

PHILADELPHIA REGIONAL HOUSE PRICE INDICES

November 30, 2017



DREXEL UNIVERSITY
Lindy Institute
for Urban Innovation

KEVIN C. GILLEN, Ph.D.

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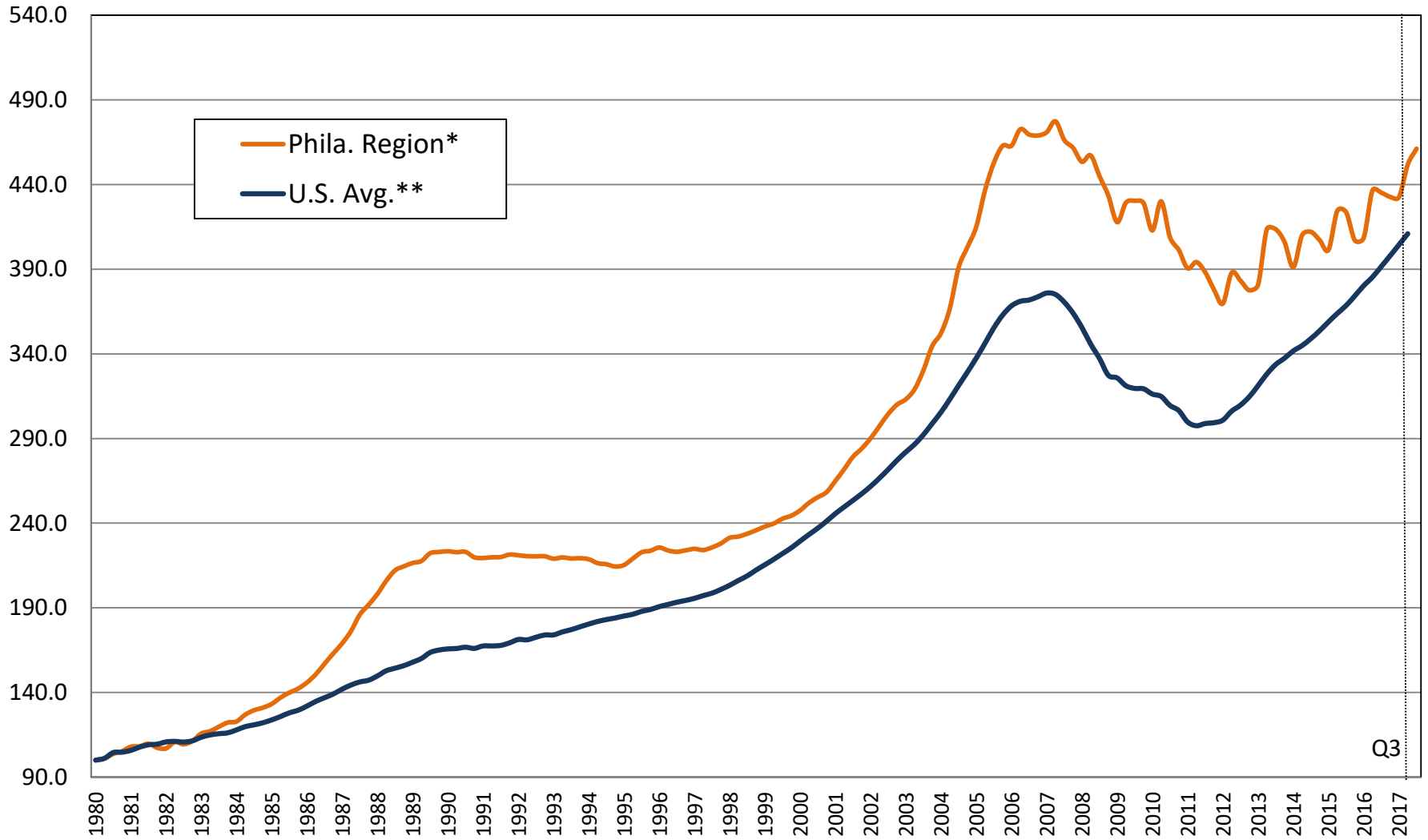
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Philadelphia Regional House Price Indices 1980-2017

1980Q1=100

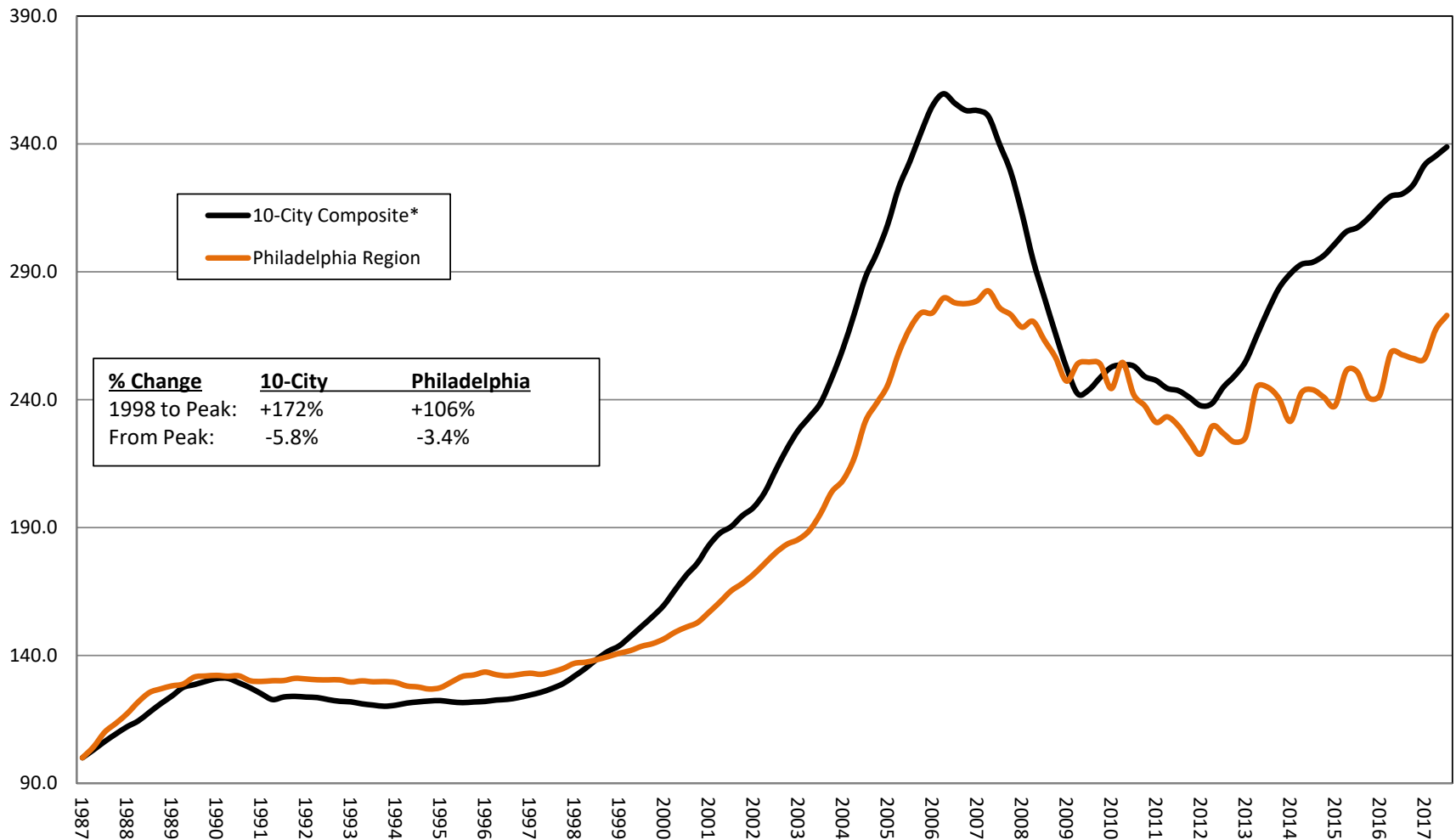


*Empirically estimated by Kevin C. Gillen, PhD

**Courtesy Federal Housing Finance Agency (FHFA)

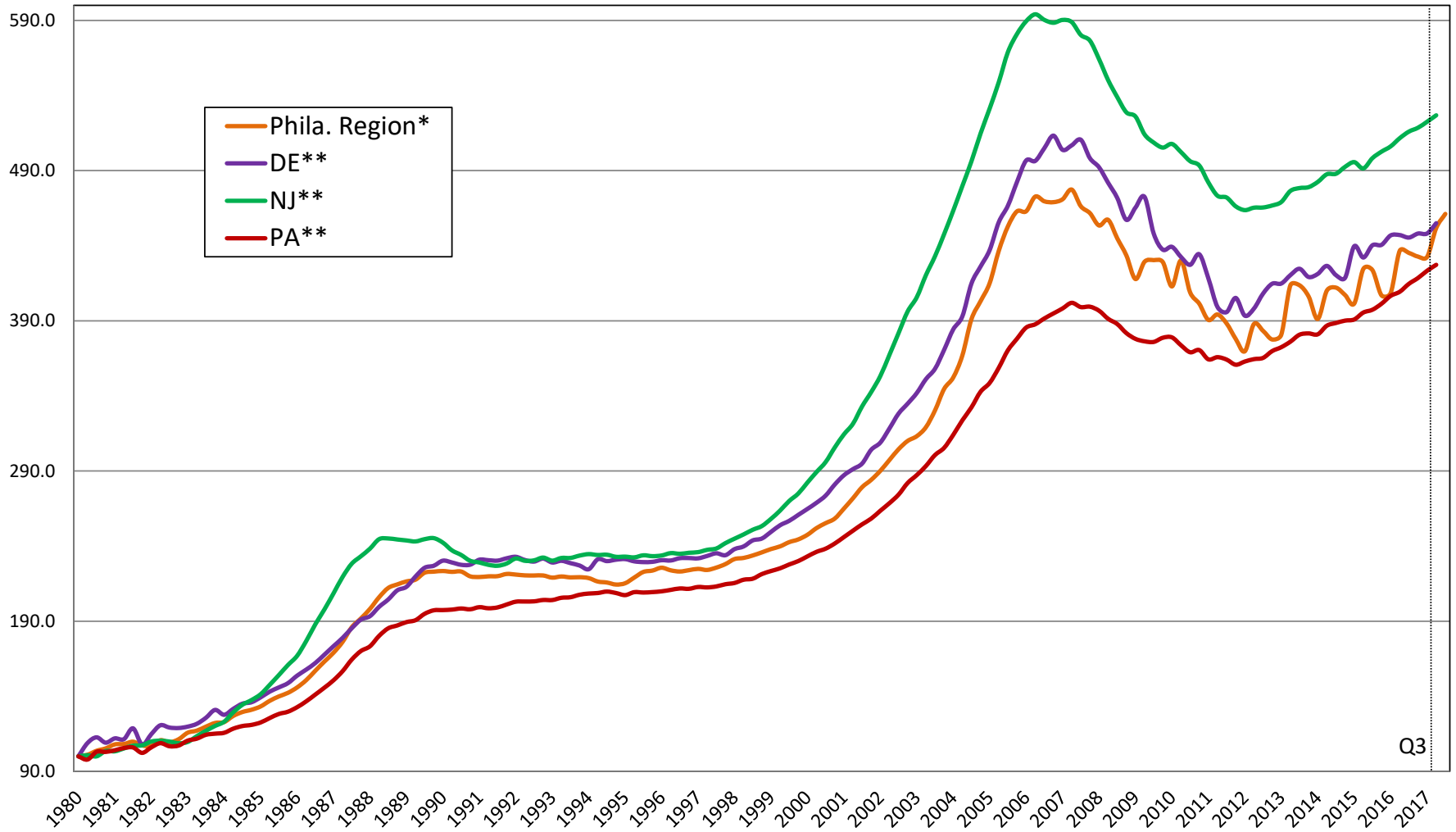
Q3

House Price Appreciation 1987-2017: 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 1980-2017 by Philadelphia Region and State: 1980Q1=100



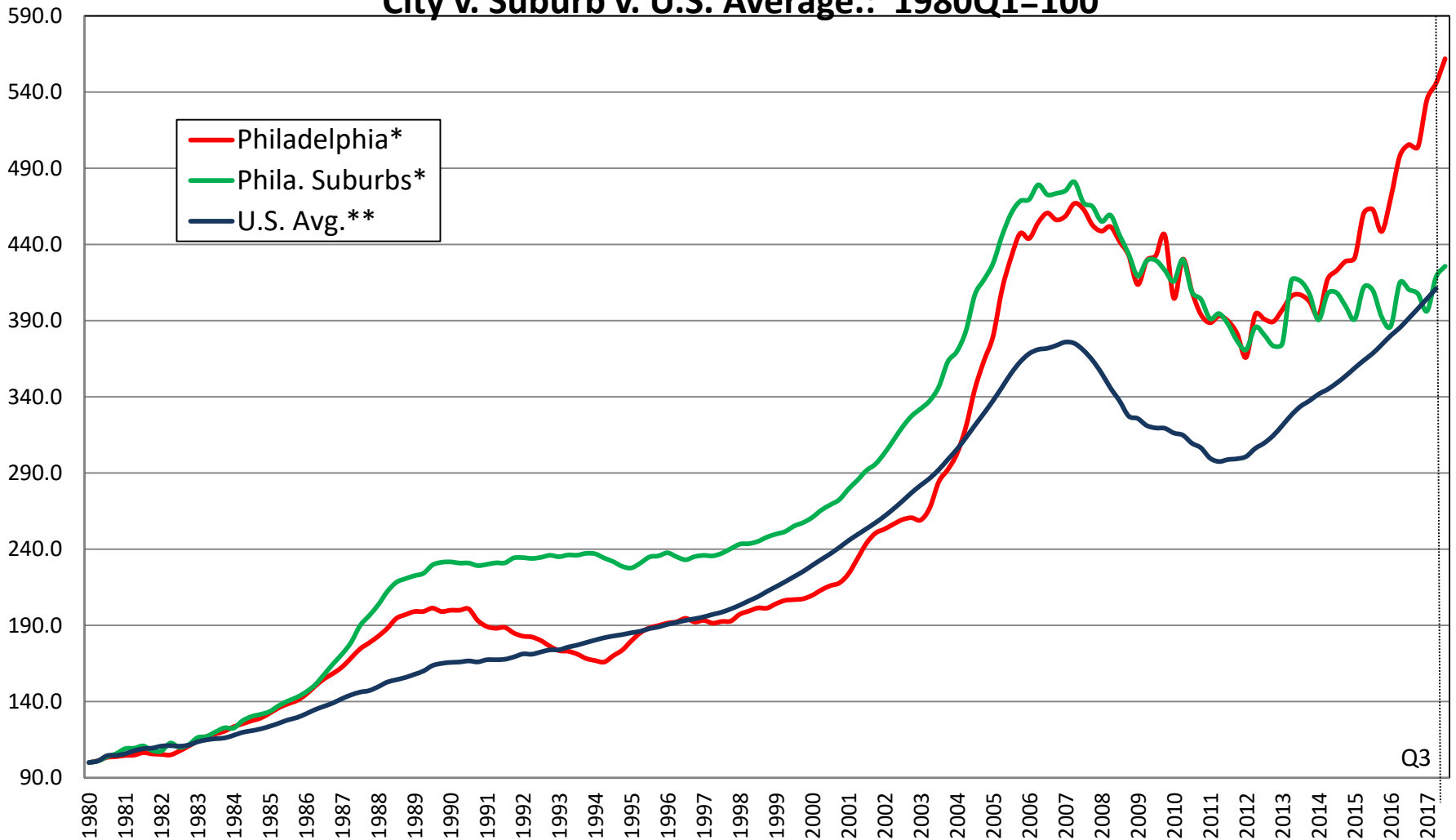
*Empirically estimated by Kevin C. Gillen, Ph.D.

**Courtesy Federal Housing Finance Agency (FHFA)

Q3

Philadelphia Regional House Price Indices 1980-2017

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



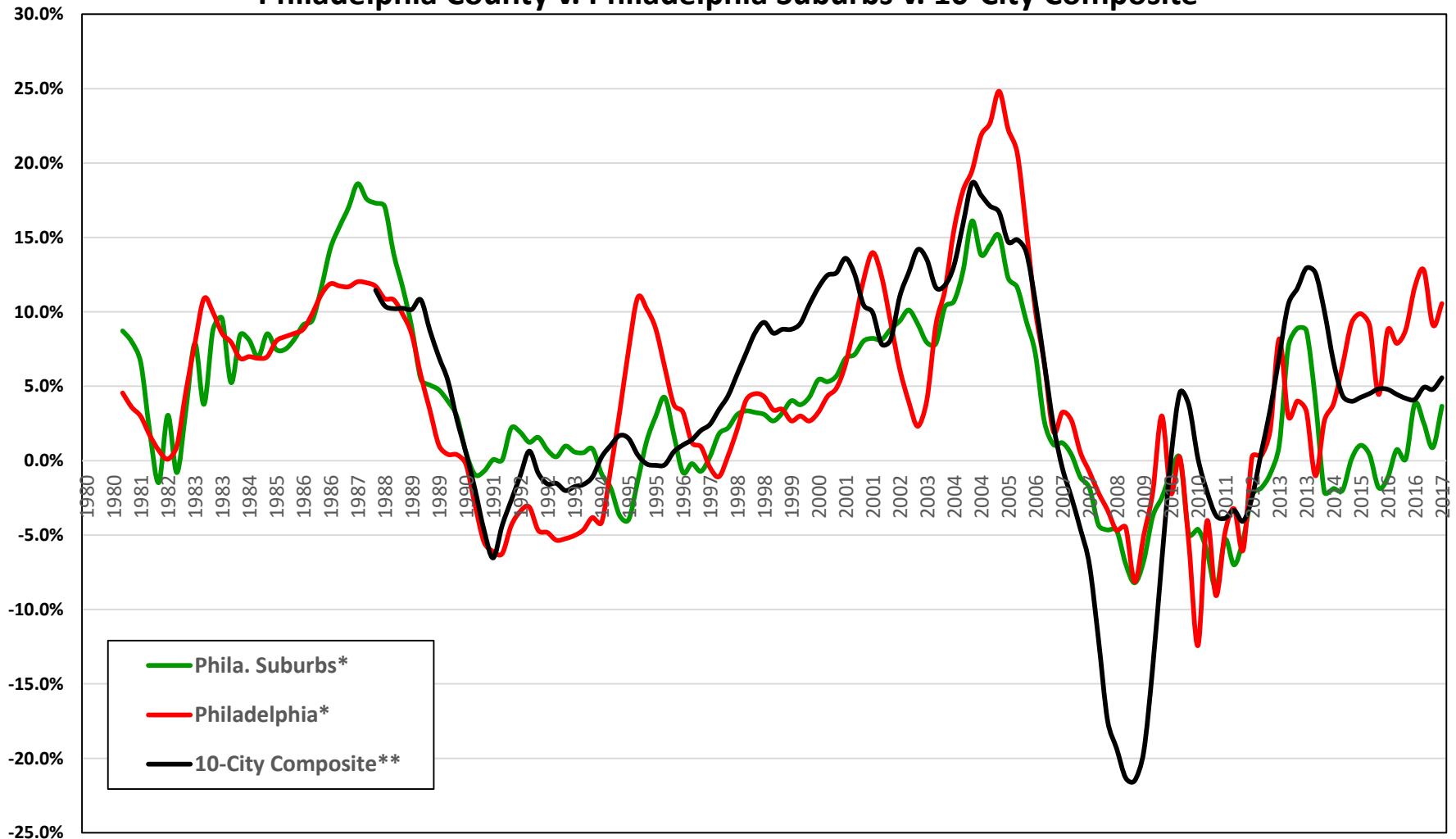
Note: The suburban index includes all counties in the regional index, except for Philadelphia county.

*Empirically estimated by Kevin C. Gillen,

**Courtesy Federal Housing Finance Agency (FHFA)

YoY Change in Average House Prices: 1980-2017

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.

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

Period	Philadelphia Region*	Philadelphia County*	Philadelphia Suburbs*	U.S.A.**
38-Year	152.9%	172.6%	144.8%	141.3%
10-Year	-1.1%	19.3%	-9.4%	9.1%
1-Year	5.8%	10.6%	3.7%	6.4%
1-Quarter	2.1%	2.9%	1.7%	1.6%

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

**Source: Federal Housing Finance Agency (FHFA). FHFA numbers are through 2017 Q2 only.

Philadelphia Region House Price Appreciation Rates by County

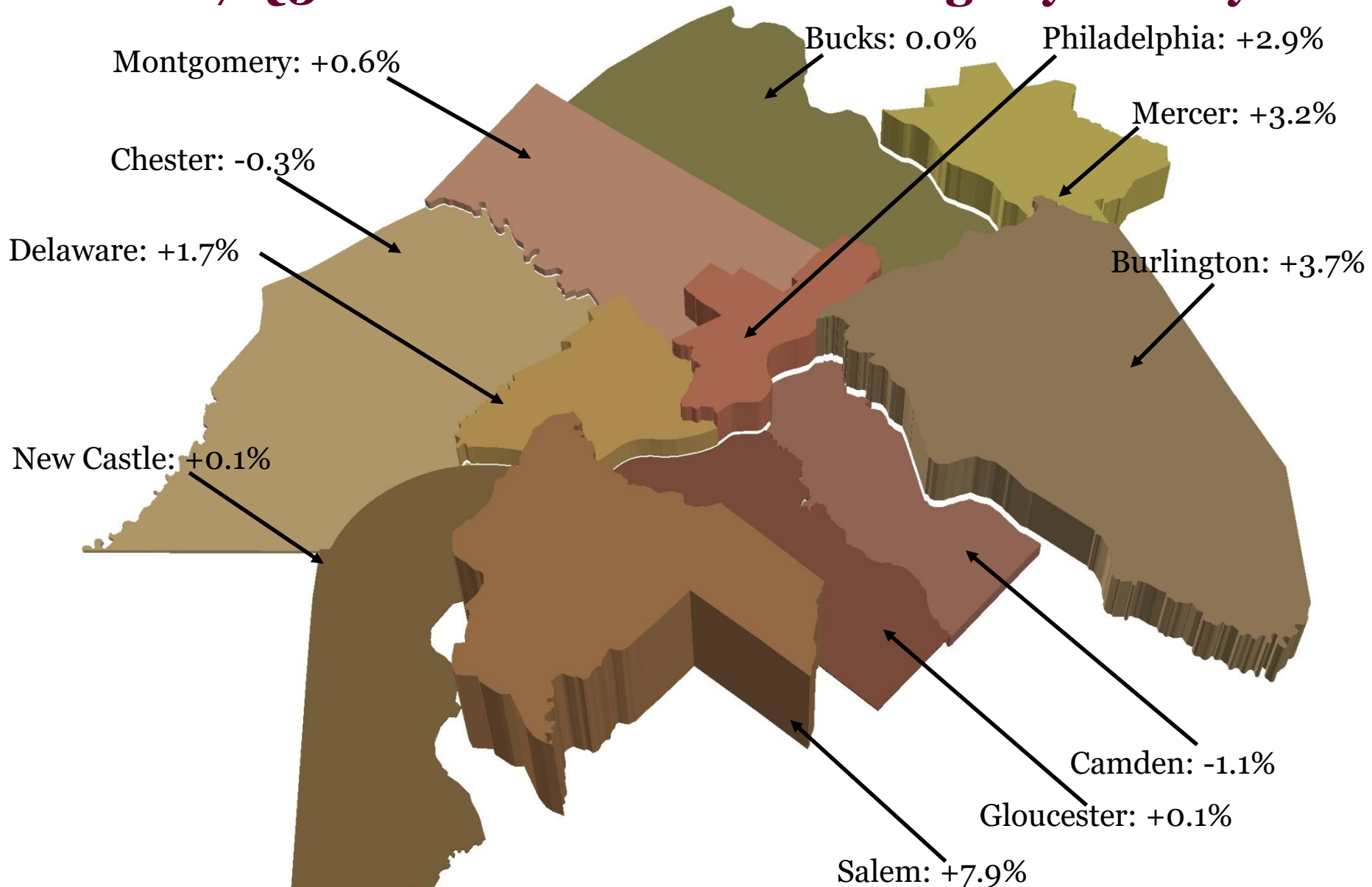
Period	Philadelphia	Bucks	Chester	Delaware	Montgomery	New Castle	Mercer	Burlington	Camden	Gloucester	Salem
38-Year	173%	164%	159%	138%	150%	137%	163%	124%	118%	134%	112%
10-Year	19.3%	-2.4%	0.3%	-12.3%	-6.5%	-13.5%	-11.2%	-24.6%	-29.1%	-20.9%	-43.3%
1-Year	10.6%	6.6%	4.0%	4.5%	5.5%	3.6%	4.3%	2.0%	1.7%	-0.9%	1.2%
1-Quarter	2.9%	0.0%	-0.3%	1.7%	0.6%	0.1%	3.2%	3.7%	-1.1%	0.1%	7.9%

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

Philadelphia Region: County Boundary Definitions

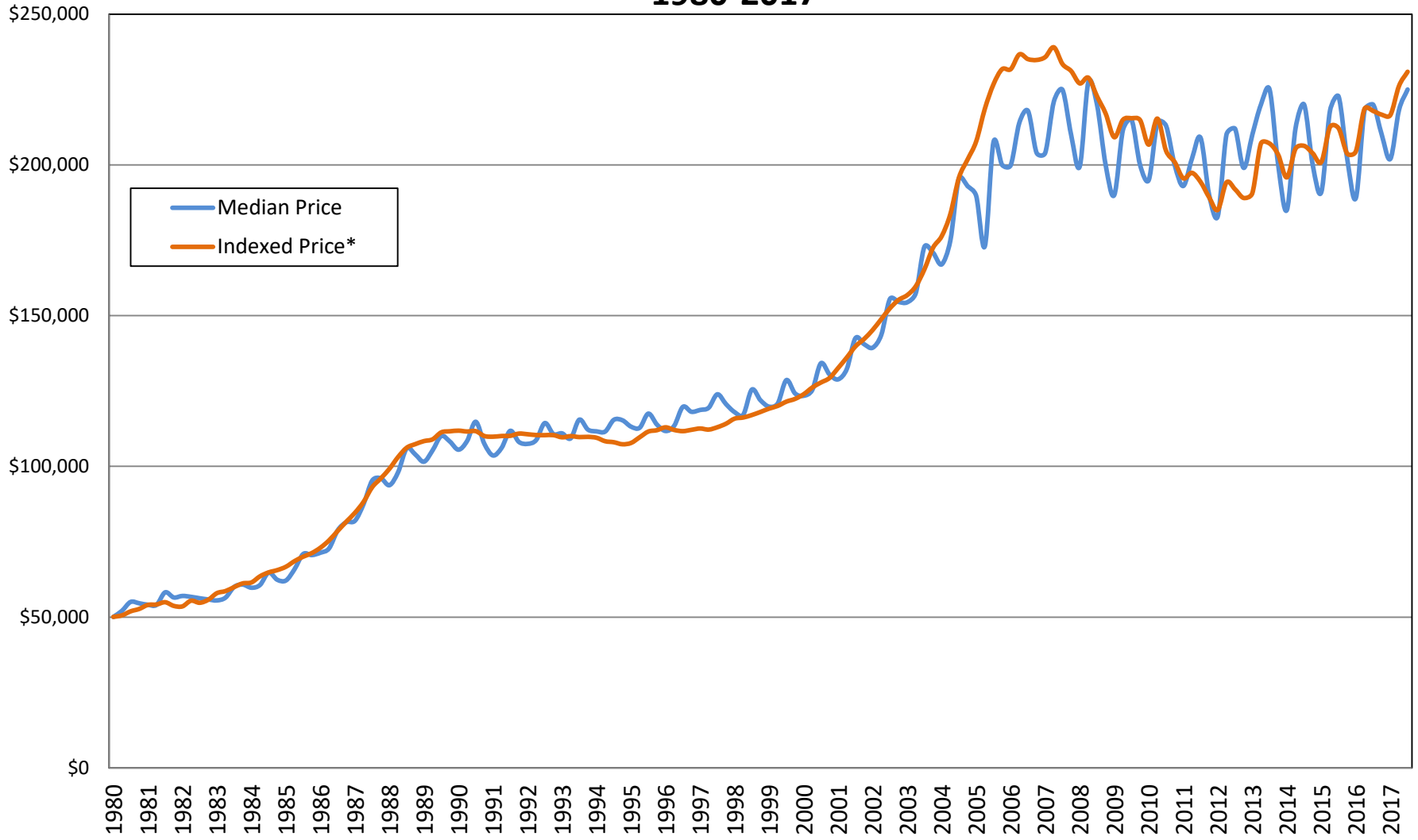


2017 Q3 House Price Rate of Change by County



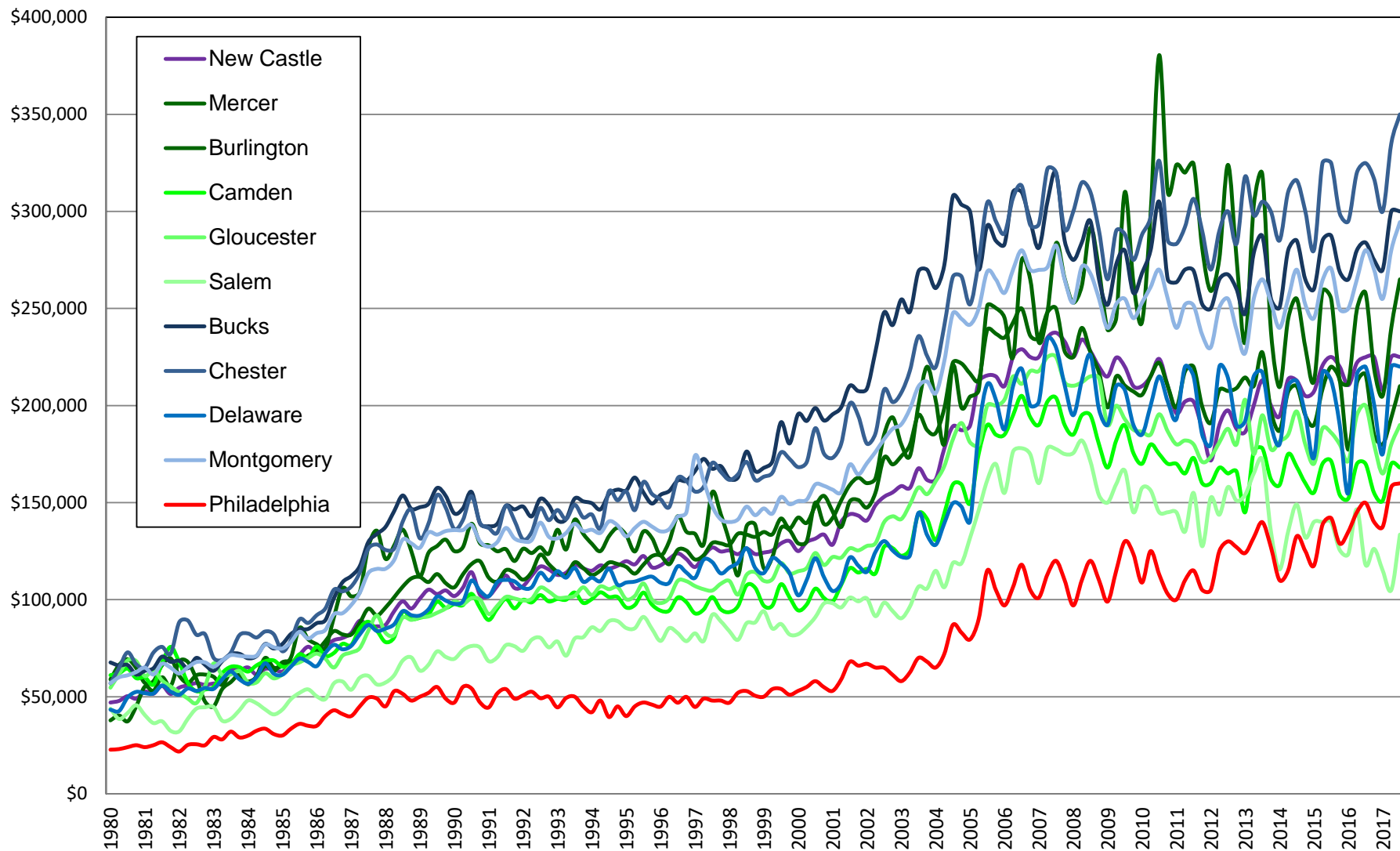
Note: Each county is extruded by its average change in house values during 2017 Q3 in order to reflect its growth (or depreciation) rate relative to other counties.

Median Regional House Price v. Indexed Regional House Price: 1980-2017

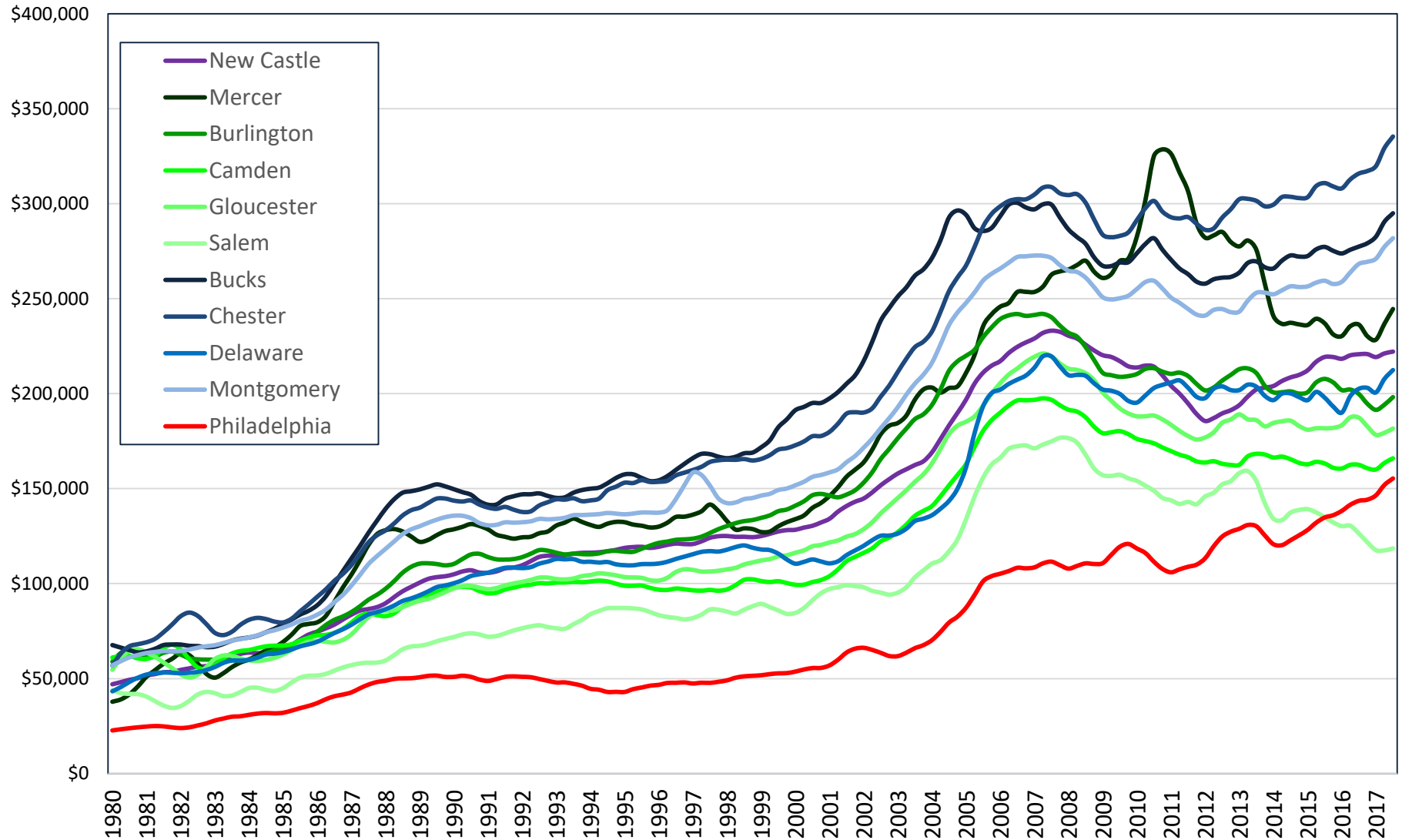


*Empirically estimated by Kevin C. Gillen, Ph.D.

Median House Price by County: 1980-2017

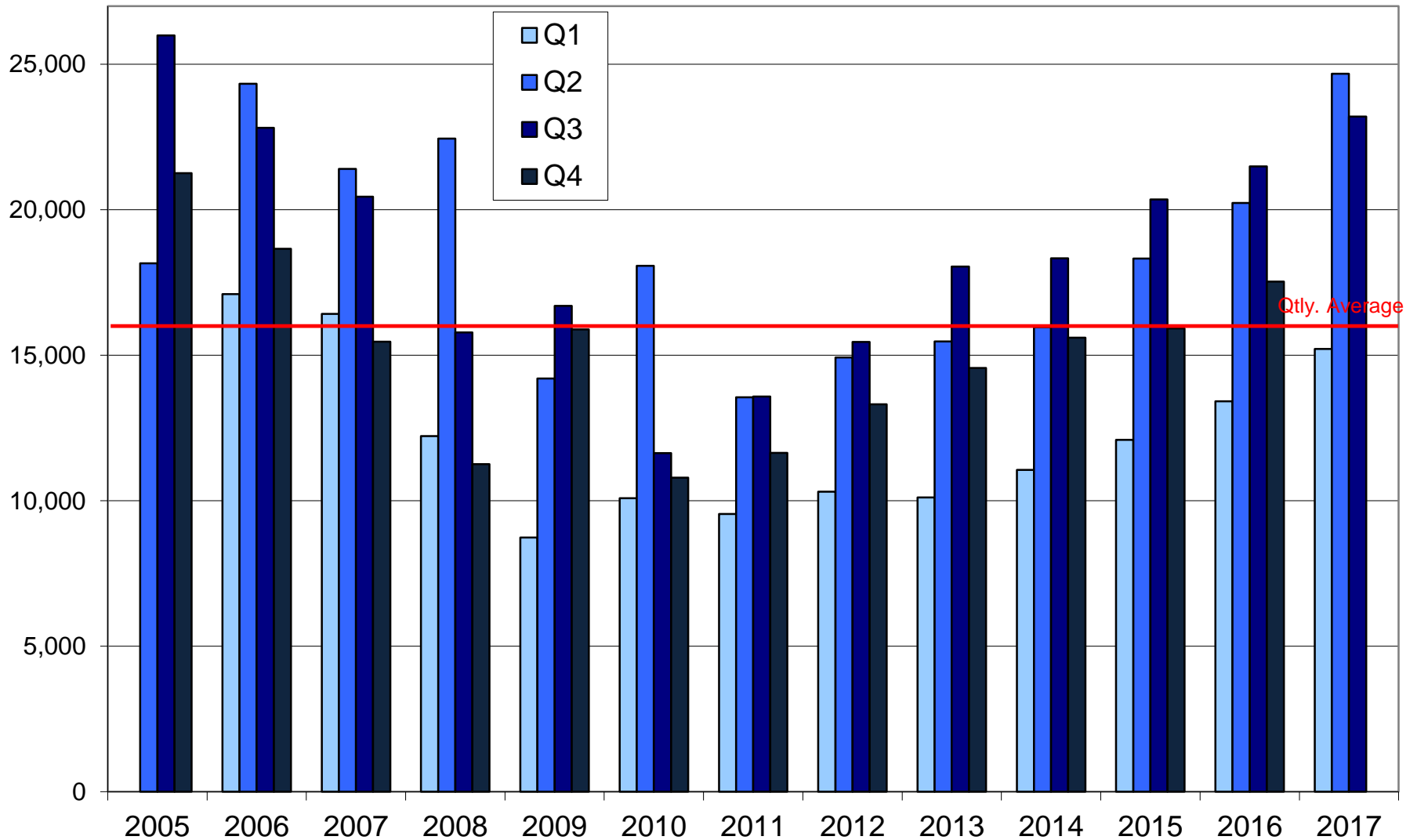


Median House Price by County, Smoothed*: 1980-2017



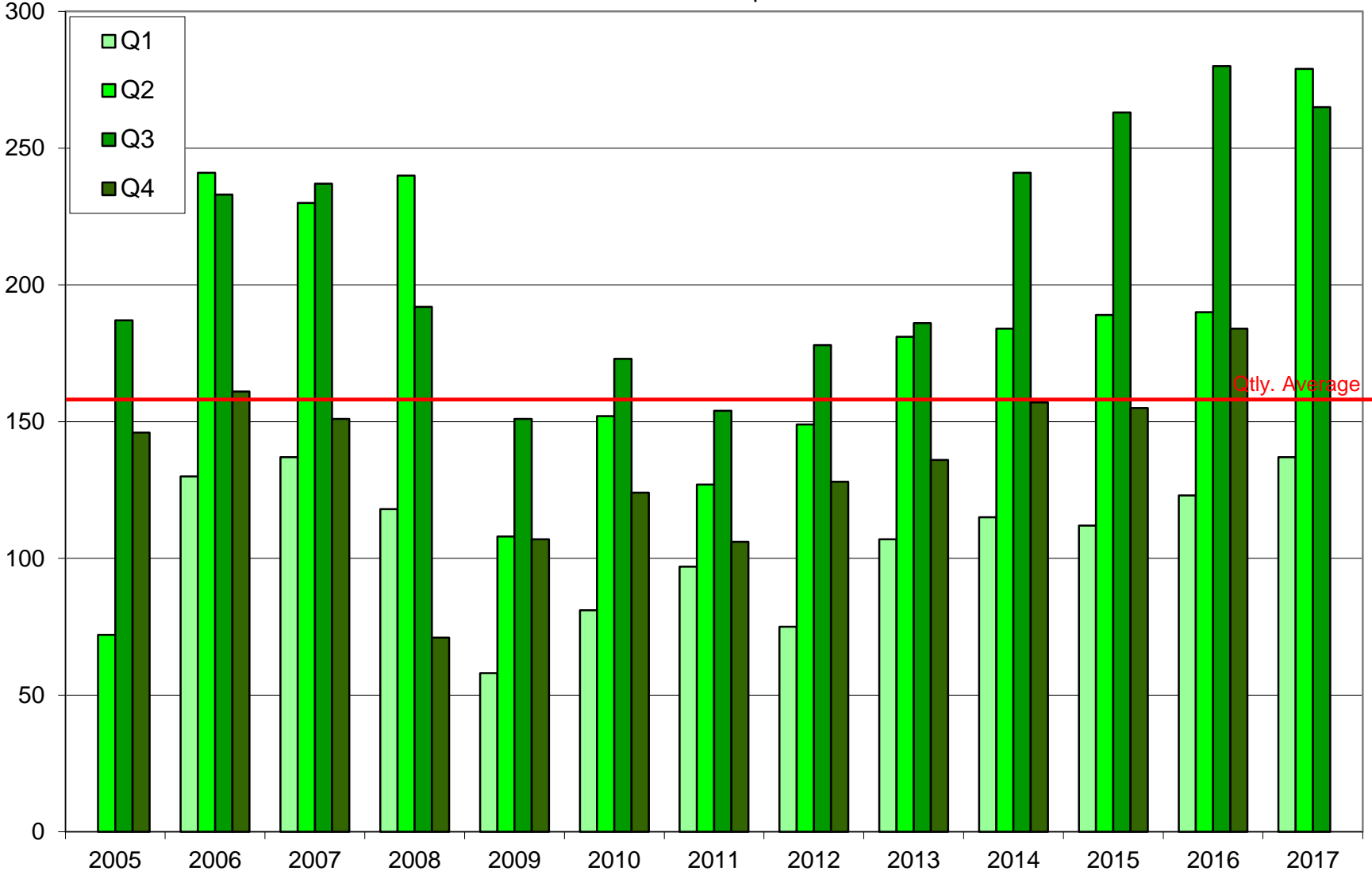
*The price data was smoothed by applying a 3-period moving average, in order to eliminate seasonal noise.

Number of Regional House Sales per Quarter: 2005-2017



Qtly. Average

Number of Regional House Sales 2005-2017 with Price >=\$1m

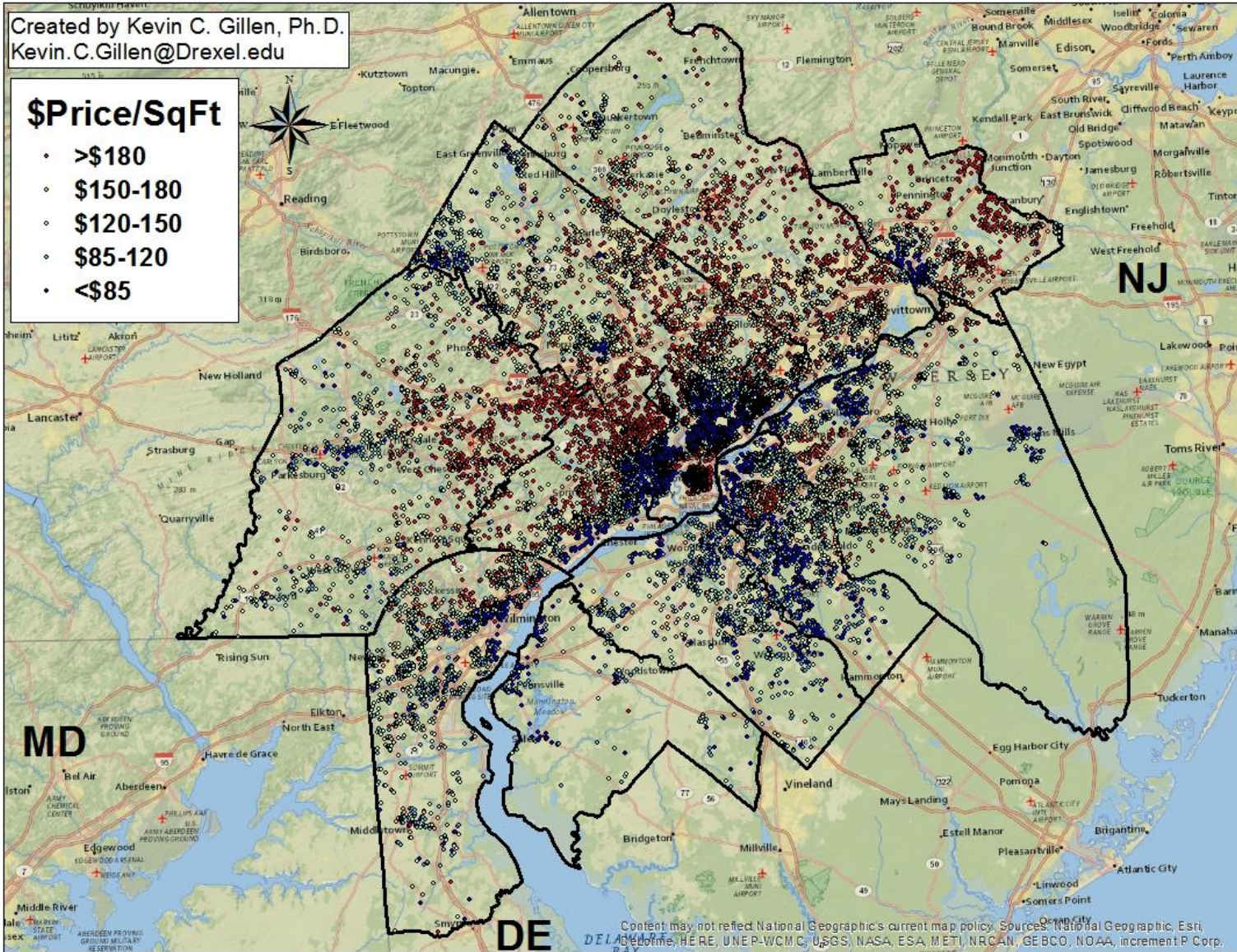


Philadelphia Region House Sales in 2017 Q3

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

\$Price/SqFt

- >\$180
- \$150-180
- \$120-150
- \$85-120
- <\$85



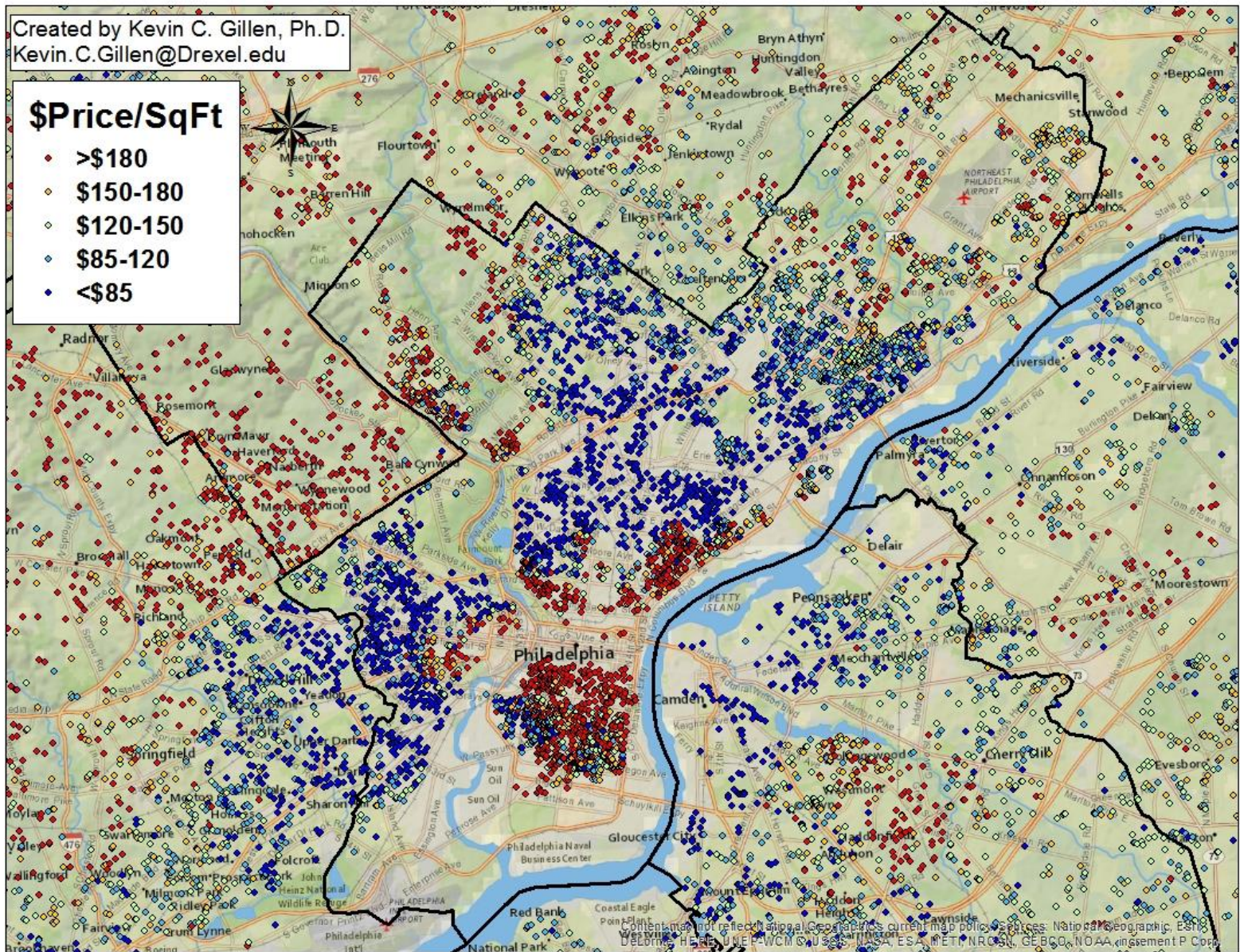
Note: the categories for \$price/sqft are based upon the quintiles of its distribution. Hence, exactly 20% of all sales fall into each one of the five categories.

Philadelphia County House Sales in 2017 Q3

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

- >\$180
- ◇ \$150-180
- ◇ \$120-150
- ◇ \$85-120
- <\$85



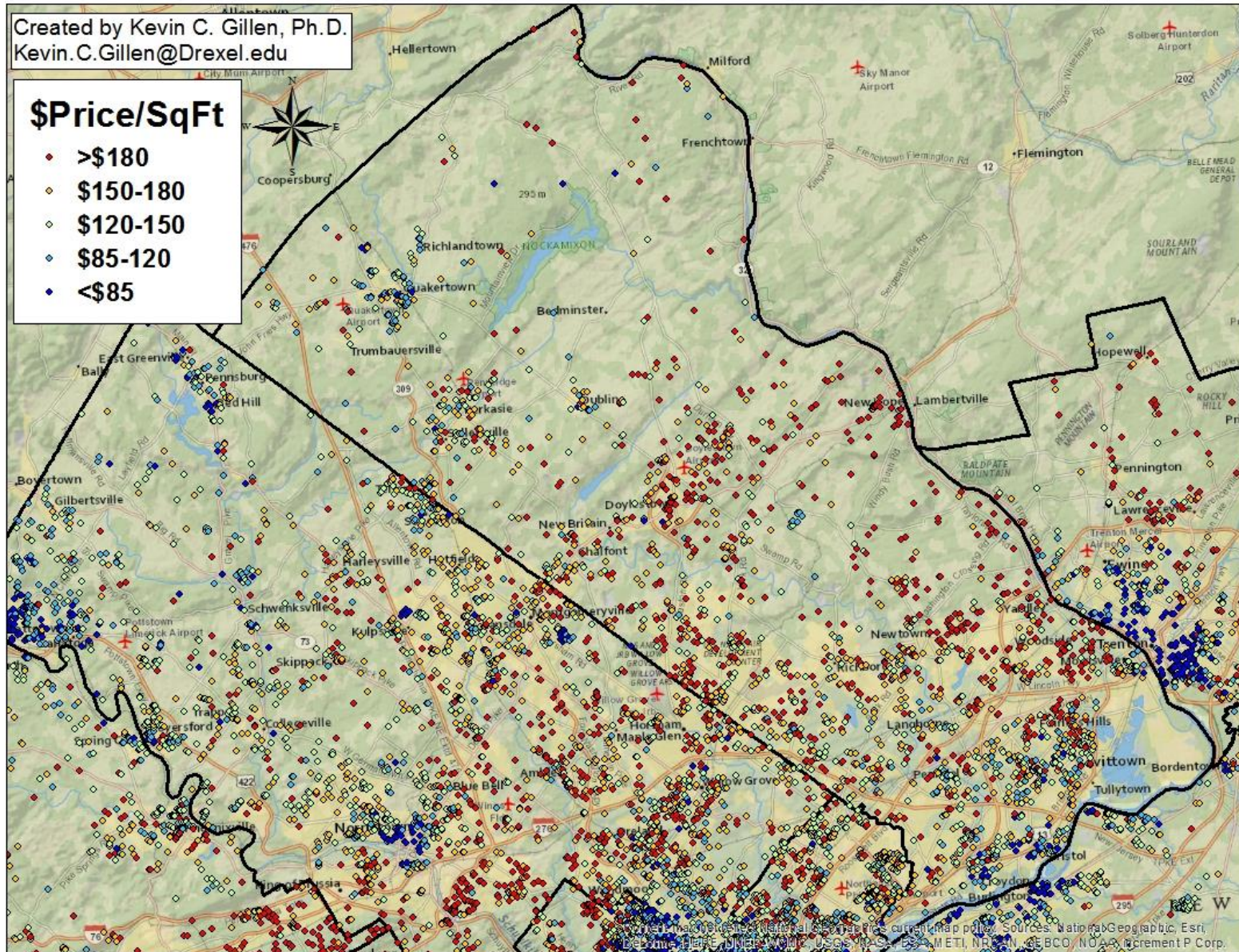
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Bucks County House Sales in 2017 Q3

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

\$Price/SqFt

- >\$180
- ◊ \$150-180
- ◇ \$120-150
- ◆ \$85-120
- <\$85



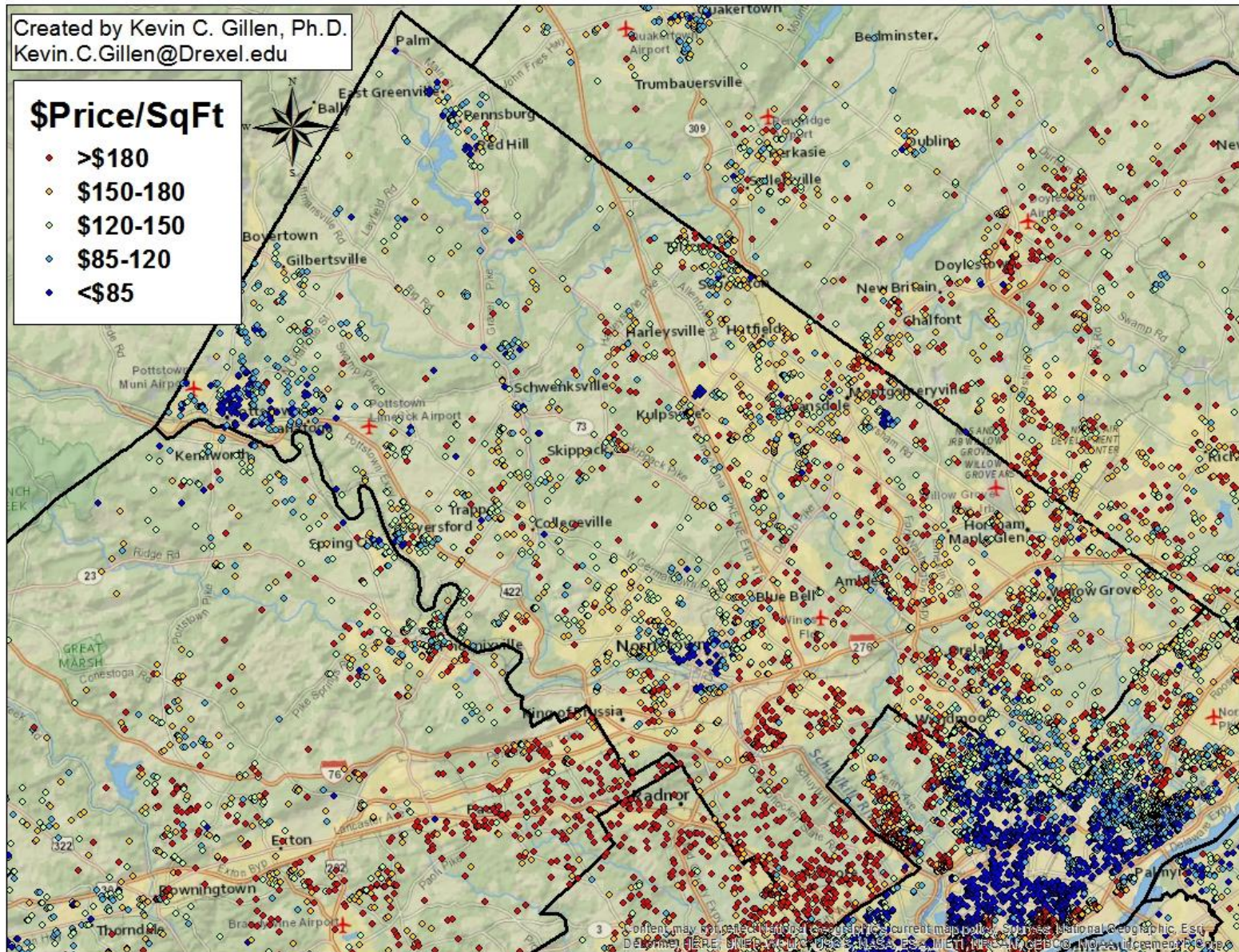
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Montgomery County House Sales in 2017 Q3

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

\$Price/SqFt

- >\$180
- ◊ \$150-180
- ◇ \$120-150
- ◆ \$85-120
- <\$85



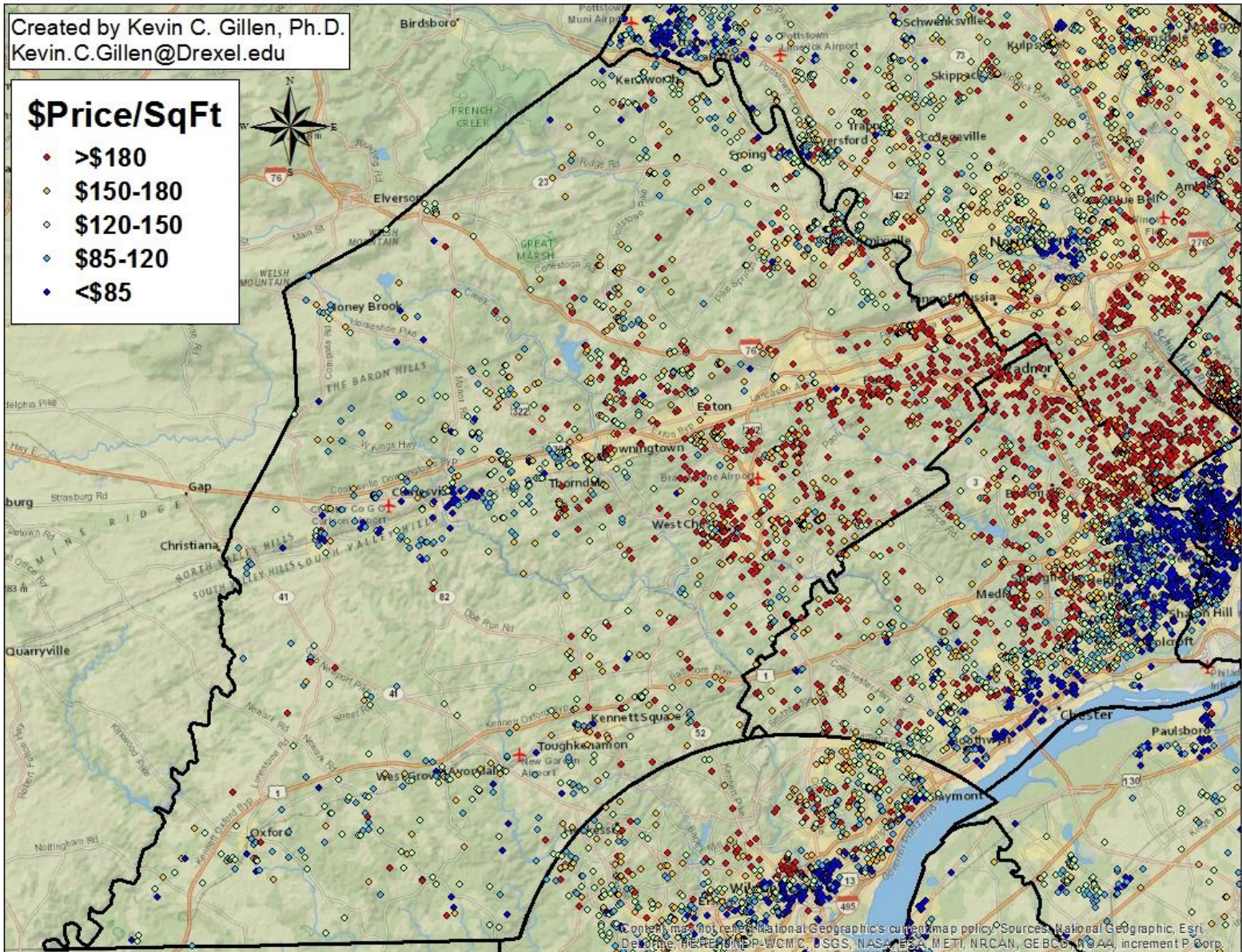
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Chester County House Sales in 2017 Q3

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\$Price/SqFt

- >\$180
- ◊ \$150-180
- ◊ \$120-150
- ◊ \$85-120
- <\$85



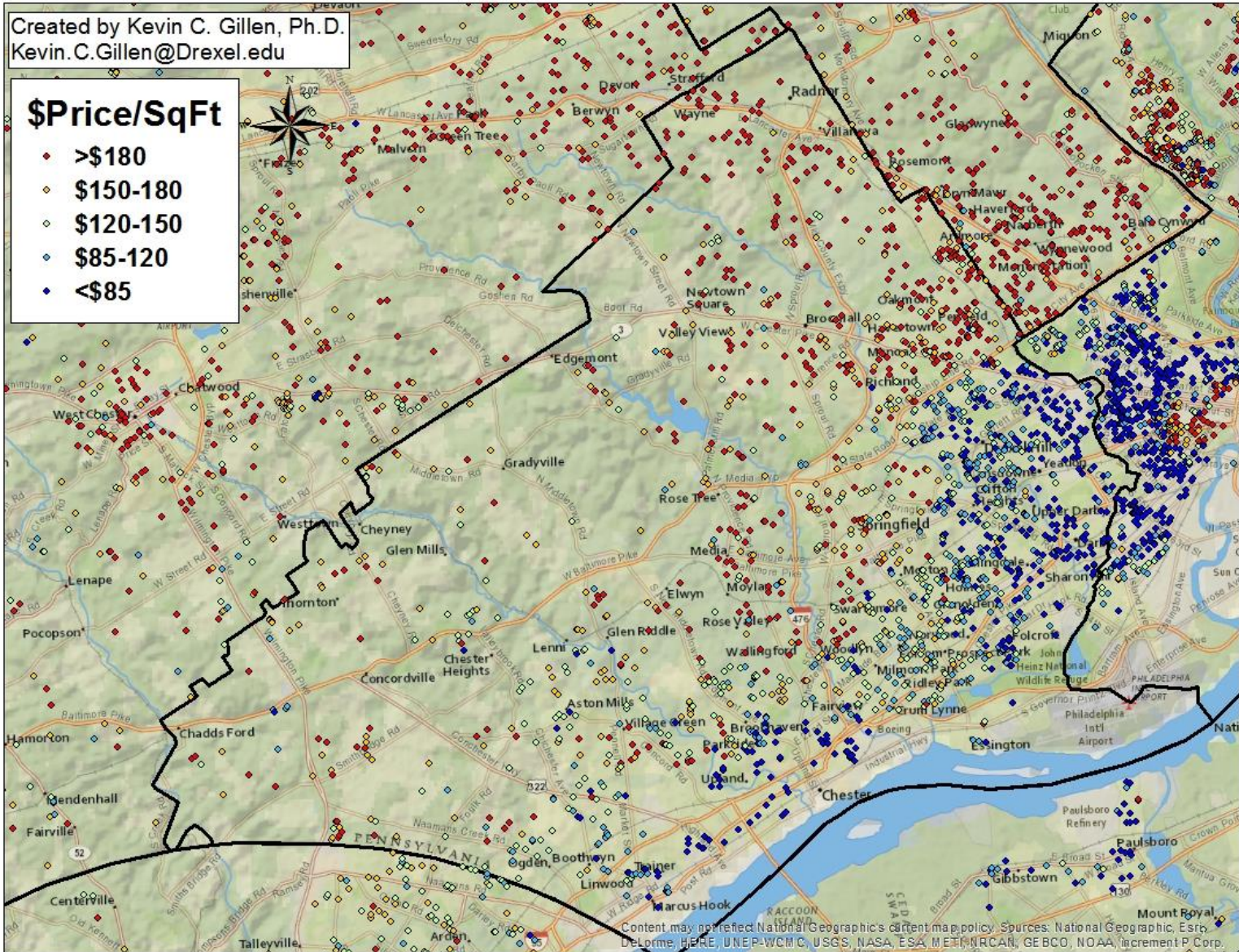
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Delaware County House Sales in 2017 Q3

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

- ◆ >\$180
- ◆ \$150-180
- ◆ \$120-150
- ◆ \$85-120
- ◆ <\$85



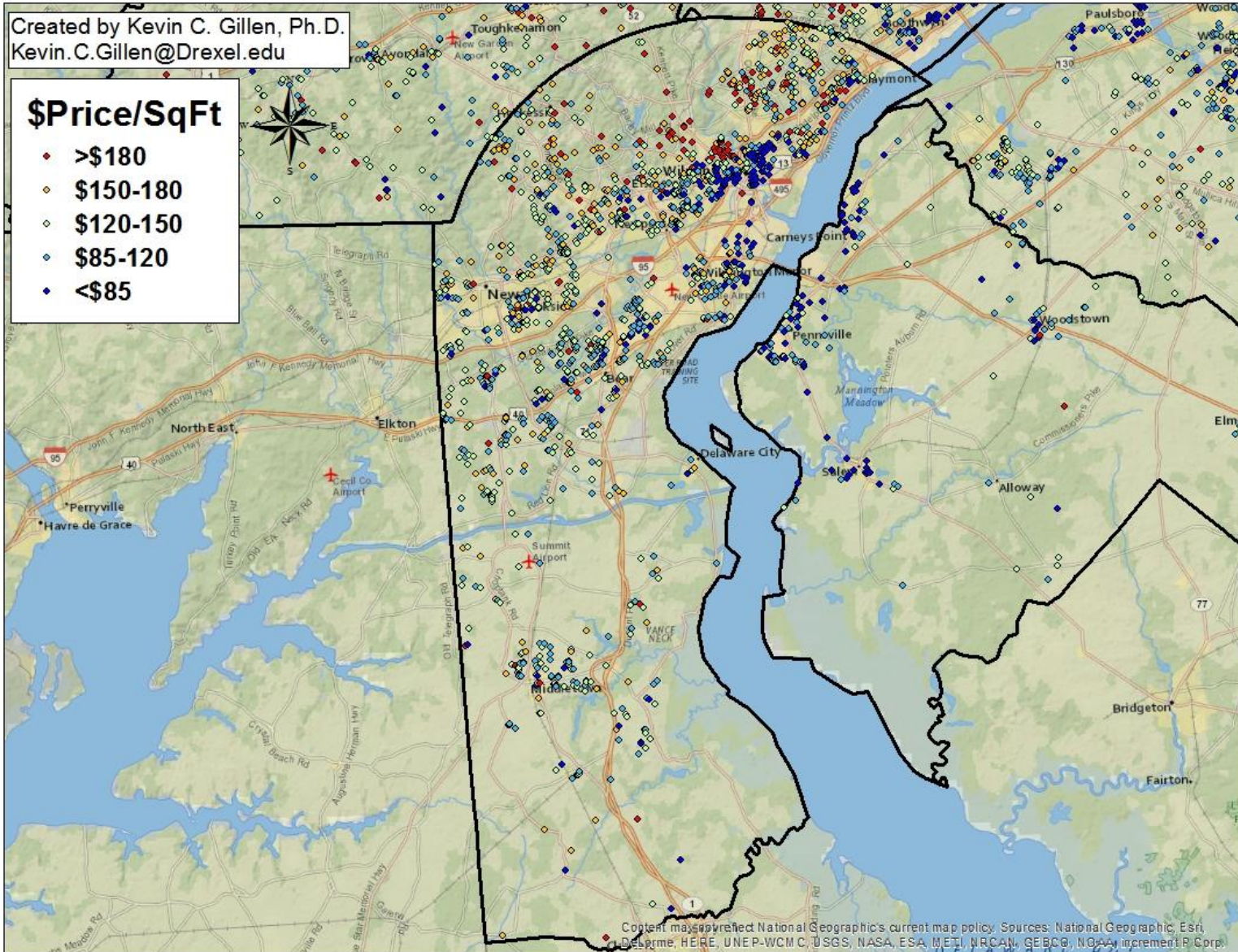
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New Castle County House Sales in 2017 Q3

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

- ◆ >\$180
- ◆ \$150-180
- ◆ \$120-150
- ◆ \$85-120
- ◆ <\$85



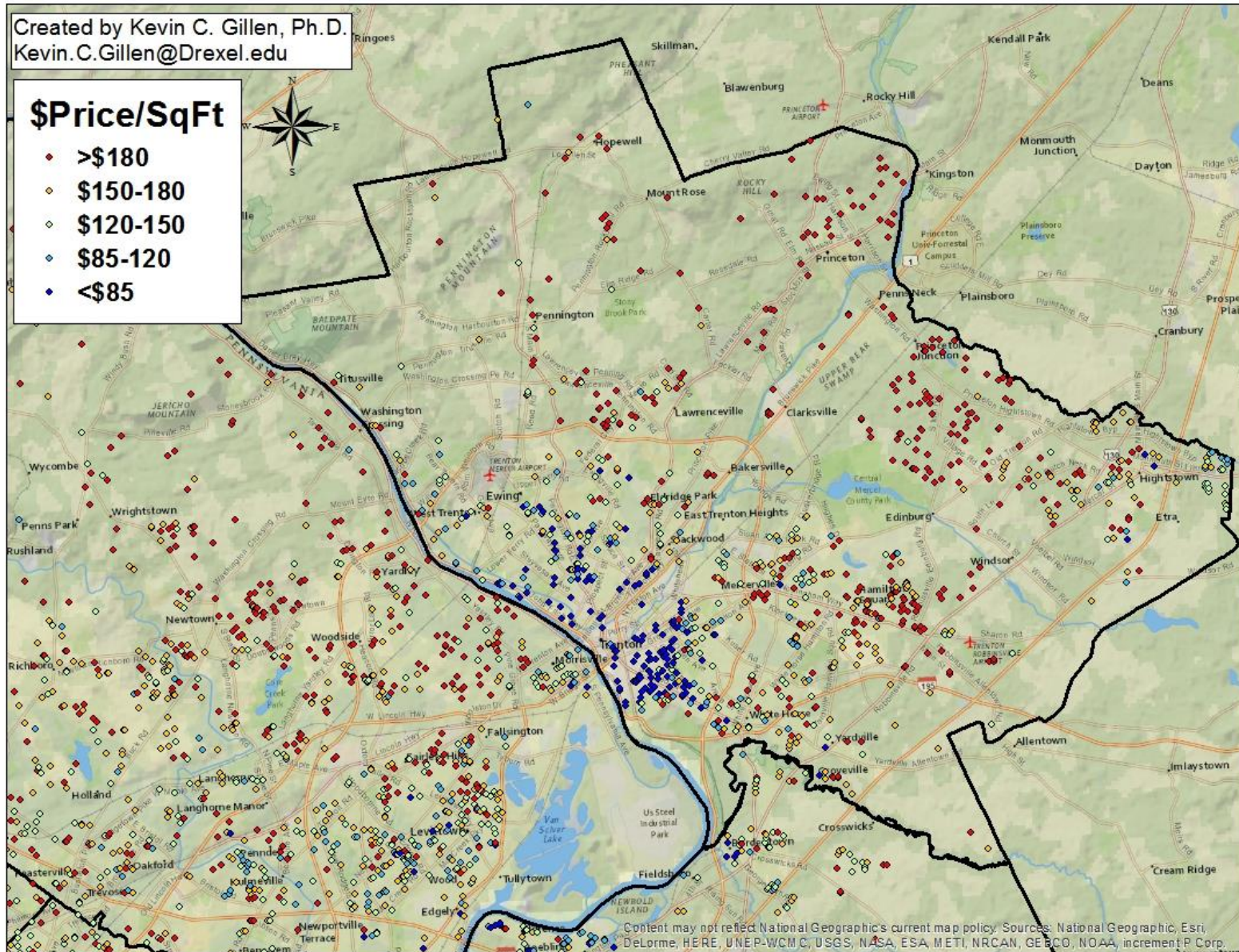
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Mercer County House Sales in 2017 Q3

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\$Price/SqFt

- ◆ >\$180
- ◆ \$150-180
- ◆ \$120-150
- ◆ \$85-120
- ◆ <\$85



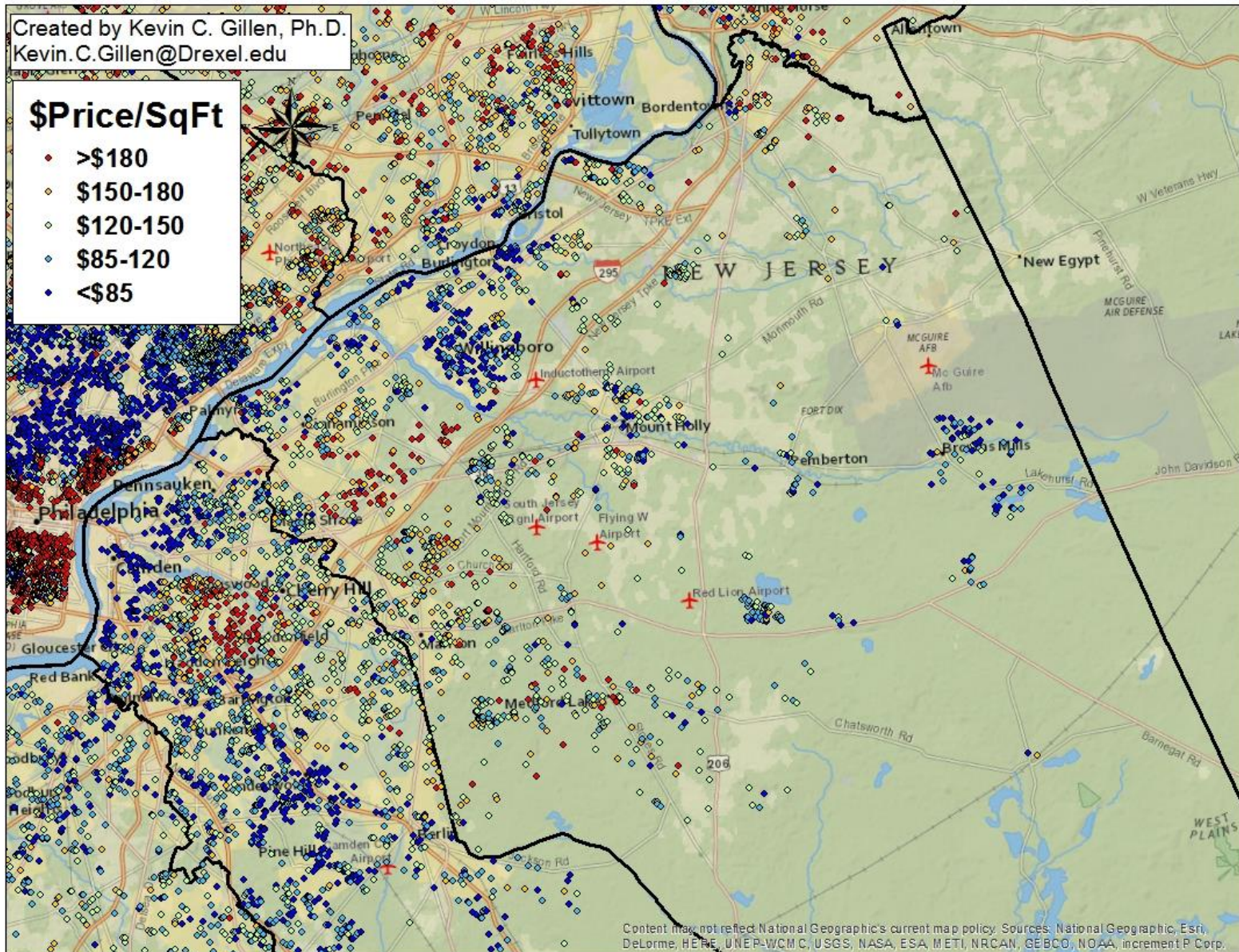
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Burlington County House Sales in 2017 Q3

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

- >\$180
- ◊ \$150-180
- ◊ \$120-150
- ◊ \$85-120
- <\$85



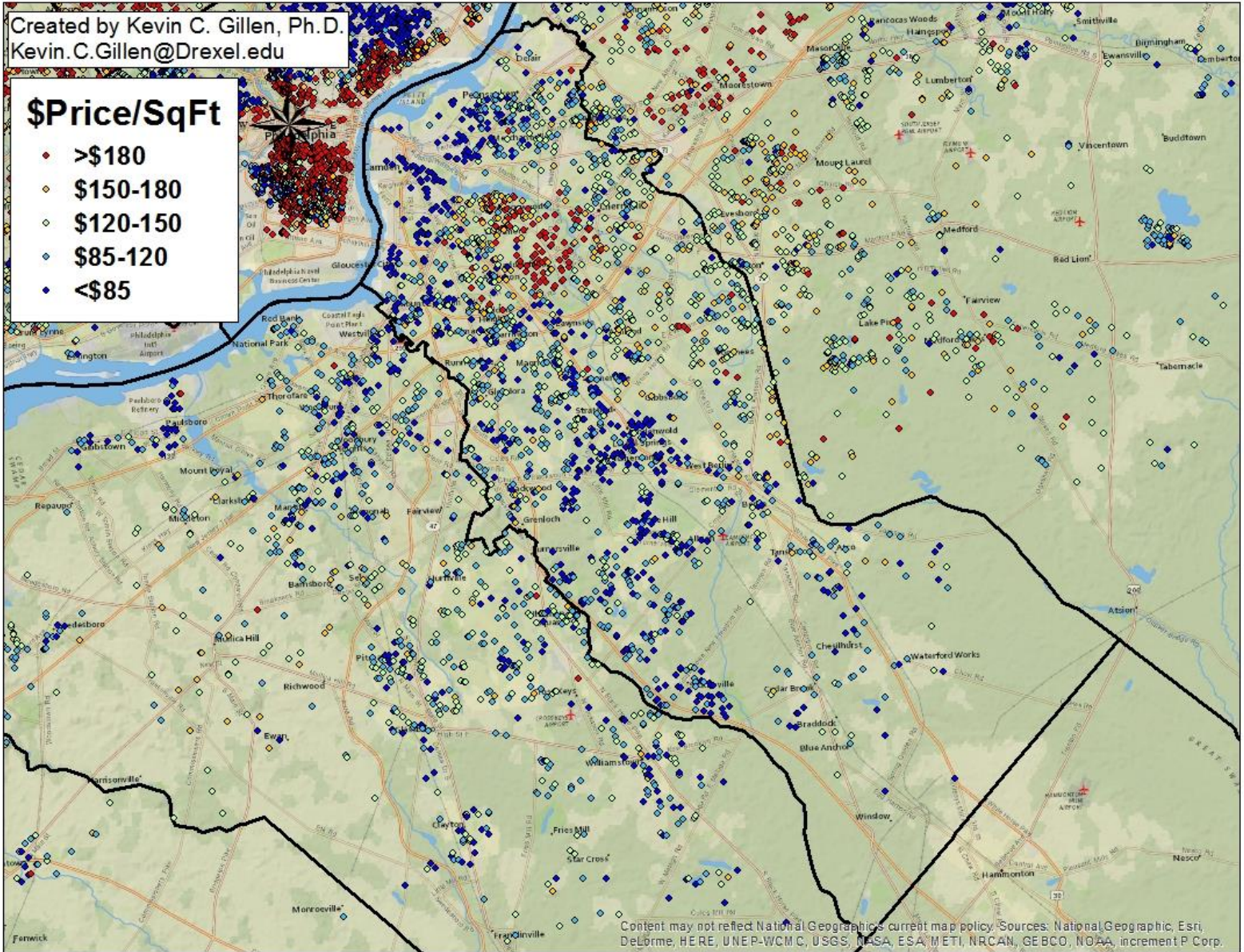
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Camden County House Sales in 2017 Q3

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

\$Price/SqFt

- >\$180
- ◊ \$150-180
- ◊ \$120-150
- ◊ \$85-120
- <\$85



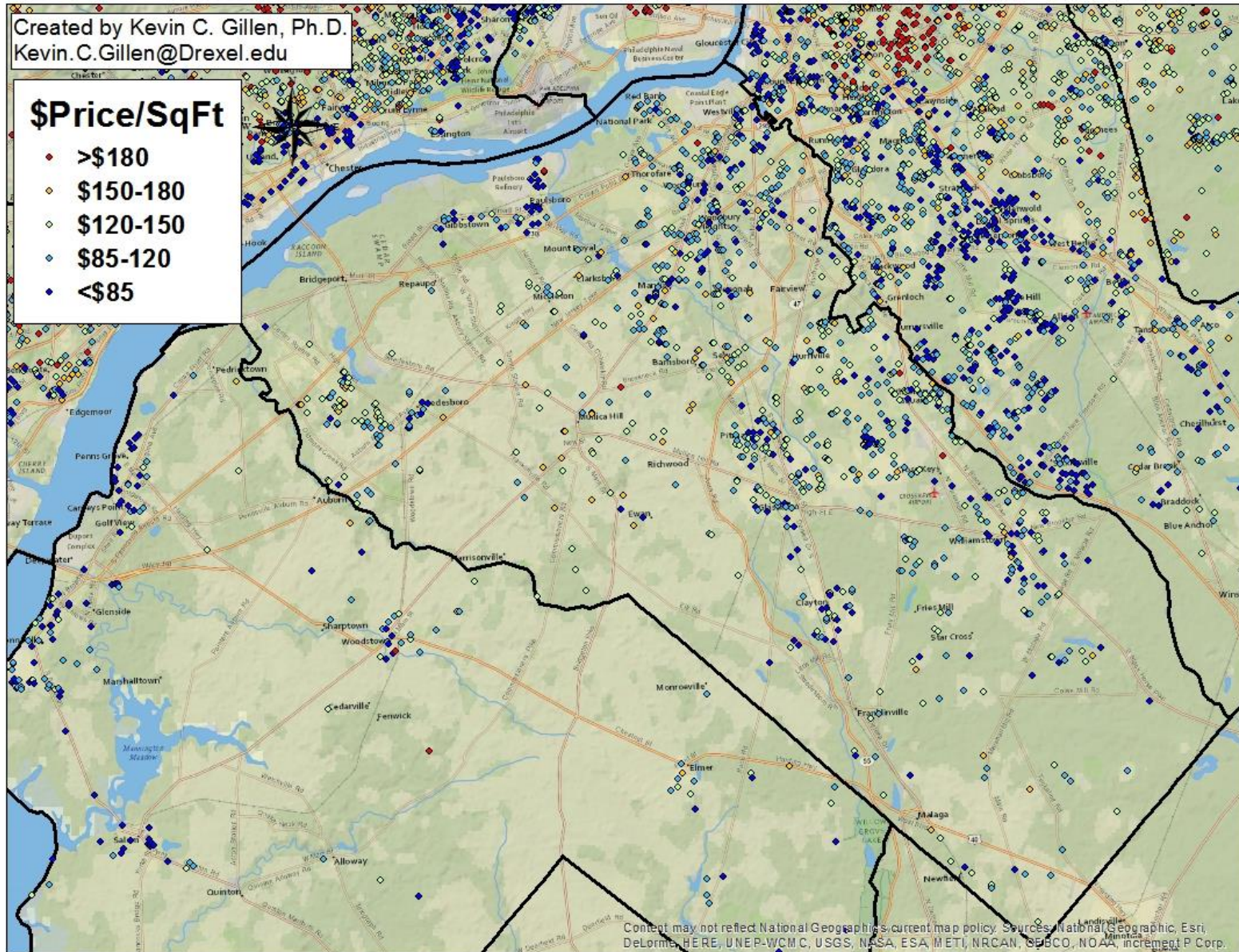
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Gloucester County House Sales in 2017 Q3

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

- >\$180
- ◊ \$150-180
- ◊ \$120-150
- ◊ \$85-120
- <\$85



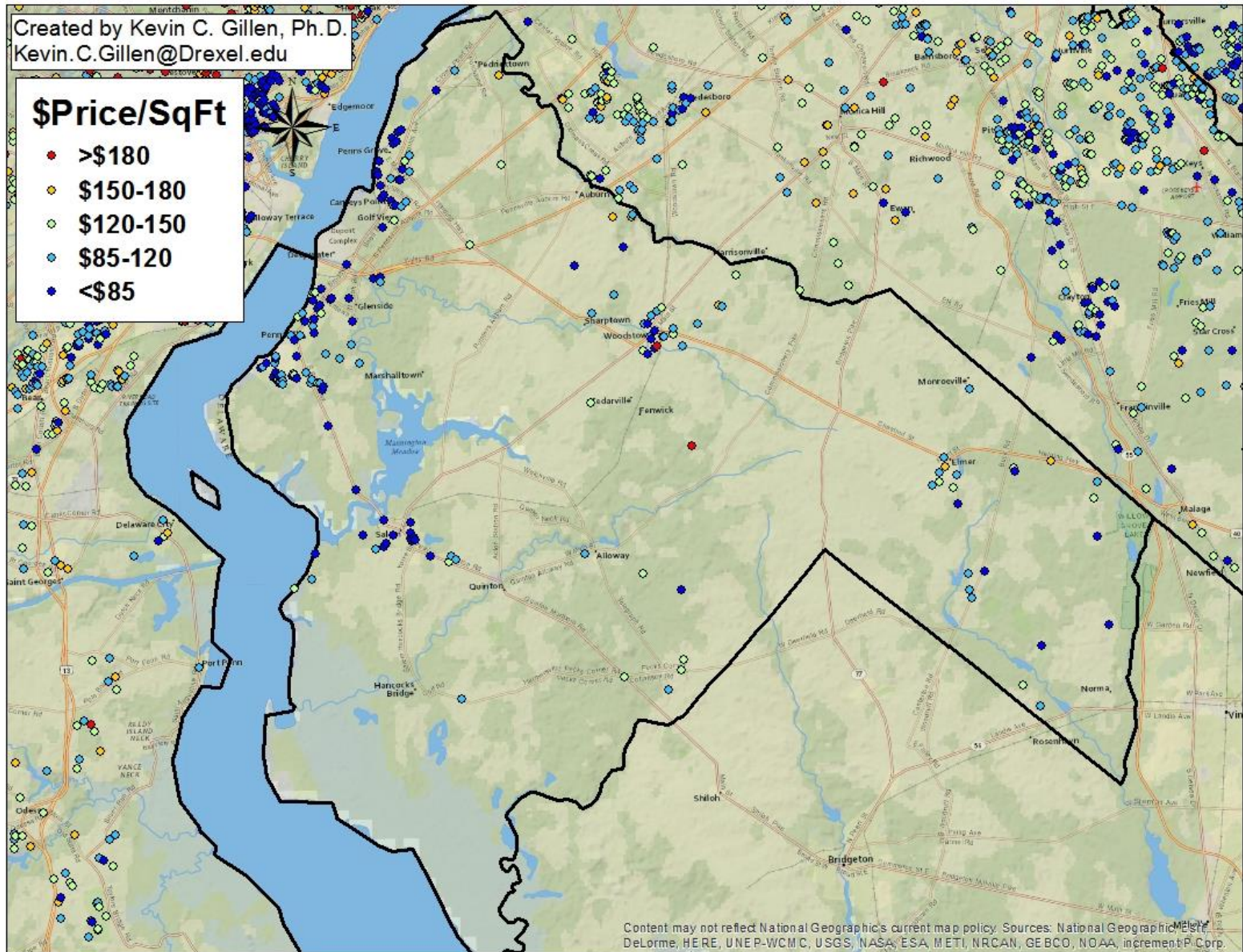
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Salem County House Sales in 2017 Q3

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\$Price/SqFt

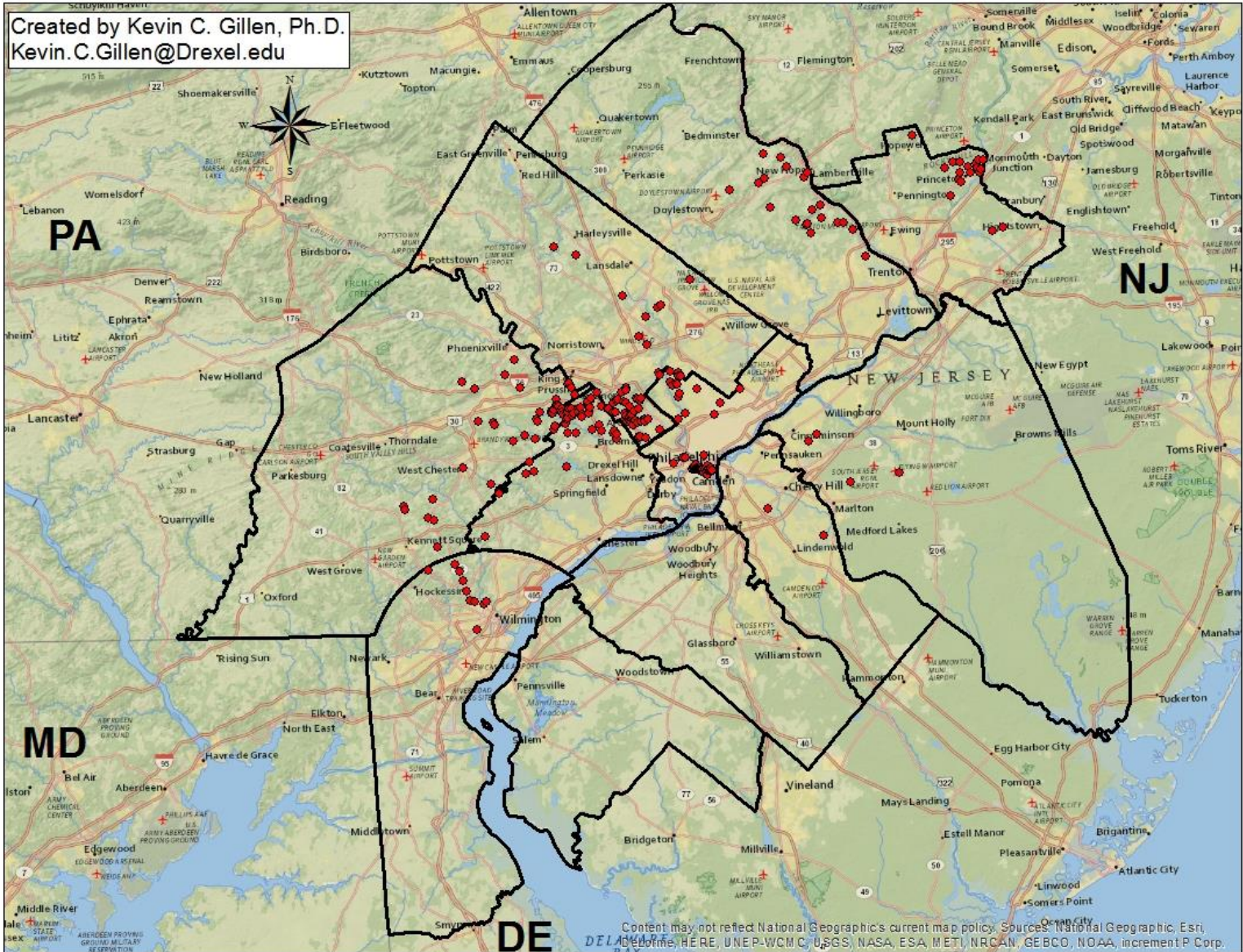
- >\$180
- \$150-180
- \$120-150
- \$85-120
- <\$85



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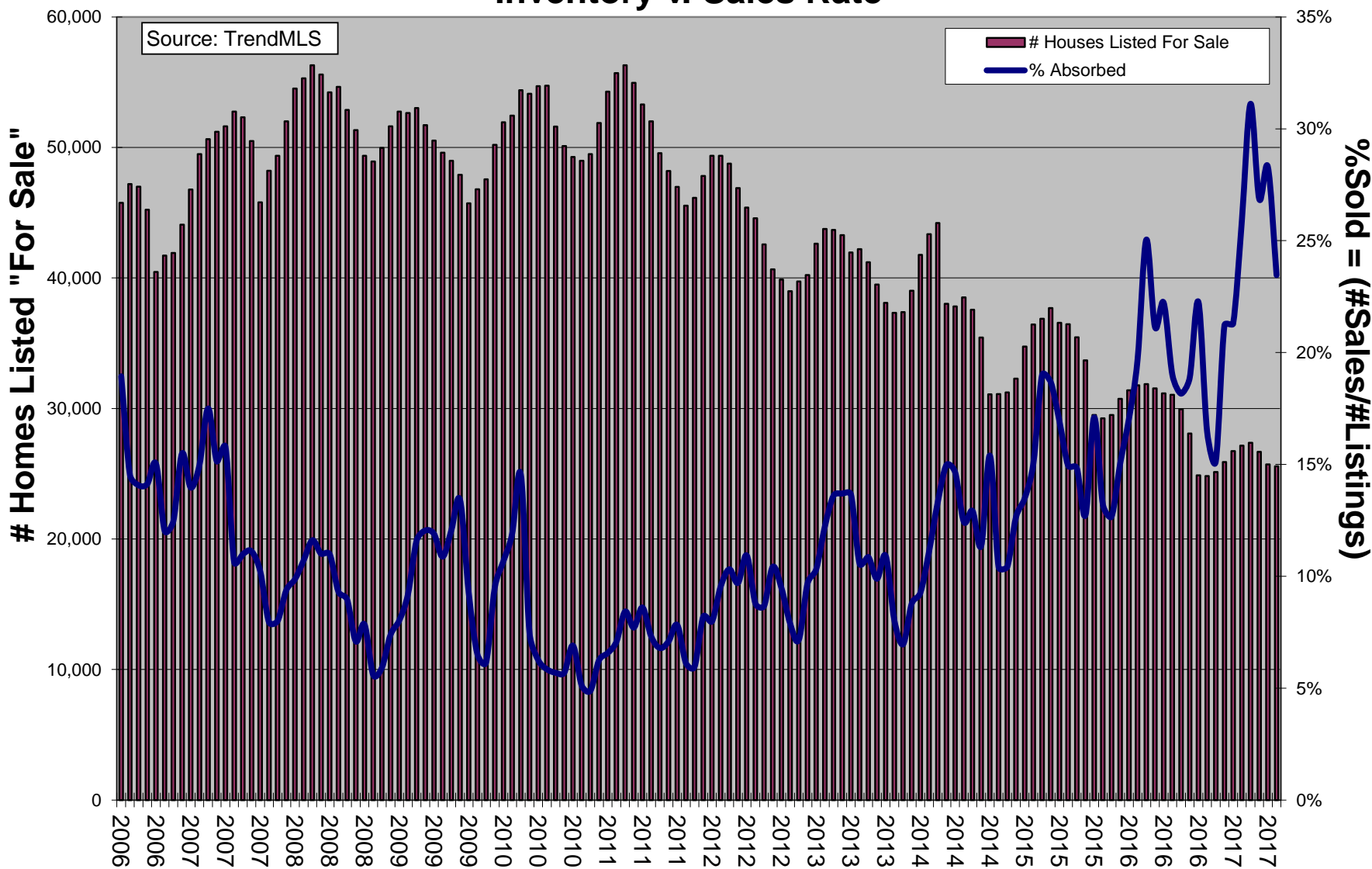
+ \$1 Million Dollar House Sales in 2017 Q3

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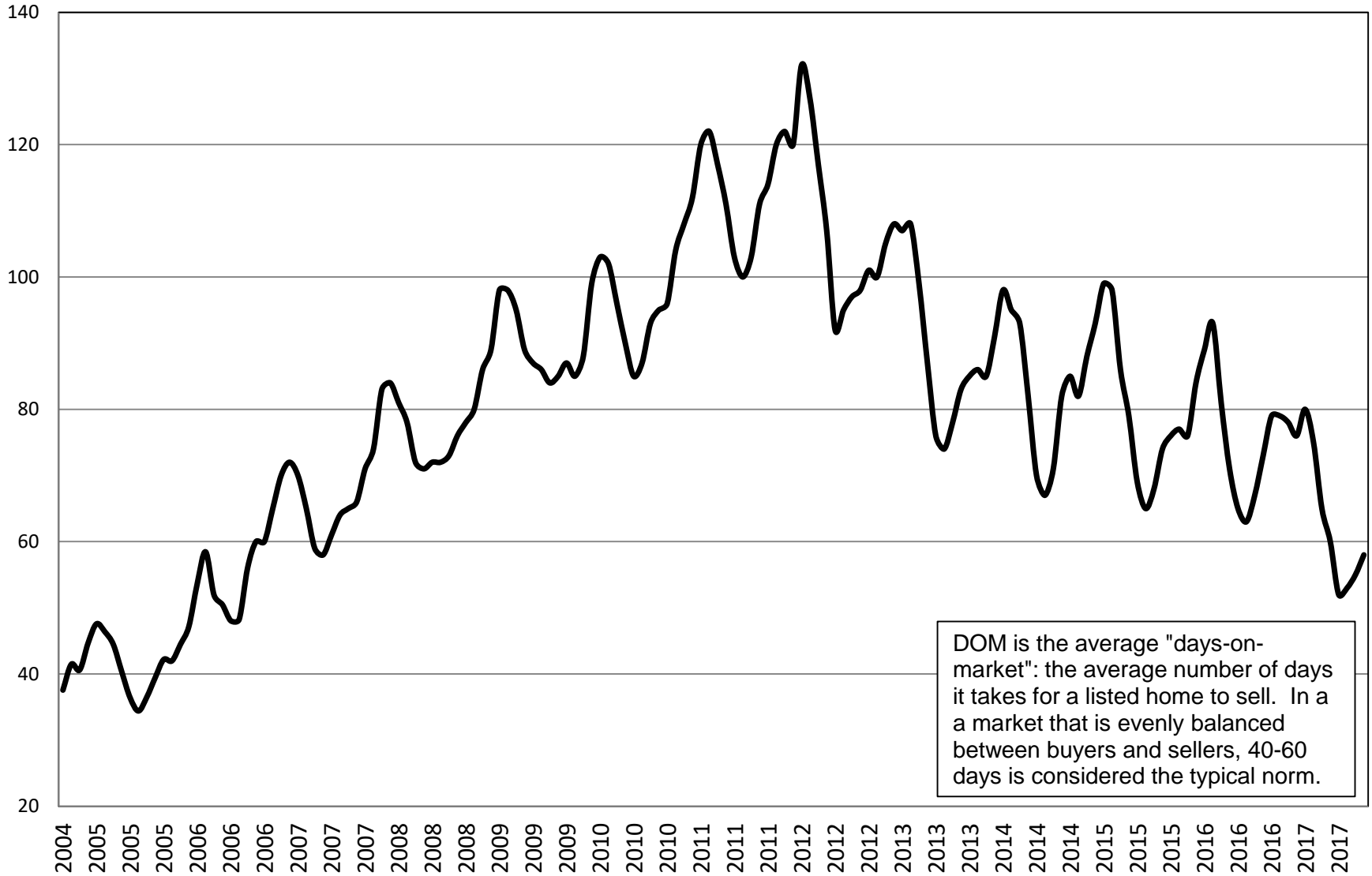


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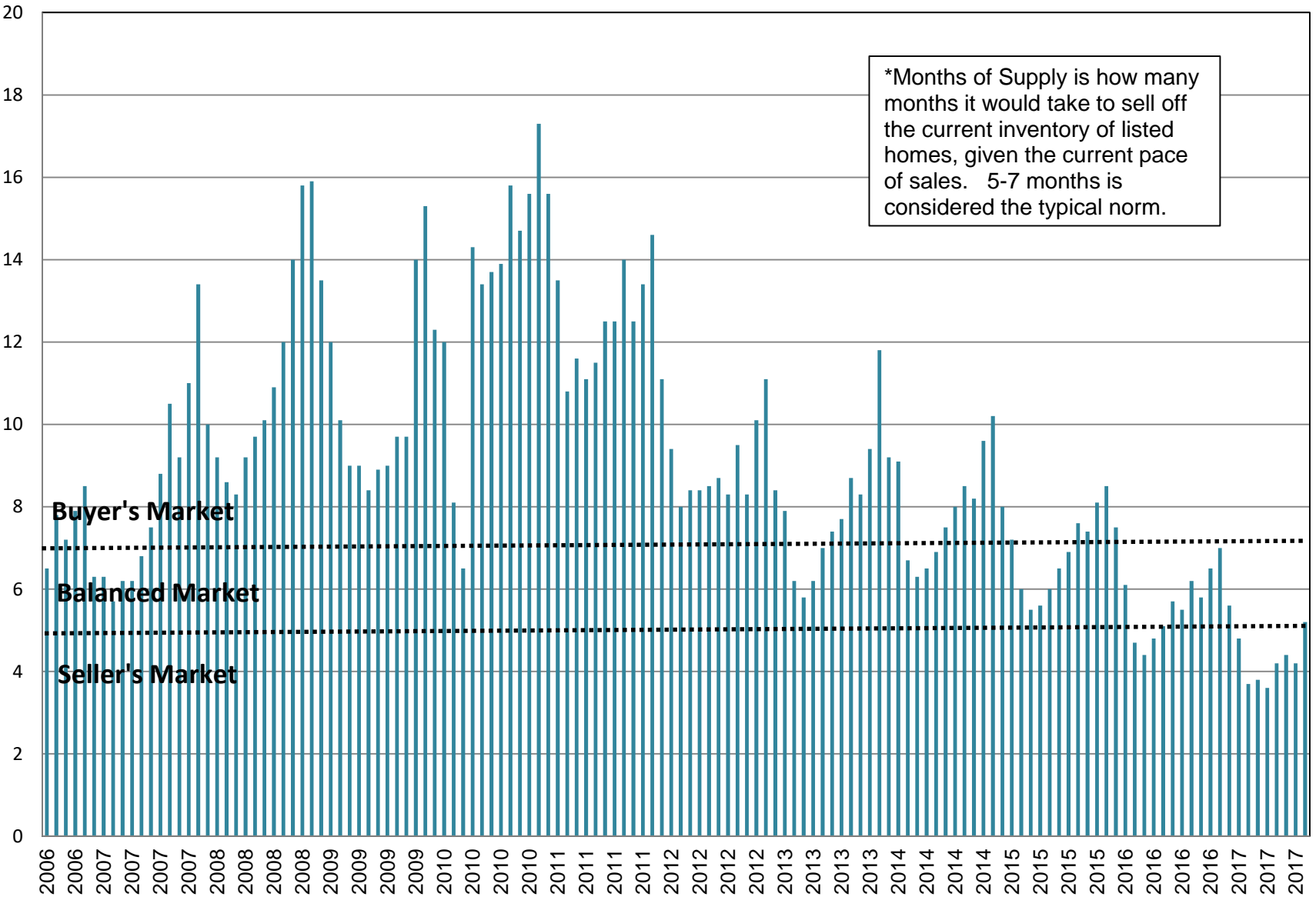
Philadelphia Region Houses Listed For Sale: Inventory v. Sales Rate



Philadelphia Region Avg. DOM*



Philadelphia Region Months of Supply*: Houses v. Condos



*Months of Supply is how many months it would take to sell off the current inventory of listed homes, given the current pace of sales. 5-7 months is considered the typical norm.

Buyer's Market
Balanced Market
Seller's Market

Pennsylvania Foreclosure Rates

FORECLOSURE RATES FOR PENNSYLVANIA

October 2017

Pennsylvania
1 in every 1912

Top 5 Counties

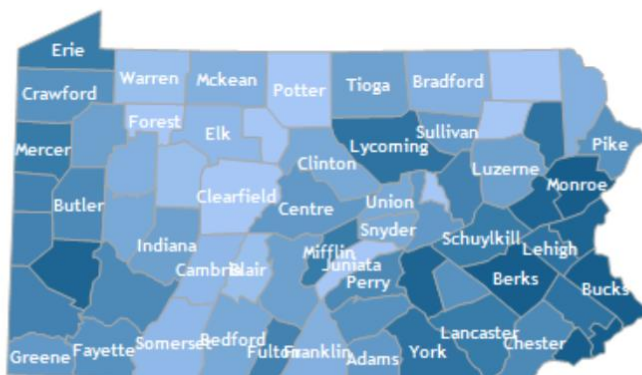
Delaware
1 in every 783

Berks
1 in every 1090

Philadelphia
1 in every 1105

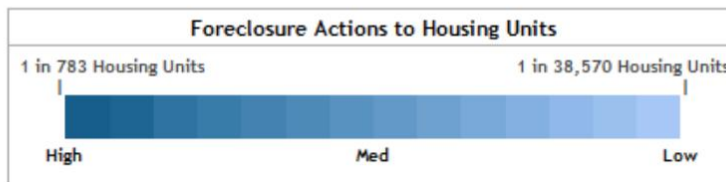
Bucks
1 in every 1128

Monroe
1 in every 1218



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1 out of every 1,105 homes in Philadelphia is currently in the process of foreclosure, which is down from 1 out of every 1,062 homes in the previous quarter.

In the entire Commonwealth, 1 out of every 1,912 homes in Pennsylvania is in the process of foreclosure, which is also down from 1 out of every 1,895 homes in the previous quarter.

New Jersey Foreclosure Rates

FORECLOSURE RATES FOR NEW JERSEY

October 2017

New Jersey
1 in every 559

Top 5 Counties

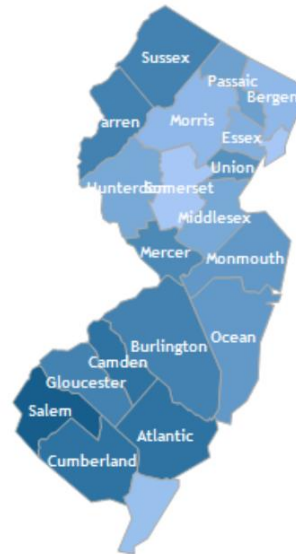
Salem
1 in every 202

Cumberland
1 in every 284

Camden
1 in every 285

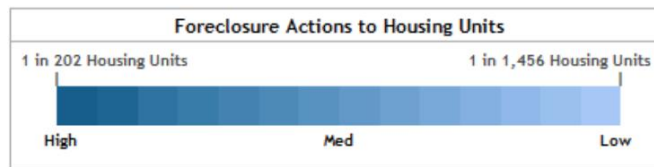
Atlantic
1 in every 292

Sussex
1 in every 312



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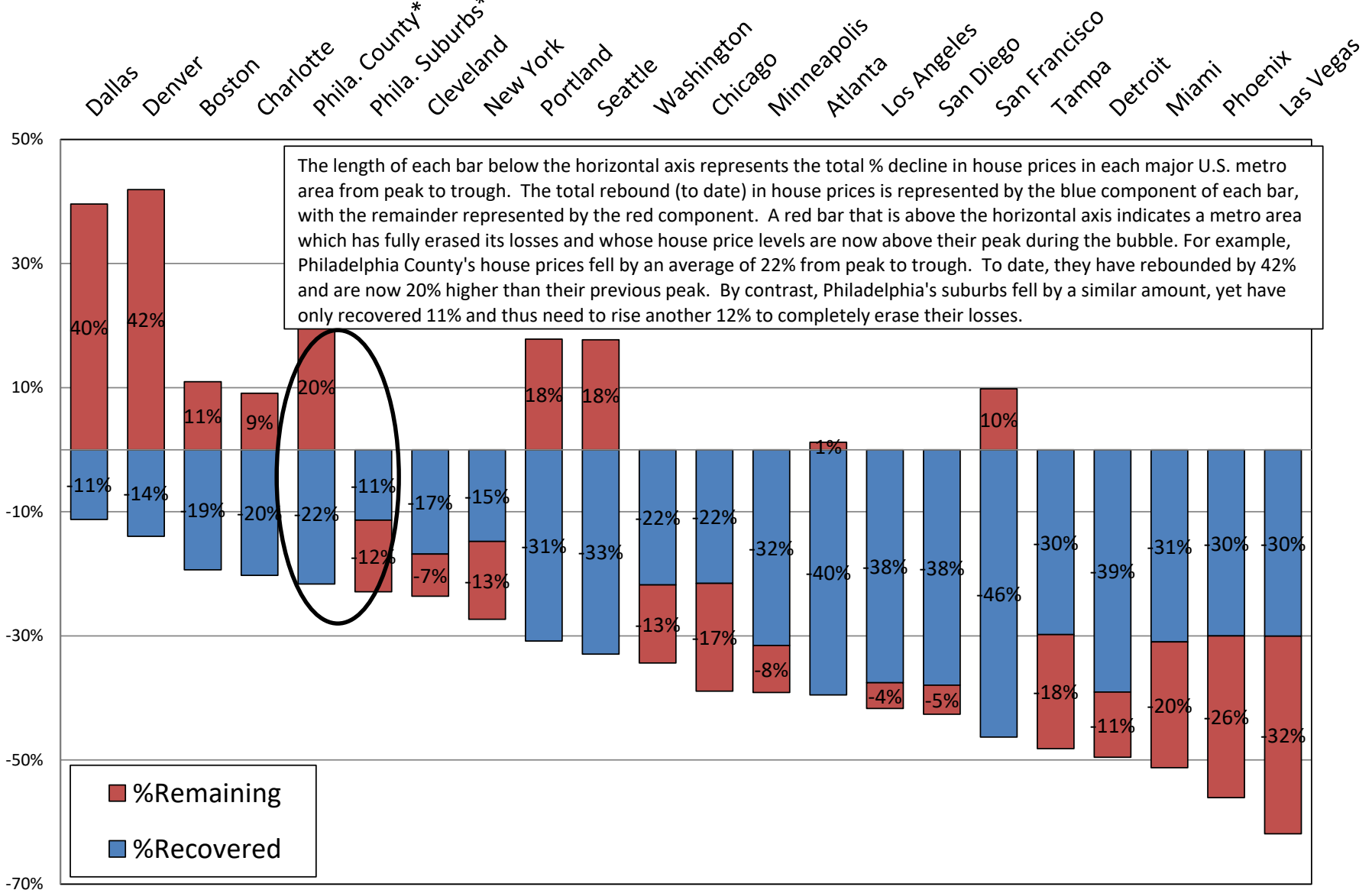


South Jersey's foreclosure rate continues to remain the highest in the region, and also showed further deterioration this quarter.

The six counties in Southern NJ (excluding Cape May) collectively have a foreclosure rate averaging one in every 285 homes. This is well above the statewide average of 1 in every 559 homes.

And, the foreclosure rate for South Jersey increased this quarter, up from its previous level of 1 in every 343 homes in the previous quarter.

Housing's Road to Recovery: %Lost v. %Recovered by Metro Area



*Empirically estimated by Kevin C. Gillen, Ph.D. All other metros courtesy of S&P Case-Shiller.