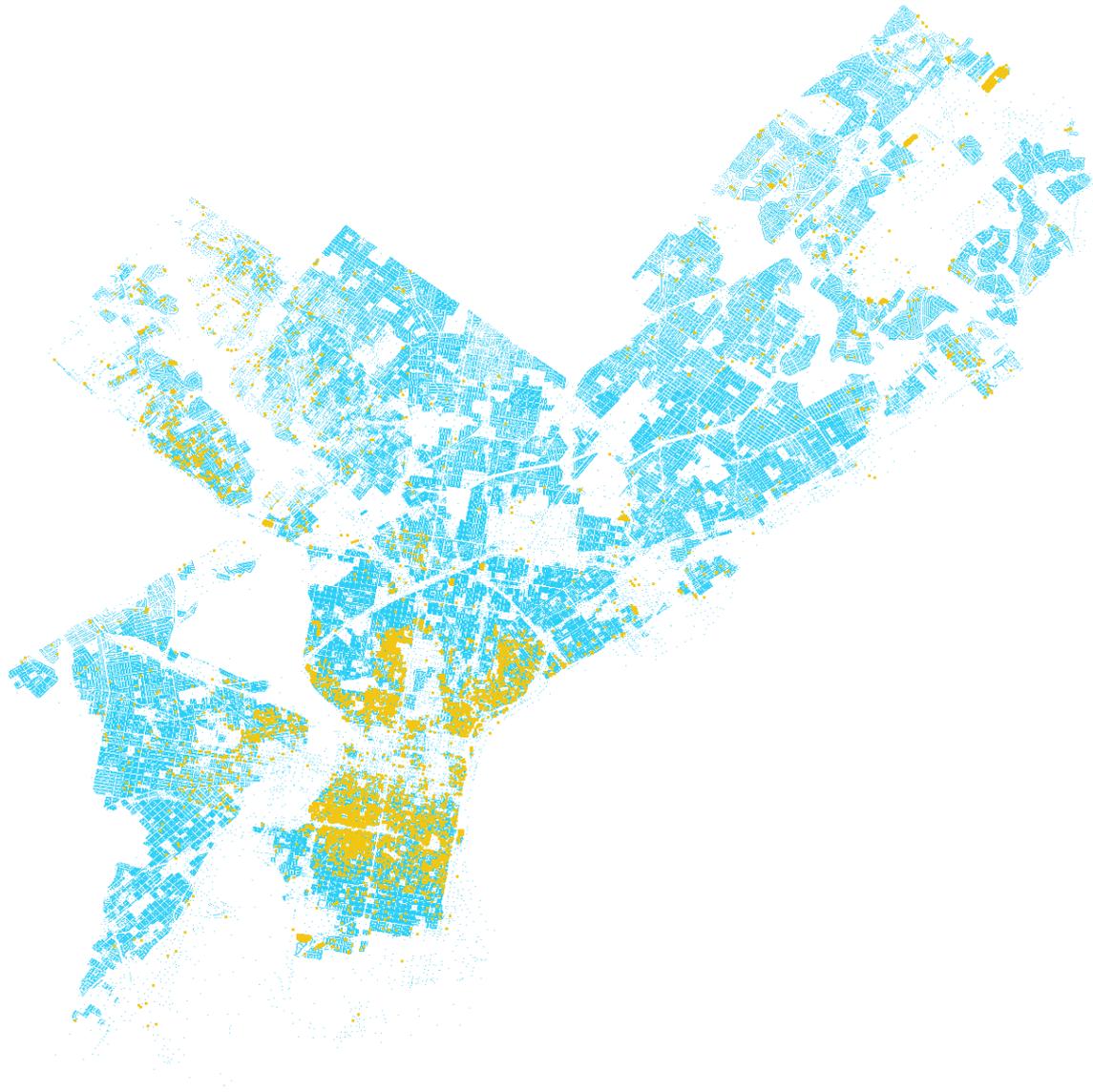


# An Analysis of Tax Abatements in Philadelphia

---



Office of the Controller, City of Philadelphia

April 20, 2018



**City Controller**      Rebecca Rhyhart

**First Deputy**      Kellan White

**Chief of Staff**      Nicole McCormac

**General Counsel**      Salena M. Jones, Esq.

**Strategy and Policy Team**      Rosamond Howard

Nick Hand

Matthew Vegari

Shua-Kym McLean

# Contents

<b>1</b>	<b>Executive Summary</b>	<b>iv</b>
<b>2</b>	<b>Introduction</b>	<b>1</b>
2.1	Why look at the Ten-Year Tax Abatement now? . . . . .	1
2.2	Methodology . . . . .	2
<b>3</b>	<b>The Ten-Year Tax Abatement</b>	<b>5</b>
3.1	Historical information . . . . .	5
3.2	Segmentational analysis of actively abated properties . . . . .	10
<b>4</b>	<b>Developer Profitability</b>	<b>21</b>
4.1	Defining real estate development profitability . . . . .	21
4.2	Philadelphia profitability by ZIP code . . . . .	22
4.3	Challenges to real estate development in Philadelphia: market values, rents & construction costs . . . . .	25
<b>5</b>	<b>Changes to the Abatement: Scenarios Considered</b>	<b>33</b>
5.1	Scenario 1: remove the abatement . . . . .	34
5.2	Scenario 2: remove school portion of the abatement . . . . .	35
5.3	Scenario 3: remove abatement in 8 most profitable ZIP codes . . . . .	35
5.4	Scenario 4: cap abatement at \$700K . . . . .	36
5.5	Scenario 5: cap abatement at \$150 per square foot . . . . .	36
5.6	Scenario 6: amortize abatement over ten years . . . . .	37
5.7	A note on compounding . . . . .	38
<b>A</b>	<b>Boundaries by Neighborhood, ZIP Code, and Council District</b>	<b>39</b>
	<b>Glossary</b>	<b>42</b>
	<b>Bibliography</b>	<b>44</b>

**Note:** The cover page shows a heat map of all properties in Philadelphia. Properties without an abatement are shown in blue (565,788 in total) and properties with an abatement are shown in yellow (14,345 in total).

# Executive Summary

Philadelphia's Ten-Year Tax Abatement is one of the most all-encompassing property tax incentives in the nation, providing a 100% tax benefit for new construction and the value of improvements or conversions to existing properties. Growing out of a similar 30-month abatement for developers in the 1970s, the abatement was intended to spur development city-wide after decades of disinvestment, population loss and stagnant home-ownership rates.

Today, Philadelphia is a different city from when the current abatement policy was first enacted. Re-evaluating and revisiting tax stimulus programs like the abatement should be a regular practice to determine if the benefits of the incentive outweigh the opportunity cost represented in its associated potential tax revenue. Nearly 20 years after the inception of the Ten-Year Tax Abatement and in light of the city's positive change, the question remains: does Philadelphia need the tax abatement as it once did?

This analysis of the abatement looks at its geographical concentration, the distribution of benefit and developer profitability. Additionally, this analysis presents and evaluates potential changes, referred to as scenarios, to the current abatement policy.

Ultimately, the decision to end, continue or alter the tax abatement lies with City Council and the Mayor. The goal of this analysis is to inform the discussion with historical data, accurate analysis and a clear presentation of information.

## Philadelphia Real Estate Growth

- The total number of properties in Philadelphia has increased significantly. At the time of this study, there are 580,133 properties on the Office of Property Assessment (OPA) rolls, with 15,000 properties added in the past 15 years.
- Philadelphia's share of regional real estate development has grown relative to its suburbs.
- The median home value per square foot (sqft) in Philadelphia has tripled since 1996. However, the appreciation has not been uniform throughout the city, and has been largely concentrated in the greater Center City area.

## Tax Impact

- Since 2000, abated properties have received a \$1.05B cumulative tax benefit.
- In 2017, there were 14,345 properties with active abatements; these properties received a tax benefit of \$93M.
- 12,477 properties have expired abatements. The latest annual property tax revenue associated with these properties was \$83M per assessed values as of 3/31/2017 (assuming a 100% collection rate). This is revenue that may not have been generated had these properties not been built or improved.

## Abatements by Value

Abatement value is concentrated in high-value properties. Abated properties are, on the whole, more valuable than non-abated properties. Properties with higher abated values receive the majority share of tax benefits.

- Just 2.5% of all properties in Philadelphia have an abatement as of 2017. The total sum of the abatements for these properties makes up 6.6% of all assessed value in Philadelphia.
- The tax benefit associated with the abatement is concentrated in new construction.
- The tax benefit associated with the abatement is concentrated in residential properties. However, the tax benefit associated with commercial properties is disproportionate: commercial properties account for 2% of total abated properties, but receive 11% of the total tax benefit.
- The tax benefit associated with the abatements policy is concentrated in high-value properties. The top 15 properties by abated value, most of which are apartment buildings, make up 0.1% of all active abated properties and a full 16% of abated value, representing an associated tax benefit of \$15M.
- 7% of actively abated properties receive abatements greater than \$700K, but this small percentage of properties receives an outsized share of the tax benefit (51%).

## **Abatements by Geography**

Properties with tax abatements are concentrated in a small portion of Philadelphia, whether considering abated properties by neighborhood or by Council District.

- The tax benefits associated with abated properties are concentrated in neighborhoods in the greater Center City area. Just 6% of all Philadelphia neighborhoods account for 59% of the tax benefit from the abatement policy.
- Council Districts 1, 2 and 5 account for 79% of actively abated properties and \$5.3B in abated value. The remaining 21% of actively abated properties are spread out over the other seven Council Districts and represent \$1.3B in abated value.
- The abated value in Districts 1, 2 and 5 are concentrated in high-value properties (abatements greater than \$1M); however, the majority of abated properties receive much lower abatement values, typically around \$250K.

## **Development Profitability**

Few neighborhoods in Philadelphia have profitable development economics, regardless of the abatement. A ZIP code by ZIP code analysis of Philadelphia shows that only a handful of ZIP codes are sufficiently profitable to spur development on a build-to-sell and build-to-rent basis. Real estate development profitability is correlated with the number of abated properties in a ZIP code. Among most of the ZIP codes with profitable development economics, development is profitable regardless of abatement.

## **Changes to the Abatement: Scenarios Considered**

This analysis evaluates six different hypothetical scenarios in which the abatement is eliminated, diminished, amortized, or discontinued at certain property value thresholds and assesses the potential revenue gained if the respective, hypothetical policy change were to have taken effect in 2016, without adjusting for potential secondary economic effects. The potential revenue gained in each scenario is a projection calculated using proforma OPA data reflecting construction from January 2016 to December 2016, as if the applicable policy change had taken effect in 2016. Note that these hypothetical scenarios are only applied to properties added to OPA rolls in proforma year 2016.

The Office of the City Controller recognizes that any particular change in abatement policy may have secondary economic effects that are not reflected in this preliminary analysis, including but not limited to decreased development.

Currently, the property tax rate of 1.4% is applied to the assessed value of a property's building and land. The revenue generated from the tax is then split two ways, with 55% going to the Philadelphia School District and 45% to the City. For our analysis, we assume that revenue split as a portion of the property tax rate itself, applying a tax rate of 0.63%, or 45% of the total tax rate, for the City and a rate of 0.77%, or 55% of the total tax rate, for the School District.

**Scenario 1:** This scenario eliminates the tax abatement entirely. Assuming unchanged real estate development, this scenario would have resulted in additional tax revenue estimated at \$10.4M on 1,411 properties in 2016.

**Scenario 2:** This scenario removes the School District portion of the tax abatement (the 0.77% tax rate referenced above) but maintains the abatement for the portion of the property tax directed to the City. In 2016, this scenario would have resulted in additional tax revenue estimated at \$5.7M, assuming unchanged real estate development. Scenario 2 would impact as many properties as Scenario 1, but is associated with a smaller revenue impact because it features a partial abatement.

**Scenario 3:** This scenario examines the elimination of abatements in the eight most profitable ZIP codes. These eight ZIP codes – 19102, 19103, 19107, 19118, 19123, 19130, 19146, and 19147 – were identified as the most profitable for real estate development in the city, regardless of the status of the abatement. If this scenario were to have occurred, assuming unchanged real estate investment in 2016, all abated parcels outside of these eight ZIP codes would have been abated, while 712 parcels within these ZIP codes would not have received an abatement. In 2016, this would have resulted in additional tax revenue estimated at \$5.0M.

**Scenario 4:** This scenario taxes the assessed value of an individual property in excess of \$700K, effectively creating a \$700K cap on an individual abatement. In 2016, 72 properties with abatements valued in excess of \$700K would have been impacted by this scenario. If implemented, assuming unchanged real estate investment in 2016, this scenario would have resulted in additional tax revenue estimated at \$5.8M.

**Scenario 5:** This scenario removes abatements on a cost per square foot (sqft) basis for assessed values exceeding the threshold of \$150. That is, for properties with assessed value over \$150 per sqft, Scenario 5 applies taxation only to the portion of assessed value over \$150 per sqft. Assuming unchanged real estate investment in 2016, this scenario would have resulted in additional tax revenue estimated at \$1.5M from 491 properties.

**Scenario 6:** The final scenario modeled represents a linear amortization of the tax abatement over its ten years, assuming a 100% abatement in year 1, 90% abatement in year 2, 80% abatement in year 3, and so on, with the property receiving no abatement in year

11. Scenario 6 would have affected all 1,411 properties added in 2016. In year two, all else equal, this would have resulted in additional tax revenue estimated at \$1M. Additional revenue would continue to grow in each subsequent year, back-end loading the tax revenues to the later years of a property's ten-year abated life.

Ultimately, the decision to end, continue or alter the abatement lies with the City Council and the Mayor. The goal of this analysis is to inform the discussion with historical data, accurate analysis and a clear presentation of information.

# Introduction

## 2.1 Why look at the Ten-Year Tax Abatement now?

Philadelphia's Ten-Year Tax Abatement is one of the most all-encompassing property tax incentives in the nation.

The tax [abatement](#), enacted in its current form in 2000, originates in the 1970s. After decades of disinvestment, population loss, stagnant home ownership rates and increased poverty, Philadelphia wanted to become more attractive to prospective developers and residents. In pursuit of this goal, the City created a 30-month abatement for developers of residential properties that expired upon the sale or transfer of new properties. This policy evolved in 1997 when it became a ten-year abatement for commercial properties that were converted to residential use. Since 2000, the current form of the abatement policy has provided a tax-exempt period of ten years for all improvements and all new construction regardless of property type.

As a whole, Philadelphia's outlook and landscape has greatly improved over the last 18 years, including in the growth of its population and [tax base](#) (sales, wage and property taxes). While many cite the abatement as the cause for this progress, the exact increase in development attributable to abatements alone cannot be known; other factors, like the national trend toward urbanization, immigrant population increases, and lower crime rates in cities, also contributed to broader development in and attraction to urban areas like Philadelphia. It is worth noting, however, that in 2017, previously abated properties contributed approximately \$83 million, assuming 100% property tax collection, in revenue to the City - much of which would have not been collected had these properties not been built or improved. <sup>1</sup>

While the abatement policy has helped to spur development in the city, new and rehabilitative construction have not rippled out into most of the city's neighborhoods. Though the policy is available to all homeowners in all Philadelphia ZIP codes, the majority of abated properties appear within the greater Center City area. This uneven growth has led to significant frustration among long-time residents, many of whom believe the abatement policy unduly

---

<sup>1</sup>This \$83 million is calculated from the total [assessed value](#) of these properties. Historically, taxation may have been abated for only a portion of the assessed value for each property. For example, while abatements may have applied to the assessed values attributable to improvements on these properties, these properties may have been subject to taxation of their unimproved assessed values.

and unfairly provides a sizeable [tax benefit](#) to developers and wealthy individuals and investors, deprives the City and Philadelphia School District of much needed revenue, and raises the values of their residential properties and, therefore, their property taxes.

At the same time, the City has increased the property tax rate several times over the last few years and added or extended other taxes, such as the Philadelphia beverage tax, the cigarette tax and the sales tax, to fund schools and other education-related policies. The City is currently proposing another property tax rate increase for Fiscal Year 2019, one that would coincide with new property reassessments that have increased on average by 11% in the past year. These property tax increases amplify the feelings of many residents that they pay taxes while others do not.

Tax stimulus programs, like the tax abatement, should be re-evaluated and revisited regularly to determine if the benefits of the incentive outweigh the opportunity cost represented in its associated tax revenue. Nearly 20 years after its inception, the City has not undertaken a comprehensive, independent assessment of the tax abatement policy despite the improvement to the City's economic climate.

This analysis of the Ten-Year Tax Abatement policy seeks to assess several of the underlying issues at the heart of this contentious discussion, including geographical concentration, distribution of benefit by property valuation and developer profitability. Additionally, this analysis presents and evaluates potential changes, referred to as scenarios, to the current abatement policy. These scenarios highlight revenue possibilities and the impact on abated properties.

Ultimately, the decision to end, continue or alter the tax abatement lies with City Council and the Mayor. The goal of this analysis is to inform the discussion with historical data, accurate analysis and a clear presentation of information.

## 2.2 Methodology

For this policy analysis, the Office of the City Controller used data from the Office of Property Assessment (OPA) and Zillow, as well as construction cost figures for residential and commercial properties generated by RSMeans, a software program for real estate professionals to estimate construction costs. The data were used to identify abated properties, looking at type, value and location, to understand development profitability and to run scenarios for possible changes to the abatement policy for benefit and impact.

## Office of Property Assessment

OPA data contain 37 different categories of properties that are exempt from real estate taxes, such as government buildings and non-profit-owned properties. This analysis focuses only on the three categories that represent ten-year abatements for new and improved residential and commercial construction, as defined by Ordinances 1456-A, 961, 1130, respectively coded as N, 1, and 8:<sup>2</sup>

- Ordinance 1456-A provides a ten-year tax abatement from real estate taxes for new construction of residential properties. This abatement is available for single-family homes, duplexes, apartments, and condos, but not hotels;
- Ordinance 961 provides a ten-year tax abatement from real estate taxes for rehabilitation or improvement construction of existing residential properties containing one or more units. Improvements categorized as ordinary upkeep or maintenance are not eligible under this abated category; and
- Ordinance 1130 provides a ten-year tax abatement from real estate taxes for new construction or improvements to deteriorated industrial, commercial, or other business properties. Improvements categorized as ordinary upkeep or maintenance are not eligible under this abated category.

Actively abated properties, as defined in this analysis, are identified using exempt codes 1, N and 8 as of March 31, 2017 (the most current full-year data available as of January 2018 when this analysis began).

## Developer Profitability

Because the tax abatement was created to support developers and spur development more broadly in Philadelphia, this analysis also examines the historical economic profitability of development, including construction costs, sale prices, and rents.

Data from Zillow provided sale prices and rent costs. Home sale prices were estimated using median home values on a per square foot basis from the Zillow Home Value Index [2]. Typically, home sale prices are higher than home values. Unfortunately, Zillow does not provide home sale prices on a per square foot basis or for specific ZIP codes or neighborhoods. For these reasons, [market value](#) data were used as an estimate of sales price. This choice does not affect any of the conclusions in this analysis regarding the development economics in Philadelphia. RSMeans was used to model construction costs for different residential and

---

<sup>2</sup>More information regarding how abatement categories are defined is available on the OPA website: <https://goo.gl/cLRsR>. New and improved residential and commercial construction defined by Ordinances 1456-A, 961, 1130 have exempt code values of N, 1 and 8 in the historical OPA data [1].

commercial construction projects in Philadelphia and other cities. OPA data for [arm's-length](#) land sales over the last four years were used to determine the cost of land acquisition. These data were used to show the profitability of build-to-rent and build-to-sell residential development and the profitability of developing commercial properties as compared to other cities.

## **Scenarios**

Policy change scenarios were modeled using the 1,411 abated properties added to the OPA rolls from January 1, 2016 to December 31, 2016. These data were the most recent complete data set for new exemptions (as of January 2018 when this analysis began).

# The Ten-Year Tax Abatement

## 3.1 Historical information

### Summary

#### Philadelphia Real Estate Growth

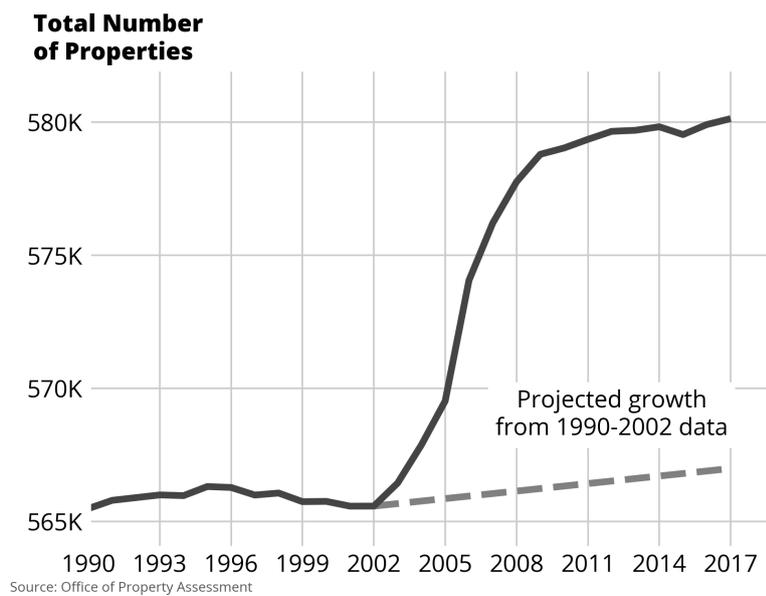
- The total number of properties in Philadelphia has increased significantly. At the time of this study, there are 580,133 properties on the OPA rolls, with 15,000 properties added in the past 15 years.
- Philadelphia's share of regional real estate development has grown relative to its suburbs.
- City median market values per sqft have tripled but the appreciation has not been uniform throughout the city.
- The median home value per sqft in Philadelphia has tripled since 1996. However, the appreciation has not been uniform throughout the city, and has been largely concentrated in the greater Center City area.

#### Tax Impact

- Since 2000, abated properties have received a \$1.05B cumulative tax benefit.
- In 2017, there were 14,345 properties with active abatements; these properties received a tax benefit of \$93M.
- 12,477 properties have expired abatements. The latest property tax revenue associated with these properties is \$83M (assuming a 100% collection rate). This is revenue that may not have been generated had these properties not been built or improved.

### 3.1.1 Objective & relative historic property investment

Both the necessity of the abatement policy at its inception and its success in driving development in Philadelphia are visible in figure 3.1, which charts the historical number of properties in Philadelphia since the early 1990s. While city-wide development remained relatively stagnant until 2002, the past fifteen years have seen an increase of roughly 15,000 in the number of properties. Currently there are 580,133 properties on the OPA rolls,<sup>1</sup> versus 565,487 in 1990, reflecting a 2.6% increase. For comparison, we show the projected growth of properties based only on data from 1990 to 2002 as the dashed, gray line in figure 3.1, which indicates very modest gains over the past fifteen years had growth continued at a pre-abatement rate. Since 2008, on average 1,433 abated parcels worth \$667M in abated property value have been granted annually. Using the latest data from the Office of Property Assessment, there were 1,411 new abatements granted in the calendar year of 2016, which represents the latest year for which a full year's worth of data exists. Though much of the increase may be attributable to the abatement, confounding factors such as increasing urbanization and millennial population growth could also have contributed to the increase.

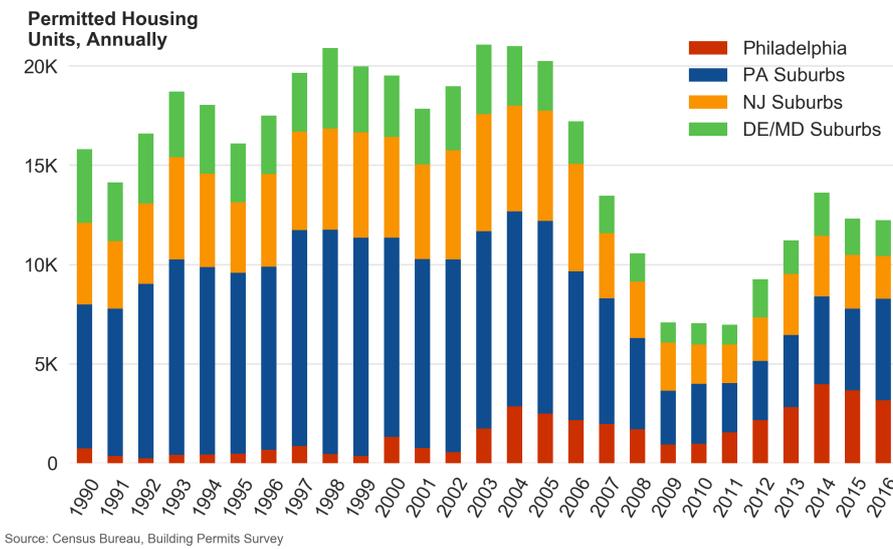


**Figure 3.1. The historical growth of properties in Philadelphia.** The gray dashed line shows the projected growth for 2002 onwards based on the average property growth from 1990 - 2002.

While figure 3.1 illustrates the objective increase in Philadelphia's property development growth, figure 3.2 presents its relative growth, or share of regional growth, versus neighboring areas. Philadelphia has been able to expand its portion of regional housing permits significantly — from an average of 3% in the 1990s to 26% in 2016 (the latest available data). Abatements are one likely cause for the construction growth in Philadelphia since

<sup>1</sup>Latest OPA data dated 3/31/2017.

2000 and the relative share of investment the city garners versus regional competition in the suburbs.<sup>2</sup> Demographic trends, especially the increasing preference to live in dense, urban areas, likely have also played a part in the increase in investment [4].

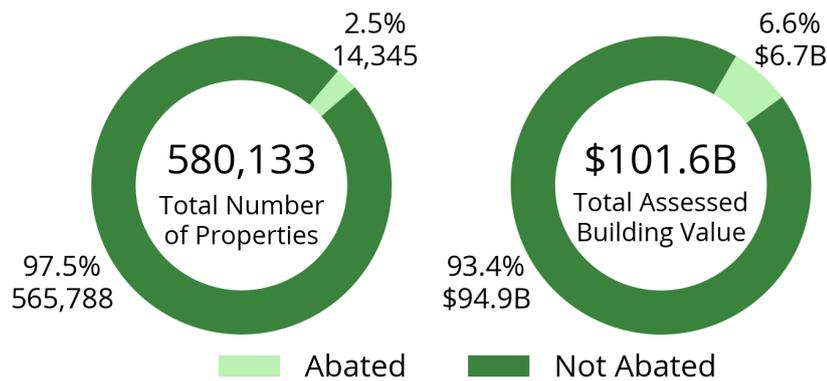


**Figure 3.2.** The number of permitted housing units granted annually by region.

### 3.1.2 Abated properties as a share of total properties in Philadelphia

Actively abated properties comprise a small percentage of the total number of properties in Philadelphia (2.5%) but the total sum of their abated value makes up an outsized share of the total assessed value (6.6%), as figure 3.3 illustrates. There are 14,345 actively abated properties totaling \$6.67B in abated property value, corresponding to an annual tax benefit of \$93.4M.

<sup>2</sup>For this calculation, we define the Philadelphia suburbs using the Philadelphia Metropolitan Statistical Area (MSA). The PA suburbs include Bucks, Chester, Delaware, and Montgomery Counties. The NJ suburbs include Burlington, Camden, Gloucester, and Salem Counties. The DE/MD suburbs include New Castle and Cecil Counties [3].



Source: OPA data as of 3/31/17

**Figure 3.3.** The current properties in Philadelphia that are and are not receiving abatements, in terms of the total number and total assessed building value.

### 3.1.3 Tax implications for actively abated properties and properties with expired abatements

Since the start of the current policy in 2000, approximately 26,800 properties have received an abatement in Philadelphia. Historically, 60% of the properties receiving abatements are new construction, with the remaining properties being improvements or conversions of existing buildings. During the tenure of the abatement policy, a cumulative total of \$38.5B in assessed value has been abated, which amounts to a cumulative total tax benefit of \$1.05B.<sup>3</sup>

- **Expired abatements:** 12,477 properties subject to the abatement policy have abatements which have expired (properties with new construction or improvements over ten years old). Previously abated properties make up 47% of the total number of properties subject to the abatement policy and have received a cumulative total tax benefit of \$609M (or 58% of the total tax benefit of \$1.05B associated with the abatement policy). For assessed values in 2017, previously abated properties contributed approximately \$83M in property taxes in tax year 2018, revenue that would not have been generated had these properties not been built.<sup>4</sup>
- **Active abatements:** 14,345 properties subject to the abatement policy have active abatements (properties with new construction or improvements under ten years old).<sup>5</sup>

<sup>3</sup>The tax benefit is computed by multiplying the abated value amount for a given year by the real estate tax rate for that year, as determined by the City of Philadelphia. We assume a 100% tax collection rate historically for this calculation. The current tax rate is 1.3998% of the assessed property value [5]. See [6] for the historical schedule of tax rates in Philadelphia.

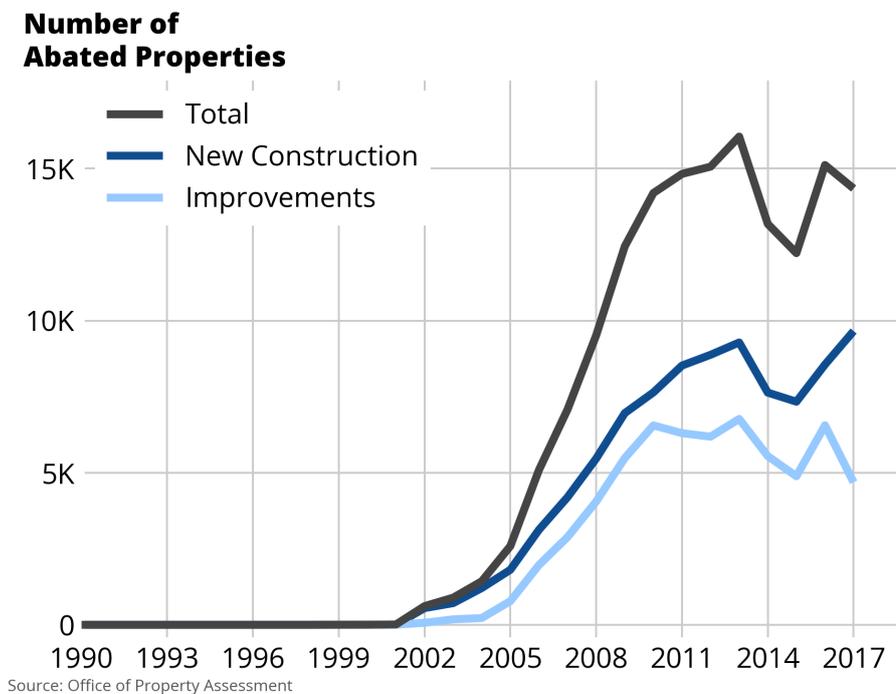
<sup>4</sup>When discussing the tax revenue from previously abated properties, it is important to remember that for the ~40% of properties that were improvements, only a portion of the total assessed property value was previously abated.

<sup>5</sup>The latest OPA data used in this analysis contains properties certified on March 31, 2017.

Actively abated properties make up 53% of the total number of properties subject to the abatement policy and have received a cumulative tax benefit of \$442 over their abatement life (or 42% of the total tax benefit of \$1.05B associated with the abatement policy). In 2017, actively abated properties received an annual tax benefit of \$93M.

### 3.1.4 Property growth categorized as new construction and improved construction

Figure 3.4 shows the total number of abated properties in Philadelphia historically, as well as the breakdown of abatements granted for either new construction or improvements. The number of properties receiving abatements annually has risen to roughly 14,000 and remained relatively steady since 2012. In any given year, typically 60% of the abatements are granted for **new construction** and 40% granted for **improvements or conversions**.

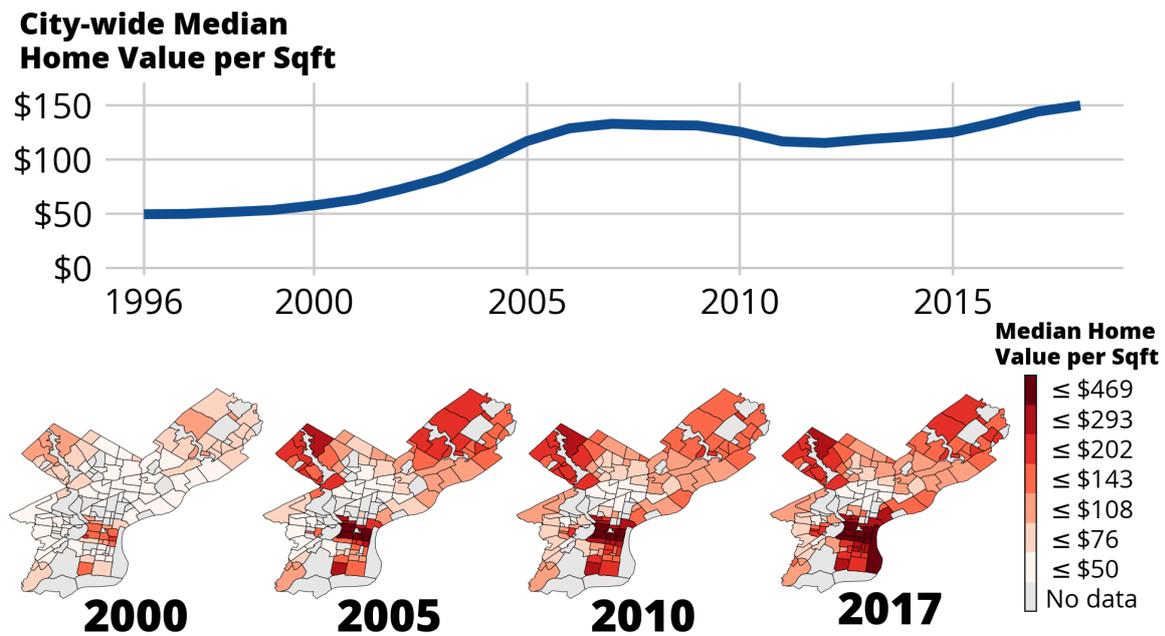


**Figure 3.4.** The total number of abated properties in Philadelphia historically. We also show the breakdown of abatements granted for new construction (dark blue) or improvements (light blue).

### 3.1.5 Philadelphia market values over the life of the abatement policy

The heat map and associated graph in figure 3.5 present the nonuniform distribution of property appreciation over the life of the abatement policy. Even though city median market

values have experienced appreciation since the institution of the abatement policy (tripling from \$50 per sqft in the mid 1990s to \$150 per sqft in 2017), this appreciation has not been uniformly distributed throughout the city. Since 2000, many neighborhoods, those with little to no red-saturation in the graphics below, saw little appreciation in market values even as the city realized significant growth in market values overall. As this paper will explain in subsequent sections, the neighborhoods with the greatest market value appreciation in this graphic are positively correlated with high levels of abated property investment.



Source: Zillow Home Value Index

**Figure 3.5.** The historical median home value per square foot across Philadelphia. We show the historical trend in the city-wide home value (top) and home values by neighborhood (bottom) for several years. While remaining stagnant in the 1990s, the median home value has tripled from \$50 per sqft in the mid 1990s to \$150 per sqft in 2017.

## 3.2 Segmentational analysis of actively abated properties

### Summary

Abatement value is concentrated in high-value properties. Abated properties are, on the whole, more valuable than non-abated properties. Properties with higher abated values receive the majority share of tax benefits.

- Just 2.5% of all properties in Philadelphia have an abatement as of 2017. The total sum of the abatements for these properties makes up 6.6% of all assessed value in Philadelphia.
- The tax benefit associated with the abatement is concentrated in new construction.
- The tax benefit associated with the abatement is concentrated in residential properties. However, the tax benefit associated with commercial properties is disproportionate: commercial properties account for 2% of total abated properties, but receive 11% of the total tax benefit.
- The tax benefit associated with the abatements policy is concentrated in high-value properties. The top 15 properties by abated value, most of which are apartment buildings, make up 0.1% of all active abated properties and a full 16% of abated value, representing an associated tax benefit of \$15M.
- 7% of actively abated properties receive abatements greater than \$700K, but this small percentage of properties receives an outsized share of the tax benefit (51%).

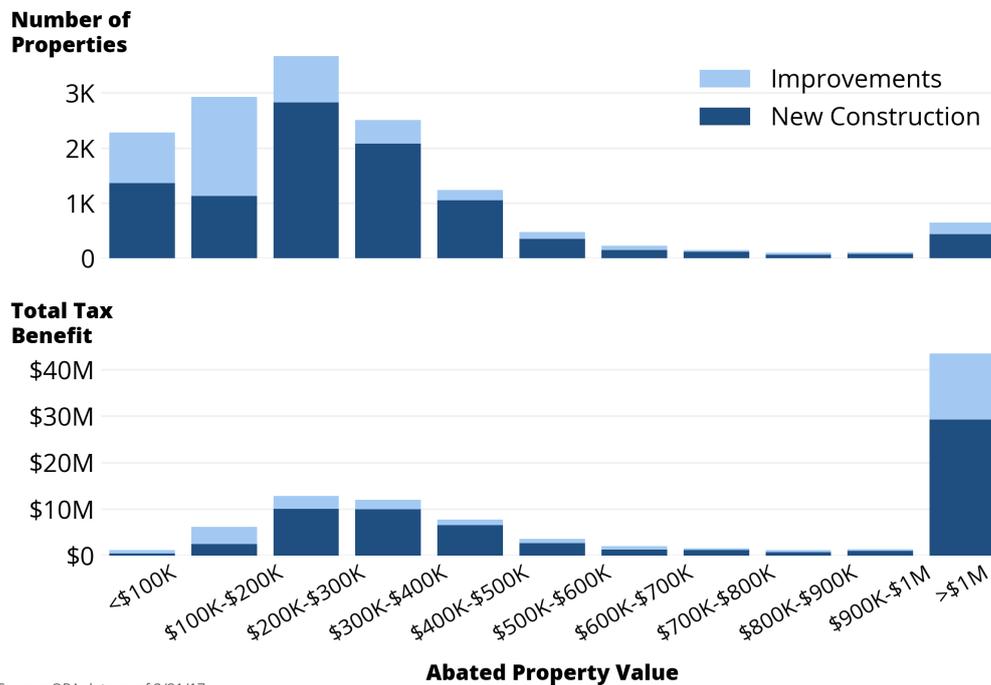
Properties with tax abatements are concentrated in a small portion of Philadelphia, whether considering abated properties by neighborhood or by [Council District](#).

- The tax benefits associated with abated properties are concentrated in neighborhoods in the greater Center City area. Just 6% of all Philadelphia neighborhoods account for 59% of the tax benefit from the abatement policy.
- Council Districts 1, 2 and 5 account for 79% of actively abated properties and \$5.3B in abated value. The remaining 21% of actively abated properties are spread out over the other seven Council districts and represent \$1.3B in abated value.
- The abated value in Districts 1, 2 and 5 are concentrated in high-value properties (abatements greater than \$1M); however, the majority of abated properties receive much lower abatement values, typically around \$250K.

### 3.2.1 [Active abatements by new construction and improvements: abatement benefits are concentrated in new construction](#)

Of the actively abated parcels, 67.3% are new construction, with a total abated value of \$4.7B from 9,659 properties. The remaining abated properties (32.7%) were granted abatements for improvements or conversions, with a total abated value of \$1.97B from

4,686 properties. This breakout of new and improved construction by number of properties and tax benefit is illustrated in figure 3.6 below. Note that the tax benefit is concentrated in higher value properties.



Source: OPA data as of 3/31/17

**Figure 3.6.** The distribution of currently abated properties by the abated value. We show the total number of properties (top) and aggregate tax benefit (bottom) for properties that are newly constructed (dark blue) and improvements of existing buildings (light blue).

### 3.2.2 Active abatements by property use type: abatement benefits are concentrated in properties designated for residential use rather than commercial use

The vast majority of abated properties are for residential use. Of the actively abated properties, 13,757 are for residential use, representing 96% of the total number of abated properties. Of the remaining abated properties, 324, or 2.2%, are for commercial use. The remaining 264 properties, or 1.8% of abated properties, are for other uses such as underdeveloped land, stores with dwellings, and some industrial uses.

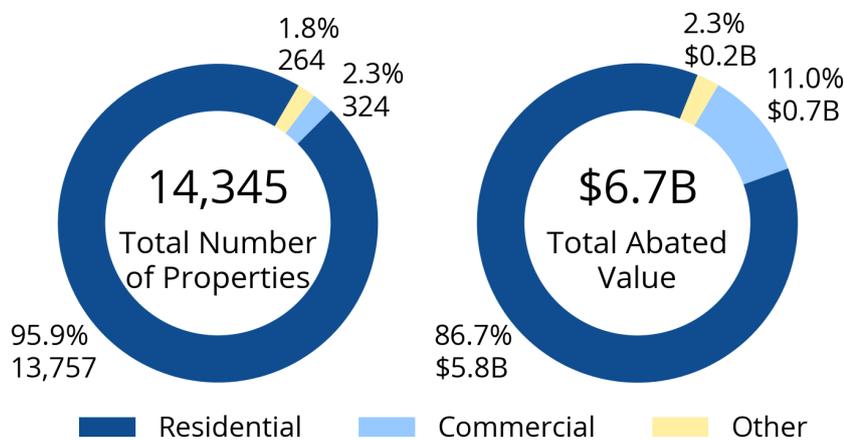
Residential abated properties have a total abated value of \$5.8B, corresponding to 87% of the total abated value. Residential properties are comprised as follows:

- 6,956 are single-family homes (49% of the total number of abated properties).
- 5,448 are condos (38% of the total number of abated properties).

- 1,448 are hotels and apartment buildings (10% of the total number of abated properties).

Hotels and apartment buildings,<sup>6</sup> which this analysis categorizes as residential, receive the largest total abatement value (\$2.1B), followed by condominiums (\$1.99B), and single-family homes (\$1.72B). However, on a per sqft basis, condos receive nearly \$290 per sqft in abatements on average, while single-family homes average \$143 per sqft, and hotels/apartments average \$128 per sqft (based on new construction only).

There are only 324 actively abated commercial<sup>7</sup> properties, representing 2.2% of total abatements. These few properties constitute \$0.74B (11%) of the total abated value. Newly constructed commercial properties (149 in total) have a median abated value of \$88 per sqft. By comparison, commercial properties across Philadelphia that do not receive an abatement (13,408 in total) have a median taxable building value of only \$37 per sqft.



**Figure 3.7.** Actively abated properties by their usage type, in terms of the total number of properties and total abated value.

### 3.2.3 Active abatements by value: abatement benefits are concentrated in high-value properties

Median market values for abated properties are higher than median market values for unabated properties. The median market value<sup>8</sup> per square foot (sqft) of residential, actively abated properties is \$202 per sqft. This value is 93% higher than the median home value in

<sup>6</sup>Hotels and apartment buildings are categorized as residential for our analysis. In the OPA data, this set corresponds to Category 2 [7]. It is important to note that our analysis counts apartment buildings at the building level, not the per-unit level.

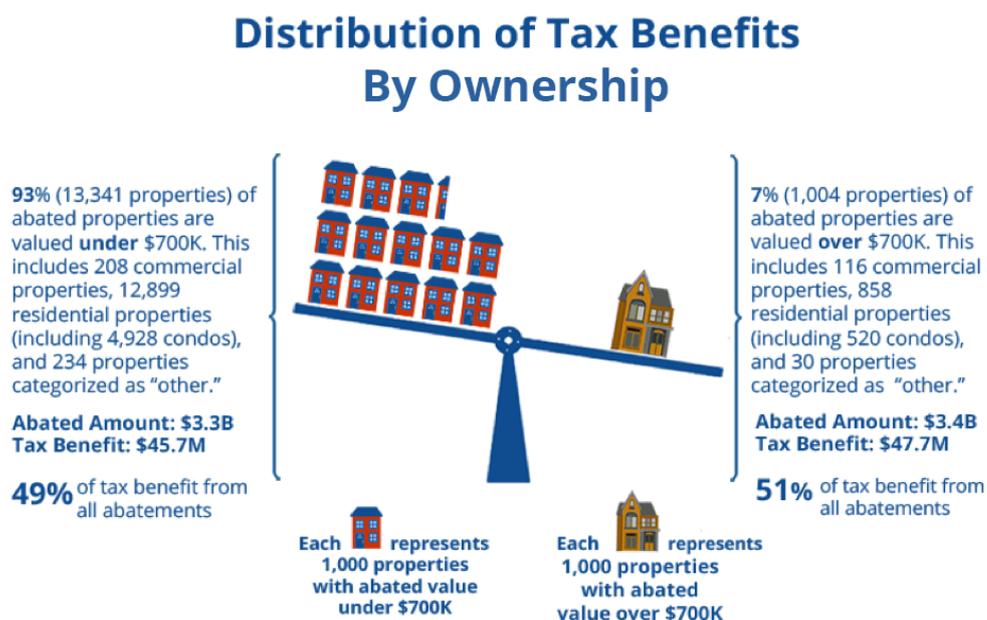
<sup>7</sup>Commercial properties are defined as having Category Code 4 in the OPA data [7].

<sup>8</sup>Market value is computed from the most recent sale price of the abated property (as given in the latest OPA data from 3/31/2017).

Philadelphia of \$105 per sqft, as given by the median city-wide home value in 2017 using the Zillow Home Value Index [8].

12,639 properties (88% of the total number of abated properties) have actively abated values less than \$500K. Despite being an outsized portion of total number of abated properties, this group comprises just \$2.9B, or 43% of the total abated value. Of the properties receiving abatements less than \$500K, 12,235 are residential (associated with an abated value of \$2.8B) and 192 are commercial (associated with an abated value of \$35M).

As illustrated in figure 3.8 below, 1,004 (7% of total abated properties) properties that receive active abatements have abated values greater than \$700K. Despite being an under-sized portion of the total number of abated properties, this group comprises \$3.4B, or 51% of the total abated value. Of the properties receiving abatements more than \$700K, 858 are residential (associated with an abated value of \$2.6B) and 116 are commercial (associated with an abated value of \$692M). Note: 83% of total abated property value for properties with abatements over \$700K is categorized as “apartment buildings” or “hotel buildings.” Assessed value information is not available at a per-unit level.



**Figure 3.8.** Distribution of tax benefits by ownership.

647 properties receive abatements above \$1M (less than 5% of total abated properties). However, the abated value associated with this group comprises \$3.1B (47%) of the total abated value. 47% of properties receiving abatements greater than \$1M are condos (303 properties). Of the properties receiving abatements greater than \$1M, 88 are commercial (associated with a total abated value of \$668M). The 88 commercial properties with abated

values in excess of \$1M comprise less than 1% of all abated properties but represent 10% of all abated value.

Table 3.1 below summarizes abated properties by type and value, illustrating that high-value properties comprise a relatively small percentage of abated parcels but receive an outsized portion of the tax benefits.

**Table 3.1. The distribution of abated properties by their type, including residential and commercial usage.** Note that a small percentage of abated properties do not fall into either the residential or commercial categories and are not represented in this table.

		Number of Properties (Percentage of Total)	Abated Value (Percentage of Total)	Tax Benefit
<b>All Abated Properties</b>	<b>Total</b>	<b>14,345 (100%)</b>	<b>\$6,674M (100%)</b>	<b>\$93M</b>
	Residential	13,757 (96%)	\$5,784M (87%)	\$81M
	Commercial	324 (2%)	\$736M (11%)	\$10M
<b>Properties with Abatements &gt;\$500K</b>	<b>Total</b>	<b>1,705 (12%)</b>	<b>\$3,809M (57%)</b>	<b>\$53M</b>
	Residential	1,522 (11%)	\$3,002M (45%)	\$42M
	Commercial	131 (1%)	\$701M (11%)	\$10M
<b>Properties with Abatements &gt;\$700K</b>	<b>Total</b>	<b>1,004 (7%)</b>	<b>\$3,408M (51%)</b>	<b>\$48M</b>
	Residential	858 (6%)	\$2,623M (39%)	\$37M
	Commercial	116 (1%)	\$692M (10%)	\$10M
<b>Properties with Abatements &gt;\$1M</b>	<b>Total</b>	<b>647 (5%)</b>	<b>\$3,112M (47%)</b>	<b>\$44M</b>
	Residential	538 (4%)	\$2,359M (35%)	\$33M
	Commercial	88 (1%)	\$668M (10%)	\$9M

Source: OPA data as of 3/31/17

The concentration of tax benefits is perhaps most apparent when evaluating the top 15 abatements by abated value (0.1% of all abated properties). These 15 properties, most of which are apartment buildings, correspond to \$1.05B in abated value - 16% of the entire tax abated value of Philadelphia - and represent an associated tax benefit of \$15M.

### 3.2.4 Abatements by geography: abatement tax benefits are concentrated in a small portion of Philadelphia's neighborhoods

Tax benefits for abatements are concentrated in a small portion of Philadelphia's neighborhoods. In table 3.2 we show the top neighborhoods by number of abated properties and tax benefit. Zillow groups Philadelphia into 158 neighborhoods that we used for the purposes of our study [9]. To more easily understand the distribution of abated properties across the city, we provide the relationship between ZIP codes and these neighborhoods in table A.1 in the appendix.

54% of the total 14,345 abated properties fall into the top ten neighborhoods by number of properties, and these top ten neighborhoods make up 59% of the total abated value. Rittenhouse alone accounts for 9% of the total properties but benefits from 19% of total tax benefits.

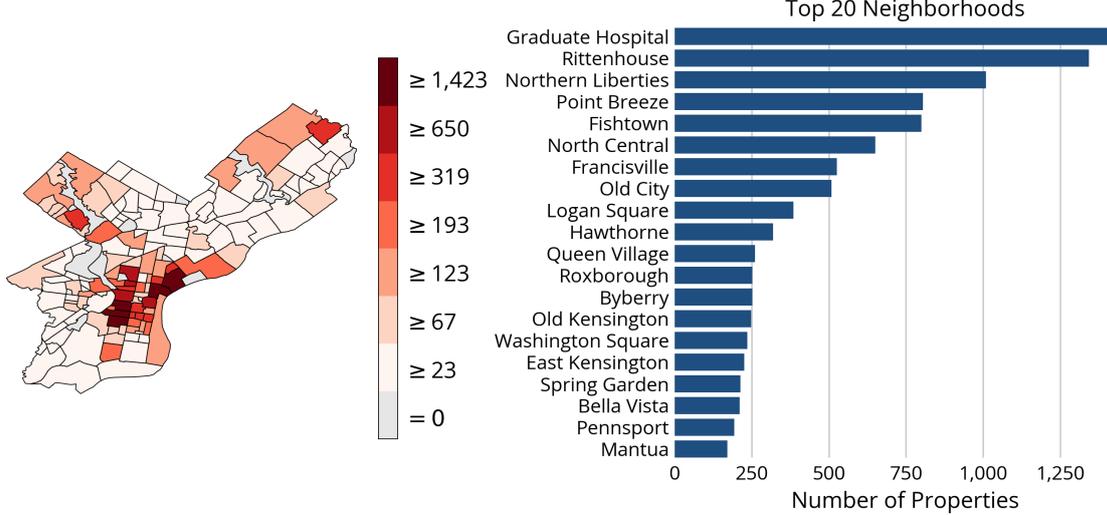
**Table 3.2.** The top ten neighborhoods by number of abated properties in 2017.

Neighborhood	Number of Properties	Percentage of All Abated Properties	Tax Benefit	Percentage of All Abated Properties
1. Graduate Hospital	1,424	9.9%	\$6.0M	6.4%
2. Rittenhouse	1,346	9.4%	\$17.9M	19.1%
3. Northern Liberties	1,009	7.0%	\$9.9M	10.6%
4. Point Breeze	805	5.6%	\$2.1M	2.2%
5. Fishtown	799	5.6%	\$2.5M	2.6%
6. North Central	650	4.5%	\$3.7M	4.0%
7. Francisville	526	3.7%	\$1.6M	1.7%
8. Old City	509	3.5%	\$3.4M	3.6%
9. Logan Square	385	2.7%	\$6.3M	6.7%
10. Hawthorne	323	2.3%	\$1.6M	1.7%
<b>Total</b>	<b>7,776</b>	<b>54.2%</b>	<b>\$54.9M</b>	<b>58.7%</b>

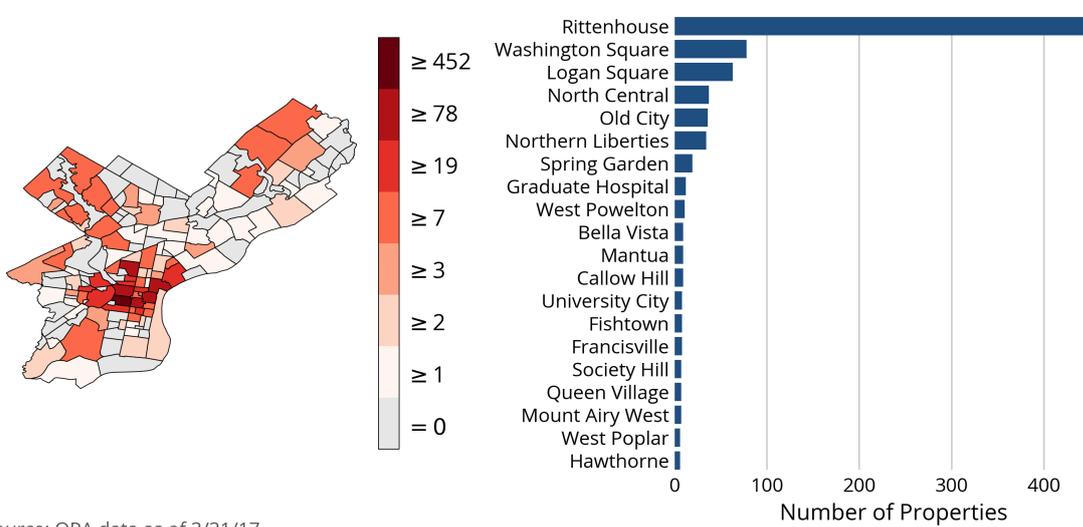
Source: OPA data as of 3/31/17

The distributions of all actively abated properties and only those with abatements over \$700K are presented by neighborhood in figure 3.9. The heat maps in this figure show that the majority of high-value abated properties are concentrated in Center City and its immediate surroundings.

### All Currently Abated Properties



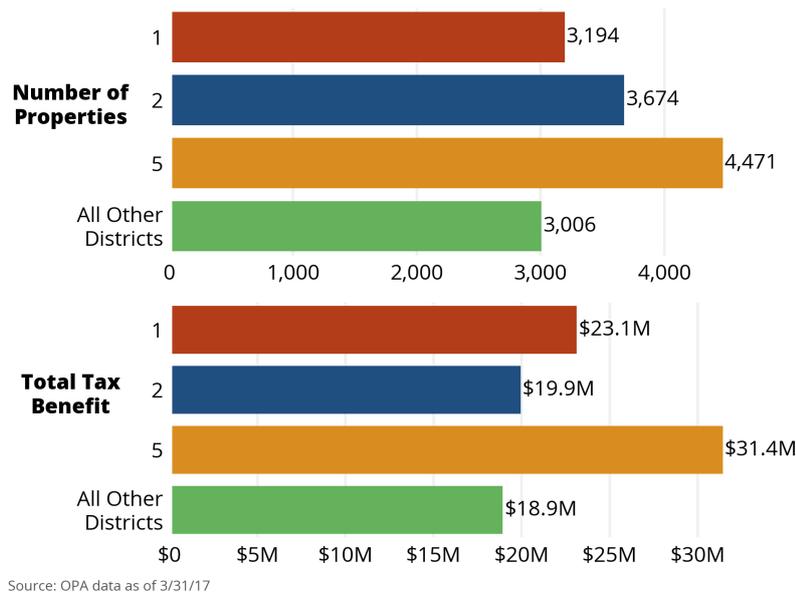
### Only Properties With Abatements > \$700K



Source: OPA data as of 3/31/17

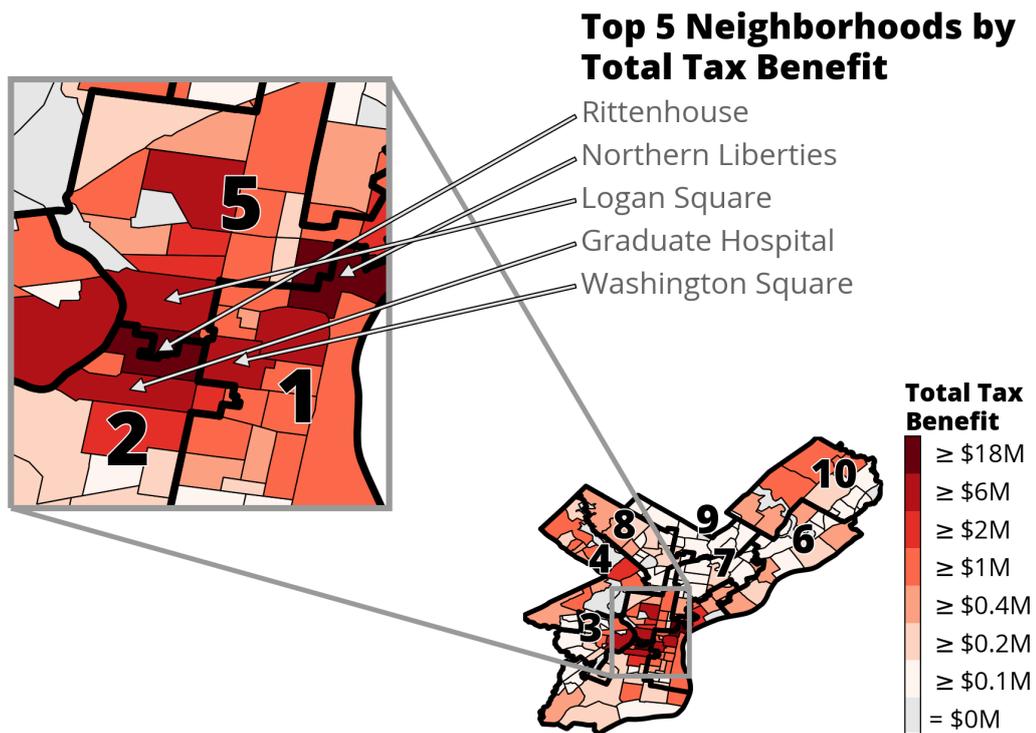
**Figure 3.9.** The distribution of actively abated properties (top) and only those with abatements >\$700K (bottom) by neighborhood in Philadelphia.

Another way to analyze the geographic distribution of abatement benefits is by City Council District. The bar chart in figure 3.10 highlights the concentration of abatement benefits (both in terms of the number of parcels and the aggregate tax benefit) in a small number of districts. This trend is primarily neighborhood-driven - the three districts with the highest concentration of abatement benefits are those that are in and around greater Center City.



**Figure 3.10.** Distribution of actively abated properties in Council Districts 1, 2, 5, and all other districts.

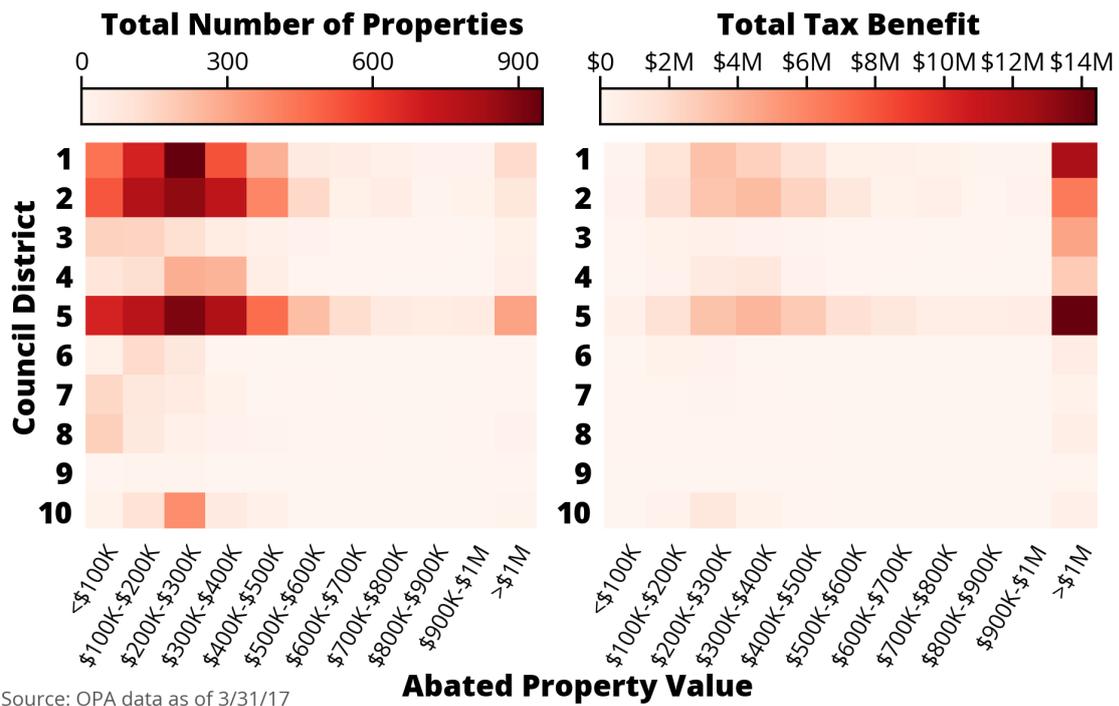
Out of the ten City Council districts, three districts (1, 2 and 5) account for 11,339 (79%) of all abated properties and \$5.3B (80%) of abated value. The First Council District comprises 22% of all abated parcels. The Second Council District comprises 26% of abated parcels. The Fifth Council District comprises 31% of abated parcels. While the First, Second and Fifth Council Districts contain the highest concentration of abated benefits, these benefits are not uniformly distributed in these districts and are concentrated in a few specific neighborhoods with high-value properties. This neighborhood-driven trend is visible in the heat map in figure 3.11, which highlights the overlap between the boundaries of the First, Second and Fifth Council Districts, and the neighborhoods receiving the most abated tax benefits (Rittenhouse, Northern Liberties, Logan Square, Graduate Hospital, and Washington Square). Neighborhood composition for each council district can be reviewed in the appendix (table A.2).



Source: OPA data as of 3/31/17

**Figure 3.11.** The distribution of the tax benefit from the abatement policy by neighborhood in Philadelphia, with overlapping council district boundaries. District boundaries are shown as the thick black lines, with the black numbering identifying specific districts.

The distribution of abated properties in the First, Second and Fifth Council Districts are largely representative of the distribution of abated properties city-wide. The median abated property values in these districts (\$252K, \$268K, \$289K, respectively) compare similarly to the median abated value of \$255K of all actively abated properties. This can be seen in figure 3.12, which shows the distribution of the number and value of actively abated properties. While it is true that the abated value in these districts is concentrated in high-value properties (abatements >\$1M), it is also true that the majority of abated properties receive much lower abatement values, typically around \$250K.



Source: OPA data as of 3/31/17

**Figure 3.12.** The distribution of the number and total tax benefit of actively abated properties for the ten council districts.

# Developer Profitability

## Summary

- A ZIP code by ZIP code analysis of Philadelphia reveals that only a handful of ZIP codes are sufficiently profitable to spur development on a build-to-sell and build-to-rent basis.
- Among most of the ZIP codes with profitable development economics, development is profitable regardless of the abatement.
- There are more abated properties in areas associated with higher developer profitability.
- Development in most of Philadelphia's neighborhoods is not profitable, regardless of the abatements, due to unprofitable building prospects for developers based on lower-than-average market values and rents and higher-than-average construction costs.

## 4.1 Defining real estate development profitability

Profitability in real estate development rests on what is sometimes described as a three-legged stool of market values, rent revenue and construction costs. Developers consider not only whether a project is profitable, but also how profitable it is expected to be compared to other potential projects (which may include development in other cities). Two categories of development activity analyzed in this paper are “build-to-sell” and “build-to-rent.”

- In a build-to-sell scenario, development is profitable when a developer can sell a property for an amount greater than the cost of development (comprised principally of the costs of construction and land acquisition, in addition to transaction costs and interest).
- In a build-to-rent scenario, development is profitable when a land owner can earn rental payments over time that exceed the cost of development (again comprised prin-

cipally of the costs of construction and of land acquisition, in addition to transaction costs and interest) necessary to finance the development project.

## 4.2 Philadelphia profitability by ZIP code

The two areas of Philadelphia that have the highest participation in the tax abatement policy are also the areas of the city that are the most profitable to build, both from a build-to-sell and a build-to-rent standpoint. The analysis below provides evidence to suggest that real estate investment would happen without tax abatements in certain areas.

### 4.2.1 Build-to-sell profitability

Figure 4.1 shows the build-to-sell profitability for Philadelphia ZIP codes in the form of a heat map and a bar chart. In this case, we look at build-to-sell profitability for the construction of a typical row home in Philadelphia.<sup>1</sup> ZIP codes that have profitable development economics from a build-to-sell standpoint are areas where home sale prices outweigh construction and land costs. We calculate for-sale profitability using median home value data from Zillow, median construction cost data from RSMeans, and the cost of land acquisition using land sale prices from the past four years of OPA data. These graphics also explore the impact of the value of the tax abatement on for-sale profitability. Over its ten-year lifetime, an abatement typically adds a ~12% market value premium,<sup>2</sup> helping to make development economics more profitable.

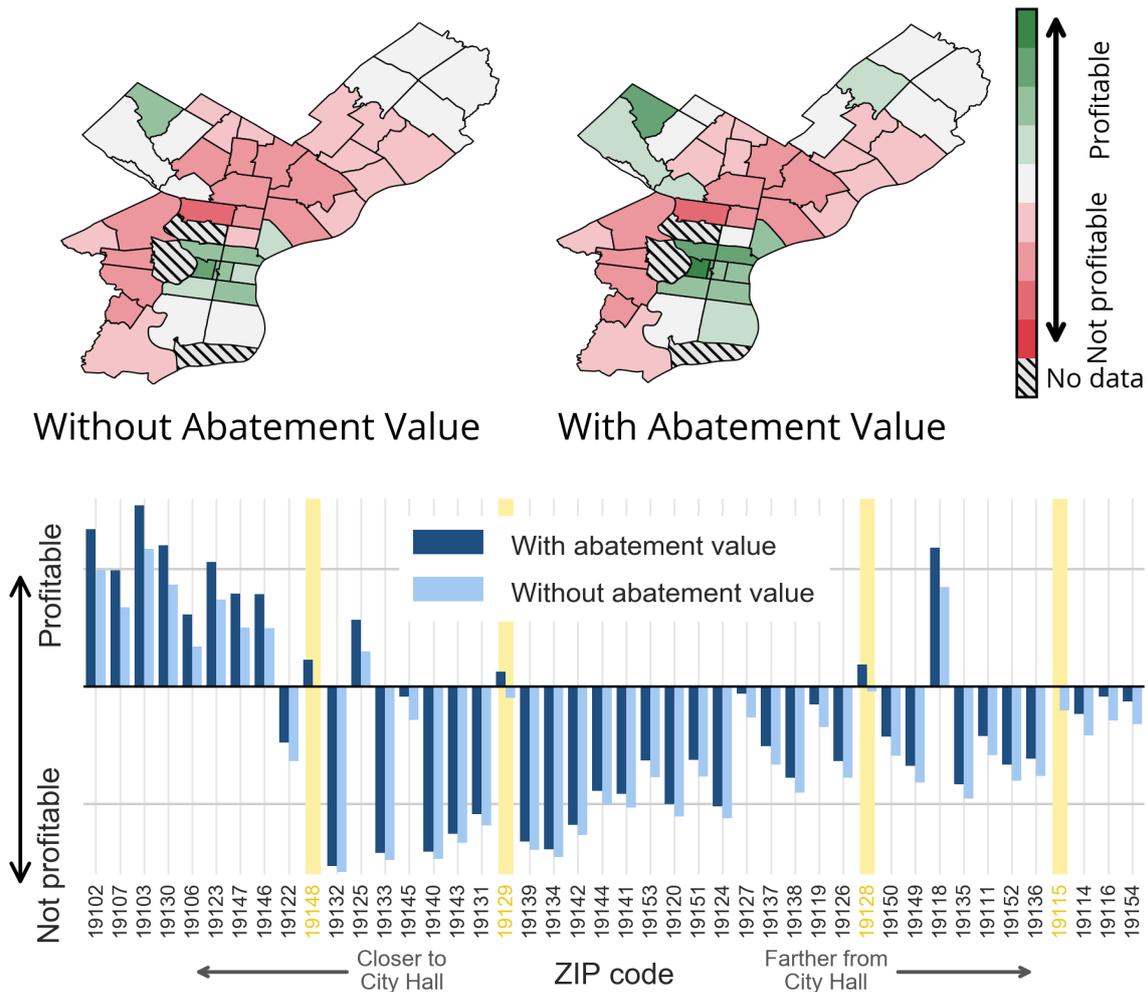
---

<sup>1</sup>This analysis uses assumptions for a 1,300 sqft, 2-story, economy row home.

<sup>2</sup>This market value premium is equal to the net present value (NPV) of ten years of abated taxes assuming a 2.5% property appreciation rate, 1.4% tax rate, and a 5.5% discount rate.

## Development Economics: Build-to-Sell Profitability by ZIP Code

Most Philadelphia ZIP codes have negative build-to-sell profitability



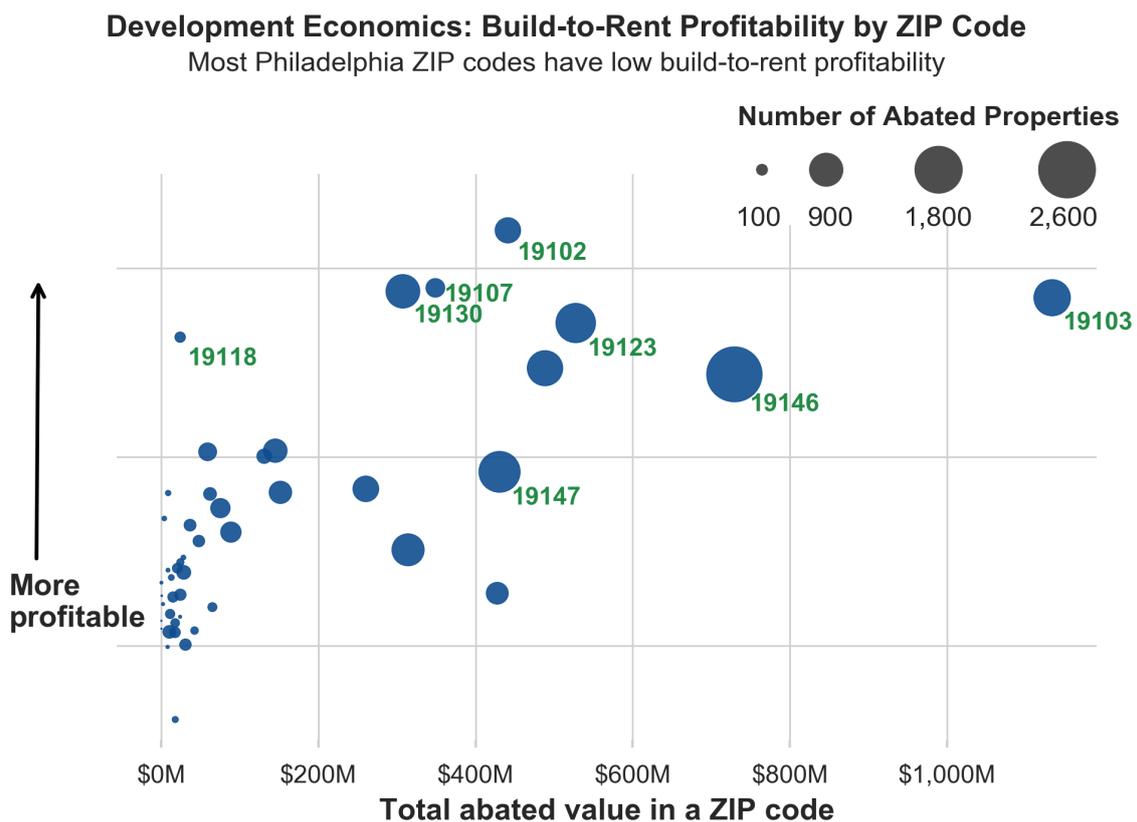
Source: home values from Zillow Home Value Index; construction costs from RSMMeans; land acquisition costs from OPA data

**Figure 4.1.** The impact of the tax abatement on the build-to-sell profitability of homes in Philadelphia by ZIP code. In the lower panel, ZIP codes that have flipped from negative to positive profitability when including the value of the tax abatement are highlighted yellow.

With the exception of Chestnut Hill, nearly all of the profitable ZIP codes are located in the greater Center City area. ZIP codes that have changed from unprofitable to profitable when accounting for the additional market premium added by the abatement are highlighted in figure 4.1. These ZIP codes are representative of transitional areas where abatements flip development from unprofitable to profitable. Even when accounting for the additional value offered by the abatement policy, the development economics in the vast majority of ZIP codes in Philadelphia remain unprofitable. The neighborhood composition of profitable ZIP codes can be reviewed further in the appendix (table A.1).

## 4.2.2 Build-to-rent profitability

Build-to-rent profitability is also an important metric to consider when comparing investment potential for different ZIP codes. Return on costs is a measure of build-to-rent profitability that can be helpful when evaluating investment potential between ZIP codes - a ZIP code with a higher return on costs will likely solicit more developer investment than a ZIP code with a lower return on costs. In the figure 4.2, we illustrate the correlation between the return on costs (calculated as annual rent over the sum of land costs and construction costs) for rental properties for ZIP codes in the city and the total abated value in those ZIP codes. For this calculation, annualized rental returns were estimated using Zillow data, construction cost data were estimated using RSMeans, and sale prices were collected from OPA data. We have also indicated the total number of abatements in a ZIP code via the size of the circles. Similar to the build-to-sell economics, high-value properties with abatements tend to be located in ZIP codes where rental returns are more profitable. Not surprisingly, the number of abated properties is higher in ZIP codes with higher return on costs - the figure shows a strong correlation between the total sum of abated value and rental profitability by ZIP code.



Rental data: Zillow; cost data: RSMeans; land acquisition costs: OPA

**Figure 4.2.** The correlation between the total abated value in a ZIP code and the build-to-rent profitability. Circles are sized by the total number of abatements in a ZIP code. Green labels identify the ZIP codes that also have the most profitable build-to-sell economics.

It is important to note that ZIP codes can be heterogeneous – analysis indicating profitability for real estate development in a certain ZIP code may not apply to all neighborhoods and all property types within its boundaries. Conceding this reality, the analysis above provides preliminary evidence that certain neighborhoods are likely receiving a tax benefit for development that would likely happen without abatements.

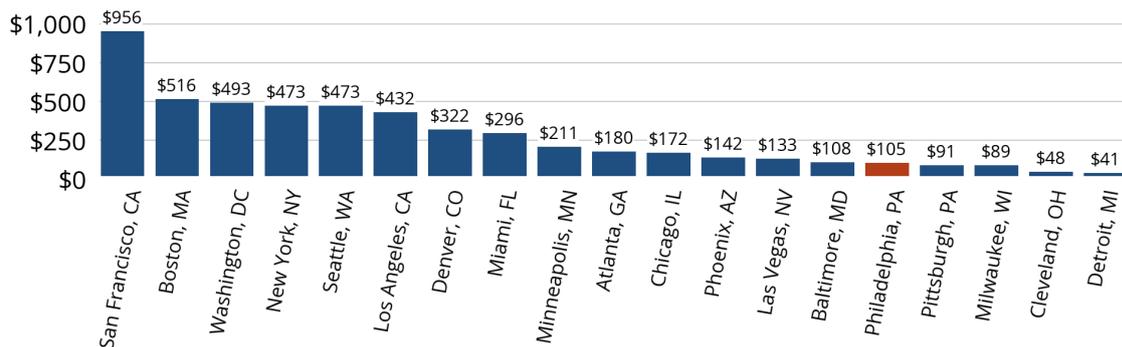
### 4.3 Challenges to real estate development in Philadelphia: market values, rents & construction costs

Developers commonly cite several factors that disincentivize investment in Philadelphia real estate and place Philadelphia at a disadvantage compared to other major cities in which developers can choose to invest instead. Blight, crime, underperforming schools, cumbersome zoning and permitting and the higher tax burden of living in the city are chronic disadvantages that put downward pressure on demand for new housing in Philadelphia. Decreased demand, in turn, depresses market values for both the purchase and rental of properties within the city, including new development.

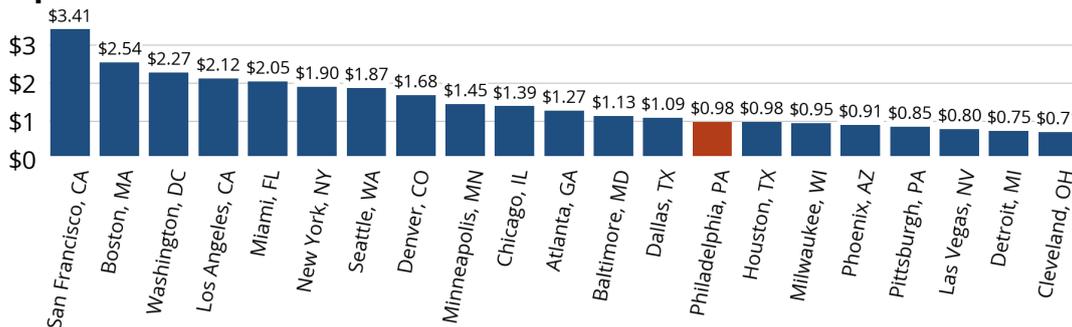
Several factors combine to render both build-to-sell and build-to-rent development unprofitable in most neighborhoods of Philadelphia and therefore unattractive to potential developers. Property sale prices, as well as rents, are lower on average in Philadelphia compared to many other cities. In addition, as described below, construction costs tend to be higher in Philadelphia than most other cities, and the combination of lower market values and rents together with higher construction costs causes many potential development projects to be unprofitable. Put simply, in most of Philadelphia, potential build-to-sell or build-to-rent development is unprofitable or not very profitable because sales values and rents are low relative to other cities while construction costs are high relative to other cities. As a result, the majority of ZIP codes do not currently offer profitable real estate development opportunities for build-to-sell or build-to-rent projects, regardless of abatements.

Philadelphia's comparatively lower property and rental values can be a double-edged sword for the city and its residents. On the one hand, much of Philadelphia's existing housing stock is available to residents at comparatively lower prices than other major cities. On the other hand, the lower profitability of development in many Philadelphia neighborhoods leads to underdevelopment of new affordable housing and underinvestment in maintaining existing housing. The reality of lower-than-average rents and market values is shown in figure 4.3. In this figure, Philadelphia ranks 15th in terms of median home value per sqft and 14th in terms of median rent per sqft. Many of the cities with higher market values and rents are also associated with higher construction costs.

### Median Home Value per Sqft in 2017



### Median Rent per Sqft in 2017



Source: home values use Zillow Home Value Index; rent values use Zillow Rent Index for single-family residences & condos

**Figure 4.3.** The median home value per square foot and the median rent per square foot for various U.S. cities.

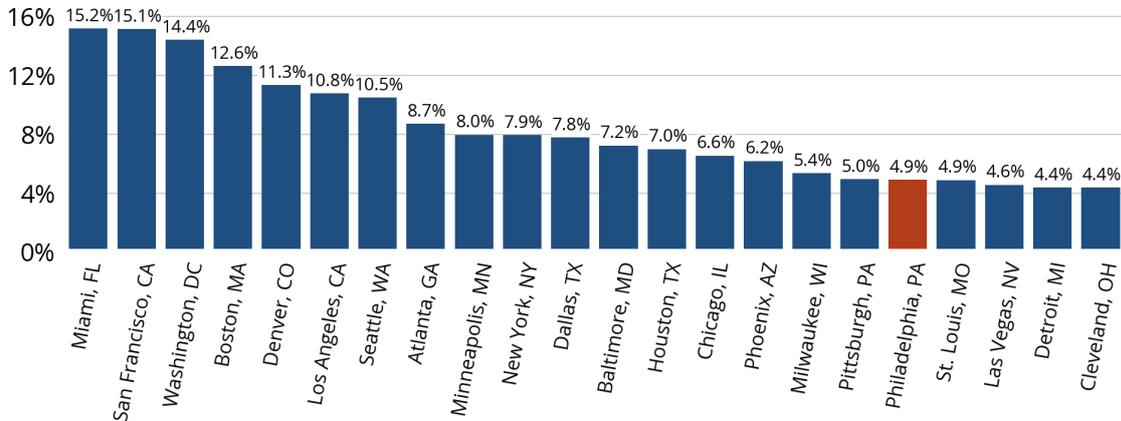
Figure 4.4 illustrates how the combination of low rents and high construction costs can lead to less profitable development in Philadelphia compared to other major cities in the United States. Dividing annual expected rent by the cost of construction per sqft provides a rough estimate of a developer's return on investment for a project. Philadelphia falls significantly below many major cities by this metric at 4.9% for a three-story apartment complex and also falls below the national average. Other major East Coast cities offer significantly higher returns on investment, notably Washington D.C. (14.4%), Boston (12.6%), and New York (7.9%).<sup>3</sup> Developers deciding whether to invest in a particular real estate project can weigh alternative investment opportunities, which may offer greater expected returns, and the relative attractiveness of an opportunity can depend on available alternatives. Faced with more profitable development opportunities outside of Philadelphia, developers may choose to invest in other cities. This can contribute to underdevelopment of new housing in Philadelphia.

<sup>3</sup>It should be noted that these data do not account for land acquisition costs.

## Development Economics: Build-to-Rent Profitability by City

Philadelphia ranks unfavorably compared to other cities for build-to-rent investor profitability

### Annualized Rent / Union Labor Construction Cost per Sqft



Source: rent data from Zillow Rent Index: Median ZRI PSF (for SFR, Condo/Co-Op); construction costs from RSMeans Cost Calculator using union labor costs for a 3-story apartment building.

**Figure 4.4.** The ratio between the annualized rent and union labor construction cost per sqft in various U.S. cities.

Residential single-family home development is, on average, loss-making for developers in Philadelphia, based on city averages for sales price, construction costs, and land acquisition cost. That is, a developer would actually lose money by building a typical single-family row home in Philadelphia, which helps explain why new homes are not being built in most of the city’s neighborhoods. Figure 4.5 illustrates this reality using city averages for acquisition cost, construction costs, and market value to calculate the monetary loss associated with building a 1,300 sqft, two-story single-family row home in Philadelphia. According to RSMeans, most residential construction of this kind of row home is [open-shop](#). In this example, it costs \$167 per sqft to build a row home that would sell for \$105 per sqft.<sup>4</sup> If a developer paid \$5 per sqft<sup>5</sup> in land acquisition costs, building such a home would lead to a loss of \$67 per sqft. This estimate does not include soft costs and overhead, thereby understating the full magnitude of the loss. In light of the unprofitable nature of building a typical row home, it is understandable that relatively few homes are built in many Philadelphia neighborhoods. The Office of the City Controller has been quoted lower costs of construction for this type of home, as low as \$115 per sqft, in certain areas of the city. However, assuming \$115 per sqft construction costs while holding all other values equal still results in a loss of \$15 per sqft.

<sup>4</sup>The average home sale price is estimated using the median city-wide home value in 2017, using the Zillow Home Value Index [8]. See the discussion in section 2.2 for further details regarding the differences between home sales prices and market value.

<sup>5</sup>As determined by the median of city-wide, at-arms-length vacant land sales in 2017 using OPA data as of 3/31/2017.

## Development Economics: Single Family Home

On average, it is not profitable to build a typical row home in most Philadelphia neighborhoods.



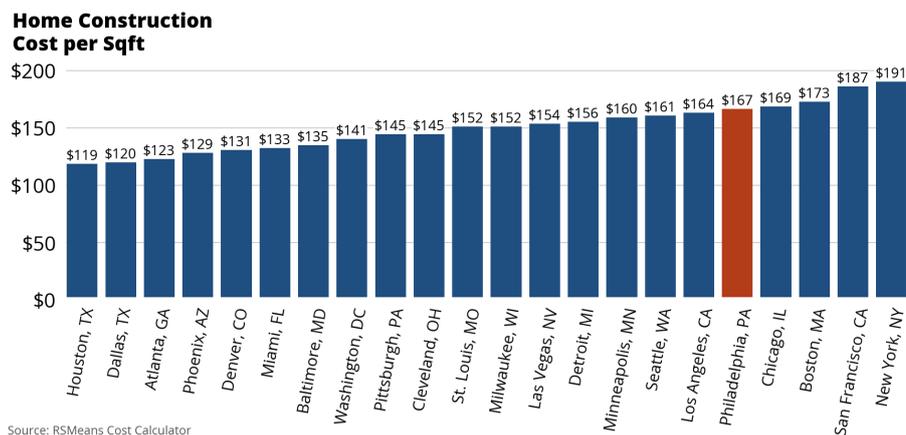
1,300 sqft, 2 story  
economy row home

Sales Price: \$105 per sqft<sup>i</sup>  
- Minus -  
Land Cost: \$5 per sqft<sup>ii</sup>  
Construction cost: \$167 per sqft<sup>iii</sup>  
= \$67 per sqft loss

**Notes:** Construction costs presented here reflect a city-specific weighted average for union and non-union labor. According to RSMean, most residential construction of this kind in Philadelphia is open-shop.  
**Sources:** <sup>i</sup> Zillow home value index as determined, <sup>ii</sup> Office of Property Assessment, <sup>iii</sup> RSMean Cost

**Figure 4.5.** The development economics of a typical single family home in Philadelphia.

Moreover, residential construction costs for a typical 1,300 sqft single-family row home illustrated in figure 4.5 are significantly higher in Philadelphia than for the same home in other large U.S. cities. Philadelphia has the fifth-highest cost of construction of any city in the nation for building this row home, with construction costs of \$167 per sqft, 24% above the national average of \$135 per sqft for the same home.

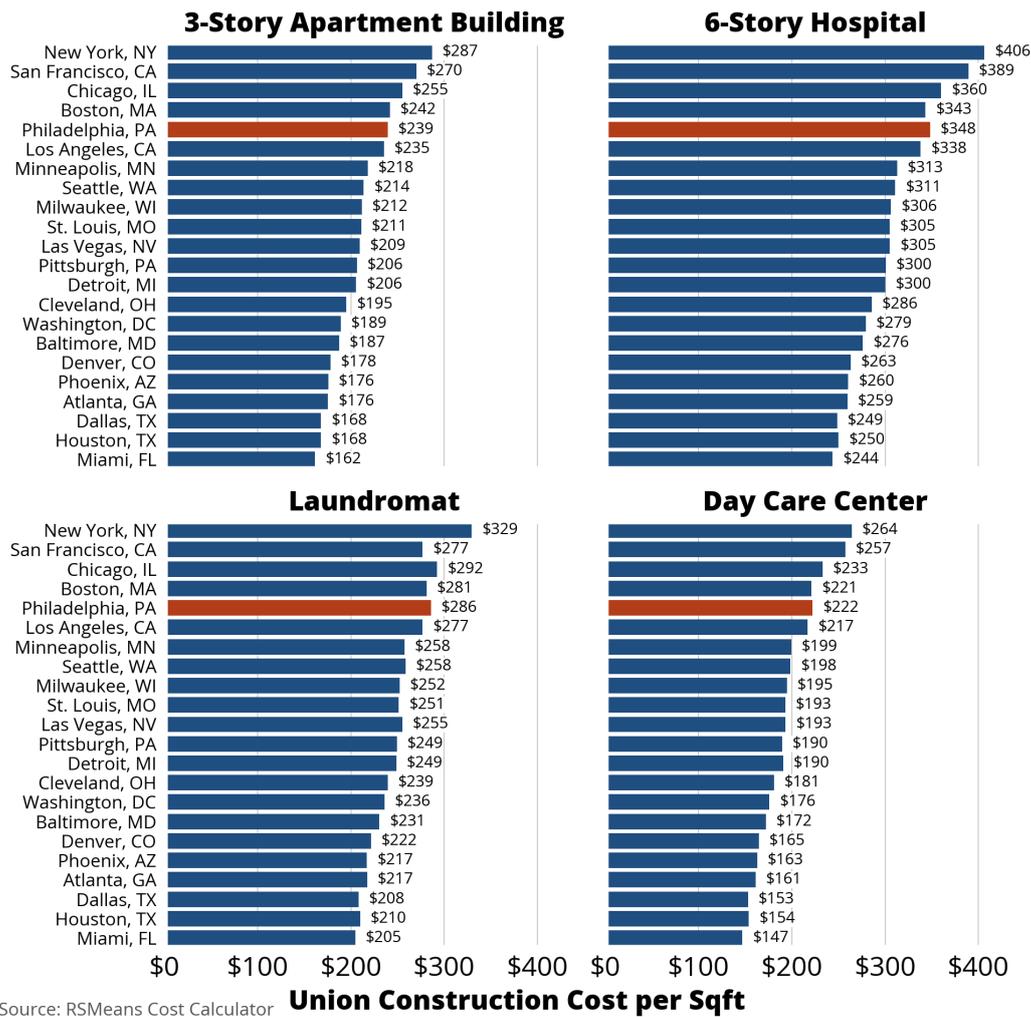


**Figure 4.6.** Average home construction cost per sqft in various U.S. cities.

Philadelphia's higher-than-average construction costs affect commercial, as well as residential, construction projects, including projects that are built to be operated as commercial enterprises. Below we modeled construction costs for four types of buildings found in urban

areas: a three-story apartment building, a single-story laundromat, a six-story hospital, and a single-story day-care center. In figure 4.7, union construction costs per sqft are presented for 22 major U.S. cities and the national average for these four project types. For these four projects, union construction in Philadelphia consistently costs about 18% more than the national average for union construction. At union labor rates:

- Philadelphia ranks fifth-highest among U.S. cities for the cost of construction of a three-story apartment building;
- Philadelphia ranks third-highest among U.S. cities for the cost of construction of a single-story laundromat;
- Philadelphia ranks fourth-highest among U.S. cities for the cost of construction of a six-story hospital; and
- Philadelphia ranks fourth-highest among U.S. cities for the cost of construction of a single-story day care facility.



**Figure 4.7.** Union construction costs for four common commercial projects.

The primary reason for high construction costs in Philadelphia relative to other cities is the cost of labor (see table 4.1). Material costs in Philadelphia are actually slightly below the national average by 0.4%. In contrast, installation costs in Philadelphia are 34.5% higher than the national average. Labor costs, in turn, comprise the bulk of installation costs. Although several cities have construction costs as high as, or higher than, Philadelphia, those cities generally have higher housing prices and rents than Philadelphia, which help cover the cost of construction. In those cities, a developer can expect a larger profit, which provides an incentive for more development.

**Table 4.1. Construction Cost Index 2017 (National Average = 100).**

City	Materials	Installation	Composite
New York, NY	100.3	177.9	134.6
San Francisco, CA	105.6	157.7	128.6
Chicago, IL	99.5	146.0	120.0
<b>Philadelphia, PA</b>	<b>99.6</b>	<b>134.5</b>	<b>115.0</b>
Boston, MA	99.9	133.4	114.7
Los Angeles, CA	101.6	128.2	113.4
San Diego, CA	102.0	118.1	109.1
Buffalo, NY	101.3	111.3	105.7
Minneapolis, MN	100.1	112.8	105.7
Seattle, WA	103.2	107.1	104.9
Milwaukee, WI	98.6	107.9	102.7
Kansas City, MO	100.9	104.4	102.5
Pittsburgh, PA	100.6	104.5	102.3
St. Louis, MO	99.8	104.0	101.7
Detroit, MI	99.3	102.9	100.9
<b>National Average</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Cleveland, OH	99.5	93.7	96.9
Baltimore, MD	100.7	85.5	94.0
Washington, D.C.	100.2	86.1	94.0
Indianapolis, IN	98.2	83.3	91.6
Columbus, OH	98.0	83.4	91.5
Denver, CO	102.2	74.2	89.8
Cincinnati, OH	98.1	77.7	89.1
Atlanta, GA	98.5	75.9	88.5
Nashville, TN	98.4	73.6	87.4
Phoenix, AZ	98.8	72.7	87.3
Memphis, TN	98.2	72.2	86.7
Dallas, TX	100.3	68.4	86.2
Houston, TX	99.3	67.5	85.2
San Antonio, TX	98.1	65.8	83.9
Miami, FL	97.1	66.9	83.8

Source: Metro Denver Economic Development Corporation using RSMeans  
 “Building Construction Cost Data 2017”

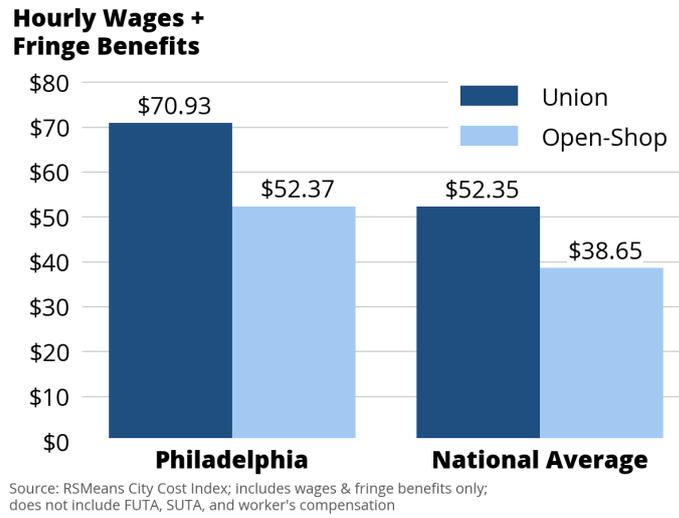
In Philadelphia, as in most cities, wages and [fringe benefits](#)<sup>6</sup> are typically higher for union members than for non-union members in the building trades. In fact, on average nationwide and in Philadelphia, wages and fringe benefits are about 35% higher for union workers compared to open-shop workers: RSMeans cost estimates for Philadelphia project an average of cost \$70.93/hour for wages and fringe benefits of a skilled union worker, and \$52.37/hour for wages and fringe benefits for labor at an open-shop rate;<sup>7</sup> national averages are \$52.35/hour for union workers and \$38.65/hour for open-shop workers.<sup>8</sup> Figure 4.8 illustrates that open-shop construction costs in Philadelphia are essentially the same as the national average for union construction costs. We can infer that this is due at least in part to

<sup>6</sup>Fringe benefits can include benefits like health insurance, pensions and retirement plans, and paid time off, among other benefits.

<sup>7</sup>City Cost Index wage rates provided from RSMeans as of March 23, 2018. Numbers quoted are inclusive of wages and fringe benefits only—no consideration of Federal Unemployment Tax (FUTA), State Unemployment Tax (SUTA) or worker’s compensation.

<sup>8</sup>Ibid.

high levels of union membership increasing the construction labor rate for both union and open shop labor. As union workers negotiate higher wage rates, open-shop builders raise the wage rates of their workers in order to close the wage gap [10].



**Figure 4.8.** Union and open-shop hourly wages + fringe benefits in Philadelphia versus the national average.

## Changes to the Abatement: Scenarios Considered

In this section, the Office of the City Controller presents and evaluates several policy change proposals to the Ten-Year Tax Abatement, highlighting potential revenue gained, properties impacted and overall impact on the City. The potential revenue gained is a projection calculated using proforma OPA data reflecting construction from January 2016 to December 2016, assuming the applicable policy change had taken effect in 2016. Note that these hypothetical scenarios are only applied to properties added to OPA rolls in proforma year 2016.

As discussed previously, the Ten-Year Tax Abatement exempts new construction and improvements to, or conversions of, existing properties from paying property tax on the changes for ten years. The City of Philadelphia, as a local taxing authority, can create a special tax provision, like the abatement, to encourage real estate development and improvement of properties in deteriorating areas in accordance with standards set by the Commonwealth of Pennsylvania. The Commonwealth has put certain restrictions on how these tax provisions must be drafted locally, including stating the boundaries of deteriorating areas, the maximum cost assessment to be abated, and the taxation schedule.

The legal authority, restrictions and requirements are important context to consider in the following analysis, which presents and evaluates scenarios to alter the abatement policy for revenue possibilities and abated property impact. With that in mind, a legal note for each scenario will be included.

The analysis below evaluates six different potential policy changes. The Office of the City Controller recognizes that any particular change in abatement policy may have secondary economic effects that are not reflected in this analysis, including but not limited to decreased development.

Since the enactment of the real estate tax abatement, there have been numerous policy recommendations for its update and amendment. The most extreme approach calls for eliminating abatements entirely. Some recommendations focus on limiting abatements by geography, others focus on limiting abatements by total property value or property value per sqft. Still other policy recommendations call for [amortization](#) of the benefit over time.

Currently, the property tax rate of 1.4% is applied to the assessed value of a property’s building and land. The revenue generated from the tax is then split two ways, with 55% going to the Philadelphia School District and 45% to the City. For our analysis, we assume that revenue split as a portion of the property tax rate itself, applying a tax rate of 0.63%, or 45% of the total tax rate, for the City and a rate of 0.77%, or 55% of the total tax rate, for the School District. Due to this allocation of funds, other recommendations have called for a reinstatement of the School District portion of the property tax rate (the 0.77% rate), such that only the portion directed to the City would be abated.

Table 5.1 lists hypothetical scenarios in which the abatement is eliminated, diminished, amortized, or discontinued at certain property value thresholds and assesses the potential revenue gained if the respective hypothetical policy change were to have taken effect in 2016, assuming a 100% tax collection rate and without adjusting for potential secondary economic effects. It is unreasonable to assume that 2016 construction would have occurred at exactly the same levels if any of these scenarios had been in effect or that the six scenarios would have impacted construction investment in the same way; however, the scenarios do provide a useful way of comparing different policy options to one another to gauge the ranges of the potential tax revenue at stake. In the table, the first column describes the six hypothetical policy changes. The second column indicates the total number of parcels that would have been impacted in 2016 if the applicable policy change were to have taken effect, all else being held equal. The third column shows the aggregate abated value in 2016 of those impacted properties. The fourth column lists the potential tax revenue that would have been generated in 2016 by the applicable policy change, all else being held equal.

**Table 5.1. Various changes to the abatement policy and their potential impact.**

Scenario	Number of Impacted Properties	Abated Value Added to Tax Base	Added Tax Revenue <sup>i</sup>
1. Remove abatements completely	1,411	\$744M	\$10.4M
2. Remove school portion of abatements	1,411	\$744M	\$5.7M
3. Remove abatements in 8 most profitable ZIP codes	712	\$361M	\$5.0M
4. Cap abated value at \$700K	72	\$413M	\$5.8M
5. Cap abated value at \$150 per square foot	491	\$104M	\$1.5M
6. Amortize abatements over 10 years	1,411	\$744M	\$1.0M (in year 2) <sup>ii</sup>

<sup>i</sup> Tax revenue assumes a 100% collection rate.

<sup>ii</sup> Scenario 6 generates no additional revenue in year 1.

**Notes:** based on OPA data from Jan. - Dec. 2016; assumes 0.63% city tax rate, 0.77% school district tax rate.

## 5.1 Scenario 1: remove the abatement

This scenario eliminates the tax abatement entirely. Assuming unchanged real estate development, \$10.4M of additional revenue would have been collected on 1,411 properties in 2016. As the most drastic approach that affects the greatest number of properties, Scenario 1 is associated with the largest revenue impact (the largest bubble in figure 5.1).

Legal note: Tax abatements are not legally mandated, and the City can elect to eliminate them all together.<sup>1</sup>

## 5.2 Scenario 2: remove school portion of the abatement

This scenario removes the School District portion of the tax abatement (the 0.77% tax rate referenced above) but maintains the abatement for the portion of the property tax directed to the City. In 2016, this scenario would have resulted in additional tax revenue estimated at \$5.7M, assuming unchanged real estate development. Scenario 2 would impact as many properties as Scenario 1, but is associated with a smaller revenue impact (a smaller bubble relative to Scenario 1 in figure 5.1) because it features a partial abatement.

Legal note: The City is not required by State law to extend abatements to the taxes of the School District, a separate taxing entity.<sup>2</sup>

## 5.3 Scenario 3: remove abatement in 8 most profitable ZIP codes

This scenario examines the elimination of abatements in the eight most profitable ZIP codes for development. These eight ZIP codes -19102, 19103, 19107, 19118, 19123, 19130, 19146, and 19147 - were identified previously in the paper to be the most profitable regardless of the status of the abatement. These eight ZIP codes encompass the neighborhoods of Rittenhouse Square, Graduate Hospital, Point Breeze, Logan Square, Fitler Square, Washington Square, Society Hill, Northern Liberties, Passyunk Square, Fairmount, and Chestnut Hill. If this scenario were to have occurred with 2016 data, assuming unchanged real estate investment, all abated parcels outside of these eight ZIP codes would have been abated, while 712 parcels within those ZIP codes would have received no abatement, representing potential additional tax revenue estimated at \$5.0M. It should be noted, however, that many of these eight ZIP codes include neighborhoods where development profitability varies significantly. That is, while construction may, on average, have a robust return on investment in these eight ZIP codes, they also include pockets where this is not necessarily the case.

---

<sup>1</sup>Local taxing authorities may, but are not obligated to, create ordinances authorizing abatements on the assessed valuation of improvements to deteriorated properties, as well as other improvements and new construction in deteriorated areas. 72 P.S. §4711-202(a), §4711-302(a) and §4725(a).

<sup>2</sup>72 P.S. §4711-202(a), §4711-302(a) and §4725(a). The Philadelphia School District is authorized to levy taxes on real estate in Philadelphia. Phila. Code §19-1801 (1), as authorized by 72 P.S. §5020-201. For purposes of abatements, local taxing authorities are defined as “a county, city...or school district having authority to levy real property taxes.” 72 P.S. §4711-103 and §4724.

Legal note: The City can reassess all areas of the city by ZIP code, and decide if each is deteriorated and therefore continues to legally qualify for abatements.<sup>3</sup>

## 5.4 Scenario 4: cap abatement at \$700K

Scenario 4 taxes the assessed value in excess of \$700K of an individual property, in effect capping the abatement per property at \$700K. In 2016, 72 properties with abatements valued in excess of \$700K would have been impacted by this scenario. If implemented, assuming unchanged real estate investment in 2016, this scenario would have provided \$5.8M in additional tax revenue.

It should be noted that Scenario 4 applies policy changes at a parcel-by-parcel level rather than a unit-by-unit level. The OPA data are organized by parcel, with hotels and non-condominium, multi-unit apartment buildings each categorized as a single parcel, regardless of how many units may be found within a parcel. In the OPA data, 83% of the building value in excess of \$700K is categorized as “apartment buildings or hotel buildings,” but data regarding assessed value at a unit-by-unit level are not available from the OPA. For this reason, potential policy changes such as assessment-based caps on abatements are modeled at the parcel level, not the unit level, for hotels and non-condominium, multi-unit apartment buildings. If future datasets were to include unit-by-unit assessments and assessment-based caps were applied per unit, the additional tax revenue generated would likely be less than the amounts projected in Scenario 4.

Legal note: Under the law, the City can specify a maximum cost to be taxed that is less than the actual maximum cost.<sup>4</sup>

## 5.5 Scenario 5: cap abatement at \$150 per square foot

This scenario removes abatements on a cost per sqft basis for assessed values exceeding the threshold of \$150. That is, for properties with assessed value over \$150 per sqft, Scenario 5 applies taxation only to the portion of assessed value over \$150 per sqft. For example, if a 10,000 sqft property had an assessed value of \$175 per sqft, then the tax would be applied only on the \$25 per sqft above \$150 per sqft, with a property tax of  $\$25 \times 10,000 \times 1.4\% =$

---

<sup>3</sup>The Commonwealth instructs the City to designate the deteriorated areas, “wholly or partially located within its jurisdiction,” prior to adopting a local ordinance. 72 P.S. §4711-202(a), §4711-302(a) and §4725 (a).

<sup>4</sup>Whether the actual cost or a lesser amount is the maximum, the amount must be specified in the local ordinance. 72 P.S. §4711-203(a), 4711-303(b) and §4726 (a).

\$3,500. If Scenario 5 were to have occurred, all else equal, the associated additional tax revenue on the 491 abated properties added in 2016 would have been \$1.5M.

Most newly abated buildings have assessed values per sqft lower than this \$150 per sqft threshold. And for those properties with assessed values exceeding this threshold, the margin of difference, i.e. the taxable portion of the assessed value over \$150 per sqft, tends to be small when compared to the property as a whole. Consequently, this scenario projects the lowest revenue potential.

Legal note: While abatements are allowable up to the maximum cost of improvements or new construction per property, it is not at all clear that either the abatement statutes or constitutional uniformity would allow the City to impose a cap on the per-square footage value of abatements.<sup>5</sup>

## 5.6 Scenario 6: amortize abatement over ten years

The final scenario modeled represents a linear amortization of the tax abatement over its ten years, assuming a 100% abatement in year 1, 90% abatement in year 2, 80% abatement in year 3, and so on, with the property receiving no abatement in year 11.

Assuming unchanged real estate investment, Scenario 6 would have impacted all 1,411 properties added in 2016. In year two, all else equal, this would have resulted in additional tax revenue estimated at \$1M. Additional revenue would continue to grow in each subsequent year, back-end loading the tax revenues to the later years of a property's ten-year abated life.

Legal note: This scenario is expressly authorized by the Commonwealth. Local abatement ordinances must specify an abatement schedule, declaring the portion of the new or improved property to be abated each year.<sup>6</sup>

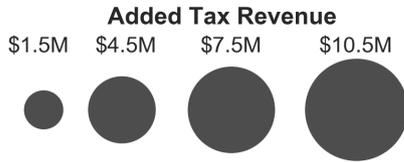
Figure 5.1 illustrates the effect of the potential policy changes of scenarios 1 through 5, based on 2016 proforma data, to demonstrate the potential tax revenue that would have been generated in 2016, had the respective policy changes been enacted, all else being held equal.

<sup>5</sup>The statutory language of 72 P.S. §4711-203(a), §4711-303(b), and §4726 suggests that the Commonwealth intended for there to be a specified cost maximum per property, not per square foot of property. 72 P.S. §4711-203(a) specifically requires that if the allowable cost is set at an amount less than the maximum, that amount must be a multiple of \$1000, which would be difficult to consistently achieve assessing by square feet.

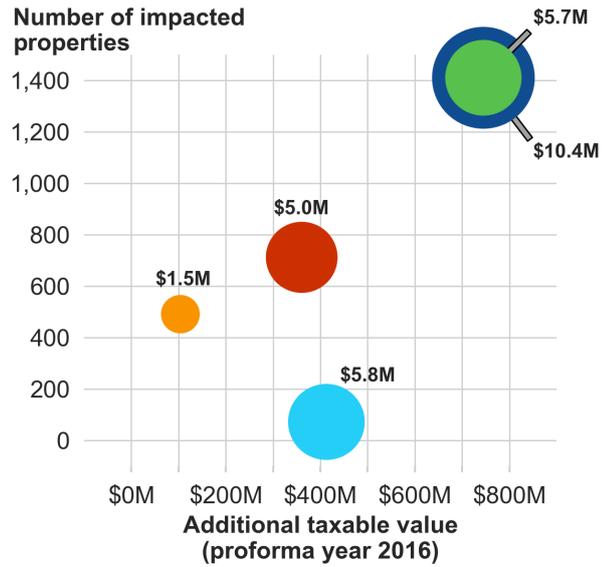
<sup>6</sup>For residential property abatements, the abatement schedule in scenario 6 is suggested as an option handed down by the Commonwealth, thereby expressly authorized. 72 P.S. §4711-203(a)(1) and §4711-303(a)(2). For commercial property abatements, the Commonwealth does not give specific schedule recommendations. 72 P.S. §4726(b)(2).

### Potential Abatement Policy Changes

1. Remove abatements completely
2. Remove school portion of abatements
3. Remove abatements in 8 most profitable ZIP codes
4. Cap abated value at \$700K
5. Cap abated value at \$150 per square foot



Note: based on OPA data from Jan. - Dec. 2016; assumes 0.63% city tax rate, 0.77% school district tax rate



**Figure 5.1.** A summary of the various changes to the abatement policy considered in this analysis and their potential impact. Circle sizes indicate the additional tax revenue generated for a given scenario.

The modeled scenarios offer a preliminary analysis as a starting point for discussions concerning the potential effects of adjustments to existing abatement policy.

Ultimately, the decision to end, continue or alter the abatement lies with the City Council and the Mayor. The goal of this analysis is to inform the discussion with historical data, accurate analysis and a clear presentation of information.

## 5.7 A note on compounding

The Office of the City Controller did not include extended revenue projections associated with the scenarios presented above because future development investment is uncertain. It is worth noting, however, that the 2016 proforma scenarios discussed above, if implemented, would have compounding effects year-over-year (beyond the base year impact shown in the 2016 proforma scenarios above). For example, if a hypothetical change to the abatement policy generated \$5M in its first year, and if there were no change in investment or assessed values over the first through fifth years (an unrealistic assumption but useful to illustrate the effects of compounding), that particular policy would result in \$75M over the course of five years.

Boundaries by Neighborhood, ZIP  
Code, and Council District

**Table A.1. The relationship between ZIP codes and the neighborhoods used in this analysis.** We also give the number of abated properties in each neighborhood. ZIP codes labeled in green identify the top 8 most profitable ZIP codes, which are considered in Scenario 3 (see section 5.3).

ZIP Code	Neighborhood (Number of Currently Abated Properties)
19102	Rittenhouse (525), Logan Square (2)
19103	Rittenhouse (722), Logan Square (346), Fidler Square (7), Spring Garden (1)
19104	Mantua (171), West Powelton (97), Spruce Hill (60), Haverford North (15), University City (14), East Parkside (12), Powelton (11), Belmont (4), Southwest Schuylkill (3), Woodland Terrace (3)
19106	Old City (476), Society Hill (35), Washington Square (27), Riverfront (1)
19107	Washington Square (177), Center City (44), Old City (33), Callow Hill (21), Chinatown (12)
19108	Callow Hill (1)
19111	Fox Chase (93), Rhawnhurst (7), Lawndale (4), Oxford Circle (3), Burnholme (1)
19112	Navy Yard (2)
19113	Fox Chase (2)
19114	Torresdale (46), Pennypack (38), Morrell Park (11), Aston Woodbridge (7), Academy Gardens (5), Northeast Airport (3), West Torresdale (1)
19115	Bustleton (116)
19116	Byberry (252), Somerton (87)
19118	Chestnut Hill (90), Mount Airy West (1)
19119	Mount Airy West (43), Mount Airy East (36), Chestnut Hill (1)
19120	Feltonville (1), Olney (1)
19121	North Central (647), Brewerytown (94), Strawberry Mansion (57), Stanton (41), Northern Liberties (1)
19122	Old Kensington (245), Ludlow (85), West Kensington (36), Hartranft (31), Fishtown (11), East Kensington (1), Yorktown (1)
19123	Northern Liberties (998), West Poplar (156), East Poplar (57), Callow Hill (37), Fishtown (14), Old Kensington (1), Yorktown (1)
19124	Juniata Park (57), Frankford (2), Northwood (2), Crescentville (1), Hunting Park (1)
19125	Fishtown (774), East Kensington (224), Northern Liberties (8), Richmond (4), Old Kensington (2)
19126	East Oak Lane (2)
19127	Manayunk (78), Roxborough (38), Wissahickon (16), Germany Hill (1), Roxborough Park (1)
19128	Roxborough (214), Upper Roxborough (88), Germany Hill (38), Dearnley Park (37), Andorra (26), Roxborough Park (25), Wissahickon (12), Manayunk (8), Chestnut Hill (1), East Falls (1)
19129	East Falls (163), Allegheny West (9), Tioga (1)
19130	Francisville (516), Spring Garden (212), Fairmount (142), Logan Square (37), Brewerytown (13), North Central (3)
19131	Overbrook (33), Wynnefield (14), Francisville (10), Carroll Park (5), Wynnefield Heights (3), Haddington (1), Mill Creek (1), West Parkside (1)
19132	Hartranft (27), Glenwood (20), Stanton (18), Allegheny West (6), Tioga (1)
19133	West Kensington (51), Hartranft (38), Fairhill (1)
19134	Richmond (149), Harrowgate (7), Hunting Park (2), Upper Kensington (1)
19135	Wissinoming (6), Tacony (3)
19136	Holmesburg (15), Pennypack Woods (8), Winchester Park (3), Mayfair (2), Graduate Hospital (1)
19137	Bridesburg (37), Harrowgate (5), Frankford (1), Richmond (1)
19138	Germantown East (5), Mount Airy East (3)
19139	Mill Creek (62), Walnut Hill (22), Cobbs Creek (12), Haddington (4), Spruce Hill (3), Dunlap (2), Garden Court (2), Overbrook (2)
19140	Tioga (80), Fairhill (47), Feltonville (3), Franklinville (2), Hunting Park (1), Logan (1), Nicetown (1)
19141	Logan (5), Ogontz (3), Fern Rock (2)
19142	Industrial (2), Elmwood (1)
19143	Cedar Park (31), Garden Court (23), Southwest Schuylkill (19), Cobbs Creek (11), Kingessing (5), Spruce Hill (4), Paschall (2)
19144	Germantown West Central (10), Germantown Westside (9), Mount Airy West (8), Germantown East (5), Germantown Morton (4), Logan (4), Germantown Penn Knox (3), Wister (3), Mount Airy East (1), Passyunk Square (1)
19145	Packer Park (163), Point Breeze (43), Newbold (39), West Passyunk (26), Girard Estates (25), Grays Ferry (8), Graduate Hospital (1), Industrial (1)
19146	Graduate Hospital (1422), Point Breeze (762), Fidler Square (143), Rittenhouse (99), Grays Ferry (41)
19147	Hawthorne (323), Queen Village (260), Bella Vista (210), Passyunk Square (167), Pennsport (133), Society Hill (88), Dickinson Narrows (82), Riverfront (73), Washington Square (31), Northern Liberties (1)
19148	East Passyunk (82), Pennsport (60), Greenwich (31), Dickinson Narrows (28), Lower Moyamensing (22), Whitman (20), Stadium District (14), Riverfront (3), Passyunk Square (1)
19149	Oxford Circle (5), Mayfair (3), Summerdale (1)
19150	Cedarbrook (10), West Oak Lane (9)
19151	Overbrook (10), Haddington (2), Carroll Park (1), Wynnefield (1)
19152	Pennypack (15), Rhawnhurst (14), Lexington Park (2), Cedarbrook (1)
19153	Clearview (7), Eastwick (5), Industrial (4), Airport (2), Penrose (2)
19154	Parkwood Manor (7), Mechanicsville (5), Millbrook (5), Crestmont Farms (3), Normandy Village (2), Northeast Airport (2), Modena (1)

**Note:** Top 8 most profitable neighborhoods are highlighted in green.

**Source:** Neighborhood definitions from Zillow; abatements from OPA data as of 3/31/17.

**Table A.2. The relationship between council districts and the neighborhoods used in this analysis.**

Council District	Neighborhoods
1	Bella Vista, Callow Hill, Center City, Chinatown, Dickinson Narrows East Kensington, East Passyunk, Fishtown, Greenwich, Harrowgate Juniata Park, Lower Moyamensing, Northern Liberties, Old City, Passyunk Square Pennsport, Queen Village, Richmond, Riverfront, Society Hill Stadium District, Washington Square, Whitman
2	Airport, Bella Vista, Clearview, Eastwick, Fidler Square Girard Estates, Graduate Hospital, Grays Ferry, Hawthorne, Industrial Navy Yard, Newbold, Packer Park, Paschall, Penrose Point Breeze, Rittenhouse, Southwest Schuylkill, Stadium District, West Passyunk
3	Belmont, Carroll Park, Cedar Park, Cobbs Creek, Dunlap East Parkside, Elmwood, Garden Court, Haddington, Haverford North Industrial, Kingessing, Mantua, Mill Creek, Powelton Southwest Schuylkill, Spruce Hill, University City, Walnut Hill, West Powelton Woodland Terrace
4	Allegheny West, Andorra, Carroll Park, Dearnley Park, East Falls Germany Hill, Haddington, Manayunk, Mount Airy West, Overbrook Roxborough, Roxborough Park, Upper Roxborough, West Parkside, Wissahickon Wynnefield, Wynnefield Heights
5	Brewerytown, East Poplar, Fairmount, Fishtown, Francisville Franklinville, Hartranft, Logan Square, Ludlow, North Central Northern Liberties, Old Kensington, Rittenhouse, Spring Garden, Stanton Strawberry Mansion, West Poplar, Yorktown
6	Academy Gardens, Aston Woodbridge, Bridesburg, Frankford, Holmesburg Lexington Park, Mayfair, Oxford Circle, Pennypack, Pennypack Woods Richmond, Tacony, Torresdale, Winchester Park, Wissinoming
7	East Kensington, Fairhill, Feltonville, Fishtown, Frankford Harrowgate, Hunting Park, Juniata Park, Northwood, Old Kensington Oxford Circle, Upper Kensington, West Kensington
8	Allegheny West, Chestnut Hill, Germantown East, Germantown Morton, Germantown Penn Knox Germantown West Central, Germantown Westside, Glenwood, Logan, Mount Airy East Mount Airy West, Nicetown, Ogontz, Tioga, Wister
9	Burnholme, Cedarbrook, Crescentville, East Oak Lane, Fern Rock Lawndale, Logan, Olney, Oxford Circle, Summerdale West Oak Lane
10	Bustleton, Byberry, Crestmont Farms, Fox Chase, Mechanicsville Millbrook, Modena, Morrell Park, Normandy Village, Northeast Airport Parkwood Manor, Rhawnhurst, Somerton, West Torresdale

Note: Neighborhood definitions from Zillow.

# Glossary

**abatement** A generalized term referring to the tax-exempt portion of assessed property value for a property owner's real estate tax, as granted by the city. There are 37 different types of property tax exemptions, including exemptions for government-owned buildings and non-profit-owned buildings. This paper focuses on 10-year property tax exemptions associated with new and improved property value defined by ordinances 1456-A, 961, 1130.

**amortization** Paying off an amount over time by making planned, incremental payments of principal and interest. In the case of abatements, linear amortization implies a constant, annual drop in the value of an abatement, until the property tax is ultimately paid in full. For example, in a linear amortization of a ten-year tax abatement, a property owner would have 100% of the abatement for the first year (paying no tax on the abated value), 90% of the abatement for the second year (paying tax on 10% of the abated value), 80% for the third year (paying tax on 20% of the abated value) and so on, until the tax is annually paid in full, i.e. the abatement is fully amortized.

**arm's-length** A sale in which both the buyer and seller are acting independently and in their own self-interest. In this analysis, we use arm's-length vacant land sales from OPA data in order to properly estimate the cost of land acquisition in Philadelphia.

**assessed value** The monetary value assigned to a property by the Office of Property Assessment from which annual real estate taxes are calculated at the rate of 1.4%. Total assessed value is typically broken down into two categories: assessed building value and assessed land value. For this paper's analysis, tax abatements represent the tax-exempt portion of a property's assessed building value.

**Council District** The geographic section of the city corresponding to a seat on the Philadelphia City Council, the city's legislative body. There are 10 different city council districts with boundaries intersecting neighborhoods and ZIP codes.

**fringe benefits** The additional benefits received by an employee outside of his or her designated salary or wage. These often include health insurance, worker's compensation, pension contributions, etc.

**improvement or conversion** A designation for previously-built real estate structures that undergo rehabilitation, refurbishment, and/or conversion from commercial to residential use. In relation to the property tax abatement, the tax-exempt (i.e. abated) portion of an improved property is equal to the updated, assessed value of the property minus the value-added by the improvements. Regulations on eligibility of improvements for property tax-exemptions are defined by ordinances 961 and 1130.

**market value** The estimation of a property's sale price should it be sold in an arms-length transaction. In Philadelphia, market value can differ materially from assessed value. This paper uses market value data provided by Zillow. Market values in this paper are computed using home values from the Zillow home value index through [2].

**new construction** New residential or commercial buildings. In relation to the property tax abatement, most new construction is tax-exempt (i.e., abated) for 10 years defined by ordinances 1456-A and 1130.

**open-shop** A firm or project type that does not require employees to join a labor union.

**tax base** This is the value upon which a tax liability is based. For example, assessed property value is the tax base upon which property taxes are based and taxable income is the tax base upon which income tax is based. The aggregate tax base of Philadelphia is the sum of all taxable value - including wages, business income, property value, etc. - subject to different taxes.

**tax benefit** The reduction in taxes owed received by a taxpayer. In relation to the property tax abatement, this amount is equal to the tax-exempt assessed value multiplied by the tax rate. For example, if a new home with tax abatements is assessed at \$200,000, then the annual tax benefit at the current tax rate of 1.4% would be \$2,800 ( $\$200,000 \times 1.4\% = \$2,800$ ). Assuming no appreciation to the assessed value and no changes to the tax rate, the tax benefit over the life of the homes 10 year tax abatement would be \$28,000 ( $\$200,000 \times 1.4\% \times 10 = \$28,000$ ).

# Bibliography

- [1]Office of Property Assessment. “Which Abatement is Right for Your Property?”  
URL: <https://goo.gl/ejyLfu>.
- [2]Zillow. “Zillow Home Value Index: Methodology”. URL: <https://goo.gl/T6Wqq9>.
- [3]Federal Reserve Bank of Philadelphia.  
“Metropolitan Statistical Areas in the Three-State Region”. URL: <https://goo.gl/aKDnqr>.
- [4]Central Philadelphia Development Corporation. “Housing Development in Perspective: 2018”.  
<https://goo.gl/pe88KT>. March 1, 2018.
- [5]City of Philadelphia. “Real Estate Tax”. URL: <https://goo.gl/JsGrLv>.
- [6]City of Philadelphia. “Summary Schedule of Tax Rates Since 1952”.  
URL: <https://goo.gl/aUwvpv2>.
- [7]Office of Property Assessment. “Data Dictionary”. URL: <https://goo.gl/gkWU8w>.
- [8]Zillow. “Zillow Home Value Index (ZHVI): Median Home Value Per Sq Ft (\$)”.  
URL: <https://goo.gl/mYBPFB>.
- [9]Zillow. “Zillow Neighborhood Boundaries”. URL: <https://goo.gl/bnAcwg>.
- [10]David Neumark and Michael L. Wachter.  
“Union Effects on Nonunion Wages: Evidence from Panel Data on Industries and Cities”.  
In: *Industrial and Labor Relations Review* 49.1 (1995), p. 20.

# Acknowledgements

The Office of the City Controller would like to acknowledge the invaluable support provided by the City of Philadelphia Office of Property Assessment, individuals, institutions and organizations, including development industry professionals and the Philadelphia Building Trades, for this paper. Without their guidance, advice and data, this analysis would not have been possible.