

Perry South & Fineview Community Housing Inventory

Patrick Swain

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Purpose:

This project's primary objective is to create a comprehensive, detailed, and replicable master property inventory for the Perry Hilltop Fineview Citizens Council (PHFCC). This inventory serves as a foundational dataset to guide strategic decision-making, identify properties of interest, and analyze housing trends to support the preservation and development of affordable housing opportunities within the community.

Scope:

- **Geographic Boundaries:** The inventory includes all property parcels located within the official boundaries of the Fineview and Perry South neighborhoods of Pittsburgh.
- **Dataset Contents:** The final inventory contains 3,416 properties. Each property is enriched with 60 data fields covering ownership, physical characteristics, tax assessment, sales history, financial indicators, and more.
- **Methodology:** The inventory was created using a replicable, programmatic approach. A base file containing all properties was generated from a property assessment file downloaded from the Western Pennsylvania Regional Data Center. This base file was then appended with additional data from specialized datasets using a custom Python script. This ensures that the inventory can be updated or recreated as new data becomes available.

Analysis:

- **Aging Housing Stock:** The neighborhoods are characterized by an old housing stock, with a typical home being 110 years old and over 80% built before 1940. This age is strongly correlated with poorer property conditions, suggesting widespread maintenance and code-related challenges.
- **Accelerating Market Pressure:** The sales market has seen dramatic price appreciation over the last decade, with median prices often doubling or tripling. Properties are now consistently selling for 50% or more above their assessed value, signaling intense market heat that threatens housing affordability and increases the incentive for property "flipping."
- **Concentrated Distress Tied to Ownership and Occupancy:** Non-owner occupied parcels and some corporate and investor-owned properties, especially those held by absentee landlords outside the neighborhood, are more likely to be in poor condition and have high rates of tax delinquency compared to owner-occupied homes. Geospatial analysis shows that these distressed properties are not random but are often geographically clustered, presenting opportunities for targeted community interventions.

Acknowledgements: David Denne, Rhonda Parker, Benham Fallah, Jason Beery, and Steve Saylor

Introduction

The Perry South and Fineview neighborhoods on the North Side of Pittsburgh stand at a critical juncture. Characterized by a rich architectural heritage and a resilient community, they now face mounting pressures from a rapidly accelerating real estate market that threatens to displace long-term residents and erode the area's affordability. To navigate these challenges effectively, community leaders require a clear, evidence-based understanding of the local housing landscape. This report, created for the Perry Hilltop Fineview Citizens Council (PHFCC), aims to provide that foundation.

The primary objective of this project is to build a comprehensive, parcel-level property inventory for Fineview and Perry South. By programmatically merging multiple public datasets from the Western Pennsylvania Regional Data Center (WPRDC), this report creates a single, detailed master file containing over 60 data points for each of the 3,416 properties in the two neighborhoods. This data-first approach ensures that the analysis is not only thorough but also replicable, allowing the PHFCC to update the inventory as new information becomes available and track trends over time.

This inventory serves as the empirical backbone for the analysis presented herein, which explores the interconnected dynamics of property characteristics, ownership patterns, financial health, and physical condition. The analysis reveals three core narratives:

- **An Aging Housing Stock:** With a typical home being over 110 years old, the neighborhoods face systemic challenges related to maintenance and code compliance that are intrinsically linked to property condition.
- **Intensifying Market Pressure:** A sharp increase in property sales prices, which outpace assessed values, signals a heated market that creates significant financial incentives for speculative investment and poses an urgent threat to housing affordability.
- **Concentrated and Predictable Distress:** Financial and physical distress is not random. It is geographically clustered on specific blocks and is strongly associated with non-owner-occupied properties, particularly those held by absentee individuals and certain corporate entities.

Ultimately, this report is designed to be a strategic tool. By providing a granular view of the housing stock — from identifying the portfolio of a specific landlord to pinpointing the blocks with the highest concentration of distress — this inventory empowers the PHFCC to move from a reactive to a proactive stance. The data contained within can be used to target interventions, advocate for policy changes, and guide investments to preserve and expand affordable, stable housing for the residents of Perry South and Fineview for years to come.

Patrick Swain
M.S. Quantitative Economics
University of Pittsburgh
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Data Dictionary

This section describes each column in the final output file, inventory_appended.csv.

Final Column Name	Description	Source Dataset	Original Column Name
pin	The unique identifier for each property parcel. This is the primary key used to join all datasets.	Allegheny County Property Assessments	PARID
PROPERTYHOUSENUM	The house number component of the property address.	Allegheny County Property Assessments	PROPERTYHOUSENUM
PROPERTYFRACTION	The fraction component of the property address (e.g., '1/2').	Allegheny County Property Assessments	PROPERTYFRACTION
PROPERTYADDRESS	The street address of the property.	Allegheny County Property Assessments	PROPERTYADDRESS
PROPERTYCITY	The city of the property address.	Allegheny County Property Assessments	PROPERTYCITY
PROPERTYSTATE	The state of the property address.	Allegheny County Property Assessments	PROPERTYSTATE
PROPERTYUNIT	The unit number of the property address (if applicable).	Allegheny County Property Assessments	PROPERTYUNIT
PROPERTYZIP	The ZIP code of the property address.	Allegheny County Property Assessments	PROPERTYZIP
MUNICODE	The numerical code for the ward.	Allegheny County Property Assessments	MUNICODE
MUNIDESC	The name of the ward.	Allegheny County Property Assessments	MUNIDESC
NEIGHCODE	The numerical code for the neighborhood.	Allegheny County Property Assessments	NEIGHCODE
NEIGHDESC	The name of the neighborhood.	Allegheny County Property Assessments	NEIGHDESC
OWNERDESC*	Describes the type of owner (e.g., a private individual, a city entity, or a company).	Allegheny County Property Assessments	OWNERDESC
CLASSDESC	The property class description (e.g., 'Residential', 'Commercial').	Allegheny County Property Assessments	CLASSDESC
USEDESC	A description of the property's use (e.g., 'SINGLE FAMILY', 'VACANT LAND').	Allegheny County Property Assessments	USEDESC
HOMESTEADFLAG*	Indicates if the property is registered for a Homestead Exemption. Used as a proxy estimate for occupancy status.	Allegheny County Property Assessments	HOMESTEADFLAG
LOTAREA	The total square footage of the property lot.	Allegheny County Property Assessments	LOTAREA
SALEDATE	The date of the most recent sale of the property.	Allegheny County Property Assessments	SALEDATE
SALEPRICE	The price of the most recent sale.	Allegheny County Property Assessments	SALEPRICE

Final Column Name	Description	Source Dataset	Original Column Name
SALEDESC	A description of the most recent sale type (e.g., 'VALID SALE').	Allegheny County Property Assessments	SALEDESC
PREVSALEDATE	The date of the second-to-last sale.	Allegheny County Property Assessments	PREVSALEDATE
PREVSALEPRICE	The price of the second-to-last sale.	Allegheny County Property Assessments	PREVSALEPRICE
PREVSALEDATE2	The date of the third-to-last sale.	Allegheny County Property Assessments	PREVSALEDATE2
PREVSALEPRICE2	The price of the third-to-last sale.	Allegheny County Property Assessments	PREVSALEPRICE2
FAIRMARKETBUILDING	The tax-assessed fair market value of the building only.	Allegheny County Property Assessments	FAIRMARKETBUILDING
FAIRMARKETLAND	The tax-assessed fair market value of the land only.	Allegheny County Property Assessments	FAIRMARKETLAND
FAIRMARKETTOTAL	The total tax-assessed fair market value of the property. Most values are from 2018.	Allegheny County Property Assessments	FAIRMARKETTOTAL
STYLEDESC	A description of the building's architectural style.	Allegheny County Property Assessments	STYLEDESC
STORIES	The number of stories in the main building.	Allegheny County Property Assessments	STORIES
YEARBLT	The year the main structure on the property was built.	Allegheny County Property Assessments	YEARBLT
EXTFINISH_DESC	A description of the building's exterior material.	Allegheny County Property Assessments	EXTFINISH_DESC
ROOFDESC	A description of the roof type.	Allegheny County Property Assessments	ROOFDESC
BASEMENTDESC	A description of the basement type.	Allegheny County Property Assessments	BASEMENTDESC
CONDITIONDESC	A description of the building's overall condition from an assessment.	Allegheny County Property Assessments	CONDITIONDESC
TOTALROOMS	The total number of rooms in the building.	Allegheny County Property Assessments	TOTALROOMS
BEDROOMS	The number of bedrooms in the building.	Allegheny County Property Assessments	BEDROOMS
FULLBATHS	The number of full bathrooms.	Allegheny County Property Assessments	FULLBATHS
HALFBATHS	The number of half bathrooms.	Allegheny County Property Assessments	HALFBATHS
HEATINGCOOLINGDESC	A description of the heating and cooling system.	Allegheny County Property Assessments	HEATINGCOOLINGDESC
FIREPLACES	The number of fireplaces.	Allegheny County Property Assessments	FIREPLACES
FINISHEDLIVINGAREA	The total finished living area in sq ft.	Allegheny County Property Assessments	FINISHEDLIVINGAREA

Final Column Name	Description	Source Dataset	Original Column Name
ASOFDATE	The date the assessment data was last updated, not including physical conditions.	Allegheny County Property Assessments	ASOFDATE
NEIGHBORHOOD	The neighborhood name as defined by the City.	Allegheny County Property Assessments	NEIGHBORHOOD
PGH_COUNCIL_DISTRICT	The Pittsburgh City Council district number.	Allegheny County Property Assessments	PGH_COUNCIL_DISTRICT
PGH_WARD	The ward number within Pittsburgh.	Allegheny County Property Assessments	PGH_WARD
CHANGENOTICEADDRESS1	A proxy for the owner's address.	Allegheny County Property Assessments	CHANGENOTICEADDRESS1
Delinquent_Tax_Amount	The dollar amount of delinquent taxes owed on the property, as of download date.	City of Pittsburgh Tax Delinquency	current_delq_tax
Lien_Count	The number of liens filed against the property, as of the date the data was last downloaded.	Allegheny County Tax Liens	number
Lien_Total_Amount	The total dollar amount of all liens filed against the property, as of download date.	Allegheny County Tax Liens	total_amount
Longitude	The geographic longitude coordinate of the property.	Allegheny County Geocoders	x
Latitude	The geographic latitude coordinate of the property.	Allegheny County Geocoders	y
Conservatorship_Case_ID	The case identifier for any conservatorship filings related to the property.	Allegheny County Conservatorship Filings	case_id
conservatorship_party_name	The name of the petitioner (e.g., a community group, an individual) that filed the conservatorship case.	Allegheny County Conservatorship Filings	party_names
conservatorship_last_activity	The date of the most recent documented action or status update in the conservatorship case file.	Allegheny County Conservatorship Filings	last_activity
Condemned_Property_Type*	Condemnation flag, indicating the status or type of a condemned property.	Condemned and Dead-End Properties	property_type
condemned_date	The specific date on which the property was officially declared condemned by the city.	Condemned and Dead-End Properties	date
pliViolationStatus*	The current status of any PLI violations.	Pittsburgh PLI Violations	status
pliInvestigationDate	The date on which the PLI violation case was opened or last investigated.	Pittsburgh PLI Violations	investigation_date
pliInvestigationOutcome*	The final or current disposition of the PLI investigation.	Pittsburgh PLI Violations	investigation_outcome
recent_sale_date	Date of a recent sale (since 2013).	Property Sale Transactions	sale_date
recent_sale_price	Price of a recent sale (since 2013).	Property Sale Transactions	price
delinquency_risk_score	Percentage risk of future tax delinquency based on logistic regression (see Section H)	Calculated	N/A
Verified_Owner	Owner name as of document creation.	MLS mailing label download or manual lookup.	N/A
Verified_Mailing_Address	Owner tax mailing address as of document creation.	MLS mailing label download or manual lookup.	N/A

* See Appendix 1 for explanations of unique categorical values in selected columns.

Data Sources

The inventory is constructed from public datasets from the Western Pennsylvania Regional Data Center (WPRDC).

- **Allegheny County Property Assessments Parcel Data**
 - **URL:** <https://data.wprdc.org/dataset/property-assessments>
 - **Description:** This is the primary dataset containing assessment records for all properties in Allegheny County. Most columns were last updated in 2018.
- **Property Data with Geographic Identifiers**
 - **URL:** <https://data.wprdc.org/dataset/property-data-with-geographic-identifiers/resource/8eff881d-4d28-4064-83f1-30cc991cfec7>
 - **Description:** A 2024-updated clone of the property assessment dataset with geographic information like neighborhood and ward.
- **Pittsburgh PLI Violations Report**
 - **URL:** <https://data.wprdc.org/dataset/pittsburgh-pli-violations-report/resource/70c06278-92c5-4040-ab28-17671866f81c>
 - **Description:** Property code violations issued by the Department of Permits, Licenses, and Inspections (PLI). Updated daily.
- **Allegheny County Conservatorship Filings**
 - **URL:** <https://data.wprdc.org/dataset/allegheny-county-conservatorship-filings/resource/fd64c179-b5af-4263-9275-fb581705d878>
 - **Description:** Cases filed under PA's conservatorship law (Act 135). Updated daily.
- **Allegheny County Geocoders**
 - **URL:** <https://data.wprdc.org/dataset/geocoders/resource/42231cab-8341-48d6-b695-47612dd6514a>
 - **Description:** A dataset that provides latitude and longitude coordinates for each parcel.
- **Allegheny County Tax Liens**
 - **URL:** <https://data.wprdc.org/dataset/allegheny-county-tax-liens-filed-and-satisfied/resource/d1e80180-5b2e-4dab-8ec3-be621628649e>
 - **Description:** Contains information on municipal tax liens filed against properties. Updated daily.
- **City of Pittsburgh Tax Delinquency**
 - **URL:** <https://data.wprdc.org/dataset/city-of-pittsburgh-property-tax-delinquency>
 - **Description:** Contains information on delinquent taxes by property. Updated daily.
- **Condemned and Dead-End Properties**
 - **URL:** <https://data.wprdc.org/dataset/condemned-properties>
 - **Description:** A list of all properties deemed condemned or dead-end by the PLI.
- **Allegheny County Property Sale Transactions**
 - **URL:** <https://data.wprdc.org/dataset/real-estate-sales/resource/5bbe6c55-bce6-4edb-9d04-68edeb6bf7b1>
 - **Description:** A list of all property sales in Allegheny County since 2013.

Replicating and Updating the Inventory

This guide provides step-by-step instructions to recreate the inventory_appended.csv file. Following this process allows PHFCC to update the inventory in the future if new source data becomes available.

Part A: Preparation

1. You will need Python and the pandas library installed on your computer. The easiest way to get these is by installing the Anaconda Distribution. The individual edition is free.
2. Create a single folder on your computer to hold all the necessary files.
3. Download all of the files specified in the data sources as comma-separated values (.csv) into your project folder and rename them for ease of use. For instance, I named the files:
 - o Allegheny County Property Assessments → propertydata.csv
 - o Property Data with Geographic Identifiers → geoid.csv
 - o City of Pittsburgh Tax Delinquency → delinquency.csv
 - o Allegheny County Tax Liens → liens.csv
 - o Allegheny County Geocoders → coordinates.csv
 - o Allegheny County Conservatorship Filings → conservatorships.csv
 - o Condemned and Dead-End Properties → condemned.csv
 - o Pittsburgh PLI Violations Report → pliviolations.csv
4. Place the Python scripts “Property Data Cleaning.py,” “Inventory.py,” and “Visualizations.py” into the same project folder.

Part B: Step-by-Step Instructions

First, you need to filter the very large propertydata.csv file to create the base inventory for only residential properties in the Fineview and Perry South neighborhoods. It will eliminate irrelevant columns and only include the fields pertaining to the two neighborhoods of interest – however, if you wish to modify the filter terms, simply modify the excerpt of the script “Property Data Cleaning.py” below. Make sure the columns or neighborhoods are typed exactly as they appear in the original file and run the script in your editor.

```
# Define the columns to keep
columns_to_keep = [
    'PARID', 'PROPERTYHOUSENUM', 'PROPERTYFRACTION', 'PROPERTYADDRESS',
    'PROPERTYCITY', 'PROPERTYSTATE', 'PROPERTYUNIT', 'PROPERTYZIP',
    'MUNICODE', 'MUNIDESC', 'NEIGHDESC', 'OWNERDESC',
    'CLASSDESC', 'USEDDESC', 'LOTAREA', 'SALEDATE', 'SALEPRICE',
    'SALEDESC', 'PREVSALEDATE', 'PREVSALEPRICE', 'PREVSALEDATE2',
    'PREVSALEPRICE2', 'FAIRMARKETBUILDING', 'HOMESTEADFLAG', 'FAIRMARKETLAND',
    'FAIRMARKETTOTAL', 'STYLEDESC', 'STORIES', 'YEARBLT',
    'EXTFINISH_DESC', 'ROOFDESC', 'BASEMENTDESC', 'CONDITIONDESC',
    'TOTALROOMS', 'BEDROOMS', 'FULLBATHS', 'HALFBATHS',
    'HEATINGCOOLINGDESC', 'FIREPLACES', 'FINISHEDLIVINGAREA', 'ASOFDATE'
]
```

```
# Define the columns to append from the geographic data file
columns_to_append = [
    'PARID', 'NEIGHBORHOOD', 'PGH_COUNCIL_DISTRICT', 'PGH_WARD'
]

# Define the neighborhoods to filter by
neighborhood_filters = ['Fineview', 'Perry South']
```

This will create the inventory.csv file for you and append geographic identifiers from geoid.csv. Some parcels do not appear in geoid.csv – the script accommodates this by estimating which properties are in the neighborhoods using ward names to prevent an additional 840 parcels from being eliminated. Now, use the appending “Inventory.py” script to add columns to this base file.

1. **Open the Script:** Open your main appending script file “Inventory.py” in your editor.
2. **Check the File Paths:** This section contains the file paths. It should look like this after inputting your desired file paths and column names:

```
user_sources_config = [
    {
        'path': "delinquency.csv",
        'columns_to_draw': {"current_delq_tax": "Delinquent_Tax_Amount"}
    },
    {
        'path': "coordinates.csv",
        'columns_to_draw': {"x": "Longitude", "y": "Latitude"}
    },
    {
        'path': "liens.csv",
        'columns_to_draw': {"number": "Lien_Count", "total_amount": "Lien_Total_Amount"}
    },
    {
        'path': "conservatorships.csv",
        'columns_to_draw': {"case_id": "Conservatorship_Case_ID", "party_name": "conservatorship_party_name", "last_activity": "conservatorship_last_activity"}
    },
    {
        'path': "condemned.csv",
        'columns_to_draw': {"property_type": "Condemned_Property_Type", "date": "condemned_date"}
    },
    {
        'path': "pliviolations.csv",
        'columns_to_draw': {"status": "pliViolation_Status", "investigation_date": "pli_investigation_date", "investigation_outcome": "pli_investigation_outcome"}
    }
]
```

4. **Run the script** and save if you made any changes. After the script finishes, a new file named **inventory_appended.csv** will appear in your project folder. This is your complete final inventory file that you can open in any spreadsheet-based software. If your platform prompts you for a delimiter to import the file, select commas.
5. Run **Visualizations.py** and **Analysis.py** to produce graphs, charts, tables, and maps of the updated data.

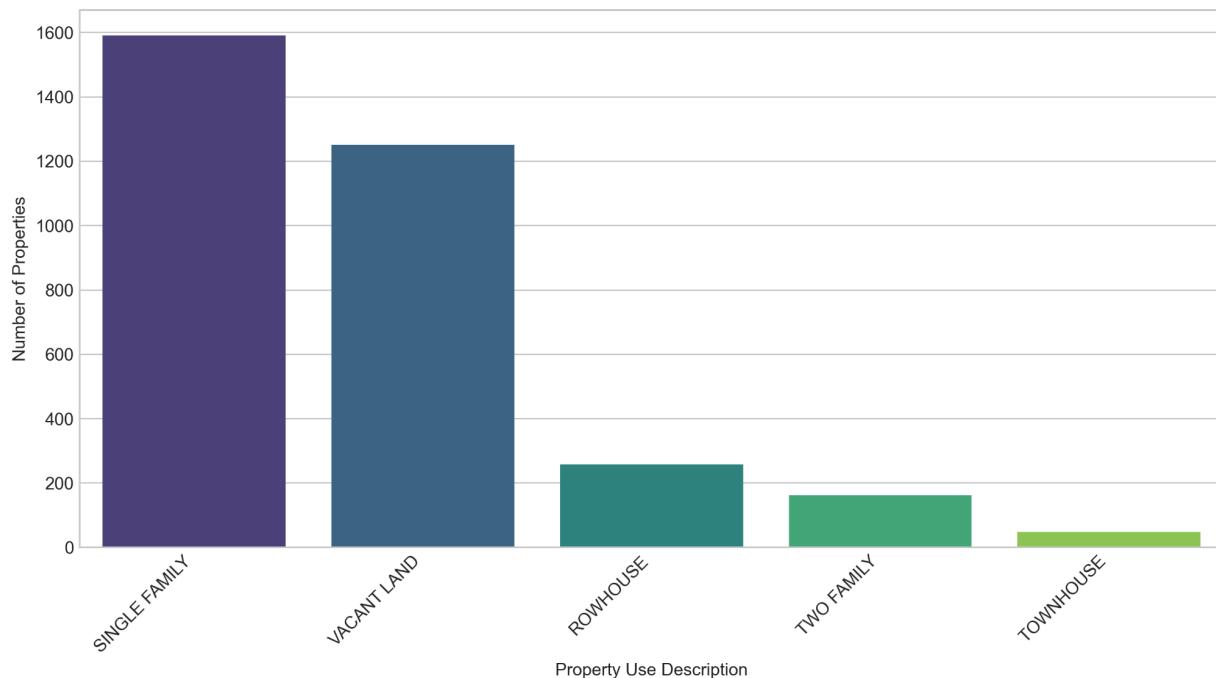
Analysis

A. Housing Stock Profile

The data paints a clear picture of the architectural DNA of these neighborhoods.

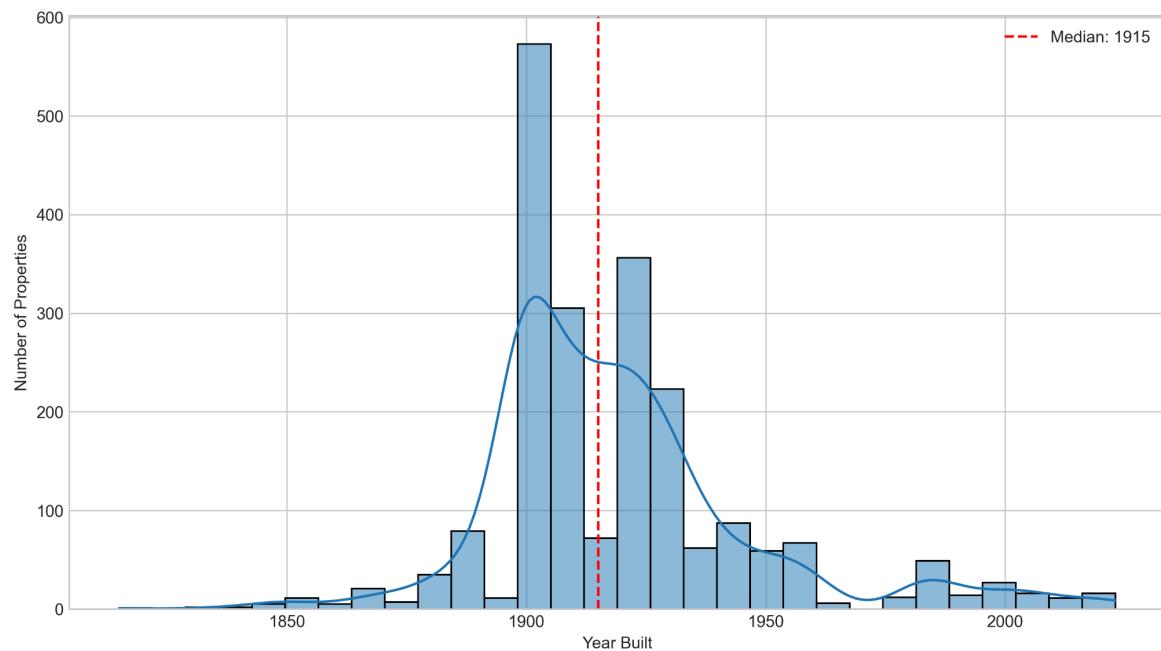
- **Dominant Housing Type:** The vast majority of properties are residential.
 - Single-Family Homes are the most common property type, making up a significant portion of the housing stock in both neighborhoods.
 - Duplexes and Multi-Family units also represent a notable segment, indicating a historical presence of rental-friendly housing structures.
 - Vacant Land makes up a considerable number of parcels, representing potential for future development.

Top 5 Property Use Types



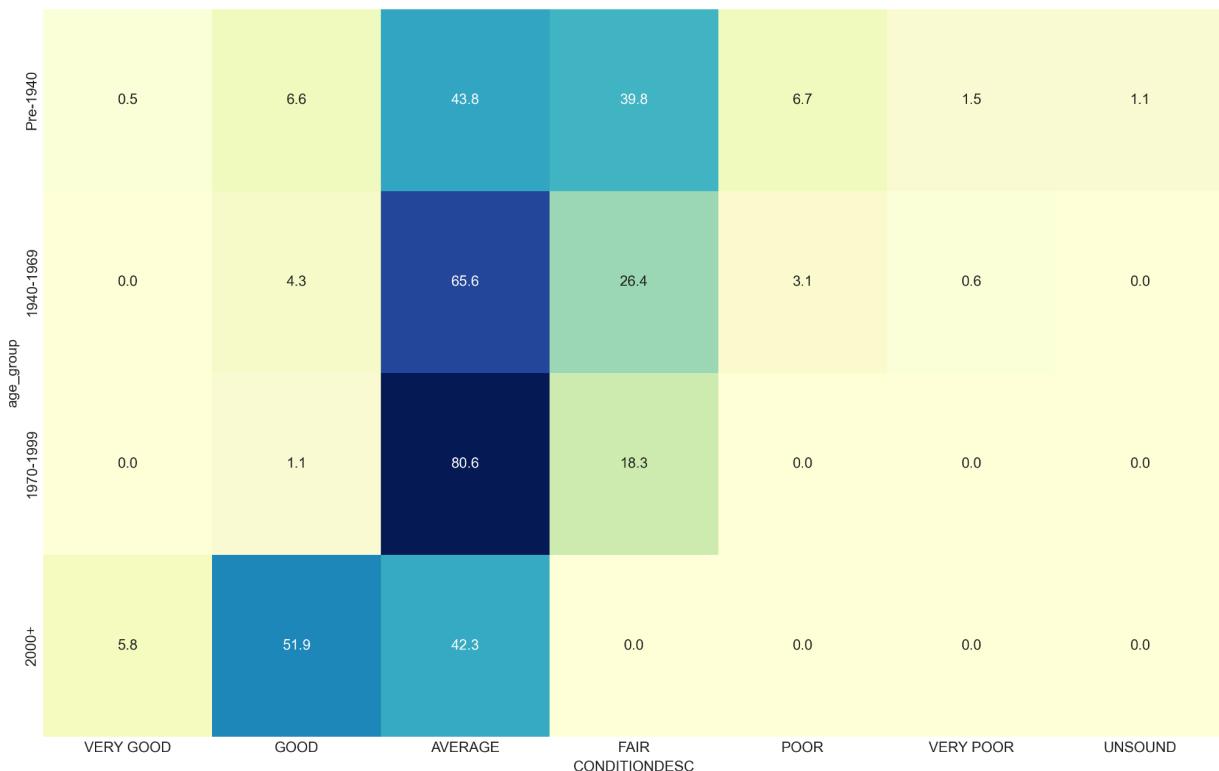
- **Age of Housing Stock:** The neighborhoods are characterized by older homes, which has implications for maintenance and affordability.
 - The median build year for homes is 1915, making the typical home around 110 years old. However, like many columns describing physical characteristics, YEARBLT is mostly available only for residential structures.

Distribution of Year Built



- An overwhelming majority of the housing stock (82.9%) was built before 1940.
- There is a statistically significant correlation between age and condition; properties built before 1940 are significantly more likely to be in "FAIR" or "POOR" condition compared to newer constructions.

Proportion of Property Conditions by Age Group (%)

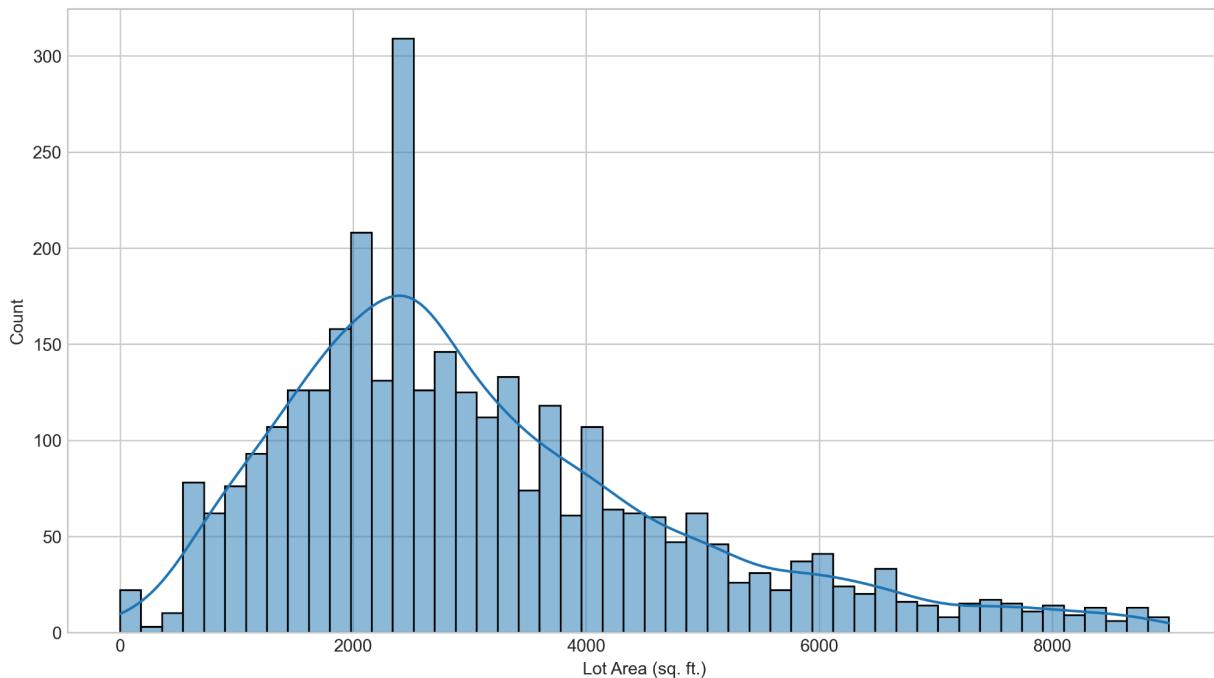


- **Physical Characteristics:**

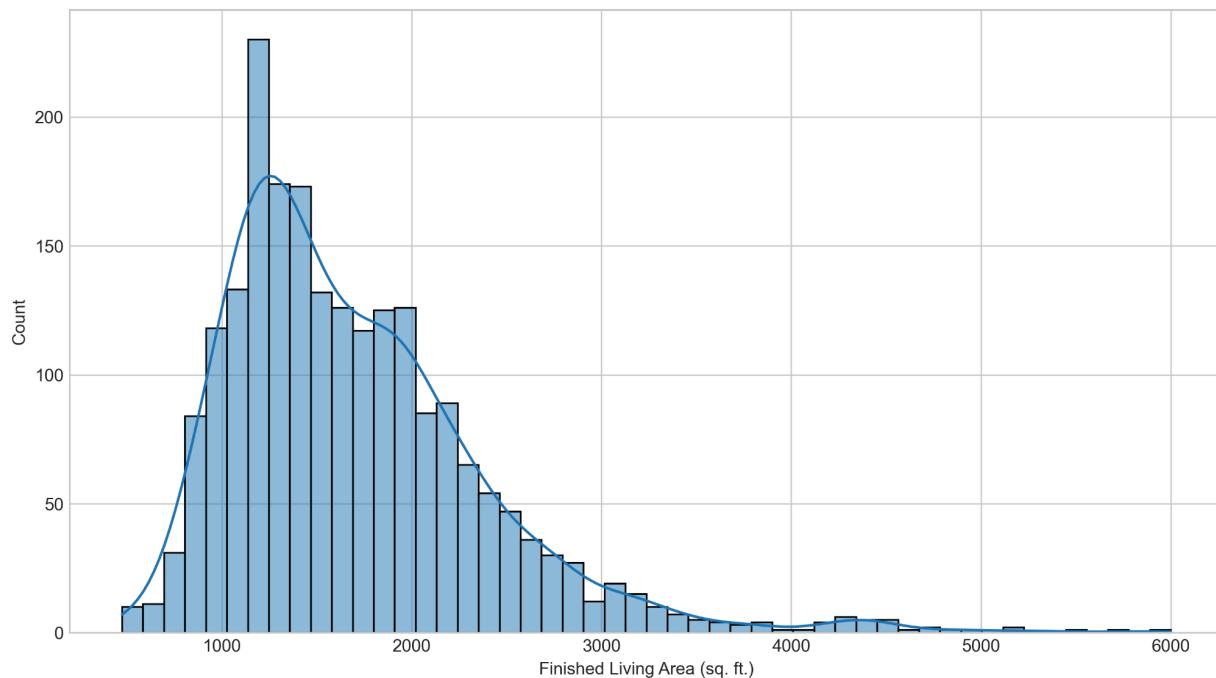
- The typical property is a 2-story building.
- The median finished living area is modest, generally falling in 1,200-1,600 sq ft.
- Lot sizes are also relatively small, consistent with the dense, urban layout of the neighborhoods when they were first developed.
- Just under half of residential parcels have central heat, and a smaller proportion have both central heat and air conditioning. About 16% have one or more fireplaces.

HVAC System Description	Number of Properties
Central Heat	1642
Central Heat with AC	464
Unit Heat	6
Other	3
Electric	3
Floor Furnace	3
Unit Heat with AC	1
Wall Furnace	1

Distribution of Lot Area (Bottom 95%)



Distribution of Finished Living Area



The physical profile is one of an aging, dense, early 20th-century urban neighborhood. The prevalence of older homes suggests that ongoing maintenance and potential code-related issues are likely widespread challenges for residents and owners.

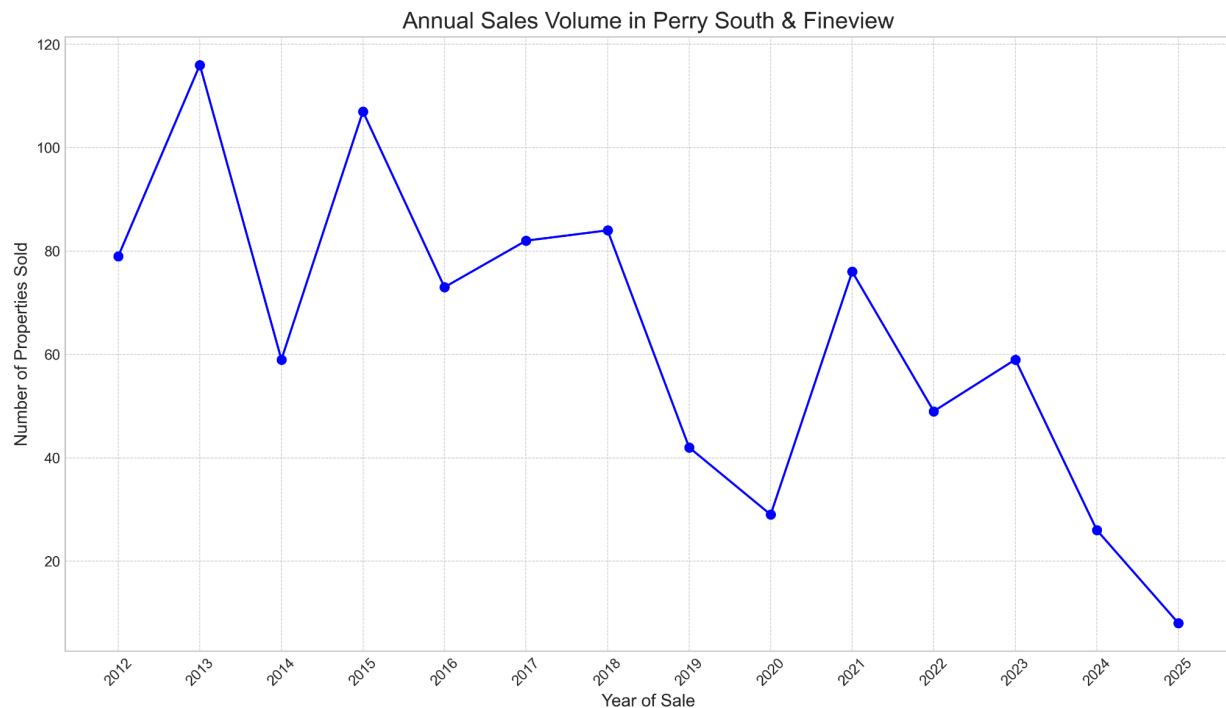
	Fineview	Perry South	Overall
Total Properties	749	2,626	3,375
Median Assessed Value	\$32,600	\$27,600	\$31,200
Median Year Built	1902	1920	1915
% Owner-Occupied (Proxy)	29.3%	25.1%	27.2%
Tax Delinquency Rate	21.5%	34.0%	29.7%

B. Sales Market Trends Over Time

By analyzing sales data from the past decade, we can see clear trends in market activity and price appreciation. (Note: Sales under \$10,000 are excluded as they are typically non-market transfers like “love and affection” sales).

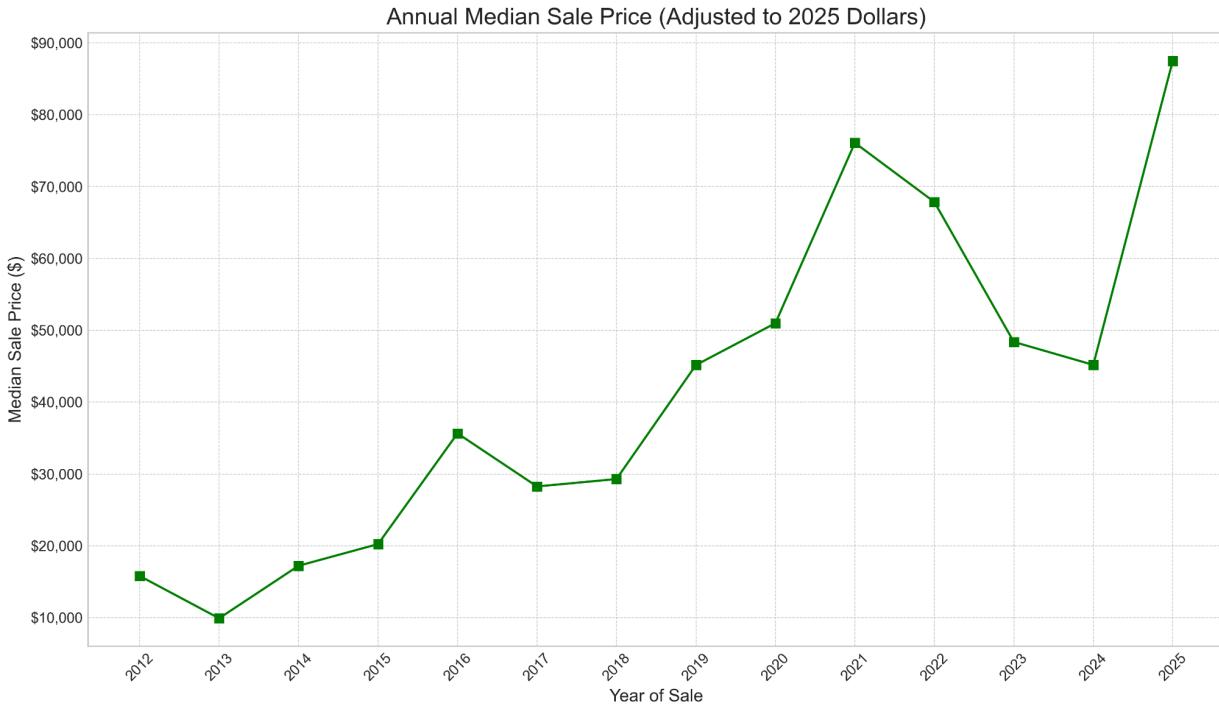
- **Sales Volume (Number of Transactions):**

- The number of property sales per year steadily rose with some seasonality patterns from 1970 to around the 2008 financial crisis, after which sales volume spiked drastically peaking around 2013 and gradually cooling.
- Over the past decade, sales volume has decreased, falling to below 30 properties transacted after a small rebound from the COVID-19 pandemic.



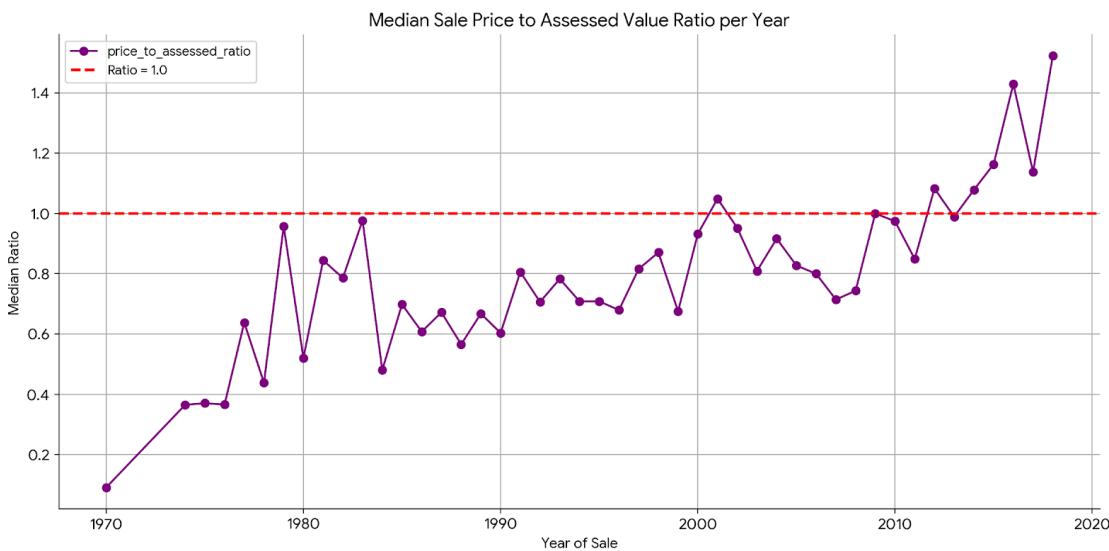
- **Sales Price (Median Price per Year):**

- The median sale price has shown dramatic appreciation over the last decade.
- From the mid-2010s to the present, median prices have risen between five and ninefold. For example, a property that sold for \$10,000 in 2013 might have sold for \$45,000 or more in 2024.
- The sharpest price increases occurred in the 2021 post-pandemic economic rally, coinciding with the increase in sales volume. The current median for 2025 may be upwardly biased due to only six months' worth of data rather than a full year.



- **Market Value vs. Assessed Value:**

- A key indicator of market heat is the ratio of a property's sale price to its tax-assessed value (**FAIRMARKETTOTAL**).
- In the early 2010s, properties often sold for prices close to their assessed value (a ratio near 1.0).
- In recent years, the median ratio has climbed significantly, often to 1.5 or higher. This means properties are consistently selling for 50% or more than their assessed value. However, this is not solely an increase at the neighborhood level, rather a combination of local housing dynamics and macroeconomic indicators like inflation considering most assessed values in the dataset are from 2018.



However, real estate prices have changed drastically with inflation since 1970. After adjusting for inflation using Consumer Price Index (CPI) data and converting the sale prices to real 2025 U.S. dollars, we can focus on the change in the ratio since 2010.



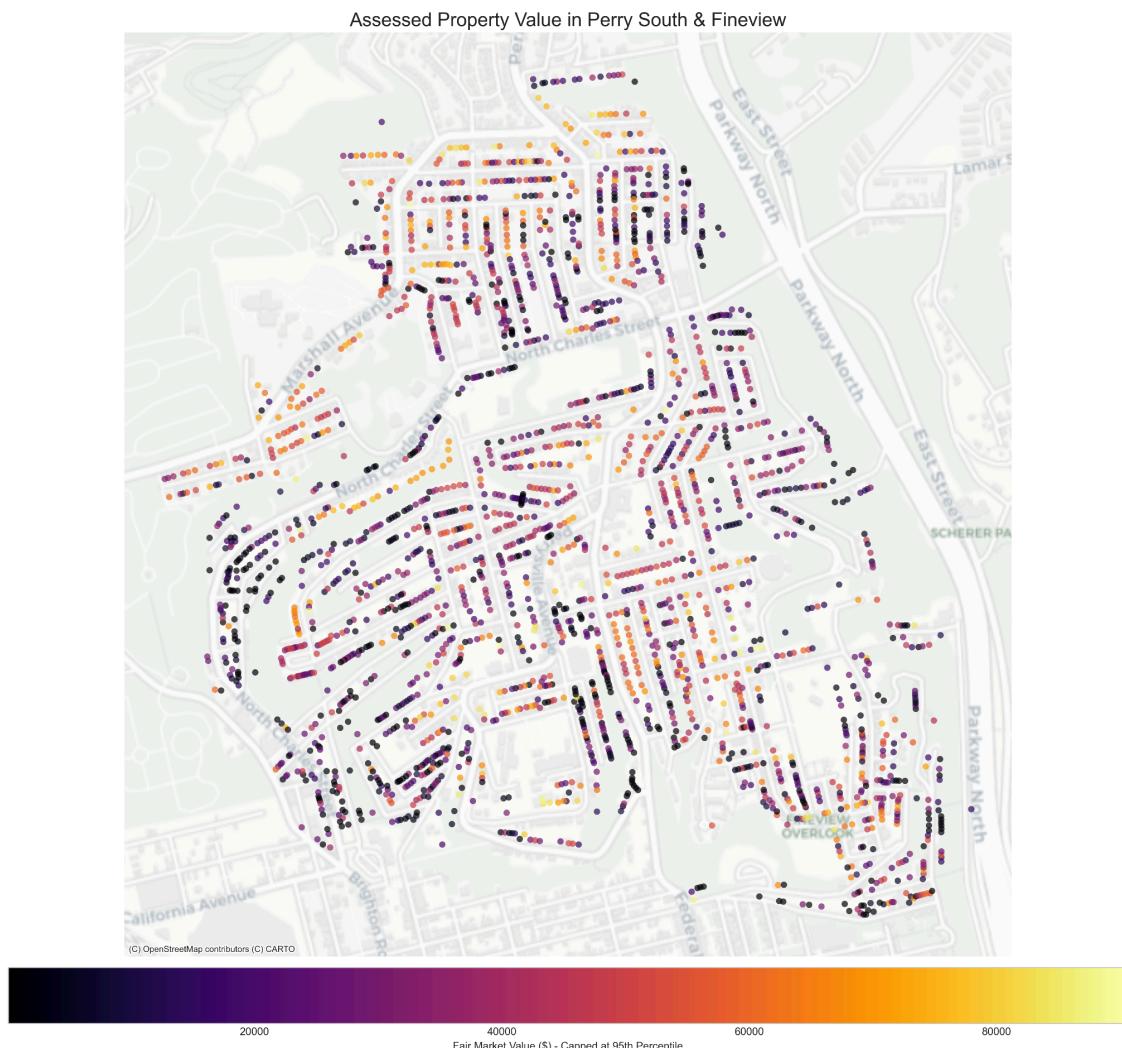
If we break down this trend in recent sales by neighborhood, it's apparent that this phenomenon isn't evenly distributed between Perry South and Fineview. Since 2020, two-thirds of Perry South sales transactions have occurred at prices above the property's assessed value. The average markup was 90% above the assessment, 59% higher than in Fineview.

	Median Sale-to-Assessed Ratio since 2020	% of Sales Above Assessed
Fineview	1.31	60.9
Perry South	1.90	70.1
Overall	1.84	69.2

The data tells a story of two neighborhoods with aging housing stock that have experienced a rapid acceleration in market interest and property values over the last five to seven years.

- **Affordability Pressure:** The dramatic rise in sale prices is a direct threat to housing affordability for both prospective homebuyers and existing renters (as new owners may increase rents to match their investment).
- **Development & "Flipping" Pressure:** The gap between the older, lower assessed values and the new, higher market prices creates a strong financial incentive for property "flipping." This can lead to rapid changes in the community character and further displace long-term residents.

- **Map of Property Values:** Plotting the FAIRMARKETTOTAL shows clear geographic divisions in property value, allowing you to see which streets or sections have the highest and lowest assessed values, which is crucial for understanding market dynamics and pricing pressures.



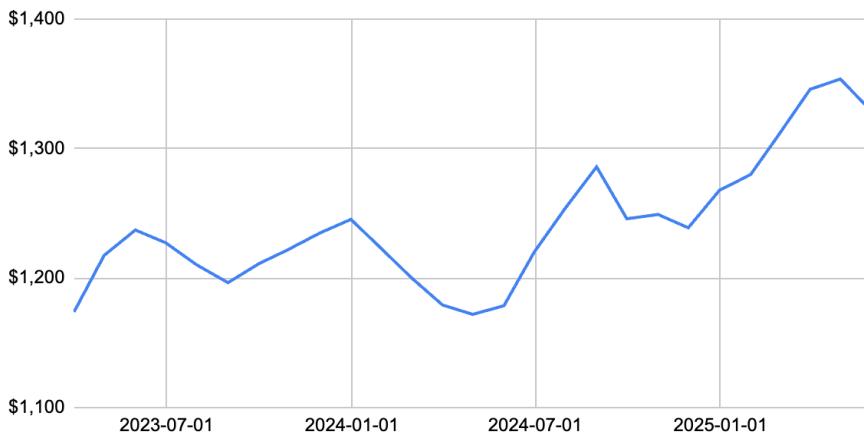
- **Property Flipping:** The high concentration of low-value, poor quality, and vacant parcels coupled with properties consistently selling above their assessed value creates a strong incentive for property “flipping,” where investors purchase distressed parcels and perform constructions and renovations to inflate property value and resell, usually with high turnaround and high profitability.
 - The table below shows the 10 most profitable transactions that are likely “flips,” based on being sold within two years of the initial purchase at a significantly higher price than the purchase price. Based on these criteria, there are 222 potential “flips” recorded in the data, with an average holding time of 260 days and an average profit of \$46,021.42, or an average profit margin of 531.59%.

PROPERTY ADDRESS	PREVSALEDATE	SALEDATE	PREVSALEPRICE	SALEPRICE	profit
E JEFFERSON ST	2021-05-05	2022-01-07	16000	707000	691000
BOYLE ST	2014-06-12	2016-05-04	30000	445285	415285
BOYLE ST	2016-07-13	2017-11-03	7822	343400	335578
ALPINE ST	2021-02-19	2021-05-25	43000	359000	316000
E JEFFERSON ST	2020-09-23	2021-11-14	91500	349000	257500
CEMETERY ST	2019-05-24	2020-07-26	30000	257900	227900
PERRYSVILLE AVE	2022-04-29	2022-11-10	2900	200000	197100
MARSHALL AVE	2021-03-31	2022-10-29	72000	263000	191000
BARK ST	2024-08-06	2024-08-06	40000	222840	182840
LINWOOD ST	2022-07-16	2022-07-16	44000	215000	171000

- **Neighborhood-Level Metrics:** Several metrics like vacancy and rental income are unavailable at a sufficient degree of replicability and granularity, but we can examine the neighborhoods at a broader level using public resources.
 - The U.S. Census Bureau published vacancy estimates at the block level in the 2020 Census. Perry South and Fineview fall into Census tracts 2615, 2614, and 2509 in Allegheny County, for which the 2020 vacancy estimates were 18.7%, 17.8%, and 16.7%, respectively. Within those, several block groups along the highway on the east of the neighborhoods had extremely high vacancy rates as high as 85.7%. See Appendix 3 to access an interactive map of Census vacancy estimates.
 - Rental trends on Zillow are only available at ZIP code levels. Perry South and Fineview are contained within 15214, along with sizable portions of other neighborhoods. The Zillow Observed Rent Index measures adjusted average rent in each ZIP code. 15214 data is available from 2023 onward, beginning around \$1,200 and ending around \$1,330. However, this is an imprecise measurement of the neighborhoods in question due to the higher property values in the other areas included in the ZIP code. The graph below shows the index over time.

Zillow Observed Rent Index

ZIP Code 15214, 2023-2025

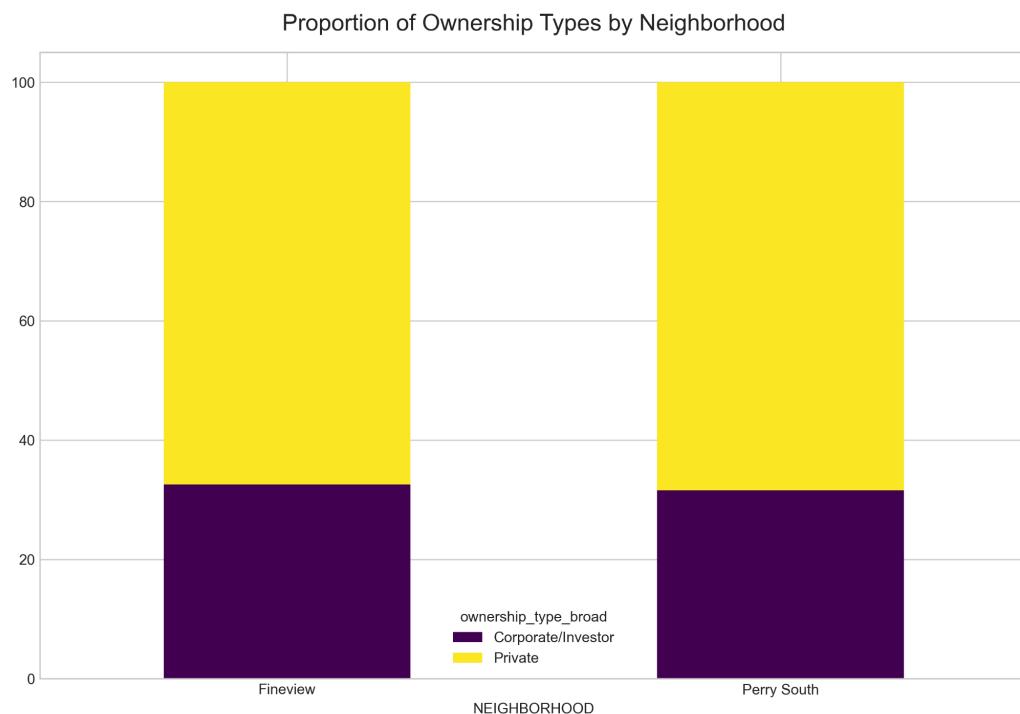


C. A Divided Ownership Landscape

While the majority of properties are privately owned by individuals, a significant and impactful portion is controlled by other parties. Ownership was split between regular and corporate entities. The table below shows a breakdown in ownership between various types within those two groups. See Appendix 1 for definitions of each OWNERDESC value.

Owner	Property Count
REGULAR	1616
CORPORATION	1091
REGULAR-ETUX OR ET VIR	517
REGULAR-ETAL	189
REGULAR-ESTATE	1
CORPORATION-RAILROAD	1

- **Corporate/Investor Ownership:** This group owns roughly 31.4% of the properties across both neighborhoods. Deeper analysis shows this ownership is not evenly distributed and tends to be higher for properties that are not owner-occupied (i.e. those without a Homestead Exemption).
- **Neighborhood Difference:** The two neighborhoods have very similar concentrations of Corporate/Investor-owned properties.



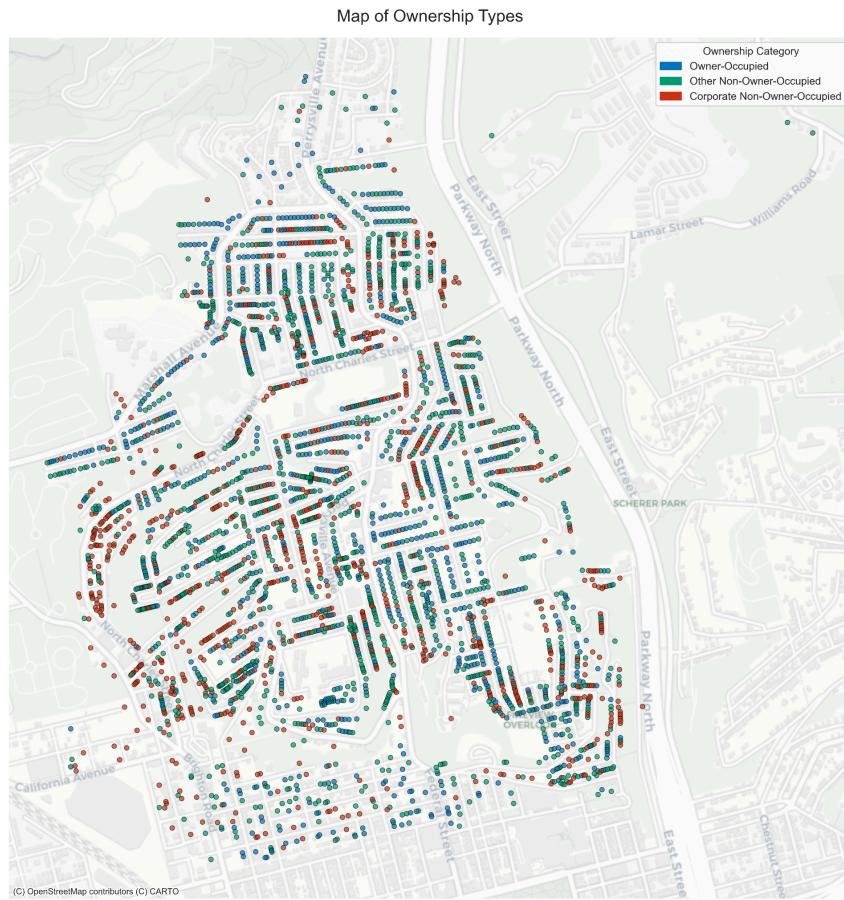
There were two distinct groups within privately-held properties: owner-occupied and other non-owner-occupied parcels.

- This analysis counts a property as **Owner-Occupied** if its value in the HOMESTEADFLAG column is exactly 'HOM'. It does not encompass all owner-occupied properties, but all parcels with the flag are necessarily owner-occupied – thus, we can utilize its profile as a conservative estimate of owner-occupancy. Alternatively, comparing implied owner mailing addresses from CHANGENOTICEADDRESS1 suggests that there are as many as 1,117 owner-occupied parcels in the neighborhoods versus the homestead proxy's 721 and fuzzy matching's estimate of 1,253 – the true quantity is likely somewhere between them.
- For properties not flagged as Owner-Occupied and OWNERDESC is a keyword like 'LLC', 'INC', 'CORP', 'LP', or 'TRUST', it's considered **Corporate Non-Owner-Occupied**. Again, this is a rough proxy for corporate non-owner-occupancy, as some owner-occupied properties likely fall into those categories.
- Any property that does not meet the criteria for the two rules above is counted as **Other Non-Owner-Occupied**. This group primarily consists of properties owned by municipal entities (about one-quarter, mostly vacant lots) and individuals who do not live there – such as landlords – and that are not held by a corporate entity.

Ownership Profile	Property Count	Percentage of Total
Owner-Occupied	929	27.2%
Other Non-Owner-Occupied	1,414	41.4%
Corporate Non-Owner-Occupied	1,073	31.4%

- **Map of Ownership Types:**

A map showing ownership reveals that Corporate/Investor-owned properties are also often clustered. These clusters frequently overlap with the areas of higher property distress. This visualization makes it possible to identify "hotspots" where investor activity and declining conditions intersect.



- The **Other Non-Owner-Occupied** ownership profile consists of both publicly-owned parcels and those owned by private non-owner-occupants, such as rental properties. Public entities, namely the City of Pittsburgh and the Urban Redevelopment Authority, own about one-quarter of the properties in this category, mostly vacant lots. As shown in the table below, privately-owned parcels dwarf the public minority in tax delinquency, liens, and poor conditions.

Metric	Publicly-Owned (e.g., City, URA)	Private Landlords
Total Properties	338	889
Tax Delinquency Rate	2.10%	61.30%
Rate of Properties with Liens	24.30%	63.80%
Rate in Poor Condition	6.80%	14.30%
Percentage of Vacant Land	84.30%	7.90%

D. Financial Distress Analysis

When we compare the financial health of these groups, a pattern of distress emerges.

Ownership Profile	Delinquency Rate	Avg. Delinquent Amount (Among Delinquent Properties)
Corporate Non-Owner-Occupied	15.0%	\$468.90
Other Non-Owner-Occupied	45.3%	\$397.71
Owner-Occupied	21.6%	\$504.25

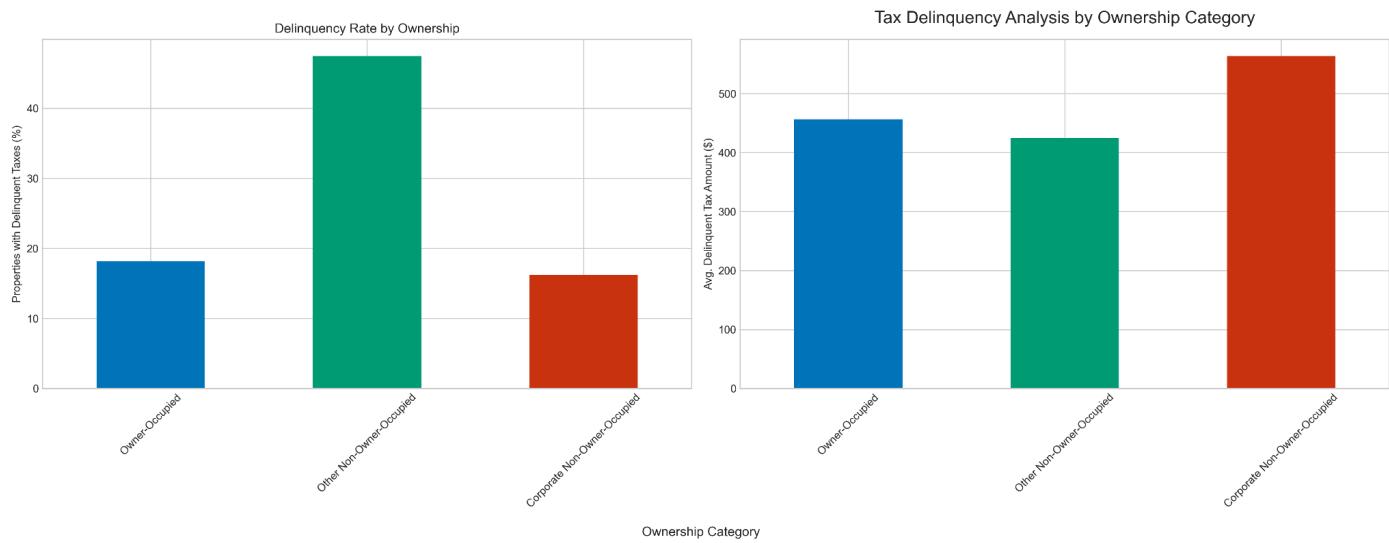
- **Tax Delinquency Rate:**

- Corporate Non-Owner-Occupied properties have the lowest rate of tax delinquency at 15%, whereas Owner-Occupied is 21.6% and Other Non-Owner Occupied is 45.3%. Breaking down by more specific OWNERDESC categories, regular ownership (likely encompassing both Owner-Occupied and Other Non-Owner Occupied) dominates the portfolio delinquency rates.

Owner	Portfolio Delinquency Rate
REGULAR	39.5%
CORPORATION	16.1%
REGULAR-ETUX OR ET VIR	28.4
REGULAR-ETAL	28.0%

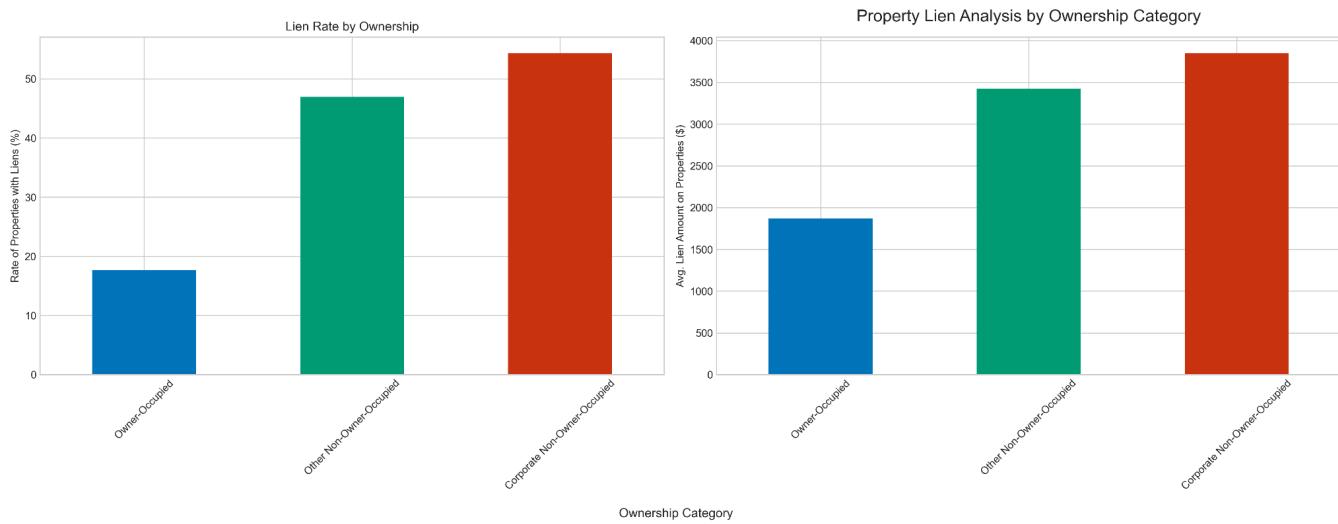
- **Severity of Delinquency:**

- Among properties that are delinquent, the median amount of delinquent taxes owed by the three ownership groups varies, with Corporate Non-Owner-Occupied having the highest average.



- **Property Liens:**

- Corporate-owned properties show a higher incidence of properties with one or more liens compared to the other two groups at over 50% of all properties in its group. The Other Non-Owner Occupied group followed at 47%, while Owner-Occupied properties had the lowest incidence.



- Among properties with liens, the Corporate/Investor had high average lien amounts. Owner Occupied properties had very low rates of liens and lien amounts.

Property Category	Rate of Properties with Liens	Average Lien Amount (for properties with liens)
Corporate/Investor	54.3%	\$3,849.33
Other Non-Owner Occupied	47.0%	\$3,420.76
Owner Occupied	17.7%	\$1,868.68

E. Physical Condition Analysis

Based on the 2013 county-wide property assessment, many of the parcels with physical structures are heavily blighted and at risk of future demolition. Based on the CDU assessment categories, we can create demolition risk scores by considering “unsound” properties’ risk critical, “very poor” properties high risk, and “poor” properties medium risk.

Risk Category	Property Count
Critical Risk	202
High Risk	22
Medium Risk	103
No Apparent Risk	3089

Broken down by neighborhood, Perry South has over four times as many critically at-risk parcels. In terms of the proportion of those parcels out of all properties, 3% of Fineview properties’ risk is critical, while the percentage for Perry South stands at 4.8%.

NEIGHBORHOOD	Critical Risk	High Risk	Medium Risk	No Apparent Risk
Fineview	28	3	4	518
Perry South	127	12	76	1811

A noteworthy disparity emerges from the relative staleness of the property assessment information – condition analysis is mostly derived from 12-year-old data from the 2013 assessment, while condemnations and PLI violations are updated daily in WPRDC databases. As such, there are some properties that are listed in good condition but have been recently condemned, representing a rapid physical decay over the past decade – or the inverse, in the case of property rehabilitation.

The physical state of the properties shows a familiar divide among ownership groups, suggesting that financial distress and poor physical condition are linked.

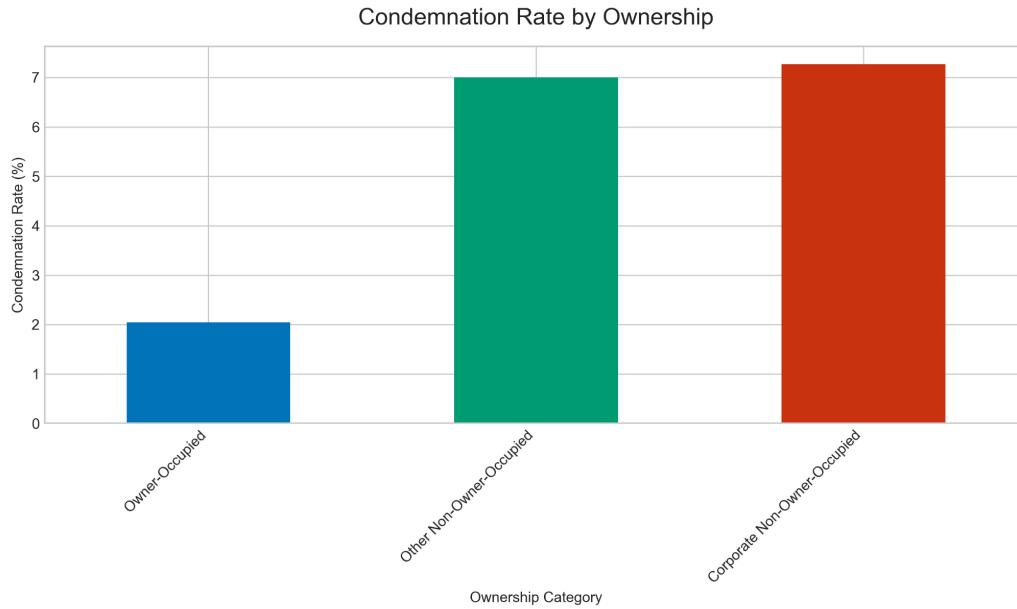
- **Distribution of Conditions:**
 - **Corporate Non-Owner-Occupied:** These properties have the highest concentration in the "FAIR" and "POOR" condition categories. They have very few properties rated "EXCELLENT" or "GOOD."
 - **Owner-Occupied:** This group dominates the "GOOD" and "AVERAGE" categories and has the lowest percentage of properties in "POOR" condition.
 - **Other Non-Owner-Occupied:** Again, this group falls in the middle, generally in better condition than the corporate-owned stock but worse than the owner-occupied homes.



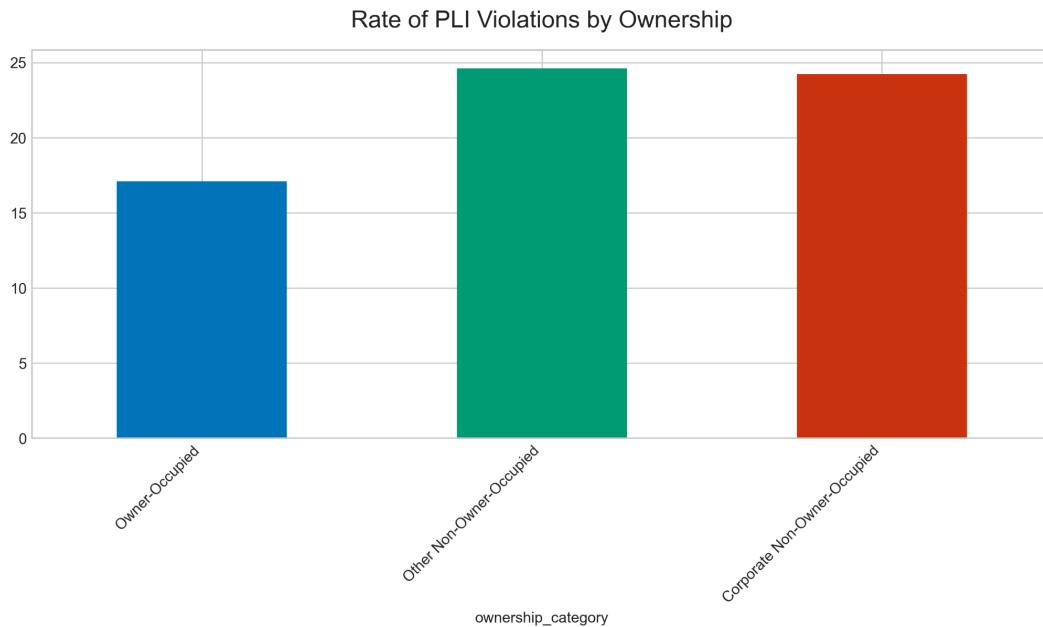
Ownership Profile	EXCELLENT	VERY GOOD	GOOD	AVERAGE	FAIR	POOR	VERY POOR	UNSAFE
Corporate Non-Owner-Occupied	0.0%	0.2%	11.9%	39.8%	37.0%	7.8%	2.4%	0.9%
Other Non-Owner-Occupied	0.0%	0.1%	5.1%	43.1%	39.8%	8.3%	1.7%	1.7%
Owner-Occupied	0.0%	1.1%	6.8%	53.8%	34.4%	3.1%	0.4%	0.3%

- **Condemnation and PLI Violations:**

- The Corporate Non-Owner-Occupied group has the highest rate of condemnation at 7.3%, with Owner-Occupied at 2.0% and Other Non-Owner-Occupied at 7.0%.



- A property is considered to have a PLI violation if it has any status other than "No Violation" recorded. The statuses found in the data include "CLOSED," "IN COURT," "CLEAN & LIEN," and "IN VIOLATION." As the chart below shows, Other Non-Owner Occupied properties have the highest rate of PLI violations. Corporate/Investor properties have a higher rate of violations than Owner-Occupied properties, which have the lowest rate of the three categories.



F. Selected Individual Property Owners

The City of Pittsburgh has local restrictions on freely accessible downloads of property owner names and addresses, so external data providers were a more fruitful resource for studying individual ownership. Using the subscription-based Realtors Property Resource, mailing labels were downloaded for 2,000 properties (the upper monthly limit on the MLS site) within the neighborhood of Perry Hilltop and merged using the Ownership Appending.py script that uses a fuzzy matching technique to attach `Verified_Owner` and `Verified_Mailing_Address` to existing parcels in the inventory.

The table below shows the owners with the most corresponding properties in Perry Hilltop – number one is the City of Pittsburgh (252 of the 311 parcels the City owns are vacant lots).

Verified Owner	Property Count
City of Pittsburgh	311
614 Services LLC	103
2403 Perrysville Properties Lp	89
Angelo O. Murdock	51
Allegheny Housing Rehabilitation Corp	35
Abdelilah Ettadouni	33
Benjamin Perez	33
Beverly Lorraine Harris	23
Armey J. Gordon	22
Cheryl Ann Spencer	21
Prf 100 LLC	20
Alexander Carlisle	20
Agostino Badami	18
Allison N. Jones	18
Darren K. Parr	18

- We can rank the “best” residential property owners in the two neighborhoods in the table below, showing the addresses of owners with five or more neighborhood properties in their portfolio and corresponding rates of delinquency, liens, and poor conditions. “Poor condition” signifies that a property’s condition is either POOR, VERY POOR, or UNSOUND.
 - The top three spots are variations on Northside Properties, who collectively own 29 properties and have a mailing address in the Central North Side.
 - Notably, only one of the mailing addresses in the top 10 is in Perry Hilltop, while five are elsewhere on the North Side, suggesting they maintain a presence close to their properties. One is a PO box, one is downtown, one is in Pittsburgh’s suburbs, and one is in Florida.

Owner Name	Mailing Address	Property Count	% Delinquent	% With Liens	% In Poor Condition
Northside Properties Residences Iii LLC	1300 Brighton Rd, Pittsburgh, PA 15233	13	0	0	0
Northside Properties R & S LLC	1300 Brighton Rd, Pittsburgh, PA 15233	8	0	0	0
Northside Properties Residences Ii LLC	1300 Brighton Rd STE 1, Pittsburgh, PA 15233	8	0	0	0
Devlinc Inc	404 W North Ave, Pittsburgh, PA 15212	5	0	0	0
Larimer Living Matters LLC	510 Lockhart St, Pittsburgh, PA 15212	5	0	0	0
Theresa L. Dailey	2243 Peekskill St, Pittsburgh, PA 15214	5	0	0	0
Oakglade Realty Capital Partners Lp	1670 Golden Mile Hwy, Monroeville, PA 15146	15	0	0	13.3
Diana K. Close	110 Bayshore Rd, Nokomis, FL 34275	6	0	0	16.7
Prf 100 LLC	727 Wood St #3RD, Pittsburgh, PA 15221	9	0	0	22.2
Rodi Family Revocable Living Trust	Po Box 15241, Pittsburgh, PA 15237	17	0	11.8	0

- Likewise, we can rank the “worst” property owners in terms of the share of their holdings with recorded delinquency, liens, or poor assessed conditions.
 - With seven properties in Perry Hilltop, all with recorded delinquency and liens and one in poor condition, 211 East Beaver Street corresponds to Kevin P. Bradley, whose mailing address is in Zelienople, PA.
 - Of the owner mailing addresses on the “worst” list, two are unavailable, two are PO boxes, two are in Pittsburgh suburbs, and three are within the city limits – two of which are on the North Side. None of them are within Perry Hilltop or Fineview.
 - See Section H for a more robust statistical test of the association between local ownership and property portfolio performance.

Owner Name	Mailing Address	Property Count	% Delinquent	% With Liens	% In Poor Condition
Kevin P. Bradley	211 E Beaver St, Zelienople, PA 16063	7	100	100	14.3
Clifford Campbell	Address not available	7	100	100	0
American Innovations Investments LLC	1326 Hazenwood Dr, Monroeville, PA 15146	9	88.9	100	0
Annie C. Pettway	Po Box 100207, Pittsburgh, PA 15233	17	88.2	76.5	0
Barbara Jean Kelly	Po Box 99756, Pittsburgh, PA 15233	7	85.7	100	0
Clay Knight	Address not available	6	83.3	83.3	0
Alexander Carlisle	7019 Churchland St, Pittsburgh, PA 15206	20	80	90	0
Agostino Badami	Address not available	18	77.8	77.8	0
Agustin Huerta	323 S Home Ave, Pittsburgh, PA 15202	13	76.9	84.6	0
Cecelia A. Gigler	3431 Sipe St, Pittsburgh, PA 15212	14	71.4	100	0

- Large swaths of parcels in the two neighborhoods are vacant. While most of them are held by the City of Pittsburgh, at least nine private property owners hold 20 or more vacant lots in Perry Hilltop.

Verified Owner	Vacant Lot Count
City of Pittsburgh	252
614 Services LLC	103
2403 Perrysville Properties Lp	89
Angelo O. Murdock	51
Allegheny Housing Rehabilitation Corp	35
Abdelilah Ettadouni	32
Benjamin Perez	30
Beverly Lorraine Harris	23
Armey J. Gordon	21
Alexander Carlisle	20
Cheryl Ann Spencer	19

To find and validate the name of a property owner in the inventory, cross-reference the address listed in the CHANGENOTICEADDRESS1 field or the name or address in the Verified fields with a tool like the WPRDC's Parcels N'at, the Allegheny County Real Estate portal, or a similar platform.

G. Geospatial Clustering of Distress

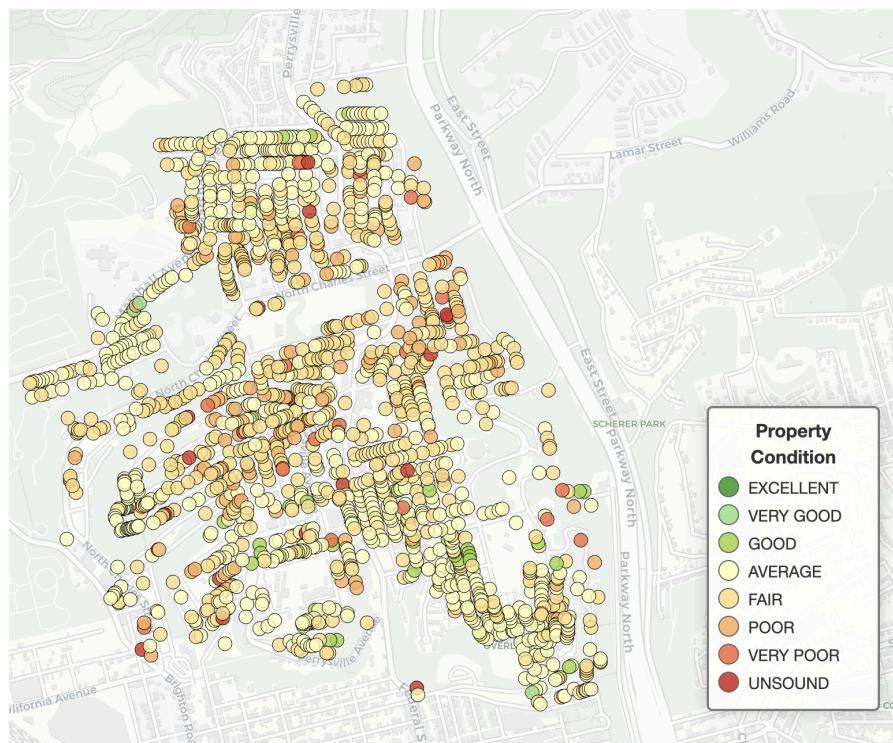
In Perry South and Fineview, financial and physical distress is not homogeneously distributed across the neighborhood and its properties, rather clustered in a select few streets and blocks. This enables the PHFCC to pinpoint concentrated areas of distress and decay for outreach initiatives and policy decisions. The table below shows the 15 streets in the neighborhood with the most properties, along with metrics related to distress.

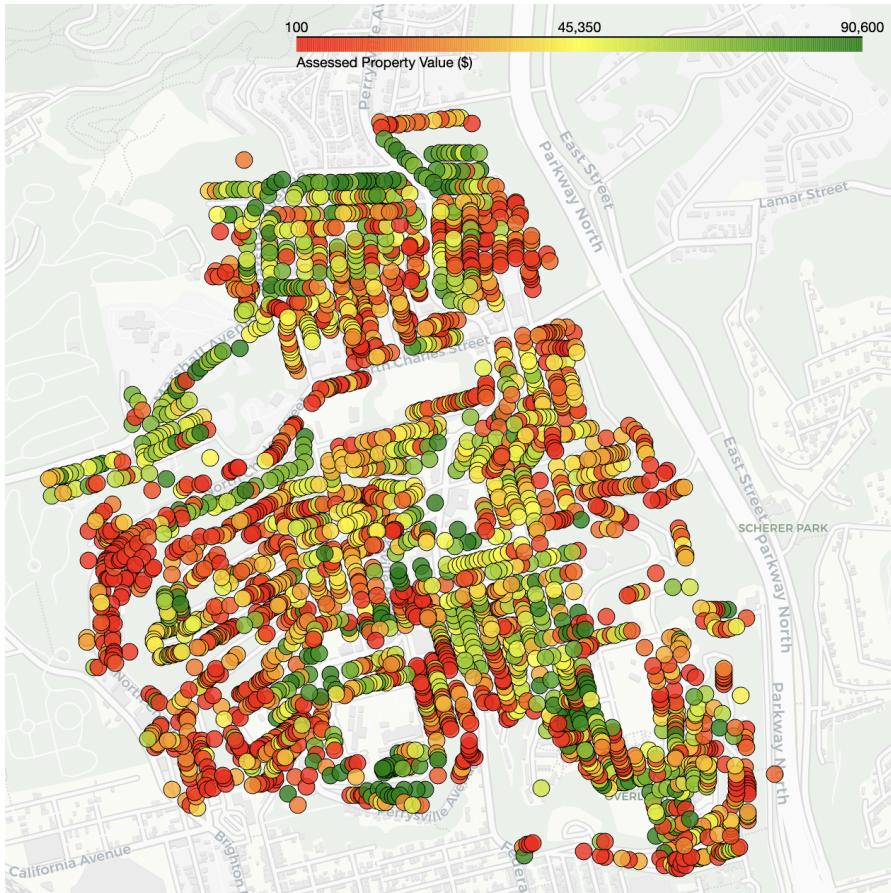
Street Name	Property Count	% Delinquency	% Lien	% Poor Condition	% Non-Owner-Occupied (Estimate)
PERRYSVILLE AVE	233	26.6	36.5	4.3	79.4
N CHARLES ST	173	17.9	54.3	4.6	86.7
MARSHALL AVE	120	21.7	14.2	1.7	41.7
CHESTER AVE	112	29.5	46.4	11.6	76.8
KENNEDY AVE	89	24.7	33.7	5.6	62.9
CHAUTAUQUA ST	70	37.1	45.7	5.7	78.6
W BURGESS ST	70	48.6	48.6	17.1	77.1
FEDERAL ST EXT	66	30.3	47.0	3.0	69.7
MEADVILLE ST	66	21.2	24.2	0.0	60.6
MAPLE AVE	65	24.6	46.2	9.2	75.4
OSGOOD ST	60	20.0	35.0	11.7	46.7
LAFAYETTE AVE	58	22.4	24.1	1.7	55.2
HAZELTON ST	54	42.6	50.0	11.1	81.5
WARREN ST	53	20.8	32.1	1.9	62.3
LITHGOW AVE	52	63.5	61.5	15.4	86.5

There are a handful of properties where these measurements of physical and financial distress converge. 61 properties across the two neighborhoods have recorded liens and delinquency along with poor assessed property condition. Of them, 72.1% fall into the Other Non-Owner-Occupied group, while Owner-Occupied and Corporate Non-Owner-Occupied have 23% and 4.9%, respectively. The table below shows that these highly distressed properties mostly fall in clusters on smaller streets like Chester and Holyoke rather than thoroughfares like Perrysville and Federal.

Street Name	Count of Highly Distressed Properties
LITHGOW AVE	5
W BURGESS ST	4
CHESTER AVE	3
HOLYOKE ST	3
HAZELTON ST	3
CUTLER ST	2
MAGNET ST	2
LELAND ST	2
HAWKINS AVE	2
KENNEDY AVE	2

Many of the streets with the most highly distressed properties fall in the middle of Perry South. Cross-referenced with geospatial visualizations of property conditions, the core of Perry South is deteriorating – properties tend to have better assessed quality near the extent of the neighborhood further up the hill towards Perry North and down the hill towards the Central North Side. Between the two, properties are more distressed and decayed compared to their northern and southern neighbors. The lines are not stark, but a clear pattern is visually apparent.

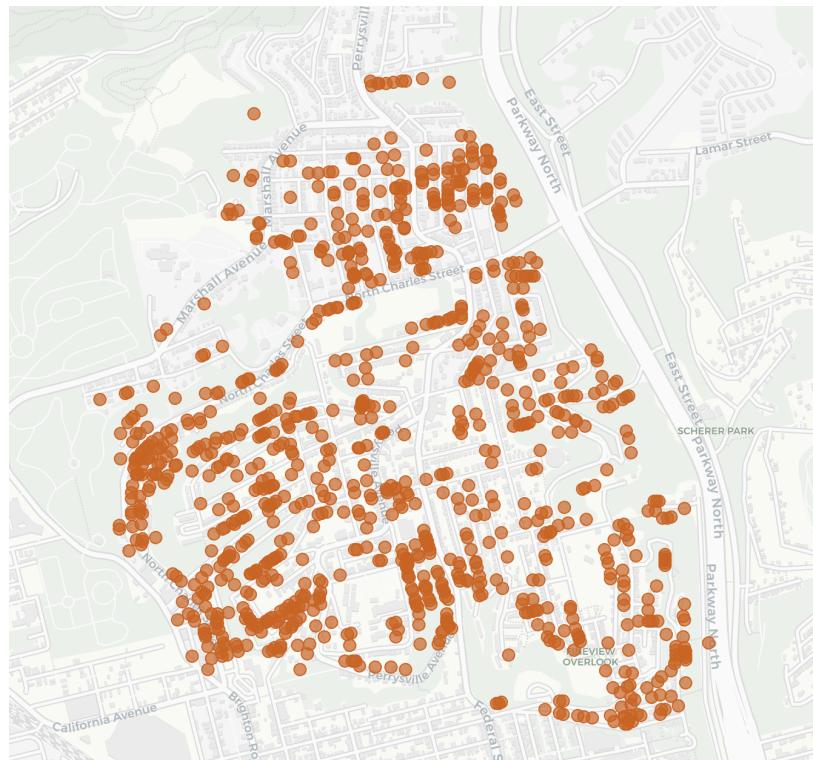




However, this pattern doesn't hold for assessed property value. Rather than a broad geographic divide, particularly high- and low- value properties are more definitively clustered. There is a noticeable group of low-value parcels on North Charles St. near Cross and Strauss Parklet and other smaller clusters dotting the edges of the neighborhoods, especially along I-279. Alternatively, there are clusters of high-value properties around Marshall Avenue at the border with Perry North and at the southern extent of the neighborhoods near Fineview Overlook and Clayton Avenue.

The vacancy map to the right, where each dot represents a vacant parcel, mirrors the property value map. Concentration of vacancy, and by proxy low property values, appear on the southwestern extent of Perry South and clusters along the Parkway, especially on the northern and southern edges of the neighborhoods' eastern border.

The vacant parcels do not appear on the condition map because the initial property assessment file only lists assessed conditions for parcels with structures – hence, visualizations of condition do not capture concentrated vacancy, rather poor structural quality.



H. Statistical Analysis

Using the cleaned data, statistical tests and regressions can reveal hidden patterns and relationships. Each analysis was conducted using the maximum number of relevant properties to ensure the most accurate results for each test. A brief explanation of the statistical methods used is included below. See Appendix 2 for detailed outputs of the statistical tests.

Methodology Notes

- **Chi-Squared Test of Independence:** Used to determine if a statistically significant association exists between two categorical variables (e.g., Ownership and Condition). A low p-value (< 0.05) suggests the variables are associated.
- **Analysis of Variance (ANOVA):** Used to compare the means of a continuous variable (e.g., Property Value) across three or more groups (e.g., Ownership Types). A low p-value indicates that the mean value of at least one group is significantly different from the others.
- **Multiple Linear Regression:** A model used to predict a continuous outcome (e.g., Property Value) based on multiple predictor variables. The R-squared value measures the proportion of variance in the outcome that the model can explain. The coefficients quantify the impact of each predictor.
- **Logistic Regression:** A model used to predict a binary outcome (e.g., Delinquent vs. Not Delinquent). It identifies factors that significantly increase or decrease the odds of the outcome occurring.

Association between Ownership and Condition

A Chi-Squared test was performed on 1,569 properties to determine if a property's ownership type is associated with its physical condition, which was simplified to "Good," "Average," or "Poor."

- The test yielded a very low p-value. This result is highly statistically significant. We can confidently conclude that there is a strong association between who owns a property and its physical condition. The two are not independent of each other.

Association between Ownership Location and Property Portfolio Performance

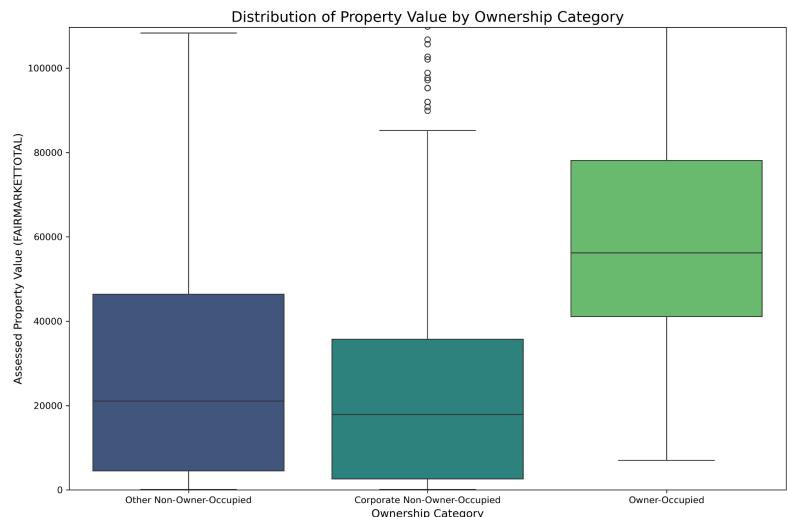
A Chi-Squared test was performed on owner tax mailing addresses to determine whether a property owner living in or around Perry Hilltop (i.e. ZIP of 15214 or 15233) was associated with distress. Each owner was classified as "Local" or "Out-Of-Town" by this metric.

- The test yielded a very low p-value. This result is highly statistically significant. We can confidently conclude that there is a strong association between whether a property owner is local and its likelihood of physical or financial distress.
- The table in Appendix 2 shows means of each ownership group and different distress rates. While the two groups have similar rates of delinquency and physical distress, out-of-town owners have significantly higher rates of liens.

Difference in Property Value by Ownership

An ANOVA test was conducted on all 3,416 properties to see if the average assessed value (FAIRMARKETTOTAL) differs across the three ownership groups.

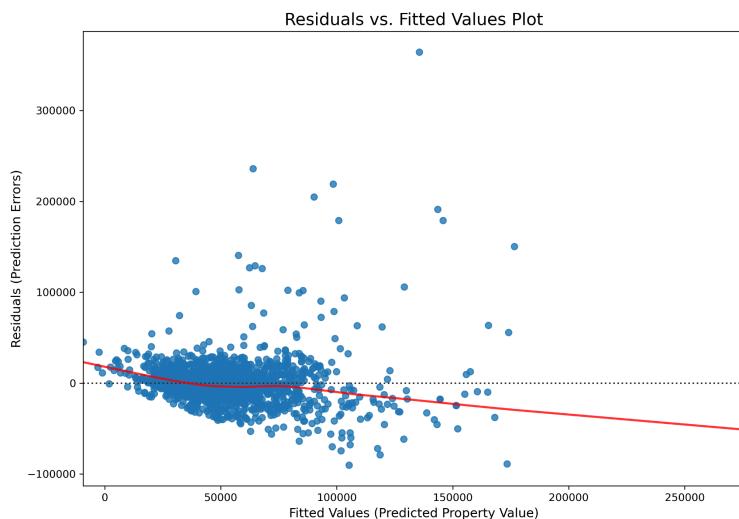
- The test resulted in a p-value that is effectively zero (2.6e-133). There is a statistically significant difference in the average value of properties based on their ownership type.



Predicting Property Value (Linear Regression)

A multiple linear regression model was built using 1,514 properties to identify and quantify the key drivers of assessed property value.

- Model Performance:** The model has an R-squared of 0.459, meaning it can explain 45.9% of the variation in property values, which is a moderately strong fit.
- Key Findings:**
 - Physical Features:** FINISHEDLIVINGAREA, YEARBLT, and LOTAREA are all strong, positive predictors of value.
 - Condition:** Properties in "Poor" condition are valued significantly lower (approx. \$69,000 less) than properties in "Good" condition.
 - Ownership:** Owner-occupied properties are valued significantly higher (approx. \$17,000 more) than those owned by corporate entities.
 - Location:** Properties in Perry South are valued significantly lower (approx. \$8,800 less) than those in Fineview, even after accounting for all other factors.



Ownership Duration and Distress

After breaking down ownership duration into four categories, from new owners under two years to long-term owners over ten years, the table below shows rates of financial and physical distress.

ownership_duration_group	property_count	delinquency_rate	poor_condition_rate
0-2 Years (New)	154	22.1%	7.80%
2-5 Years	351	22.5%	4.60%
5-10 Years	646	15.6%	5.30%
10+ Years (Long-Term)	583	21.1%	5.00%

- Two chi-squared tests analyzed the potential association between ownership duration and either delinquency and poor condition. Neither found a significant relationship between them at 95% confidence, with delinquency's p-value around 0.1 and poor condition's at 0.5.

Predicting Tax Delinquency (Logistic Regression)

A logistic regression model was created using 472 properties to determine which factors increase the likelihood of a property being tax delinquent.

- Key Findings: The most significant predictors of tax delinquency were:
 - Ownership Type: Compared to corporate-owned properties, "Other Non-Owner-Occupied" properties have 6.1 times the odds of being delinquent.
 - Location: Properties in Perry South have 1.61 times the odds of being delinquent compared to those in Fineview.
 - The effect of property value, year built, and lien count is negligible.
- We can use this regression as a predictive model to assess which properties are most likely to become delinquent in the near future based on inputs of their present characteristics. The table below shows the 15 properties with the highest risk of delinquency based on the logistic regression's prediction, excluding properties that are already delinquent.

PROPERTYHOUSENUM	PROPERTYADDRESS	OWNERDESC	FAIRMARKETTOTAL	CONDITIONDESC	risk_probability
0	MELROSE AVE	REGULAR	19000	UNSTABLE	82.7%
308	W BURGESS ST	REGULAR	52600	FAIR	80.2%
609	RIDGEWOOD ST	REGULAR	22600	POOR	76.4%
218	CHESTER AVE	REGULAR	19300	POOR	76.3%
220	CHESTER AVE	REGULAR	18900	POOR	75.3%
222	CHESTER AVE	REGULAR	18900	POOR	74.9%
2328	N CHARLES ST	REGULAR	19600	FAIR	74.6%
218	CHESTER AVE	REGULAR	19100	POOR	74.5%
2459	N CHARLES ST	REGULAR	30700	FAIR	74.5%
442	KENNEDY AVE	REGULAR	23200	POOR	73.5%
31	DIVINITY ST	REGULAR	21600	FAIR	73.3%
662	CHESTER AVE	REGULAR	45800	AVERAGE	70.8%
1672	PERRYSVILLE AVE	REGULAR-ETUX	33000	FAIR	70.8%
2715	LELAND ST	REGULAR-ETUX	22000	AVERAGE	70.5%
2216	HOLYOKE ST	REGULAR	35600	FAIR	70.1%

- Most high-risk properties have suboptimal values for CONDITIONDESC and list their OWNERDESC as REGULAR. Chester Avenue appears four times in the top 15 – in Section G, it topped the list of streets with the most highly distressed parcels.
- For properties with enough information to calculate a delinquency risk percentage, running the Analysis.py script will append inventory_appended.csv with the field delinquency_risk_score.

Conclusion

This project has culminated in the creation of a comprehensive, parcel-level property inventory for the Fineview and Perry South neighborhoods. By systematically sourcing, merging, and cleaning data from multiple public datasets hosted by the WPRDC, the establishment of a replicable, script-based process for the PHFCC ensures that this inventory can serve as a living resource, capable of being updated as new data becomes available. The resulting dataset provides insight into the area's ownership patterns, property characteristics, financial health, and sales trends. Key limitations to acknowledge are:

- **Rental Market Data:** The inventory uses HOMESTEADFLAG, OWNERDESC, and CHANGENOTICEADDRESS1 as proxies for identifying non-owner-occupied properties, but it lacks specific data on real-time occupancy and rental prices per parcel.
- **Real-Time Market Value:** Third-party market estimates are individually searchable but are not included due to restrictions on bulk data collection. The inventory relies on the official FAIRMARKETTOTAL from 2018 and recent SALEPRICE data to analyze market value.
- **Building Condition Nuance:** The CONDITIONDESC field from the assessment provides a valuable baseline but is not a substitute for a detailed, on-the-ground physical inspection. Most of the physical descriptions of properties come from the most recent countywide assessment, which was in 2013. Hence, some characteristics may be outdated.

The analysis has illuminated three core ideas to guide future community development efforts:

1. **The Tale of Two Ownership Models:** The most significant finding is the clear bifurcation of the community based on property ownership. Owner-occupied properties are the bedrock of neighborhood stability, consistently demonstrating better physical conditions and lower rates of distress. In contrast, non-owner-occupied properties — both corporate-owned and those held by other absentee owners — are overwhelmingly the source of blight and instability. The "Other Non-Owner Occupied" group is particularly troubled, exhibiting high rates of tax delinquency, property liens, condemnation, and PLI violations. This confirms that property distress is not a random occurrence but is intrinsically linked to a lack of owner-stewardship.
2. **Accelerating Market Pressure as a Double-Edged Sword:** The dramatic rise in property values, with homes now consistently selling for 50% or more above their assessed value, presents both opportunity and peril. For long-term homeowners, this represents a growth in personal equity. However, for the community at large, it signals an urgent threat to affordability. This market heat creates intense pressure for property "flipping," increases the likelihood of rent hikes, and risks displacing the very residents who have long called Perry South and Fineview home.
3. **Distress is Geographically Concentrated:** The geospatial analysis reveals that properties in poor condition, with high rates of tax delinquency or other indicators of distress, are not evenly distributed. Instead, they form distinct geographic clusters. This is a crucial strategic insight, as it transforms a daunting neighborhood-wide problem into a series of manageable, block-level challenges. These "hotspots," which often overlap with clusters of investor-owned and non-owner-occupied properties, are prime locations for interventions.

This foundational inventory opens the door to numerous opportunities for deeper analysis and strategic action. The PHFCC can build upon this work in several key ways:

1. Longitudinal Tracking:

- Re-run the inventory creation scripts with updated data on an annual basis. By comparing these yearly snapshots, the PHFCC can track critical trends over time, such as changes in corporate ownership and shifts in tax delinquency.

2. Deeper Rental Market Analysis:

- Although bulk data is unavailable, a dedicated volunteer or staff member could perform a quarterly manual sampling of rental listings on sites like Zillow or Craigslist for the target zip codes. Tracking the average asking rent for different unit sizes (e.g., 1-bed, 2-bed) over time would provide an invaluable, low-cost dataset for understanding affordability pressures.

This data empowers the PHFCC to move from a reactive to a proactive stance. The following strategic recommendations are directly informed by the analysis:

1. **Launch a Targeted "Hotspot" Intervention Program:** Utilize the geospatial maps to focus resources on the identified clusters of distress, especially the core of Perry South. This could involve concentrating advocacy for code enforcement, offering home repair assistance to adjacent owner-occupants to prevent the spread of blight, and prioritizing these areas for property acquisition and redevelopment efforts.
2. **Champion and Expand Owner-Occupancy:** Given that the data points towards owner-occupants being key to neighborhood health, PHFCC can:
 - **Support Existing Homeowners:** Develop or promote programs offering financial assistance for critical home repairs, energy efficiency upgrades, and property tax relief to help long-term residents stay in their homes.
 - **Create New Homeowners:** Actively work to acquire distressed or vacant non-owner-occupied properties and facilitate their renovation and sale to new owner-occupants, thereby converting sources of blight into community assets.
3. **Engage and Regulate Non-Owner-Occupied Properties:** Acknowledge the footprint of absentee owners and develop a dual strategy of engagement and accountability. Proactively contact landlords and corporate owners in distress "hotspots" to address maintenance issues while simultaneously advocating with the City for robust and consistent code enforcement to increase transparency and owner accountability.

In conclusion, this housing inventory provides the empirical foundation for the Perry Hilltop Fineview Citizens Council to navigate the complex challenges ahead. By leveraging this data to target interventions, support stable homeownership, and hold absentee owners accountable, the PHFCC can effectively work to mitigate the pressures of a heating market and preserve Perry South and Fineview as diverse, affordable, and thriving communities for years to come.

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Appendix

1. Data Dictionary Unique Values Guide – An addition to the data dictionary that explains the significance of several ambiguous categorical values in selected columns.

Condemned_Property_Type

Value	Definition
Condemned Property	The property has been officially declared unfit for human occupancy by the city due to hazardous conditions.
Dead End Property	A subtype of condemned property for which the city has been unable to identify or contact the legal owner.

HOMESTEADFLAG:

Status	Definition
HOM	The property owner has applied for and received a Homestead Exemption, indicating it is their primary residence.

OWNERDESC:

Value	Definition
REGULAR	Indicates the property is owned by a single individual.
CORPORATION	Indicates the property is owned by a registered corporate entity (e.g., INC, CORP).
REGULAR-ETUX OR ET VIR	Signifies joint ownership by a married couple. It is derived from the Latin legal terms "et uxor" (and wife) and "et vir" (and husband).
REGULAR-ETAL	Signifies that the property is owned by one primary individual "and others." It is derived from the Latin legal term "et alii" (and others).
REGULAR-ESTATE	Indicates the property is currently held by the estate of a deceased person, likely pending probate or transfer to heirs.
CORPORATION-RAILROAD	A specific subtype of corporation, indicating ownership by a railroad company.

pliViolation_Status:

Status	Definition
CLOSED	The violation case is closed, which typically means the issue has been resolved and the property is compliant.
IN COURT	The violation case has been escalated to the magisterial district judge for legal action.
CLEAN & LIEN	The City has likely incurred costs to abate a nuisance (e.g., cutting grass, removing debris) and has placed a lien on the property to recover those costs.
IN VIOLATION	An active, unresolved violation currently exists on the property.

pli_investigation_outcome:

Status	Definition
VIOLATION RESOLVED	The property owner has corrected the code violation to the city's satisfaction, and the case is considered closed.
CONTINUE TO COURT	The owner did not resolve the violation, and the case has been escalated for legal action at the magisterial level. The final outcome is pending a court decision.
SEND TO CLEAN & LIEN	The owner failed to abate a nuisance, so the City paid for the cleanup. A lien has been placed on the property to recover these costs.
VIOLATION FOUND	An inspector has confirmed that a code violation exists and has likely issued a notice to the property owner. This is an early stage in the enforcement process.
WITHDRAWN	The violation case was withdrawn by the city. This may happen if the initial complaint was unfounded, if there was an error in the filing, or for other administrative reasons.
ISSUE CRIMINAL COMPLAINT	The violation was severe enough or the non-compliance persistent enough to warrant the filing of a criminal complaint, a more serious step than a civil penalty.
VOID/CLOSE	The violation case was voided and closed, likely due to an administrative error, a duplicate filing, or a determination that the case should not have been opened.
REFER TO CLEANUP	The property has been referred to a city department for direct intervention to abate a nuisance, such as cleaning up debris or cutting high weeds. This often precedes a "Clean & Lien" action.

2. Statistical Test Outputs

Condition Chi-Squared Contingency Table: This table shows the observed counts for each combination of ownership type and simplified property condition.

condition_simple	Average	Good	Poor
Corporate Non-Owner-Occupied	355	56	51
Other Non-Owner-Occupied	616	39	88
Owner-Occupied	820	73	36

Test Statistic	Value
Chi-Squared	59.79
P-value	~0

Ownership Location Chi-Squared Contingency and Means Table: This table shows the observed counts for each ownership locality group and corresponding frequencies of distress.

Owner Location	Not Distressed	Distressed
Out-of-Town Owner	664	1041
Local Owner	800	552

Chi-Squared Statistic	122.82
P-value	~0

Owner Location	total_properties	avg_delinquency_rate	avg_lien_rate	avg_poor_condition_rate	overall_distress_rate
Out-of-Town Owner	1705	31.9%	51.6%	5.2%	61.1%
Local Owner	1352	29.8%	30.1%	5.8%	40.8%

ANOVA Test for Property Value: This test compares the average assessed value (FAIRMARKETTOTAL) across the three ownership groups to see if they are significantly different.

Source	Sum of Squares	df	F-statistic	P-value
C(ownership_category)	1.320518e+12	2	334.294217	2.612330e-133
Residual	6.740961e+1	3413.0		

Linear Regression Coefficients (Predicting Property Value): This table quantifies the impact of each variable on the property's assessed value.

Variable	Coefficient	Std. Error	P-value
Intercept	-851,900	5.52e+0	~0
Condition: Average (vs. Good)	-54,750	3445.788	~0
Condition: Poor (vs. Good)	-69,360	4202.649	~0
Ownership: Other Non-Owner (vs. Corp)	6,332.56	1.02e+04	0.001
Ownership: Owner-Occupied (vs. Corp)	13,310	1.331e+04	~0
Neighborhood: Perry South (vs. Fineview)	-8,804.58	1.71e+04	~0
FINISHEDLIVINGAREA	19.57	1.582	~0
YEARBLT	478.17	28.448	~0
LOTAREA	0.84	0.198	~0
BEDROOMS	-2,770	936.322	0.003
FULLBATHS	1,021	1596.074	~0

Metric	Value	Metric	Value
R-squared	0.459	Adj. R-squared	0.455
F-statistic	127.6	Prob (F-statistic)	1.68E-192
No. Observations	1514	Log-Likelihood	-17610

Chi-Squared Contingency Tables: These tables show observed chi-squared distributions comparing delinquency and poor condition rates across ownership duration groups.

ownership_duration_group	Not Delinquent	Is Delinquent
0-2 Years (New)	88	27
2-5 Years	190	57
5-10 Years	400	79
10+ Years (Long-Term)	303	80

ownership_duration_group	Not In Poor Condition	In Poor Condition
0-2 Years (New)	106	9
2-5 Years	236	11
5-10 Years	446	33
10+ Years (Long-Term)	357	26

Logistic Regression Odds Ratios (Predicting Tax Delinquency): This table shows how much each factor increases or decreases the odds of a property being tax delinquent.

Variable	Odds Ratio
Intercept	2753.836549
Condition: Average (vs. Good)	5.155
Condition: Poor (vs. Good)	6.12
Ownership: Other Non-Owner (vs. Corp)	2.07
Ownership: Owner-Occupied (vs. Corp)	1.61
Neighborhood: Perry South (vs. Fineview)	1.61
FAIRMARKETTOTAL	1
YEARBLT	0.99
Lien_Count	1.01

Metric	Value	Metric	Value
Pseudo R-squ.	0.111	Log-Likelihood	-252.7
converged	TRUE	LLR p-value	1.060E-1
No. Observations	429		

3. Additional Sources

- **Housing Vacancy Rates (2020 Census) Map**
 - **URL:** <https://www.arcgis.com/apps/mapviewer/index.html?webmap=f1984d5f89134f859b4254c50e5f8607>
Description: An interactive ArcGIS map of housing vacancy estimates in the 2020 decennial Census from state to block level.
- **Realtors Property Resource**
 - **URL:** narrpr.com
 - **Description:** A subscription-based real estate database used to download property owner names and addresses via mailing labels.
- **Parcels N'at**
 - **URL:** <https://parcelsnat.org/explore>
 - **Description:** An interactive mapping tool hosted by the WPRDC to select and visualize individual parcel characteristics such as ownership and physical condition.
- **Zillow Housing Data**
 - **URL:** <https://www.zillow.com/research/data/>
 - **Description:** Housing statistics packages describing dynamics in ownership and rental markets, available to download as .csv files at various levels of specificity.