bright MLS

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On-MLS Study

Measuring the Benefits of an Open and Transparent Housing Marketplace

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Summary

Information that is transparent and available to all consumers is essential for ensuring equitable access to homeownership. The multiple listing service (MLS) fills that role, as the source for accurate, open data that supports an efficient housing marketplace. The MLS is a cooperative enterprise where real estate agents and brokers share information about listings, connect buyers and sellers, and facilitate home sales transactions. The vast majority of homes sold are listed on the MLS. Bright MLS serves most of the Mid-Atlantic region, covering six states and the District of Columbia. In 2022, more than 85% of all homes sold in the region were listed and marketed on the MLS.

Benefits to Buyers

The MLS benefits both buyers and sellers. When homes are listed on the MLS, prospective buyers are able to view and tour nearly all homes available for sale. They do not need to contact individual brokers to see different homes—the MLS makes the homebuying process more convenient for buyers. The MLS also plays a key role in advancing fair housing by ensuring all prospective buyers can access full information about homes available for sale, as opposed to other systems that limit information about listings to certain networks of buyers.

Benefits to Sellers

There are also significant benefits for sellers who use an agent to list their home on the MLS. The MLS makes it possible for sellers to have the greatest number of homebuyers see, tour, and potentially make an offer on their home. Brokers and agents enter accurate, detailed information about homes listed for sale, which helps market a seller's property. The MLS provides a subset of its rich data to consumer real estate sites such as Zillow, Realtor.com, and brokerage websites, which receive millions of views each month. By listing their home on the MLS, sellers can receive the most competitive offer because their home is exposed to the greatest possible number of prospective buyers.

Bright MLS collaborated with Drexel University to analyze the role the MLS plays in the home sale transaction, and specifically to measure the seller benefits associated with listing and marketing a home on the MLS. This is the largest study to date comparing on- and off-MLS home sales, analyzing more than 1 million transactions that took place between 2019 and the first quarter of 2023. The study compares homes sold on-MLS to similar homes sold off-MLS (e.g., for sale by owners, office exclusives/pocket listings[1], etc.) The research results corroborate findings from prior studies[2], demonstrating that the MLS provides significant benefits to consumers.

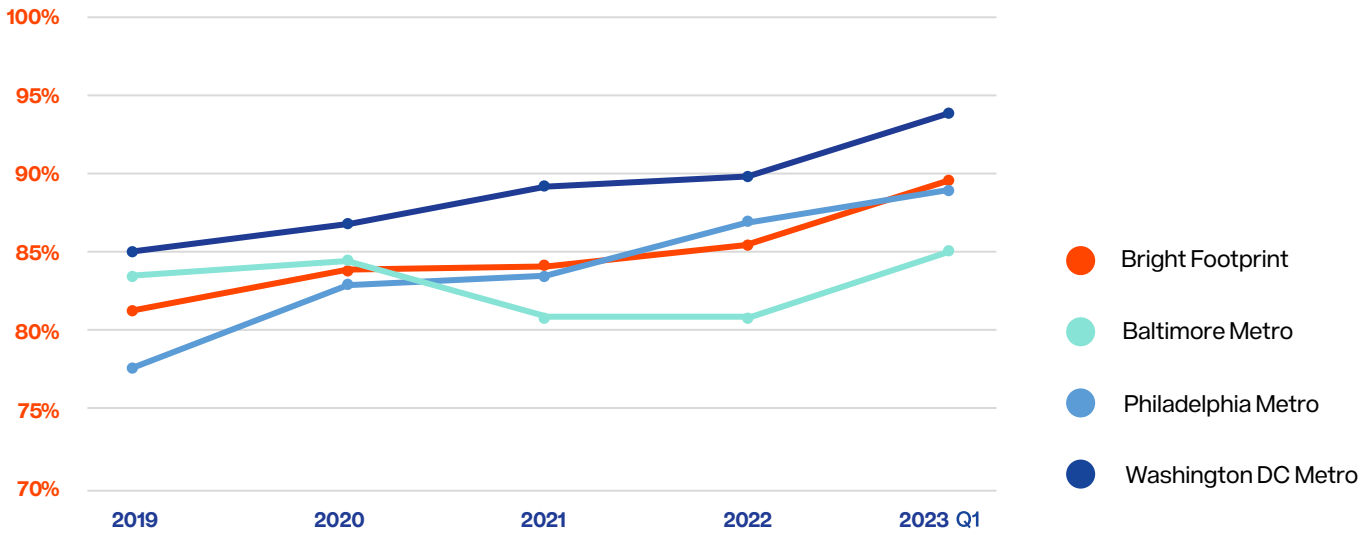
[1] An office exclusive or pocket listing refers to listing agreements in which the property is only marketed within the broker's firm and not publicly advertised for sell elsewhere, including on the MLS.

[2] See Gillen, Kevin C., Ken Schneider, and Lisa Sturtevant. 2022. Bright MLS On-MLS Study: Measuring the Benefits of an Open Marketplace, Northern Nevada Regional MLS Sales Price Impact Study. 2023. Naniik, LLC.

Key Findings

Figure 1. Nearly All Sellers List Their Home on the MLS

Share of on-MLS home sales

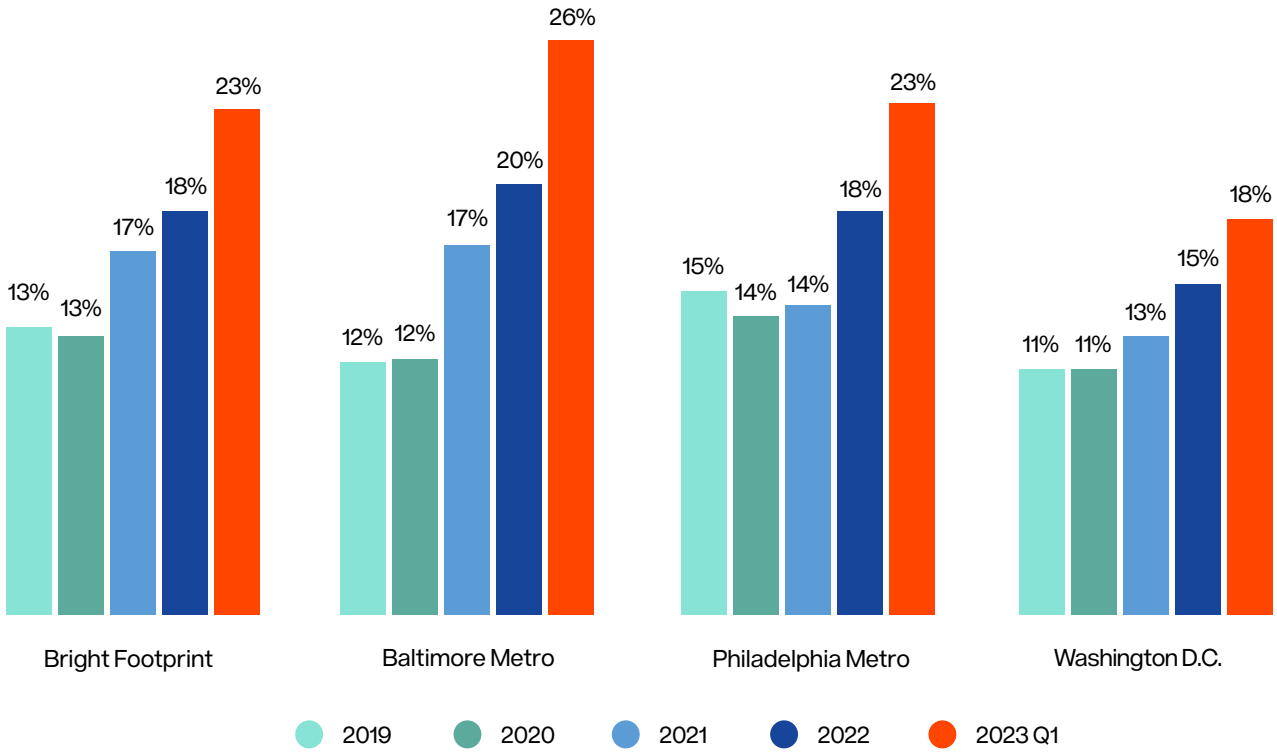


Listing a home on the MLS has become even more important in the post-pandemic housing market. Nearly all sellers list their homes on the MLS. Between 2019 and the first quarter of 2023, 84.0% of all homes sold were marketed and sold on the MLS. The on-MLS share dipped slightly during the fast-paced pandemic market; however, as the housing market has cooled in response to higher mortgage rates, more sellers are listing their home on the MLS. In 2022, 85.5% of homes that were sold in the Bright footprint were listed on the MLS. In the first quarter of 2023, early indications show the on-MLS share increased to nearly 90%.

Sellers in Bright's three major markets were all very likely to list their home on the MLS. Between 2019 and 2023, over 83% of homes sold in the Philadelphia and Baltimore metro areas were listed on the MLS. The on-MLS share was 88.0% in the Washington, D.C., area market over that same time period.

Figure 2. Homes Sold on the MLS Had Higher Prices Than Homes Sold Off-MLS

Price difference when sold on-MLS



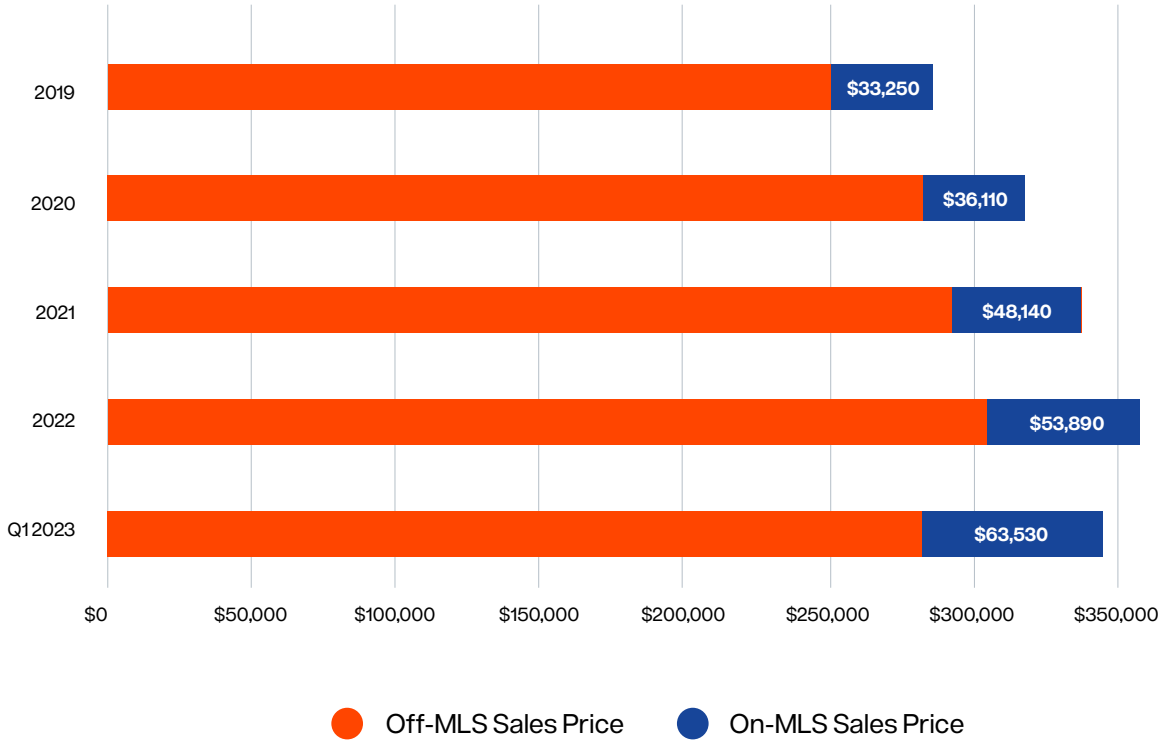
Homes sell for more when they are listed on the MLS. This research examined comparable homes sold on- and off-MLS and found that homes listed and marketed on the MLS consistently bring sellers a higher price. Between 2019 and the first quarter of 2023, homes sold on the MLS sold for 17.5% more than comparable homes sold without being listed on the MLS.

Furthermore, the on-MLS price premium has increased in recent years. In 2019, on-MLS sales commanded a 13.3% higher price, on average. By 2022, the typical on-MLS sale price was 18.3% higher, and data from the first quarter of 2023 suggests the on-MLS price premium is even more pronounced this year. *

* On-MLS increase based on the 2023 average sale price of homes marketed through Bright MLS compared to other similar homes in the same area. Every home is unique and the housing market is subject to fluctuation. Results cannot be guaranteed.

Figure 3. There is a Significant Financial Benefit to Sellers Who Sell Using the MLS

Median sales price: Bright Footprint



There is a significant financial benefit to sellers who market their home on the MLS. Homes that are listed on the MLS—as opposed to homes sold privately by the seller, offered as a broker's office exclusive, or otherwise sold without listing on the MLS—reach the greatest number of prospective homebuyers and bring the seller the most competitive offer. In 2022, this research indicates that listing a home on the MLS brought the typical home seller an additional $53,890 compared to what they would have received if they had sold their home outside of the MLS.

Conclusion

In this evolving housing market, where new technologies offer the promise of transforming the real estate industry, this research demonstrates that the most important step buyers and sellers can take is to work with a real estate professional and use the MLS to list, market, and view homes.

The MLS provides the most accurate and transparent property information to consumers, ensuring that all prospective buyers have access to the same opportunities. Sellers forgo significant financial benefits when they do not take advantage of the MLS's ability to bring together the greatest number of buyers and sellers, which creates an efficient marketplace for all consumers and leads to home prices that reflect true market conditions.

About Bright MLS

Bright's industry-leading MLS supports more than 100,000 real estate professionals who serve millions of homebuyers and sellers across six states and the District of Columbia. In 2022 alone, Bright MLS helped facilitate more than $121 billion in real estate transactions, helping more than a quarter of a million consumers find a place to call home.

Without the MLS, fair housing falls short.

The MLS exists to ensure an open, clear, and competitive housing marketplace that gives everyone the ability to find their place to call home.

Learn more about the value of the MLS at **brightmls.com/open**.

Methodology

Data

This research analyzed more than 1 million home sales transactions taking place in five states[3] and the District of Columbia between 2019 and the first quarter of 2023. This analysis makes use of public records data, which are local government data that include information about all home sales transactions in the local jurisdiction. The transactions in the public records data are compared to Bright MLS listing data, the comprehensive database of properties listed for sale by participating agents and brokers in the region.

A critical element of the research was to identify true "arm's-length" residential resale home sales transactions in order to estimate outcomes for a typical seller in the market. An arm's-length transaction is one in which the buyer and seller act independently and do not have any relationship to each other. As a result, each party consummates the transaction only if they perceive it to be in their own self-interest.

There is no specific identifier of an arm's-length transaction in either the public records or MLS data; however, the data used in this study include a range of information that was used to define traditional arm's-length transactions as carefully as possible. Several other types of homes were excluded from this analysis to narrow the focus to traditional home sales and to make it possible to compare on- and off-MLS transactions.

The following types of transactions were excluded from this analysis:

- Sale price less than $45,000
- Total living area less than 500 square feet
- Short sales, nominal sales, foreclosures, bank sales, government sales, sheriff's sales or auctions, and intra-family transfers
- Multi-parcel sales, new construction, co-op listings, and corporate buyers
- "Flips," which were defined as homes purchased by investors and quickly (within 12 months) turned around and resold

[3] Portions of New Jersey, Pennsylvania, and Virginia, along with the entire states of Delaware and Maryland, and the District of Columbia were included in this analysis. See www.brightmls.com/our-markets for Bright's coverage area. Counties in West Virginia were excluded from this analysis due to a lack of public records data.

In addition to these filters, outliers were removed from the dataset. Properties in the top and bottom 1.5% of transactions based on the home's total living area, sale price, and price per square foot were excluded for this analysis. The exclusion of outliers in this manner is common in housing economic studies to account for data errors as well as very unusual properties that do not reflect typical transactions.

The final dataset included 1,003,263 transactions taking place between January 2019 and March 2023 across the Bright footprint. A total of 846,565 of these sales were transacted on-MLS, while 156,698 were off-MLS transactions.

Model

The study uses a hedonic regression model to isolate the impacts of selling a home on-MLS versus off-MLS. Hedonic regression is a well-established approach for analyzing housing market outcomes.[4] The basic intuition of a hedonic regression—as it applies to housing—is that the total value of a home is the sum of its individual characteristics. This includes its physical characteristics (e.g. size, condition, design), locational characteristics (e.g. proximity to amenities such as parks, restaurants, and dry cleaners; neighborhood quality of life; amount of greenspace), and fiscal characteristics of its city or town (e.g. school quality, frequency of trash collection, quality of roads and parks, and taxes, etc.). A hedonic regression explicitly accounts for differences in the attributes of individual properties and can isolate and then measure the dollar value that a particular attribute has on the home's value.

This study utilizes a hedonic regression to control for and isolate a range of property and location attributes that impact a home's sale price in order to isolate the price effect of a home selling on- versus off-MLS.

$$Y_i = \beta_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \cdots + \beta_p X_{in+\epsilon_i}$$

Where:

Y_i = the natural log of the ith property's sale price

i = indexes each observation in the sample: i=1, 2, 3, ...N

p = indexes total number of control variables in the regression

X_{ij} = the characteristic of the ith property with the jth characteristic; e.g., square footage

X_{xp} = 0 if the transaction is off-MLS
= 1 if the transaction is on-MLS

β_j = the estimated parameter coefficient on the jth characteristic

ϵ_i ~i.i.d (0,1)

[4] Sopranzetti, B.J. (2015). Hedonic Regression Models. In: Lee, CF., Lee, J. (eds) Handbook of Financial Econometrics and Statistics. Springer, New York, NY. https://doi.org/10.1007/978-1-4614-7750-1_78

The value of β_p gives the value of a sale transacting on-MLS versus off-MLS, after controlling for all other factors that determine a property's sale price.

Models were estimated for the Bright MLS footprint overall. Separate models were also run for each of the three major metropolitan areas in the Bright MLS footprint (Philadelphia, Baltimore, and Washington, D.C.). Lastly, the models were estimated by year to examine how the value of listing a home on-MLS versus selling off-MLS changed over time, especially pre- and post-COVID.

The regressions were estimated using an Iterative Weighted Least Squares (IWLS) approach. While Ordinary Least Squares (OLS) is the default estimation method for regression analysis, this method implicitly assumes that all observations should be given equal weight in the computation. This is generally an erroneous assumption in housing, where there is a lot of variation across homes and there are transactions that are relatively unique. The IWLS estimation accounts for the variability in home sales data, giving less weight to very unique sales and more weight to more typical sales.

Variables

The dependent variable is the home's sale price, which is the close price reported in the MLS if the property is an on-MLS sale, and is the price recorded by each county or city in the title transfer record if it is an off-MLS transaction. The dependent variable is logged so that the models' parameter estimates can be interpreted as percentages.

A whole range of factors were included as explanatory variables in the model, including both property and neighborhood characteristics. As a result of restrictions and inconsistencies in the public records data, there were limits on the explanatory variables that could be included in the model. In particular, information on the number of bedrooms and bathrooms, which is consistently available for homes listed on the MLS, is not routinely collected or made available by local governments in the public records data. By contrast, total living area (square feet) is available more consistently in both the MLS and public records data.

Despite these limitations, the models include a range of explanatory variables that account for both property and neighborhood characteristics, which allowed for reliable measurement of the impact on a home's sale price when it is listed on the MLS as opposed to being sold off-MLS.

Figure 4. Model Variables

Property and location characteristics were included to isolate the impact of the MLS on home prices.

Dependent Variable	Sale price (in dollars), logged
Explanatory/Independent Variables	**Property Characteristics** • Property type (single-family or condominium) • Distance to the nearest MSA's central business district **Neighborhood Characteristics (Census tract data)** • Homeownership rate • Percent multifamily units • Percent of households with 2+ people • Percent married-couple households • Percent of adults age 25+ with a bachelor's degree or higher • Percent of population age 65+ • Median household income (000s of $s)

Results

The vast majority of home sellers list their home with a real estate agent or broker using the MLS. Over the period of 2019 through Q1-2023, 84.0% of all homes sold across the Bright MLS footprint were listed on the MLS. Just 16% were sold outside of the MLS as a for-sale-by-owner, as an office exclusive or pocket listing, through an agent not using the MLS, or via some other off-MLS transaction.

Sellers rely on the MLS even when it is a strong seller's market. In fact, the share of homes listed on the MLS generally increased during the pandemic, when inventory hit record lows and home prices surged. In 2019, 81.0% of all homes sold in the Bright MLS footprint were listed on the MLS. The on-MLS share increased to 84.0% in 2020 and to 84.1% in 2021. As the COVID-19 pandemic receded and the housing market cooled, sellers have been even more likely to use the MLS. The share of homes listed on the MLS was 85.5% in 2022. In the first quarter of 2023, early indications show 89.2% of sales were on-MLS transactions across the Bright footprint.

Figure 5. Share of On-MLS Home Sales

Year	Bright Footprint	Philadelphia Metro	Baltimore Metro	Washington D.C. Metro
2019	81.0%	77.8%	83.5%	85.3%
2020	84.0%	83.0%	84.9%	87.2%
2021	84.1%	83.7%	81.7%	88.6%
2022	85.5%	86.7%	81.9%	89.6%
2023 Q1	89.2%	88.8%	85.2%	93.5%
2019-Q1 2023	84.0%	83.3%	83.1%	88.0%

Across the Mid-Atlantic's three major metro areas, sellers are much more likely to list their home for sale on the MLS than to sell off-MLS. In 2022, the share of on-MLS sales ranged from 81.9% in the Baltimore metro area to 89.6% in the Washington, D.C., metro area. The Baltimore metro area generally has had a slightly larger share of off-MLS listings, which could reflect sales associated with significant community redevelopment activities in the City of Baltimore.

After accounting for property and neighborhood characteristics, regression results show there is a significant sale price benefit to sellers when they sell their home on-MLS. Across the Bright footprint, homes that were sold between 2019 and the first quarter of 2023 and were listed and marketed on the MLS sold for 17.5% more than comparable properties sold off-MLS (e.g. as a for-sale-by-owner, office exclusive/pocket listing, etc.).

Regression results are presented below for the Bright footprint. Results for the Philadelphia metro, Baltimore metro, and Washington, D.C, metro areas are included in the Appendix.

Overall, the adjusted R-square values indicate that the models are well-specified, explaining a significant share of the variation in home prices over the time period and across metro areas. The signs on the cœfficients of the explanatory variables are generally as expected. The negative Condo cœfficient signifies that condominium prices tend to be lower than single-family prices, holding other factors constant. The TotalLivingArea cœfficient is positive, indicating that larger homes sell for a higher price. Newer homes also have higher prices than older homes, on average.

Most neighborhood characteristics also generally conform to expectations. Homes closer to the central business district have lower prices than homes farther out.[5] Homes located in Census tracts with higher median household incomes and a higher share of residents with a bachelor's degree or higher sell for a higher price. Homes located in neighborhoods with a higher share of older residents (age 65+) also tend to sell for higher prices. In the three metro areas, neighborhoods with a greater share of married couple households are associated with higher home prices.

The model results suggest that a greater share of owner-occupied homes in a particular Census tract is associated with a lower sale price, while a higher multifamily share indicates a higher home sale price (except in the Washington, D.C., metro area), holding other factors constant. This result could be driven by transactions in urban areas where there are more amenities that drive home prices higher, but also more multifamily buildings. Due to data limitations, it was not possible to include amenities as explanatory variables in the models.

The price impact of listing a home on the MLS is obtained by exponentiating the On_MLS coefficient. Overall, across the Bright footprint, homes that were listed on-MLS sold for 17.5% more than those that were not over the period of 2019 through Q1 2023. The on-MLS price premium generally increases over time. In 2019, before the pandemic and during a more typical housing market, the on-MLS premium was 13.3%. By 2022, the impact of listing a home on the MLS versus selling it off-MLS had increased to 18.3%. The findings suggest that even during a decidedly seller's market, where supply was at historically low levels, listing and marketing a home on the MLS was essential for sellers to get the best price for their home.

[5] This would change if the dependent variable had been measured as price per square foot.

Figure 6. Weighted Least Squares Results: Bright Footprint

	All Years	2019	2020	2021	2022	Q1 2023
No. of observations	1,003,263	219,873	238,127	269,854	209,691	65,718
R-squared	0.6475	0.6740	0.6709	0.6854	0.7008	0.7058
Adj R-squared	0.6475	0.6740	0.6709	0.6854	0.7007	0.7057
On_MLS_PCT_Premium	**17.5%**	**13.3%**	**12.9%**	**16.6%**	**18.3%**	**23.1%**
Intercept	11.5119	11.4397	11.5173	11.5607	11.6012	11.5461
On_MLS	0.1615	0.1250	0.1211	0.1537	0.1678	0.2077
Condo	-0.2503	-0.2315	-0.2358	-0.2632	-0.2723	-0.2734
TotalLivingArea (00s of sqft)	0.0293	0.0283	0.0281	0.0294	0.0302	0.0296
Dist_CBD	-0.0016	-0.0017	-0.0016	-0.0015	-0.0016	-0.0014
AgeLT2yrs	0.0995	0.1264	0.0986	0.0907	0.0974	0.1112
Age5-10yrs	-0.0566	-0.0731	-0.0649	-0.0475	-0.0510	-0.0459
Age10-25yrs	-0.1142	-0.1070	-0.1064	-0.0962	-0.1058	-0.1054
Age25-50yrs	-0.1314	-0.1351	-0.1307	-0.1192	-0.1349	-0.1288
Age50-75yrs	-0.1572	-0.1735	-0.1653	-0.1464	-0.1714	-0.1725
AgeGE75yrs	-0.2503	-0.2361	-0.2395	-0.2611	-0.3056	-0.3042
Pct_Owner	-0.0256	-0.0936	-0.0493	-0.0103	0.0227	0.0548
Pct_Multifamily	0.3888	0.3800	0.3750	0.3853	0.3810	0.4125
Pct_2pl_People	0.0968	0.1221	0.1032	0.0700	0.0684	0.0750
Pct_Married	-0.0177	-0.0500	-0.0635	0.0357	0.1021	0.1175
Pct_Bachpl	0.6158	0.6513	0.6298	0.5973	0.5879	0.6079
Pct_65pl	0.3276	0.4158	0.4172	0.3174	0.2831	0.2796
Median_HH_Income($ 000s)	0.00351	0.00365	0.00353	0.00331	0.00309	0.00304

Results for the three major metro areas in the Bright footprint are generally consistent with the overall findings. (Metro area results in the Appendix.) In the Philadelphia metro area, after controlling for property and neighborhood characteristics, the effect of the MLS on sale price was 15.5% for transactions taking place between 2019 and the first quarter of 2023. The on-MLS premium generally rose over time, from 11.3% in 2019 and 11.2% in 2020 to 15.1% in 2022 and 18.0% in the first quarter of 2023.[6]

[6] The results for the first quarter of 2023 should be treated as directional and not a final estimate of the on-MLS premium for 2023 as a whole.

The effects of listing a home on the MLS were higher in the Baltimore and Washington, D.C., metro areas. Over the period of 2019 through 2023, homes sold on-MLS commanded a 15.8% higher price in the Baltimore area, on average, while the average price premium was 17.0% for homes sold in the Washington, D.C., metro area. In both regions, the benefits to sellers associated with listing their home on the MLS increased during the pandemic, and there appear to be even stronger effects in the post-pandemic housing market, based on 2022 and early 2023 results.

The financial benefit to sellers is significant. Listing on the MLS showcases a home to more prospective buyers, creating a more efficient marketplace and resulting in a price that reflect true demand and supply in the market. Sellers do much better when their home is listed on the MLS, receiving a significant financial benefit from having access to more potential buyers.

In 2022, the typical seller who sold a home on-MLS in the Bright footprint made nearly $54,000 more than a seller who sold a comparable home off-MLS. The financial benefit to sellers has increased over time, as both the on-MLS premium and overall home prices have increased. Significant financial benefits to sellers were realized across the three metro areas in the Bright footprint. In 2022, sellers in the Philadelphia metro area made $53,110 more when they listed their home on the MLS. Sellers in the Baltimore metro area received a sale price that was $52,480 higher than what comparable off-MLS sellers received, and the financial benefit to sellers in the Washington, D.C., metro area in 2022 was $61,170.

Figure 7. On-MLS Financial Benefit to Seller

Year	Bright Footprint	Philadelphia Metro	Baltimore Metro	Washington D.C. Metro
2019	$33,250	$25,130	$37,860	$42,450
2020	$36,110	$28,590	$38,370	$45,550
2021	$48,140	$47,760	$40,540	$51,400
2022	$53,890	$53,110	$52,480	$61,170
2023 Q1	$63,530	$65,390	$59,290	$73,640

Conclusion

The housing market continues to evolve, but the desire for homeownership is unwavering. Buying and selling a home is the biggest financial decision most people will make in their lifetime. The transaction is more than financial, however. Homeownership is an essential part of the American Dream, and becoming a homeowner is about finding a place to make memories, nurture aspirations, grow a family, and build community. Having a transparent and efficient housing market, where all consumers can participate, is at the heart of supporting the American Dream of homeownership.

The MLS provides a platform for ensuring equitable access to information and brings the widest range of sellers and buyers together to create a fair and efficient housing marketplace. Homebuyers benefit by knowing there are no properties “hidden” from them as they search for a home and that everyone has access to the same information. Sellers benefit because the MLS allows their property to be viewed by the greatest number of prospective buyers, bringing them the strongest offer.

Appendix

Figure A-1. Weighted Least Squares Regression Results

Philadelphia Metro Area

	All Years	2019	2020	2021	2022	Q1 2023
No. of observations	309,931	67,140	71,918	83,124	67,373	20,376
R-squared	0.6686	0.7058	0.7070	0.7144	0.7329	0.7270
Adj R-squared	0.6686	0.7057	0.7069	0.7143	0.7328	0.7268
On_MLS_PCT_Premium	**15.5%**	**11.3%**	**11.2%**	**12.7%**	**15.1%**	**18.0%**
Intercept	11.7407	11.6658	11.7413	11.7714	11.7708	11.7241
On_MLS	0.1443	0.1072	0.1062	0.1195	0.1407	0.1652
Condo	-0.2354	-0.2088	-0.2422	-0.2627	-0.2577	-0.2582
TotalLivingArea (00s of sqft)	0.0337	0.0328	0.0325	0.0338	0.0347	0.0341
Dist_CBD	-0.0002	0.0004	0.0002	-0.0007	-0.0008	0.0005
AgeLT2yrs	0.0884	0.1326	0.1095	0.0449	0.0920	0.1172
Age5-10yrs	-0.0501	-0.0976	-0.0524	-0.0330	-0.0522	-0.0336
Age10-25yrs	-0.1436	-0.1532	-0.1284	-0.1120	-0.1208	-0.1013
Age25-50yrs	-0.2005	-0.2206	-0.1905	-0.1782	-0.1828	-0.1638
Age50-75yrs	-0.1461	-0.1698	-0.1364	-0.1204	-0.1507	-0.1455
AgeGE75yrs	-0.2368	-0.2321	-0.2115	-0.2282	-0.2776	-0.2688
Pct_Owner	-0.0503	-0.1363	-0.0835	-0.0065	0.0404	0.0895
Pct_Multifamily	0.0068	-0.0323	-0.0503	0.0218	0.0999	0.1607
Pct_2pl_People	-0.3521	-0.3373	-0.3669	-0.3633	-0.3109	-0.3488
Pct_Married	0.3280	0.3279	0.2954	0.3583	0.4165	0.4231
Pct_Bachpl	0.9901	0.9999	1.0180	0.9451	0.8904	0.9054
Pct_65pl	0.1861	0.2584	0.2144	0.1829	0.1668	0.1248
Median_HH_Income($ 000s)	-0.00001	0.00020	-0.00003	-0.00002	-0.00010	-0.00011

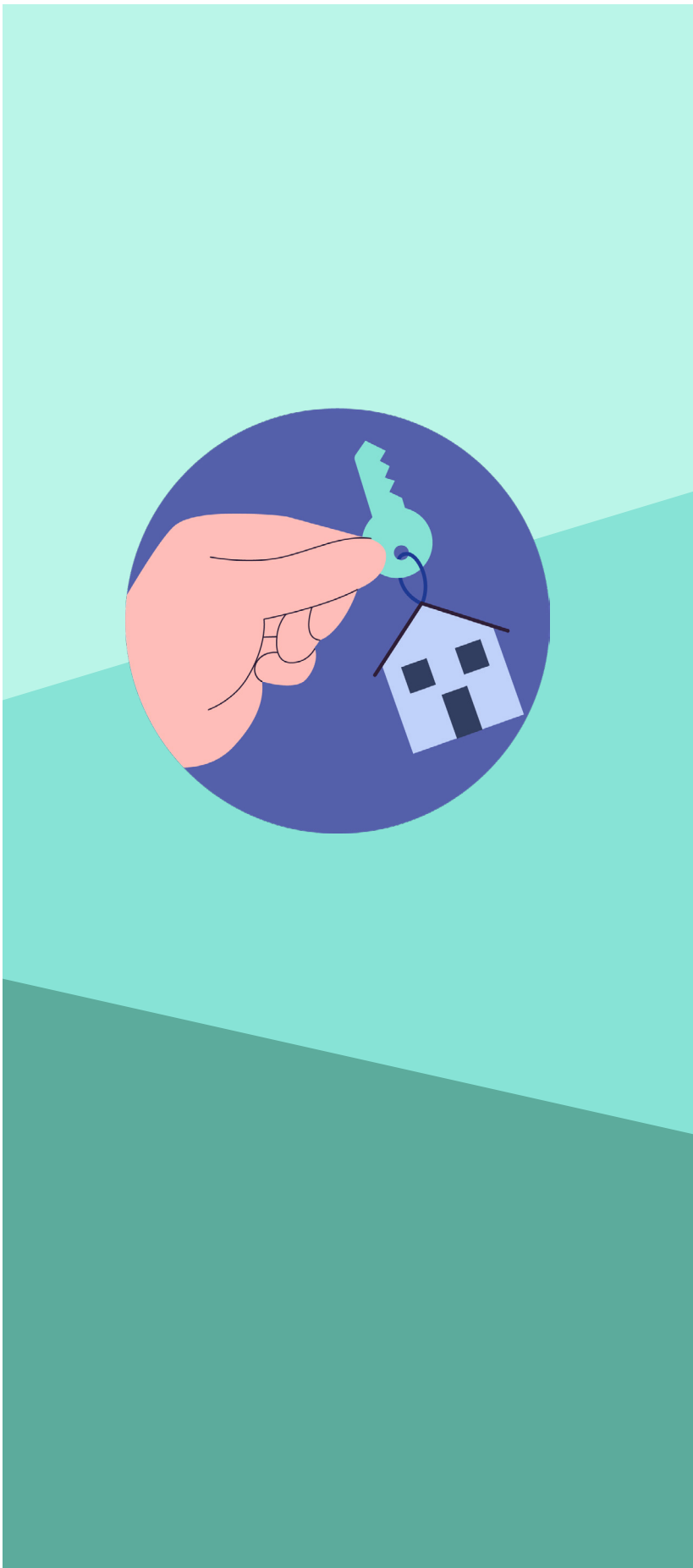
Figure A-2. Weighted Least Squares Regression Results

Baltimore Metro Area

	All Years	2019	2020	2021	2022	Q1 2023
No. of observations	169,420	34,750	39,074	47,067	36,427	12,102
R-squared	0.6970	0.7262	0.7215	0.7329	0.7356	0.7463
Adj R-squared	0.6970	0.7260	0.7214	0.7328	0.7354	0.7459
On_MLS_PCT_Premium	**15.8%**	**14.9%**	**13.7%**	**14.2%**	**18.4%**	**23.3%**
Intercept	11.4903	11.4075	11.4974	11.5425	11.5287	11.4931
On_MLS	0.1468	0.1390	0.1284	0.1330	0.1690	0.2091
Condo	-0.2550	-0.2551	-0.2515	-0.2617	-0.2794	-0.2761
TotalLivingArea (00s of sqft)	0.0335	0.0332	0.0322	0.0333	0.0337	0.0332
Dist_CBD	0.0037	0.0030	0.0037	0.0034	0.0039	0.0048
AgeLT2yrs	0.1032	0.1331	0.1100	0.0843	0.1278	0.0969
Age5-10yrs	-0.0228	-0.0269	-0.0368	-0.0281	-0.0202	-0.0599
Age10-25yrs	-0.0880	-0.0847	-0.0943	-0.0860	-0.0668	-0.1001
Age25-50yrs	-0.0855	-0.0918	-0.0961	-0.0888	-0.0896	-0.1146
Age50-75yrs	-0.1238	-0.1461	-0.1401	-0.1343	-0.1283	-0.1559
AgeGE75yrs	-0.1862	-0.2030	-0.1956	-0.2036	-0.2057	-0.2268
Pct_Owner	-0.0418	-0.1042	-0.0742	-0.0050	-0.0056	0.0362
Pct_Multifamily	0.1559	0.0974	0.0983	0.1737	0.1969	0.2204
Pct_2pl_People	-0.0964	-0.0854	-0.0655	-0.1126	-0.0792	-0.0782
Pct_Married	0.3714	0.3673	0.3208	0.4184	0.3793	0.4290
Pct_Bachpl	0.4300	0.4889	0.4386	0.4307	0.4025	0.4316
Pct_65pl	0.3707	0.4529	0.4519	0.3703	0.3257	0.2834
Median_HH_Income($ 000s)	0.00232	0.00234	0.00231	0.00200	0.00247	0.00228

Figure A-3. Weighted Least Squares Regression Results
Washington D.C. Metro Area

	All Years	2019	2020	2021	2022	Q1 2023
No. of observations	334,650	75,474	80,785	91,367	66,180	20,844
R-squared	0.7095	0.7590	0.7568	0.7508	0.7445	0.7424
Adj R-squared	0.7095	0.7590	0.7567	0.7507	0.7444	0.7422
On_MLS_PCT_Premium	**17.0%**	**11.5%**	**11.7%**	**16.9%**	**19.7%**	**26.2%**
Intercept	12.3551	12.2844	12.3730	12.3473	12.3956	12.2832
On_MLS	0.1574	0.1091	0.1104	0.1561	0.1796	0.2323
Condo	-0.3562	-0.3381	-0.3374	-0.3610	-0.3756	-0.3721
TotalLivingArea (00s of sqft)	0.0273	0.0259	0.0260	0.0275	0.0282	0.0273
Dist_CBD	-0.0078	-0.0089	-0.0084	-0.0072	-0.0064	-0.0062
AgeLT2yrs	0.0570	0.1048	0.0557	0.0475	0.0266	0.0660
Age5-10yrs	-0.0580	-0.0559	-0.0604	-0.0526	-0.0535	-0.0460
Age10-25yrs	-0.0884	-0.0625	-0.0744	-0.0749	-0.0896	-0.0854
Age25-50yrs	-0.0935	-0.0785	-0.0844	-0.0883	-0.1039	-0.0982
Age50-75yrs	-0.0420	-0.0208	-0.0371	-0.0354	-0.0794	-0.0826
AgeGE75yrs	0.0931	0.1230	0.1142	0.0959	0.0400	0.0141
Pct_Owner	-0.3667	-0.3905	-0.3517	-0.3244	-0.3297	-0.3067
Pct_Multifamily	-0.0590	-0.0392	-0.0222	-0.0263	-0.0439	-0.0397
Pct_2pl_People	-0.1912	-0.2002	-0.2411	-0.1979	-0.1958	-0.0691
Pct_Married	0.3690	0.3699	0.3689	0.4235	0.4359	0.3743
Pct_Bachpl	0.8216	0.8363	0.7787	0.7628	0.7583	0.8143
Pct_65pl	0.3821	0.6090	0.6156	0.4711	0.3618	0.3264
Median_HH_Income($ 000s)	0.00064	0.00074	0.00074	0.00051	0.00053	0.00035



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