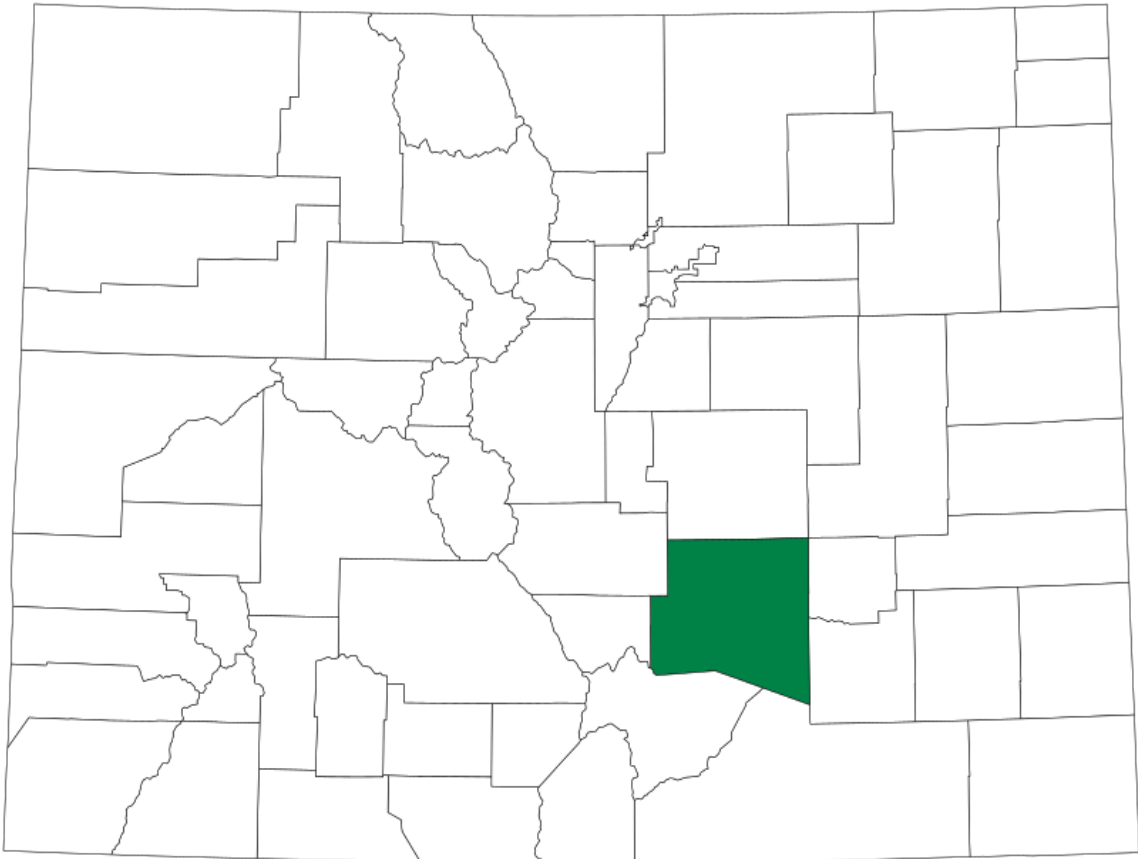


# San Matteo

DATA ANALYTICS

## 2025 Property Assessment Study Pueblo County



September 15, 2025

**Natalie Castle**

Director of Research, Colorado Legislative Council  
Room 029, 200 East Colfax Avenue  
Denver, CO 80203

San Matteo Data Analytics (SMDA) respectfully submits the **Final Report regarding the 2025 Colorado Property Assessment Study for Pueblo County**. This report summarizes the results of both a procedural review and a statistical analysis.

The **procedural review** evaluated local assessment practices, including valuation methods of residential, commercial, agricultural properties, as well as natural resources, personal property, possessory interests, and subdivision discounting. It also examined processes related to the development of economic areas, and sales qualification.

The **statistical analysis** measured compliance with statutory assessment levels for vacant land, residential, and commercial/industrial properties.

We value the opportunity to support the State of Colorado in ensuring fair and consistent property assessments. Please contact us if you have any questions or need additional details regarding these reports.



Joel Cuthbert, CAE, AAS | Audit Manager  
San Matteo Data Analytics | [audit@sanmatteodata.org](mailto:audit@sanmatteodata.org)



# Table of Contents

- 1. Statistical Overview..... 4
- 2. Vacant Land..... 8
- 3. Residential..... 13
- 4. Commercial and Industrial..... 18
- 5. Agriculture..... 23
- 6. Agriculture Non-Integral.....25
- 7. Economic Areas..... 26
- 8. Natural Resources.....27
- 9. Personal Property..... 28
- 10. Possessory Interest..... 29
- 11. Sales Verification.....30
- 12. Subdivision Discounting.....32
- 13. Appendix..... 33

# 1. Statistical Overview

## Compliance and Evaluations

Pueblo County was found to be in compliance. For more details on the definitions and methodology underlying this analysis, see the 2025 County Report Methodology document. For the full analysis behind each evaluation see the appendix.

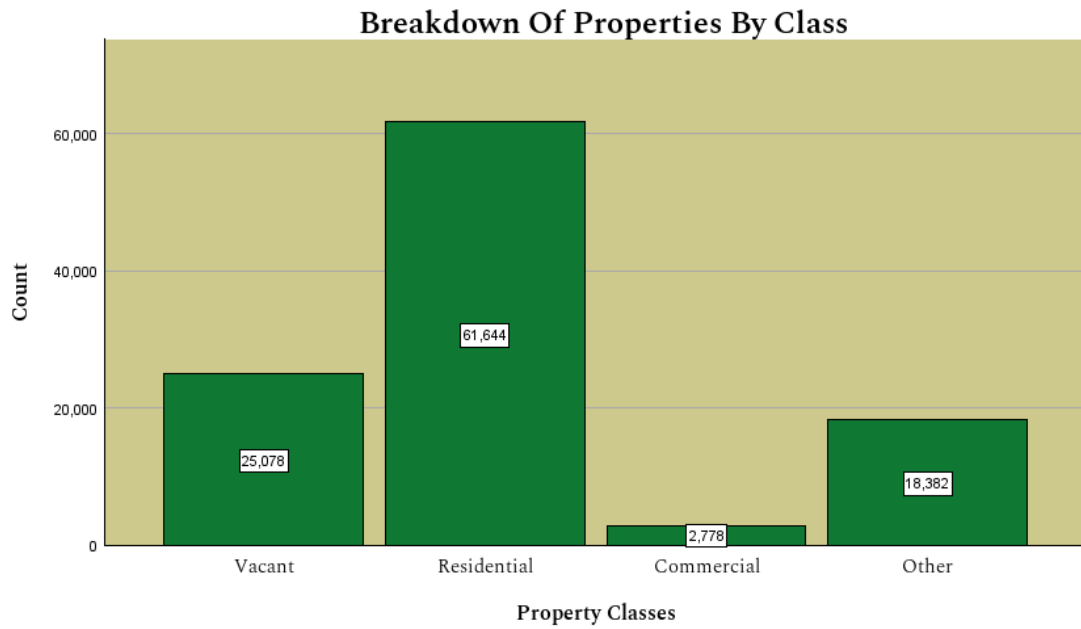
|                            | Result     | Value          |
|----------------------------|------------|----------------|
| <b>Vacant Land</b>         |            |                |
| Median Sales Ratio         | Pass       | 0.96           |
| Coefficient of Dispersion  | Pass       | 15.18%         |
| Time Adjustments           | Pass       | 0.376          |
| Price Related Differential | Sufficient | 1.01           |
| Price Related Bias         | Sufficient | 0.00           |
| Sold/Unsold Similarity     | Sufficient |                |
| Qualified Sales > 50%      | No         | See Section 11 |

|                            | <b>Result</b> | <b>Value</b>   |
|----------------------------|---------------|----------------|
| <b>Residential</b>         |               |                |
| Median Sales Ratio         | Pass          | 0.96           |
| Coefficient of Dispersion  | Pass          | 6.75%          |
| Time Adjustments           | Pass          | 0.000          |
| Price Related Differential | Sufficient    | 1.00           |
| Price Related Bias         | Sufficient    | 0.01           |
| Sold/Unsold Similarity     | Sufficient    |                |
| Qualified Sales > 50%      | No            | See Section 11 |

|                              | <b>Result</b> | <b>Value</b>   |
|------------------------------|---------------|----------------|
| <b>Commercial/Industrial</b> |               |                |
| Median Sales Ratio           | Pass          | 0.97           |
| Coefficient of Dispersion    | Pass          | 11.32%         |
| Time Adjustments             | Pass          | 0.352          |
| Price Related Differential   | Sufficient    | 0.98           |
| Price Related Bias           | Sufficient    | 0.03           |
| Sold/Unsold Similarity       | Sufficient    |                |
| Qualified Sales > 50%        | No            | See Section 11 |

Pueblo County  
**Property Types**

Below is a breakdown of the property types of the 107,882 parcels in Pueblo County.



## 2. Vacant Land

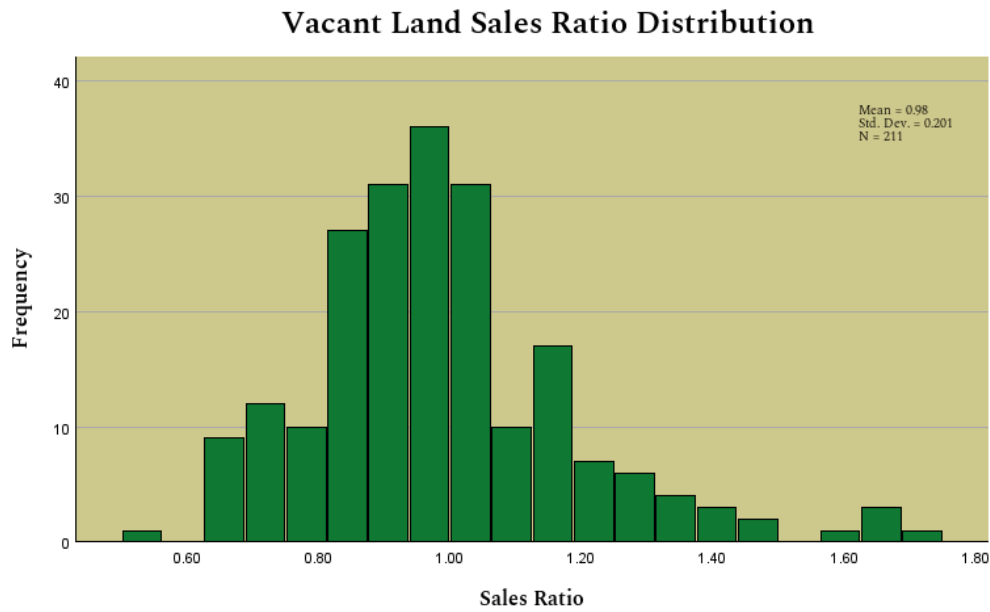
### Overview

Pueblo was found to be compliant for Vacant Land properties.

|                            | Result     | Value          |
|----------------------------|------------|----------------|
| <b>Vacant Land</b>         |            |                |
| Median Sales Ratio         | Pass       | 0.96           |
| Coefficient of Dispersion  | Pass       | 15.18%         |
| Time Adjustments           | Pass       | 0.376          |
| Price Related Differential | Sufficient | 1.01           |
| Price Related Bias         | Sufficient | 0.00           |
| Sold/Unsold Similarity     | Sufficient |                |
| Qualified Sales > 50%      | No         | See Section 11 |

### Vacant Land Median Sales Ratio

The median sales ratio (MSR) tests how close the Assessor's valuations (estimates of market value) are to the true market value. The distribution of these sales ratios should be centered around 1.00. The Vacant Land MSR for Pueblo County was calculated to be 0.96, which is within the acceptable statistical range of 0.95 to 1.05 established by the State Board of Equalization (SBOE). We trimmed zero sales during the development of this analysis. The MSR was also calculated for all applicable subclass, neighborhoods, economic areas, size and valuation strata identified by the auditor. See appendix for more details.

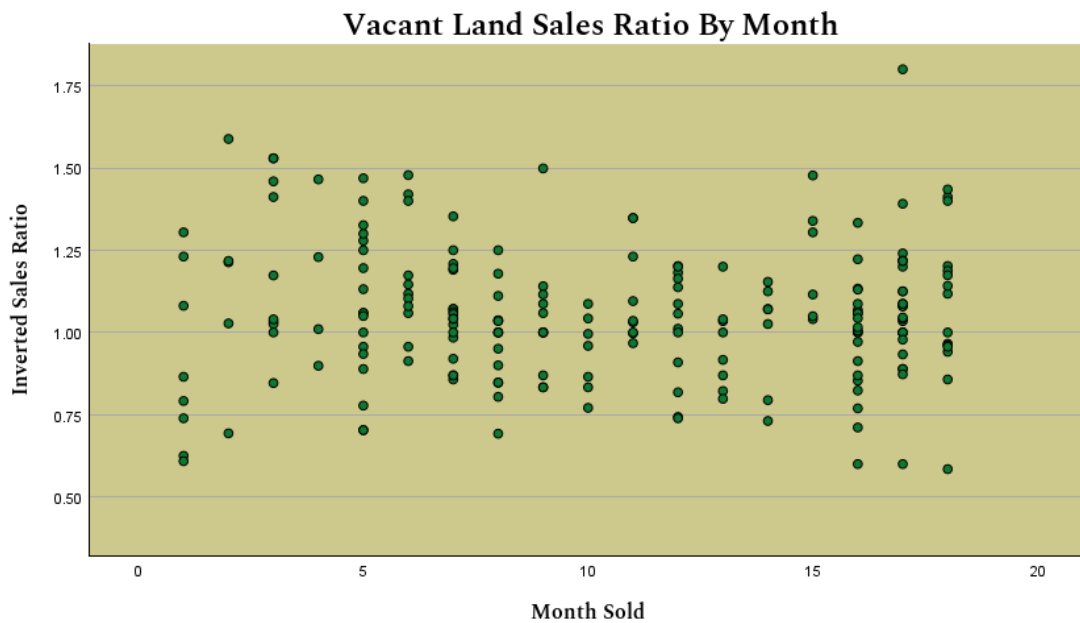


## Vacant Land Coefficient of Dispersion

The Coefficient of Dispersion (COD) tests for undesirable variance in the valuations. The variance in sales ratios should be as small as possible. The COD for Vacant Land properties in Pueblo County was calculated at 15.18% which is within the acceptable statistical standard of 20.99% or less established by the State Board of Equalization (SBOE). The COD was also calculated for all applicable class, subclass, neighborhoods, economic areas, and valuation strata identified by the auditor. See appendix for more details.

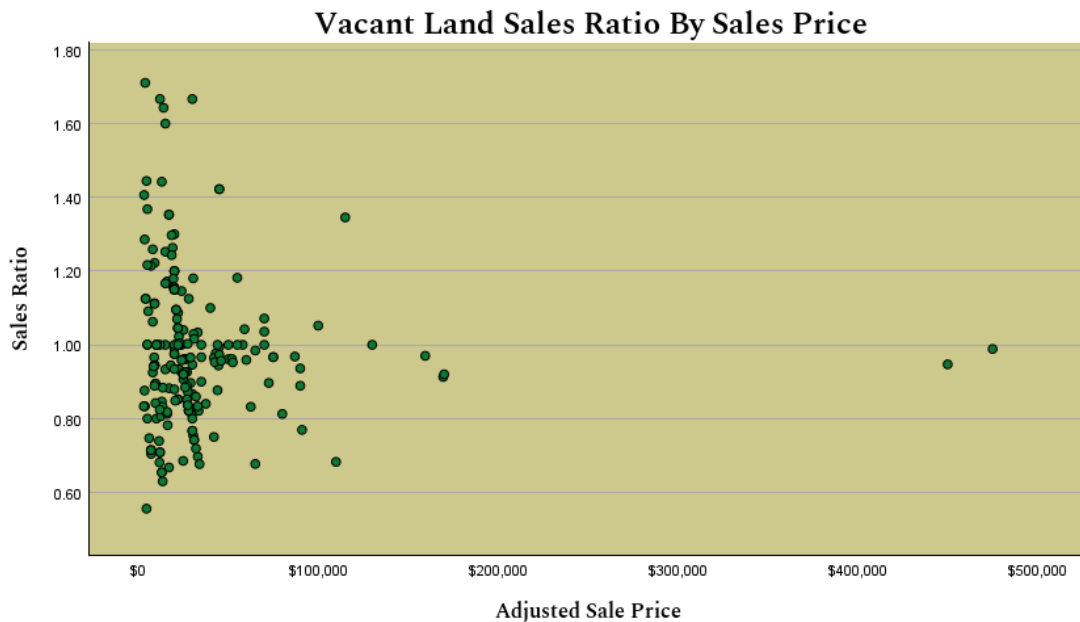
## Vacant Land Market (Time) Adjustments

All previous statistics used the time-adjusted sales price to ensure that the effect of time on sales ratios has been appropriately addressed. There should be a consistent and reasonable time adjustment methodology, not one tailored to improve sales ratios. We examined the sales ratios over the 18 - month period of sales. There does not appear to be a significant effect of time on Pueblo's Vacant Land sales ratios.



### Vacant Land Price Related Differential

The Price Related Differential (PRD) tests for differences in the valuations of high and low value sold properties. Sales ratios should be consistent across the range of sale prices so the PRD should be very close to 1.00. The PRD for Pueblo County was calculated at 1.01, which is within the acceptable range of 0.98 to 1.03 established by the International Association of Assessing Officers (IAAO). The PRD was also calculated for all applicable class, subclass, neighborhoods, economic areas, size, and valuation strata identified by the auditor. See appendix for more details.



### Vacant Land Price Related Bias

The Price Related Bias (PRB) measures whether assessment levels change systematically with property value. A PRB close to 0.00 indicates that high- and low-value properties are valued consistently, without upward or downward bias in the sales ratios. For Pueblo County, the PRB was calculated at 0.00 which is within the acceptable statistical range of -0.05 to 0.05 established by the International Association of Assessing Officers. The PRB was also analyzed across all applicable categories, including property class, subclass, neighborhood, economic area, size, and valuation strata as identified by the auditor. Additional details are provided in the appendix.

## **Vacant Land Sold/Unsold Comparison**

All previous Vacant Land statistics focus only on the compliance of properties that were sold during the Vacant Land data collection period. In order to ensure that the unsold properties are also being valued consistently we evaluate whether or not they were treated the same as the sold properties.

Our default comparison approach utilizes the Mann-Whitney U test (also known as the Wilcoxon rank-sum test), to analyze two samples of sold and unsold properties. First, we compare the price per square foot, followed by the change in price per square foot from last reappraisal to this one, and finally we compare the change in total value from last reappraisal to this one. If necessary, we will also consider the stratified (economic area, neighborhood, improvement abstract, etc.) medians of the following unitary metrics: price per foot, change in price per foot, and change in value. See appendix for more details.

Our study indicates that the Vacant Land sold and unsold properties are treated similarly.

## **Vacant Land Sales Qualification**

All the analysis above, notwithstanding the sold/unsold comparison, relies entirely on qualified sales. In order to ensure that this is a complete and unbiased analysis of assessment practices, we will verify that sales are being correctly coded. We have concluded that Vacant Land sales are being coded in an acceptable way.

There were 212 Vacant Land sales. We have confirmed that less than 50% of all sales were qualified.

### 3. Residential

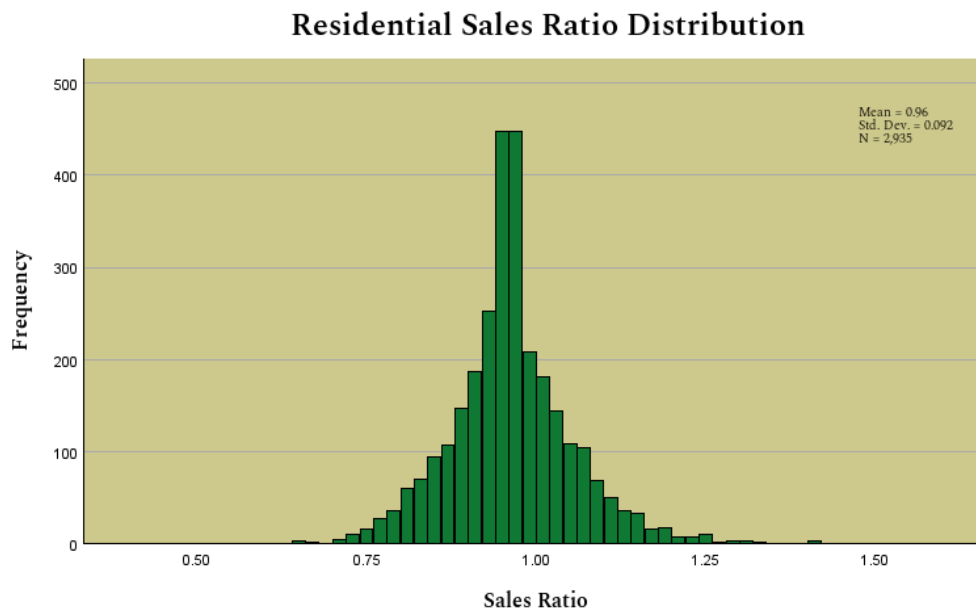
#### Overview

Pueblo County was found to be compliant for Residential properties.

|                            | Result     | Value          |
|----------------------------|------------|----------------|
| <b>Residential</b>         |            |                |
| Median Sales Ratio         | Pass       | 0.96           |
| Coefficient of Dispersion  | Pass       | 6.75%          |
| Time Adjustments           | Pass       | 0.000          |
| Price Related Differential | Sufficient | 1.00           |
| Price Related Bias         | Sufficient | 0.01           |
| Sold/Unsold Similarity     | Sufficient |                |
| Qualified Sales > 50%      | No         | See Section 11 |

## Residential Median Sales Ratio

The median sales ratio (MSR) tests how close the Assessor's valuations (estimates of market value) are to the true market value. The distribution of these sales ratios should be centered around 1.00. The Residential MSR for Pueblo County was calculated to be 0.96, which is within the acceptable statistical range of 0.95 to 1.05 established by the State Board of Equalization (SBOE). We trimmed zero sales during the development of this analysis. The MSR was also calculated for all applicable subclass, neighborhoods, economic areas, size and valuation strata identified by the auditor. See appendix for more details.



## Residential Coefficient of Dispersion

The Coefficient of Dispersion (COD) tests for undesirable variance in the valuations. The variance in sales ratios should be as small as possible. The COD for Residential properties in Pueblo County was calculated at 6.75% which is within the acceptable statistical standard of 15.99% or less established by the State Board of Equalization (SBOE). The COD was also calculated for all applicable class, subclass, neighborhoods, economic areas, and valuation strata identified by the auditor. See appendix for more details.

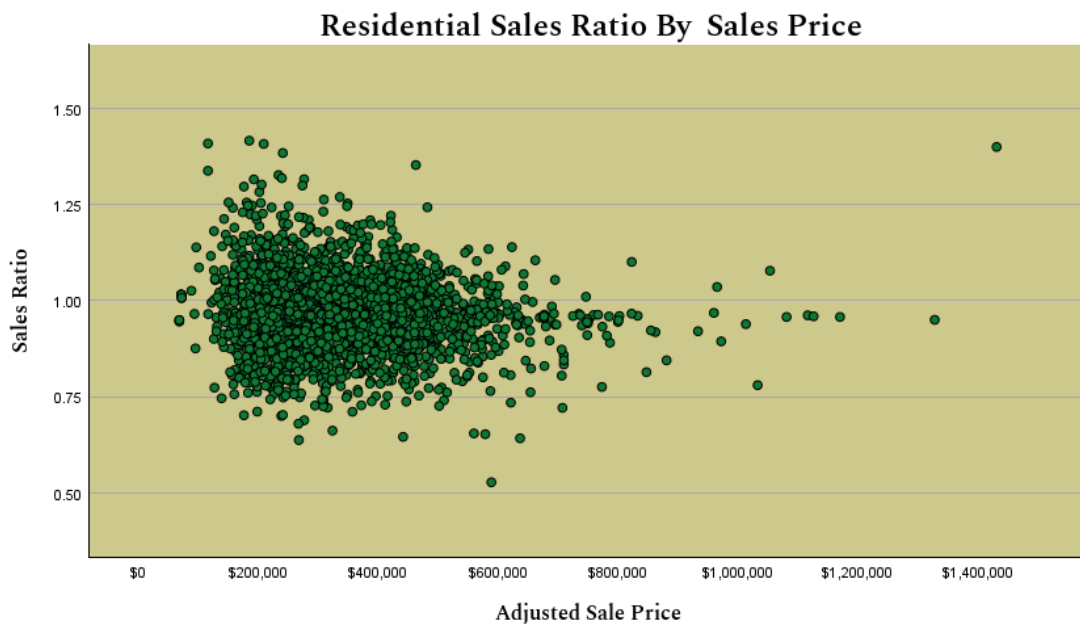
### Residential Market (Time) Adjustments

All previous statistics used the time-adjusted sales price to ensure that the effect of time on sales ratios has been appropriately addressed. There should be a consistent and reasonable time adjustment methodology, not one tailored to improve sales ratios. We examined the sales ratios over the 18 - month period of sales. There does not appear to be a significant effect of time on Pueblo County's Residential sales ratios.



## Residential Price Related Differential

The Price Related Differential (PRD) tests for differences in the valuations of high and low value sold properties. Sales ratios should be consistent across the range of sale prices so the PRD should be very close to 1.00. The PRD for Pueblo County was calculated at 1.00, which is within the acceptable range of 0.98 to 1.03 established by the International Association of Assessing Officers (IAAO). The PRD was also calculated for all applicable class, subclass, neighborhoods, economic areas, size, and valuation strata identified by the auditor. See appendix for more details.



## Residential Price Related Bias

The Price Related Bias (PRB) measures whether assessment levels change systematically with property value. A PRB close to 0.00 indicates that high- and low-value properties are valued consistently, without upward or downward bias in the sales ratios. For Pueblo County, the PRB was calculated at 0.01 which is within the acceptable statistical range of -0.05 to 0.05 established by the International Association of Assessing Officers. The PRB was also analyzed across all applicable categories, including property class, subclass, neighborhood, economic area, size, and valuation strata as identified by the auditor. Additional details are provided in the appendix.

## **Residential Sold/Unsold Comparison**

All previous Residential statistics focus only on the compliance of properties that were sold during the Residential data collection period. In order to ensure that the unsold properties are also being valued consistently we evaluate whether or not they were treated the same as the sold properties.

Our default comparison approach utilizes the Mann-Whitney U test (also known as the Wilcoxon rank-sum test), to analyze two samples of sold and unsold properties. First, we compare the price per square foot, followed by the change in price per square foot from last reappraisal to this one, and finally we compare the change in total value from last reappraisal to this one. If necessary, we will also consider the stratified (economic area, neighborhood, improvement abstract, etc.) medians of the following unitary metrics: price per foot, change in price per foot, and change in value. See appendix for more details.

Our analysis indicates that the Residential sold and unsold properties are treated similarly. See appendix for more details.

## **Residential Sales Qualification**

All the analysis above, notwithstanding the sold/unsold comparison, relies entirely on qualified sales. In order to ensure that this is a complete and unbiased analysis of assessment practices, we will verify that sales are being correctly coded. We have concluded that Residential sales are being coded in an acceptable way.

There were 2,937 Residential sales. We have confirmed that less than 50% of all sales were qualified.

## 4. Commercial and Industrial

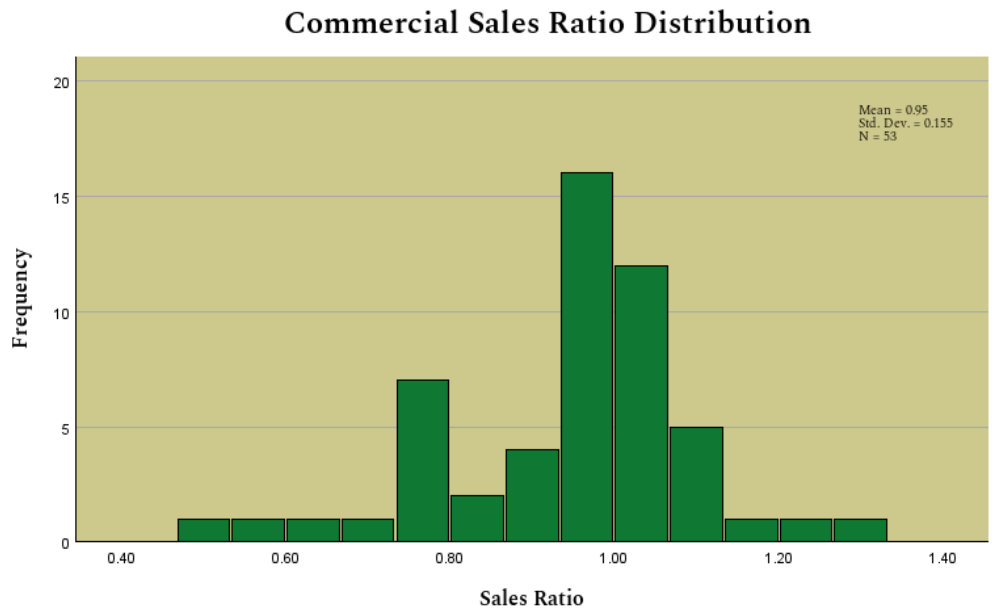
### Overview

Pueblo was found to be compliant for Commercial and Industrial properties.

|                                  | Result     | Value          |
|----------------------------------|------------|----------------|
| <b>Commercial and Industrial</b> |            |                |
| Median Sales Ratio               | Pass       | 0.97           |
| Coefficient of Dispersion        | Pass       | 11.32%         |
| Time Adjustments                 | Pass       | 0.352          |
| Price Related Differential       | Sufficient | 0.98           |
| Price Related Bias               | Sufficient | 0.03           |
| Sold/Unsold Similarity           | Sufficient |                |
| Qualified Sales > 50%            | No         | See Section 11 |

### Commercial Median Sales Ratio

The median sales ratio (MSR) tests how close the Assessor's valuations (estimates of market value) are to the true market value. The distribution of these sales ratios should be centered around 1.00. The Commercial MSR for Pueblo County was calculated to be 0.97, which is within the acceptable statistical range of 0.95 to 1.05 established by the State Board of Equalization (SBOE). We trimmed zero sales during the development of this analysis. The MSR was also calculated for all applicable subclass, neighborhoods, economic areas, size and valuation strata identified by the auditor. See appendix for more details.

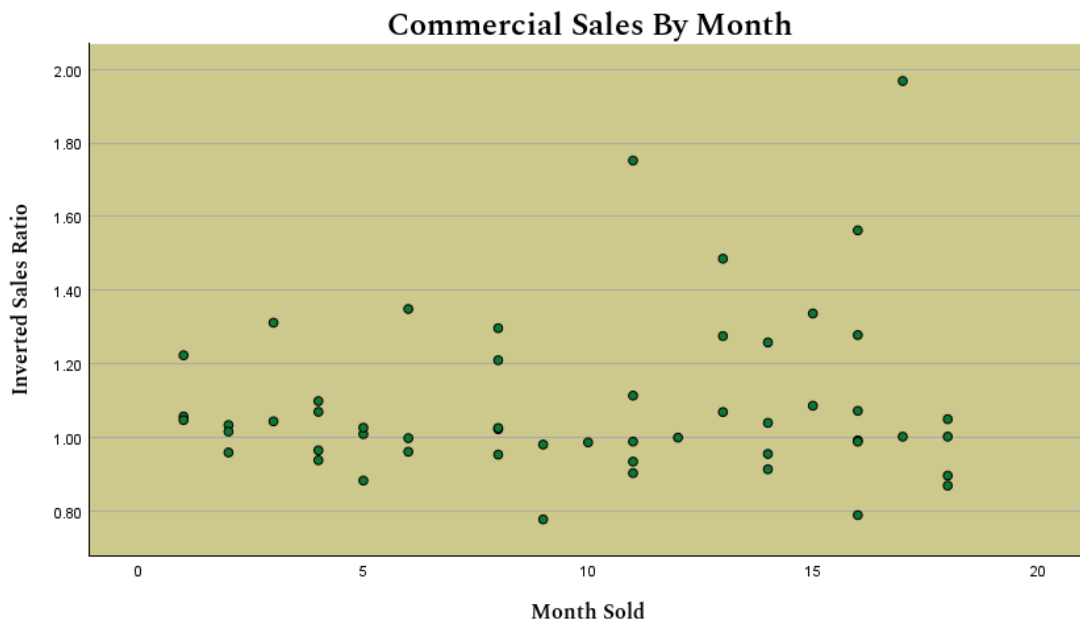


## Commercial Coefficient of Dispersion

The Coefficient of Dispersion (COD) tests for undesirable variance in the valuations. The variance in sales ratios should be as small as possible. The COD for Commercial properties in Pueblo County was calculated at 11.32% which is within the acceptable statistical standard of 20.99% or less established by the State Board of Equalization (SBOE). The COD was also calculated for all applicable class, subclass, neighborhoods, economic areas, and valuation strata identified by the auditor. See appendix for more details.

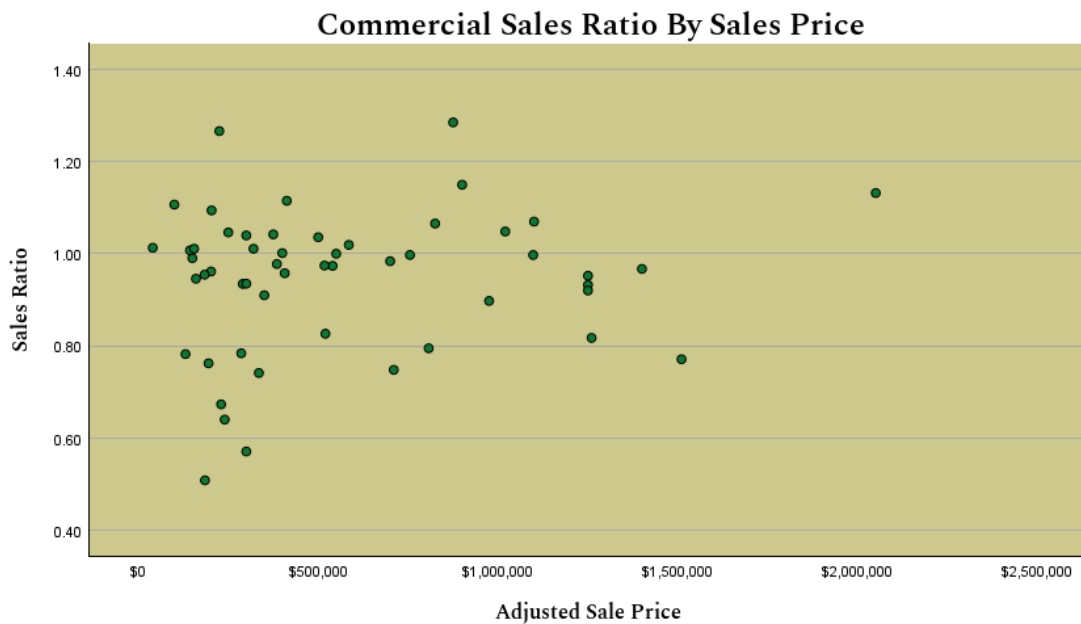
## Commercial Market (Time) Adjustments

All previous statistics used the time-adjusted sales price to ensure that the effect of time on sales ratios has been appropriately addressed. There should be a consistent and reasonable time adjustment methodology, not one tailored to improve sales ratios. We examined the sales ratios over the 18 - month period of sales. There does not appear to be a significant effect of time on Pueblo County's Commercial sales ratios.



### Commercial Price Related Differential

The Price Related Differential (PRD) tests for differences in the valuations of high and low value sold properties. Sales ratios should be consistent across the range of sale prices so the PRD should be very close to 1.00. The PRD for Pueblo County was calculated at 0.98, which is within the acceptable range of 0.98 to 1.03 established by the International Association of Assessing Officers (IAAO) The PRD was also calculated for all applicable class, subclass, neighborhoods, economic areas, size, and valuation strata identified by the auditor. See appendix for more details.



### Commercial Price Related Bias

The Price Related Bias (PRB) measures whether assessment levels change systematically with property value. A PRB close to 0.00 indicates that high- and low-value properties are valued consistently, without upward or downward bias in the sales ratios. For Pueblo County, the PRB was calculated at 0.03 which is within the acceptable statistical range of -0.05 to 0.05 established by the International Association of Assessing Officers. The PRB was also analyzed across all applicable categories, including property class, subclass, neighborhood, economic area, size, and valuation strata as identified by the auditor. Additional details are provided in the appendix.

## **Commercial Sold/Unsold Comparison**

All previous commercial statistics focus only on the compliance of properties that were sold during the Commercial data collection period. In order to ensure that the unsold properties are also being valued consistently we evaluate whether or not they were treated the same as the sold properties.

Our default comparison approach utilizes the Mann-Whitney U test (also known as the Wilcoxon rank-sum test), to analyze two samples of sold and unsold properties. First, we compare the price per square foot, followed by the change in price per square foot from last reappraisal to this one, and finally we compare the change in total value from last reappraisal to this one. If necessary, we will also consider the stratified (economic area, neighborhood, improvement abstract, etc.) medians of the following unitary metrics: price per foot, change in price per foot, and change in value. See appendix for more details.

Our study indicates that commercial sold and unsold properties are treated similarly.

## **Commercial Sales Qualification**

All the analysis above, notwithstanding the sold/unsold comparison, relies entirely on qualified sales. In order to ensure that this is a complete and unbiased analysis of assessment practices, we will verify that sales are being correctly coded. We have concluded that Commercial sales are being coded in an acceptable way.

There were 53 commercial sales. We have confirmed that less than 50% of all sales were qualified.

## 5. Agriculture

### Methodology

SMDA conducted a comprehensive review of county records to evaluate the classification and valuation of agricultural lands. The review included an assessment of major land categories, such as sprinkler irrigated farmland (4107), flood irrigated (4117), dry farmland (4127), meadow hay (4137), grazing areas (4147), orchard land (4157), farm/ranch waste land (4167), and forest land (4177).

Pueblo County applied the following methods to determine agricultural land classification and appropriate valuation methodology:

- Aerial photos are available and used for land classification
- Soil conservation guidelines determine land productivity classes
- Crop rotations are documented using a ten-year average
- Expenses reflect a ten-year average of typical landlord costs
- Ten-year crop yield averages are based on local and supporting data
- Grazing land is classified by its ten-year carrying capacity
- Acreage totals for all classes and subclasses are verified
- A 13% capitalization rate is correctly applied

Additionally, SMDA checked the county records to confirm that the commodity prices and expense data provided by the Property Tax Administrator (PTA) were accurately applied. Guidance from the **Assessor's Reference Library (ARL), Volume 3, Chapter 5** was referenced where appropriate.

### Conclusions

Based on the review and analysis, SMDA considers Pueblo County's appraisal practices for agricultural property acceptable and in alignment with statutory requirements. The directives, commodity pricing, and expense figures issued by the Property Tax Administrator were correctly applied throughout the process. County-reported yields closely matched the figures published by Colorado Agricultural Statistics, and the expenses used were both reasonable and within allowable ranges. Grazing land carrying capacities were properly supported and fell within acceptable limits. Overall, the analysis confirms that the valuation approach is sound, well-documented, and based on reliable data.

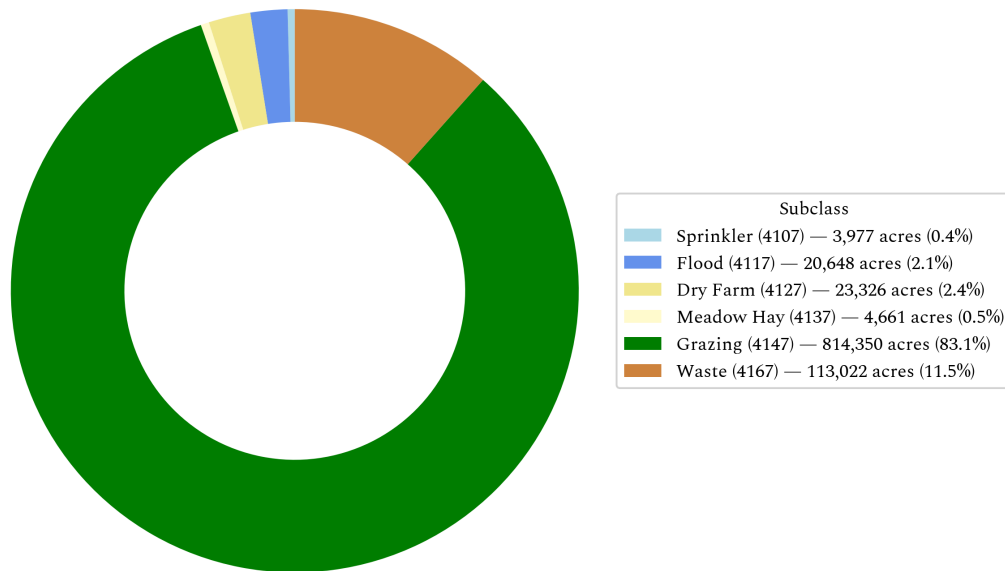
### Recommendations

None

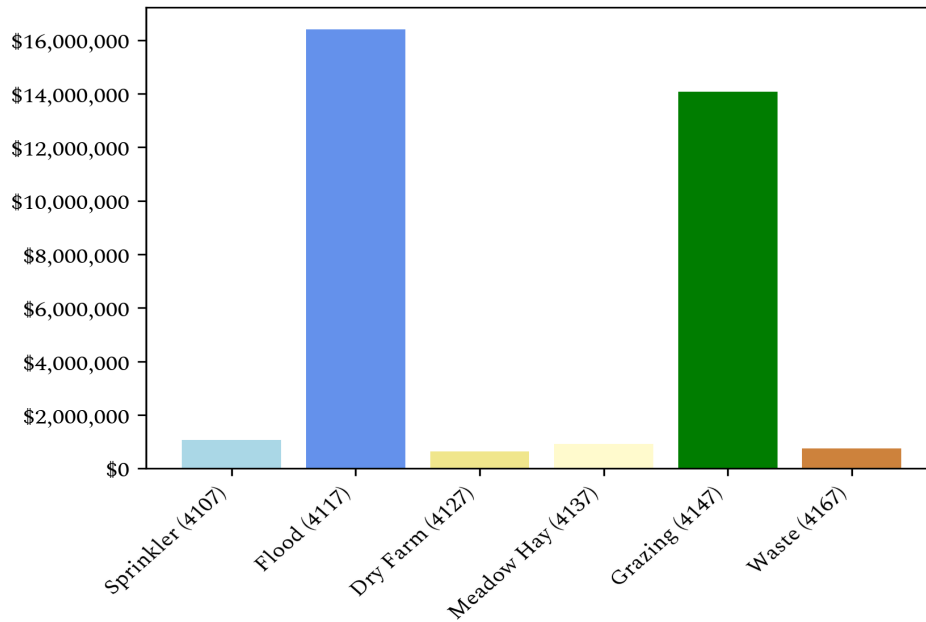
### Agricultural Land Breakdown

| Abstract | Class      | Acres      | Actual Value | Actual Value/Acre | Assessed Value |
|----------|------------|------------|--------------|-------------------|----------------|
| 4107     | Sprinkler  | 3,977.47   | \$1,058,079  | \$266.02          | \$285,680      |
| 4117     | Flood      | 20,647.85  | \$16,397,237 | \$794.14          | \$4,427,250    |
| 4127     | Dry Farm   | 23,326.03  | \$641,011    | \$27.48           | \$173,070      |
| 4137     | Meadow Hay | 4,660.51   | \$910,576    | \$195.38          | \$245,860      |
| 4147     | Grazing    | 814,350.15 | \$14,079,888 | \$17.29           | \$3,801,570    |
| 4167     | Waste      | 113,022.40 | \$748,298    | \$6.62            | \$202,040      |

Acres by Subclass



Actual Value by Subclass



## 6. Agriculture Non-Integral

### Methodology

SMDA reviewed Pueblo County's processes to determine whether it complied with the guidelines outlined in the **Assessor's Reference Library (ARL), Volume 3, Chapter 5**. The review focused on Pueblo County's approach to identifying land associated with residential improvements on farms and ranches, as well as land beneath residential structures that may not be integral to an agricultural operation under **§39-1-102, C.R.S.**

### For Residential Improvements on a Farm or Ranch

When identifying land under residential structures on a **farm or ranch** that is determined to be not integral to agricultural activity, Pueblo County applied the following discovery methods:

- Field Inspections
- Personal Knowledge of Occupants
- Aerial Photography

### For Residential Improvements Not Integral to Agriculture

When identifying land under residential structures that is determined to be **not integral** to agricultural activity, Pueblo County applied the following discovery methods:

- Field Inspections
- Personal Knowledge of Occupants
- Aerial Photography

### Conclusions

Pueblo County followed the procedures set forth by the **Division of Property Taxation** for classifying and valuing land associated with residential improvements, whether or not the property is considered integral to agricultural use.

### Recommendations

None

## 7. Economic Areas

### **Methodology**

Pueblo County submitted written narratives and maps outlining its economic areas. SMDA reviewed these materials for clarity, logical consistency, and alignment between the descriptions and mapped boundaries.

### **Conclusions**

Each area is affected by comparable market conditions, which supports consistent property valuations and helps maintain uniformity in values among properties with similar characteristics within the same geographic region.

### **Recommendations**

None

## 8. Natural Resources

### Earth and Stone

#### Methodology

In accordance with the **Assessor's Reference Library (ARL), Volume 3, Chapter 6: Natural Resource Valuation Procedures**, the county used the **income approach** to determine the value of earth and stone production. Production totals, measured in tons, were multiplied by the economic royalty rate established by the **Division of Property Taxation** to calculate projected income. This income figure was then capitalized using the **Hoskold factor**, which is based on the expected life of the reserves or lease. Since production data is not collected by any state or private agency, the operator is the source for both estimated tonnage and reserve life. Ultimately, valuation depends on two primary variables: the quantity of material and the remaining productive life of the site.

#### Conclusions

The county applied the correct formulas and state guidelines to earth and stone resources.

#### Recommendations

None

## 9. Personal Property

### Methodology

SMDA reviewed Pueblo County's personal property assessment procedures for compliance with the **Assessor's Reference Library (ARL), Volume 5** and the requirements of the **State Board of Equalization (SBOE)**. The SBOE mandates the use of ARL Volume 5, which includes up-to-date discovery processes, classification methods, documentation standards, economic life tables, cost factor tables, depreciation schedules, and level-of-value adjustment tables.

The county provided a current personal property audit plan for the 2025 valuation period along with a list of audited businesses, which matched the plan requirements. For counties with populations over 100,000, including Pueblo, a statistically valid sample of audited schedules was selected to confirm compliance with state laws and Property Tax Administrator guidelines.

To identify and discover personal property accounts, Pueblo County used several methods:

- Public record documents
- MLS listing or sold books
- Local publications
- Personal observation

The county follows all classification, documentation, and valuation procedures recommended by the **Division of Property Taxation (DPT)**, including the prescribed cost factor tables, depreciation schedules, and level-of-value adjustment factors.

Pueblo County also employed a structured audit process using multiple audit triggers to select accounts for review:

- Non-filing taxpayers
- Businesses with no deletions or additions for 2 or more years
- Incomplete or inconsistent declarations
- New businesses filing for the first time
- Accounts with obvious discrepancies

### Conclusions

Pueblo County implemented effective discovery, classification, documentation, valuation, and auditing practices for personal property assessments. The county's procedures align with ARL Volume 5, meet all SBOE requirements, and demonstrate statistical compliance.

### Recommendations

None

# 10. Possessory Interest

## Methodology

SMDA reviewed Pueblo County's discovery and valuation of possessory interest properties to ensure they correctly applied the guidelines outlined in the **Assessor's Reference Library (ARL), Volume 3, Chapter 7**, in accordance with **§39-1-103(17)(a)(II), C.R.S.** Possessory interest refers to a private right to occupy or use government-owned property granted through a lease, license, permit, concession, contract, or other agreement, as defined by the Property Tax Administrator.

SMDA reviewed Pueblo County's assessment procedures for compliance with these guidelines for **agricultural and commercial** possessory interests. The county confirmed the completeness of its discovery process and whether it was confident that all relevant possessory interest properties had been identified and placed on the assessment roll.

## Conclusions

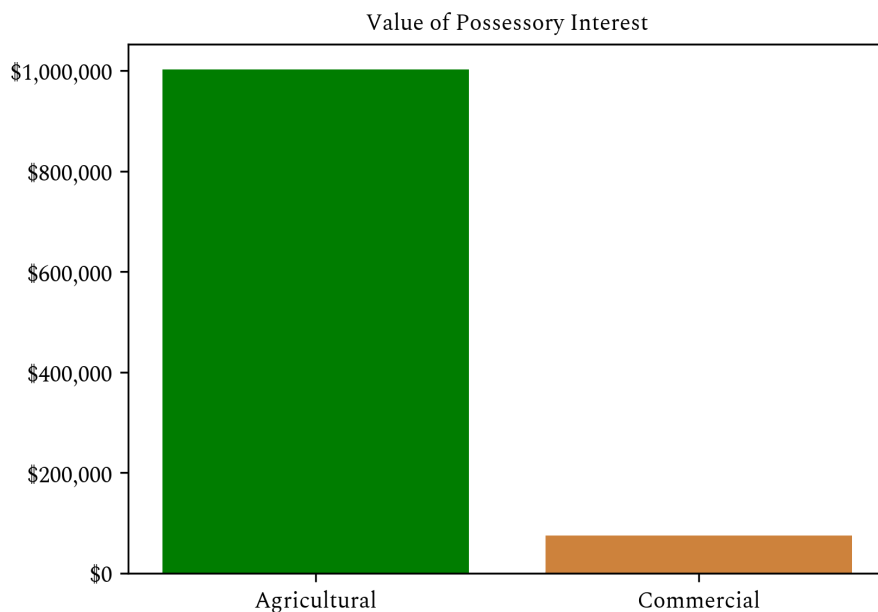
Pueblo County established an effective discovery process to ensure that possessory interest properties were added to the tax roll. The county consistently applied the proper procedures and valuation methods according to State guidelines, resulting in accurate and compliant assessments.

## Recommendations

None

## Possessory Interest Breakdown

| Possessory Interest Type | Value       |
|--------------------------|-------------|
| Agricultural             | \$1,002,572 |
| Commercial               | \$75,178    |



# 11. Sales Verification

## Methodology

As part of the Property Assessment Study, SMDA conducted an evaluation of Pueblo County's procedures for verifying real estate sales. This review was guided by the relevant provisions of the **Colorado Revised Statutes**:

A representative body of sales is required when considering the market approach to appraisal.

*(8) In any case in which sales prices of comparable properties within any class or subclass are utilized when considering the market approach to appraisal in the determination of actual value of any taxable property, the following limitations and conditions shall apply:*

*(a)(I) Use of the market approach shall require a representative body of sales, including sales by a lender or government, sufficient to set a pattern, and appraisals shall reflect due consideration of the degree of comparability of sales, including the extent of similarities and dissimilarities among properties that are compared for assessment purposes. In order to obtain a reasonable sample and to reduce sudden price changes or fluctuations, all sales shall be included in the sample that reasonably reflect a true or typical sales price during the period specified in section 39-1-104 (10.2). Sales of personal property exempt pursuant to the provisions of sections 39-3-102, 39-3-103, and 39-3-119 to 39-3-122 shall not be included in any such sample.*

*(b) Each such sale included in the sample shall be coded to indicate a typical, negotiated sale, as screened and verified by the assessor. (39-1-103, C.R.S.)*

The assessor is required to use sales of real property only in the valuation process.

*(8)(f) Such true and typical sales shall include only those sales which have been determined on an individual basis to reflect the selling price of the real property only or which have been adjusted on an individual basis to reflect the selling price of the real property only. (39-1-103, C.R.S.)*

SMDA examined Pueblo County's sales verification practices for the 2025 valuation period by reviewing a selection of sales from Pueblo County's master sales list. A total of 78 unqualified sales were analyzed. All 78 sales provided clear and supportable reasons for disqualification.

## Conclusions

Qualified vacant land sales represented less than 50% of the total over the 18-month period. This is typical for vacant land, as there are numerous reasons to disqualify sales, with the majority involving multi-parcel transactions.

Qualified residential sales represented less than 50% of the total over the 18-month period. This atypical result is largely attributable to the high proportion of unqualified sales, including approximately 30% in poor condition and 20% private sales, excluding multi-parcel transactions.

### Pueblo County

Qualified commercial sales represented less than 50% of the total over the 18-month period. A review of the unqualified sales with the Pueblo County commercial team found no concentration of a particular disqualification code, other than 38% attributed to private sales.

In all three property classes, having 50% or more unqualified sales can be explained. At this time, no procedural issue has been identified; however, further review will occur once the audit team evaluates the sales confirmation process.

### **Recommendations**

The audit team plans to conduct an in-depth review of the sales confirmation process in Pueblo County.

## 12. Subdivision Discounting

### Methodology

SMDA reviewed Pueblo County's subdivision discounting practices to ensure compliance with §39-1-103(14), C.R.S. The review confirmed that discounting was applied to subdivisions where fewer than 80% of vacant lots had been sold. For each qualifying subdivision, an absorption rate was estimated to reflect the expected timeframe for selling the remaining parcels. Using the Summation Method and following the Division of Property Taxation guidelines, an appropriate discount rate was developed to account for the anticipated holding period and associated carrying costs.

### Conclusions

Pueblo County properly applied discounting procedures for qualifying subdivisions. The county's estimates of absorption periods, discount rates, and lot values are consistent with statutory requirements and state-recommended methodologies.

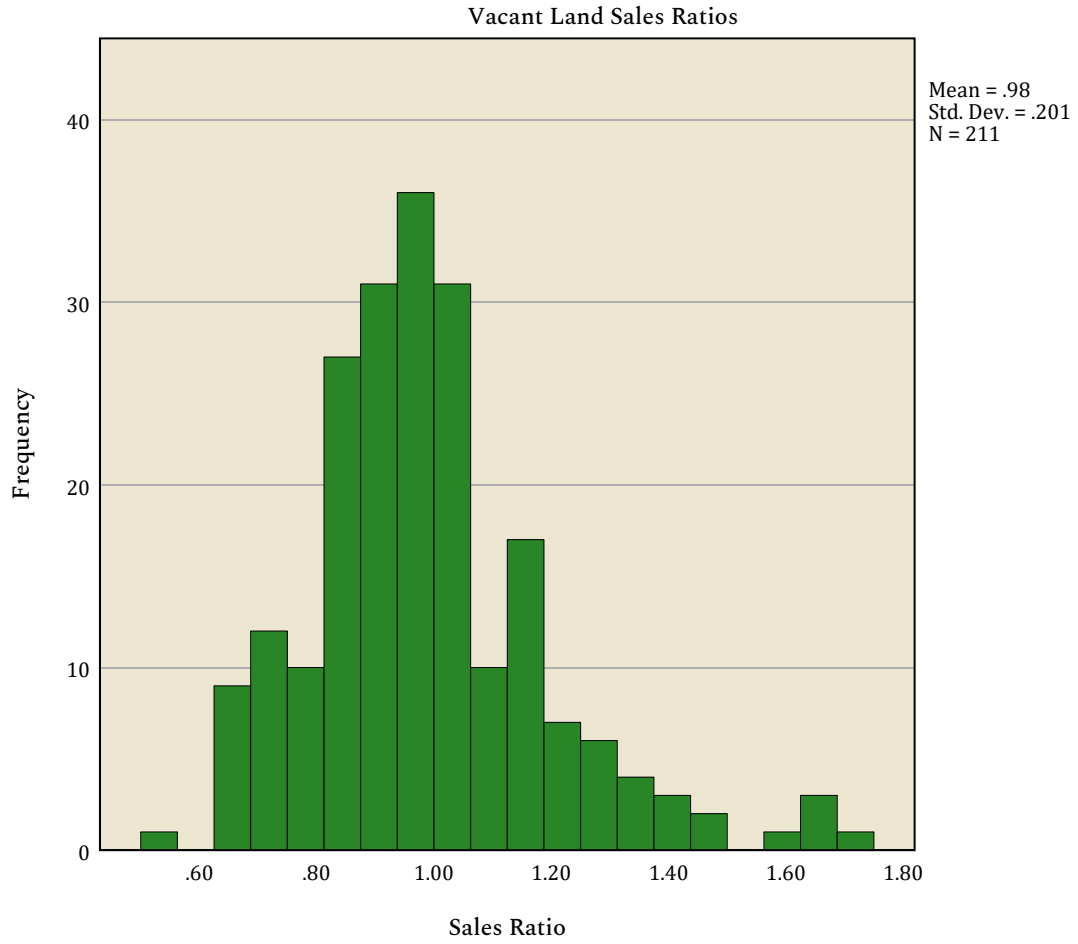
### Recommendations

None

# 13. Appendix

### OVERALL Vacant Land: Sales Ratio Distribution

Graph



**OVERALL Vacant Land: Central Tendencies**

**Ratio Statistics**

Ratio Statistics for Current Total Value /  
Adjusted Sale Price

| N   | Median | Coefficient of<br>Dispersion |
|-----|--------|------------------------------|
| 212 | .960   | .152                         |

**Ratio Statistics**

Ratio Statistics for Current Total  
Value / Adjusted Sale Price

| Price Related<br>Bias | Price Related<br>Differential |
|-----------------------|-------------------------------|
| .004                  | 1.014                         |

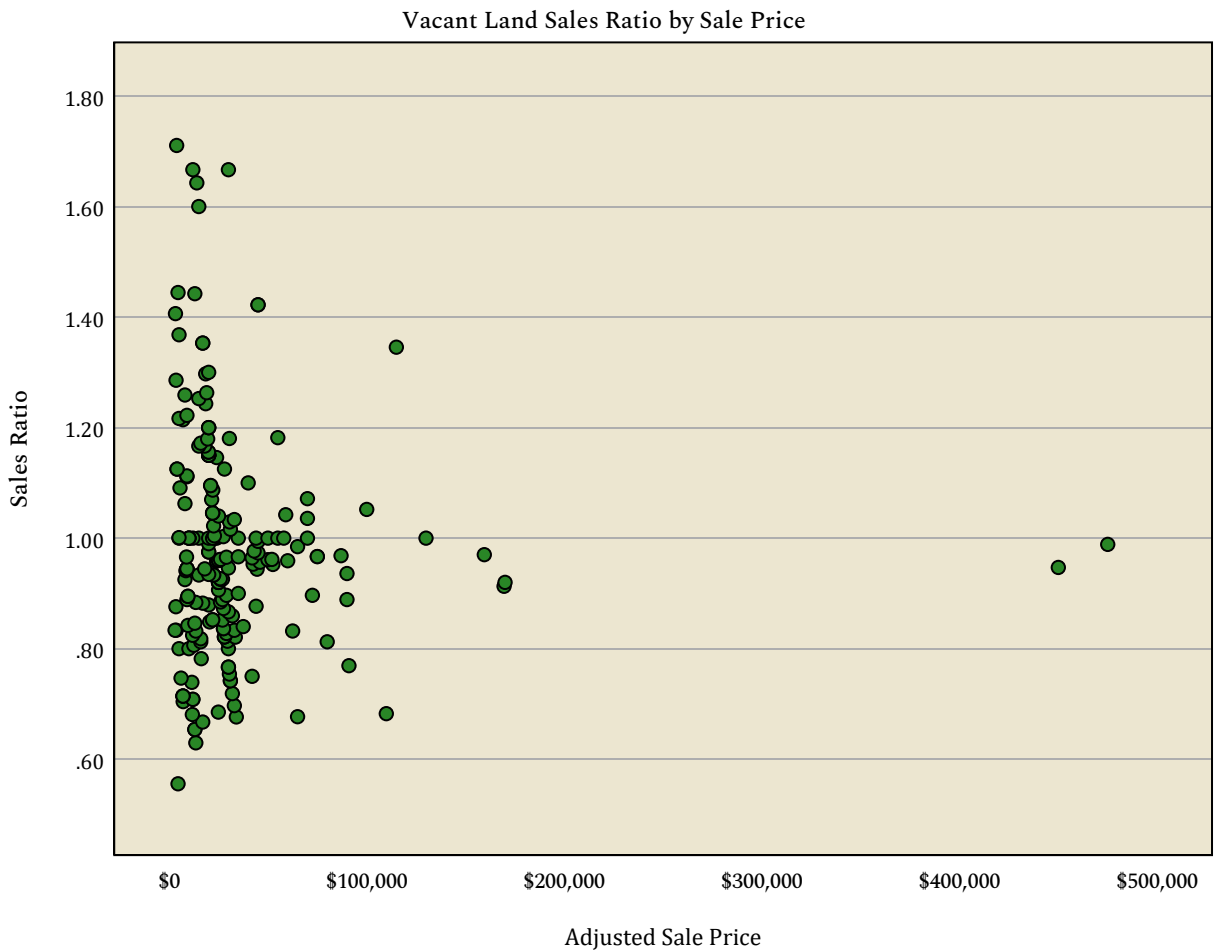
### OVERALL Vacant Land: Sales Price by Sales Ratio

Regression

|       |                     | Coefficients <sup>a</sup>   |            |                           |        |       |
|-------|---------------------|-----------------------------|------------|---------------------------|--------|-------|
|       |                     | Unstandardized Coefficients |            | Standardized Coefficients |        |       |
| Model |                     | B                           | Std. Error | Beta                      | t      | Sig.  |
| 1     | (Constant)          | .986                        | .017       |                           | 58.419 | <.001 |
|       | Adjusted Sale Price | -1.770E-7                   | .000       | -.044                     | -.632  | .528  |

a. Dependent Variable: Sales Ratio

Graph



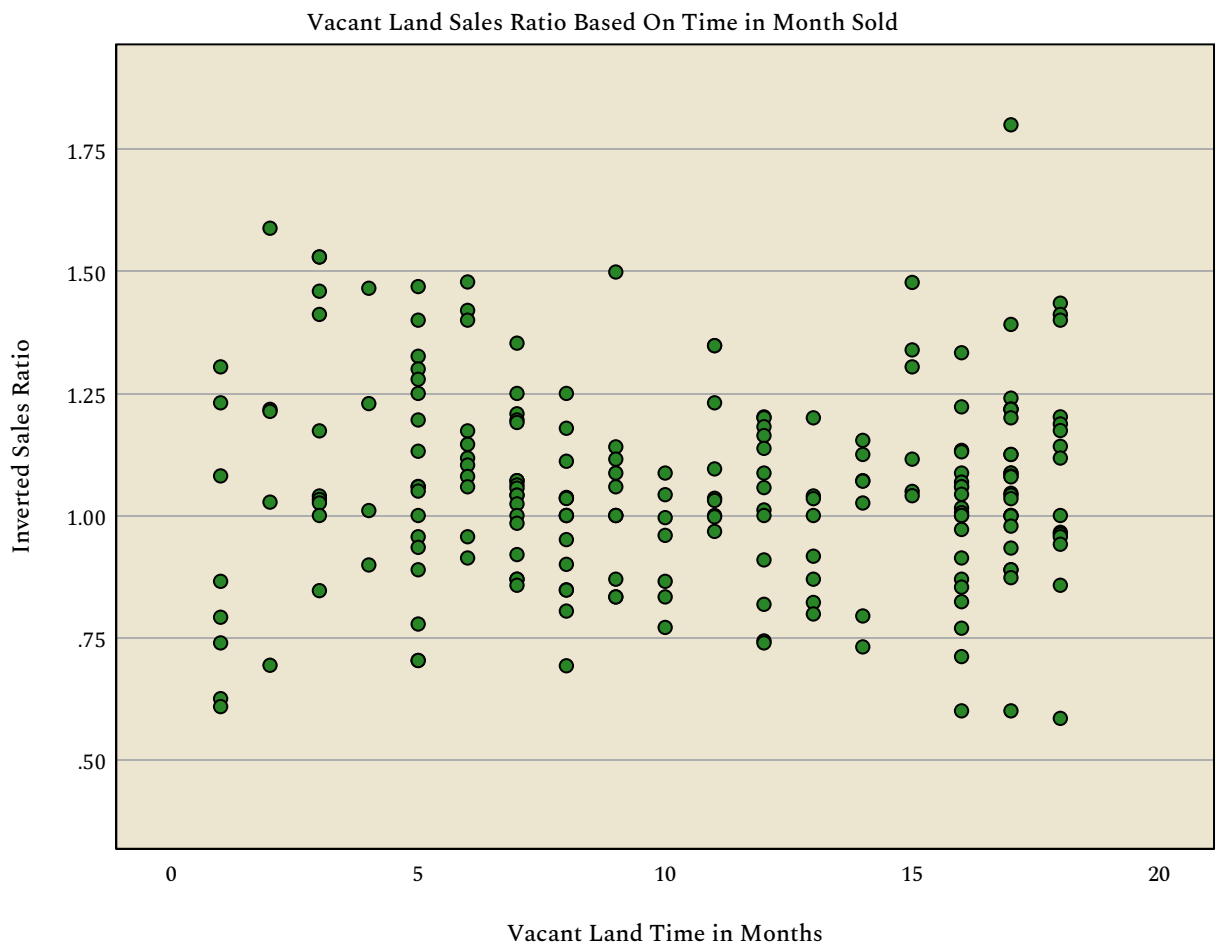
### OVERALL Vacant Land: Months by Inverted Sales Ratio

Regression

|       |                            | Coefficients <sup>a</sup>   |            |                           |        |       |
|-------|----------------------------|-----------------------------|------------|---------------------------|--------|-------|
|       |                            | Unstandardized Coefficients |            | Standardized Coefficients |        |       |
| Model |                            | B                           | Std. Error | Beta                      | t      | Sig.  |
| 1     | (Constant)                 | 1.089                       | .033       |                           | 32.927 | <.001 |
|       | Vacant Land Time in Months | -.003                       | .003       | -.061                     | -.888  | .376  |

a. Dependent Variable: Inverted Sales Ratio

Graph



**OVERALL Vacant Land: Descriptive Statistics**

**Frequencies**

|             |         | Statistics           |                     |                           |
|-------------|---------|----------------------|---------------------|---------------------------|
|             |         | Previous Total Value | Current Total Value | Difference in Total Value |
| N           | Valid   | 217                  | 217                 | 216                       |
|             | Missing | 0                    | 0                   | 1                         |
| Mean        |         | \$491,170.46         | \$32,262.40         | \$1,883.69                |
| Median      |         | \$28,150.00          | \$23,000.00         | -\$2,425.00               |
| Percentiles | 2.5     | \$4,350.00           | \$3,000.00          | -\$13,787.50              |
|             | 25      | \$9,425.00           | \$11,000.00         | -\$5,150.00               |
|             | 50      | \$28,150.00          | \$23,000.00         | -\$2,425.00               |
|             | 75      | \$35,550.00          | \$31,500.00         | \$650.00                  |
|             | 97.5    | \$104,750.00         | \$154,735.00        | \$70,564.50               |

**OVERALL Vacant Land: Mann-Whitney U-Test (Rank-sum)**

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Current Total Value is the same across categories of Vacant Land Sold vs. Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Current Total Value across Vacant Land Sold vs. Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |               |
|-------------------------------|---------------|
| Total N                       | 23811         |
| Mann-Whitney U                | 1152284.500   |
| Wilcoxon W                    | 279738494.500 |
| Test Statistic                | 1152284.500   |
| Standard Error                | 98250.645     |
| Standardized Test Statistic   | -13.137       |
| Asymptotic Sig.(2-sided test) | <.001         |

**Nonparametric Tests**

**OVERALL Vacant Land: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Difference in Total Value is the same across categories of Vacant Land Sold vs. Unsold. | Independent-Samples Mann-Whitney U Test | .015                |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

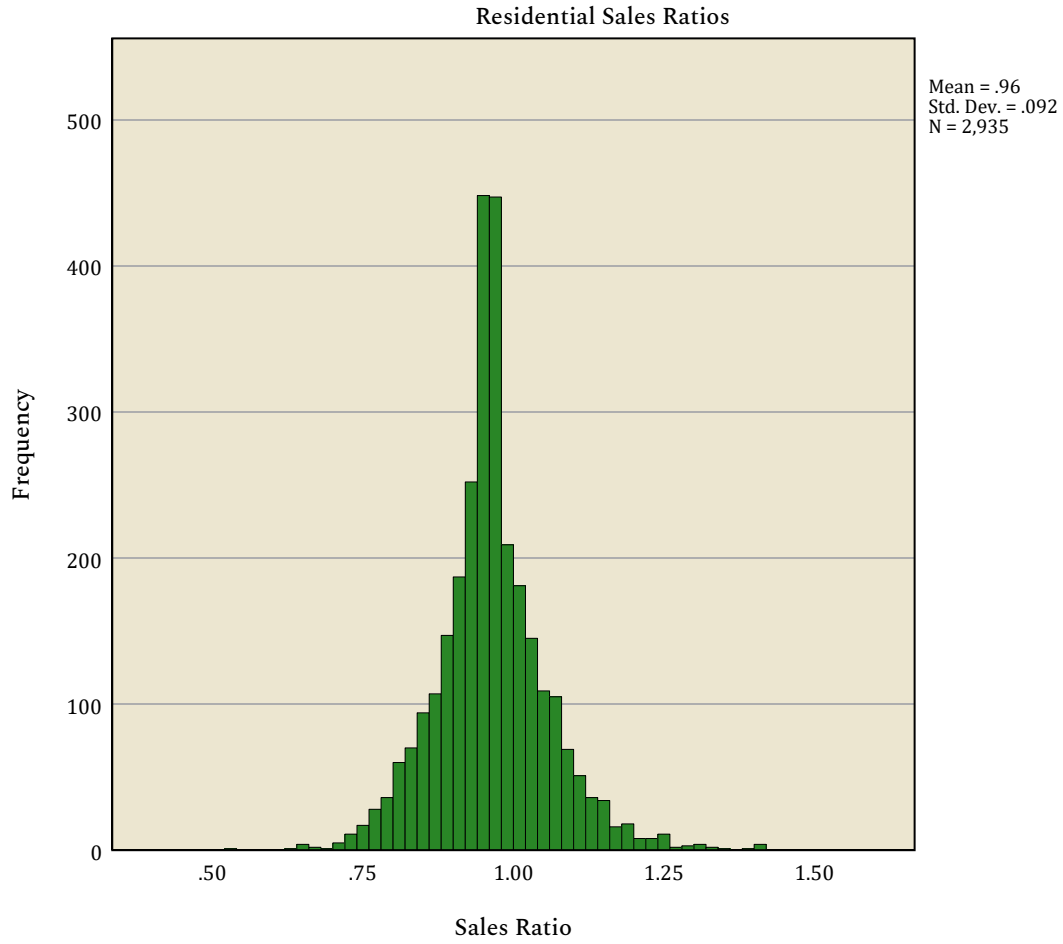
**Difference in Total Value across Vacant Land Sold vs. Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |               |
|-------------------------------|---------------|
| Total N                       | 23546         |
| Mann-Whitney U                | 2543255.000   |
| Wilcoxon W                    | 275119481.000 |
| Test Statistic                | 2543255.000   |
| Standard Error                | 94882.172     |
| Standardized Test Statistic   | 2.443         |
| Asymptotic Sig.(2-sided test) | .015          |

### OVERALL Residential: Sales Ratio Distribution

Graph



## OVERALL Residential: Central Tendencies

### Ratio Statistics

Ratio Statistics for Current Total Value /  
Adjusted Sale Price

| N    | Median | Coefficient of<br>Dispersion |
|------|--------|------------------------------|
| 2937 | .960   | .067                         |

### Ratio Statistics

Ratio Statistics for Current Total  
Value / Adjusted Sale Price

| Price Related<br>Bias | Price Related<br>Differential |
|-----------------------|-------------------------------|
| .008                  | 1.002                         |

### OVERALL Residential: Sales Price by Sales Ratio

**Regression**

|       |                     | Coefficients <sup>a</sup>   |            |                           |         |       |
|-------|---------------------|-----------------------------|------------|---------------------------|---------|-------|
|       |                     | Unstandardized Coefficients |            | Standardized Coefficients |         |       |
| Model |                     | B                           | Std. Error | Beta                      | t       | Sig.  |
| 1     | (Constant)          | .974                        | .004       |                           | 236.648 | <.001 |
|       | Adjusted Sale Price | -2.971E-8                   | .000       | -.051                     | -2.786  | .005  |

a. Dependent Variable: Sales Ratio

**Graph**



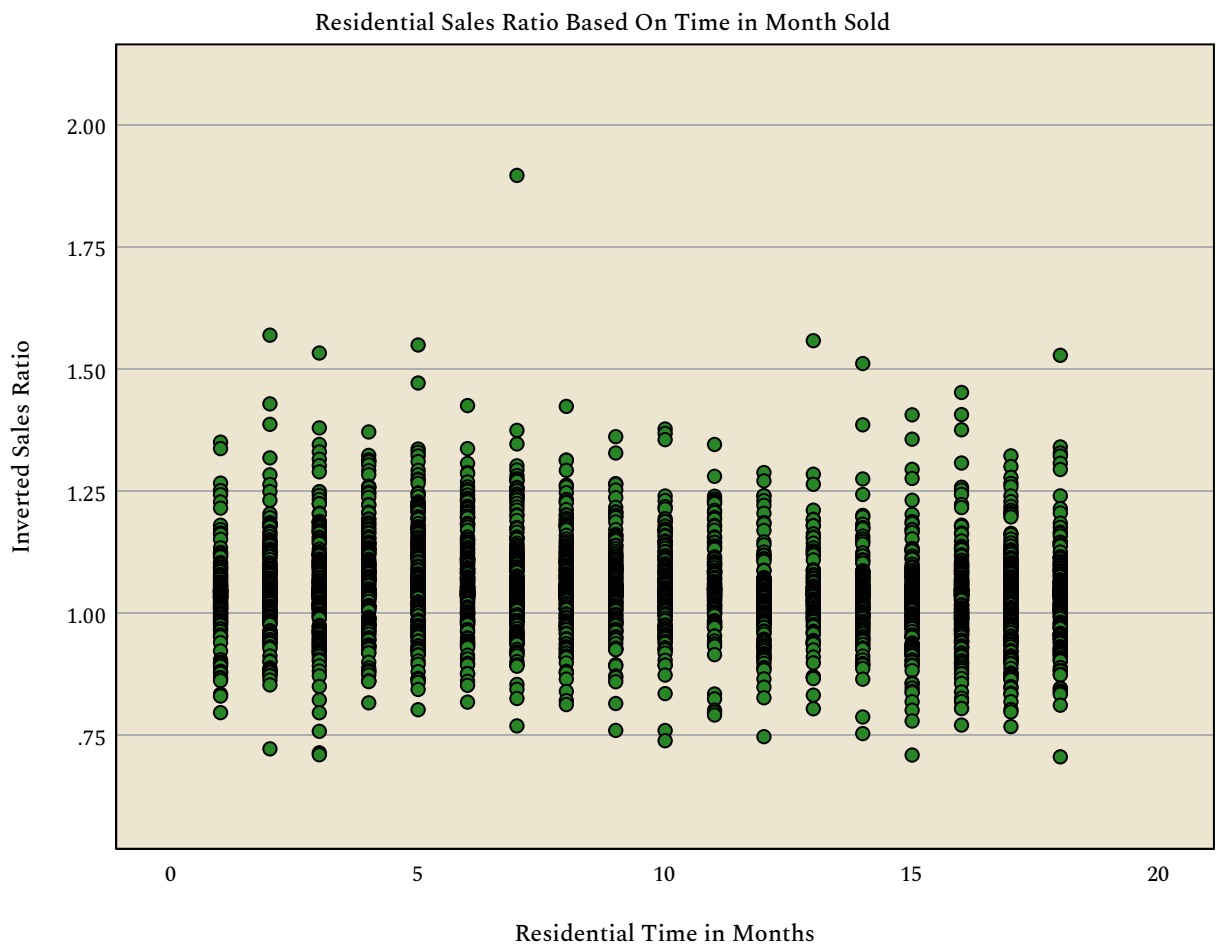
### OVERALL Residential: Months by Inverted Sales Ratio

Regression

|       |                            | Coefficients <sup>a</sup>   |            |                           |         |       |
|-------|----------------------------|-----------------------------|------------|---------------------------|---------|-------|
|       |                            | Unstandardized Coefficients |            | Standardized Coefficients |         |       |
| Model |                            | B                           | Std. Error | Beta                      | t       | Sig.  |
| 1     | (Constant)                 | 1.068                       | .004       |                           | 282.245 | <.001 |
|       | Residential Time in Months | -.002                       | .000       | -.115                     | -6.296  | <.001 |

a. Dependent Variable: Inverted Sales Ratio

Graph



## OVERALL Residential: Descriptive Statistics

### Frequencies

|             |         | Statistics                 |                |                                 |
|-------------|---------|----------------------------|----------------|---------------------------------|
|             |         | Previous Price<br>Per Foot | Price Per Foot | Difference in<br>Price Per Foot |
| N           | Valid   | 2944                       | 2944           | 2944                            |
|             | Missing | 0                          | 0              | 0                               |
| Mean        |         | \$198.79                   | \$196.59       | 1.20                            |
| Median      |         | \$186.95                   | \$191.46       | 1.00                            |
| Percentiles | 2.5     | \$100.52                   | \$123.17       | .83                             |
|             | 25      | \$156.23                   | \$163.41       | .95                             |
|             | 50      | \$186.95                   | \$191.46       | 1.00                            |
|             | 75      | \$222.09                   | \$226.22       | 1.09                            |
|             | 97.5    | \$284.33                   | \$287.75       | 1.71                            |

### Frequencies

|             |         | Statistics              |                        |                              |
|-------------|---------|-------------------------|------------------------|------------------------------|
|             |         | Previous Total<br>Value | Current Total<br>Value | Difference in<br>Total Value |
| N           | Valid   | 2944                    | 2944                   | 2943                         |
|             | Missing | 0                       | 0                      | 1                            |
| Mean        |         | \$361,613.70            | \$338,088.60           | \$10,064.98                  |
| Median      |         | \$315,642.00            | \$323,773.50           | \$1,603.00                   |
| Percentiles | 2.5     | \$117,188.00            | \$147,093.38           | -\$70,809.40                 |
|             | 25      | \$230,365.25            | \$241,465.50           | -\$16,349.00                 |
|             | 50      | \$315,642.00            | \$323,773.50           | \$1,603.00                   |
|             | 75      | \$402,645.75            | \$404,879.00           | \$23,122.00                  |
|             | 97.5    | \$633,275.88            | \$613,022.88           | \$156,416.00                 |

**OVERALL Residential: Mann-Whitney U-Test (Rank-sum)**

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis  | Test                                    | Sig. <sup>a,b</sup> |
|---|--|---|---------------------|
| 1 | The distribution of Difference in Total Value is the same across categories of Residential Sold vs Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Total Value across Residential Sold vs Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |                |
|-------------------------------|----------------|
| Total N                       | 56006          |
| Mann-Whitney U                | 52060789.000   |
| Wilcoxon W                    | 1492161067.000 |
| Test Statistic                | 52060789.000   |
| Standard Error                | 765419.112     |
| Standardized Test Statistic   | -13.983        |
| Asymptotic Sig.(2-sided test) | <.001          |

**Nonparametric Tests**

**OVERALL Residential: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Price Per Foot is the same across categories of Residential Sold vs Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Price Per Foot across Residential Sold vs Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |                |
|-------------------------------|----------------|
| Total N                       | 56028          |
| Mann-Whitney U                | 54348902.500   |
| Wilcoxon W                    | 1491659822.500 |
| Test Statistic                | 54348902.500   |
| Standard Error                | 777208.656     |
| Standardized Test Statistic   | -13.301        |
| Asymptotic Sig.(2-sided test) | <.001          |

**Nonparametric Tests**

**OVERALL Residential: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Difference in Price Per Foot is the same across categories of Residential Sold vs Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Price Per Foot across Residential Sold vs Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |                |
|-------------------------------|----------------|
| Total N                       | 56028          |
| Mann-Whitney U                | 51068641.000   |
| Wilcoxon W                    | 1494551956.000 |
| Test Statistic                | 51068641.000   |
| Standard Error                | 759275.253     |
| Standardized Test Statistic   | -14.049        |
| Asymptotic Sig.(2-sided test) | <.001          |

**OVERALL Residential: Unit Value Comparison**

**Summarize**

Sold vs Unsold

Difference in Price Per Foot

| Residential Sold vs Unsold | N     | Median | Mean |
|----------------------------|-------|--------|------|
| SOLD                       | 2496  | 1.00   | 1.04 |
| UNSOLD                     | 56482 | .97    | .98  |
| Total                      | 58978 | .97    | .98  |

**OVERALL Residential: Neighborhood Group**

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group | N   | Median | Coefficient of Dispersion |
|-------|-----|--------|---------------------------|
| 0001  | 56  | .959   | .074                      |
| 0010  | 116 | .967   | .084                      |
| 0020  | 119 | .958   | .076                      |
| 0021  | 36  | .959   | .063                      |
| 0035  | 148 | .963   | .075                      |
| 0060  | 79  | .963   | .088                      |
| 0063  | 46  | .957   | .096                      |
| 0070  | 62  | .957   | .082                      |
| 0086  | 88  | .957   | .095                      |
| 0095  | 37  | .957   | .077                      |
| 0110  | 106 | .964   | .090                      |
| 0120  | 50  | .955   | .046                      |
| 0127  | 30  | .964   | .057                      |
| 0128  | 35  | .955   | .078                      |
| 0129  | 33  | .964   | .055                      |
| 0133  | 40  | .958   | .089                      |
| 0135  | 41  | .959   | .105                      |
| 0150  | 39  | .957   | .072                      |
| 0151  | 39  | .957   | .057                      |
| 0162  | 106 | .963   | .058                      |
| 0164  | 95  | .958   | .059                      |
| 0165  | 99  | .962   | .055                      |
| 0166  | 88  | .964   | .058                      |
| 0167  | 74  | .968   | .111                      |
| 0171  | 46  | .965   | .055                      |
| 0174  | 35  | .963   | .050                      |
| 0178  | 48  | .952   | .081                      |
| 0180  | 35  | .952   | .069                      |

**OVERALL Residential: Neighborhood Group**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N    | Median | Coefficient of Dispersion |
|---------|------|--------|---------------------------|
| 0182    | 34   | .964   | .058                      |
| 0191    | 62   | .947   | .068                      |
| 2101    | 37   | .962   | .055                      |
| Overall | 1959 | .960   | .074                      |

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group | N   | Price Related Bias | Price Related Differential |
|-------|-----|--------------------|----------------------------|
| 0001  | 56  | .008               | 1.003                      |
| 0010  | 116 | .067               | 1.001                      |
| 0020  | 119 | .205               | .996                       |
| 0021  | 36  | .026               | 1.003                      |
| 0035  | 148 | .105               | 1.003                      |
| 0060  | 79  | .004               | 1.006                      |
| 0063  | 46  | .118               | 1.002                      |
| 0070  | 62  | .097               | 1.000                      |
| 0086  | 88  | .085               | 1.001                      |
| 0095  | 37  | .059               | 1.001                      |
| 0110  | 106 | .081               | 1.003                      |
| 0120  | 50  | .089               | 1.001                      |
| 0127  | 30  | .192               | 1.001                      |
| 0128  | 35  | .257               | .999                       |
| 0129  | 33  | -.114              | 1.007                      |
| 0133  | 40  | .199               | .996                       |
| 0135  | 41  | .211               | .998                       |
| 0150  | 39  | -.001              | 1.005                      |
| 0151  | 39  | .073               | 1.000                      |

**OVERALL Residential: Neighborhood Group**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N    | Price Related Bias | Price Related Differential |
|---------|------|--------------------|----------------------------|
| 0162    | 106  | .073               | 1.001                      |
| 0164    | 95   | .150               | .999                       |
| 0165    | 99   | .076               | 1.001                      |
| 0166    | 88   | .187               | .999                       |
| 0167    | 74   | -.161              | 1.018                      |
| 0171    | 46   | .094               | 1.000                      |
| 0174    | 35   | .006               | 1.002                      |
| 0178    | 48   | .180               | .998                       |
| 0180    | 35   | .141               | .999                       |
| 0182    | 34   | .113               | 1.000                      |
| 0191    | 62   | -.014              | 1.007                      |
| 2101    | 37   | .046               | 1.000                      |
| Overall | 1959 | .010               | 1.003                      |

**OVERALL Residential: Number of Sales by Value Group**

Frequencies

Statistics

Groups of Value

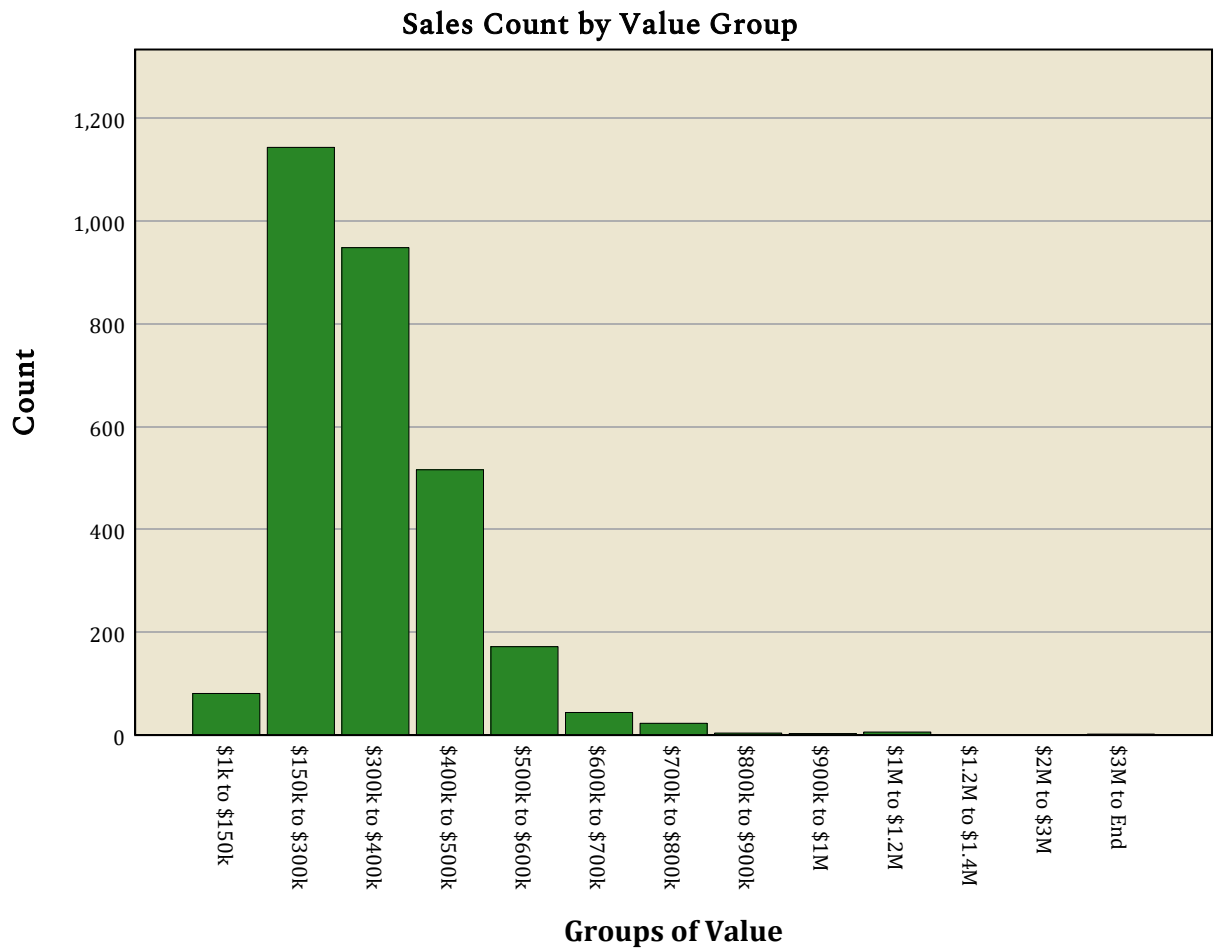
|   |         |      |
|---|---------|------|
| N | Valid   | 2944 |
|   | Missing | 0    |

Groups of Value

|       |                  | Frequency | Percent | Valid Percent | Cumulative Percent |  |
|-------|------------------|-----------|---------|---------------|--------------------|--|
| Valid | \$1k to \$150k   | 81        | 2.8     | 2.8           | 2.8                |  |
|       | \$150k to \$300k | 1143      | 38.8    | 38.8          | 41.6               |  |
|       | \$300k to \$400k | 948       | 32.2    | 32.2          | 73.8               |  |
|       | \$400k to \$500k | 516       | 17.5    | 17.5          | 91.3               |  |
|       | \$500k to \$600k | 172       | 5.8     | 5.8           | 97.1               |  |
|       | \$600k to \$700k | 44        | 1.5     | 1.5           | 98.6               |  |
|       | \$700k to \$800k | 23        | .8      | .8            | 99.4               |  |
|       | \$800k to \$900k | 4         | .1      | .1            | 99.6               |  |
|       | \$900k to \$1M   | 3         | .1      | .1            | 99.7               |  |
|       | \$1M to \$1.2M   | 6         | .2      | .2            | 99.9               |  |
|       | \$1.2M to \$1.4M | 1         | .0      | .0            | 99.9               |  |
|       | \$2M to \$3M     | 1         | .0      | .0            | 99.9               |  |
|       | \$3M to End      | 2         | .1      | .1            | 100.0              |  |
|       | Total            |           | 2944    | 100.0         | 100.0              |  |

Graph

**OVERALL Residential: Number of Sales by Value Group**



**OVERALL Residential: Central Tendencies by Value Group**

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group            | N    | Median | Coefficient of Dispersion |
|------------------|------|--------|---------------------------|
| \$1k to \$150k   | 81   | .944   | .086                      |
| \$150k to \$300k | 1140 | .953   | .078                      |
| \$300k to \$400k | 946  | .960   | .057                      |
| \$400k to \$500k | 515  | .975   | .060                      |
| \$500k to \$600k | 171  | .969   | .061                      |
| \$600k to \$700k | 44   | .965   | .066                      |
| \$700k to \$800k | 23   | .952   | .041                      |
| \$800k to \$900k | 4    | .907   | .057                      |
| \$900k to \$1M   | 3    | .968   | .056                      |
| \$1M to \$1.2M   | 6    | .961   | .035                      |
| \$1.2M to \$1.4M | 1    | .950   | .000                      |
| \$2M to \$3M     | 1    | 1.400  | .000                      |
| \$3M to End      | 2    | .998   | .002                      |
| Overall          | 2937 | .960   | .067                      |

**Ratio Statistics**

**OVERALL Residential: Central Tendencies by Value Group**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group            | N    | Price Related Bias | Price Related Differential |
|------------------|------|--------------------|----------------------------|
| \$1k to \$150k   | 81   | -.118              | 1.017                      |
| \$150k to \$300k | 1140 | -.055              | 1.008                      |
| \$300k to \$400k | 946  | -.299              | 1.007                      |
| \$400k to \$500k | 515  | -.380              | 1.006                      |
| \$500k to \$600k | 171  | -.530              | 1.007                      |
| \$600k to \$700k | 44   | -.737              | 1.008                      |
| \$700k to \$800k | 23   | -.594              | 1.004                      |
| \$800k to \$900k | 4    | -.736              | 1.005                      |
| \$900k to \$1M   | 3    | -.944              | 1.006                      |
| \$1M to \$1.2M   | 6    | -.282              | 1.002                      |
| \$1.2M to \$1.4M | 1    | .                  | 1.000                      |
| \$2M to \$3M     | 1    | .                  | 1.000                      |
| \$3M to End      | 2    | -.044              | 1.000                      |
| Overall          | 2937 | .008               | 1.002                      |

**OVERALL Residential: Sales by Building Area Group**

**Frequencies**

Statistics

Groups by Building Area

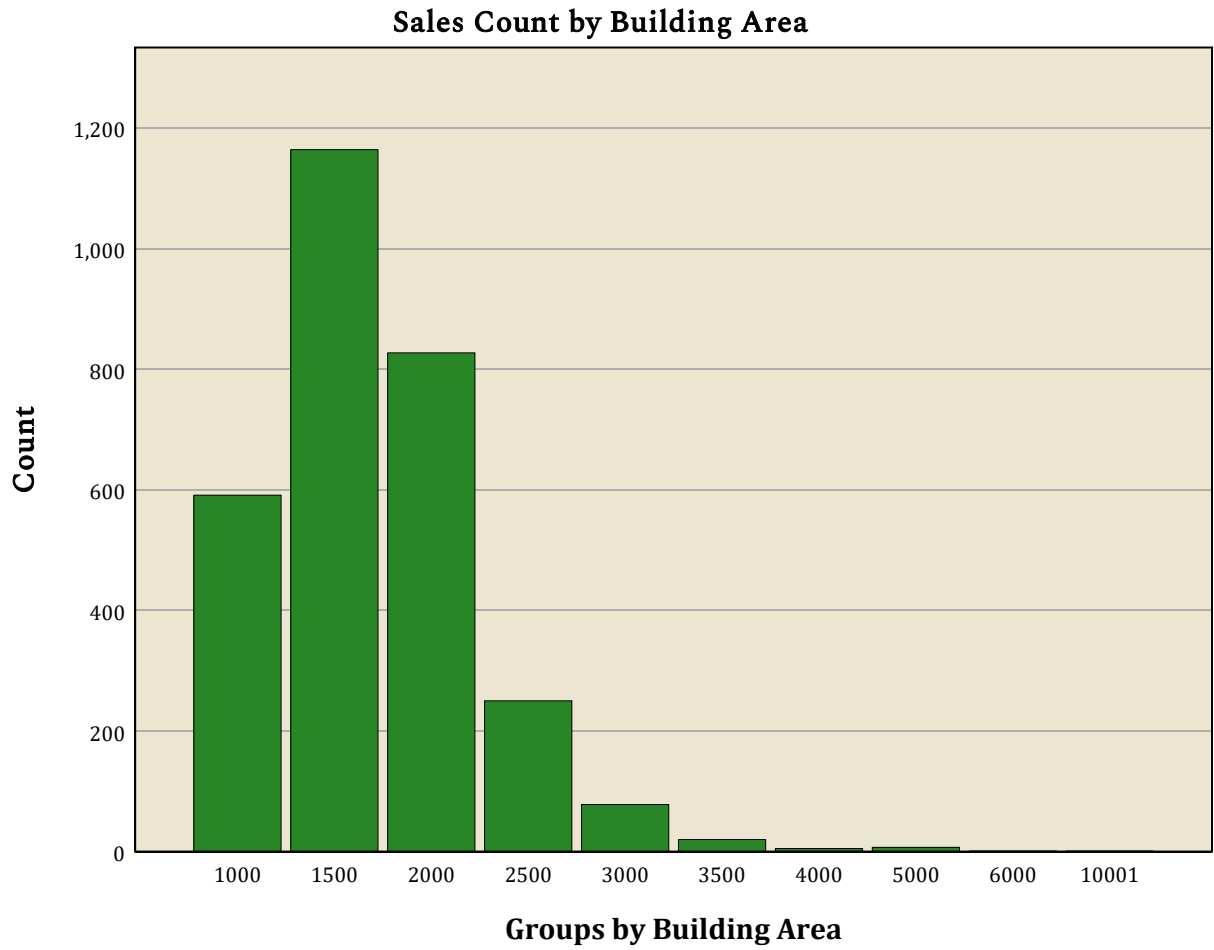
|   |         |      |
|---|---------|------|
| N | Valid   | 2944 |
|   | Missing | 0    |

Groups by Building Area

|       |       | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|-------|-----------|---------|---------------|--------------------|
| Valid | 1000  | 591       | 20.1    | 20.1          | 20.1               |
|       | 1500  | 1164      | 39.5    | 39.5          | 59.6               |
|       | 2000  | 827       | 28.1    | 28.1          | 87.7               |
|       | 2500  | 250       | 8.5     | 8.5           | 96.2               |
|       | 3000  | 78        | 2.6     | 2.6           | 98.8               |
|       | 3500  | 20        | .7      | .7            | 99.5               |
|       | 4000  | 5         | .2      | .2            | 99.7               |
|       | 5000  | 7         | .2      | .2            | 99.9               |
|       | 6000  | 1         | .0      | .0            | 100.0              |
|       | 10001 | 1         | .0      | .0            | 100.0              |
|       | Total | 2944      | 100.0   | 100.0         |                    |

**Graph**

**OVERALL Residential: Sales by Building Area Group**



**OVERALL Residential: Central Tendencies by Area Group**

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N    | Median | Coefficient of Dispersion |
|---------|------|--------|---------------------------|
| 1000    | 590  | .955   | .082                      |
| 1500    | 1160 | .959   | .067                      |
| 2000    | 827  | .962   | .064                      |
| 2500    | 249  | .961   | .057                      |
| 3000    | 77   | .958   | .050                      |
| 3500    | 20   | .962   | .024                      |
| 4000    | 5    | .957   | .005                      |
| 5000    | 7    | .939   | .046                      |
| 6000    | 1    | 1.400  | .000                      |
| 10001   | 1    | .996   | .000                      |
| Overall | 2937 | .960   | .067                      |

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N    | Price Related Bias | Price Related Differential |
|---------|------|--------------------|----------------------------|
| 1000    | 590  | .017               | 1.003                      |
| 1500    | 1160 | .032               | 1.001                      |
| 2000    | 827  | .004               | 1.003                      |
| 2500    | 249  | -.020              | 1.005                      |
| 3000    | 77   | -.023              | 1.005                      |
| 3500    | 20   | -.043              | 1.006                      |
| 4000    | 5    | .008               | .999                       |
| 5000    | 7    | .105               | .992                       |
| 6000    | 1    | .                  | 1.000                      |
| 10001   | 1    | .                  | 1.000                      |
| Overall | 2937 | .008               | 1.002                      |

**OVERALL Residential: Sales by Economic Area Group**

**Frequencies**

Statistics

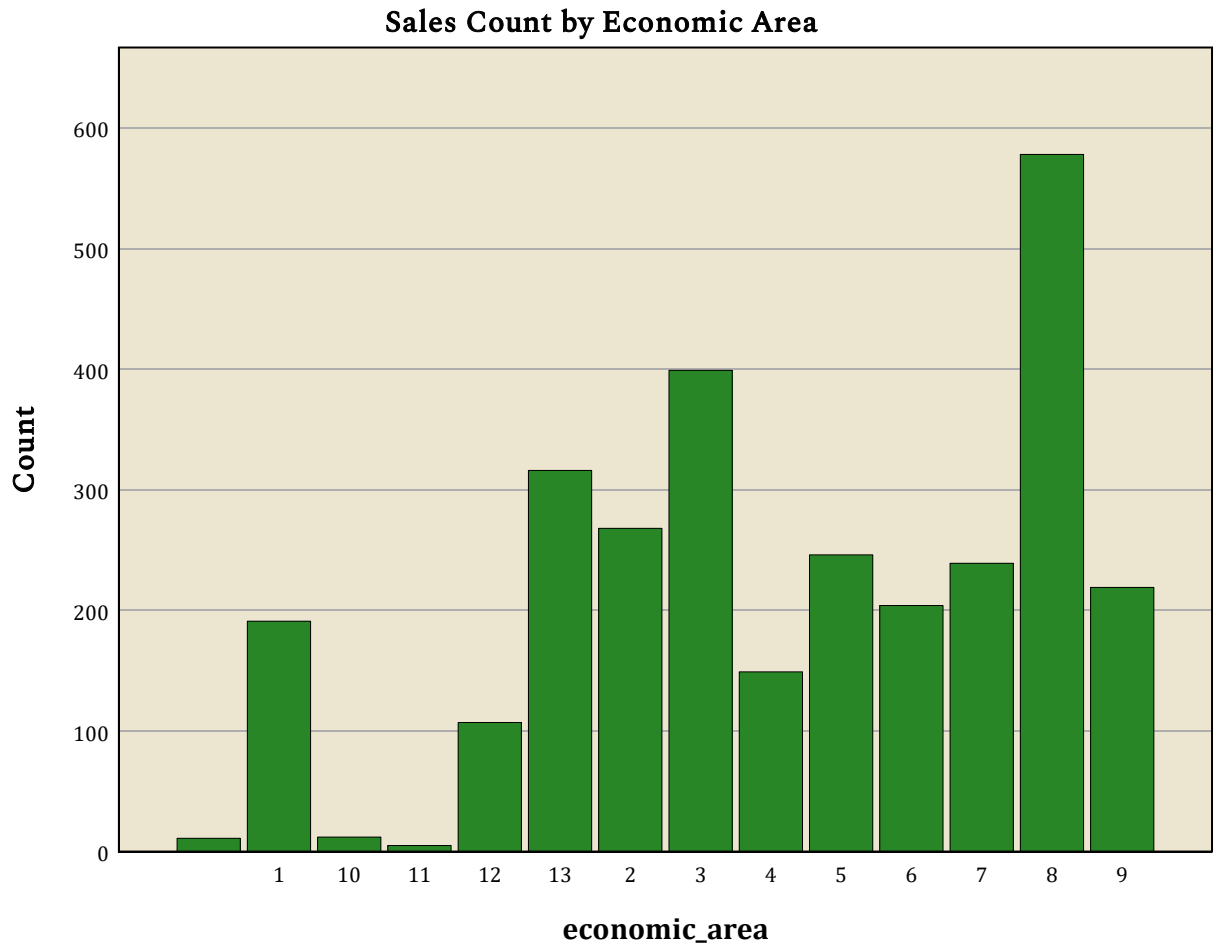
economic\_area

|   |         |      |
|---|---------|------|
| N | Valid   | 2944 |
|   | Missing | 0    |

|       |       | economic_area |         |               |                    |
|-------|-------|---------------|---------|---------------|--------------------|
|       |       | Frequency     | Percent | Valid Percent | Cumulative Percent |
| Valid |       | 11            | .4      | .4            | .4                 |
|       | 1     | 191           | 6.5     | 6.5           | 6.9                |
|       | 10    | 12            | .4      | .4            | 7.3                |
|       | 11    | 5             | .2      | .2            | 7.4                |
|       | 12    | 107           | 3.6     | 3.6           | 11.1               |
|       | 13    | 316           | 10.7    | 10.7          | 21.8               |
|       | 2     | 268           | 9.1     | 9.1           | 30.9               |
|       | 3     | 399           | 13.6    | 13.6          | 44.5               |
|       | 4     | 149           | 5.1     | 5.1           | 49.5               |
|       | 5     | 246           | 8.4     | 8.4           | 57.9               |
|       | 6     | 204           | 6.9     | 6.9           | 64.8               |
|       | 7     | 239           | 8.1     | 8.1           | 72.9               |
|       | 8     | 578           | 19.6    | 19.6          | 92.6               |
|       | 9     | 219           | 7.4     | 7.4           | 100.0              |
|       | Total | 2944          | 100.0   | 100.0         |                    |

**Graph**

**OVERALL Residential: Sales by Economic Area Group**



**OVERALL Residential: Central Tendencies by Economic Area Group**

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N    | Median | Coefficient of Dispersion |
|---------|------|--------|---------------------------|
|         | 11   | 1.007  | .041                      |
| 1       | 191  | .961   | .081                      |
| 10      | 12   | .964   | .022                      |
| 11      | 5    | .955   | .009                      |
| 12      | 106  | .960   | .079                      |
| 13      | 316  | .961   | .057                      |
| 2       | 267  | .959   | .064                      |
| 3       | 399  | .961   | .073                      |
| 4       | 148  | .960   | .093                      |
| 5       | 246  | .961   | .075                      |
| 6       | 204  | .962   | .054                      |
| 7       | 238  | .955   | .057                      |
| 8       | 576  | .960   | .065                      |
| 9       | 218  | .956   | .064                      |
| Overall | 2937 | .960   | .067                      |

**Ratio Statistics**

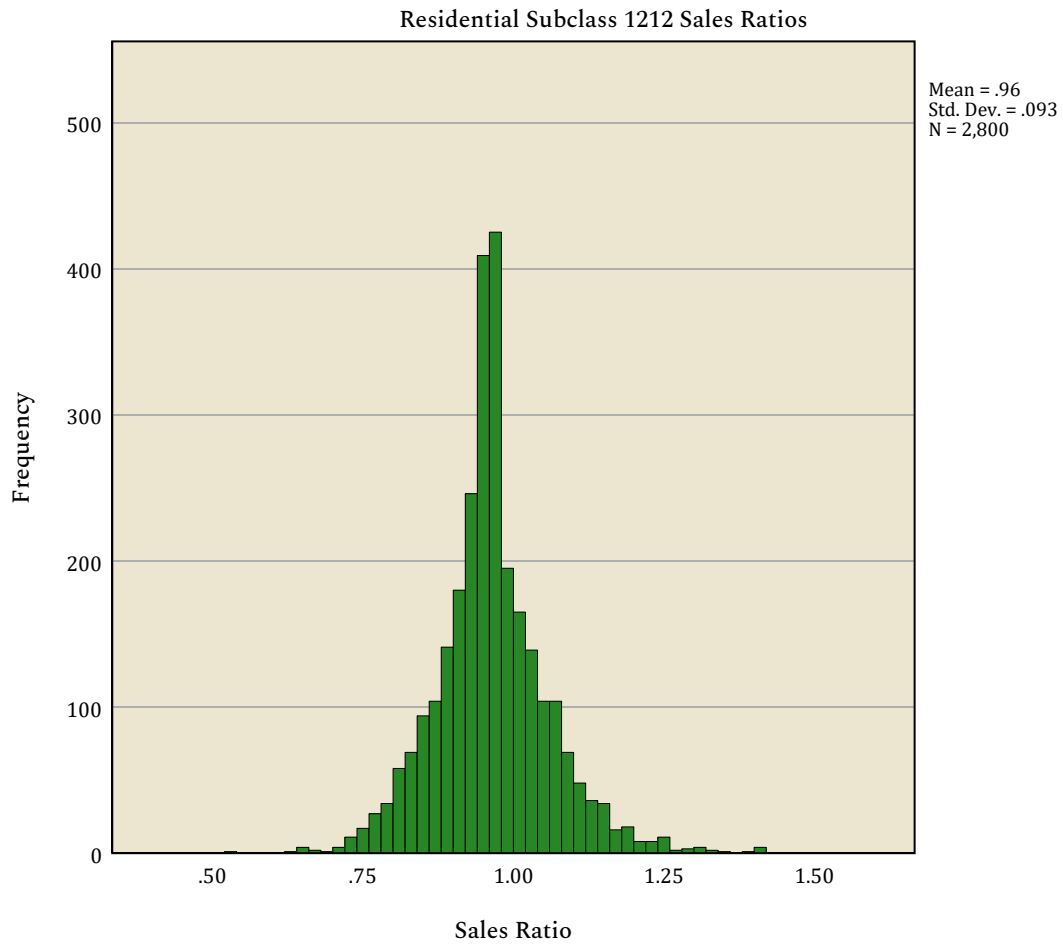
**OVERALL Residential: Central Tendencies by Economic Area Group**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N    | Price Related Bias | Price Related Differential |
|---------|------|--------------------|----------------------------|
|         | 11   | -.267              | 1.014                      |
| 1       | 191  | .028               | 1.002                      |
| 10      | 12   | -.054              | 1.003                      |
| 11      | 5    | .016               | .998                       |
| 12      | 106  | .062               | 1.000                      |
| 13      | 316  | .074               | 1.001                      |
| 2       | 267  | .026               | .998                       |
| 3       | 399  | .013               | 1.004                      |
| 4       | 148  | .068               | 1.002                      |
| 5       | 246  | .035               | .999                       |
| 6       | 204  | .021               | 1.002                      |
| 7       | 238  | .021               | 1.001                      |
| 8       | 576  | -.002              | 1.002                      |
| 9       | 218  | .001               | 1.004                      |
| Overall | 2937 | .008               | 1.002                      |

### Residential Subclass 1212: Sales Ratio Distribution

Graph



### Residential Subclass 1212: Central Tendencies

#### Ratio Statistics

Ratio Statistics for Current Total Value /  
Adjusted Sale Price

| N    | Median | Coefficient of<br>Dispersion |
|------|--------|------------------------------|
| 2800 | .960   | .069                         |

#### Ratio Statistics

Ratio Statistics for Current Total  
Value / Adjusted Sale Price

| Price Related<br>Bias | Price Related<br>Differential |
|-----------------------|-------------------------------|
| .009                  | 1.003                         |

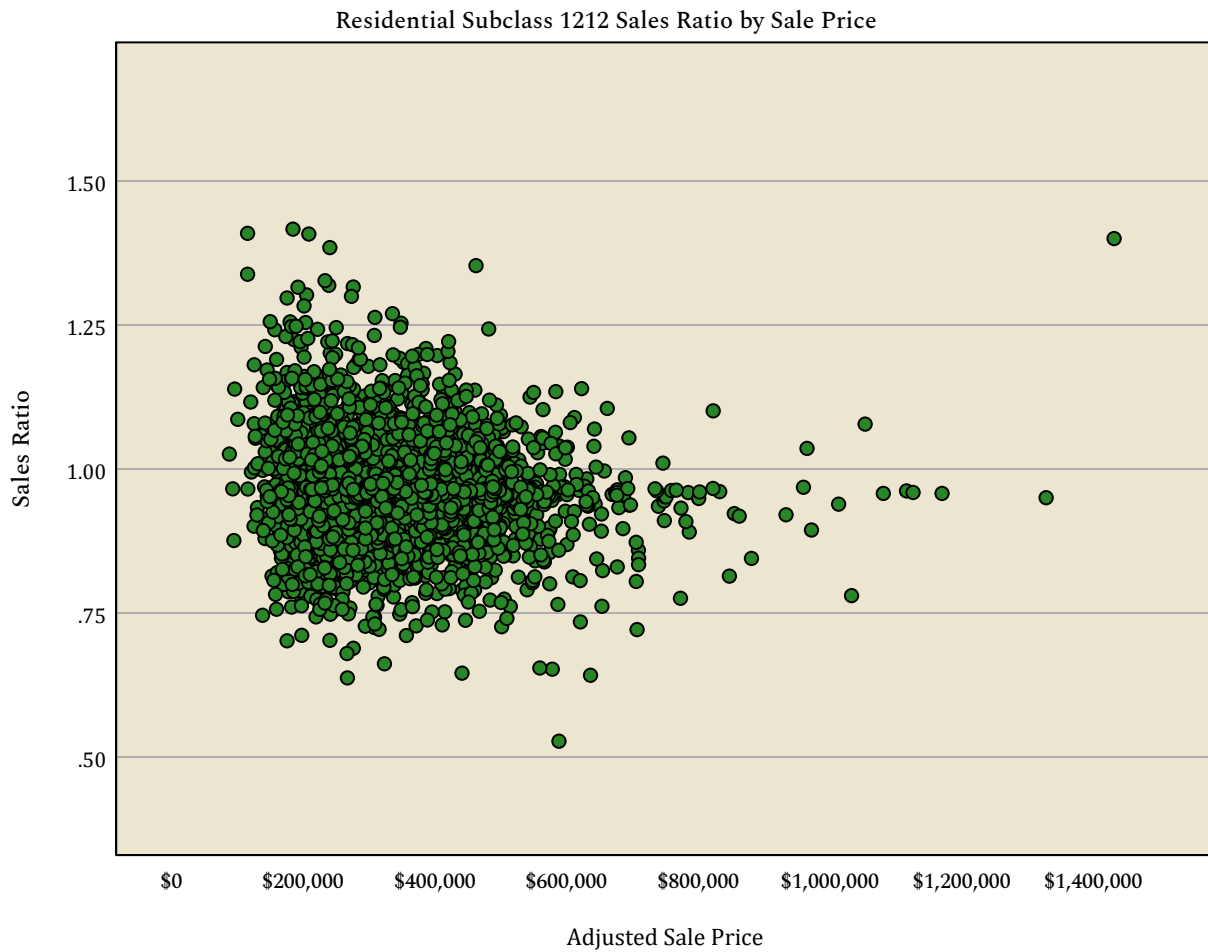
### Residential Subclass 1212: Sales Price by Sales Ratio

Regression

|       |                     | Coefficients <sup>a</sup>   |            |                           |         |       |
|-------|---------------------|-----------------------------|------------|---------------------------|---------|-------|
|       |                     | Unstandardized Coefficients |            | Standardized Coefficients |         |       |
| Model |                     | B                           | Std. Error | Beta                      | t       | Sig.  |
| 1     | (Constant)          | .982                        | .005       |                           | 194.037 | <.001 |
|       | Adjusted Sale Price | -5.163E-8                   | .000       | -.072                     | -3.810  | <.001 |

a. Dependent Variable: Sales Ratio

Graph



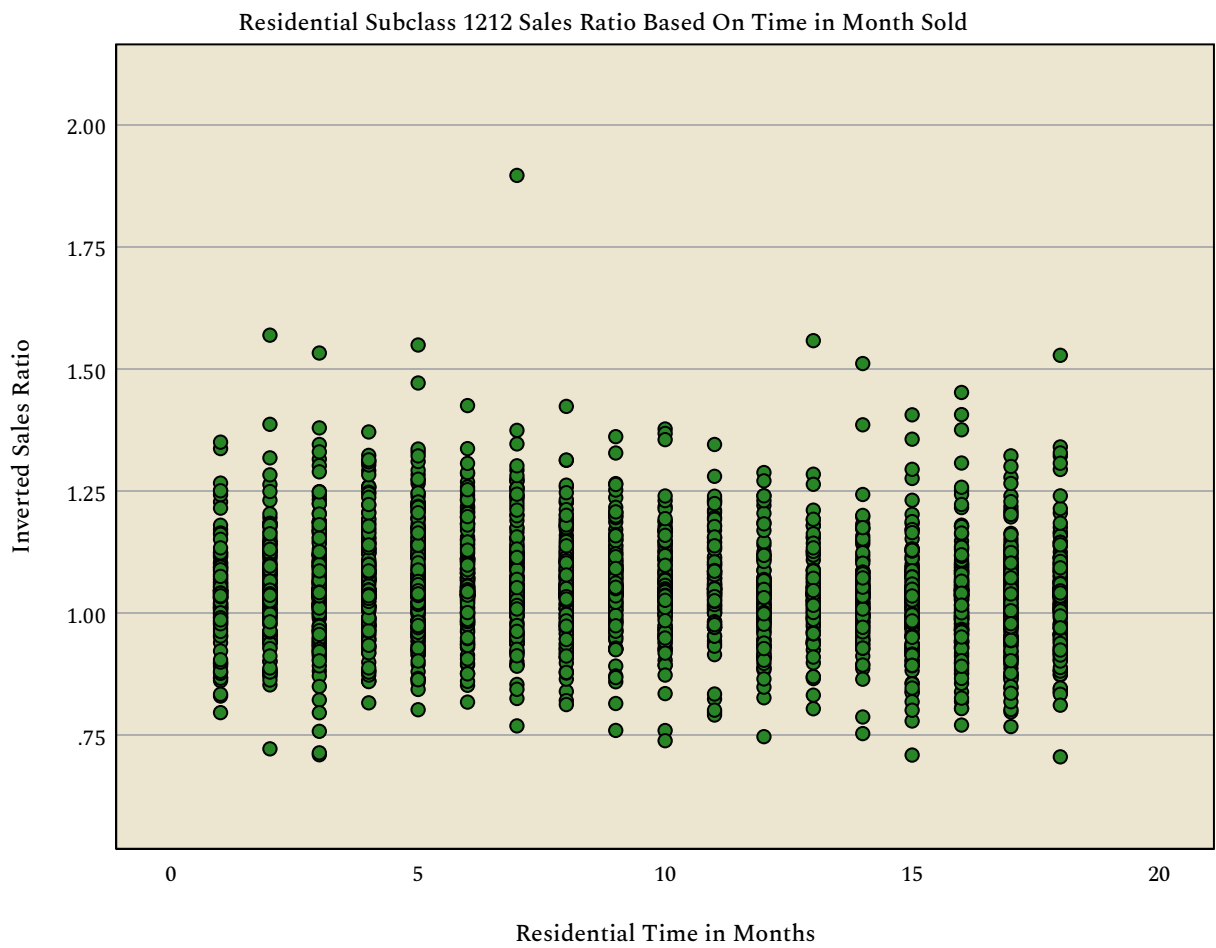
### Residential Subclass 1212: Months by Inverted Sales Ratio

Regression

|       |                            | Coefficients <sup>a</sup>   |            |                           |         |       |
|-------|----------------------------|-----------------------------|------------|---------------------------|---------|-------|
|       |                            | Unstandardized Coefficients |            | Standardized Coefficients |         |       |
| Model |                            | B                           | Std. Error | Beta                      | t       | Sig.  |
| 1     | (Constant)                 | 1.068                       | .004       |                           | 272.775 | <.001 |
|       | Residential Time in Months | -.002                       | .000       | -.114                     | -6.064  | <.001 |

a. Dependent Variable: Inverted Sales Ratio

Graph



**Residential Subclass 1212: Descriptive Statistics**

**Frequencies**

|             |         | Statistics                 |                |                                 |
|-------------|---------|----------------------------|----------------|---------------------------------|
|             |         | Previous Price<br>Per Foot | Price Per Foot | Difference in<br>Price Per Foot |
| N           | Valid   | 2807                       | 2807           | 2807                            |
|             | Missing | 0                          | 0              | 0                               |
| Mean        |         | \$199.80                   | \$196.86       | 1.18                            |
| Median      |         | \$187.91                   | \$192.62       | 1.00                            |
| Percentiles | 2.5     | \$105.43                   | \$127.13       | .84                             |
|             | 25      | \$157.13                   | \$164.17       | .95                             |
|             | 50      | \$187.91                   | \$192.62       | 1.00                            |
|             | 75      | \$223.28                   | \$227.07       | 1.08                            |
|             | 97.5    | \$284.53                   | \$285.45       | 1.69                            |

**Frequencies**

|             |         | Statistics              |                        |                              |
|-------------|---------|-------------------------|------------------------|------------------------------|
|             |         | Previous Total<br>Value | Current Total<br>Value | Difference in<br>Total Value |
| N           | Valid   | 2807                    | 2807                   | 2806                         |
|             | Missing | 0                       | 0                      | 1                            |
| Mean        |         | \$362,505.43            | \$336,499.50           | \$9,223.27                   |
| Median      |         | \$316,586.00            | \$324,787.00           | \$1,419.50                   |
| Percentiles | 2.5     | \$125,784.60            | \$153,480.60           | -\$69,852.25                 |
|             | 25      | \$231,397.00            | \$243,820.00           | -\$16,501.50                 |
|             | 50      | \$316,586.00            | \$324,787.00           | \$1,419.50                   |
|             | 75      | \$402,179.00            | \$403,168.00           | \$22,766.00                  |
|             | 97.5    | \$632,240.60            | \$609,309.00           | \$145,404.05                 |

**Residential Subclass 1212: Mann-Whitney U-Test (Rank-sum)**

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis  | Test                                    | Sig. <sup>a,b</sup> |
|---|--|---|---------------------|
| 1 | The distribution of Difference in Total Value is the same across categories of Residential Sold vs Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Total Value across Residential Sold vs Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |                |
|-------------------------------|----------------|
| Total N                       | 52760          |
| Mann-Whitney U                | 46817055.000   |
| Wilcoxon W                    | 1323482770.000 |
| Test Statistic                | 46817055.000   |
| Standard Error                | 703870.829     |
| Standardized Test Statistic   | -13.531        |
| Asymptotic Sig.(2-sided test) | <.001          |

**Nonparametric Tests**

**Residential Subclass 1212: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Price Per Foot is the same across categories of Residential Sold vs Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Price Per Foot across Residential Sold vs Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |                |
|-------------------------------|----------------|
| Total N                       | 52782          |
| Mann-Whitney U                | 49093840.500   |
| Wilcoxon W                    | 1323840118.500 |
| Test Statistic                | 49093840.500   |
| Standard Error                | 713157.477     |
| Standardized Test Statistic   | -12.227        |
| Asymptotic Sig.(2-sided test) | <.001          |

**Nonparametric Tests**

**Residential Subclass 1212: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Difference in Price Per Foot is the same across categories of Residential Sold vs Unsold. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

a. The significance level is .050.

b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Price Per Foot across Residential Sold vs Unsold**

Independent-Samples Mann-Whitney U Test Summary

|                               |                |
|-------------------------------|----------------|
| Total N                       | 52782          |
| Mann-Whitney U                | 45953050.500   |
| Wilcoxon W                    | 1325955956.500 |
| Test Statistic                | 45953050.500   |
| Standard Error                | 697492.566     |
| Standardized Test Statistic   | -13.403        |
| Asymptotic Sig.(2-sided test) | <.001          |

### Residential Subclass 1212: Unit Comparison Method

**Summarize**

Sold vs Unsold Percent Change for Subclass 1212

Difference in Price Per Foot

| Residential Sold vs Unsold | N     | Median | Mean |
|----------------------------|-------|--------|------|
| SOLD                       | 2384  | 1.00   | 1.04 |
| UNSOLD                     | 53176 | .97    | .98  |
| Total                      | 55560 | .97    | .98  |

**Summarize**

Sold vs Unsold Percent Change for Subclass 1212 by Economic Area

Difference in Price Per Foot

| economic_area | Residential Sold vs Unsold | N    | Median | Mean |
|---------------|----------------------------|------|--------|------|
|               | UNSOLD                     | 77   | .97    | .95  |
|               | Total                      | 77   | .97    | .95  |
| 1             | SOLD                       | 164  | 1.03   | 1.06 |
|               | UNSOLD                     | 4324 | .98    | .99  |
|               | Total                      | 4488 | .98    | 1.00 |
| 10            | SOLD                       | 11   | 1.02   | 1.03 |
|               | UNSOLD                     | 133  | 1.02   | 1.05 |
|               | Total                      | 144  | 1.02   | 1.05 |
| 12            | SOLD                       | 94   | 1.04   | 1.07 |
|               | UNSOLD                     | 2312 | .99    | 1.00 |
|               | Total                      | 2406 | .99    | 1.01 |
| 13            | SOLD                       | 188  | .99    | 1.00 |
|               | UNSOLD                     | 2716 | .99    | .97  |
|               | Total                      | 2904 | .99    | .97  |
| 2             | SOLD                       | 193  | 1.00   | 1.03 |
|               | UNSOLD                     | 3961 | .97    | .98  |
|               | Total                      | 4154 | .97    | .98  |
| 3             | SOLD                       | 304  | 1.01   | 1.03 |
|               | UNSOLD                     | 5392 | .99    | .98  |
|               | Total                      | 5696 | .99    | .99  |

**Residential Subclass 1212: Unit Comparison Method**

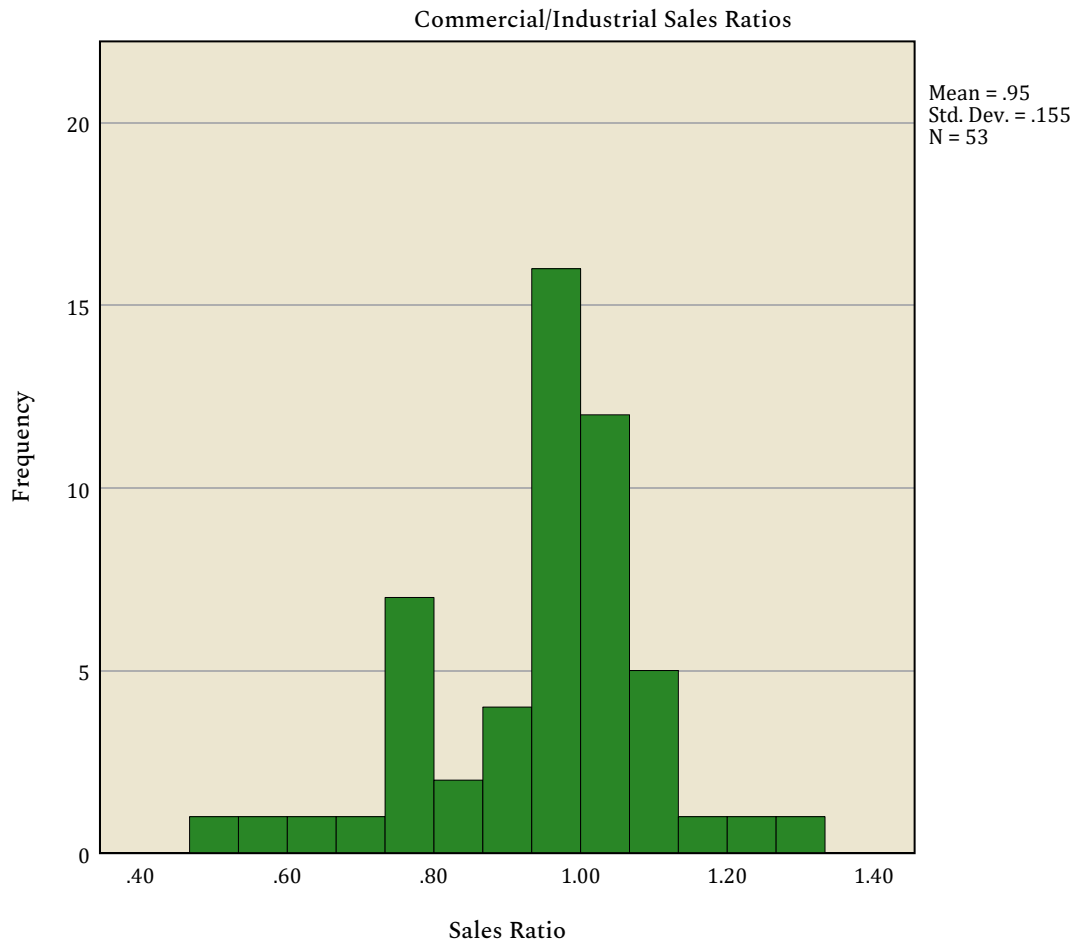
Sold vs Unsold Percent Change for Subclass 1212 by Economic Area

Difference in Price Per Foot

| economic_area | Residential Sold vs Unsold | N     | Median | Mean |
|---------------|----------------------------|-------|--------|------|
| 4             | SOLD                       | 141   | 1.05   | 1.08 |
|               | UNSOLD                     | 3136  | 1.00   | 1.00 |
|               | Total                      | 3277  | 1.00   | 1.00 |
| 5             | SOLD                       | 231   | .99    | 1.03 |
|               | UNSOLD                     | 5373  | .95    | .97  |
|               | Total                      | 5604  | .95    | .97  |
| 6             | SOLD                       | 194   | .97    | 1.00 |
|               | UNSOLD                     | 4424  | .93    | .94  |
|               | Total                      | 4618  | .93    | .95  |
| 7             | SOLD                       | 202   | .97    | .99  |
|               | UNSOLD                     | 5386  | .94    | .95  |
|               | Total                      | 5588  | .94    | .95  |
| 8             | SOLD                       | 468   | .99    | 1.06 |
|               | UNSOLD                     | 8270  | .97    | .99  |
|               | Total                      | 8738  | .97    | 1.00 |
| 9             | SOLD                       | 194   | 1.02   | 1.05 |
|               | UNSOLD                     | 7672  | .96    | .99  |
|               | Total                      | 7866  | .96    | .99  |
| Total         | SOLD                       | 2384  | 1.00   | 1.04 |
|               | UNSOLD                     | 53176 | .97    | .98  |
|               | Total                      | 55560 | .97    | .98  |

### OVERALL Commercial/Industrial: Sales Ratio Distribution

Graph



**OVERALL Commercial/Industrial: Central Tendencies**

**Ratio Statistics**

Ratio Statistics for Current Total Value /  
Adjusted Sale Price

| N  | Median | Coefficient of Dispersion |
|----|--------|---------------------------|
| 53 | .974   | .113                      |

**Ratio Statistics**

Ratio Statistics for Current Total  
Value / Adjusted Sale Price

| Price Related Bias | Price Related Differential |
|--------------------|----------------------------|
| .028               | .983                       |

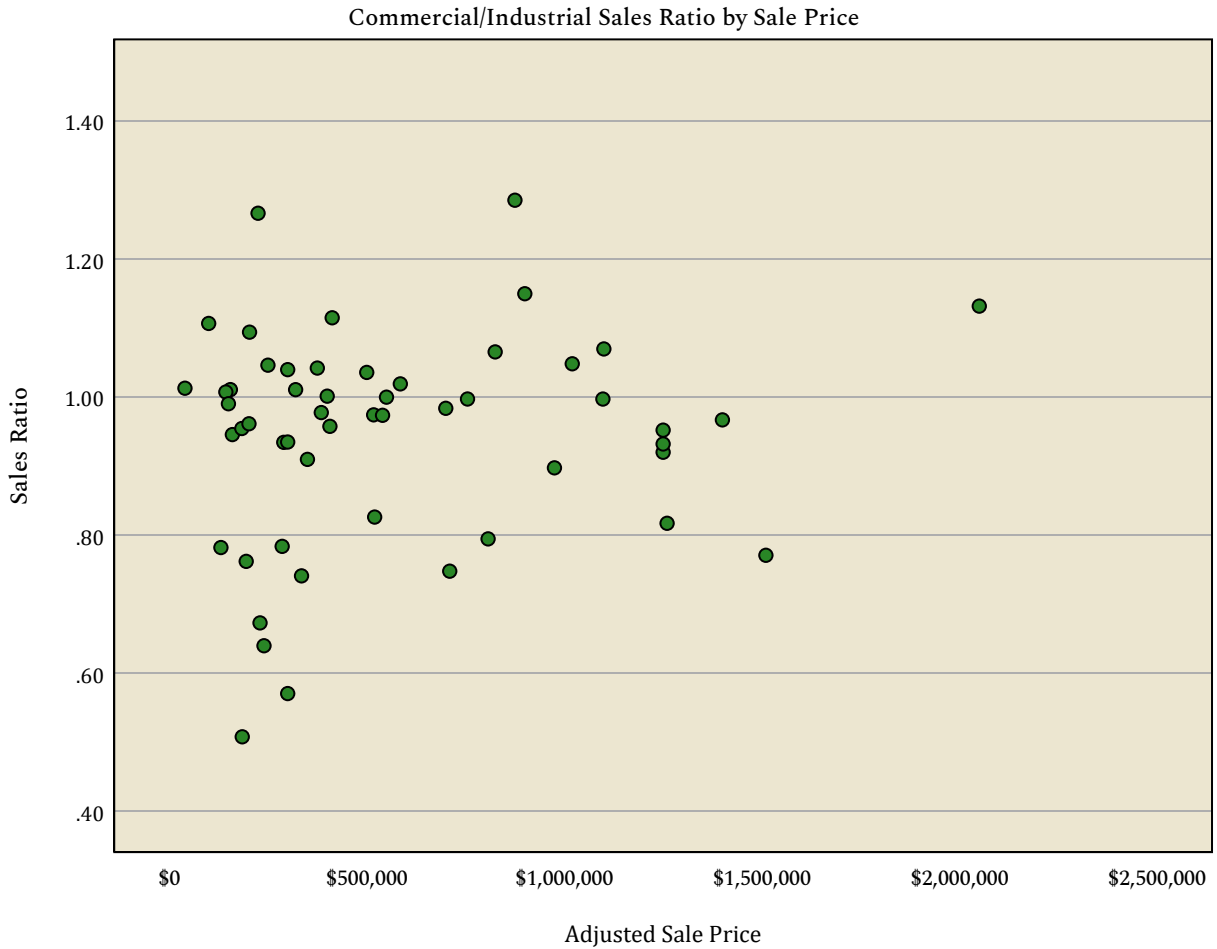
### OVERALL Commercial/Industrial: Sales Price by Sales Ratio

Regression

|       |                     | Coefficients <sup>a</sup>   |            |                           |        |       |
|-------|---------------------|-----------------------------|------------|---------------------------|--------|-------|
|       |                     | Unstandardized Coefficients |            | Standardized Coefficients |        |       |
| Model |                     | B                           | Std. Error | Beta                      | t      | Sig.  |
| 1     | (Constant)          | .918                        | .035       |                           | 26.368 | <.001 |
|       | Adjusted Sale Price | 4.950E-8                    | .000       | .142                      | 1.023  | .311  |

a. Dependent Variable: Sales Ratio

Graph



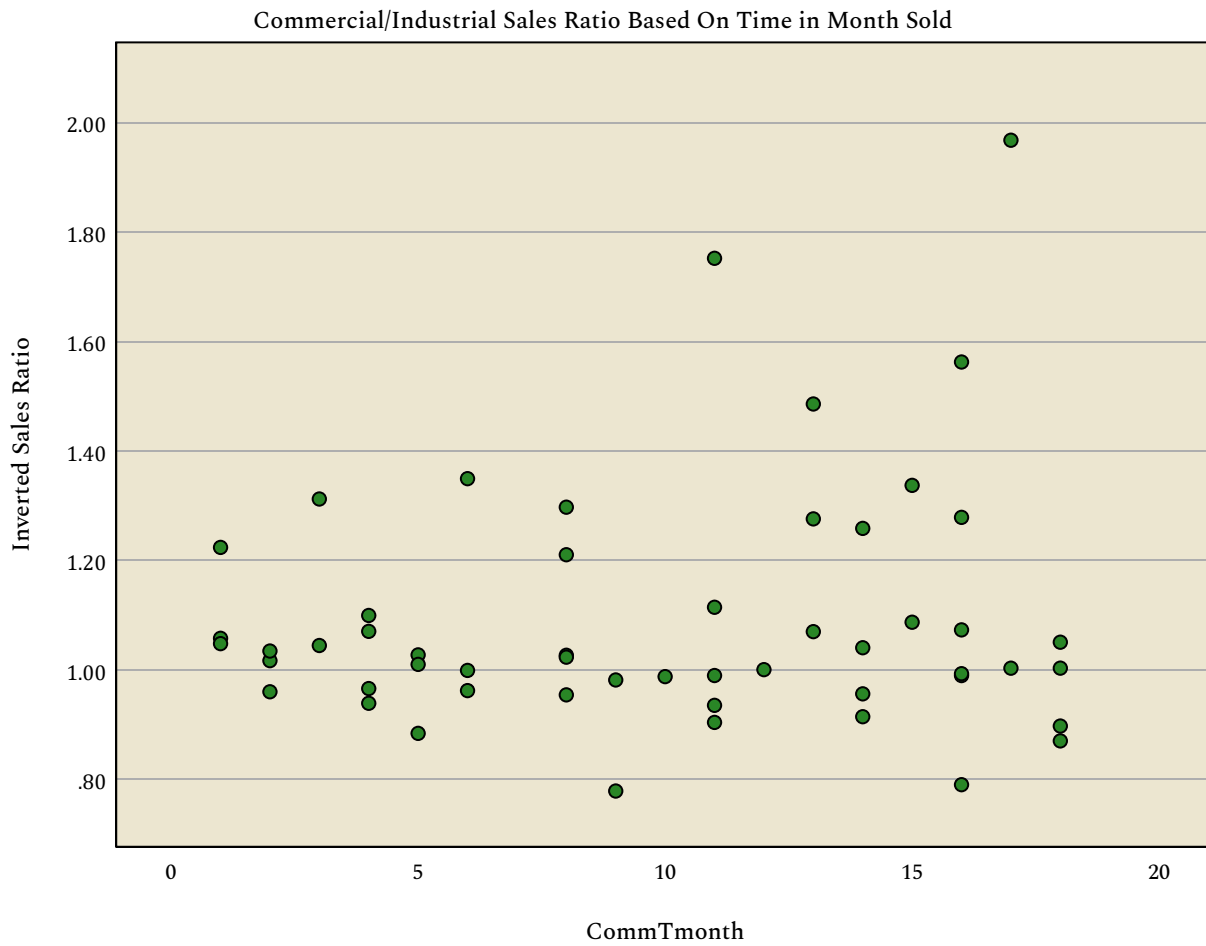
### OVERALL Commercial/Industrial: Months by Inverted Sales Ratio

Regression

|       |            | Coefficients <sup>a</sup>   |            |                           |        |       |
|-------|------------|-----------------------------|------------|---------------------------|--------|-------|
|       |            | Unstandardized Coefficients |            | Standardized Coefficients |        |       |
| Model |            | B                           | Std. Error | Beta                      | t      | Sig.  |
| 1     | (Constant) | 1.039                       | .064       |                           | 16.205 | <.001 |
|       | CommTmonth | .005                        | .006       | .130                      | .939   | .352  |

a. Dependent Variable: Inverted Sales Ratio

Graph



**OVERALL Commercial/Industrial: Descriptive Statistics**

**Frequencies**

|             |         | Statistics                 |                |                                 |
|-------------|---------|----------------------------|----------------|---------------------------------|
|             |         | Previous Price<br>Per Foot | Price Per Foot | Difference in<br>Price Per Foot |
| N           | Valid   | 54                         | 54             | 54                              |
|             | Missing | 0                          | 0              | 0                               |
| Mean        |         | \$114.31                   | \$152.19       | 1.48                            |
| Median      |         | \$110.63                   | \$130.75       | 1.15                            |
| Percentiles | 2.5     | \$18.32                    | \$29.78        | .71                             |
|             | 25      | \$60.86                    | \$89.47        | 1.02                            |
|             | 50      | \$110.63                   | \$130.75       | 1.15                            |
|             | 75      | \$149.44                   | \$198.52       | 1.66                            |
|             | 97.5    | \$388.64                   | \$476.08       | 3.44                            |

**Frequencies**

|             |         | Statistics              |                        |                              |
|-------------|---------|-------------------------|------------------------|------------------------------|
|             |         | Previous Total<br>Value | Current Total<br>Value | Difference in<br>Total Value |
| N           | Valid   | 54                      | 54                     | 54                           |
|             | Missing | 0                       | 0                      | 0                            |
| Mean        |         | \$409,465.19            | \$542,139.50           | \$132,674.31                 |
| Median      |         | \$303,976.00            | \$390,099.50           | \$52,037.50                  |
| Percentiles | 2.5     | \$38,322.75             | \$60,565.38            | -\$79,362.87                 |
|             | 25      | \$146,531.50            | \$189,528.75           | \$3,901.50                   |
|             | 50      | \$303,976.00            | \$390,099.50           | \$52,037.50                  |
|             | 75      | \$534,748.00            | \$875,958.75           | \$194,129.25                 |
|             | 97.5    | \$1,734,149.00          | \$1,957,367.63         | \$708,629.50                 |

**OVERALL Commercial/Industrial: Mann-Whitney U-Test (Rank-sum)**

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Difference in Total Value is the same across categories of CommSOLDFLG. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Total Value across CommSOLDFLG**

Independent-Samples Mann-Whitney U Test Summary

|                               |             |
|-------------------------------|-------------|
| Total N                       | 2552        |
| Mann-Whitney U                | 41096.000   |
| Wilcoxon W                    | 3167346.000 |
| Test Statistic                | 41096.000   |
| Standard Error                | 5259.040    |
| Standardized Test Statistic   | -4.545      |
| Asymptotic Sig.(2-sided test) | <.001       |

**Nonparametric Tests**

**OVERALL Commercial/Industrial: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis  | Test                                    | Sig. <sup>a,b</sup> |
|---|--|---|---------------------|
| 1 | The distribution of Price Per Foot is the same across categories of CommSOLDFLG. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Price Per Foot across CommSOLDFLG**

Independent-Samples Mann-Whitney U Test Summary

|                               |             |
|-------------------------------|-------------|
| Total N                       | 2558        |
| Mann-Whitney U                | 38942.000   |
| Wilcoxon W                    | 3180213.000 |
| Test Statistic                | 38942.000   |
| Standard Error                | 5271.530    |
| Standardized Test Statistic   | -4.973      |
| Asymptotic Sig.(2-sided test) | <.001       |

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis  | Test                                    | Sig. <sup>a,b</sup> |
|---|--|---|---------------------|
| 1 | The distribution of Difference in Price Per Foot is the same across categories of CommSOLDFLG. | Independent-Samples Mann-Whitney U Test | <.001               |

**OVERALL Commercial/Industrial: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Price Per Foot across CommSOLDFLG**

Independent-Samples Mann-Whitney U Test Summary

|                               |             |
|-------------------------------|-------------|
| Total N                       | 2556        |
| Mann-Whitney U                | 42573.000   |
| Wilcoxon W                    | 3186351.000 |
| Test Statistic                | 42573.000   |
| Standard Error                | 5116.229    |
| Standardized Test Statistic   | -3.684      |
| Asymptotic Sig.(2-sided test) | <.001       |

**OVERALL Commercial/Industrial: Unit Value Comparison**

**Summarize**

Sold vs Unsold

Difference in Price Per Foot

| CommSOLDFLG | N    | Median | Mean |
|-------------|------|--------|------|
| SOLD        | 52   | 1.17   | 1.49 |
| UNSOLD      | 2642 | 1.05   | 1.23 |
| Total       | 2694 | 1.05   | 1.24 |

**Summarize**

Sold vs Unsold

Difference in Price Per Foot

| Improvement Abstract Codes | CommSOLDFLG | N    | Median | Mean |
|----------------------------|-------------|------|--------|------|
| 2112                       | UNSOLD      | 1    | 2.52   | 2.52 |
|                            | Total       | 1    | 2.52   | 2.52 |
| 2212                       | SOLD        | 11   | 1.09   | 1.47 |
|                            | UNSOLD      | 468  | 1.04   | 1.16 |
|                            | Total       | 479  | 1.05   | 1.17 |
| 2215                       | UNSOLD      | 30   | 1.10   | 1.13 |
|                            | Total       | 30   | 1.10   | 1.13 |
| 2220                       | SOLD        | 11   | 1.14   | 1.44 |
|                            | UNSOLD      | 226  | .96    | 1.04 |
|                            | Total       | 237  | .96    | 1.05 |
| 2225                       | SOLD        | 1    | 1.17   | 1.17 |
|                            | UNSOLD      | 67   | 1.08   | 1.80 |
|                            | Total       | 68   | 1.10   | 1.79 |
| 2230                       | SOLD        | 18   | 1.15   | 1.54 |
|                            | UNSOLD      | 1161 | 1.04   | 1.22 |
|                            | Total       | 1179 | 1.04   | 1.23 |
| 2235                       | SOLD        | 4    | 1.28   | 1.39 |
|                            | UNSOLD      | 214  | 1.08   | 1.38 |
|                            | Total       | 218  | 1.08   | 1.38 |

**OVERALL Commercial/Industrial: Unit Value Comparison**

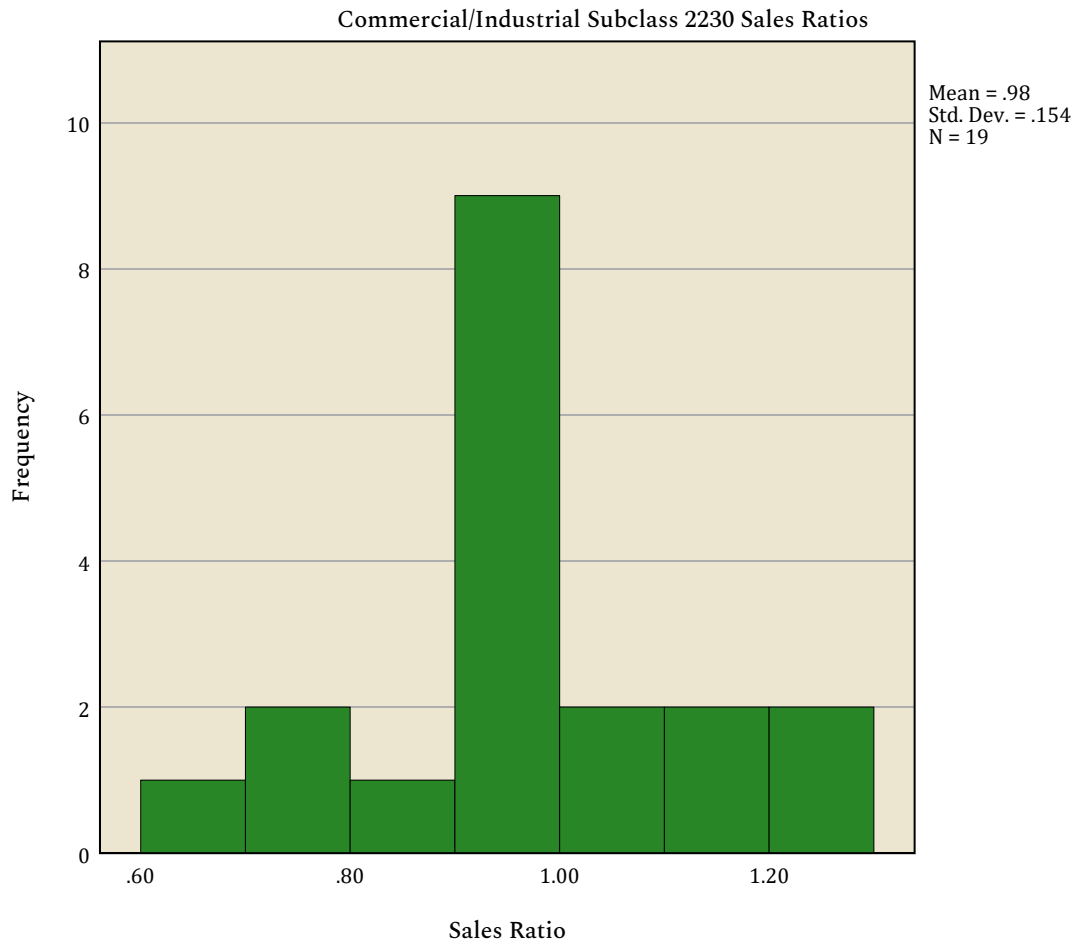
Sold vs Unsold

Difference in Price Per Foot

| Improvement Abstract Codes | CommSOLDFLG | N    | Median | Mean |
|----------------------------|-------------|------|--------|------|
| 2240                       | UNSOLD      | 24   | .97    | 1.17 |
|                            | Total       | 24   | .97    | 1.17 |
| 2245                       | SOLD        | 2    | 2.10   | 2.10 |
|                            | UNSOLD      | 126  | 1.05   | 1.13 |
|                            | Total       | 128  | 1.05   | 1.15 |
| 3212                       | SOLD        | 4    | 1.17   | 1.18 |
|                            | UNSOLD      | 190  | 1.17   | 1.41 |
|                            | Total       | 194  | 1.17   | 1.40 |
| 3215                       | SOLD        | 1    | 2.34   | 2.34 |
|                            | UNSOLD      | 135  | 1.12   | 1.30 |
|                            | Total       | 136  | 1.13   | 1.31 |
| Total                      | SOLD        | 52   | 1.17   | 1.49 |
|                            | UNSOLD      | 2642 | 1.05   | 1.23 |
|                            | Total       | 2694 | 1.05   | 1.24 |

### Commercial/Industrial Subclass 2230: Sales Ratio Distribution

Graph



**Commercial/Industrial Subclass 2230: Central Tendencies**

**Ratio Statistics**

Ratio Statistics for Current Total Value /  
Adjusted Sale Price

| N  | Median | Coefficient of<br>Dispersion |
|----|--------|------------------------------|
| 19 | .973   | .109                         |

**Ratio Statistics**

Ratio Statistics for Current Total  
Value / Adjusted Sale Price

| Price Related<br>Bias | Price Related<br>Differential |
|-----------------------|-------------------------------|
| .020                  | .994                          |

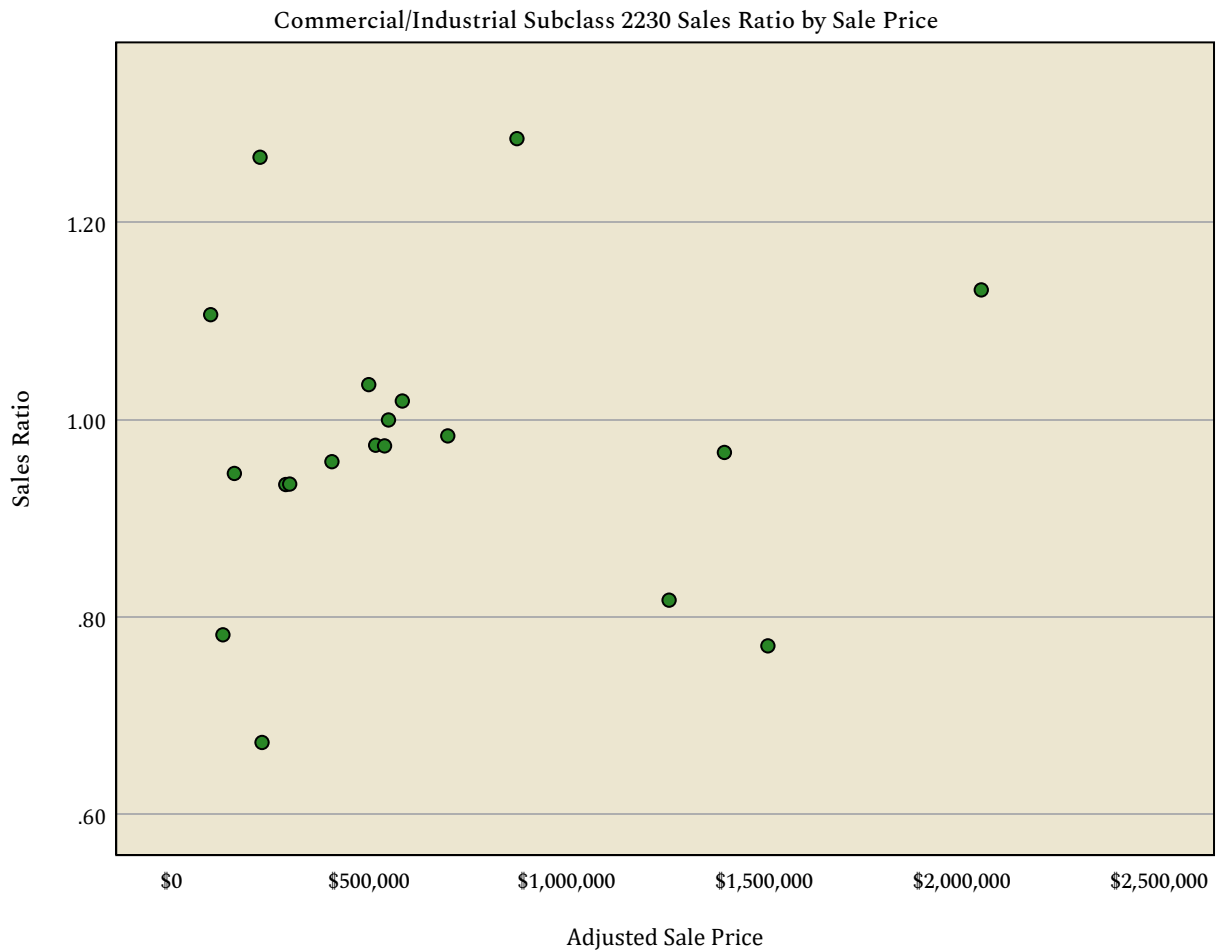
### Commercial/Industrial Subclass 2230: Sales Price by Sales Ratio

**Regression**

|       |                     | Coefficients <sup>a</sup>   |            |                           |        |       |
|-------|---------------------|-----------------------------|------------|---------------------------|--------|-------|
|       |                     | Unstandardized Coefficients |            | Standardized Coefficients |        |       |
| Model |                     | B                           | Std. Error | Beta                      | t      | Sig.  |
| 1     | (Constant)          | .967                        | .058       |                           | 16.727 | <.001 |
|       | Adjusted Sale Price | 1.445E-8                    | .000       | .051                      | .209   | .837  |

a. Dependent Variable: Sales Ratio

**Graph**



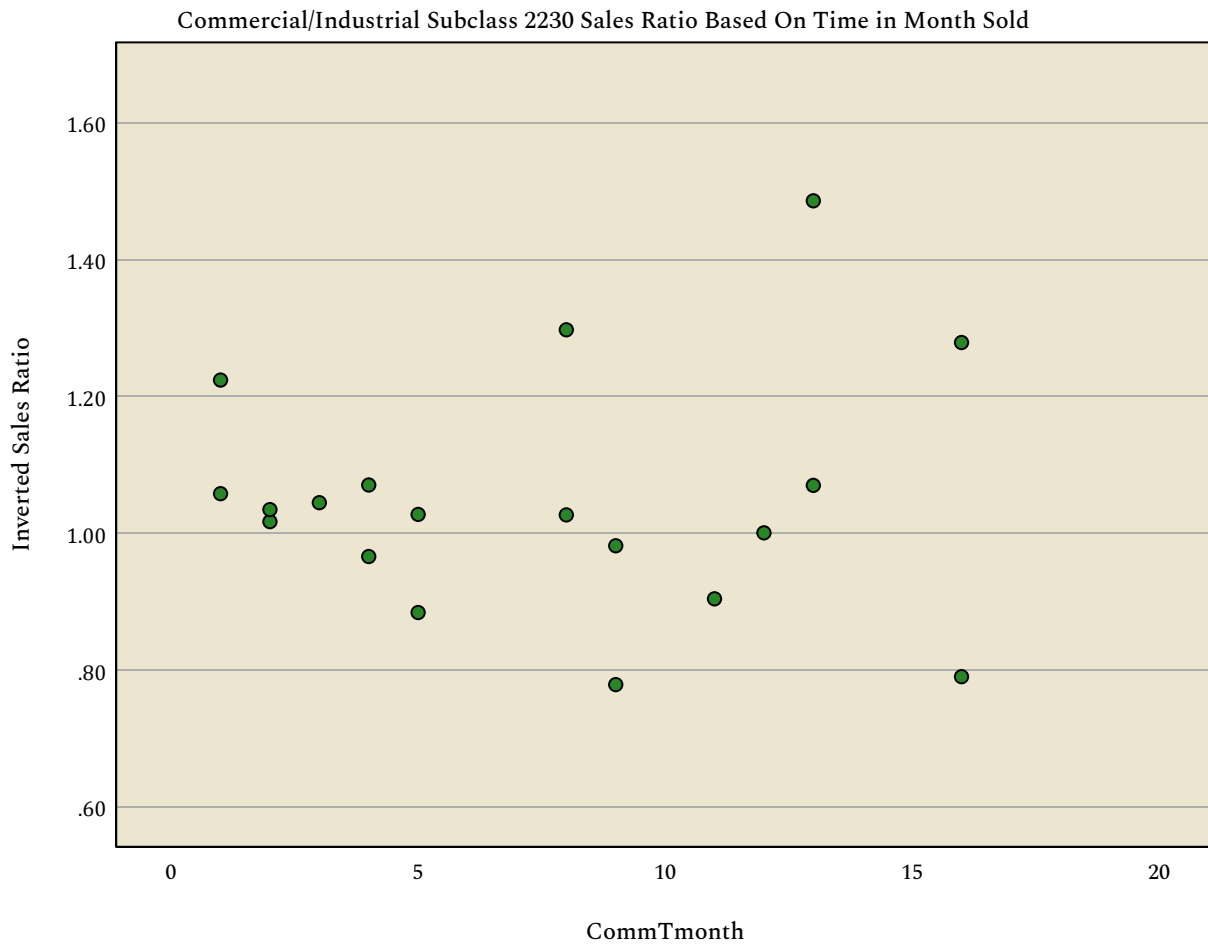
**Commercial/Industrial Subclass 2230: Months by Inverted Sales Ratio**

**Regression**

|       |            | Coefficients <sup>a</sup>   |            |                           |        |       |
|-------|------------|-----------------------------|------------|---------------------------|--------|-------|
|       |            | Unstandardized Coefficients |            | Standardized Coefficients |        |       |
| Model |            | B                           | Std. Error | Beta                      | t      | Sig.  |
| 1     | (Constant) | 1.034                       | .075       |                           | 13.742 | <.001 |
|       | CommTmonth | .002                        | .008       | .059                      | .244   | .810  |

a. Dependent Variable: Inverted Sales Ratio

**Graph**



**Commercial/Industrial Subclass 2230: Descriptive Statistics**

**Frequencies**

|             |         | Statistics                 |                |                                 |
|-------------|---------|----------------------------|----------------|---------------------------------|
|             |         | Previous Price<br>Per Foot | Price Per Foot | Difference in<br>Price Per Foot |
| N           | Valid   | 19                         | 19             | 19                              |
|             | Missing | 0                          | 0              | 0                               |
| Mean        |         | \$144.68                   | \$182.96       | 1.52                            |
| Median      |         | \$113.14                   | \$136.61       | 1.14                            |
| Percentiles | 2.5     | \$16.36                    | \$44.47        | .98                             |
|             | 25      | \$88.41                    | \$115.25       | 1.07                            |
|             | 50      | \$113.14                   | \$136.61       | 1.14                            |
|             | 75      | \$173.12                   | \$197.97       | 1.60                            |
|             | 97.5    | .                          | .              | .                               |

**Frequencies**

|             |         | Statistics              |                        |                              |
|-------------|---------|-------------------------|------------------------|------------------------------|
|             |         | Previous Total<br>Value | Current Total<br>Value | Difference in<br>Total Value |
| N           | Valid   | 19                      | 19                     | 19                           |
|             | Missing | 0                       | 0                      | 0                            |
| Mean        |         | \$522,088.00            | \$637,790.05           | \$115,702.05                 |
| Median      |         | \$479,245.00            | \$517,779.00           | \$106,550.00                 |
| Percentiles | 2.5     | \$37,686.00             | \$102,451.00           | -\$10,794.00                 |
|             | 25      | \$122,407.00            | \$270,955.00           | \$19,019.00                  |
|             | 50      | \$479,245.00            | \$517,779.00           | \$106,550.00                 |
|             | 75      | \$877,777.00            | \$1,029,629.00         | \$184,098.00                 |
|             | 97.5    | .                       | .                      | .                            |

**Commercial/Industrial Subclass 2230: Mann-Whitney U-Test (Rank-sum)**

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis   | Test                                    | Sig. <sup>a,b</sup> |
|---|---|---|---------------------|
| 1 | The distribution of Difference in Total Value is the same across categories of CommSOLDFLG. | Independent-Samples Mann-Whitney U Test | <.001               |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Total Value across CommSOLDFLG**

Independent-Samples Mann-Whitney U Test Summary

|                               |            |
|-------------------------------|------------|
| Total N                       | 1118       |
| Mann-Whitney U                | 4766.000   |
| Wilcoxon W                    | 610316.000 |
| Test Statistic                | 4766.000   |
| Standard Error                | 1358.805   |
| Standardized Test Statistic   | -3.778     |
| Asymptotic Sig.(2-sided test) | <.001      |

**Nonparametric Tests**

**Commercial/Industrial Subclass 2230: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Null Hypothesis  | Test                                    | Sig. <sup>a,b</sup> |
|---|--|---|---------------------|
| 1 | The distribution of Price Per Foot is the same across categories of CommSOLDFLG. | Independent-Samples Mann-Whitney U Test | .004                |

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Price Per Foot across CommSOLDFLG**

Independent-Samples Mann-Whitney U Test Summary

|                               |            |
|-------------------------------|------------|
| Total N                       | 1119       |
| Mann-Whitney U                | 5940.000   |
| Wilcoxon W                    | 612591.000 |
| Test Statistic                | 5940.000   |
| Standard Error                | 1360.029   |
| Standardized Test Statistic   | -2.918     |
| Asymptotic Sig.(2-sided test) | .004       |

**Nonparametric Tests**

Hypothesis Test Summary

|   | Null Hypothesis  | Test                                    | Sig. <sup>a,b</sup> |
|---|--|---|---------------------|
| 1 | The distribution of Difference in Price Per Foot is the same across categories of CommSOLDFLG. | Independent-Samples Mann-Whitney U Test | .003                |

**Commercial/Industrial Subclass 2230: Mann-Whitney U-Test (Rank-sum)**

Hypothesis Test Summary

|   | Decision                    |
|---|-----------------------------|
| 1 | Reject the null hypothesis. |

- a. The significance level is .050.
- b. Asymptotic significance is displayed.

**Independent-Samples Mann-Whitney U Test**

**Difference in Price Per Foot across CommSOLDFLG**

Independent-Samples Mann-Whitney U Test Summary

|                               |            |
|-------------------------------|------------|
| Total N                       | 1119       |
| Mann-Whitney U                | 5499.000   |
| Wilcoxon W                    | 613252.000 |
| Test Statistic                | 5499.000   |
| Standard Error                | 1322.311   |
| Standardized Test Statistic   | -2.925     |
| Asymptotic Sig.(2-sided test) | .003       |

**Commercial/Industrial Subclass 2230: Unit Comparison Method**

**Summarize**

Sold vs Unsold Percent Change for Subclass 2230

Difference in Price Per Foot

| CommSOLDFLG | N    | Median | Mean |
|-------------|------|--------|------|
| SOLD        | 19   | 1.14   | 1.52 |
| UNSOLD      | 1166 | 1.04   | 1.27 |
| Total       | 1185 | 1.04   | 1.28 |

**Commercial/Industrial Subclass 2230: Economic Area Analysis**

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N  | Median | Coefficient of Dispersion |
|---------|----|--------|---------------------------|
|         | 3  | .916   | .024                      |
| 1       | 5  | .418   | .770                      |
| 12      | 2  | .955   | .020                      |
| 2       | 1  | .984   | .000                      |
| 3       | 4  | .880   | .352                      |
| 4       | 7  | .957   | .235                      |
| 5       | 7  | .934   | .335                      |
| 6       | 2  | 1.202  | .079                      |
| 7       | 2  | .787   | .229                      |
| 8       | 6  | 1.084  | .097                      |
| 9       | 14 | .722   | 10.841                    |
| Overall | 53 | .936   | 2.412                     |

**Ratio Statistics**

**Commercial/Industrial Subclass 2230: Economic Area Analysis**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group   | N  | Price Related Bias | Price Related Differential |
|---------|----|--------------------|----------------------------|
|         | 3  | -.021              | 1.014                      |
| 1       | 5  | 1.073              | .975                       |
| 12      | 2  | .052               | .995                       |
| 2       | 1  | .                  | 1.000                      |
| 3       | 4  | .206               | 1.115                      |
| 4       | 7  | .151               | .945                       |
| 5       | 7  | -.354              | 1.432                      |
| 6       | 2  | .176               | .979                       |
| 7       | 2  | .336               | .927                       |
| 8       | 6  | .080               | .982                       |
| 9       | 14 | 4.481              | 9.029                      |
| Overall | 53 | 1.506              | 3.224                      |

Summarize

### Commercial/Industrial Subclass 2230: Economic Area Analysis

Sold vs Unsold Percent Change for Subclass 2230 by Economic Area

Difference in Price Per Foot

| economic_area | CommSOLDFLG | N   | Median | Mean |
|---------------|-------------|-----|--------|------|
|               | UNSOLD      | 164 | 1.04   | 1.13 |
|               | Total       | 164 | 1.04   | 1.13 |
| 1             | SOLD        | 2   | 1.42   | 1.42 |
|               | UNSOLD      | 129 | 1.06   | 1.16 |
|               | Total       | 131 | 1.06   | 1.17 |
| 12            | SOLD        | 1   | 3.44   | 3.44 |
|               | UNSOLD      | 77  | 1.06   | 1.13 |
|               | Total       | 78  | 1.06   | 1.16 |
| 2             | SOLD        | 1   | 1.44   | 1.44 |
|               | UNSOLD      | 21  | .94    | 1.09 |
|               | Total       | 22  | .96    | 1.11 |
| 3             | SOLD        | 1   | 1.12   | 1.12 |
|               | UNSOLD      | 190 | .96    | 1.09 |
|               | Total       | 191 | .96    | 1.09 |
| 4             | SOLD        | 3   | 1.01   | 1.00 |
|               | UNSOLD      | 108 | 1.02   | 1.08 |
|               | Total       | 111 | 1.02   | 1.08 |
| 5             | SOLD        | 2   | 2.61   | 2.61 |
|               | UNSOLD      | 78  | .98    | 1.35 |
|               | Total       | 80  | .99    | 1.38 |
| 6             | SOLD        | 1   | 1.03   | 1.03 |
|               | UNSOLD      | 26  | 1.13   | 1.41 |
|               | Total       | 27  | 1.10   | 1.39 |
| 7             | SOLD        | 1   | 1.12   | 1.12 |
|               | UNSOLD      | 69  | .89    | 1.03 |
|               | Total       | 70  | .89    | 1.03 |
| 8             | SOLD        | 3   | 1.13   | 1.16 |
|               | UNSOLD      | 82  | 1.16   | 1.26 |
|               | Total       | 85  | 1.15   | 1.26 |

**Commercial/Industrial Subclass 2230: Economic Area Analysis**

Sold vs Unsold Percent Change for Subclass 2230 by Economic Area

Difference in Price Per Foot

| economic_area | CommSOLDFLG | N    | Median | Mean |
|---------------|-------------|------|--------|------|
| 9             | SOLD        | 4    | 1.15   | 1.54 |
|               | UNSOLD      | 222  | 1.10   | 1.79 |
|               | Total       | 226  | 1.11   | 1.79 |
| Total         | SOLD        | 19   | 1.14   | 1.52 |
|               | UNSOLD      | 1166 | 1.04   | 1.27 |
|               | Total       | 1185 | 1.04   | 1.28 |

**Final Analysis: OVERALL Statistical Abstract.**

**Ratio Statistics**

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group                 | N    | Mean | 95% Confidence Interval for Mean |             | Median |
|-----------------------|------|------|----------------------------------|-------------|--------|
|                       |      |      | Lower Bound                      | Upper Bound |        |
| Vacant Land           | 212  | .980 | .952                             | 1.008       | .960   |
| Residential           | 2937 | .963 | .960                             | .967        | .960   |
| Commercial/Industrial | 53   | .946 | .903                             | .988        | .974   |
| Overall               | 3202 | .964 | .961                             | .968        | .960   |

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group                 | 95% Confidence Interval for Median |             |                 | Weighted Mean | 95% Confidence Interval for ... |
|-----------------------|------------------------------------|-------------|-----------------|---------------|---------------------------------|
|                       | Lower Bound                        | Upper Bound | Actual Coverage |               | Lower Bound                     |
| Vacant Land           | .941                               | .975        | 95.4%           | .967          | .942                            |
| Residential           | .958                               | .961        | 95.4%           | .961          | .958                            |
| Commercial/Industrial | .935                               | 1.007       | 97.3%           | .963          | .916                            |
| Overall               | .958                               | .961        | 95.0%           | .961          | .958                            |

Ratio Statistics for Current Total Value / Adjusted Sale Price

| Group                 | 95% Confidence Interval for ... | Price Related Differential | Coefficient of Dispersion |
|-----------------------|---------------------------------|----------------------------|---------------------------|
|                       | Upper Bound                     |                            |                           |
| Vacant Land           | .991                            | 1.014                      | .152                      |
| Residential           | .965                            | 1.002                      | .067                      |
| Commercial/Industrial | 1.009                           | .983                       | .113                      |
| Overall               | .965                            | 1.003                      | .074                      |

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.