Vacant Land in Baltimore:
The High Cost of Undervaluation

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Acknowledgements

Executive Summary

This report reveals significant flaws in the State Department of Assessments and Taxation's (SDAT) property assessments in Baltimore City, which systematically undervalue vacant land. Our analysis indicates that residentially-zoned vacant land may be undervalued by as much as **$484 million**, a discrepancy that creates critical consequences for the city's future. This flawed valuation incentivizes speculative land banking by allowing owners to hold onto empty parcels with a minimal tax burden, directly contributing to blight, hindering development, and unfairly shifting the tax burden onto homeowners and businesses. Addressing this issue is paramount for Baltimore's revitalization, as accurate assessments are key to encouraging productive land use and equitable growth. Fortunately, these problems are correctable; the report outlines how SDAT can achieve more accurate and fair results by adopting straightforward, market-based valuation methods and improving its data collection practices.

Introduction

Once a thriving industrial hub, Baltimore has grappled with sustained population loss and visible blight for decades, losing nearly a quarter of its population[1] since 1990. There are some early signs of that trend leveling off and possibly reversing[2], but despite this, Baltimore still bears the scars of decline: nearly 13,000 homes, around 7% of the housing stock, are vacant and scattered across Baltimore neighborhoods, not to mention numerous vacant lots. **These abandoned properties and lots not only undermine community stability and safety, but also drain millions in lost tax revenue and investment each year.** Tackling vacancy and blight remains central to the city's efforts to stabilize its population, restore neighborhood vitality, and lay the groundwork for long-term growth.

The City of Baltimore and the State of Maryland share an interest in addressing vacancy and blight in Baltimore. Governor Wes Moore established the Reinvest Baltimore Program, a collective effort between the State, Baltimore City, and local organizations. Its purpose is to eliminate concentrations of vacant properties and blight, revitalize neighborhoods, and maximize the economic potential and quality of life for residents in Baltimore City[3].

Echoing this commitment, Baltimore City Mayor Brandon Scott stated, "vacant homes have been a challenge here in Baltimore since before I was alive. Generations of Baltimoreans have lived with this problem. Now, thanks to this work, it's likely that kids growing up in our city will actually see the end of this problem for good." This sentiment was backed by the announcement of $50 million to address vacant buildings[4].

Maryland's State Department of Assessments and Taxation (SDAT) holds the responsibility for valuing every parcel in Baltimore City, including vacant land. Legally, SDAT is mandated to assess property according to its "fair market value"[5], defined as "the most probable price which a property will sell for under normal market conditions"[6]. For every parcel, SDAT assesses the value of the land and the value of any improvements (such as buildings) separately. In Baltimore City, SDAT primarily employs a market approach to determine these assessments.

The full market value is typically determined first, with land value derived afterwards. Land values are assigned based on a sales approach, but where there are not comparable sales prices for improved properties, the land value of a parcel is assigned as a percentage (typically about 20%) of whatever the total assessed value is[7], resulting in values that disagree with the observed selling prices of nearby vacant land sales. This suggests that SDAT treats assessed land value as an afterthought rather than as a rigorous estimate of a particular site's market worth.

This report uncovers significant issues with SDAT's property assessments in Baltimore City. We found a consistent **undervaluation of vacant land**, with properties selling for many times their assessed value, leading to major discrepancies between the

land values of vacant lots and improved properties right next door. This flawed approach incentivizes speculative land banking, allowing owners to hold onto vacant parcels with minimal tax burden. SDAT's assessment of **residentially-zoned (non-apartment) vacant land may be undervalued by up to $484 million.**

Fortunately, these issues are correctable with simple reforms; SDAT can achieve better results through improved data collection practices, and by adopting market-based land valuation methods. Highlighting and fixing this problem will permit an exploration of tax structure alternatives to the current property tax system, such as a land value tax.

We first present evidence of undervaluation issues and their consequences, followed by an analysis of data deficiencies and a discussion. We conclude by explaining how improved methodologies can lead to more accurate and equitable assessments.

Undervaluation of Vacant Parcels in Baltimore

Most of SDAT land values are derived either from a market-based approach using comparisons of nearby vacant land sales, or via a fixed allocation (typically 20%) of each improved property's total assessed value. In Baltimore, our analysis of SDAT assessments indicates that 58% of rowhome parcels have land allocations ranging from 15% to 25%.

One might ask why the land value portion matters at all, if property taxes are calculated from the total property value alone. The answer is that inaccurate land values can still contribute to inaccurate total property values; there are two chief problems:

1. Undervaluation of vacant land

2. Large valuation discrepancies between side-by-side vacant lots vs. improved properties

These in turn, combine to cause a third problem:

3. An incentive to not develop land but to instead hoard it as a tax-privileged asset

If a property owner keeps a vacant lot vacant, they receive a significant tax advantage compared to their neighbor. If a vacant lot is developed, its owner loses this tax advantage.

To illustrate these discrepancies and their tangible consequences, this report examines specific examples of undervalued properties across Baltimore.

We use **price per square foot (ppsf)** as a standardized metric for comparison, for two key reasons:

- ppsf allows for "apples-to-apples" comparisons between parcels of varying sizes

- ppsf reveals the value of land in terms of maximizing the utility of finite city space

Our investigation begins with case studies showing SDAT's assessment practices inadvertently encouraging speculation in residential neighborhoods. Following this, we demonstrate systematically that residential vacant parcels are undervalued. Finally, we explore alternative methods to vacant lot assessment that better match fair market value.

Case Studies in Undervaluation

Bateman Avenue

A clear illustration of how SDAT can undervalue vacant land can be found on Bateman Avenue. 3917 Bateman Avenue in the Windsor Hills neighborhood is a vacant lot situated directly between existing homes, as depicted in the aerial map (see Figure 1).
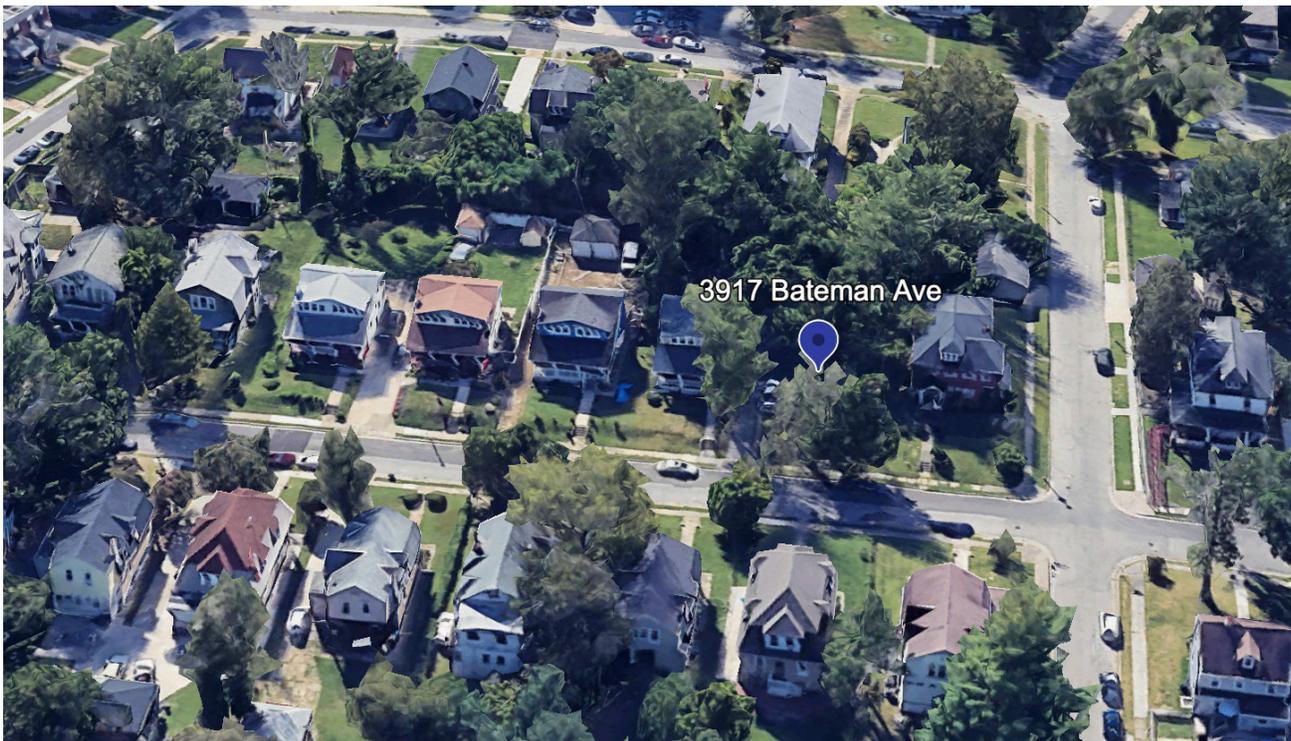

Figure 1: Aerial photo of 3917 Bateman Ave

In 2023, SDAT assessed the land value of this vacant parcel at $7,500. Since there are no buildings or other improvements on this lot, this $7,500 figure represents its total "full market value," which comes out to approximately $1 per square foot of land, or $1 ppsf.

This figure is significantly lower compared to the land value of the developed residential properties immediately surrounding it, whose land is valued, on average, at around $8 ppsf. For the avoidance of confusions, SDAT assigns two different values to each improved property—a "full market value" representing the value of the land and all its improvements, as well as a "land value" indicating the portion of the full market

value that SDAT ascribes to the land alone. $8 ppsf refers to the land value portion of the surrounding improved properties.

This discrepancy becomes stark if we visualize it. Figure 2 below shows a parcel map with the land value in ppsf. The darker shades have higher ppsf, and the lighter yellow shades have lower ppsf. 3917 Bateman Avenue, a vacant lot, stands out in sharp contrast against its neighbors, which are improved lots.

Given this discrepancy, we must ask: is the vacant land *under*-valued, or is the improved land *over*-valued?

Market evidence indicates that the vacant land is significantly undervalued. On April 9, 2024, 3917 Bateman Avenue was sold for
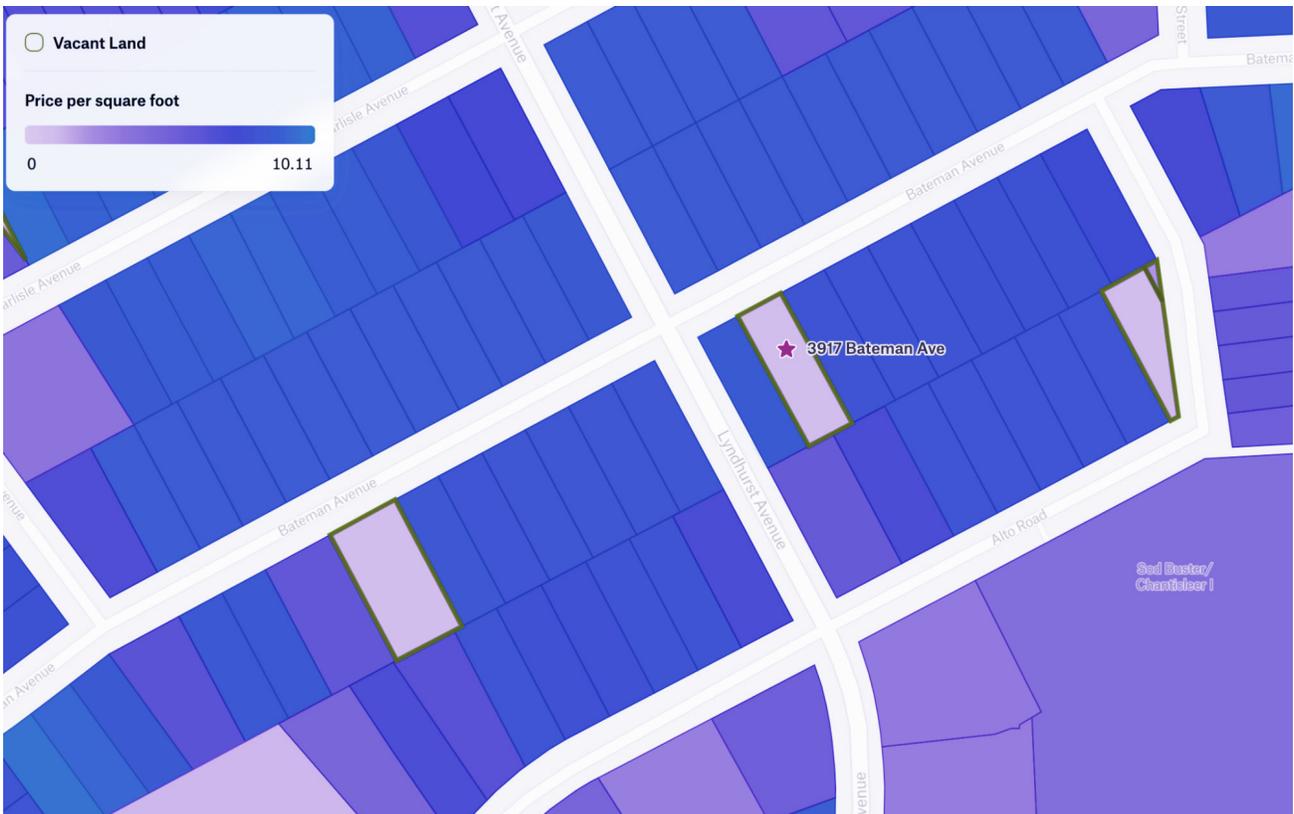

Figure 2: Price per square foot of land value on Bateman Ave

$50,000, and was confirmed to be a vacant lot at time of sale. At 7,500 square feet, the sales price comes to around $6.67 ppsf.

This arm's-length transaction, occurring in the open market, suggests a true market value over six times higher than SDAT's 2023 assessment.[8] Notably, a land ppsf value of $6.67 is in the same ballpark as the $8

ppsf assessed land value assigned to the adjacent developed parcels.

This undervaluation goes beyond this one parcel. In the same Figure 2, one block to the west we see another vacant plot sandwiched between improved parcels that also receives a significantly decreased ppsf valuation.

Whittier Avenue

In investigating, we uncovered undervaluation across the city. The 2300 block of Whittier Avenue in west Baltimore near Druid Hill park presents a compelling visual example of assessment disparities between adjacent improved and vacant

parcels. Figure 3 shows a block which contains seven vacant parcels directly adjacent to eight developed rowhomes. The vacant parcels have equal road access and are similarly zoned for rowhome development.
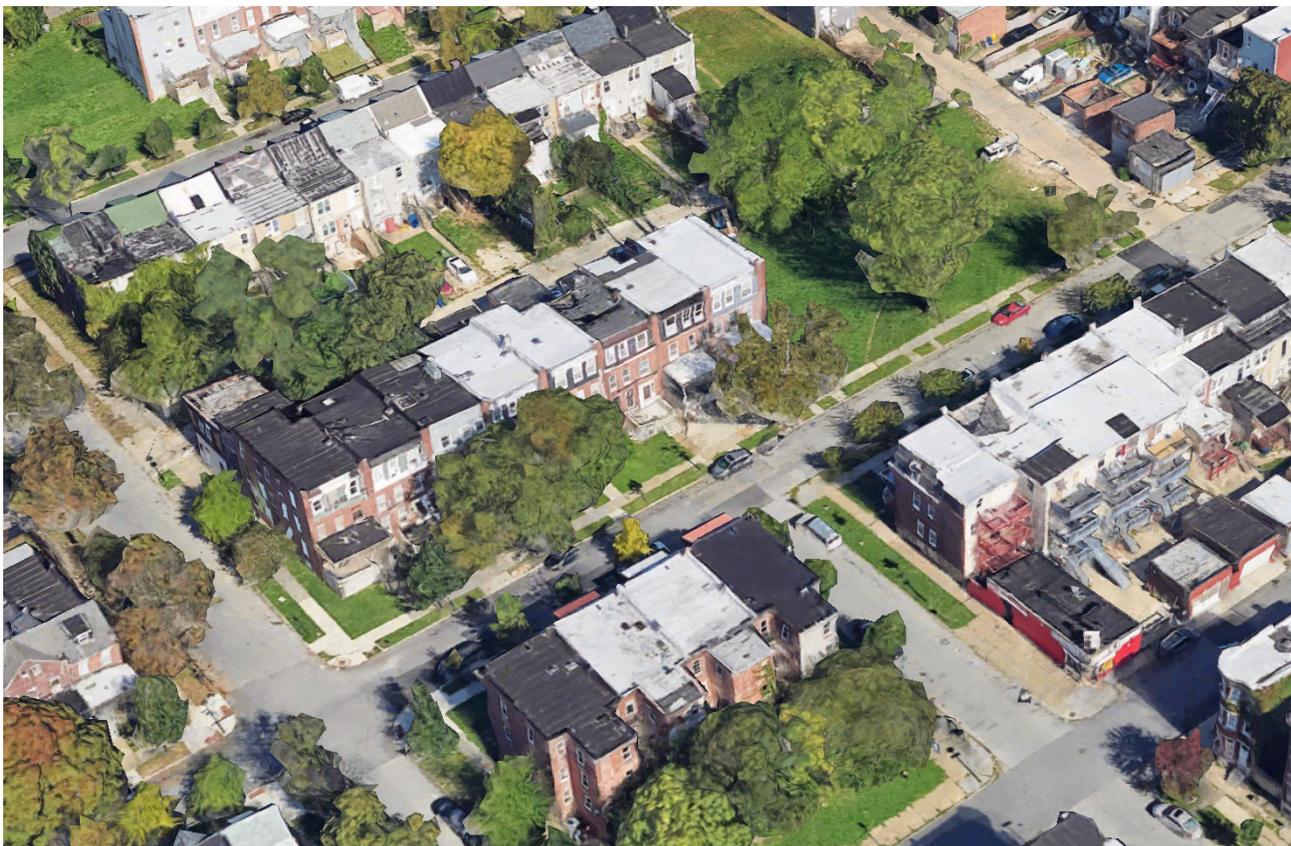

Figure 3: Aerial view of the 2300 block of Whittier Ave

Despite similar parcel areas and immediate proximity, SDAT assigns dramatically different land values per square foot to improved properties compared to their vacant neighbors on this block. Figure 4 shows the land values ascribed to the parcels.

Developed rowhomes in this area have been assigned land values consistently exceeding $11 per square foot, whereas directly adjacent vacant lots show assessed land values of $1 ppsf or less. **This is a greater than 10x difference in assessed land value ppsf**, for side-by-side parcels.

We ask the same question as before: is the vacant land undervalued, or is the improved land overvalued?

Market evidence indicates that the vacant land is significantly undervalued. The property located at 2546 Madison Avenue, situated approximately half a mile from the Whittier Avenue block and also in close proximity to Druid Hill Park, sold in March 2024 for $27,500.

Prior to this sale, SDAT assessed that very same parcel at $1,800[9], effectively $1 ppsf of land. If we take the observed market selling price of $27,500 and divide by the parcel's land size of 1,800 square feet, we arrive at $15.27 ppsf of land, **a greater than 15x difference** between the observed market price of land in this area, and the assessed value of vacant land. Notably, the $15.27 ppsf is not too far off from the value assigned to improved lots in this region.
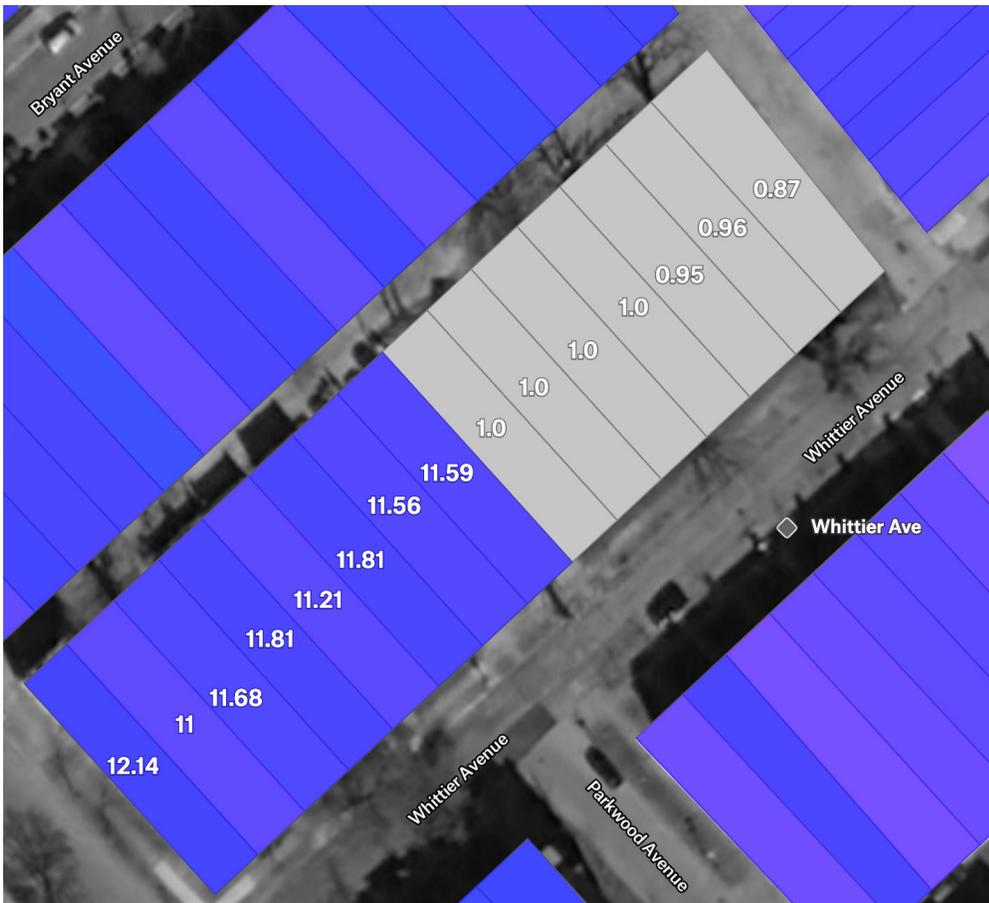

Figure 4: Land values of Whittier Ave parcels

Vacant Land in Baltimore

Residential Vacant Land Undervaluation

The systematic undervaluation of vacant land, as evidenced by the Bateman Avenue and Whittier Avenue examples, reveals a consistent pattern in SDAT's assessment practices: vacant parcels are assigned nominal values with little regard for actual market evidence. This disparity shifts the tax burden proportionately to owners of improved property and also creates an active disincentive to build, because a structure would be assessed a value in line with the other nearby buildings, eliminating the implicit tax subsidy of keeping it vacant.

We can visualize this undervaluation with a graph comparing the actual selling ppsf of validated vacant lot sales with SDAT's valuations for the same properties. Figure 5 shows the graph where valuations that exactly match the selling price would all lie along the red line. A large majority of data points lie below the red line, in many cases well below it, indicating pervasive undervaluation of land.

Another way to measure assessment accuracy is by looking at the '**Sale Price to Assessment Ratio.**' If a property is assessed
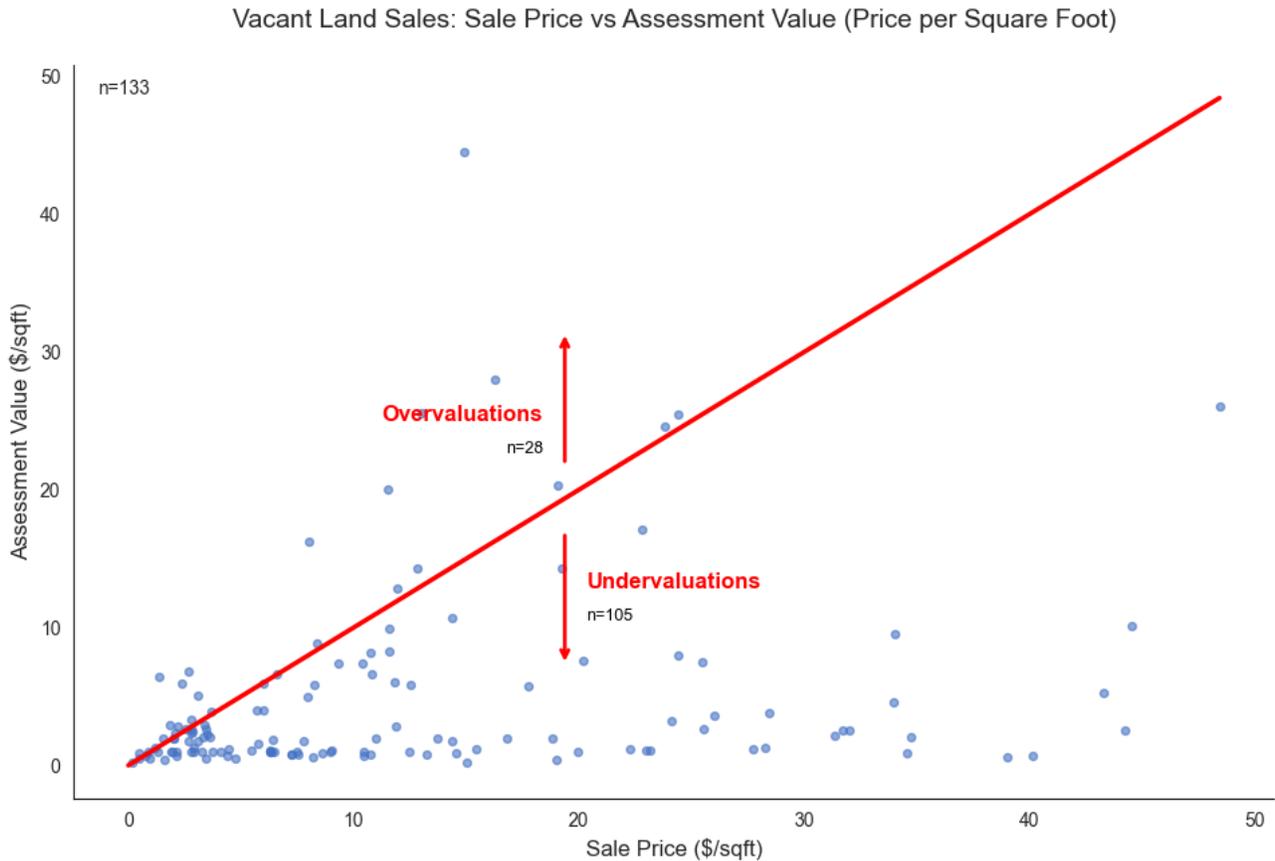

Figure 5: Vacant land sales against assessor valuation

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perfectly, this ratio is 1.0, meaning it sold for exactly its assessed value. A ratio of 2.0 means it sold for twice its assessed value, indicating undervaluation by half. Conversely, a ratio of 0.5 would mean it sold for half its assessed value, suggesting overvaluation.

For this analysis, we focused on **"prime" vacant rowhome lot sales**. This means we carefully selected sales that represent truly empty, developable land, on plots zoned for rowhome development, excluding outliers that could skew the picture.

For instance, we excluded sales of parcels nominally marked as "vacant sales," but which were confirmed to have structures on them at the time of sale, or lots sold as part of a larger new home construction package in which the land sale price was bundled together with pre-paid construction costs. This was to ensure that the sales data reflected only the market value of the land itself.

We examined two distinct groups of these prime vacant land sales: Sales that happened in the year before and the year *after* SDAT set its official valuation for the properties.

Sales occurring *after* the valuation date are the best evidence to compare against, because at the time the assessor was fixing their assessed values for these parcels, the sale had not yet occurred. This means we can rule out any chance of the assessor artificially anchoring their assessed value to the sale price, a practice known as "sales chasing."

Our analysis of these prime vacant land sales revealed a striking pattern:

- **Prime Vacant Land Sold *After* Valuation:** For these 17 prime lot sales, the typical (median) sale price was **8.33 times higher** than SDAT's assessed value. This means a prime vacant lot assessed by SDAT at $10,000 would typically sell for around $83,300 on the open market shortly after its valuation was set. Notably, this multiple is essentially what happened with the example on Bateman Avenue, where the property sold for almost seven times the assessment price.

- **Prime Vacant Land Sold *Before* Valuation:** For the 19 prime lot sales that occurred in the year leading up to their valuation (which SDAT would therefore have prior knowledge of), the typical (median) sale price was **2.84 times higher** than the subsequent assessed value. So, a prime vacant lot that sold for, say, $28,400, might be assessed closer to $10,000 by SDAT.

Our statistical tests confirm that the median ratios for both groups are significantly greater than 1.0, meaning this isn't just a random chance finding but a statistically robust observation, which is demonstrated by the 95% confidence intervals calculated for the mean sale-to-assessment ratios. For the 17 prime lot sales occurring after valuation (which had a median ratio of 8.33), the 95% confidence interval for the mean ratio is [5.80, 11.57].

Because this entire interval lies well above 1.0, it indicates with high statistical confidence that these properties were, on average, valued significantly higher by the market than by SDAT. Likewise, for the 19 prime lot sales occurring before valuation (which had a median ratio of 2.84), the 95% confidence interval for the mean ratio is [1.44, 11.15]. This interval also excludes 1.0, confirming statistically significant undervaluation in this group as well.
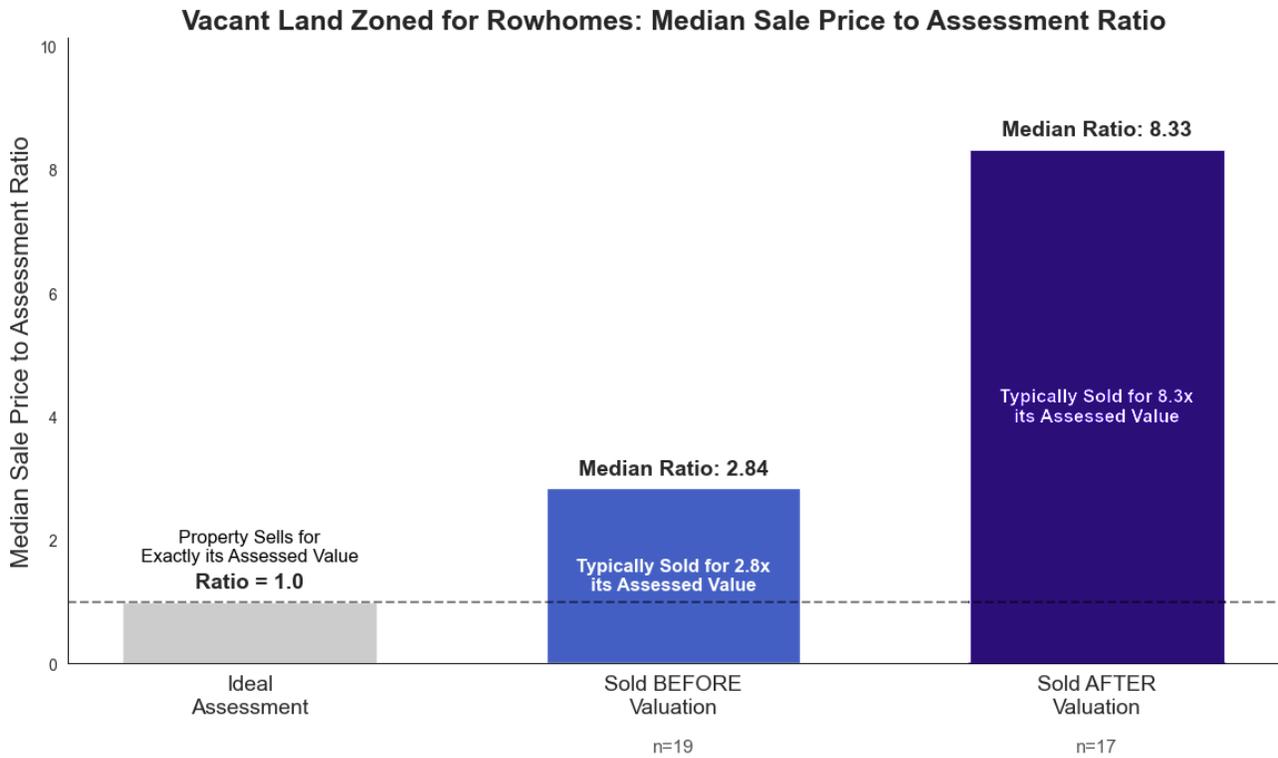
Vacant Land Zoned for Rowhomes: Median Sale Price to Assessment Ratio

Figure 6: Rowhome-zoned vacant land sales median sales price to assessment ratio

There are a couple of key takeaways from this analysis:

- **Consistent Undervaluation of Prime Vacant Land:** Both figures (8.33 and 2.84) are dramatically higher than the ideal ratio of 1.0, which is statistically significant. This indicates that prime vacant land is systematically undervalued by SDAT, regardless of whether the sale happened before or after the valuation date.

- **Evidence Suggesting Some 'Sales Chasing' (despite undervaluation):** The observation that the median ratio for pre-valuation sales (2.84) is closer to 1.0 than the median ratio for post-valuation sales (8.33) is noteworthy. This pattern could suggest that when assessors have knowledge of a recent, specific sale price for a parcel (as they might with pre-valuation sales), they may adjust that individual parcel's valuation to more closely reflect that market signal.

While there is an insufficient amount of vacant sales on single-family zoned parcels to perform a full statistical analysis, the example provided earlier from Bateman Avenue was zoned as single-family and points toward undervaluation of single-family zoned vacant parcels.

This consistent undervaluation of vacant land has significant implications for Baltimore's efforts to revitalize its neighborhoods. Artificially lowering the holding costs for undeveloped parcels incentivizes speculative land banking rather than productive use of these sites, contributes to the proliferation of blight and undermines community stability, and raises the tax burden on residents and businesses.

Addressing this fundamental flaw in land valuation is crucial for fostering equitable taxation and supporting the city's strategic goals for neighborhood revitalization and growth.

Implications of Vacant Land Undervaluation

A Profile of Vacant Properties in Maryland

Over 9% of the city's more than 234,000 parcels are vacant lots, encompassing over 9,285 acres. When combined with the over 12,000 known vacant buildings, this means that approximately 14.6% of all parcels in Baltimore City likely owe most of their value to land. This is without even counting low-density commercial properties in desirable areas.

To understand the broader context of underutilized real estate, this section provides a data driven overview of vacant properties in Maryland, with property type categorizations derived from Regrid data and determined using zoning codes. The dollar amounts presented here are based on assessor valuations, which as this report shows, are likely to significantly understate their true market value. The data presented here excludes exempt land, industrial land, and condominiums.

Despite these exclusions, the dataset reveals a significant inventory of over 10,400 vacant properties with a collective assessed value exceeding $327 million. This profile helps to illustrate the scale of vacancy and the characteristics of its ownership, providing a backdrop to the report's specific focus on land valuation issues in Baltimore.

Distribution by Property Type

As shown in Figure 7, vacant properties span various categories, with distinct patterns in their count and total assessed value.

- **Rowhomes:** The most common type of vacant property, totaling 7,272 (nearly 70%). Despite this high number, their average assessed value is low at $5,568, contributing around $40.5 million to the overall vacant property value.

- **Single-family homes:** The second most common vacant property type with 1,469 properties (14.1%). They have a higher average assessed value of $15,220 compared to rowhomes.

- **Commercial properties:** Although fewer in number (1,318 properties, 12.6%), these properties represent the largest portion of the total assessed value – approximately $194.2 million, with an average assessed value of $147,324 per property. These numbers are for strictly undeveloped commercial lots and do not include surface parking lots.
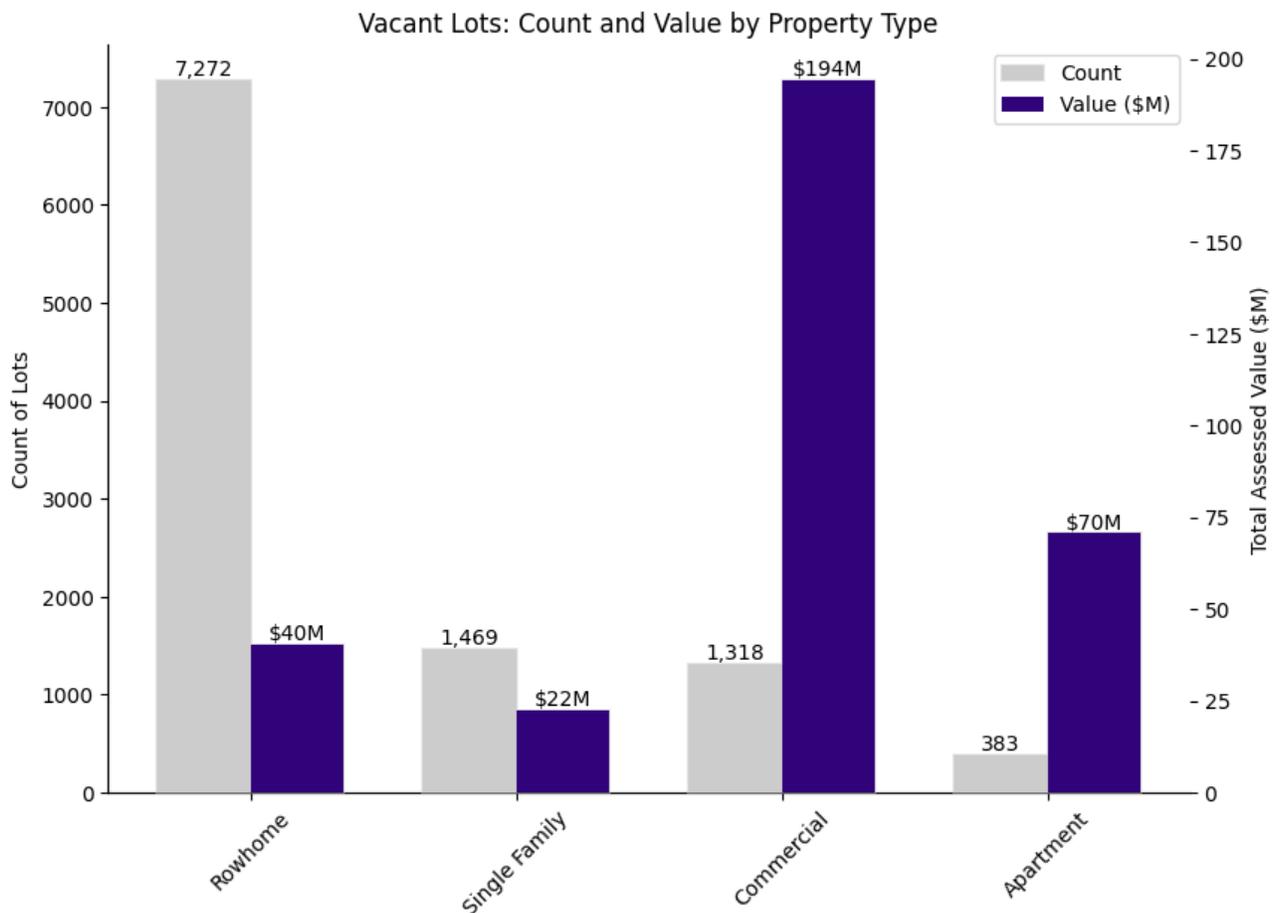

Figure 7: Vacant Lots by Use Type (Count and Value)

- **Apartment properties:** Apartment properties are the least common type of vacant property, counting for only 383 (3.7%) parcels. However, they have the highest average assessed value per property at $184,635, which is roughly $70.7 million of the total.

Baltimore contains $327 million of total assessed value on vacant parcels. Of that, $66 million is zoned for single-family or rowhome use. Based on our earlier analysis on the average sales-price-to-assessment ratio being 8.33x, Baltimore's **vacant lots zoned for single-family or rowhome use may be undervalued by $484 million**. This figure is an extrapolation from past assessor under-assessment and assumes the underassessment is uniformly distributed across the city. Later, we will develop a model that accounts for the spatial allocation of vacant parcels.

Ownership Location: In State Versus Out of State Holdings

We determined the ownership of these vacant properties using the property owner's mailing address as a proxy and have displayed the results in Figure 8:

- Approximately 74.6% (7,790 parcels) are owned by in-state entities.

- Vacant Rowhomes:
  - In-state owners hold the majority: 77.7% of the count, and 74.7% of the total assessed value.

- Vacant Single Family Homes:
  - In-state owners hold the majority: 63.7% of the count, and 71.5% of the total assessed value.

- Vacant Commercial Properties:
  - Out-of-state owners hold 30.5% of these parcels.

  - However, out-of-state owners account for 50.9% of the total assessed value of vacant commercial property ($98.8 million out of $194.2 million).

- Vacant Apartment Properties:
  - Out-of-state owners hold 25.3% of these properties.

  - However, out-of-state owners account for 52.8% of the total assessed value of vacant apartment-zoned property ($37.3 million out of $70.7 million).

Out-of-state entities, while owning a smaller number of vacant commercial and apartment properties than in-state entities, tend to disproportionately own those with higher assessed values, according to current assessments.
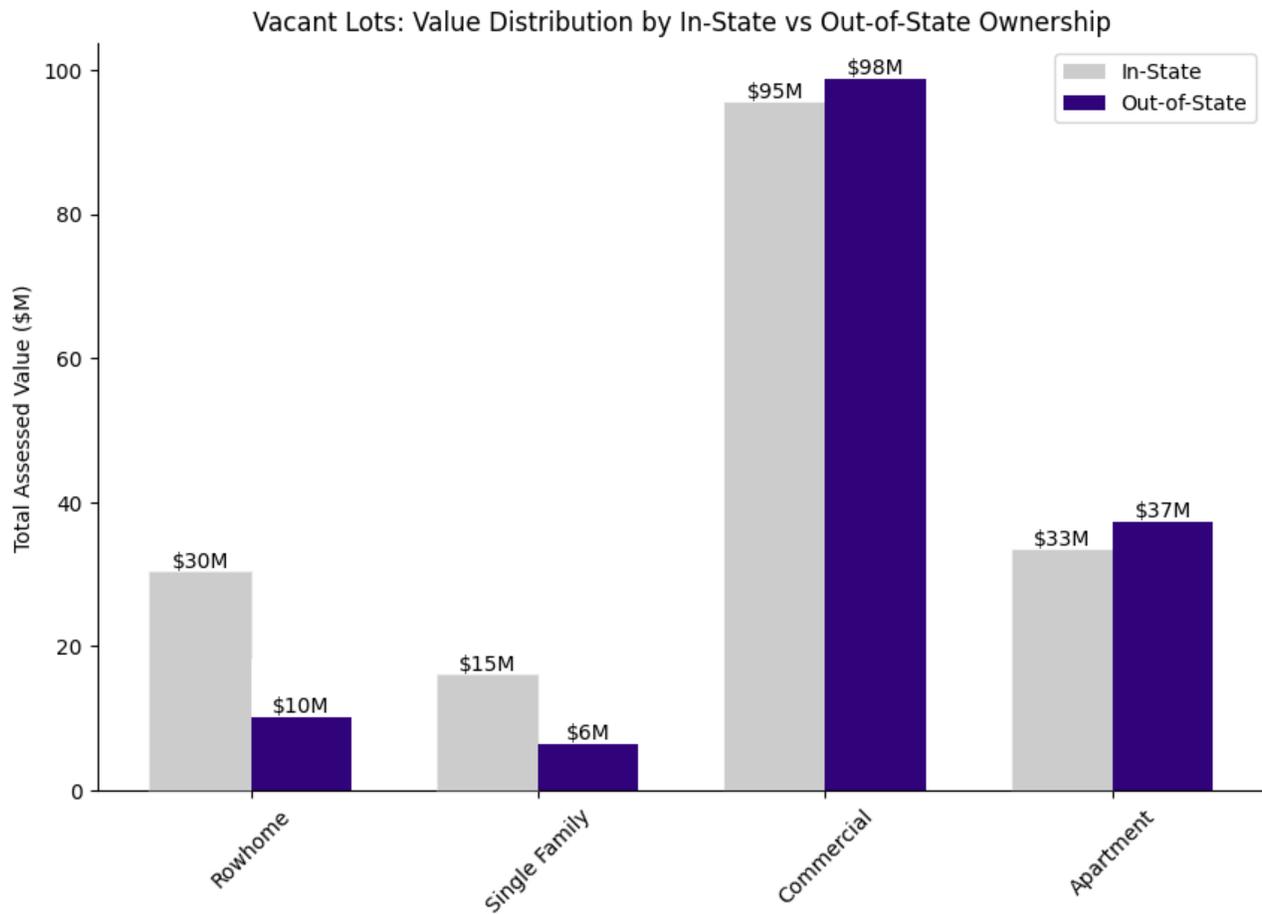
Figure 8: Vacant Lot Use Types by In-State and Out-of-State Ownership

Vacant Lot Ownership: Corporate and Private Individuals

By count, private individuals are the most frequent owners of vacant lots, holding 45.1% (4,707) of all such parcels. This is particularly true for residential properties, where they own 47.6% of vacant rowhomes and 63.4% of vacant single-family lots.

Businesses are the second largest category by count, owning 28.1% (2,935) of vacant lots. However, they dominate in terms of assessed value, controlling 59.7% ($195.8 million) of the total value.

This is most evident in commercial and apartment properties. Businesses own 53.2% of vacant commercial lots (representing 60.9% of their value) and 49.1% of vacant apartment lots (accounting for a significant 85.4% of their total value).

A considerable portion of vacant lots, 20.4% by count (2,130 parcels) and 26.9% by value ($88.2 million), are categorized by Regrid as having "Unknown" ownership. Despite difficulties in precise classification

due to data constraints, these owners are likely to be corporate entities, family trusts, government bodies, or nonprofit/religious organizations, rather than individual private persons. Nonprofit religious organizations and city/township entities account for smaller, yet still notable, numbers of vacant properties.

Low Vacant Lot Valuations Impacts the City's Vision

The systematic undervaluation of vacant land and underutilized properties by SDAT extends beyond mere fiscal discrepancies; it directly impedes Baltimore City's strategic vision for revitalization, development, and equitable growth. Accurate property valuation is not just an accounting exercise but is also a critical lever for urban policy.

One of the most direct consequences of undervaluing vacant land is the artificial reduction of holding costs for property owners. When land is assessed at a fraction of its true market value, the associated property taxes are correspondingly low. This diminished financial burden allows owners, including speculators, to hold onto vacant or underutilized parcels for extended periods with minimal financial pressure to develop or sell them to parties who would. Undervaluation subsidizes land banking and speculative inactivity.

This creates an artificial scarcity of developable land and negatively impacts residents and businesses who would like to locate in Baltimore City.

Conversely, assessing vacant land at its fair market value would significantly increase the carrying costs for these properties. This economic pressure incentivizes owners to either develop their land to generate income—and thereby contribute to the city's housing stock or commercial vibrancy— or to sell the land to someone who will. By aligning assessed values with market realities, the city can discourage passive speculation and can, instead, actively encourage the productive use of its land resources, a key component of Baltimore's vision for a growing and thriving urban landscape.

Valuing Land

Spatially Weighted Average of Vacant Sales as a Short-Term Solution

Despite persistent data challenges in the Baltimore dataset, there are enough sales of prime vacant lots to produce a baseline for land value directly based on market evidence, which is a more defensible approach than simply assigning a nominal low value.

A straightforward way to estimate each parcel's land value is to calculate the spatially weighted average of the five nearest prime vacant lot sales. Not only is this a simple calculation, it is one that is very easy to explain in a concrete way:

- Each parcel's land value is estimated by looking at the ppsf values of the five closest vacant sales

- The closest vacant sales are given the most weight and the furthest the least weight

- Those five samples are averaged according to the weights to get a final ppsf

- The ppsf value is multiplied by the parcel in question's size

This simple method can help correct chronic undervaluations for not just vacant lots themselves, but also dilapidated buildings where the improvement value is minimal. If the parcel is a vacant lot, its sale is excluded from the calculation, and it's value is calculated using nearby sales.
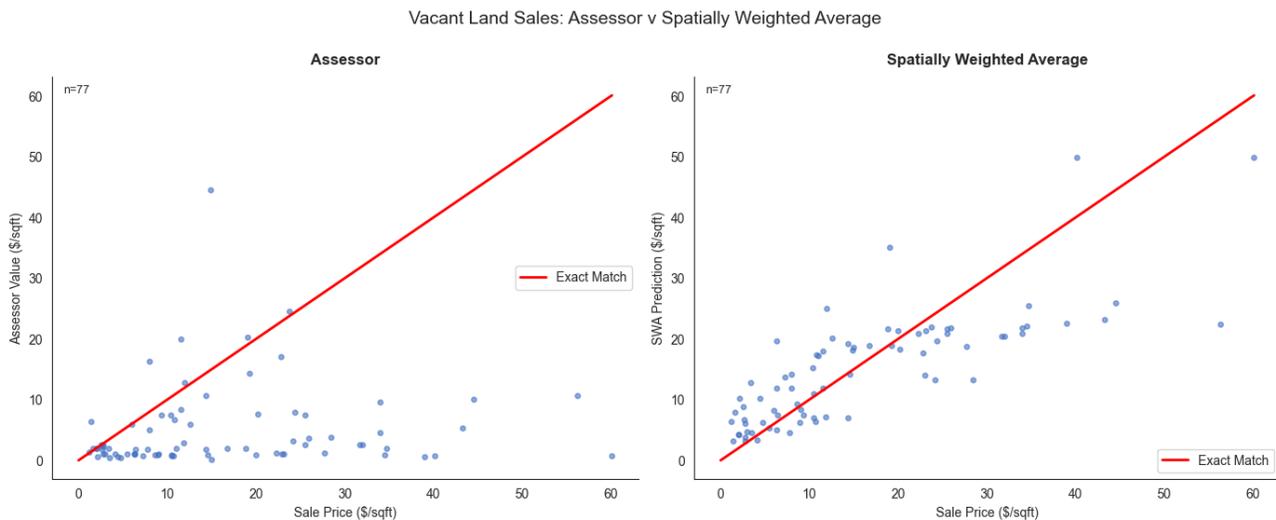

Figure 9: SDAT's Vacant Land Valuations compared to the Spatially Weighted Average

As shown in Figure 9, the spatially weighted approach to land value does a significantly better job of tracking with true sales value of prime vacant land than the assessed land value. With these market-based land estimates, we can revisit the issues identified earlier.

Earlier, we called attention to parcels on Whittier Avenue where improved parcels had land values 10x the value of the vacant parcels right next door. The vacant parcels were valued around $1 ppsf. The spatially weighted algorithm assigns a value closer to $13 ppsf for these vacant parcels–a number that closely reflects the land values ascribed to the neighboring improved parcels.

Using these estimates, we can also calculate the anticipated full underestimation of vacant residential parcels zoned for rowhomes. When subsetting to vacant parcels and assessing the discrepancy between the SDAT valuation and the weighted average, we find approximately **$120 million in undervaluation for vacant, rowhome-zoned parcels.**

There is another straightforward method SDAT may adopt to improve upon the "allocation method" whereby land is valued by using a target total value to land value ratio or percentage.

Land value could be derived by first deducing an allocation percent (typically around 20%), then applying that figure to the median total property valuation of improved properties within a given area, arriving at a single "local land value" for that location.

The key insight here is to use the same "local land value" ppsf within a given area, so that the land value of side-by-side properties with land of equal size is equal. If one instead applies a fixed percentage allocation to each individual property's total property value, side by side inequities in land value will result, as we have shown. As for the allocation percentage itself, it can be deduced by comparing prevailing improved sales to nearby vacant sales. This can later be expanded on by creating size and adjustment tables to account for other land characteristics. The most important principle, however, is simply that there should be a consistent method for ensuring that **all land in the same location with the same size and the same characteristics receives the same land valuation.**

Augmented Data Methods as a Long-Term Strategy

The simple "spatial weighted average" approach can be done with Baltimore's current dataset, requiring nothing more than careful validation of existing vacant lot sales to distinguish actual prime vacant lot sales from mislabeled ones.

To go beyond this towards a more advanced land valuation model (as well as more advanced property valuation in general), higher quality data collection is required. SDAT is responsible for maintaining accurate, reliable data in order to value every parcel in the city.

Our investigation reveals critical data quality issues in SDAT data which could indicate broader deficiencies in their Computer-Assisted Mass Appraisal (CAMA) system. A strong CAMA system is essential for a modern assessment office. Its effectiveness hinges on high-quality, accurate, and up-to-date property data, which ensures reliable and equitable valuations. Improving and enriching SDAT data would allow SDAT to more accurately value land and address inequities in assessments.

SDAT's assessment system is hampered by three high-level, interconnected problems:

- **Incorrect sales validation information:** Assessors are marking sales with artificially low prices, such as a parent selling a lot to their child, or a transfer out of foreclosure, as if they represent the land's true market value. Because these are not competitive, open-market sales, using them as evidence incorrectly drags down the official assessed values for many vacant lots.

- **Widespread missing building characteristics:** A substantial portion of Baltimore's property data lacks crucial details about buildings, such as size, quality, physical condition, age, and even type. This absence of comprehensive data severely hinders the ability to accurately value improvements using standard appraisal techniques like the cost approach or sales comparison approach. Without knowing the characteristics of buildings, it becomes exceedingly difficult to isolate and accurately determine the value of the underlying land.

- **Poor statutory methods for valuing land:** Faced with the aforementioned data challenges, SDAT assessors are often left with little recourse but to rely on simplified rules of thumb for land valuation. This leads to generic, often inaccurate, assessments that do not reflect the diverse market conditions and development potential across different parcels.

The extent of SDAT's data problems is evident in several key areas:

- **Missing building characteristics:** Approximately 40,000 rowhome parcels in Baltimore are missing all essential building characteristics, including size, quality, physical condition, age, and type. This data void is a major impediment to accurate assessments.

- **Erroneous sales records:** The database contains at least ten sales listed with 10x or even 100x multiples of their true sales value, leading to distorted market indicators.

- **Misclassification of city transfers:** City transfers are sometimes incorrectly listed as private, arms-length transactions, further skewing sales data used for valuation with no flag indicating a government sale.

- **Inaccurate vacant/improved flags:** Sales are frequently mislabeled, with "vacant sale" sometimes applied to parcels that definitely had a building on site at the time of sale, and "improved sale" for parcels that were vacant at time of sale.

- **Misclassification of pre-developed lot sales:** Some sales classified as vacant actually bundle into the sale price additional money earmarked for the construction of a house, such as a sale in a new suburban neighborhood. These "vacant" sales are well above the price that bare land would sell for.

- **Lack of proper dilapidation flags:** There is insufficient flagging for truly dilapidated buildings, preventing accurate assessment of their condition and potential for redevelopment.

- **Missing descriptions for specific structures:** Parcels with low-value garages and storage-like structures often lack proper descriptions, leading to miscategorization as residential buildings and therefore inaccurate valuation.

- **Ambiguous building quality field:** The existing building quality field suffers from poor coverage and ambiguity, often conflating quality with physical condition.

- **Absence of key depreciation indicators:** There is no dedicated field for a building's physical condition, nor an "effective age" field or indication of when a building was last renovated. This omission makes it challenging to accurately account for physical depreciation and obsolescence.

The above errors indicate that SDATs Computer-Assisted Mass Appraisal (CAMA) system must be outdated and significantly hampered by data quality. A strong mass appraisal system requires clean data, trained on validated sales. Poor data quality significantly impacts the performance of a CAMA system.

Improved assessments can be achieved if SDAT enriches its data. There are several options that may offer better results when assessing the true value of land:

- **Augmenting "prime vacant lots" with confirmed teardown sales:** These sales involve a building being purchased and subsequently torn down, indicating the buyer found more worth in the site than the building, and the purchase price was for the bare site itself plus the cost of demolition.

- **Performing direct building valuation using the cost approach to determine additional site values:** This involves identifying newly built housing that has recently sold (where depreciation is near zero) and estimating the cost to build new. This cost is then subtracted from the purchase price to determine the land value.

- **Analyzing repeat sales of the same building:** If no remodeling or improvements have been made, the difference in price gain over time could represent land value.

- **Conducting aggregate time trending analysis:** If the overall age or effective age of aggregate housing stock decreases or stays flat over time, observed increases in price could represent changes in land value.

- **Utilizing hedonic modeling through regression analysis or machine learning:** This method directly attributes value to individual building and land characteristics but requires better data quality than is currently available.

These are just some of the possibilities SDAT may employ to better judge the value of land on vacant and improved parcels.

In order to implement these methods to develop true fair market values of land, SDAT would first need to resolve its data quality issues. Each method above requires different levels of data quality, and each would need to be tested against market sales to determine method validity. Regardless, better data quality will help SDAT assess all properties more accurately and faster.

Endnotes

[1] St. Louis FED (https://fred.stlouisfed.org/series/MDBALT5POP)

[2] Mayor Scott, New Census projections (https://mayor.baltimorecity.gov/news/press-releases/2025-03-13-mayor-scott-new-census-projections-showing-stabilizing-population)

[3] Reinvest Baltimore EO, Jan 1, 2024 (https://governor.maryland.gov/Lists/ExecutiveOrders/Attachments/70/EO 01.01.2024.34 Reinvest Baltimore_Accessible.pdf)

[4] MD DHCD, Baltimore Vacants Reinvestment Initiative (https://news.maryland.gov/dhcd/2025/04/02/maryland-department-of-housing-and-community-development-announces-accelerated-50-million-baltimore-vacants-reinvestment-initiative-application-round/)

[5] SDAT Homeowners's Guide (https://dat.maryland.gov/realproperty/pages/homeowners-guide.aspx)

[6] Maryland Assessment Procedures Manual § 001.014.001

[7] SDAT Homeowners's Guide (https://dat.maryland.gov/realproperty/pages/homeowners-guide.aspx)

[8] SDAT (Ward=15, Section=28, Block=2835, Lot=018)

[9] SDAT (Ward=13, Section=08, Block=3418A, Lot=024)

Conclusion

The persistent undervaluation of vacant land by the State Department of Assessments and Taxation (SDAT) in Baltimore City presents a significant barrier to the city's revitalization efforts, as highlighted by our analysis. This report demonstrates that SDAT's current assessment practices, particularly the reliance on arbitrary percentages for land value, lead to substantial discrepancies between assessed values and true market prices, often by many multiples. This systematic flaw incentivizes speculative land banking, where owners face minimal holding costs for unproductive parcels, thereby exacerbating blight and inflating the tax burden on residents and businesses. While a simple spatially weighted average of vacant sales can offer a more accurate short-term solution, a long-term fix necessitates comprehensive reforms to SDAT's data collection and Computer-Assisted Mass Appraisal (CAMA) system. By improving data quality, embracing market-based valuation methodologies, and accurately reflecting the true value of land, Baltimore City can foster more equitable taxation, disincentivize blight, and unlock millions in development to fuel its strategic vision for neighborhood vitality and growth.