, ESA, METI, MRCAN, GEBCO, NOAA, increment

Philadelphia House Price Diffusion Index

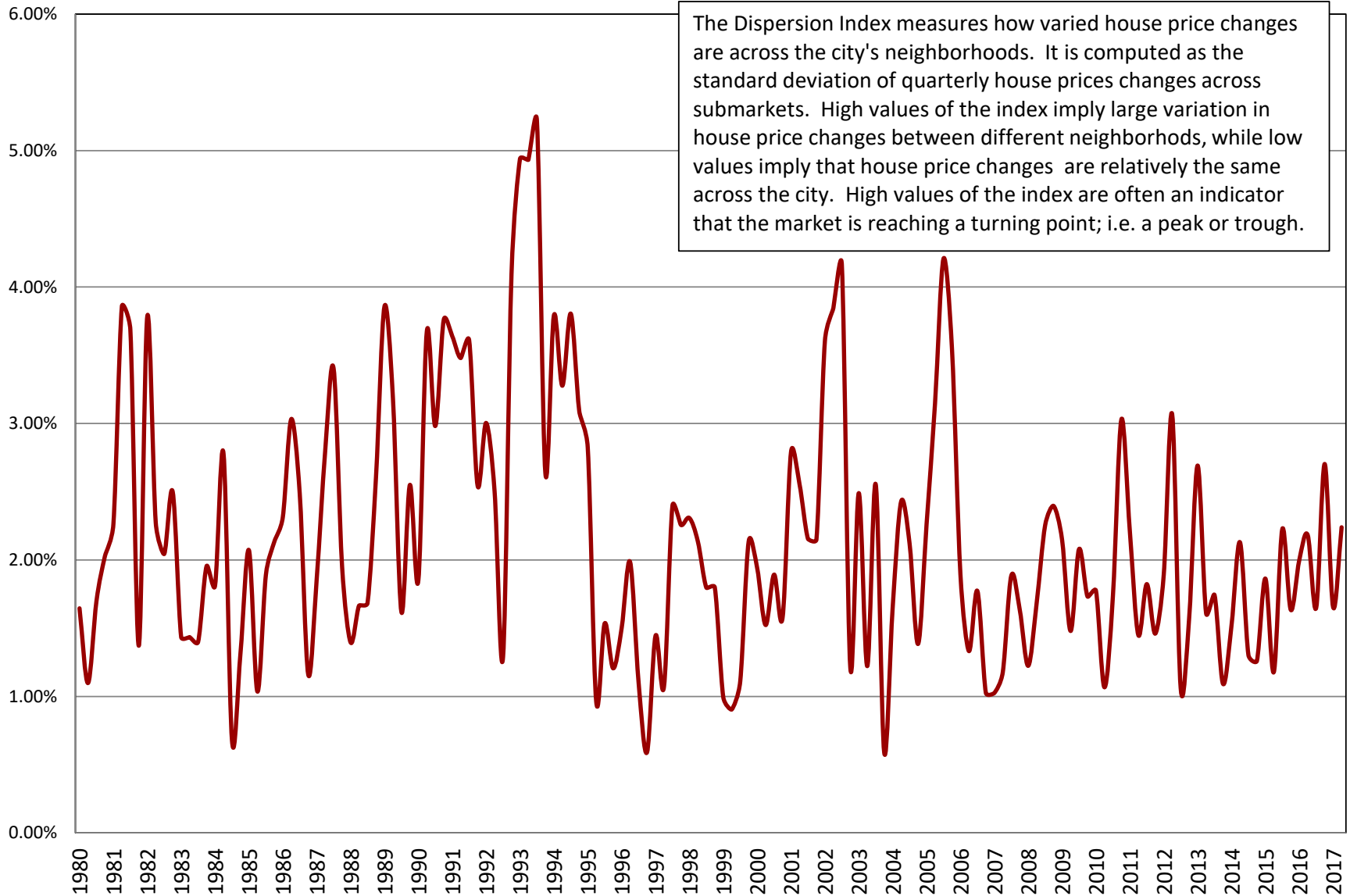


Philadelphia House Prices: Declines v. House Price Index

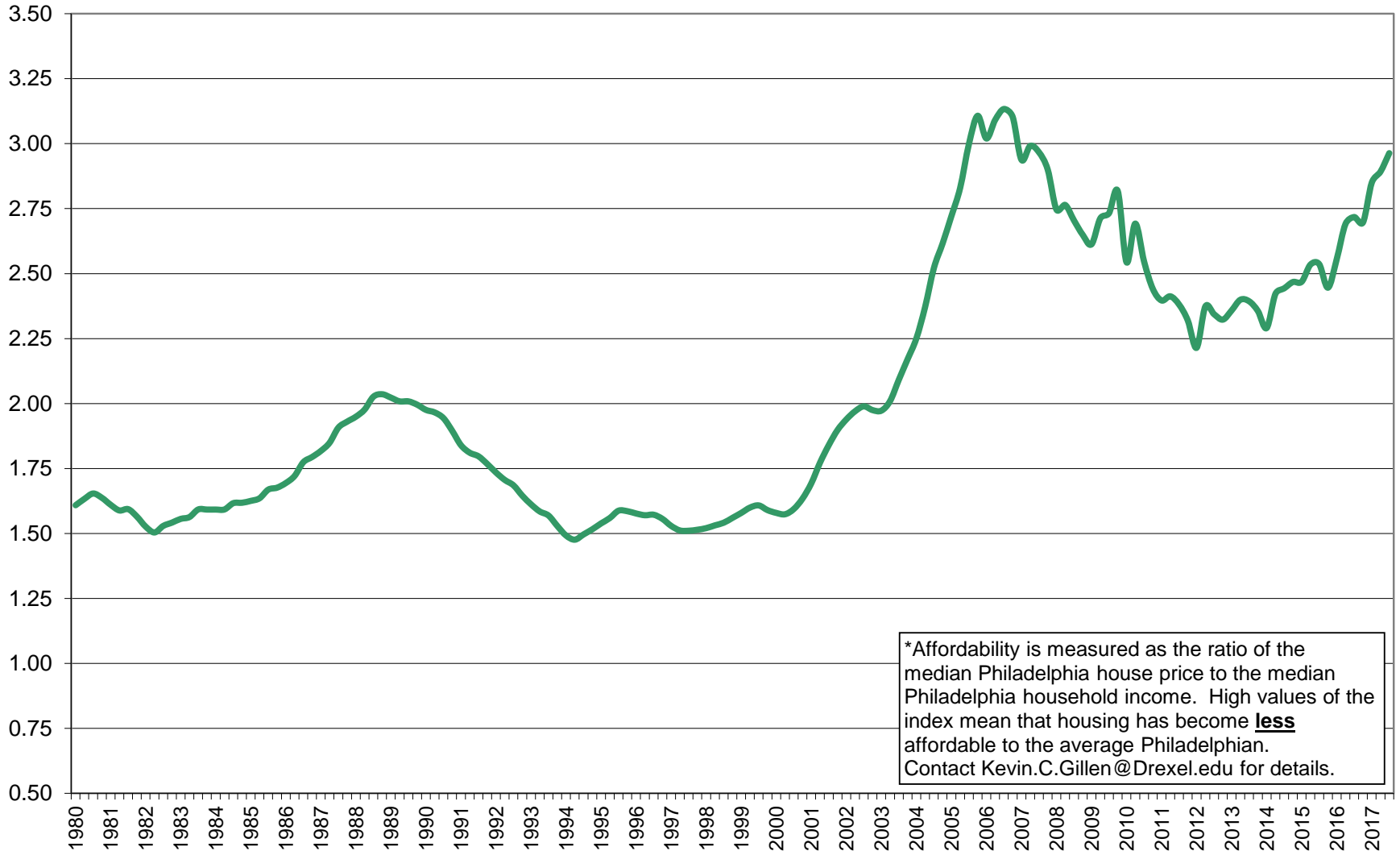


Dispersion Index of Philadelphia Housing

The Dispersion Index measures how varied house price changes are across the city's neighborhoods. It is computed as the standard deviation of quarterly house prices changes across submarkets. High values of the index imply large variation in house price changes between different neighborhoods, while low values imply that house price changes are relatively the same across the city. High values of the index are often an indicator that the market is reaching a turning point; i.e. a peak or trough.

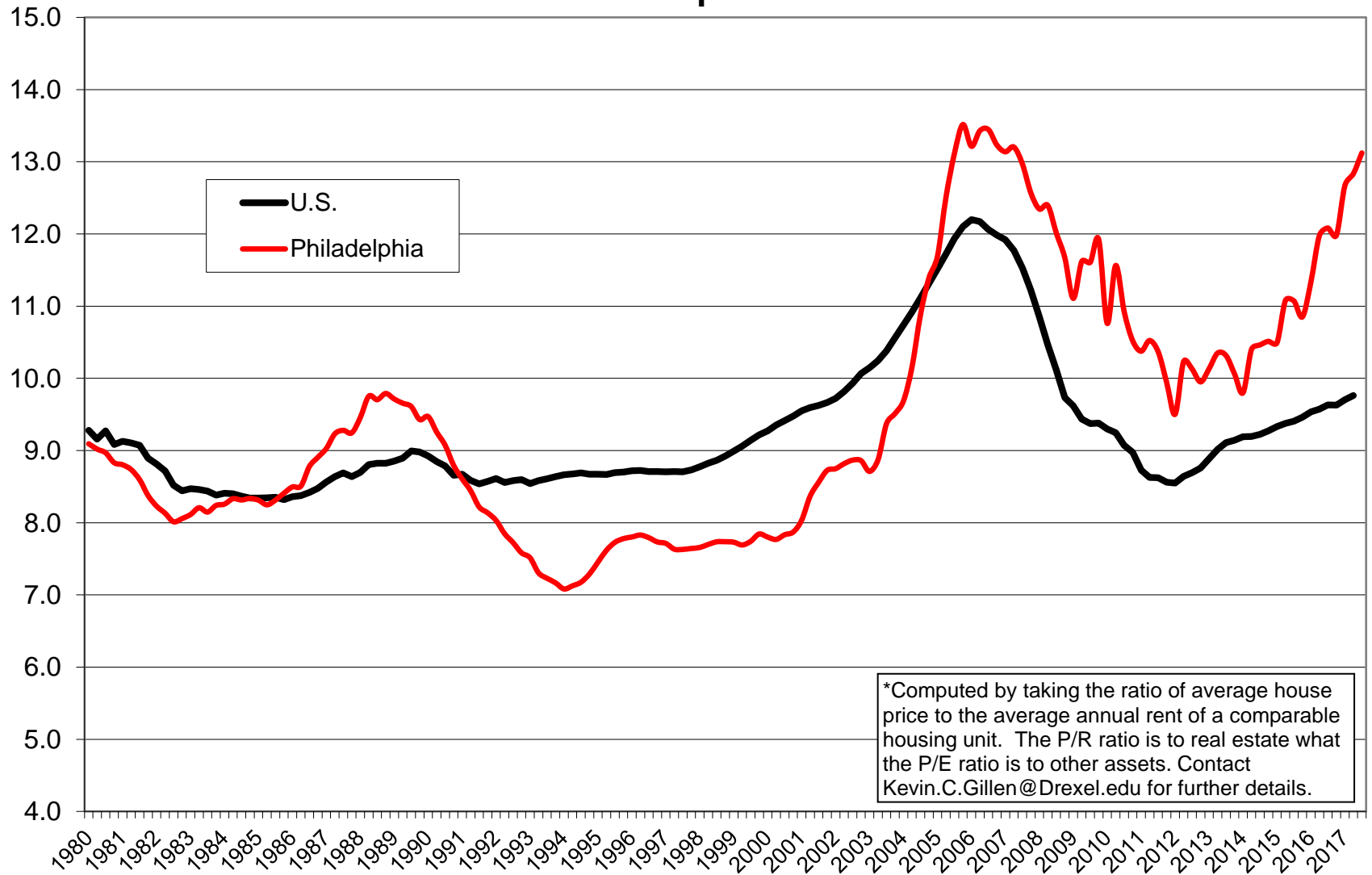


Philadelphia Housing Affordability* Index: 1980-2017



*Affordability is measured as the ratio of the median Philadelphia house price to the median Philadelphia household income. High values of the index mean that housing has become **less** affordable to the average Philadelphian. Contact Kevin.C.Gillen@Drexel.edu for details.

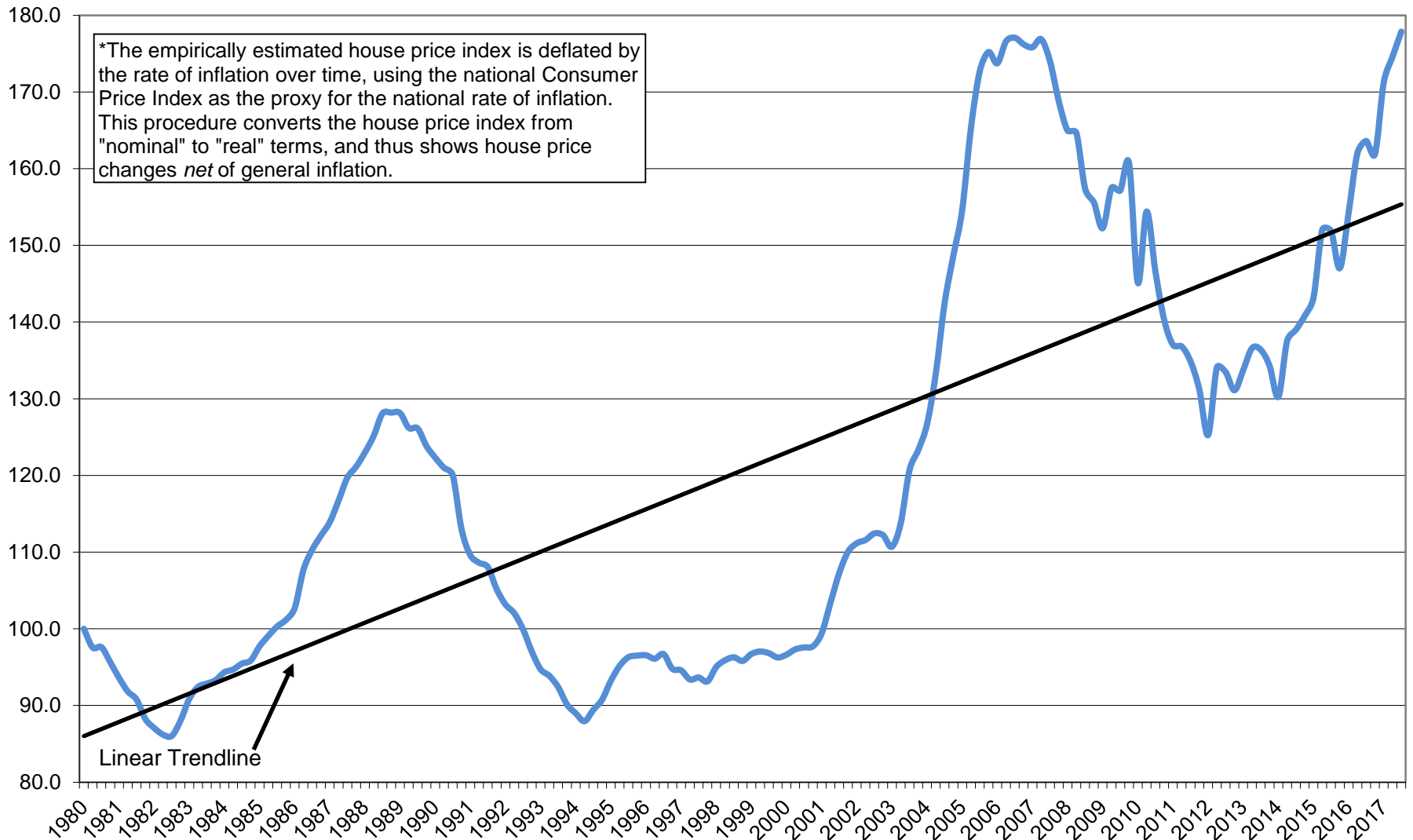
Average House Price-to-Rent Ratios*: 1980-2017 Philadelphia v. U.S.



*Computed by taking the ratio of average house price to the average annual rent of a comparable housing unit. The P/R ratio is to real estate what the P/E ratio is to other assets. Contact Kevin.C.Gillen@Drexel.edu for further details.

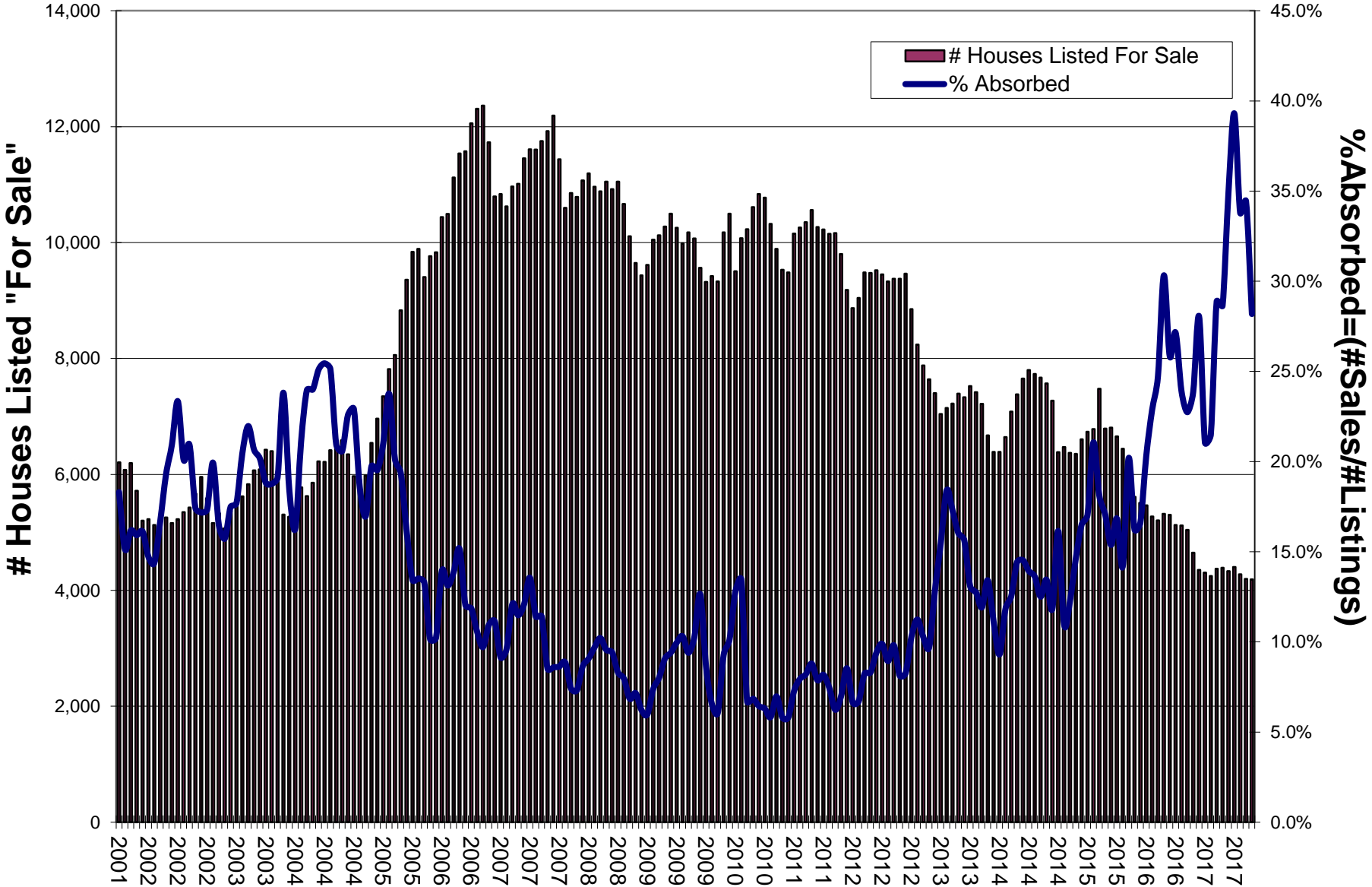
Inflation-Adjusted* Philadelphia House Price Index 1980-2017

1980Q1=100



Source: US Bureau of Labor Statistics

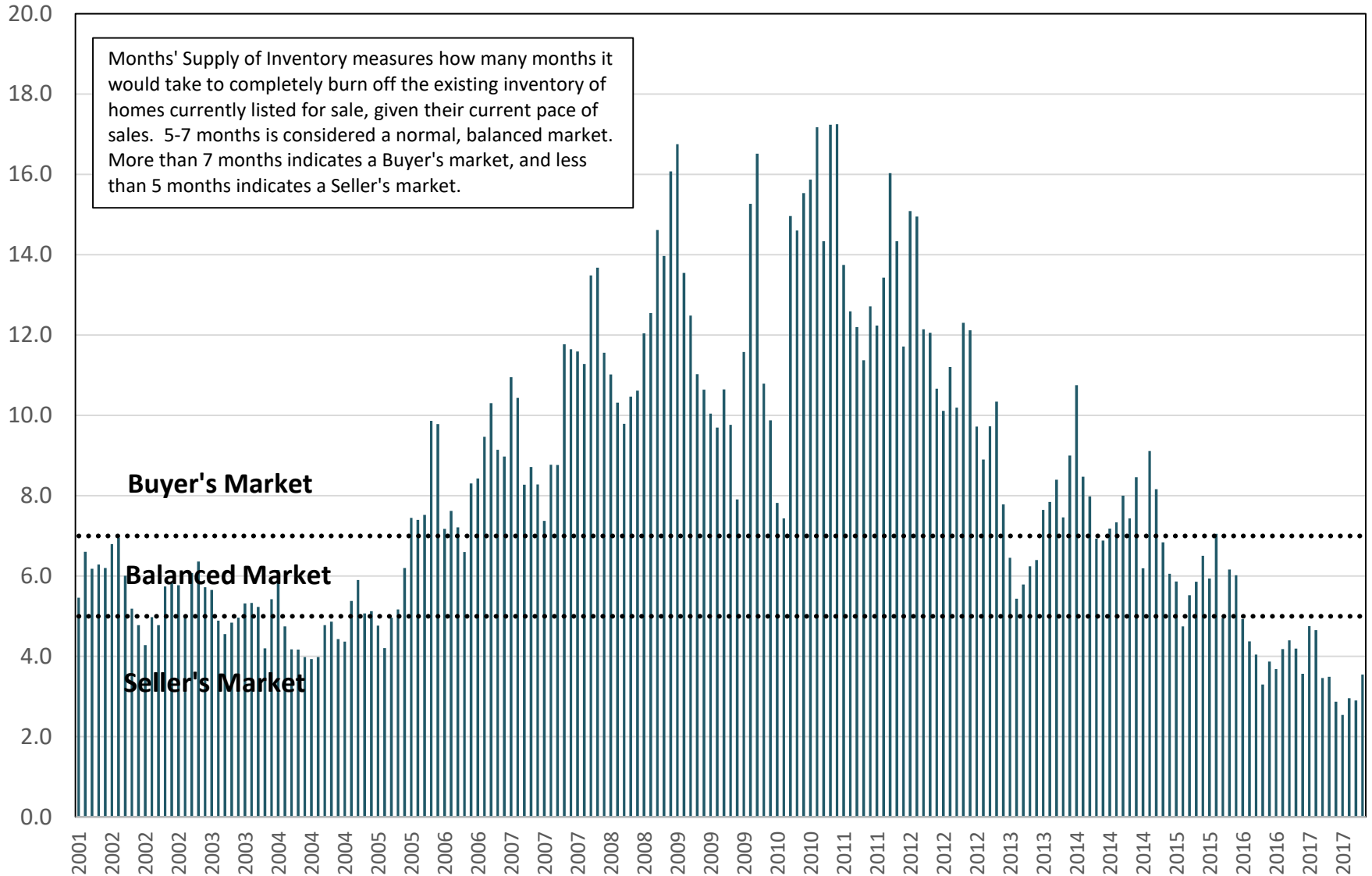
Philadelphia Houses Listed For Sale: Inventory v. Sales Rate



"%Absorbed" is defined as the percent of homes listed for sale in a given month that also sold in that same month.

Source: Trend MLS

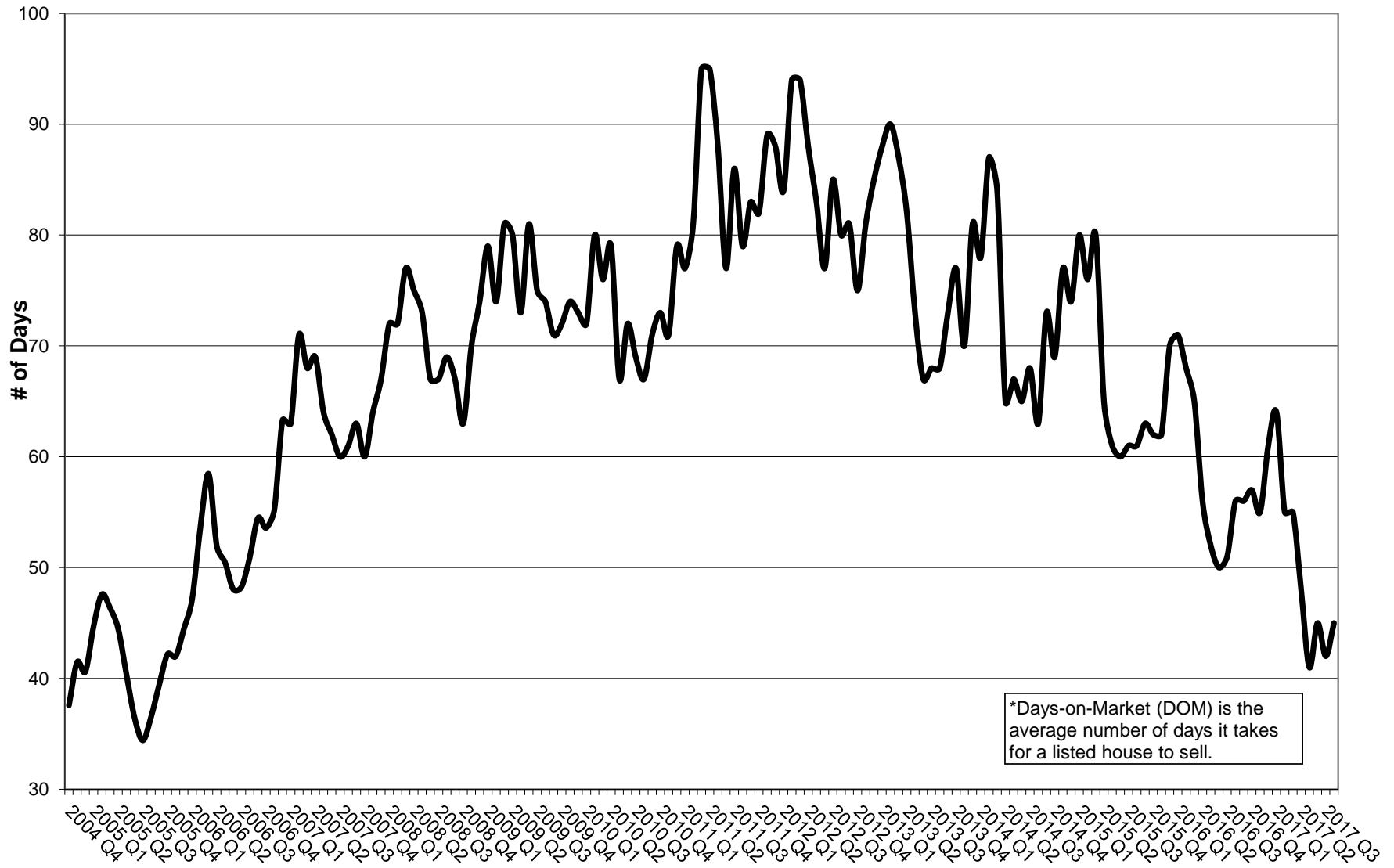
Months' Supply of Inventory in Philadelphia



Source: Trend MLS



Average Days-on-Market* for Philadelphia Homes

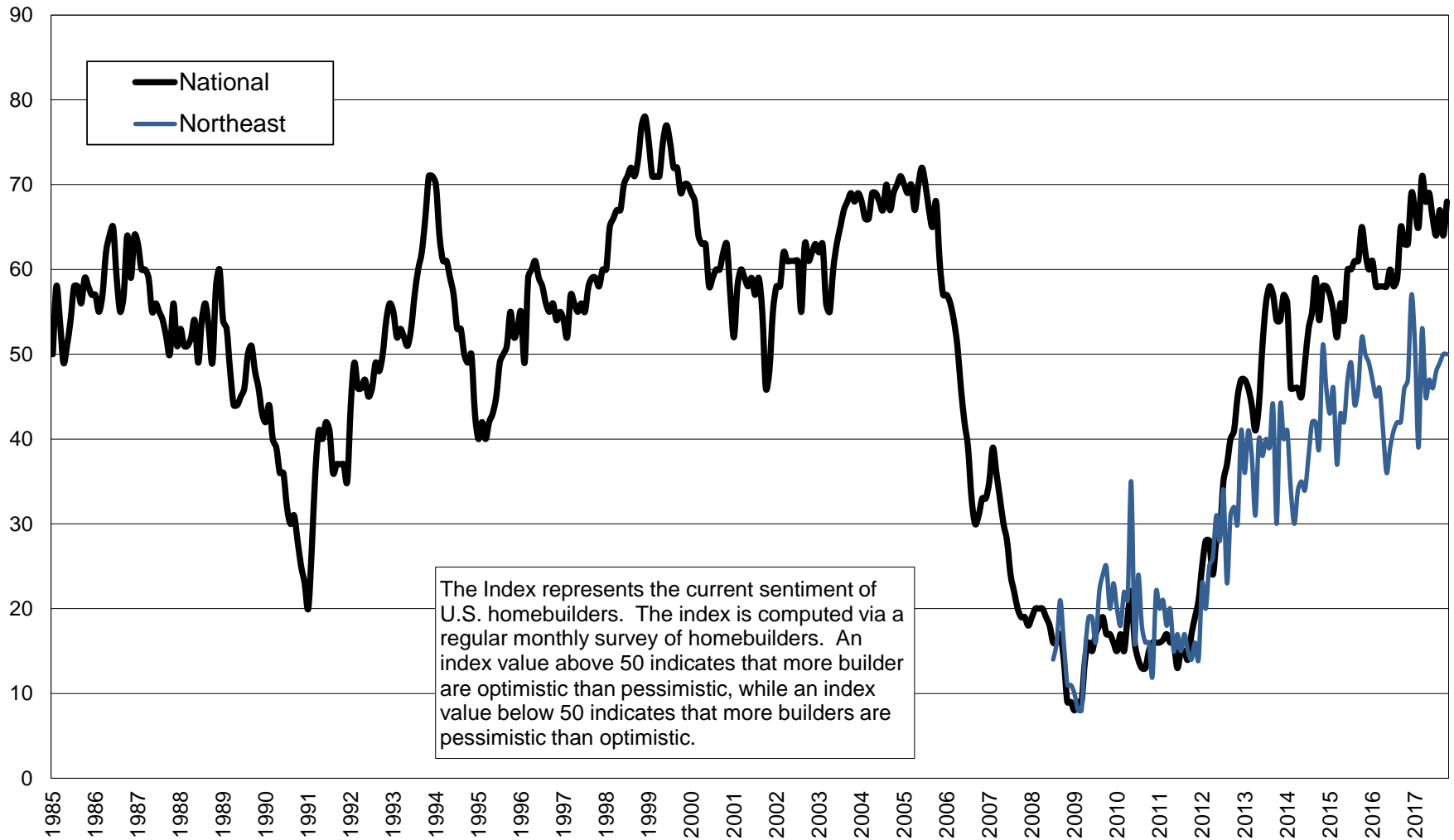


*Days-on-Market (DOM) is the average number of days it takes for a listed house to sell.

Source: Trend MLS

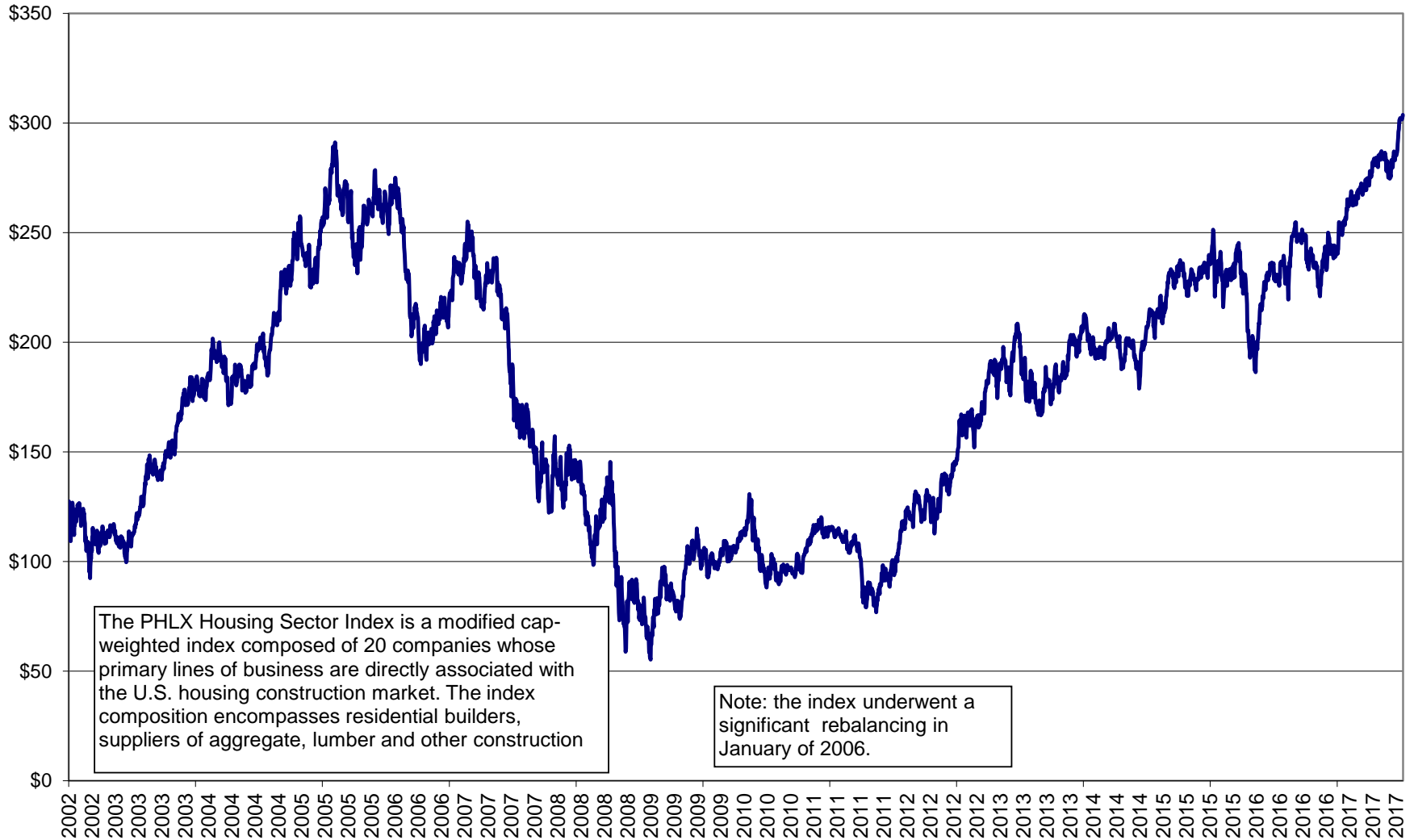


Index of Homebuilder Sentiment: 1985-2017 (Seasonally Adjusted)



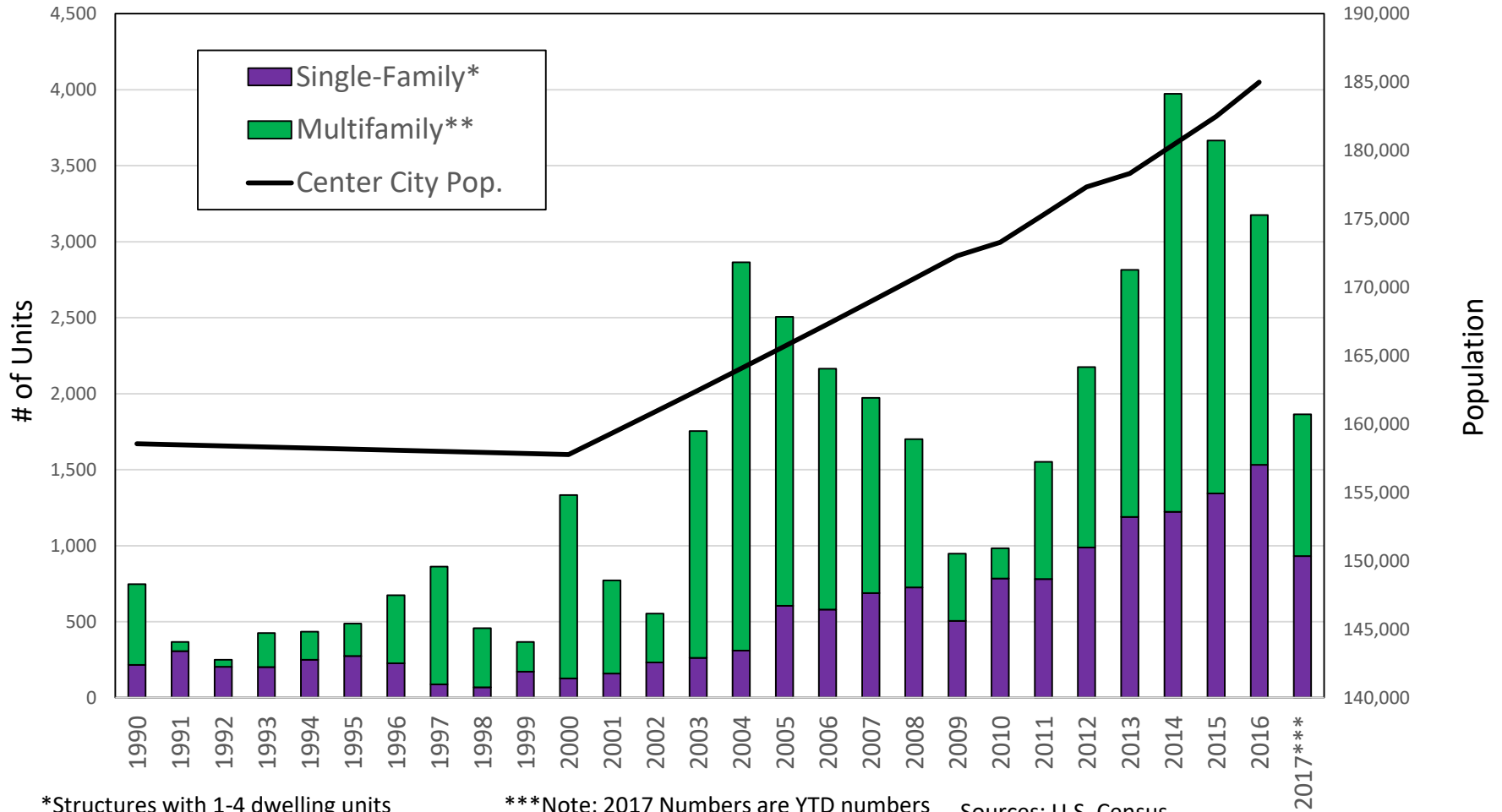
Source: National Assoc. of Homebuilders (NAHB)/Wells Fargo

Philadelphia Stock Exchange Housing Sector Index: 2002-2017



Source: finance.yahoo.com

Building Permits Issued for Construction of Residential Units in Philadelphia: Single-Family v. Multifamily



*Structures with 1-4 dwelling units

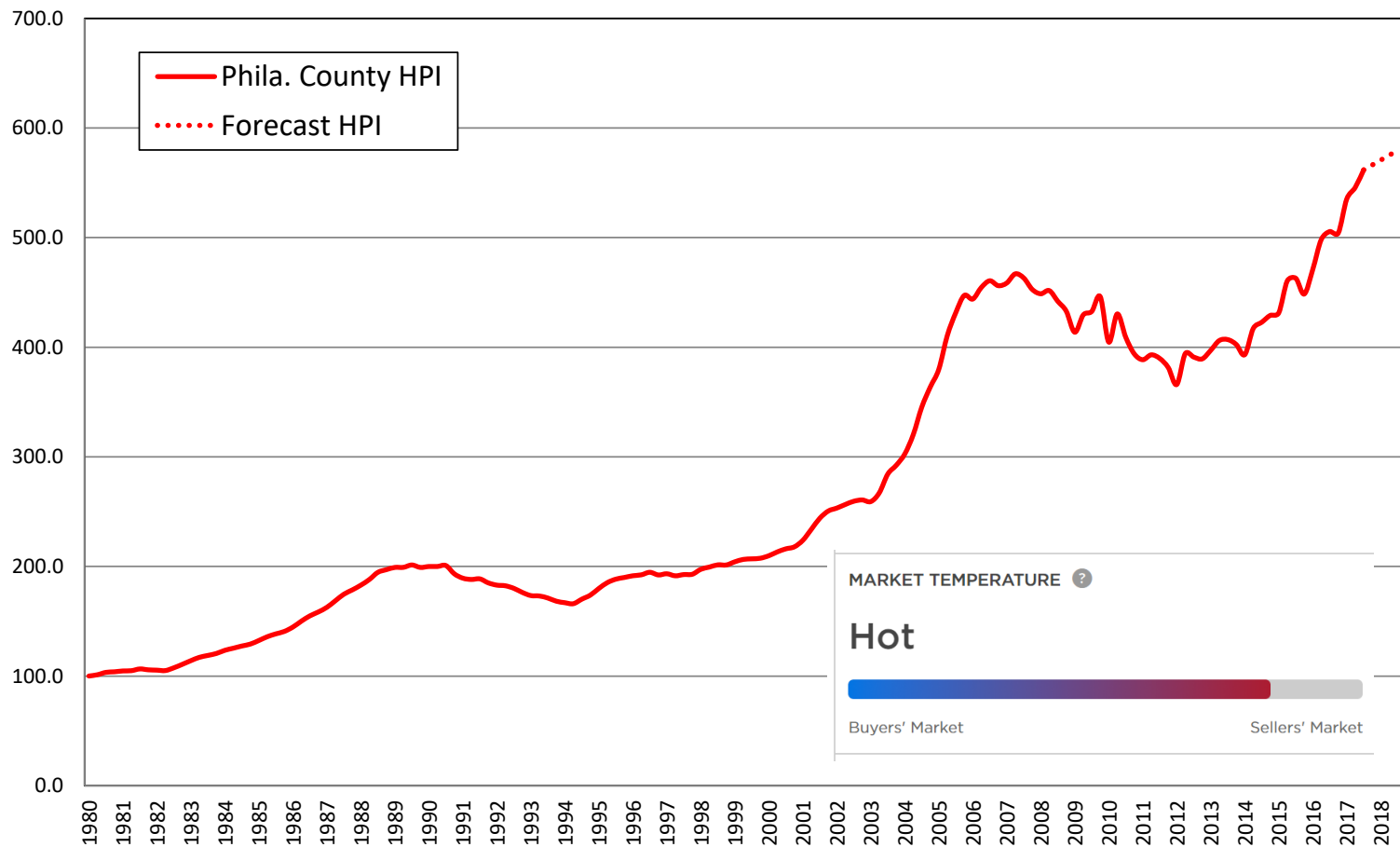
**Structures with >=5 dwelling units

***Note: 2017 Numbers are YTD numbers through May 2017.

Sources: U.S. Census
Center City District

Philadelphia House Price Index and 1-Year Forecast

Philadelphia House Price Index: Actual v. Forecast



Zillow.com is currently forecasting Philadelphia house prices to rise an average of 3.1% over the next year, which is a downgrade from its previous forecast of 4.5% made three months ago. Zillow also currently rates the temperature of Philadelphia's housing market as "Hot", which is unchanged from the previous rating three months ago.

Source: <http://www.zillow.com/philadelphia-pa/home-values/>

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