

PHILADELPHIA REGIONAL HOUSE PRICE INDICES

November 28, 2018



DREXEL UNIVERSITY
Lindy Institute
for Urban Innovation

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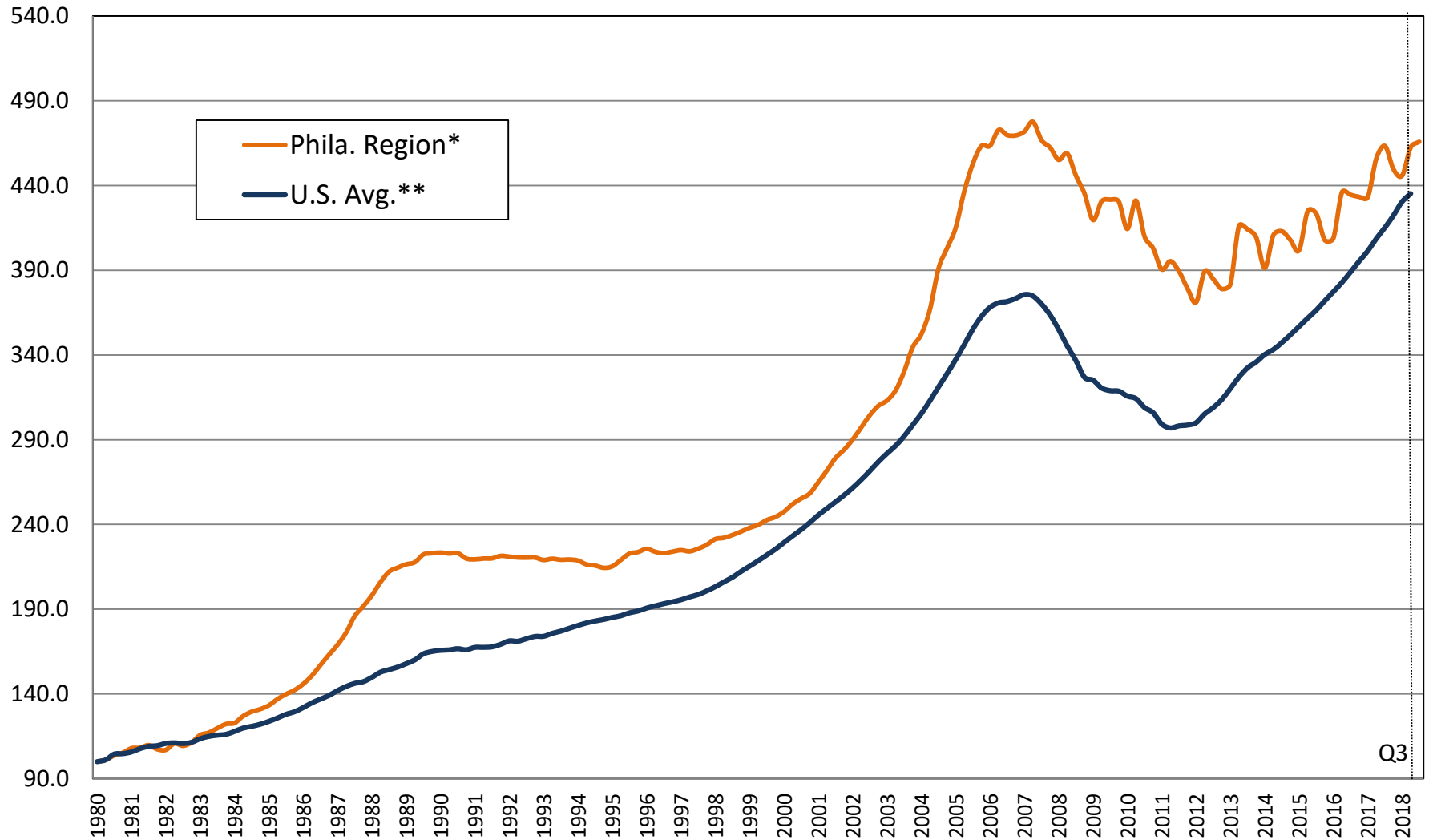
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Disclaimers and Acknowledgments: The Lindy Institute for Urban Innovation at Drexel University and Houwzer Inc. provide this report free of charge to the public. The report is produced by Kevin Gillen, a Senior Research Fellow with the Lindy Institute and a Senior Economic Advisor with Houwzer. The author thanks Houwzer Inc., 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 available for this report. © 2017, Drexel University, All Rights Reserved.

Philadelphia Regional House Price Indices 1980-2018

1980Q1=100

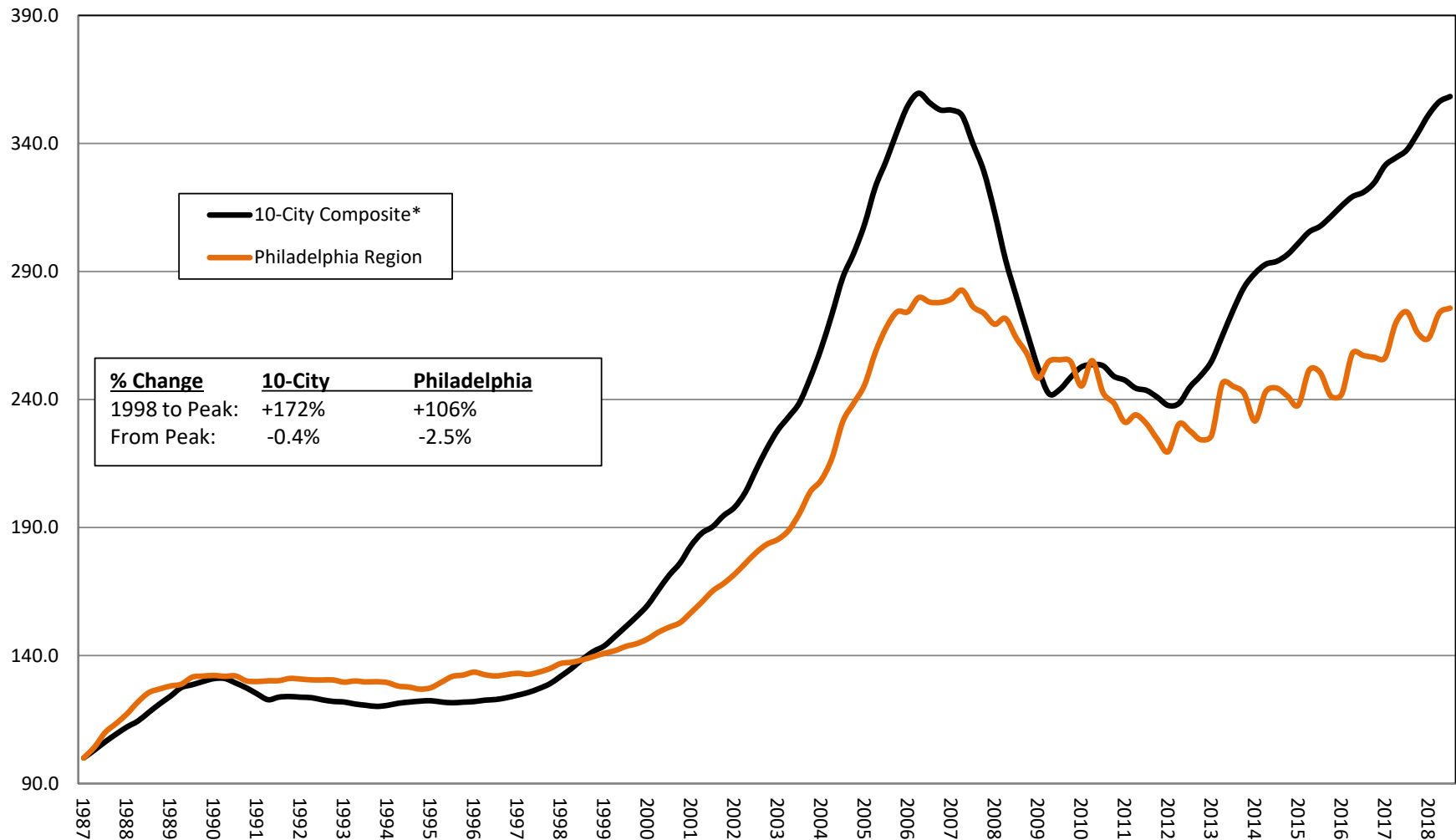


*Empirically estimated by Kevin C. Gillen, PhD

**Courtesy Federal Housing Finance Agency (FHFA)

Q3

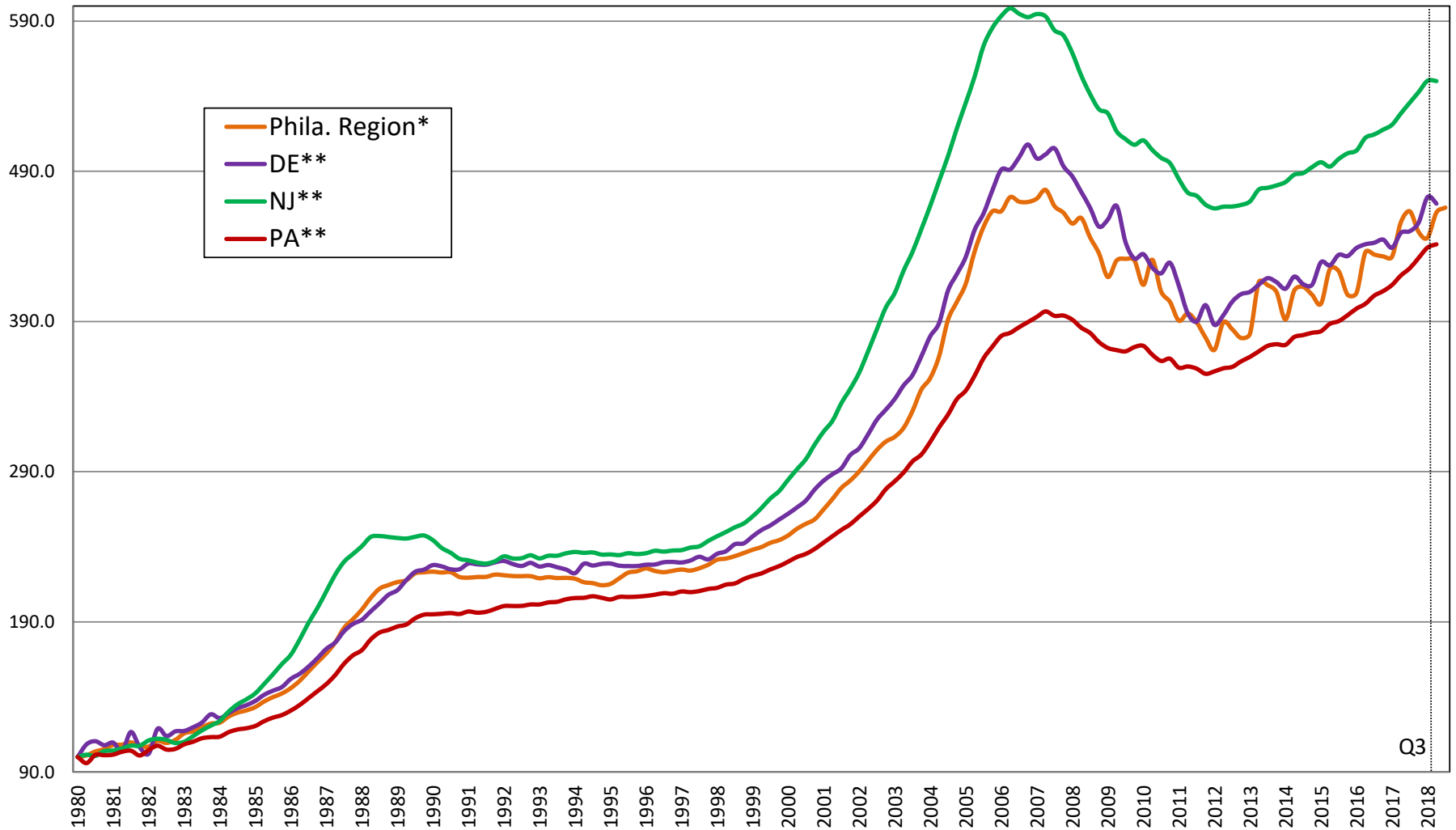
House Price Appreciation 1987-2018: Philadelphia Region v. 10-City U.S. Composite



*Source: Case-Shiller MacroMarkets LLC. 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 Regional House Price Indices 1980-2018

by Philadelphia Region and State: 1980Q1=100



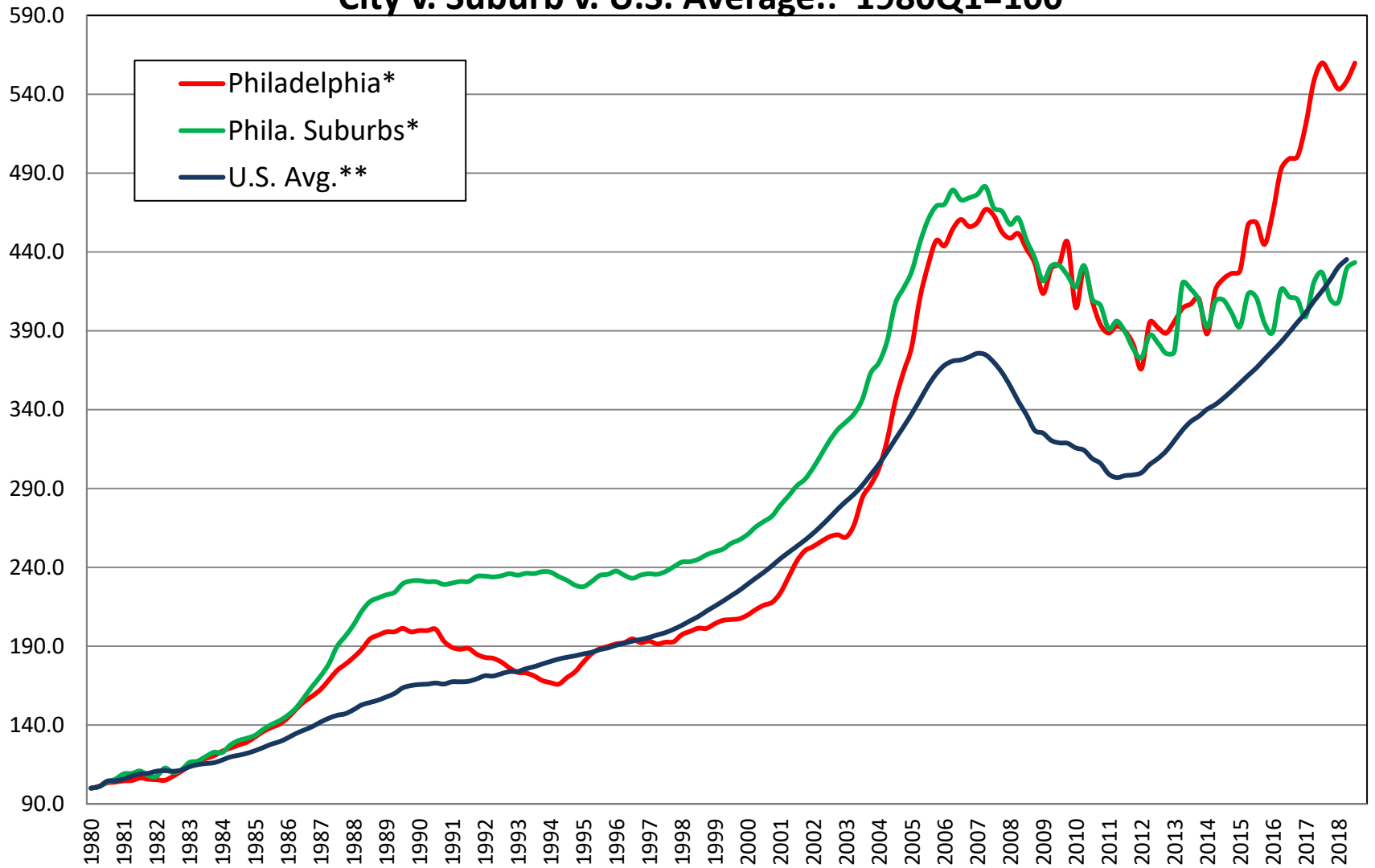
*Empirically estimated by Kevin C. Gillen, Ph.D.

**Courtesy Federal Housing Finance Agency (FHFA)

Q3

Philadelphia Regional House Price Indices 1980-2018

City v. Suburb v. U.S. Average.: 1980Q1=100

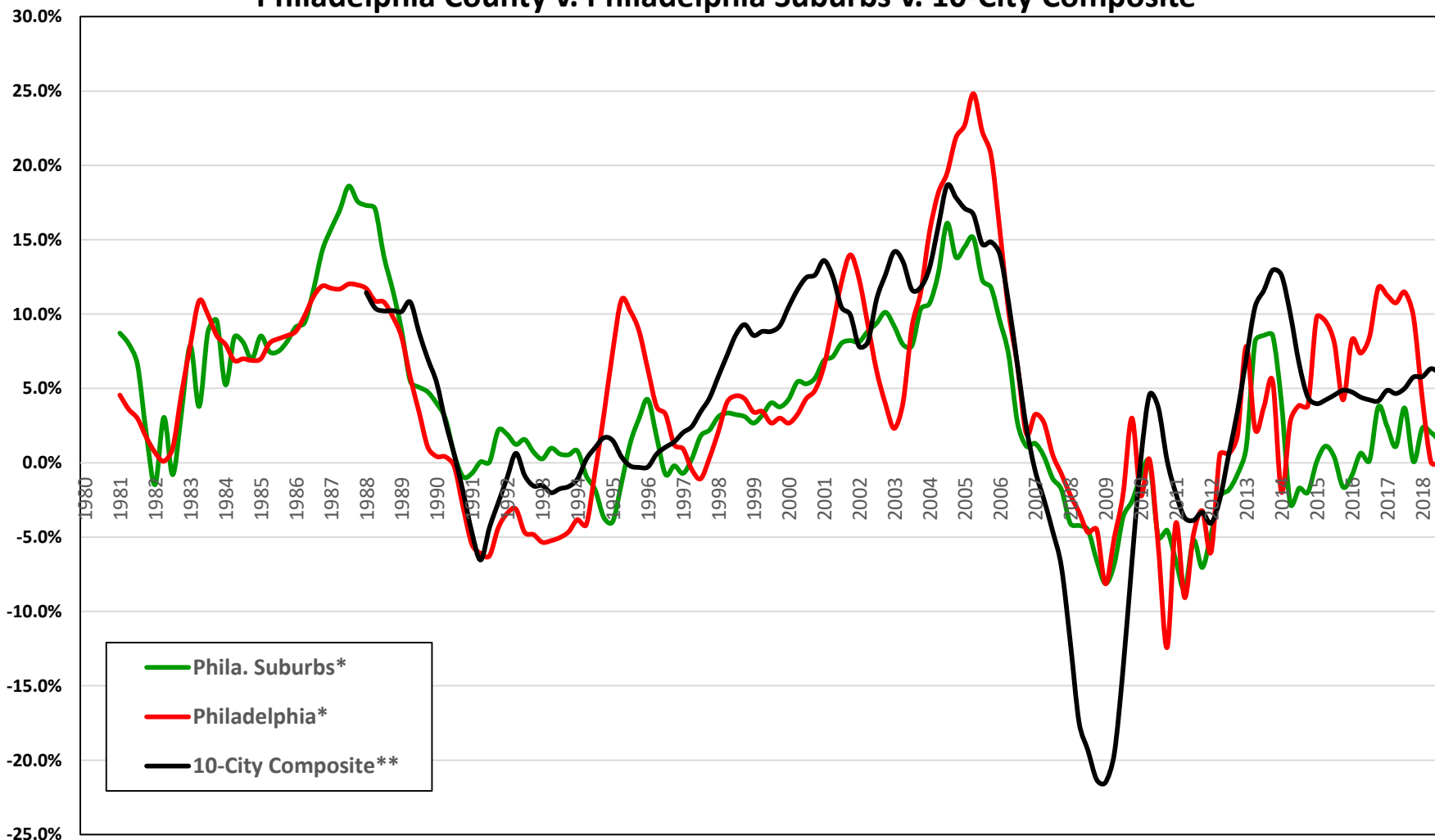


*Empirically estimated by Kevin C. Gillen, Ph.D.

Note: The suburban index includes all counties in the regional index, except for Philadelphia county.

YoY Change in Average House Prices: 1980-2018

Philadelphia County v. Philadelphia Suburbs v. 10-City Composite

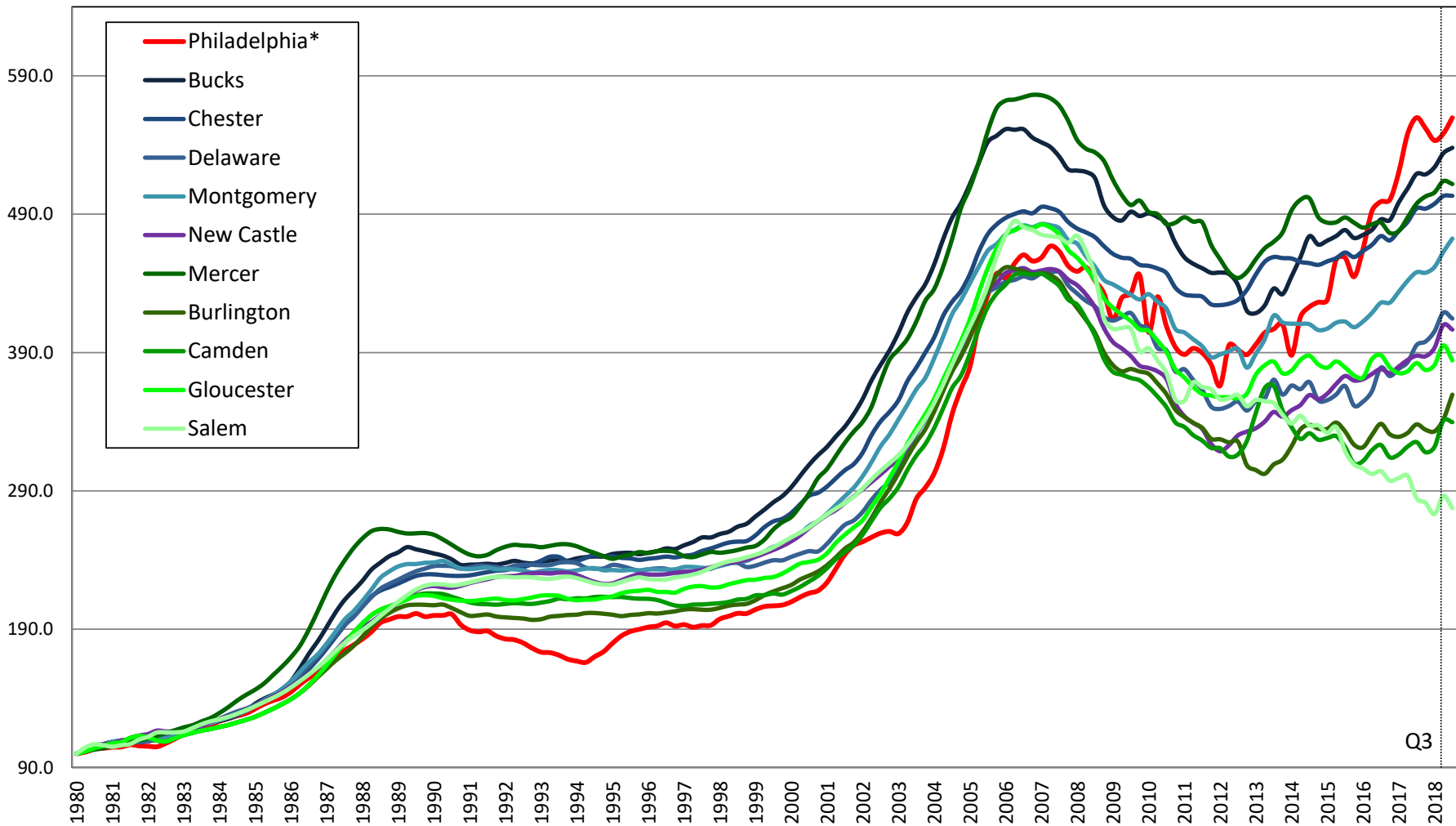


*Empirically estimated by Kevin C. Gillen, Ph.D.

**Empirically estimated by Case-Shiller. The 10-City Composite reflects average annual house price changes in ten large US cities, including: Boston Chicago, Denver, Las Vegas, Los Angeles, Miami, New York, San Diego, San Francisco and Washington DC. It does not include Philadelphia.

Philadelphia Regional House Price Indices 1980-2018, by County

1980Q1=100



*All indices empirically estimated by Kevin C. Gillen, PhD

Total House Price Appreciation Rates by Philadelphia Area Submarket and U.S.

Period	Philadelphia County*	Philadelphia Suburbs*	U.S.A.**
39-Year	172.2%	146.6%	147.1%
10-Year	23.6%	-3.2%	23.2%
1-Year	0.0%	1.5%	6.3%
1-Quarter	2.1%	1.0%	1.1%

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

**Source: U.S. Federal Housing Finance Agency (FHFA). These numbers are through 2018Q2 only. “MSA”=“Metropolitan Statistical Area”, which is the entire 10-county region.

Philadelphia Region House Price Appreciation Rates by County

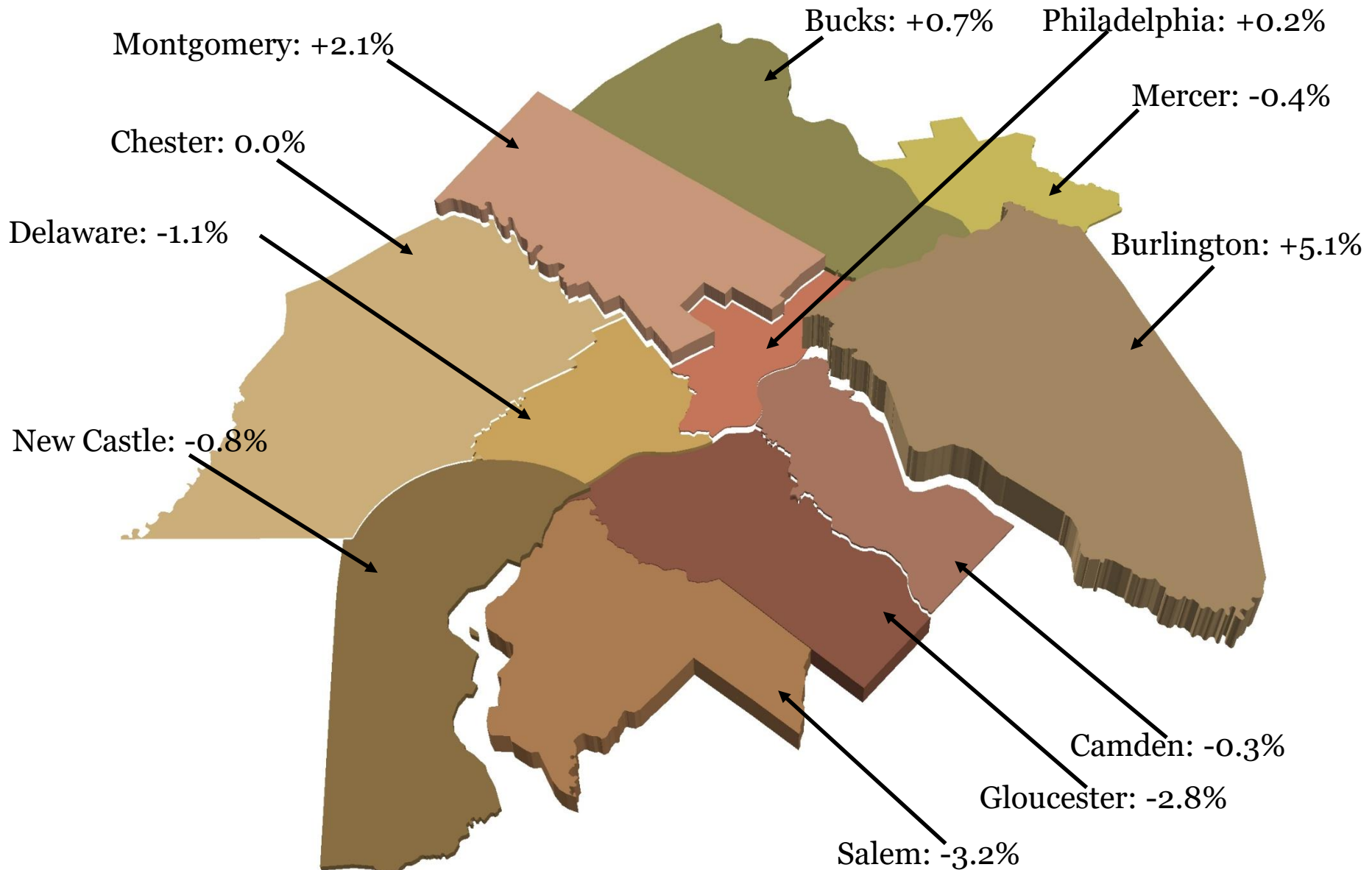
Period	Philadelphia	Bucks	Chester	Delaware	Montgomery	New Castle	Mercer	Burlington	Camden	Gloucester	Salem
38-Year	172%	168%	162%	142%	155%	140%	163%	128%	122%	135%	102%
10-Year	23.6%	4.2%	6.1%	-2.1%	4.4%	-3.8%	-4.4%	-11.7%	-16.9%	-14.0%	-47.4%
1-Year	0.0%	3.6%	1.8%	4.7%	5.3%	4.8%	2.8%	6.2%	4.3%	0.5%	-2.5%
1-Quarter	2.1%	0.7%	0.0%	-1.1%	2.1%	-0.8%	-0.4%	5.1%	-0.3%	-2.8%	-3.2%

All county-level indices and appreciation rates estimated by Kevin C. Gillen, Ph.D.

Philadelphia Region: County Boundary Definitions

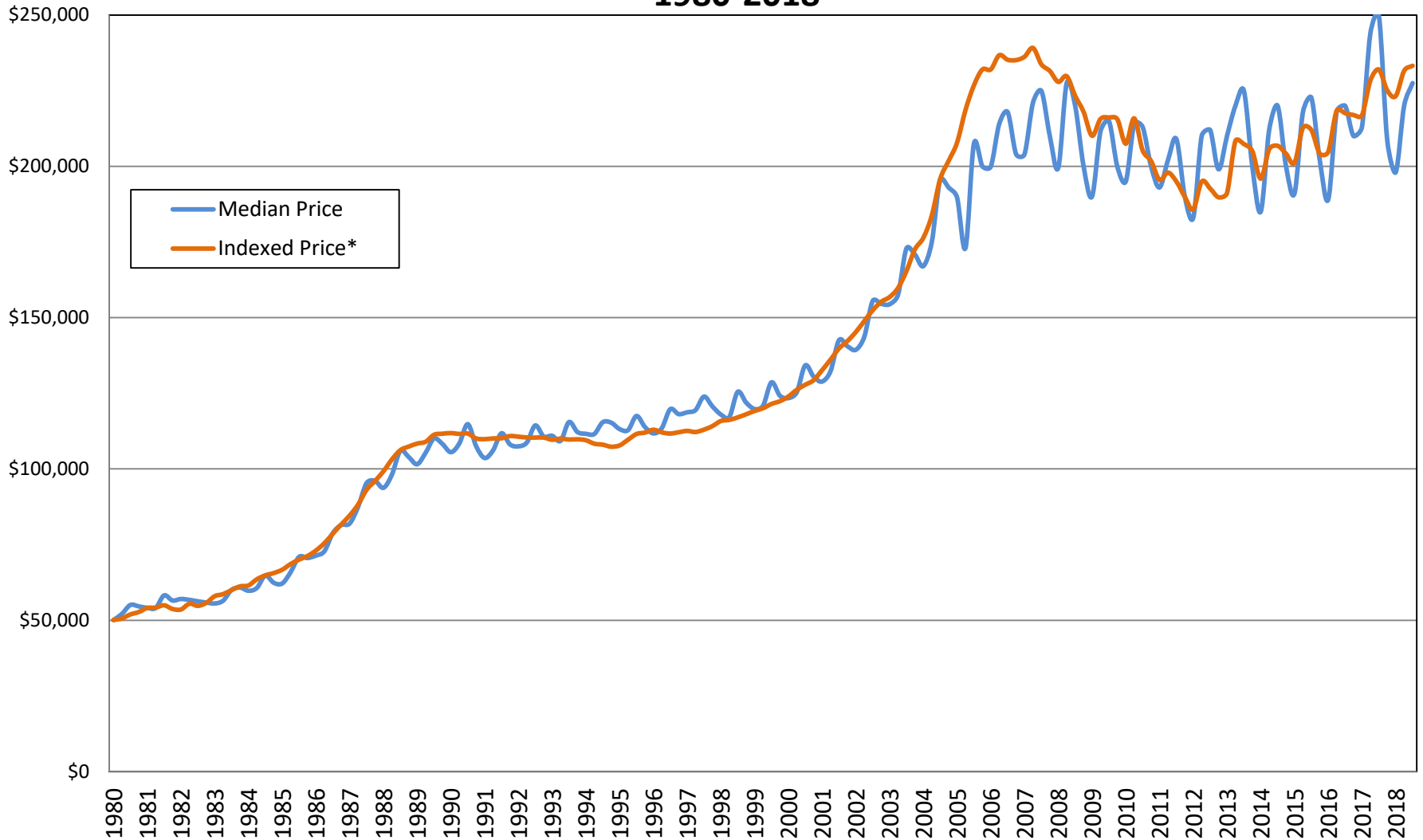


2018 Q3 House Price Rate of Change by County



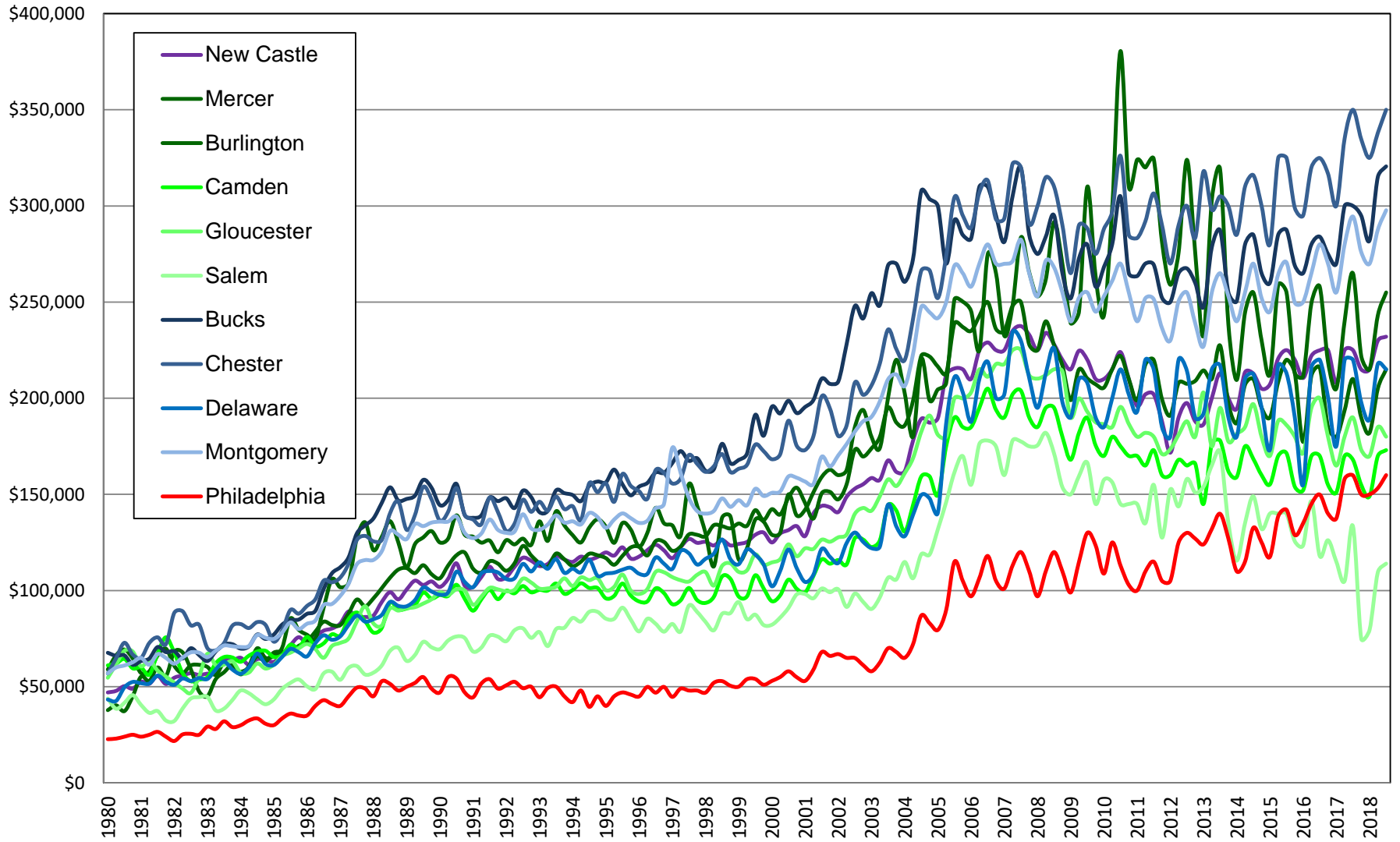
Note: Each county is extruded by its average change in house values during 2018 Q3 in order to reflect its growth (or depreciation) rate relative to other counties.

Median Regional House Price v. Indexed Regional House Price: 1980-2018

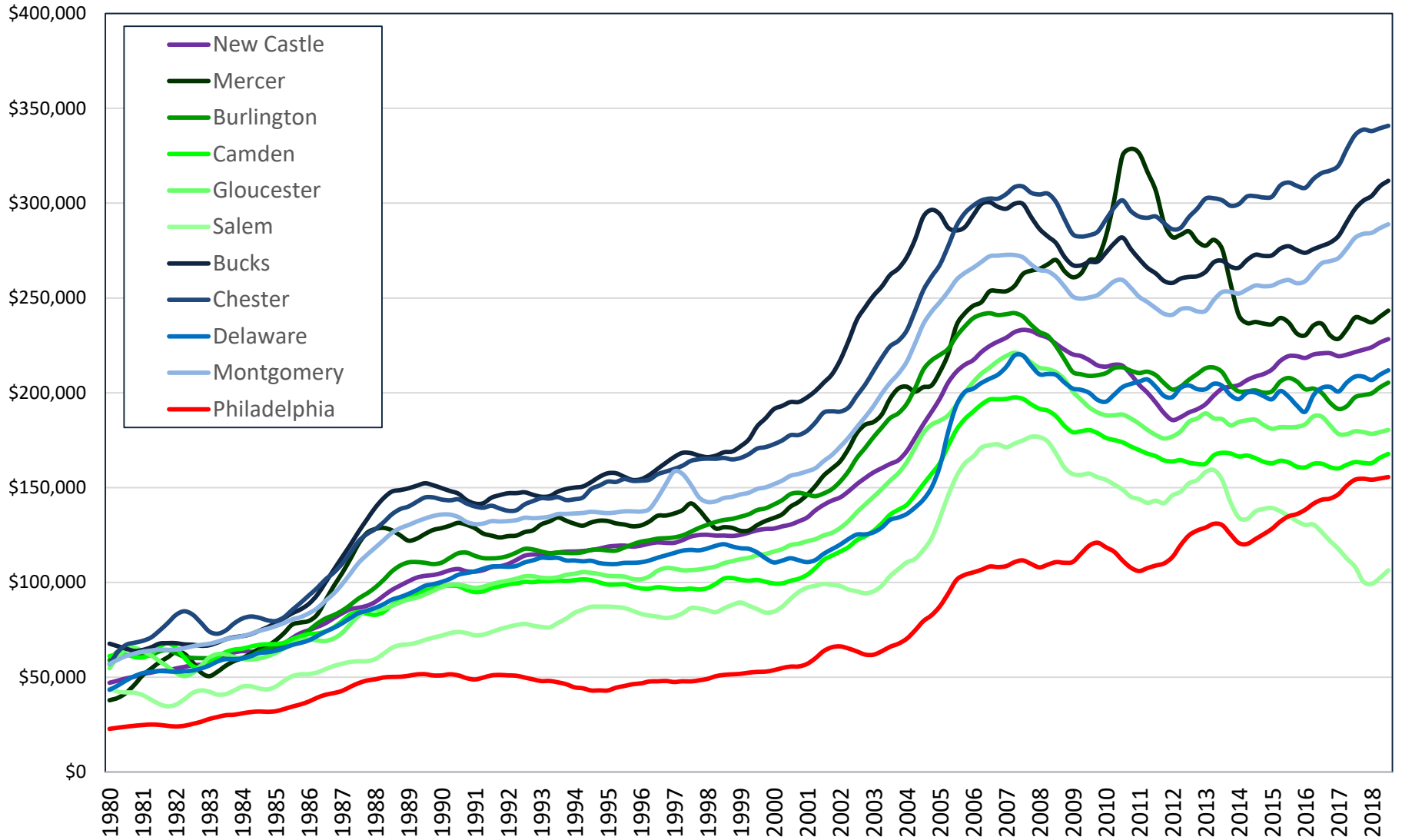


*Empirically estimated by Kevin C. Gillen, Ph.D.

Median House Price by County: 1980-2018

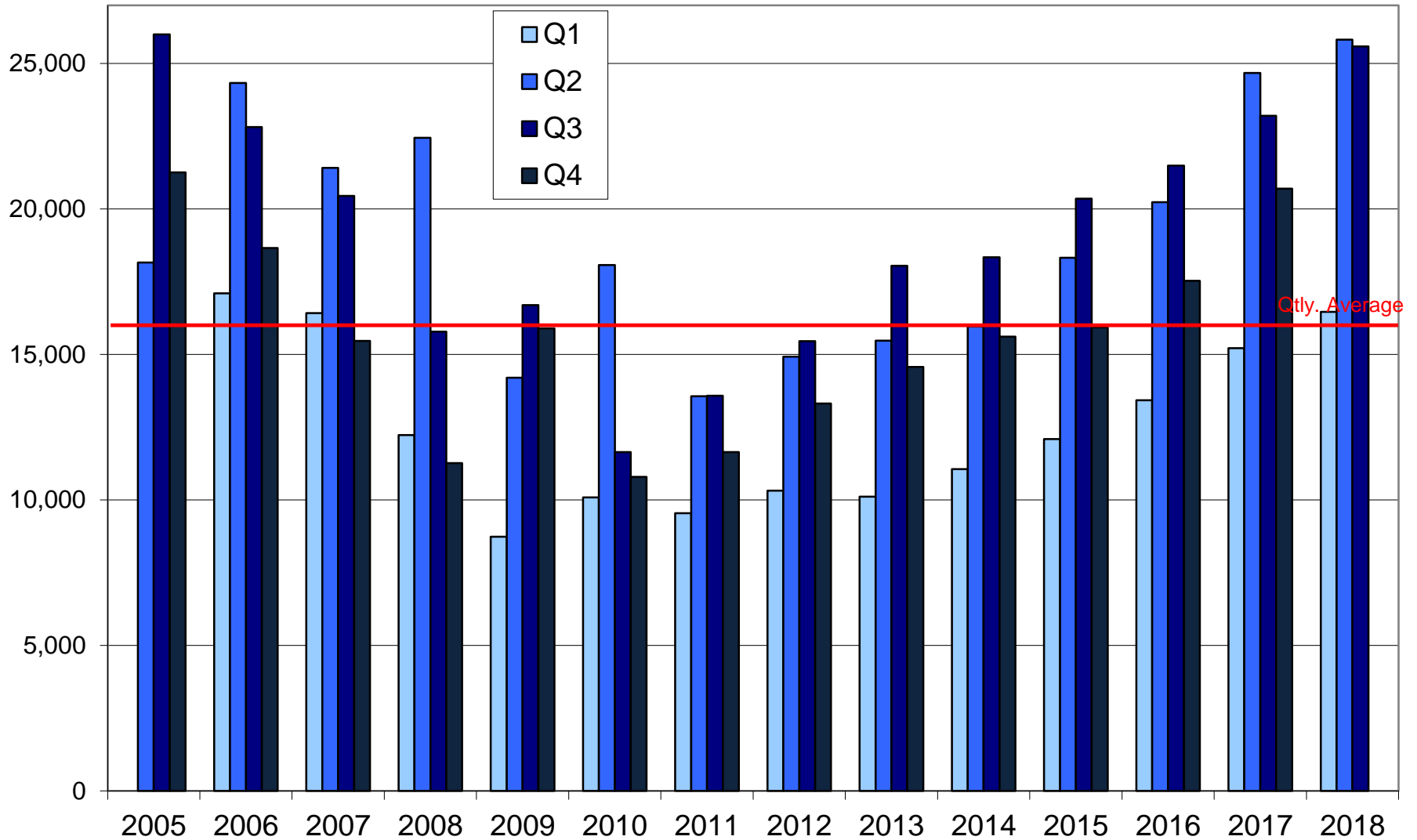


Median House Price by County, Smoothed*: 1980-2018



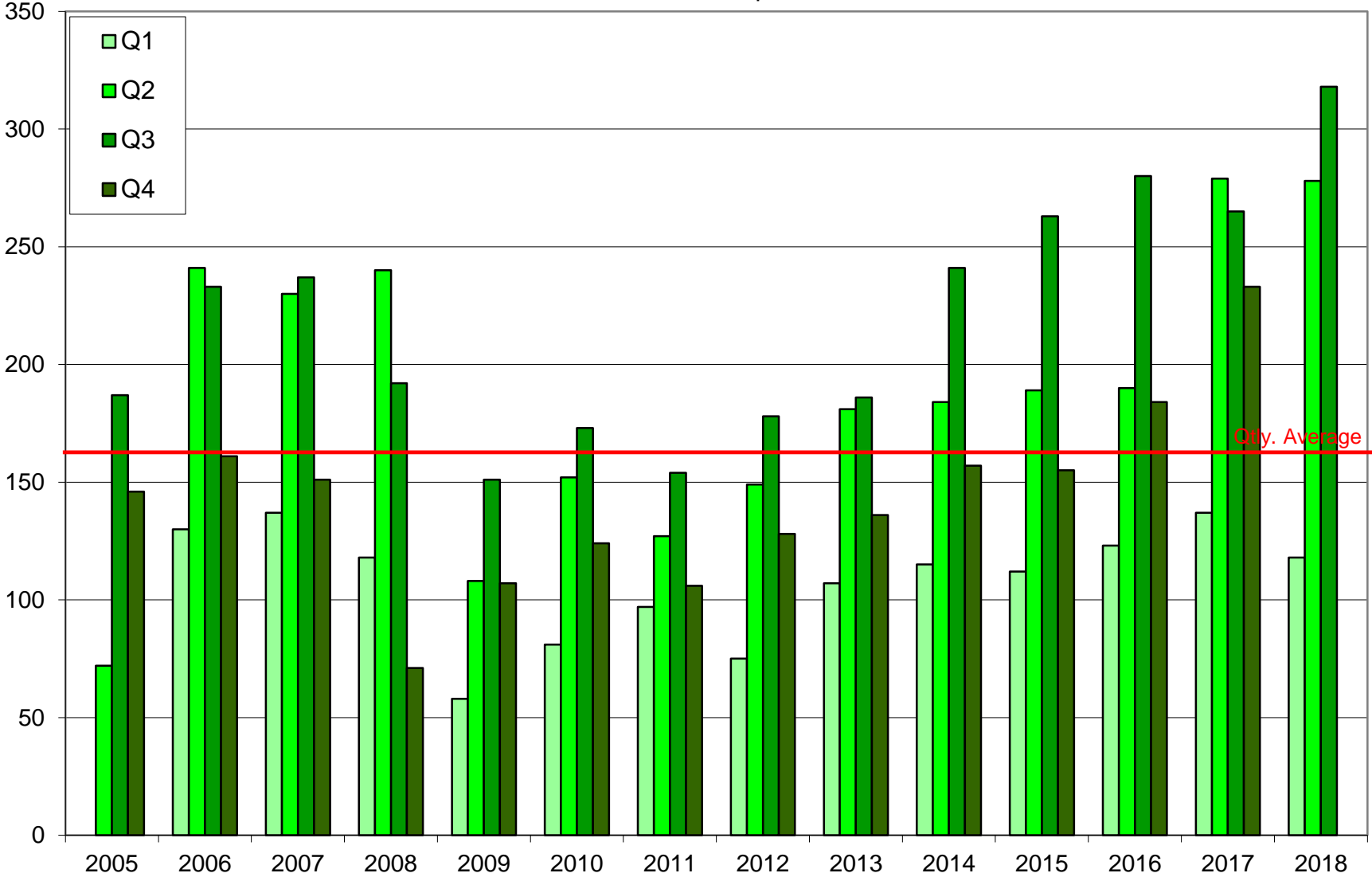
*The price data was smoothed by applying a 3-period moving average, in order to eliminate seasonal noise.

Number of Regional House Sales per Quarter: 2005-2018



Qtly. Average

Number of Regional House Sales 2005-2018 with Price >=\$1m



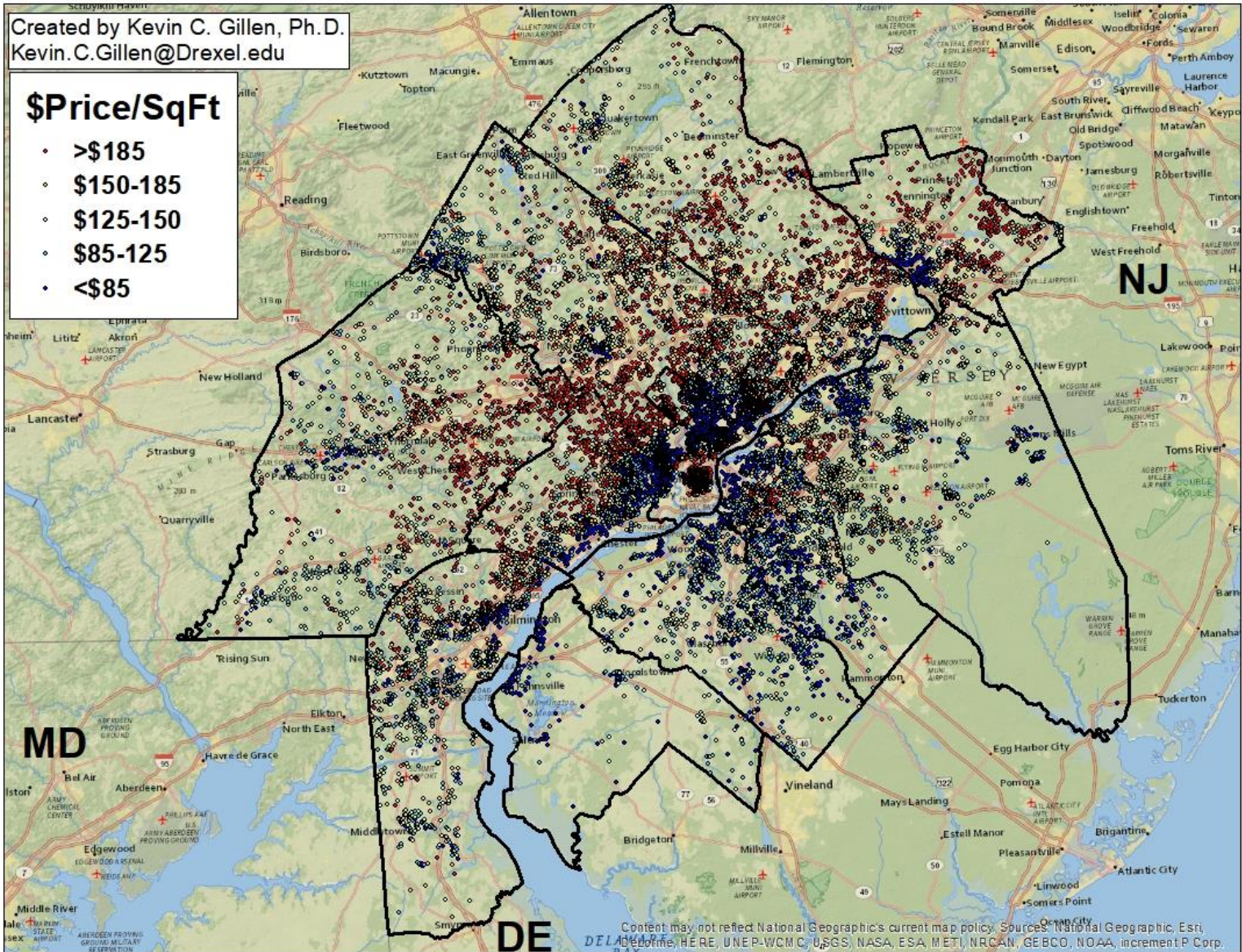
City. Average

Philadelphia Region House Sales in 2018 Q3

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

\$Price/SqFt

- >\$185
- \$150-185
- \$125-150
- \$85-125
- <\$85



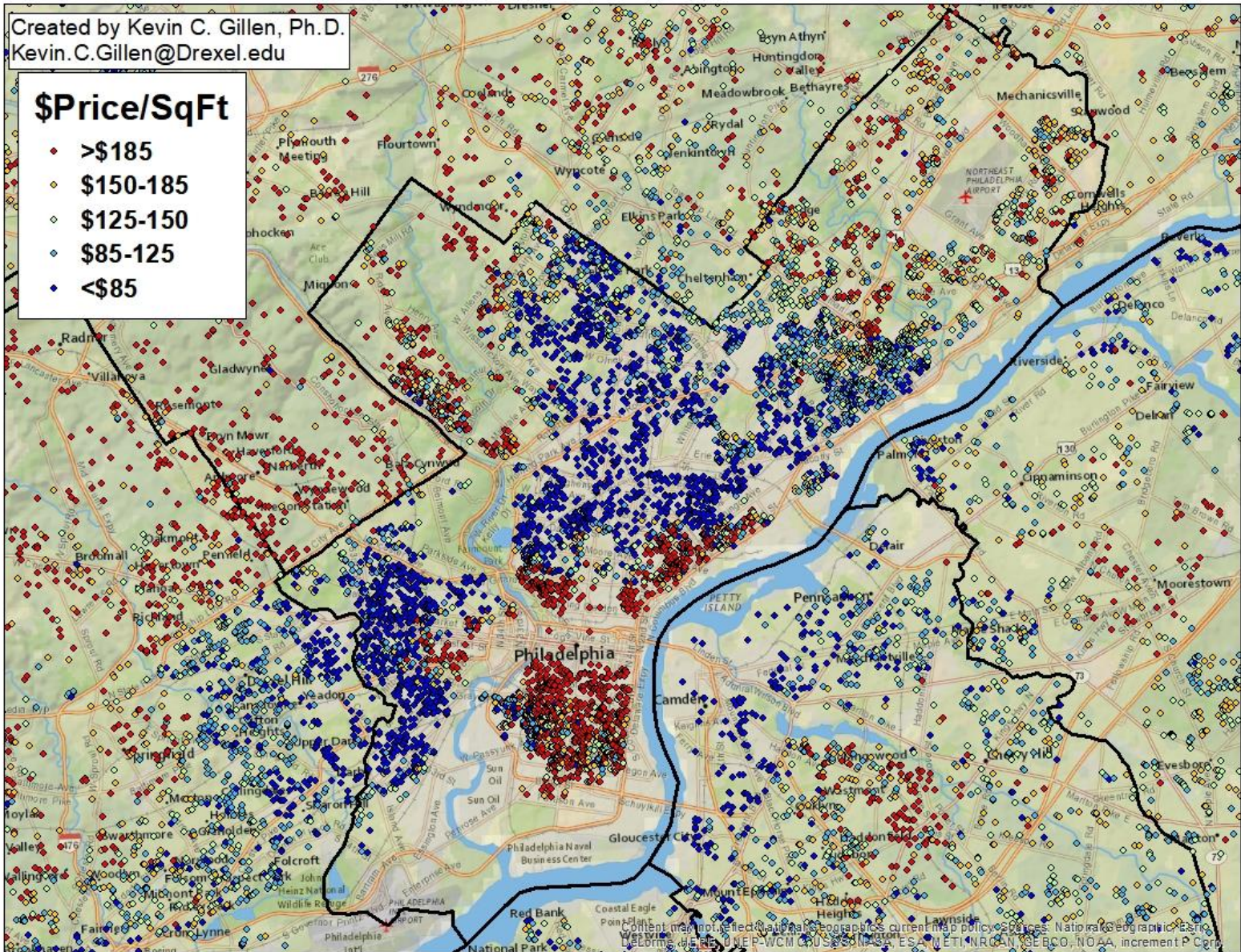
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Philadelphia County House Sales in 2018 Q3

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

\$Price/SqFt

- ◆ >\$185
- ◆ \$150-185
- ◆ \$125-150
- ◆ \$85-125
- ◆ <\$85



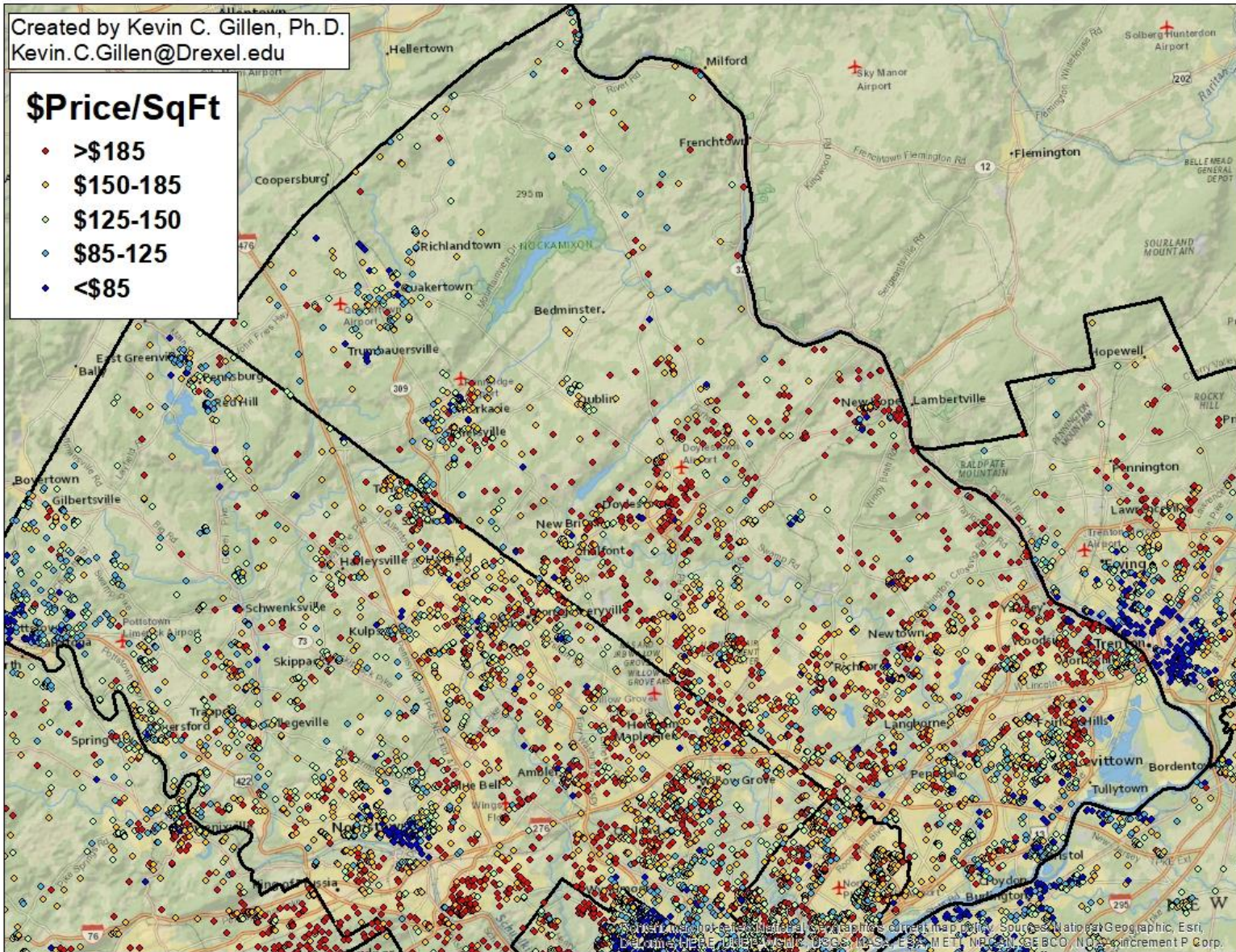
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Bucks County House Sales in 2018 Q3

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

\$Price/SqFt

- >\$185
- ◊ \$150-185
- ◇ \$125-150
- ◆ \$85-125
- <\$85



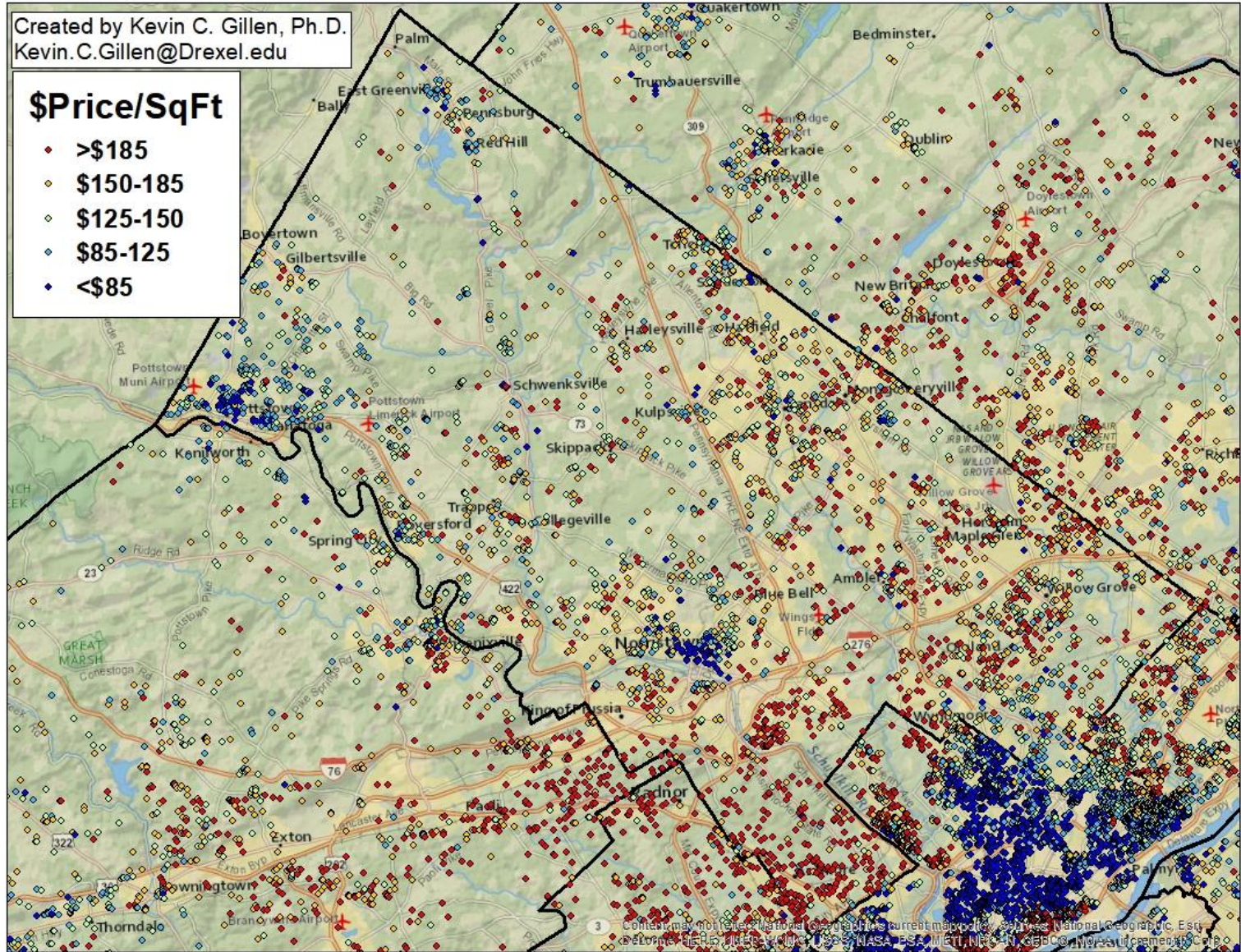
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Montgomery County House Sales in 2018 Q3

Created by Kevin C. Gillen, Ph.D.
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\$Price/SqFt

- ◆ >\$185
- ◆ \$150-185
- ◆ \$125-150
- ◆ \$85-125
- ◆ <\$85



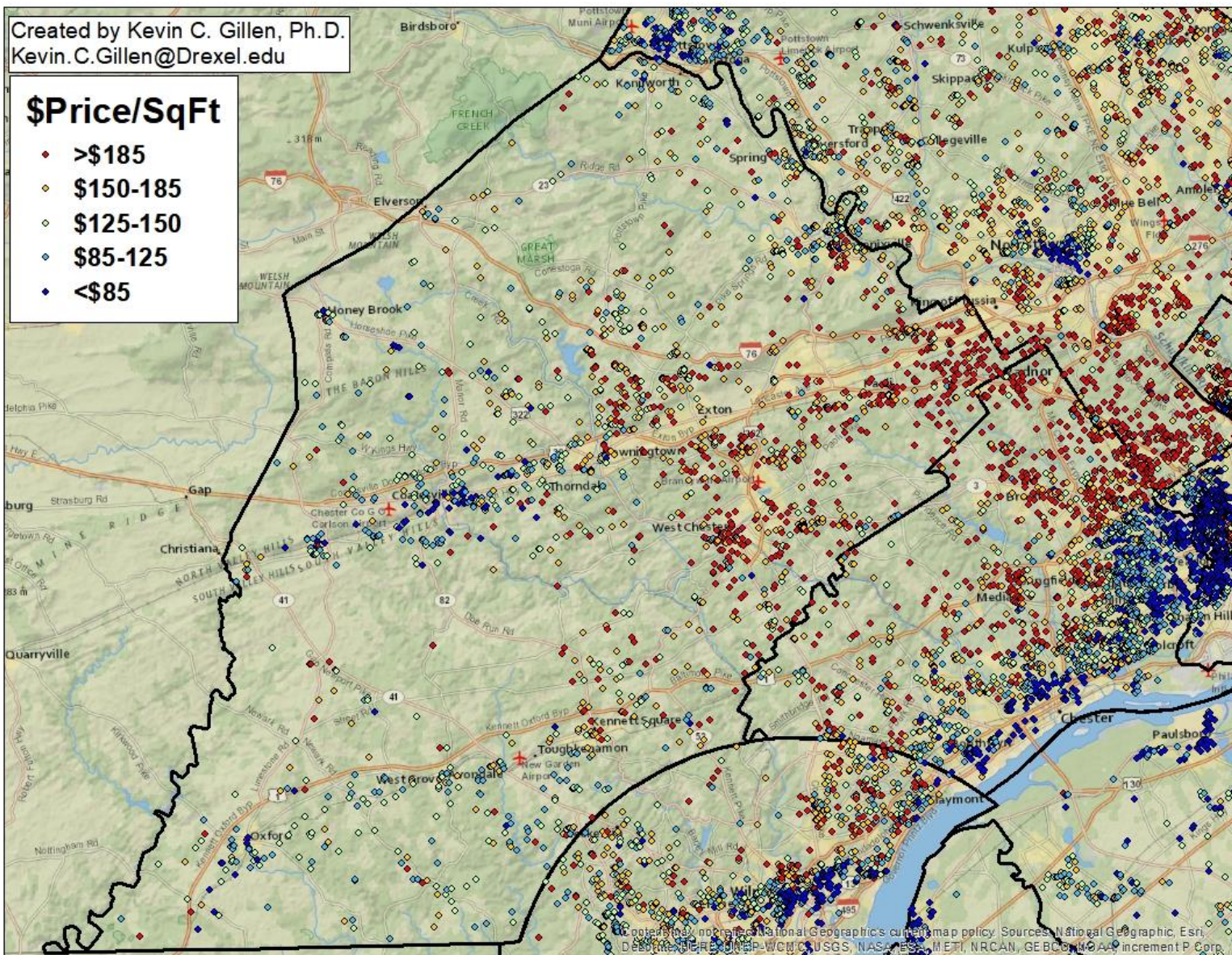
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Chester County House Sales in 2018 Q3

Created by Kevin C. Gillen, Ph.D.
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\$Price/SqFt

- >\$185
- ◊ \$150-185
- ◇ \$125-150
- ◊ \$85-125
- <\$85



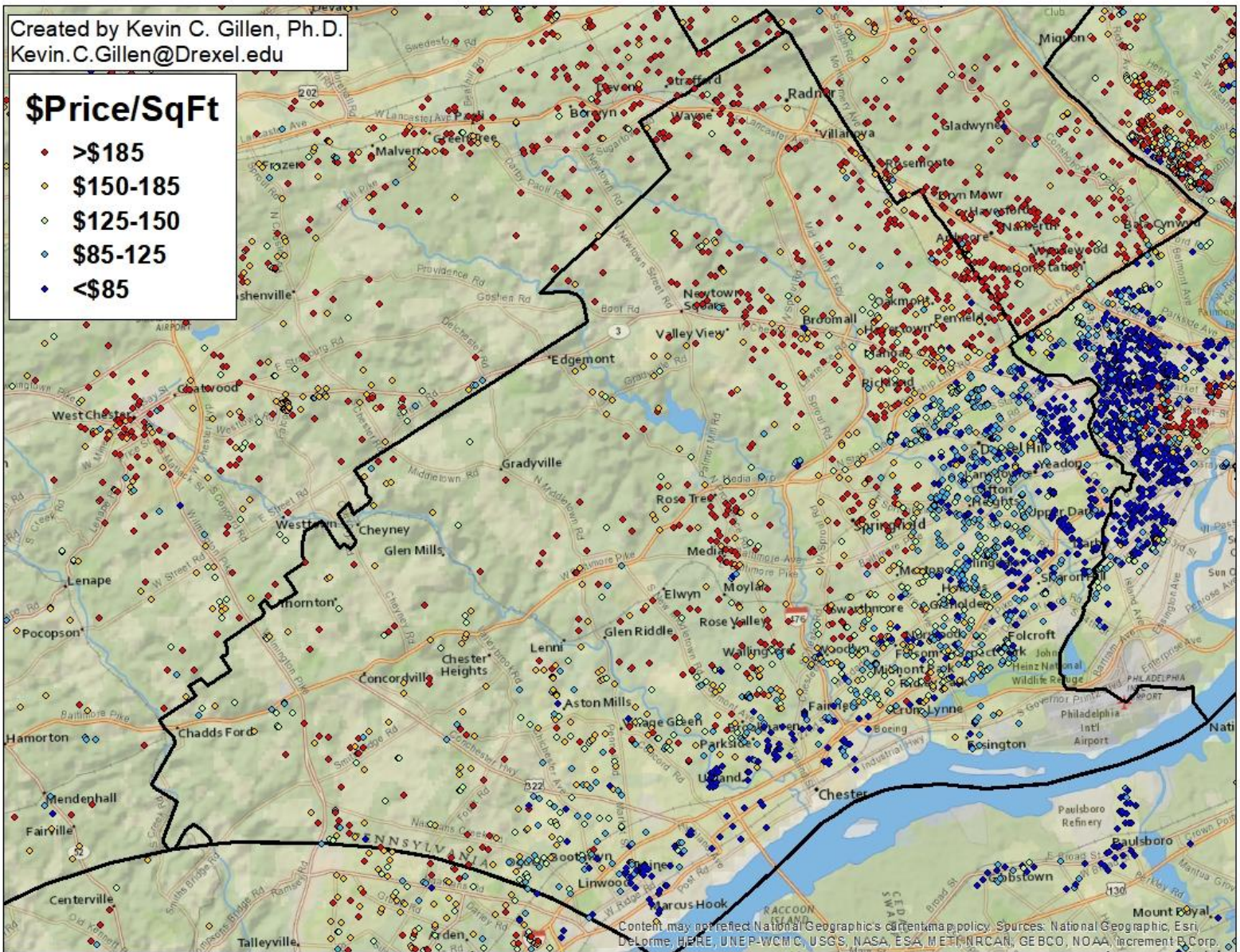
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Delaware County House Sales in 2018 Q3

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

\$Price/SqFt

- ◆ >\$185
- ◆ \$150-185
- ◆ \$125-150
- ◆ \$85-125
- ◆ <\$85



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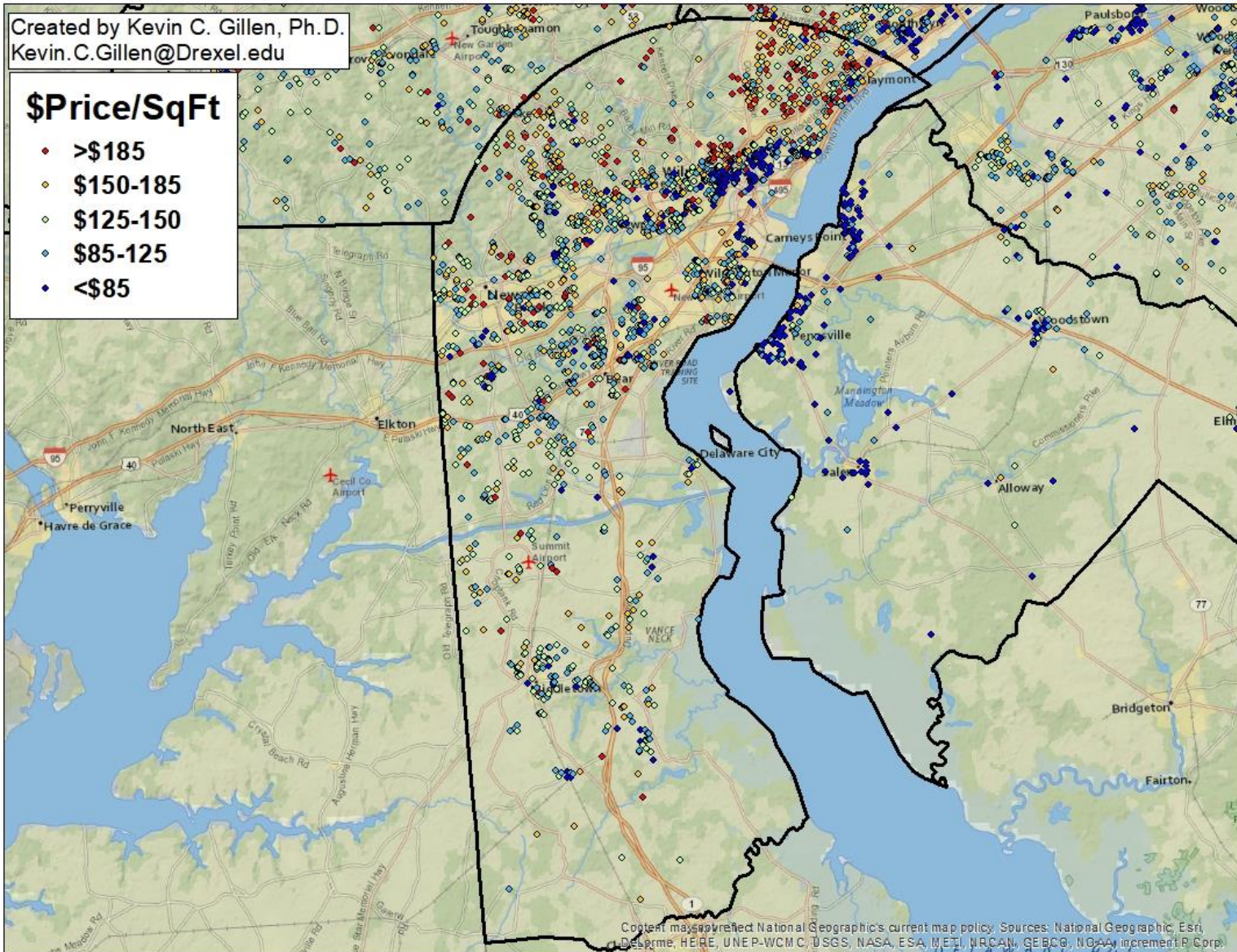
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

New Castle County House Sales in 2018 Q3

Created by Kevin C. Gillen, Ph.D.
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\$Price/SqFt

- >\$185
- ◊ \$150-185
- ◇ \$125-150
- ◆ \$85-125
- <\$85



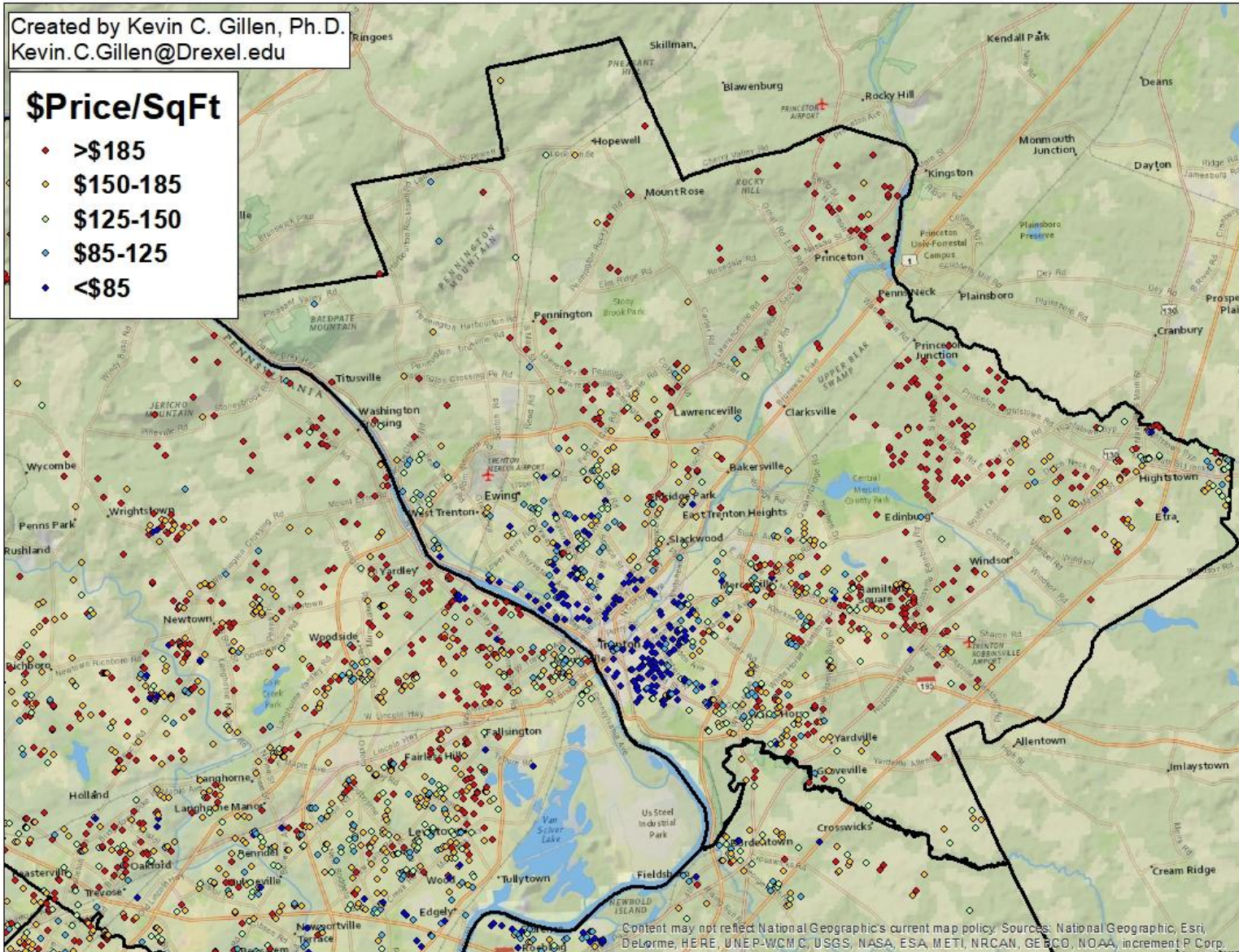
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Mercer County House Sales in 2018 Q3

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\$Price/SqFt

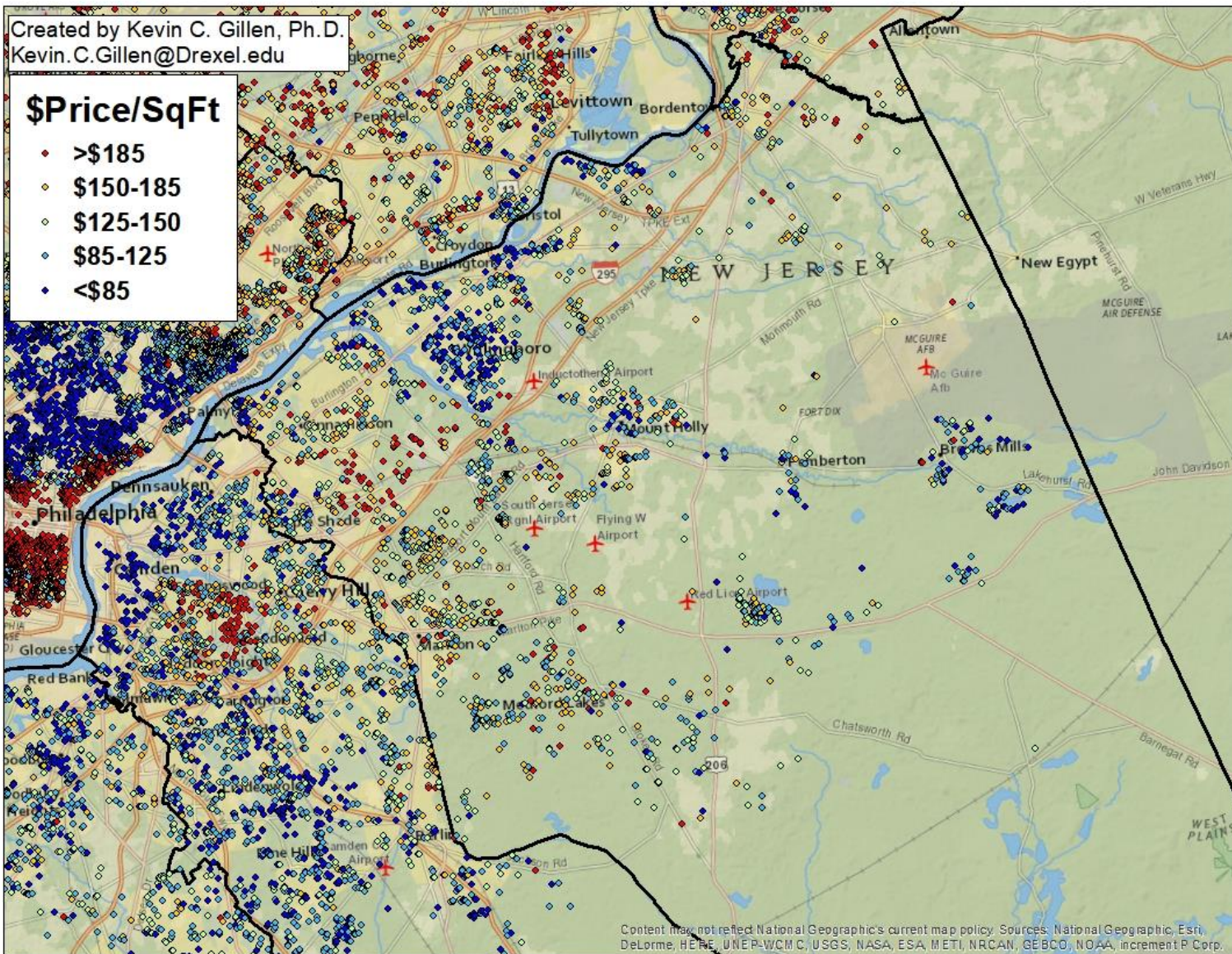
- ◆ >\$185
- ◆ \$150-185
- ◆ \$125-150
- ◆ \$85-125
- ◆ <\$85



Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Burlington County House Sales in 2018 Q3



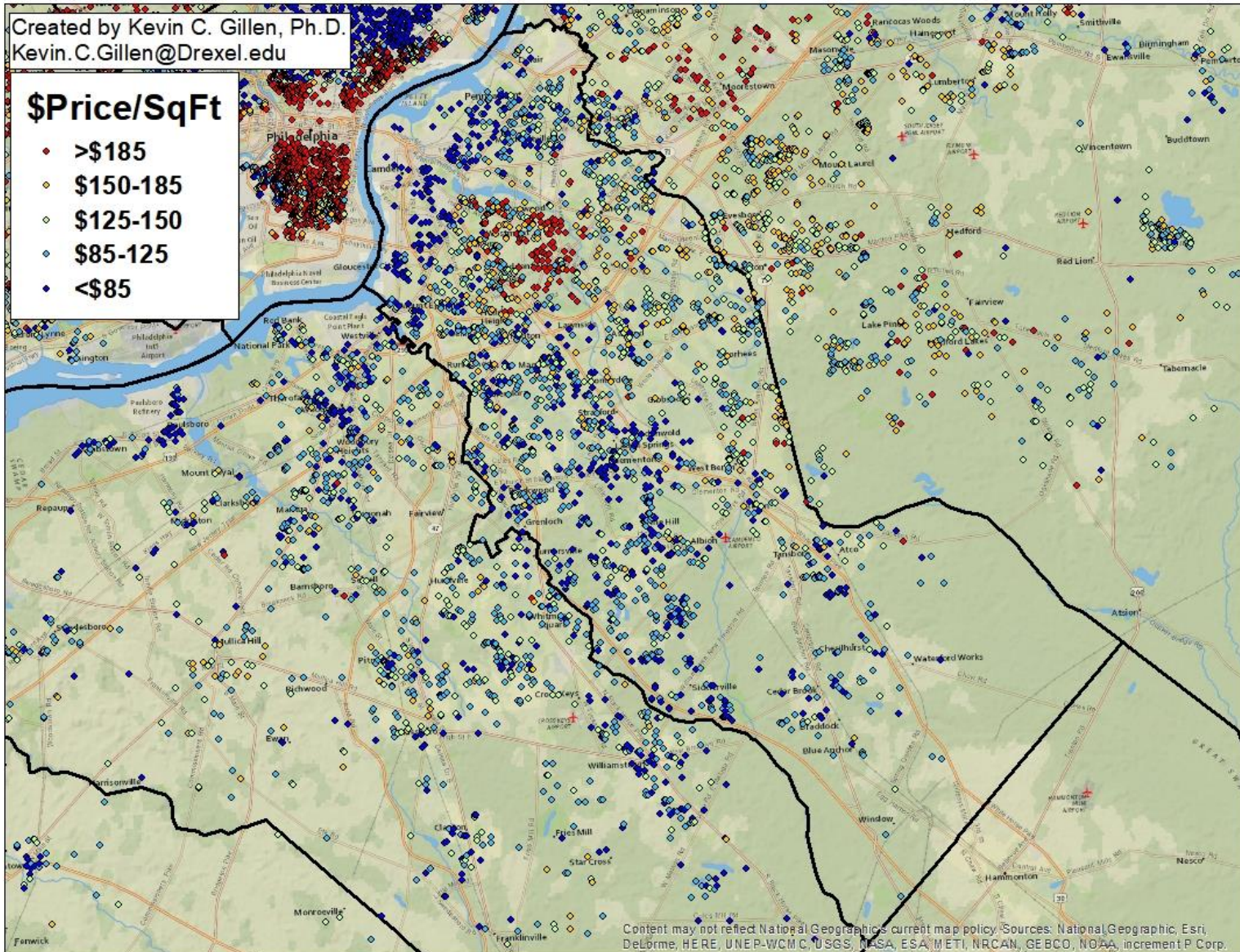
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Camden County House Sales in 2018 Q3

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

\$Price/SqFt

- >\$185
- ◊ \$150-185
- ◊ \$125-150
- ◊ \$85-125
- <\$85



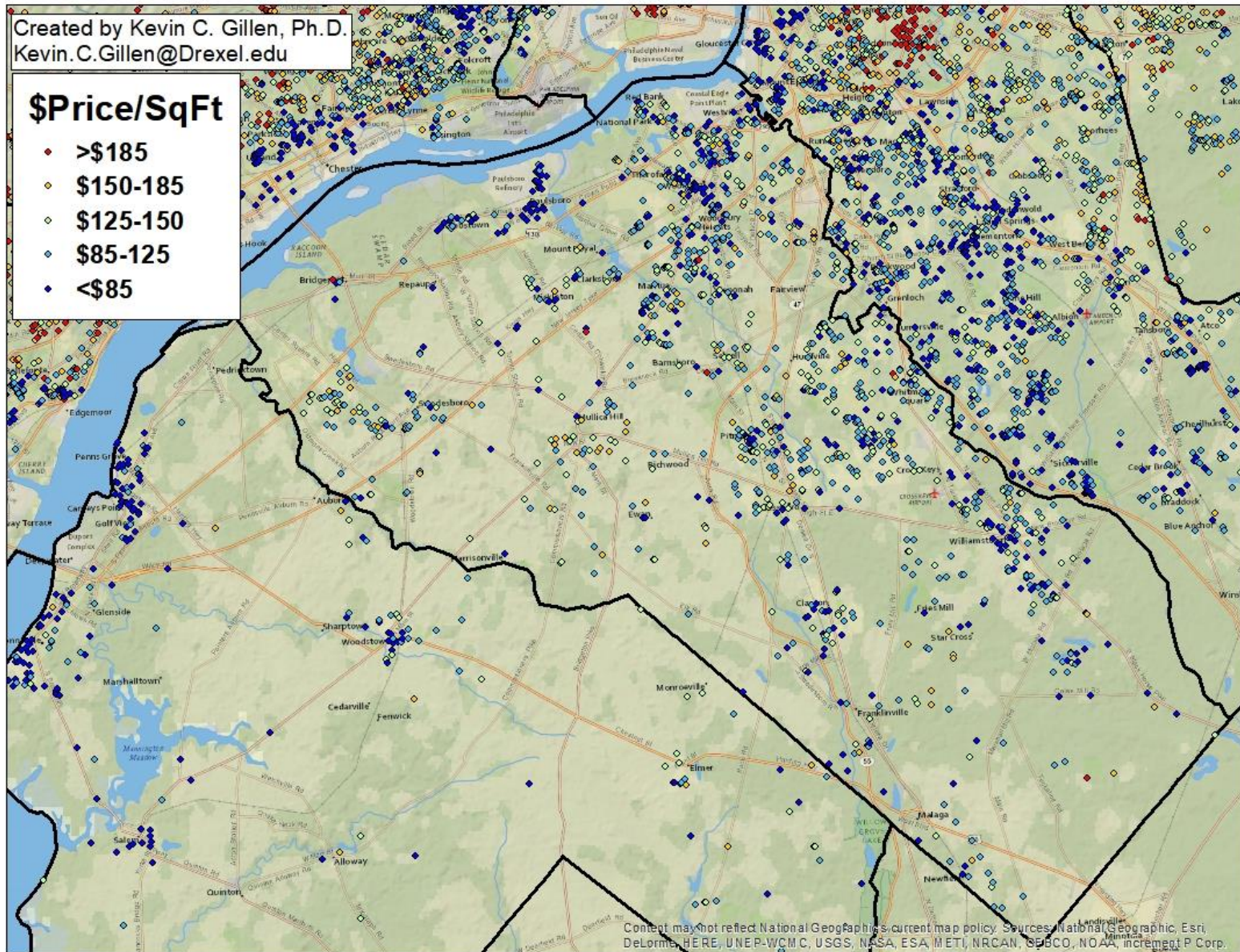
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Gloucester County House Sales in 2018 Q3

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Kevin.C.Gillen@Drexel.edu

\$Price/SqFt

- >\$185
- ◊ \$150-185
- ◊ \$125-150
- ◊ \$85-125
- <\$85



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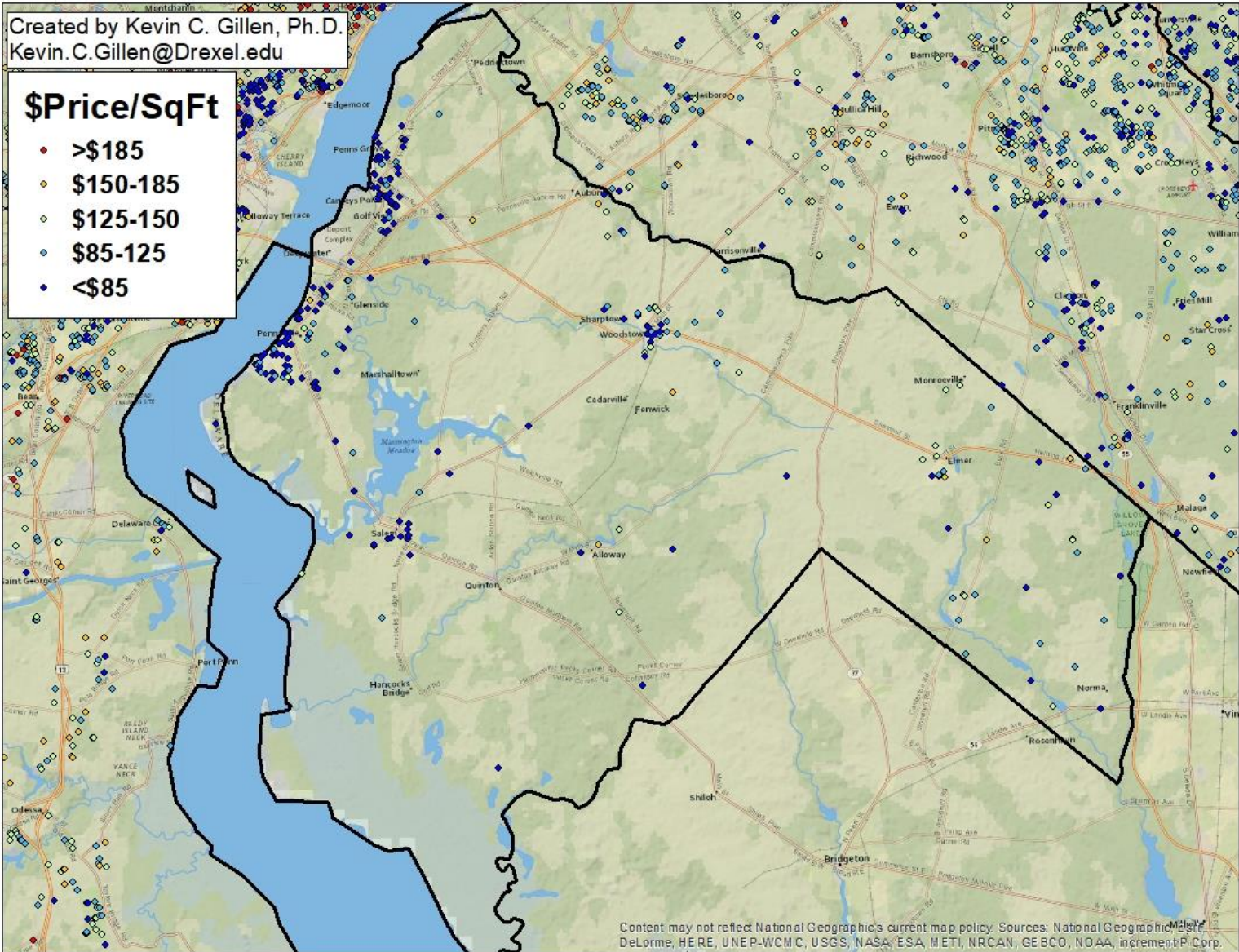
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Salem County House Sales in 2018 Q3

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Kevin.C.Gillen@Drexel.edu

\$Price/SqFt

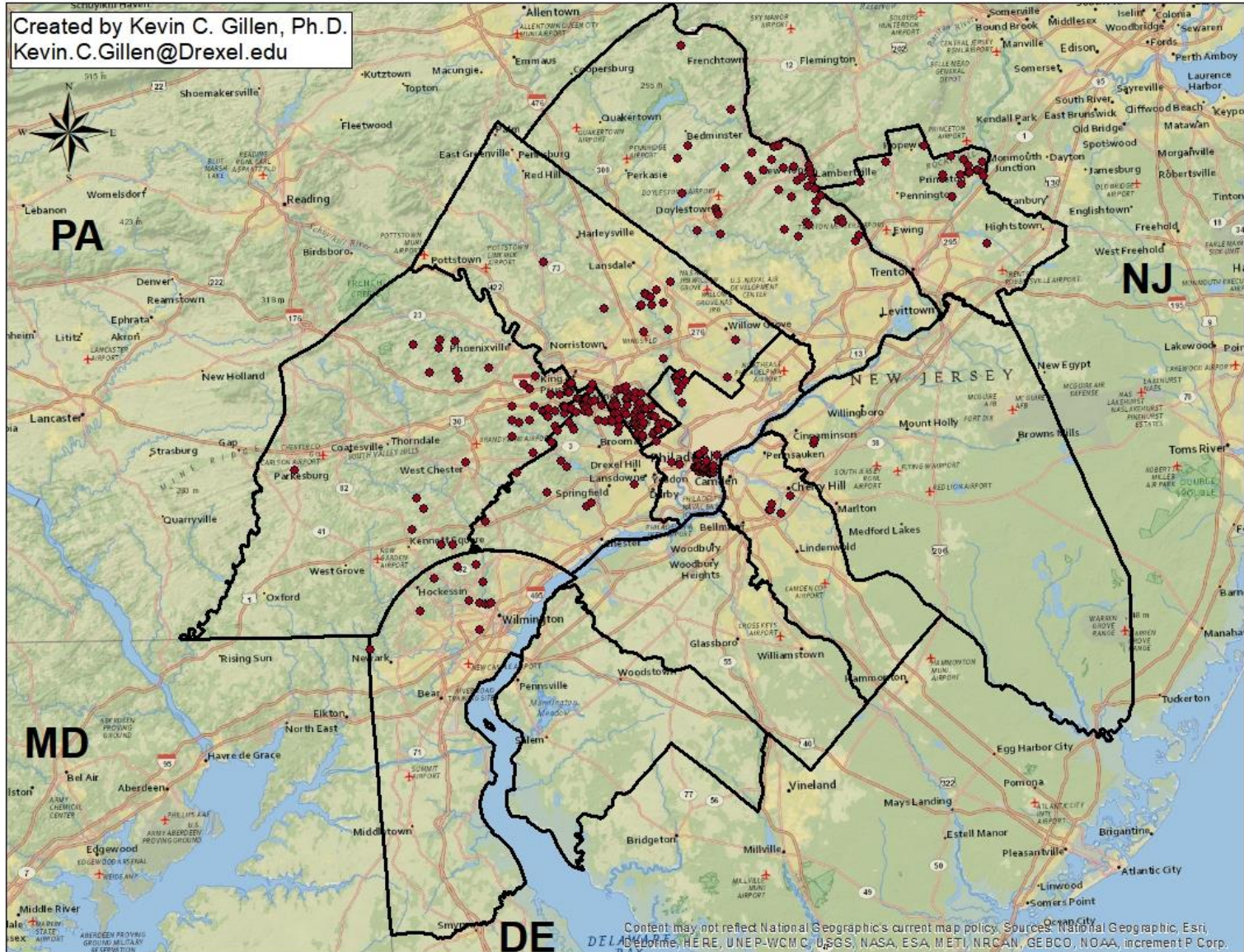
- >\$185
- ◊ \$150-185
- ◇ \$125-150
- ◆ \$85-125
- <\$85



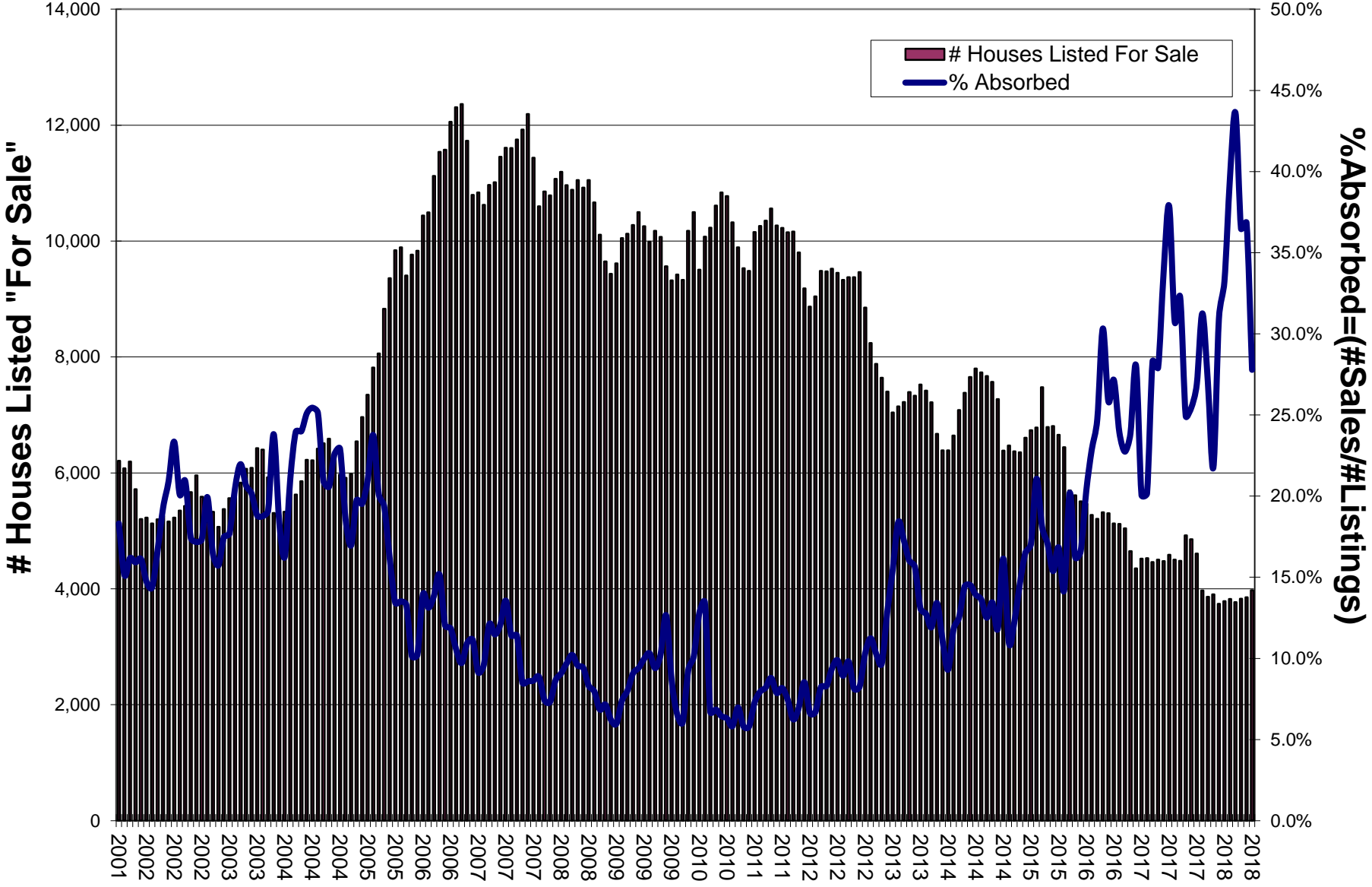
Content may not reflect National Geographic's current map policy. Sources: National Geographic, Esri, DeLorme, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment, P Corp.

Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

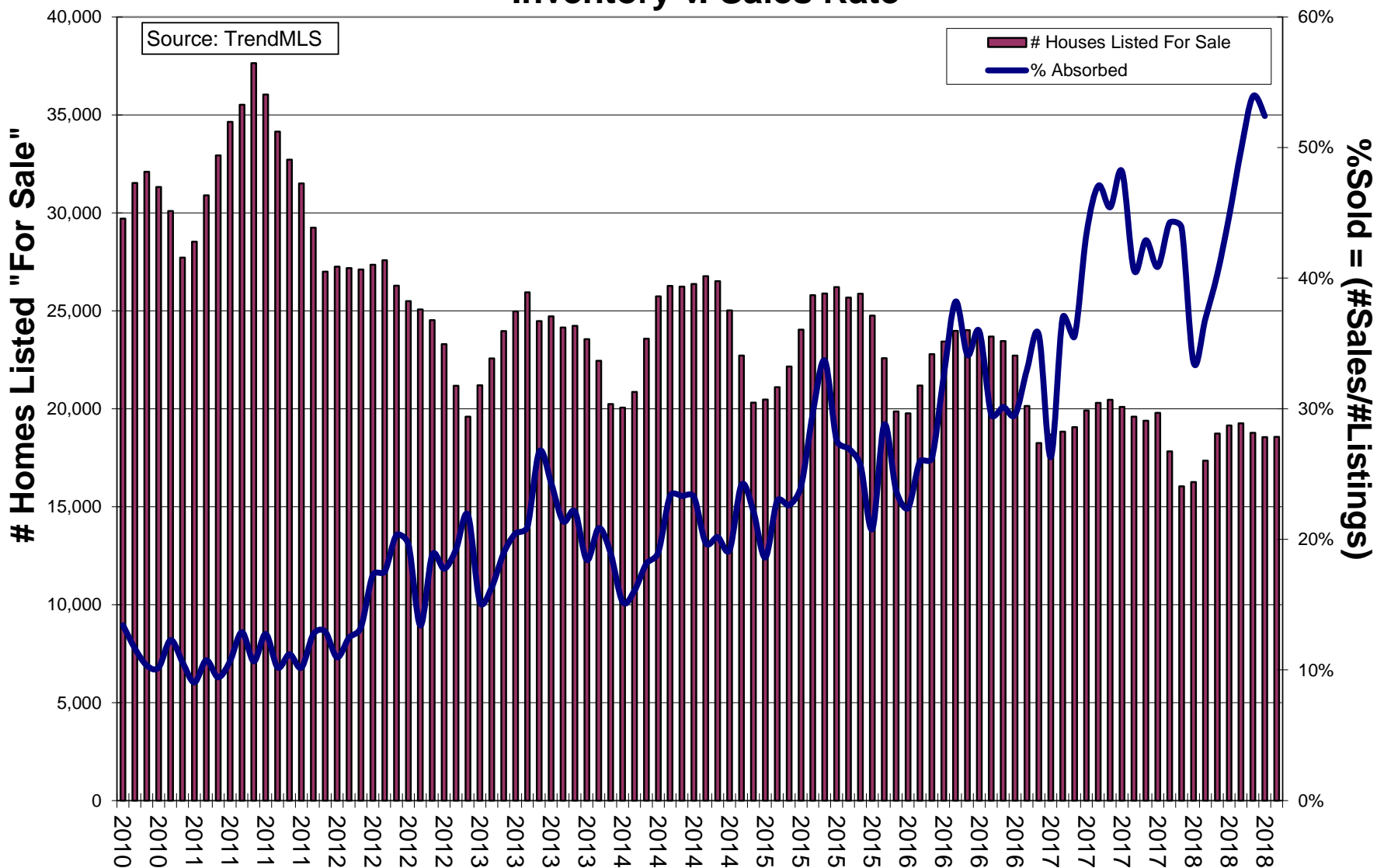
+ \$1 Million Dollar House Sales in 2018 Q3



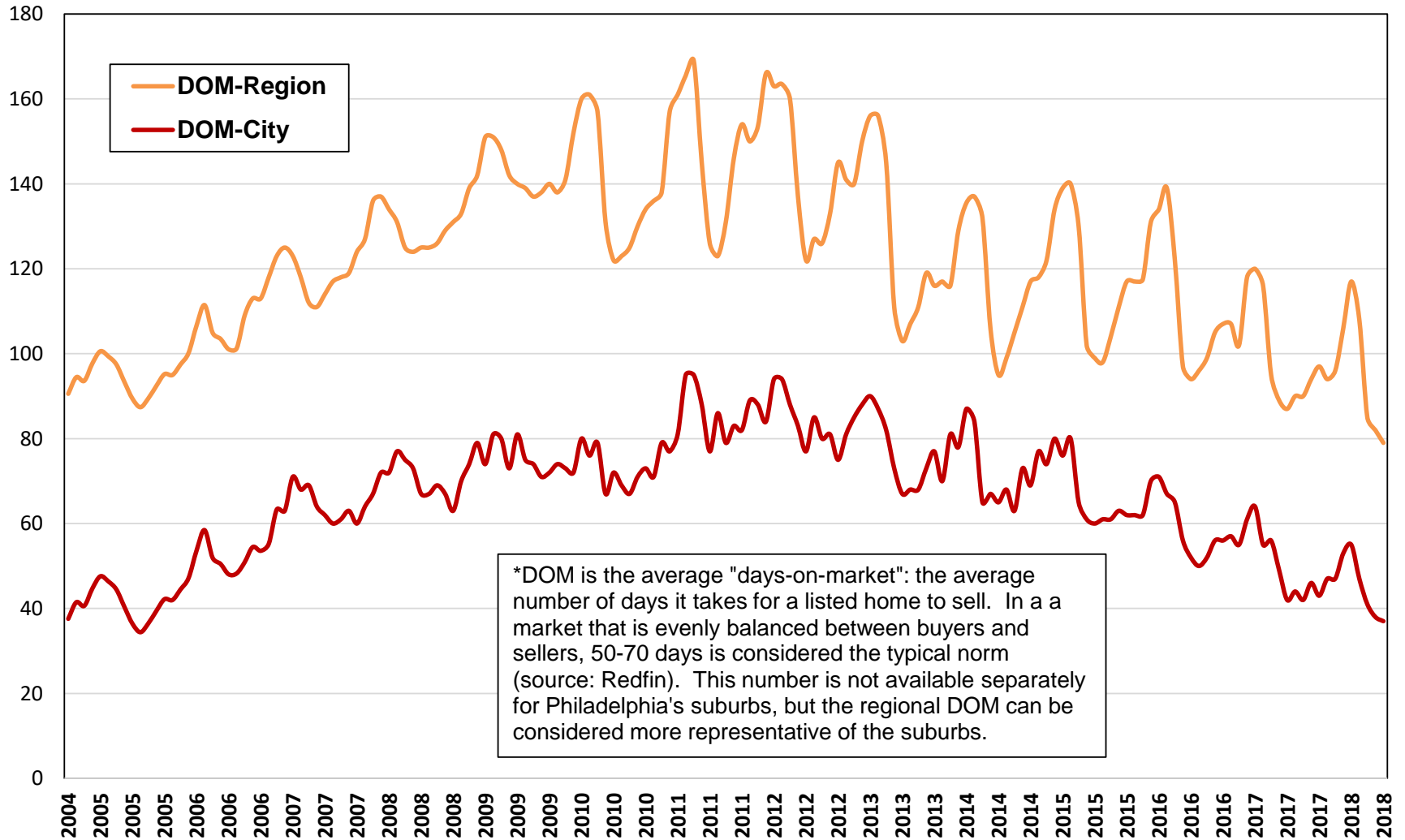
Philadelphia Houses Listed For Sale: Inventory v. Sales Rate



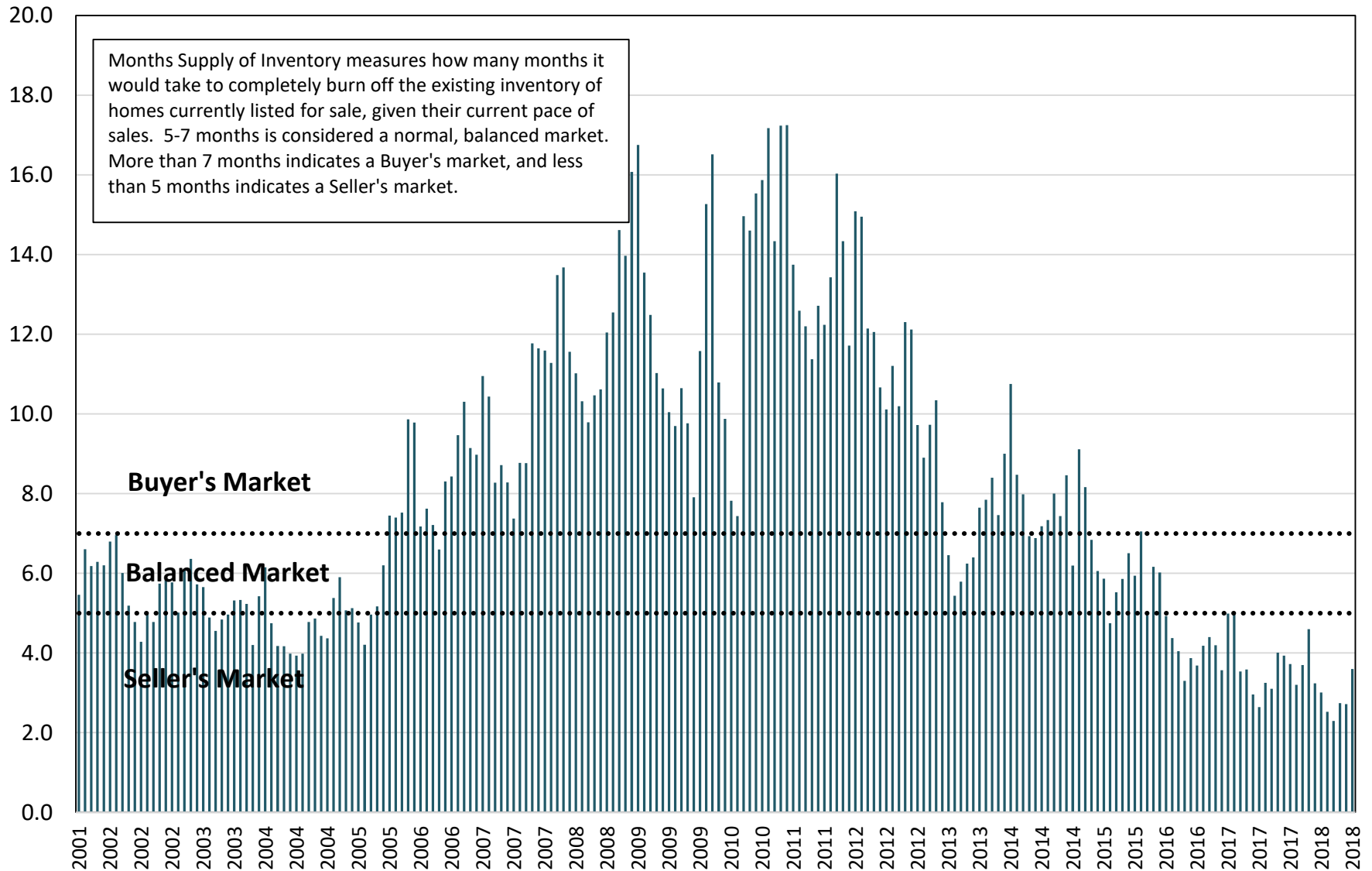
Philadelphia Suburb's Houses Listed For Sale: Inventory v. Sales Rate



Average Days-on-Market* for Home Sales



Months Supply of Inventory in Philadelphia



Pennsylvania Foreclosure Rates

FORECLOSURE RATES FOR PENNSYLVANIA

October 2018

Pennsylvania
1 in every 2009

Top 5 Counties

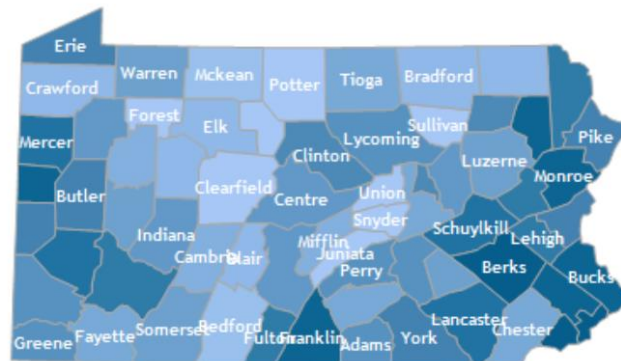
Berks
1 in every 876

Delaware
1 in every 1159

Philadelphia
1 in every 1173

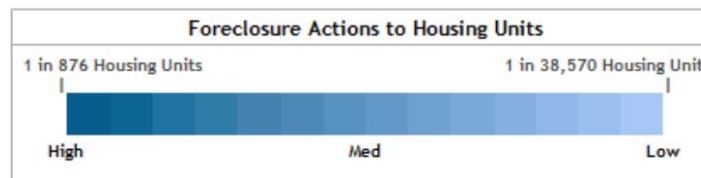
Monroe
1 in every 1257

Lawrence
1 in every 1277



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1 out of every 1,173 homes in Philadelphia is currently in the process of foreclosure, which is down slightly from 1 out of every 1,105 homes in the previous quarter.

In the entire Commonwealth, 1 out of every 2,009 homes in Pennsylvania is in the process of foreclosure, which is also down slightly from 1 out of every 1,988 homes in the previous quarter.

New Jersey Foreclosure Rates

FORECLOSURE RATES FOR NEW JERSEY

October 2018

New Jersey
1 in every 753

Top 5 Counties

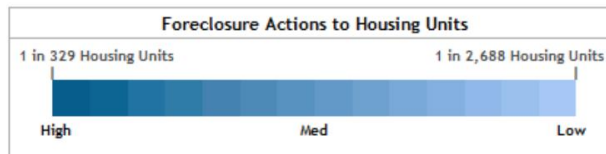
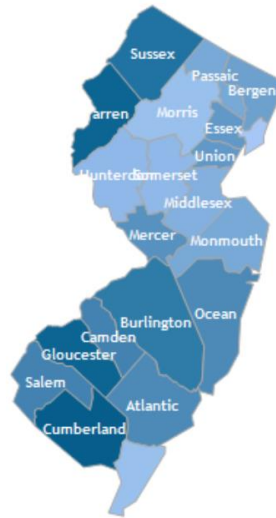
Cumberland
1 in every 329

Warren
1 in every 357

Gloucester
1 in every 361

Sussex
1 in every 413

Burlington
1 in every 476



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Although South Jersey's foreclosure rate continues to remain the highest in the region, there was some improvement this quarter.

Previously, four of the five counties in New Jersey with the highest foreclosure rates were in South Jersey, with an average foreclosure rate of 1 in every 393 homes.

Camden and Atlantic Counties are no longer in this grouping, although Burlington County now is.

Currently, the average foreclosure rate is 1 in every 389 homes in South Jersey, which is still well above the state's average of 1 in every 753 homes.

Delaware Foreclosure Rates

FORECLOSURE RATES FOR DELAWARE

October 2018

Delaware

1 in every 902

Top 3 Counties

Sussex

1 in every 881

New Castle

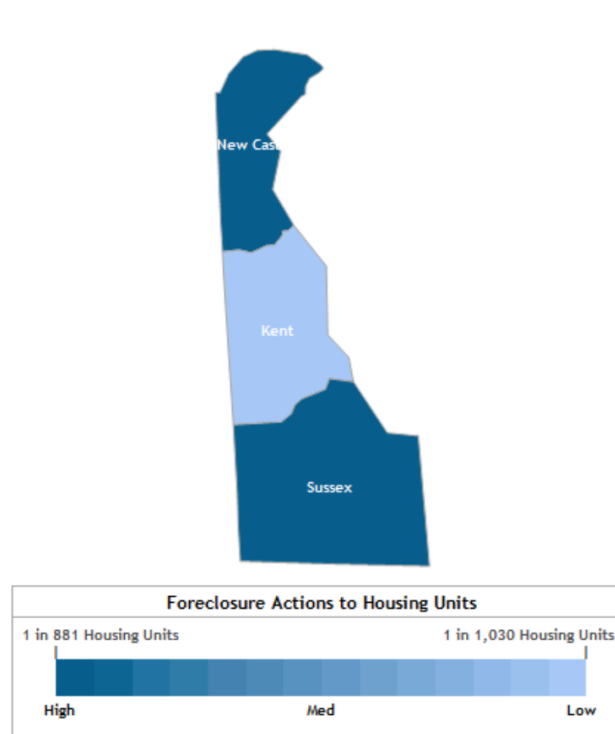
1 in every 882

Kent

1 in every 1030

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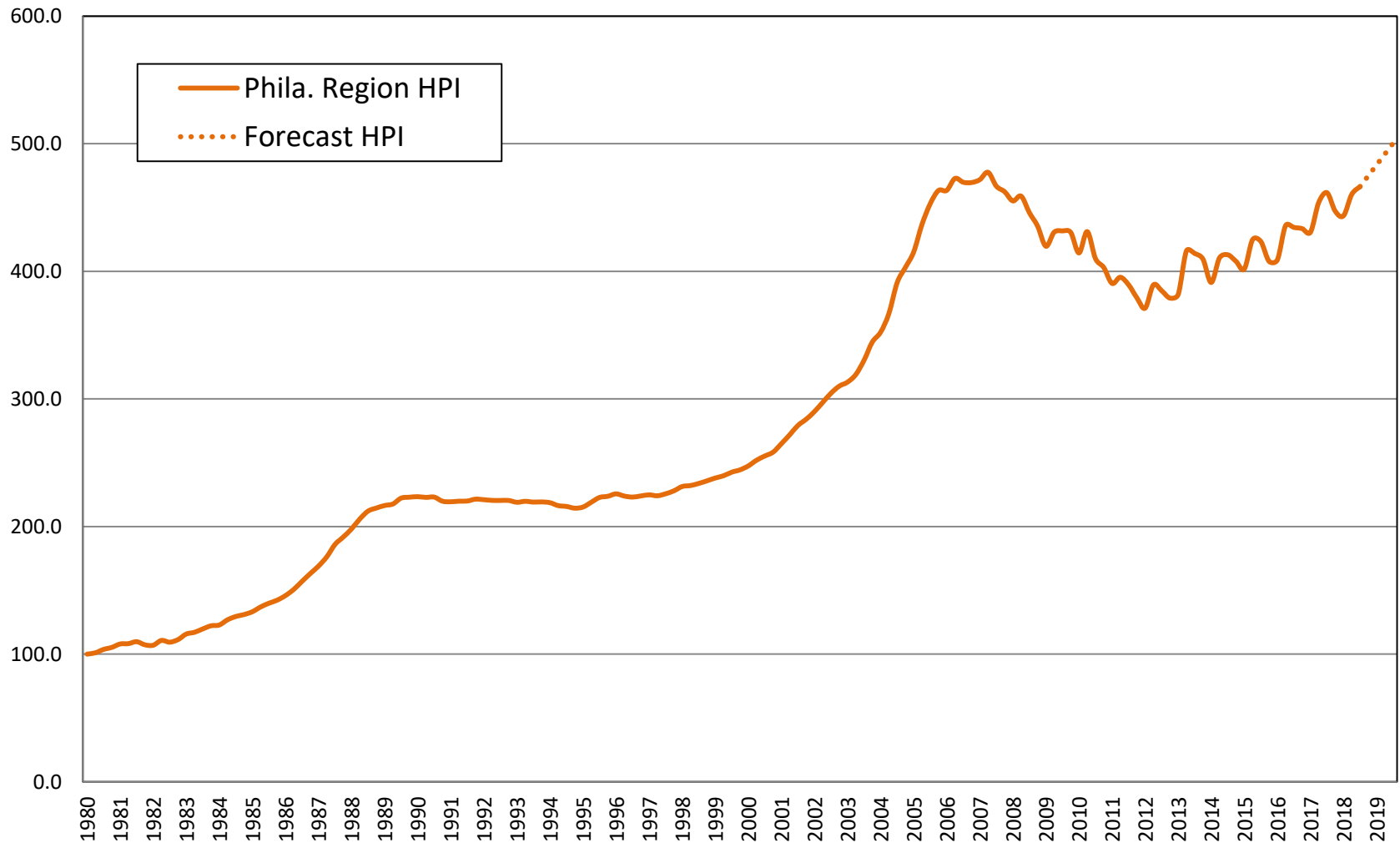
Sussex County passed Kent County to take the lead as the Delaware jurisdiction with the highest foreclosure rate this quarter.

The foreclosure rate for New Castle County declined significantly in Q3, from 1 in every 691 homes to 1 in every 882.

Kent County's foreclosure rate also fell dramatically, from 1 in every 694 homes to 1 in every 1,030.

But, Sussex County's foreclosure rate increased substantially, from 1 in every 1,427 homes to 1 in every 881.

Philadelphia Region House Price Index: Actual v. Forecast



Zillow.com is currently forecasting the Philadelphia region's house prices to rise an average of 7.03% over the course of the next twelve months.

Source: <http://www.zillow.com/research/>