PHILADELPHIA REGIONAL HOUSE PRICE INDICES

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Philadelphia Regional House Price Indices 1980-2019
1980Q1=100

*Empirically estimated by Kevin C. Gillen, PhD
**Courtesy Federal Housing Finance Agency (FHFA)
House Price Appreciation 1987-2019:
Philadelphia Region v. 10-City U.S. Composite

% Change
1998 to Peak: +172%  +107%
From Peak: +1.0%  -1.2%

*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 1980-2019
by Philadelphia Region and State: 1980Q1=100

*Empirically estimated by Kevin C. Gillen, Ph.D.  **Courtesy Federal Housing Finance Agency (FHFA)
Philadelphia Regional House Price Indices 1980-2019
City v. Suburbs 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: 1980-2019
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 1980-2019, 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.

<table>
<thead>
<tr>
<th>Period</th>
<th>Philadelphia County*</th>
<th>Philadelphia Suburbs*</th>
<th>U.S.A.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>39-Year</td>
<td>449.5%</td>
<td>349.3%</td>
<td>350.0%</td>
</tr>
<tr>
<td>10-Year</td>
<td>27.9%</td>
<td>5.3%</td>
<td>38.6%</td>
</tr>
<tr>
<td>1-Year</td>
<td>8.5%</td>
<td>8.6%</td>
<td>5.1%</td>
</tr>
<tr>
<td>1-Quarter</td>
<td>1.4%</td>
<td>2.6%</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

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

**Source: U.S. Federal Housing Finance Agency (FHFA). These numbers are through 2019Q1 only. “MSA” = “Metropolitan Statistical Area”, which is the entire 11-county region.
Philadelphia Region House Price Appreciation Rates by County

<table>
<thead>
<tr>
<th>Period</th>
<th>Philadelphia</th>
<th>Bucks</th>
<th>Chester</th>
<th>Delaware</th>
<th>Montgomery</th>
<th>New Castle</th>
<th>Mercer</th>
<th>Burlington</th>
<th>Camden</th>
<th>Gloucester</th>
<th>Salem</th>
</tr>
</thead>
<tbody>
<tr>
<td>39-Year</td>
<td>449%</td>
<td>473%</td>
<td>445%</td>
<td>372%</td>
<td>403%</td>
<td>329%</td>
<td>434%</td>
<td>281%</td>
<td>282%</td>
<td>304%</td>
<td>203%</td>
</tr>
<tr>
<td>10-Year</td>
<td>27.9%</td>
<td>14.7%</td>
<td>15.5%</td>
<td>9.4%</td>
<td>13.2%</td>
<td>8.3%</td>
<td>5.9%</td>
<td>0.6%</td>
<td>1.3%</td>
<td>-3.9%</td>
<td>-22.8%</td>
</tr>
<tr>
<td>1-Year</td>
<td>8.5%</td>
<td>8.1%</td>
<td>8.4%</td>
<td>11.2%</td>
<td>7.8%</td>
<td>14.6%</td>
<td>8.6%</td>
<td>13.7%</td>
<td>15.8%</td>
<td>14.2%</td>
<td>26.2%</td>
</tr>
<tr>
<td>1-Quarter</td>
<td>1.4%</td>
<td>2.1%</td>
<td>2.4%</td>
<td>2.4%</td>
<td>2.7%</td>
<td>2.9%</td>
<td>1.4%</td>
<td>2.6%</td>
<td>4.3%</td>
<td>2.9%</td>
<td>4.5%</td>
</tr>
</tbody>
</table>

All county-level indices and appreciation rates estimated by Kevin C. Gillen, Ph.D.
2019 Q2 House Price Rate of Change by County

Note: Each county is extruded by its average change in house values during 2019 Q2 in order to reflect its growth (or depreciation) rate relative to other counties.

- Burlington: +2.6%
- Camden: +4.3%
- Bucks: +2.1%
- Chester: +2.4%
- Delaware: +2.4%
- Gloucester: +2.9%
- Montgomery: +2.7%
- Salem: +4.5%
- Mercer: +1.4%
- Philadelphia: +1.4%
- New Castle: +2.9%
- Mercer: +1.4%

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*Empirically estimated by Kevin C. Gillen, Ph.D.*
Median House Price by County, Smoothed*: 1980-2019

*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: 2005-2019

Qtly. Average
Philadelphia Region House Sales in 2019 Q2

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 2019 Q2

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 2019 Q2

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 2019 Q2

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 2019 Q2

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 2019 Q2

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 2019 Q2

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 2019 Q2

$Price/SqFt
- >$195
- $160-195
- $130-160
- $100-130
- <$100

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 2019 Q2

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 2019 Q2

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 2019 Q2

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 2019 Q2

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 Houses Listed For Sale: Inventory v. Sales Rate

# Houses Listed "For Sale" % Absorbed

% Absorbed = (#Sales/#Listings)
Philadelphia Suburb's Houses Listed For Sale: Inventory v. Sales Rate

% Sold = (#Sales/#Listings)

Source: Houwzer

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Average Days-on-Market* for Home Sales

*DOM is the average "days-on-market": the average number of days it takes for a listed home to sell. In a market that is evenly balanced between buyers and sellers, 50-70 days is considered the typical norm (source: Redfin). This number is not available separately for Philadelphia's suburbs, but the regional DOM can be considered more representative of the suburbs.
Months Supply of Inventory in Philadelphia

Months Supply of Inventory measures how many months it would take to completely burn off the existing inventory of homes currently listed for sale, given their current pace of sales. 5-7 months is considered a normal, balanced market. More than 7 months indicates a Buyer's market, and less than 5 months indicates a Seller's market.
Months Supply of Inventory in Philadelphia Suburbs

Months Supply of Inventory measures how many months it would take to completely burn off the existing inventory of homes currently listed for sale, given their current pace of sales. 5-7 months is considered a normal, balanced market. More than 7 months indicates a Buyer’s market, and less than 5 months indicates a Seller’s market.
Pennsylvania Foreclosure Rates

Both Bucks and Philadelphia counties are in the top 5 counties in Pennsylvania with the highest foreclosure rates.

Last quarter, neither county was in the top 5.

Bucks county has the higher foreclosure rate of the two, with 1 out of every 1,345 homes in the process of foreclosure, compared to 1 out of every 1,570 homes in Philadelphia.

Source: http://www.realtytrac.com/statsandtrends/foreclosuretrends/pa
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South Jersey’s foreclosure rate continues to remain the highest in both the region and the state. Currently, 4 out of the top 5 counties in NJ with the highest foreclosure rates are in South Jersey.

Atlantic, Camden Cumberland and Salem counties currently have a collective foreclosure rate of 1 in every 605 homes.

This is nearly double the statewide foreclosure rate of 1 in every 1,173 homes.

Source: http://www.realtytrac.com/statsandtrends/foreclosurerates/nj
Delaware’s foreclosure rate continues to show improvement this quarter.

One year ago, 1 in every 902 homes was in the process of foreclosure. It has declined steadily since then, and now stands at 1 in every 1,336 homes.

Source: http://www.realtytrac.com/statsandtrends/foreclosuretrends/de
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Zillow.com downgraded its outlook for Philadelphia house prices for the fourth consecutive quarter in a row this quarter. A year ago, it was projecting a 7.03% annual increase in the region’s house prices. This has been steadily revised downwards, and they are currently predicting an increase of a mere 0.6% over the course of the next twelve months. Incidentally, their forecast from last year proved to be quite accurate: the actual YoY change in the regional HPI used in this report is 7.3%.

Source: [https://www.zillow.com/philadelphia-camden-wilmington-metro-pa_r394974/home-values/](https://www.zillow.com/philadelphia-camden-wilmington-metro-pa_r394974/home-values/)