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Close to Home: Does Proximity to a Homeless Shelter Affect Residential Property Values in Manhattan?

Fiscal Brief

Summary

The Mayor's plan to open 90 homeless shelters in neighborhoods throughout the city has triggered vocal opposition in some of the affected communities. Concerns about crime, quality of life, and a lack of services for the prospective residents have been among the most common reasons given for the community resistance. Also frequently cited is the negative effect on residential property values, but with little empirical research to support—or refute—the assertion.

Given this lack of information, Manhattan Borough President Gale A. Brewer asked IBO to study the effect of homeless shelters on nearby residential property values. Using sales data covering the years 2010 through 2018 on condominiums and one- to three-family homes in Manhattan, IBO modeled the effect of proximity to homeless shelters on sales prices, controlling for other factors that also influence prices. An econometric analysis confirmed the common assumption that residences located close to a homeless shelter sell at lower prices than comparable residences further away. In particular, we found:

- A residence situated within 500 feet of a congregate shelter for adults sold for an estimated 7.1 percent less than a similar residence sold at a comparable time located 500 feet to 1,000 feet from a shelter for adults. In dollar terms, this means that if a property more than 500 feet from a shelter sold for \$1 million, a comparable residence within 500 feet of a congregate shelter for adults sold for about \$929,000.
- A property located within 500 feet of a shelter for homeless families with children sold for an estimated 6.4 percent less than a similar residence 500 feet to 1,000 feet from a shelter for families with children.
- Proximity to multiple shelters had a bigger effect—residences located within 1,000 feet of two or more shelters sold for an estimated 17.4 percent less than a comparable property located within 1,000 feet of a single shelter.

IBO's findings differ from a widely cited study showing that proximity to supportive housing did not have a negative effect on prices of residential properties in New York City. Supportive housing, which is designed to help residents become long-term tenants by providing them with an array of ongoing services, is substantially different then the temporary accommodation allotted by a congregate shelter.



New York City Independent Budget Office Ronnie Lowenstein, Director 110 William St., 14th floor New York, NY 10038 Tel. (212) 442-0632

Fax (212) 442-0350 iboenews@ibo.nyc.ny.us www.ibo.nyc.ny.us Image: Image:

Overview

As the number of people living in the city's homeless shelters has remained stubbornly high, the city's plans to end the use of stopgaps such as commercial hotels and scatter-site units in residential apartment buildings have been hindered by the lack of new capacity in more traditional congregate shelters. In March 2017, Mayor Bill de Blasio pledged to address the capacity shortage by developing 90 new congregate homeless shelters across the city. This in turn has led to opposition in some neighborhoods slated for the new shelters. One frequently cited concern is that the presence of a shelter would negatively impact nearby property values due to the perception—whether based in reality or not—that shelter residents would loiter on neighborhood streets, engage in offensive behavior, and participate in or become targets of criminal activity.

At the request of Manhattan Borough President Gale A. Brewer, IBO analyzed the impact of homeless shelters on residential property values in New York City, focusing on Manhattan. Department of Finance (DOF) data on all residential sales in Manhattan from calendar years 2010 through 2018 enabled a comprehensive comparison of sales prices of condos and one-, two-, and three-family homes located near congregate shelters with the sales prices of residences located further away. IBO modeled housing prices as a function of proximity to congregate homeless shelters plus a number of other factors likely to influence sales prices, such as property size, property type, year of sale, and neighborhood characteristics and amenities. An econometric analysis of the data vielded estimates of the impact on prices of proximity to shelters after controlling for the influence of the other factors.

The estimates confirmed the common assumption that residences located closer to shelters sell at lower prices than similar residences located further away. Specifically, residences located within 500 feet of an adult shelter sell for an estimated 7.1 percent less than comparable residences sold at a comparable point in time located 500 feet to 1,000 feet from shelters; properties located within 500 feet of a shelter for families with children sell for an estimated 6.4 percent less, all else being equal. In other words, if a property without a nearby shelter was worth \$1 million, that same property located within 500 feet of a shelter would sell for \$929,000. Proximity to multiple shelters has a considerably bigger estimated impact on prices: all else equal, residences located within 1,000 feet of more than one shelter sell for an estimated 17.4 percent less than residences located within 1,000 feet of only one shelter.

Methodology and Data

One way to estimate the potential impact on housing prices of proximity to homeless shelters would be to compare housing prices after a nearby shelter began operations with prices of properties in the same neighborhood from sales before the future opening of the shelter was widely known, using econometric analysis to control for the other factors influencing prices. The lack of information on when many of the city's shelters began operation, however, prevented IBO from pursuing a before-and-after analysis.

Another way to estimate the housing price effects of shelters would be to compare the prices of residences located close to shelters with prices of otherwise comparable homes located further away from shelters. An ideal comparison would be the sales prices of two virtually identical apartments (or houses) of the same size and other physical characteristics, in the same type of building, and in the same neighborhood sold at the same point in time, with one of the apartments (houses) being located closer to a homeless shelter than the other. Because there are few if any such ideal comparisons to examine, an econometric analysis of a large number of sales, taking into account a variety of factors that might affect the sales price-including those related to shelter proximity-can be employed to estimate the price effects of shelters. The availability of data on the location of shelters and the details of a large number of sales over a number of years enabled IBO to estimate the potential impact of shelters in this manner.

Residential Sales Data. IBO used Department of Finance data on the sales of condominiums and one-, two-, and three-family houses sold from 2010 through 2018. including sales price, location, property size (in most cases), and other characteristics. Although IBO also had data on sales from 2005 through 2010, we were not able to use the earlier data because we lacked reliable information on the operation of most congregate shelters during the period. We excluded sales of coops from the analysis because information on the size of most of these apartments were not available. Sales of rental properties was also excluded since the ability of a building to generate rental income would be the major factor in determining its sales price; estimating the impact of homeless shelters on sales prices of rental buildings would require a very different model with many other explanatory variables.

Data on Shelters. There are two general types of homeless shelters: congregate and non-congregate. In congregate shelters individuals and families share facilities such as

bathrooms and, in some cases sleeping quarters. Some congregate shelters provide housing for families while others house only individual adults. In addition to shelters built or designed for the express purpose of housing the homeless, congregate housing also includes commercial hotels that the city rents in their entirety and completely reserves for individuals or families. In contrast, noncongregate shelters are commercial hotels or apartment buildings in which the city rents some—but not all—of the units to provide housing for the homeless. Unlike in congregate shelters, where households share facilities, households staying in non-congregate shelters have their own defined space, typically a hotel room or an apartment.

The focus of IBO's analysis is a comparison of sales prices of residences close to shelters with prices of residences located further away. The Department of Homeless Services (DHS) supplied IBO with a list of 530 facilities the city currently uses to provide shelter to homeless families and individuals. The data on the list includes name, address, a measure of its capacity, and type of shelter. Unfortunately, DHS was unable to provide information on when each facility on its list began operation, which prevented us from comparing sales prices of residences before and after the opening of nearby shelters. (See below for discussion of a New York University Furman Center study that used this methodology to look at the impact of supportive housing on surrounding neighborhoods.) However, IBO's comparison of sales prices of residential properties located close to shelters with prices of properties located further away still required us to verify that each shelter used in the study had been in operation long enough that any potential impact on prices would have already occurred. We used the Department of City Planning's Facilities Database, information on city contracts with agencies running shelters obtained through the city's Financial Management System, and a 2010 DHS list of facilities housing the homeless to identify shelters that had been in operation since at least 2010. Because these sources did not allow us to verify the operation of commercial hotels during the 2010-2018 period, we have focused on the impact of congregate shelters built or designed for the express purpose of housing the homeless.

Scope of Analysis. In determining the scope of IBO's empirical work, we limited the dataset in a number of other ways. Because non-congregate shelters were less likely to be visible and therefore have less of an on-street presence in their neighborhoods, the analysis was limited to sales near congregate shelters. The analysis was also limited to sales near shelters in Manhattan. Because the analysis

Manhattan Congregate Shelters in Operation Since 2010

	Number of	Capacity			
Type of Shelters	Shelters	Median	Mean		
Adults Only	22	90	146		
Families with Children	17	173	236		
SOURCES: Department of Homeless Services; Facilities Data, Department of City Planning; Contracts data, Financial Management System NOTE: Only includes shelters IBO could verify as being in operation since 2010. Data for another 40 shelters could not be verified and were therefore omitted from the analysis.					

was limited to Manhattan shelters, it cannot be assumed that our estimates of the impacts hold for other parts of New York City. The Manhattan housing market differs from other boroughs in that only a small portion of sales (7.6 percent) involved one-, two-, and three-family homes. Moreover, with few exceptions, the population densities in Manhattan are greater than in neighborhoods in the other boroughs. As a result, there are more residential sales to observe, which make estimates of price effects more robust. Finally, given the larger average size of residential buildings in Manhattan, the scale of buildings with congregate shelters is less likely to be out of context with neighborhoods in Manhattan than elsewhere.

The data set was limited to residential sales within a radius of 1.000 feet of one or more congregate shelters, a distance approximately equal to three to four north-south blocks in Manhattan's grid. The aim of IBO's econometric analysis is to test the hypothesis that a residence close to a shelter would sell at a lower price than a residence further away, all other factors influencing price being equal. Other factors include size of the apartment; year of sale; neighborhood; and the number, type, and capacity of nearby shelters. Locations within 1,000 feet of a shelter are likely to have comparable neighborhood amenities, such as availability of public transportation, shopping, and parks. Locations greater than 1,000 feet from a shelter would likely have different neighborhood characteristics. Comparing the sales prices of same-sized condos sold in the same year, where one condo is located on the same block as a shelter and the other located 10 blocks away from that same (or any other) shelter would be misleading because the neighborhood effects could be substantially different, particularly in densely populated neighborhoods.

Descriptive Statistics. Of the 79 congregate shelters currently located in Manhattan, IBO was able to verify that 39 of the shelters—22 for adults only and 17 for families with children—have been in operation since 2010. These

Number of Residential Sales Within 1,000 Feet of Manhattan Congregate Shelters, 2010 through 2018							
			Proximity to Nearest Shelter				
	Number of		500 Feet	500 to	600 to	700 to	Sales Within 1,000 Feet of
Type of Shelter	Sales	Percent	or Less	600 Feet	700 Feet	1,000 Feet	More Than One Shelter
Adults Only	3,377	54.1%	1,013	533	183	1,648	585
Families with Children	2,860	45.9%	754	357	342	1,407	393
TOTAL	6,237	100.0%	1,767	890	525	3,055	978

SOURCES: Department of Homeless Services; Department of Finance

NOTE: Limited to congregate shelters built or designed for the express purpose of housing the homeless.

New York City Independent Budget Office

39 shelters comprise the sample for IBO's estimates of the impact of congregate shelters on prices of nearby residences. The capacity of the shelters varied greatly, from 25 to 851 people, with median and mean capacities greater for family shelters than for adult shelters.

From 2010 through 2018 there were 6,237 sales of Manhattan residences located within 1,000 feet of one or more of the 39 congregate shelters in IBO's sample. Just over half the properties sold (51.0 percent) were located within 700 feet of one or more shelters, with 28.3 percent of all properties located within 500 feet—shares that are about the same for both adult only and family shelters. Nearly one-sixth of all sales (15.7 percent) were located within 1,000 feet of more than one shelter.

The majority of sales in our sample—82.3 percent—were of condominiums in elevator buildings. Other condominiums (walk-ups and condos with less than four apartments) accounted for 10.0 percent of the sales, and one-, two-, and three-family homes accounted for 7.6 percent of sales. These shares do not differ appreciably between sales near adult shelters and sales near family shelters.

For both types of shelters taken together the real (inflationadjusted) median price of residences located 500 feet to 1,000 feet from the nearest shelter exceeds the median for residences located within 500 feet.¹ For shelters serving families with children, the median price of residences located within 500 feet is roughly the same as the median for similar residences located 500 feet to 1,000 feet away; the median price of the properties located 500 feet to 1,000 feet from family shelters is roughly \$15,000 (1.1 percent) *l*ess than the median for properties located closer to the facilities. In contrast, the median price of residential properties located further from adult shelters is about \$55,000 (5.5 percent) *greater* than the median for properties closer in.

Econometric Analysis. Based on these sales, IBO developed an econometric model to estimate sales prices as a function of two sets of independent (explanatory) variables. The first set includes variables unrelated to shelter presence, including the size of the residence sold (measured in gross square feet), the type of residence (for example, whether the residence is in a walk-up or elevator building), and the year of sale. Also included were variables identifying the census tract where each sale occurs and demographic characteristics of the tracts, such as residents' median income; share of population with incomes below the poverty level; home ownership; and shares of residents who are black, Latino, or white.

The second set of variables measures or otherwise captures proximity of a sold residence to shelters. IBO considered and econometrically tested many possible

Residential Sales Prices by Distance From Nearest Shelter, 2010 through 2018 December 2018 dollars					
Type of Shelter	Distance From Shelter	10 th Percentile	Median	90 th Percentile	
All Chaltara	Within 500 feet	\$451,874	\$1,071,991	\$3,395,351	
All Shellers	500 feet to 1,000 feet	\$478,787	\$1,206,215	\$4,286,541	
	Within 500 feet	\$478,692	\$1,000,092	\$3,595,089	
Aduits Only	500 feet to 1,000 feet	\$493,857	\$1,055,158	\$3,736,902	
Families with Children	Within 500 feet	\$425,811	\$1,407,400	\$3,309,303	
	500 feet to 1,000 feet	\$458,569	\$1,392,186	\$4,795,237	

SOURCES: Department of Homeless Services; Department of Finance

NOTE: Housing price deflator is the housing component of the Bureau of Labor Statistics' consumer price index for the New York-Northern New Jersey region. New York City Independent Budget Office variables: various distances from the nearest shelter; the nearest shelter's population (i.e., families with children or adults); whether or not the residence is on the same block as a shelter; whether the residence is near more than one shelter; and the capacity of the nearest shelter. The DHS data reports a measure of shelter capacity, though it is inconsistent across shelters. For some shelters, the measure of capacity is the number of beds, while for others the measure is the number of units (rooms or apartments) holding families. To construct a consistent measure, we multiplied the number of a shelter's units by an average population per unit obtained from daily DHS reports on the shelter population citywide.

IBO used a multivariate regression with logarithms of the sales price and the various explanatory variables to estimate the impact of each of the measures of proximity on the sales prices of residential properties. Using log values of both the explanatory variables and sales prices as the dependent variable yields estimates of the impact of being near a shelter in percentage terms. A stepwise regression method was used to select the explanatory variables of the final model.²

Estimated Impacts

The table on this page presents the estimated impacts relating to shelter proximity from the regression that best explained the variation in sales prices in the sample and generated statistically significant coefficients with the expected positive or negative signs.³

Estimated coefficients on explanatory variables not related to shelters (and not reported here) were for the most part statistically significant at greater than a 99 percent level of confidence. Property size and the type of building explained more of the variation in sales prices than other variables of this type. Most identifiers of the year of sale and census tract were significant. However, variables measuring census tract demographic features were either insignificant or had estimated coefficients close to zero, indicating no discernable impact on housing prices.

Among variables specifically related to shelters, IBO tested many distances and found that the greatest effect on price came from including a binary variable indicating whether the distance between the closet shelter and a residence was 500 feet or less. We estimate that residences located within 500 feet of a shelter sell for less than residences that are between 500 feet and 1,000 feet of that shelter: 7.1 percent less if the nearest shelter is for adults and

Impacts of Homeless Shelters on Residential Property Values		
Sales of Manhattan residences within shelter, 2010-2018 6,237 Observations	1,000 feet of a	a congregate
Dependent Variable: Log of Sales Price	Coefficient Estimate	Statistical Significance
Within 500 Feet of an Adult Shelter	-7.1%	99.9%
Within 500 Feet of a Families With Children Shelter	-6.4%	99.8%
Within 1,000 Feet of More Than One Shelter	-17.4%	99.9%
NOTE: R-Squared=82.05 New York	k City Independe	nt Budget Office

6.4 percent less if the shelter is for families with children. These estimates are statistically significant at a greater than 99 percent level of confidence.

Regressions using a within-600 feet binary variable yielded estimates that also were statistically significant, but the negative effects on sales prices were smaller: a 4.5 percent reduction in price if the residence is within 600 feet of an adult shelter and a 3.9 percent reduction if near a family shelter. Estimates of negative price effects were even smaller and not significant when we tested distances beyond 600 feet, indicating that the impact on prices diminishes as the distance of the sale from the nearest shelter increases. While it would be reasonable to expect residences located closer than 400 feet from shelters might sell for substantially less than those located further away, there were not enough sales in our data set at that distance to provide meaningful estimates of these effects.

The shelter-related variable that has the largest statistically significant impact on sales prices is a binary variable that indicates whether there was more than one congregate shelter within 1,000 feet of the sale location. The impact of being located within 1,000 feet of more than one shelter is estimated to be a 17.4 percent decrease in the sales price compared with residences located within 1,000 feet of only one shelter, all other factors (size and quality of the residence, neighborhood, year of sale, etc.) being equal.

In our sample of 6,237 residential sales, a small number—432, or 6.9 percent—were sales of properties located both within 500 feet of a shelter and within 1,000 feet of multiple shelters. The estimated impacts on the sales prices of these residences are the sum of the two impacts. For example, for residences located within 500 feet of an adult shelter and within 1,000 feet of at least one other shelter, the estimated price impact is -24.5 percent (the sum of -17.4 percent and -7.1 percent). The price effect for residences located near multiple shelters and within 500 feet of a shelter for families with children was estimated to be -23.8 percent.

IBO tested a binary variable that indicated whether the sale occurred on the same block as a shelter, but the estimated coefficients, some positive and some negative, were statistically insignificant. The estimated coefficient on the shelter capacity variable was statistically significant but virtually zero, indicating only a trivial effect on sales prices.

Comparing Estimates

IBO's findings that close proximity to congregate homeless shelters negatively effect the price of housing differ from the results of the NYU Furman Center's 2008 analysis of the impact on housing prices of proximity to supportive housing facilities, The Impact of Supportive Housing on Surrounding Neighborhoods. Supportive housing is a type of long-term affordable housing that provides onsite services to people who need assistance to deal with issues such as substance abuse, mental illness, being HIV positive, or having recently aged out of foster care. Using 30 years of New York City residential property sales data and information showing when supportive housing facilities opened, Furman Center researchers examined sales prices of properties near supportive housing facilities over time, from years before facilities opened through years after.

The Furman Center found that proximity to supportive housing did not have a negative impact on housing prices

over time. For properties within 500 feet of supportive housing facilities, there was a slight increase in sales prices during the development or construction of facilities. Price increases actually accelerated after the facilities opened, with the prices of residential properties within 500 feet of the supportive housing rising more rapidly than the prices in a comparison group 500 feet to 1,000 feet further away. Similarly, prices of residential properties located 500 feet to 1,000 feet from a new supportive housing facility rose faster than the prices of nearby properties located more than 1,000 feet from the supportive housing.

Differences between homeless shelters and supportive housing likely account for much of the difference in the findings. Homeless facilities provide temporary shelter and few support services to residents. During the period IBO examined, many shelters were closed during the day, leaving residents with no place to stay other than in the streets. In contrast, supportive housing is not for transitory residency. Tenants sign leases or make other long-term commitments to live in supportive housing and residents have an array of on-site services available to them. With the perception that supportive housing residents are less likely to be associated with crime and to engage in disturbing behavior on the street, proximity to a supportive housing facility is not considered a liability by property owners in the same way that proximity to homeless shelters is considered a liability.

Prepared by Yaw Owusu-Ansah

Endnotes

¹Sales prices of residences were adjusted for inflation to December 2018 values using the housing component of the Bureau of Labor Statistics' consumer price index for the New York-Northern New Jersey region. ²Stepwise regression is a reiterative modelling method that tests each potential explanatory variable by itself and in combination with other variables for a statistically significant contribution to the predictive power of the model. The repeated testing of different permutations of variables leads to a model that cannot be significantly improved by the addition of any other potential variable or the exclusion of any of the selected variables.

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³The coefficient of an explanatory variable measures the variable's association with or impact on the dependent variable. When a coefficient is "statistically significant," the estimated positive or negative relationship between variables is certain enough, according to probability theory, to have occurred not merely by chance.

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