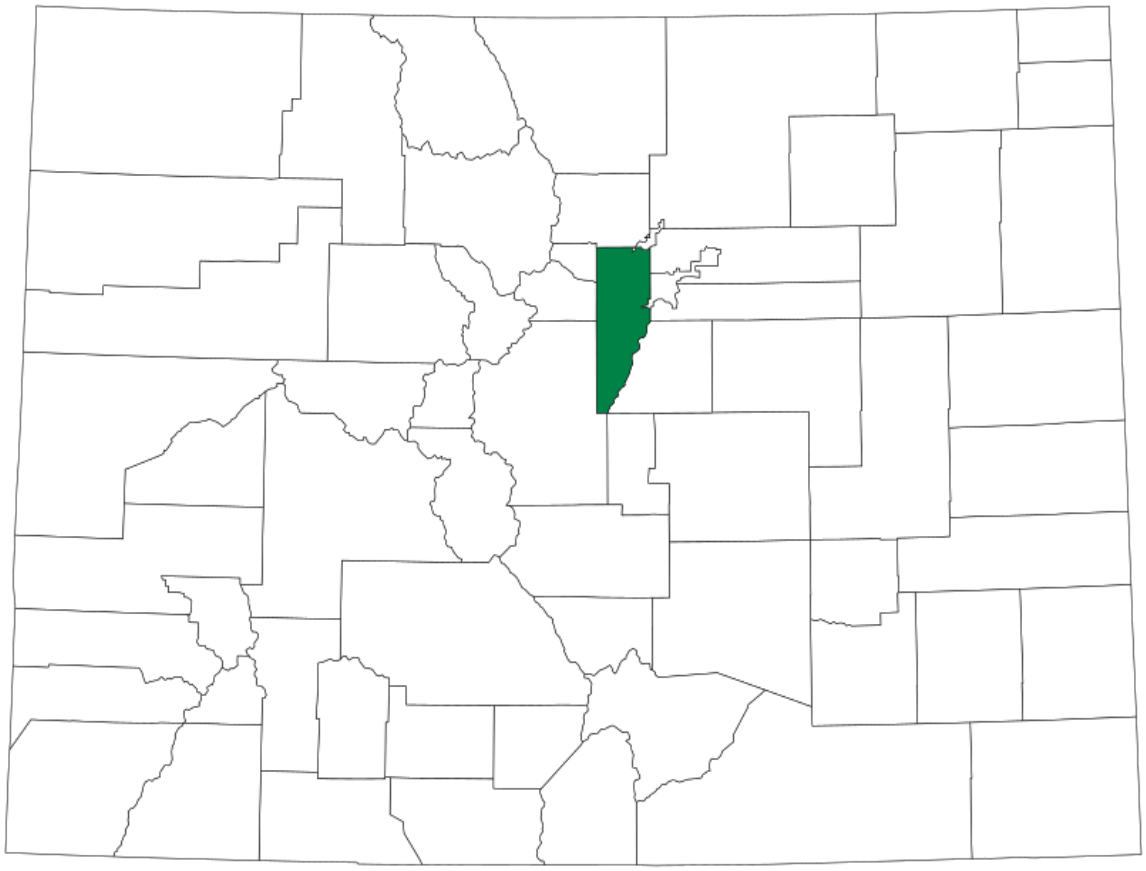
San Matteo

DATA ANALYTICS

2025 Property Assessment Study

Jefferson 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 Jefferson 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
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San Matteo
DATA ANALYTICS

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1. Statistical Overview

Compliance and Evaluations

Jefferson County was found to be in compliance.

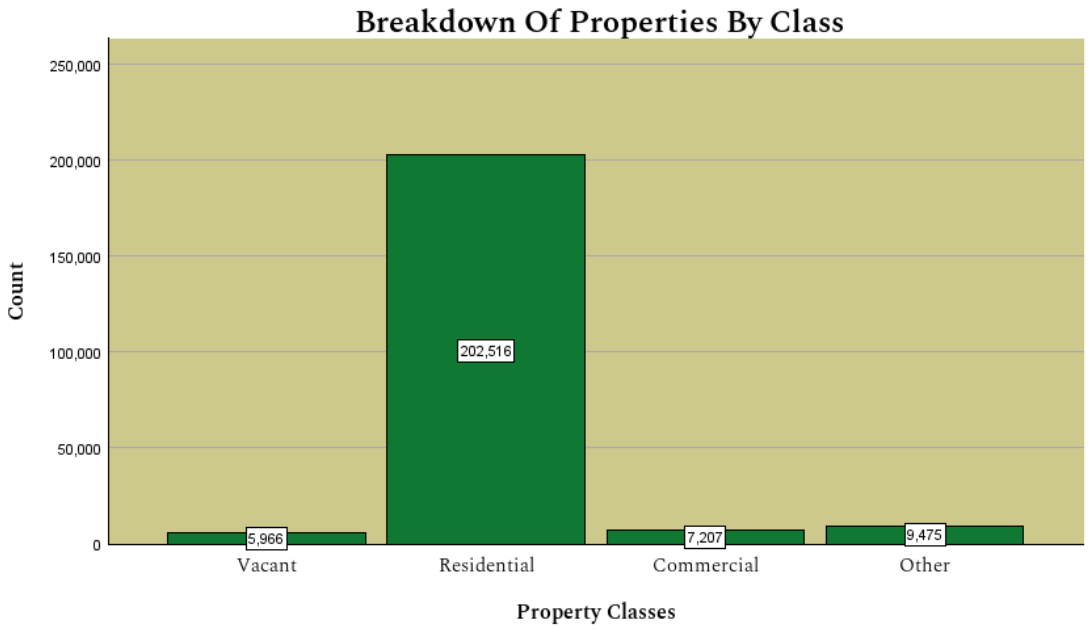
	Result	Value
Vacant Land		
Median Sales Ratio	Pass	0.98
Coefficient of Dispersion	Pass	12.85%
Time Adjustments	Pass	0.748
Price Related Differential	Sufficient	1.02
Price Related Bias	Sufficient	-0.05
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	Yes	

	Result	Value
Residential		
Median Sales Ratio	Pass	0.98
Coefficient of Dispersion	Pass	9.10%
Time Adjustments	Pass	0.553
Price Related Differential	Sufficient	1.01
Price Related Bias	Sufficient	-0.015
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	Yes	

	Result	Value
Commercial/Industrial		
Median Sales Ratio	Pass	0.97
Coefficient of Dispersion	Pass	9.97%
Time Adjustments	Pass	0.088
Price Related Differential	Sufficient	1.01
Price Related Bias	Sufficient	-0.01
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	Yes	

Property Types

Below is a breakdown of the property types of the 225,164 parcels in Jefferson County.



2. Vacant Land

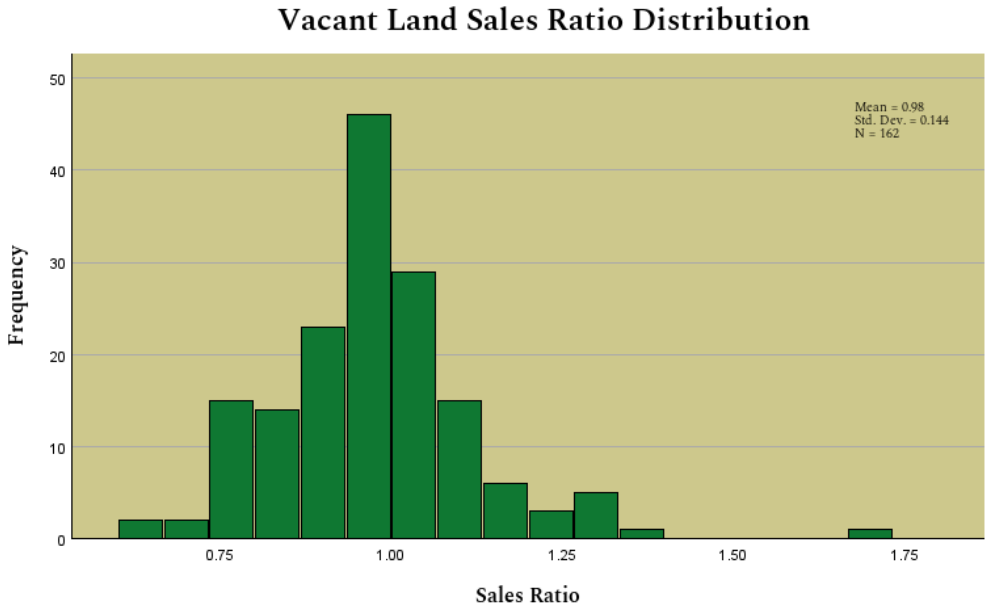
Overview

Jefferson was found to be compliant for Vacant Land properties.

	Result	Value
Vacant Land		
Median Sales Ratio	Pass	0.98
Coefficient of Dispersion	Pass	12.85%
Time Adjustments	Pass	0.748
Price Related Differential	Sufficient	1.02
Price Related Bias	Sufficient	-0.05
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	Yes	

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 Jefferson County was calculated to be 0.98, 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.

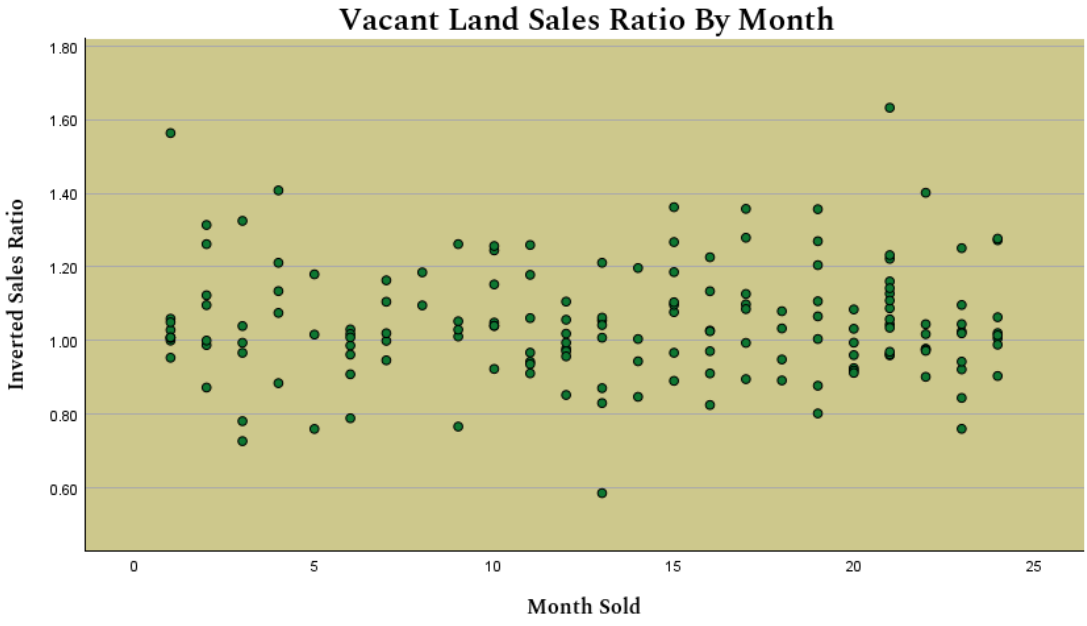


Vacant Land Coefficient of Dispersion

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 Jefferson County was calculated at 12.85% 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.

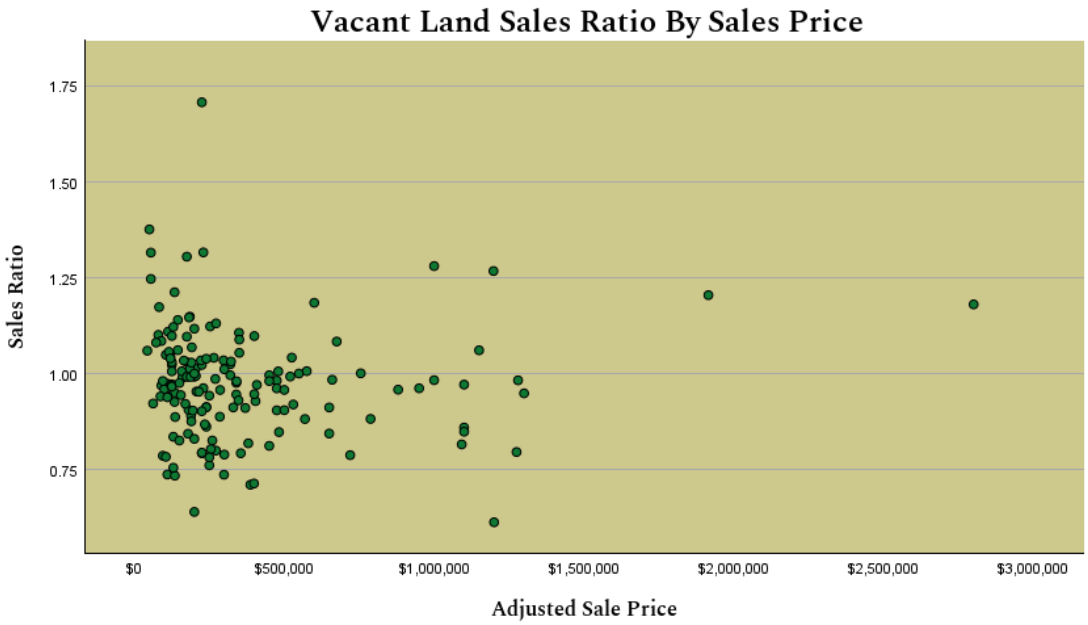
Vacant Land Market (Time) Adjustments

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 24 - month period of sales. There does not appear to be a significant effect of time on Jefferson'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 Jefferson County was calculated at 1.02, which is within the acceptable range of 0.98 to 1.03 established by the International Association of Assessing Officers (IAAO).



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 Jefferson County, the PRB was calculated at -0.05 which is within the acceptable statistical range of -0.05 to 0.05 established by the International Association of Assessing Officers.

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 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 165 Vacant Land sales. We have confirmed that more than 50% of all sales were qualified.

3. Residential

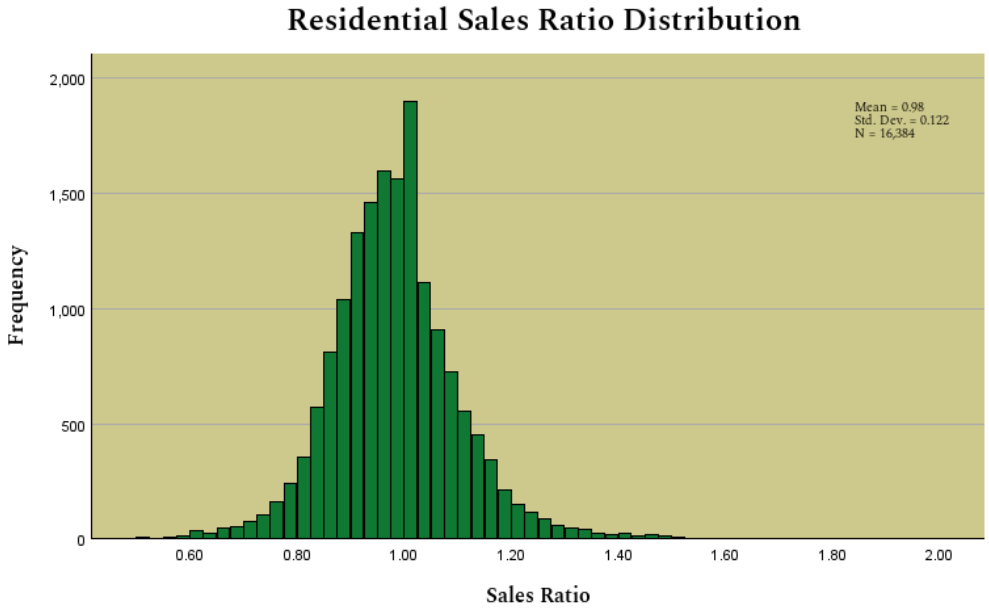
Overview

Jefferson County was found to be compliant for Residential properties.

	Result	Value
Residential		
Median Sales Ratio	Pass	0.98
Coefficient of Dispersion	Pass	9.10%
Time Adjustments	Pass	0.553
Price Related Differential	Sufficient	1.01
Price Related Bias	Sufficient	-0.015
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	Yes	

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 Jefferson County was calculated to be 0.98, which is within the acceptable statistical range of 0.95 to 1.05 established by the State Board of Equalization (SBOE). We trimmed thirty 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 Jefferson County was calculated at 11.64% 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 24 - month period of sales. There does not appear to be a significant effect of time on Jefferson 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 Jefferson 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).

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 Jefferson County, the PRB was calculated at -0.015 which is within the acceptable statistical range of -0.05 to 0.05 established by the International Association of Assessing Officers.

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 16,483 Residential sales. We have confirmed that more than 50% of all sales were qualified.

4. Commercial and Industrial

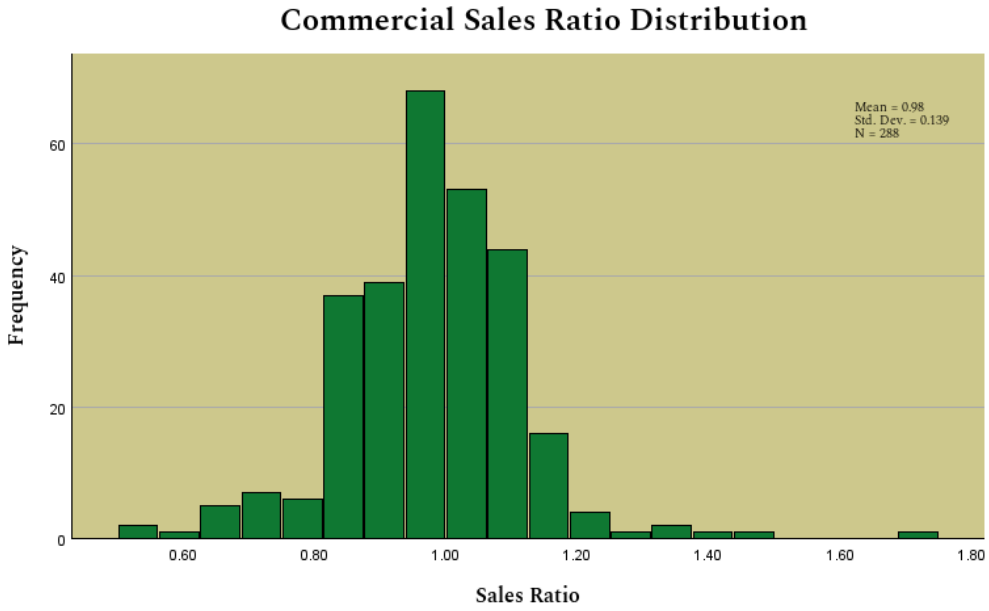
Overview

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

	Result	Value
Commercial and Industrial		
Median Sales Ratio	Pass	0.97
Coefficient of Dispersion	Pass	9.97%
Time Adjustments	Pass	0.088
Price Related Differential	Sufficient	1.01
Price Related Bias	Sufficient	-0.01
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	Yes	

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 Jefferson 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.

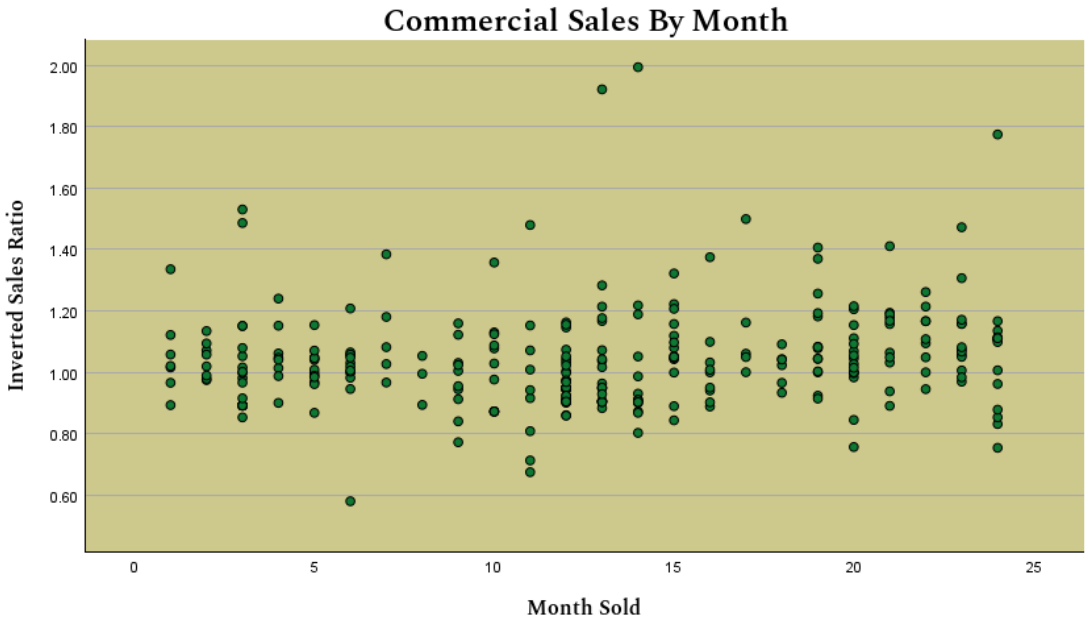


Commercial Coefficient of Dispersion

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 Jefferson County was calculated at 9.97% 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.

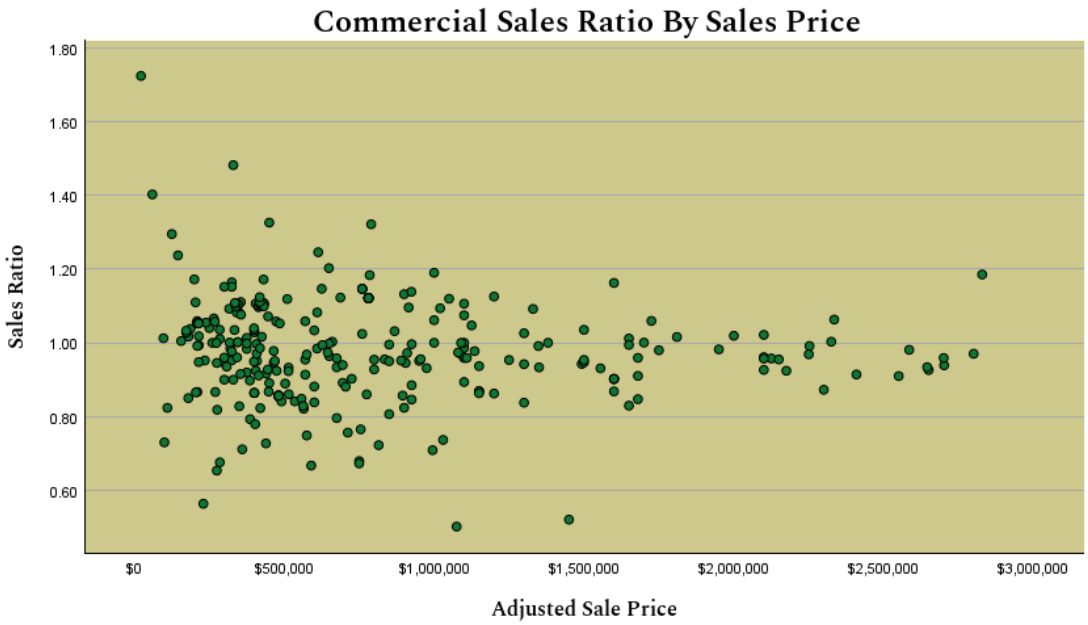
Commercial Market (Time) Adjustments

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 24 - month period of sales. There does not appear to be a significant effect of time on Jefferson 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 Jefferson 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)



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 Jefferson 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.

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. See appendix for more details.

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 332 commercial sales. We have confirmed that more 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).

Jefferson 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
- 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
- Orchards are correctly classified but valued at irrigated land rates
- Forest land is classified properly and valued like surrounding parcels
- 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

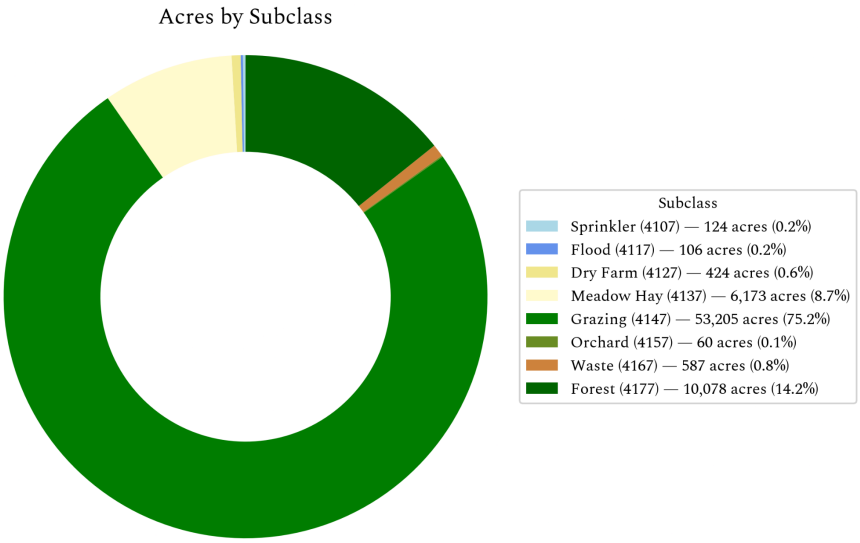
Based on the review and analysis, SMDA considers Jefferson County's appraisal practices for agricultural property acceptable and in alignment with statutory requirements. The directives, commodity pricing, and expense figures issued by the Property Tax Administrator were correctly applied throughout 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.

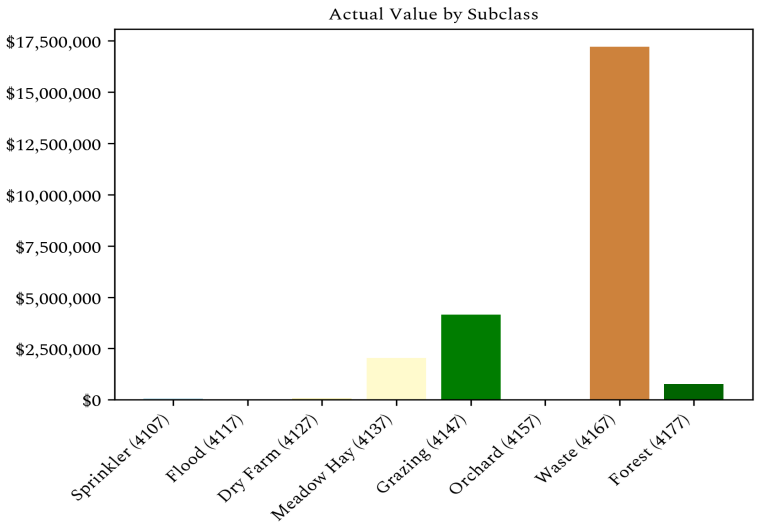
Recommendations

None

Agricultural Land Breakdown

Abstract	Class	Acres	Actual Value	Actual Value/Acre	Assessed Value
4107	Sprinkler	123.63	$59,850	$484.12	$15,800
4117	Flood	106.21	$29,547	$278.18	$7,800
4127	Dry Farm	423.67	$56,160	$132.56	$14,826
4137	Meadow Hay	6,172.83	$2,037,128	$330.02	$537,802
4147	Grazing	53,204.96	$4,157,230	$78.14	$1,097,509
4157	Orchard	59.59	$32,576	$546.64	$8,600
4167	Waste	587.30	$17,212,377	$29,307.64	$4,802,253
4177	Forest	10,078	$758,098	$75.22	$200,138





6. Agriculture Non-Integral

Methodology

SMDA reviewed Jefferson 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 Jefferson 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, Jefferson County applied the following discovery methods:

- Questionnaires
- Field Inspections
- Phone Interviews
- In Person Interviews
- Written Correspondence
- 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, Jefferson County applied the following discovery methods:

- Questionnaires
- Field Inspections
- Phone Interviews
- In Person Interviews
- Written Correspondence
- Personal Knowledge of Occupants

Conclusions

Jefferson 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

Jefferson 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 Jefferson 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 Jefferson, 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, Jefferson County used several methods:

- Public record documents
- Chamber of Commerce/Economic Development contacts
- Local publications and 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.

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

- Accounts close to $56,000 actual value exemption status
- Accounts protested with substantial disagreement
- Non-filing taxpayers
- Businesses with no deletions or additions for 2 or more years
- Same business type or use
- Accounts with omitted property
- Incomplete or inconsistent declarations
- New businesses filing for the first time
- Accounts with obvious discrepancies

Conclusions

Jefferson 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 Jefferson 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 Jefferson 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

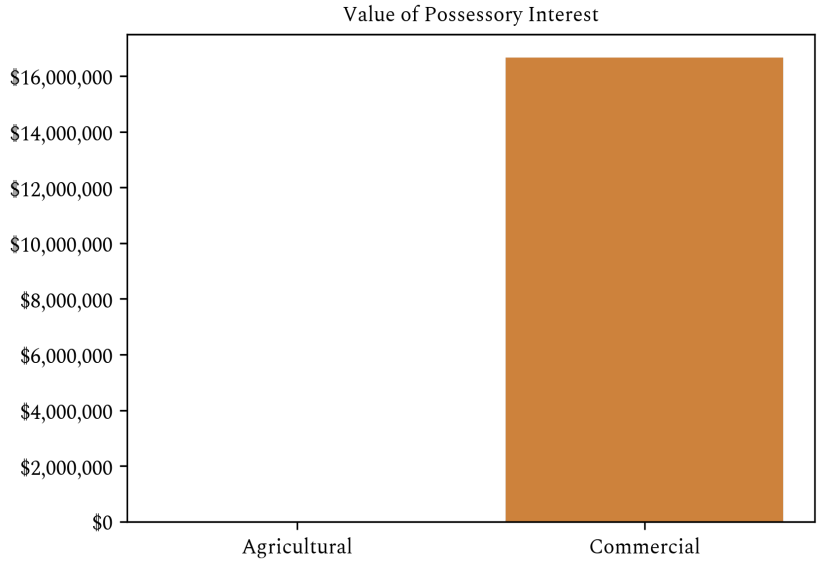
Jefferson County established an effective discovery process to ensure that possessory interest properties were added to the tax roll. The county consistently applied the proper procedures and valuation methods according to State guidelines, resulting in accurate and compliant assessments.

Recommendations

None

Possessory Interest Breakdown

Possessory Interest Type	Value
Agricultural	$568.01
Commercial	$16,666,682



11. Sales Verification

Methodology

As part of the Property Assessment Study, SMDA conducted an evaluation of Jefferson 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 Jefferson County's sales verification practices for the 2025 valuation period by reviewing a selection of sales from Jefferson County's master sales list. A total of 70 unqualified sales were analyzed. Of these, 70 sales provided clear and supportable reasons for disqualification**.**

Where fewer than **50% of sales** were qualified within a property class, SMDA evaluated the reasons for disqualification within any subclass comprising **20% or more** of the class (by property count or value). When indications arose that sales data might be inadequate, unrepresentative, or incorrectly disqualified, SMDA discussed these cases directly with the assessor. SMDA also reviewed disqualified sales by assigned code to confirm consistent application; additional analysis was performed if SMDA discovered discrepancies.

Because Jefferson County maintained a sufficient percentage of qualified sales, an in-depth subclass analysis was not required.

Conclusions

Based on SMDA's review, Jefferson County performed adequately in verifying sales and applying statutory requirements.

Recommendations

None

12. Subdivision Discounting

Methodology

SMDA reviewed Jefferson 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

Jefferson 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.

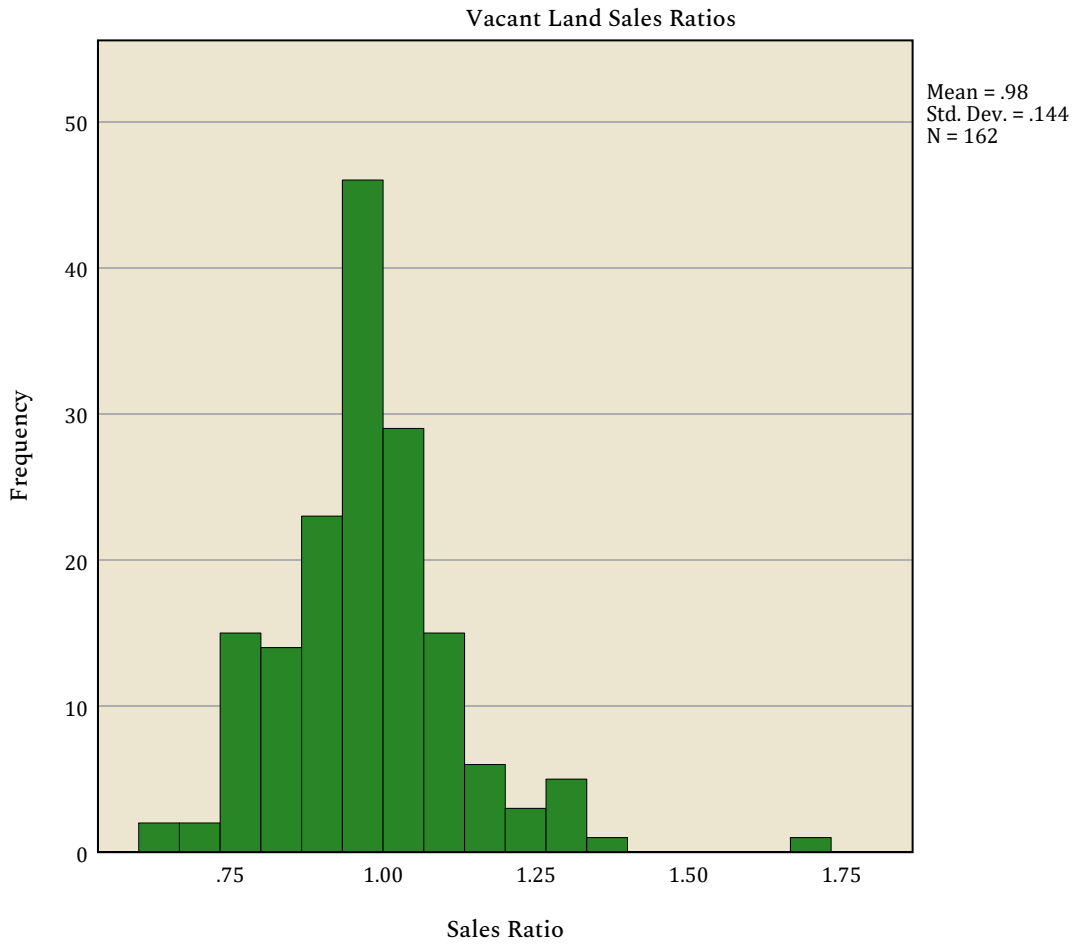
Recommendations

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 Dispersion
165	.975	.129

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.047	1.024

OVERALL Vacant Land: Sales Price by Sales Ratio

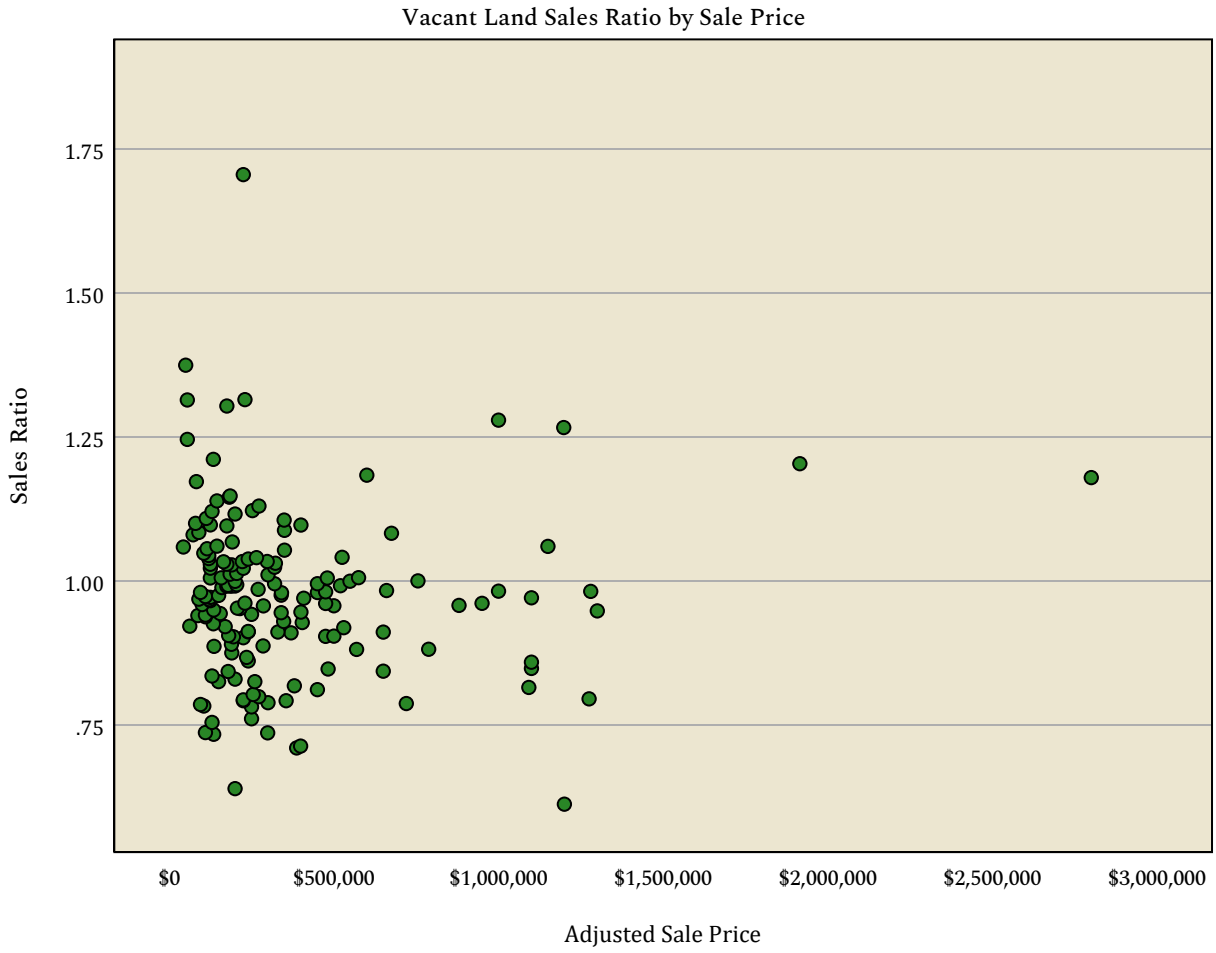
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.014	.027		38.005	<.001
	Adjusted Sale Price	-5.503E-8	.000	-.088	-1.129	.260

a. Dependent Variable: Sales Ratio

Graph



OVERALL Vacant Land: Months by Inverted Sales Ratio

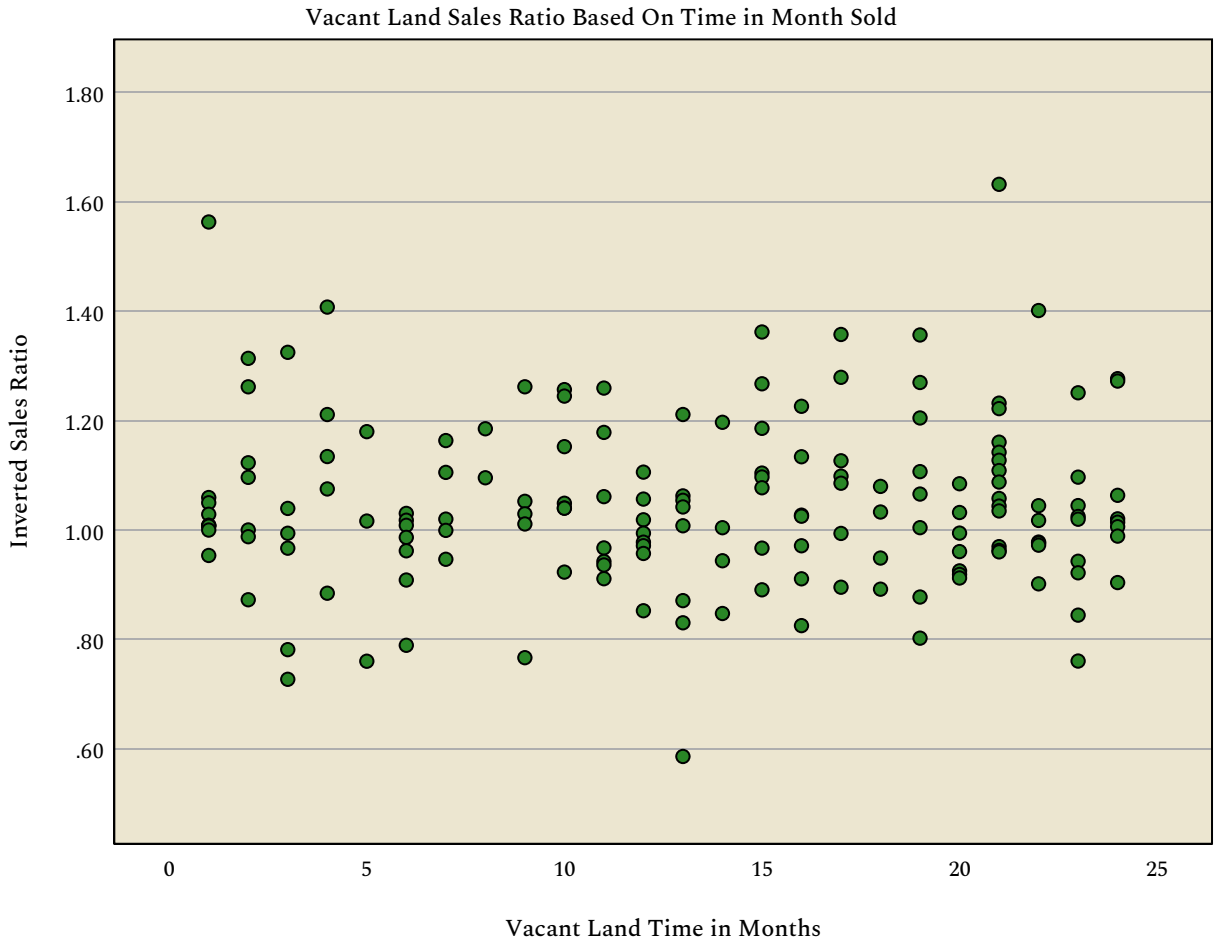
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.036	.032		32.897	<.001
	Vacant Land Time in Months	.001	.002	.025	.322	.748

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	165	165	165
	Missing	0	0	0
Mean		$277,285.73	$363,700.01	$86,414.27
Median		$190,876.00	$218,907.00	$20,468.00
Percentiles	2.5	$3,804.35	$68,580.95	-$124,361.90
	25	$112,586.50	$146,026.00	-$4,731.00
	50	$190,876.00	$218,907.00	$20,468.00
	75	$353,971.50	$419,214.50	$74,644.00
	97.5	$1,052,617.85	$1,482,088.35	$776,713.50

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

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	5665
Mann-Whitney U	203681.500
Wilcoxon W	15375467.500
Test Statistic	203681.500
Standard Error	20203.719
Standardized Test Statistic	-11.320
Asymptotic Sig.(2-sided test)	<.001

Nonparametric Tests

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

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	.212

Hypothesis Test Summary

	Decision
1	Retain 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	5481
Mann-Whitney U	340831.000
Wilcoxon W	14628016.000
Test Statistic	340831.000
Standard Error	18134.162
Standardized Test Statistic	-1.248
Asymptotic Sig.(2-sided test)	.212

OVERALL Vacant Land: Unit Value Comparison

Summarize

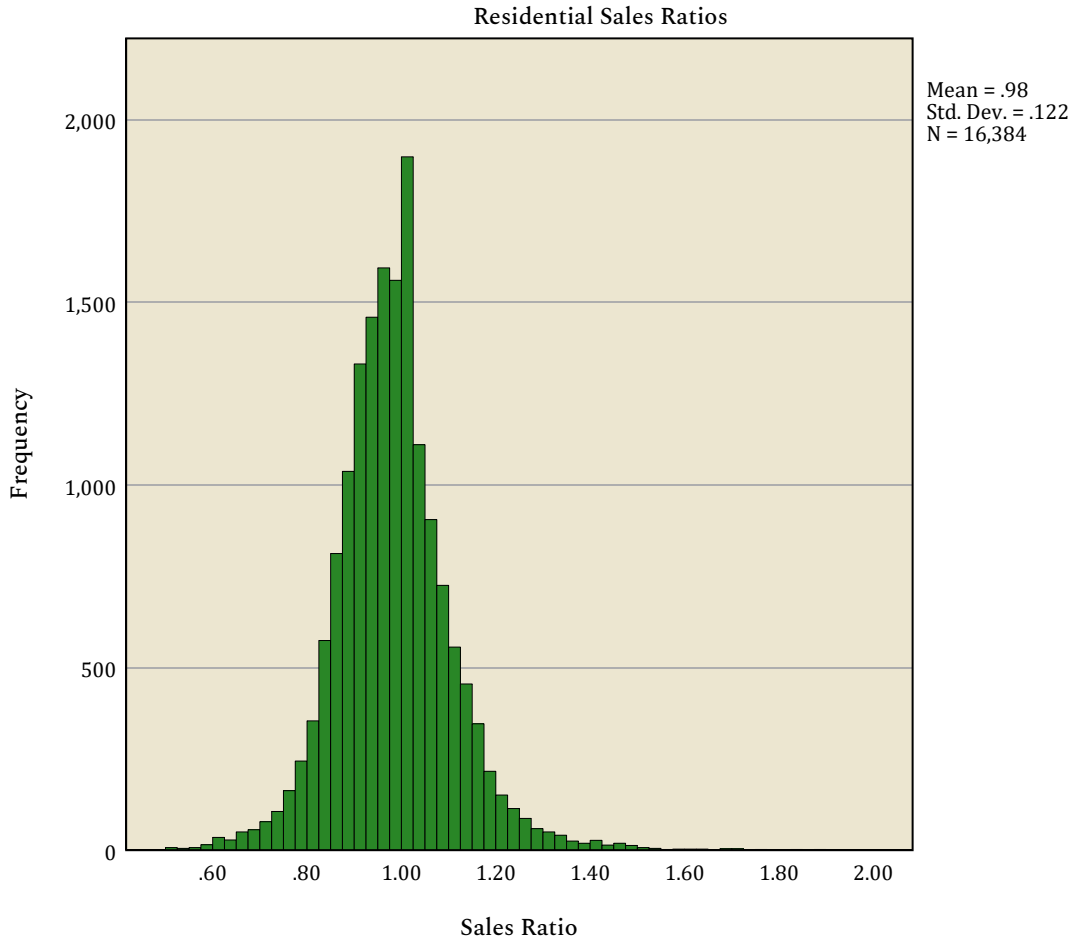
Sold vs Unsold

Difference in Total Value

Vacant Land Sold vs. Unsold	N	Median	Mean
SOLD	165	$20,468.00	$86,414.27
UNSOLD	5606	$6,267.50	$40,061.80
Total	5771	$6,783.00	$41,387.07

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 Dispersion
16453	.979	.091

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.015	1.014

OVERALL Residential: Sales Price by Sales Ratio

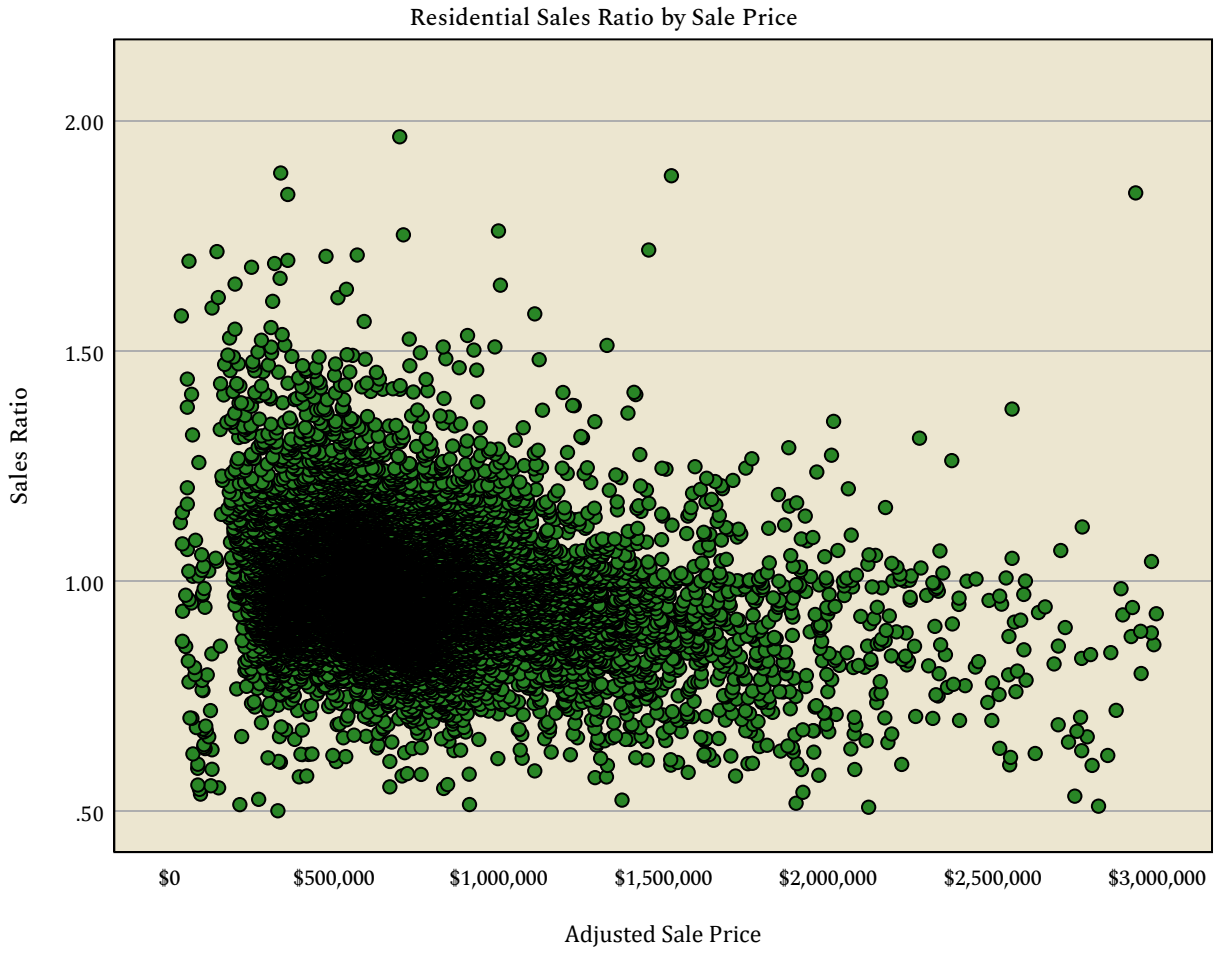
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.988	.001		859.586	<.001
	Adjusted Sale Price	-8.112E-9	.000	-.072	-9.209	<.001

a. Dependent Variable: Sales Ratio

Graph



OVERALL Residential: Months by Inverted Sales Ratio

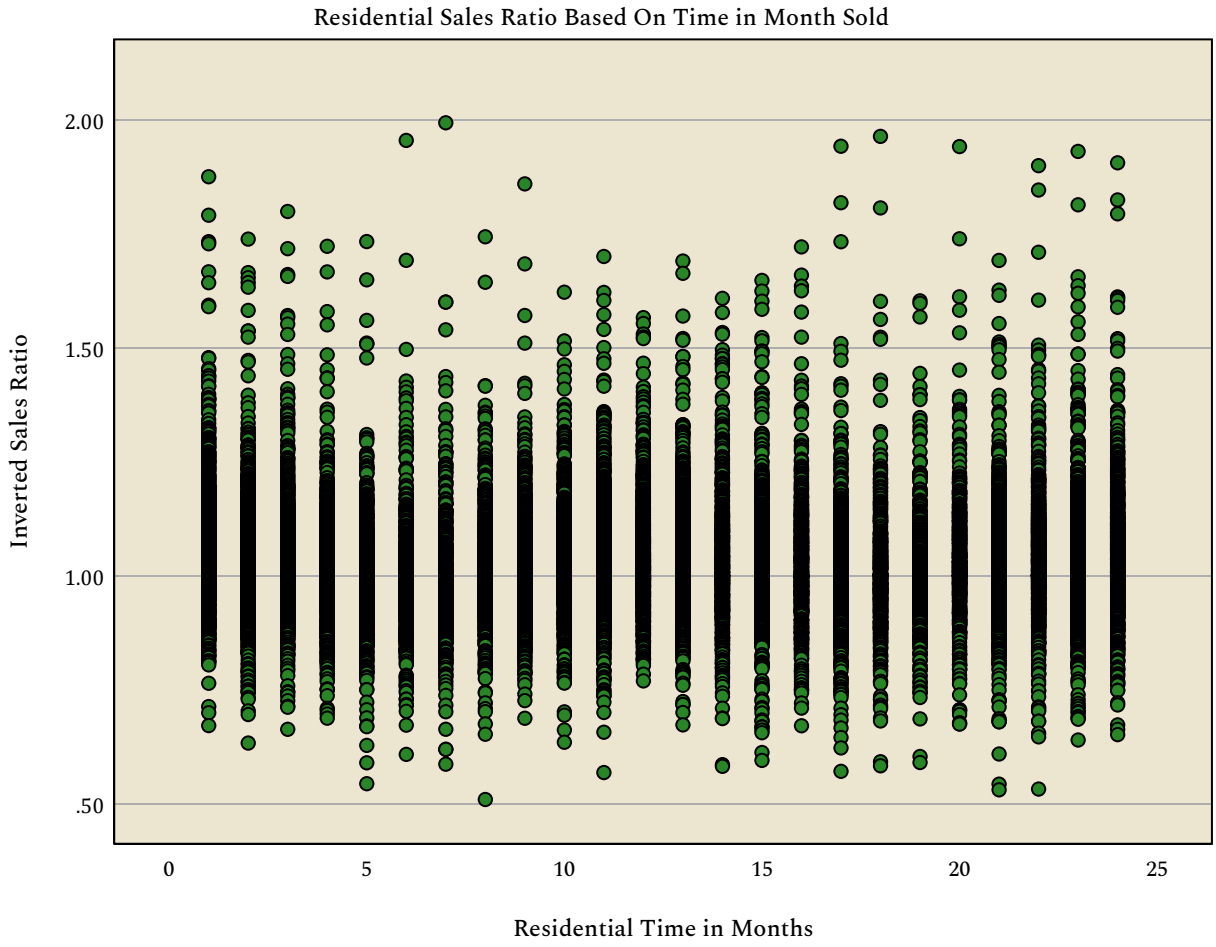
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.035	.002		505.908	<.001
	Residential Time in Months	.000	.000	-.007	-.904	.366

a. Dependent Variable: Inverted Sales Ratio

Graph



OVERALL Residential: Descriptive Statistics

Frequencies

Statistics

		Previous Price Per Foot	Price Per Foot	Difference in Price Per Foot
N	Valid	16382	16382	16382
	Missing	71	71	71
Mean		$322.31	$340.28	1.07
Median		$310.41	$324.98	1.05
Percentiles	2.5	$196.80	$221.12	.89
	25	$266.70	$283.24	.99
	50	$310.41	$324.98	1.05
	75	$361.58	$376.90	1.11
	97.5	$531.82	$556.97	1.34

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	16453	16453	16451
	Missing	0	0	2
Mean		$669,817.81	$703,394.55	$45,651.25
Median		$587,841.00	$616,288.00	$25,745.00
Percentiles	2.5	$239,634.00	$268,700.60	-$73,258.10
	25	$478,552.00	$498,720.50	-$3,731.00
	50	$587,841.00	$616,288.00	$25,745.00
	75	$732,516.50	$782,390.00	$68,811.00
	97.5	$1,409,212.15	$1,552,087.90	$287,233.00

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

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	186427
Mann-Whitney U	971000248.000
Wilcoxon W	15887185808.000
Test Statistic	971000248.000
Standard Error	6064674.090
Standardized Test Statistic	-35.078
Asymptotic Sig.(2-sided test)	<.001

Nonparametric Tests

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

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	186435
Mann-Whitney U	1111884682.000
Wilcoxon W	15981817060.000
Test Statistic	1111884682.000
Standard Error	6120805.253
Standardized Test Statistic	-15.327
Asymptotic Sig.(2-sided test)	<.001

Nonparametric Tests

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

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	186435
Mann-Whitney U	941029013.500
Wilcoxon W	15906826541.500
Test Statistic	941029013.500
Standard Error	6007748.828
Standardized Test Statistic	-36.709
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	14641	1.05	1.06
UNSOLD	181608	1.02	1.04
Total	196249	1.02	1.04

OVERALL Residential: Neighborhood Group

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Median	Coefficient of Dispersion
	1778	.973	.101
101	38	.974	.053
1101	181	.994	.065
1102	120	.968	.074
1103	422	.974	.074
1104	340	.986	.077
1105	264	.975	.074
1106	313	.979	.072
1901	203	.994	.062
1902	119	1.011	.070
2101	471	.983	.073
2102	327	.976	.077
2103	194	.987	.066
2104	359	.980	.085
2105	292	.963	.121
2106	717	.977	.114
2107	374	.984	.113
2901	98	1.000	.090
2902	347	.980	.057
2903	72	1.002	.092
2904	116	.965	.121
3101	371	.962	.111
3102	179	.976	.095
3103	375	.978	.083
3104	395	.986	.080
3105	553	.985	.074
3106	409	.982	.104
3107	227	.966	.103

OVERALL Residential: Neighborhood Group

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Median	Coefficient of Dispersion
3901	98	.972	.099
3902	122	.999	.056
3903	168	.996	.083
3904	180	1.002	.062
3905	327	.992	.069
4101	207	.969	.084
4102	465	.974	.083
4103	253	.965	.097
4104	471	.985	.078
4105	426	.968	.086
4106	459	.980	.072
4901	276	.991	.075
4902	164	.994	.068
4903	142	.968	.064
5101	350	.993	.066
5102	193	.982	.118
5103	293	.964	.110
5901	105	.936	.067
6101	50	.968	.165
6102	129	.956	.099
6103	87	.987	.096
6104	81	.969	.108
6105	60	.967	.112
6901	95	.962	.123
7102	83	.975	.136
8101	101	.969	.135
8102	111	.958	.122
8103	327	.960	.118
8104	111	.966	.130

OVERALL Residential: Neighborhood Group

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Median	Coefficient of Dispersion
8901	54	.963	.119
9101	484	.983	.124
9102	139	.967	.130
9103	140	.988	.147
Overall	16405	.979	.091

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
	1778	.003	1.011
101	38	.007	1.002
1101	181	.034	1.002
1102	120	.082	.997
1103	422	.057	1.003
1104	340	.014	1.005
1105	264	-.078	1.007
1106	313	.026	1.003
1901	203	.029	1.000
1902	119	.091	.999
2101	471	-.066	1.010
2102	327	-.081	1.008
2103	194	.021	1.003
2104	359	-.051	1.008
2105	292	-.109	1.022
2106	717	-.157	1.032
2107	374	-.176	1.040
2901	98	-.152	1.020

OVERALL Residential: Neighborhood Group

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
2902	347	-.046	1.005
2903	72	-.154	1.018
2904	116	-.279	1.040
3101	371	-.104	1.028
3102	179	-.076	1.014
3103	375	.023	1.005
3104	395	-.056	1.011
3105	553	-.056	1.010
3106	409	.138	.999
3107	227	-.047	1.015
3901	98	-.177	1.016
3902	122	.025	1.002
3903	168	-.126	1.013
3904	180	-.058	1.008
3905	327	.058	.998
4101	207	-.026	1.022
4102	465	.134	1.000
4103	253	-.039	1.018
4104	471	-.009	1.007
4105	426	.148	.997
4106	459	-.030	1.007
4901	276	.145	.998
4902	164	.038	1.003
4903	142	.137	.995
5101	350	.006	1.005
5102	193	-.014	1.011
5103	293	.008	1.014
5901	105	-.054	1.006
6101	50	-.367	1.063

OVERALL Residential: Neighborhood Group

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
6102	129	-.017	1.012
6103	87	-.055	1.012
6104	81	-.121	1.019
6105	60	-.130	1.018
6901	95	-.213	1.027
7102	83	-.012	1.015
8101	101	-.015	1.012
8102	111	-.095	1.045
8103	327	-.034	1.019
8104	111	-.078	1.043
8901	54	.058	1.006
9101	484	-.049	1.023
9102	139	.035	1.004
9103	140	.009	1.021
Overall	16405	-.016	1.015

OVERALL Residential: Number of Sales by Value Group

Frequencies

Statistics

Groups of Value

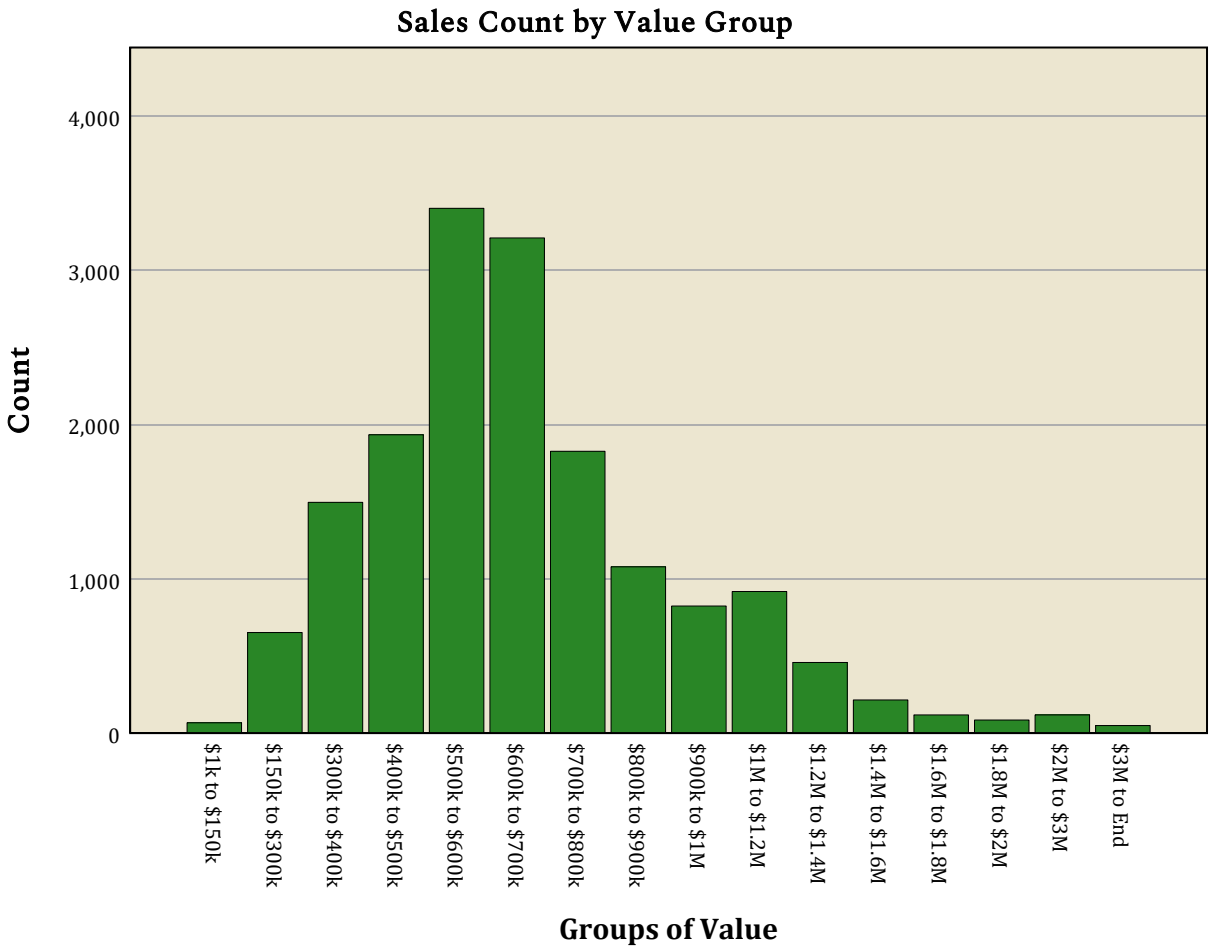
N	Valid	16453
	Missing	0

Groups of Value

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	$1k to $150k	67	.4	.4	.4
	$150k to $300k	652	4.0	4.0	4.4
	$300k to $400k	1496	9.1	9.1	13.5
	$400k to $500k	1934	11.8	11.8	25.2
	$500k to $600k	3402	20.7	20.7	45.9
	$600k to $700k	3210	19.5	19.5	65.4
	$700k to $800k	1827	11.1	11.1	76.5
	$800k to $900k	1078	6.6	6.6	83.1
	$900k to $1M	824	5.0	5.0	88.1
	$1M to $1.2M	918	5.6	5.6	93.6
	$1.2M to $1.4M	458	2.8	2.8	96.4
	$1.4M to $1.6M	215	1.3	1.3	97.7
	$1.6M to $1.8M	118	.7	.7	98.5
	$1.8M to $2M	85	.5	.5	99.0
	$2M to $3M	120	.7	.7	99.7
	$3M to End	49	.3	.3	100.0
	Total	16453	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	67	.842	.257
$150k to $300k	652	.946	.113
$300k to $400k	1496	.963	.078
$400k to $500k	1934	.973	.090
$500k to $600k	3402	.969	.081
$600k to $700k	3210	.983	.084
$700k to $800k	1827	.996	.083
$800k to $900k	1078	1.000	.084
$900k to $1M	824	1.007	.096
$1M to $1.2M	918	.984	.116
$1.2M to $1.4M	458	.974	.122
$1.4M to $1.6M	215	.939	.117
$1.6M to $1.8M	118	.981	.147
$1.8M to $2M	85	.964	.154
$2M to $3M	120	.986	.131
$3M to End	49	1.000	.118
Overall	16453	.979	.091

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	67	-.154	1.077
$150k to $300k	652	-.428	1.022
$300k to $400k	1496	-.408	1.011
$400k to $500k	1934	-.639	1.015
$500k to $600k	3402	-.736	1.011
$600k to $700k	3210	-.854	1.012
$700k to $800k	1827	-.928	1.013
$800k to $900k	1078	-1.012	1.014
$900k to $1M	824	-1.076	1.018
$1M to $1.2M	918	-.889	1.025
$1.2M to $1.4M	458	-1.044	1.027
$1.4M to $1.6M	215	-1.060	1.026
$1.6M to $1.8M	118	-1.268	1.043
$1.8M to $2M	85	-1.240	1.037
$2M to $3M	120	-.560	1.032
$3M to End	49	.003	1.002
Overall	16453	-.015	1.014

OVERALL Residential: Sales by Building Area Group

Frequencies

Statistics

Groups by Building Area

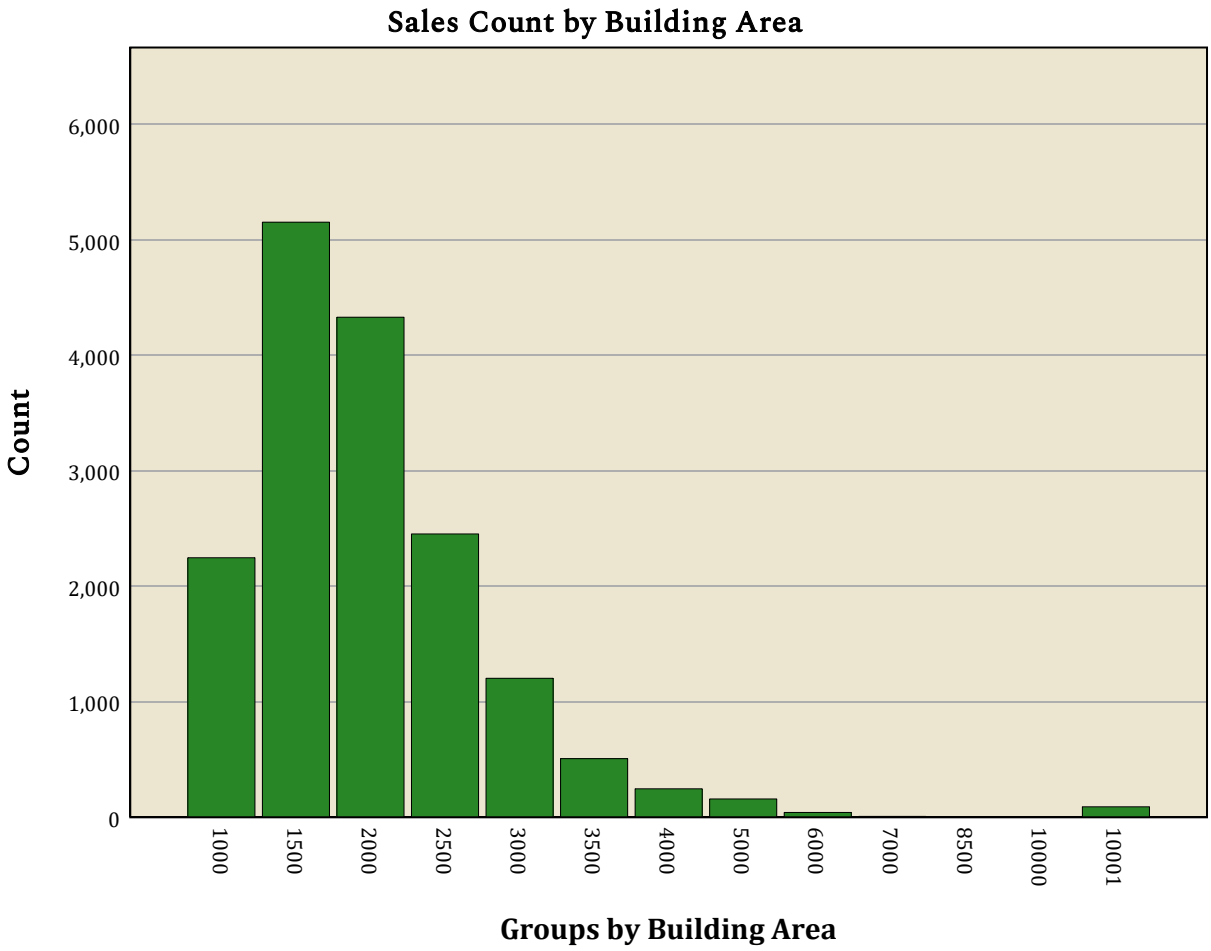
N	Valid	16453
	Missing	0

Groups by Building Area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1000	2248	13.7	13.7	13.7
	1500	5154	31.3	31.3	45.0
	2000	4331	26.3	26.3	71.3
	2500	2454	14.9	14.9	86.2
	3000	1204	7.3	7.3	93.5
	3500	508	3.1	3.1	96.6
	4000	247	1.5	1.5	98.1
	5000	159	1.0	1.0	99.1
	6000	42	.3	.3	99.4
	7000	8	.0	.0	99.4
	8500	2	.0	.0	99.4
	10000	5	.0	.0	99.4
	10001	91	.6	.6	100.0
	Total	16453	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	2248	.956	.100
1500	5154	.975	.085
2000	4331	.992	.086
2500	2454	.978	.088
3000	1204	.984	.100
3500	508	.987	.109
4000	247	.988	.113
5000	159	.987	.123
6000	42	1.002	.159
7000	8	1.007	.302
8500	2	.980	.118
10000	5	.992	.066
10001	91	.992	.081
Overall	16453	.979	.091

Ratio Statistics

OVERALL Residential: Central Tendencies by Area Group

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
1000	2248	-.046	1.017
1500	5154	-.027	1.011
2000	4331	-.046	1.011
2500	2454	-.078	1.016
3000	1204	-.101	1.021
3500	508	-.136	1.028
4000	247	-.132	1.031
5000	159	-.080	1.030
6000	42	-.075	1.041
7000	8	-.127	1.085
8500	2	-1.608	1.013
10000	5	.149	.984
10001	91	-.005	.983
Overall	16453	-.015	1.014

OVERALL Residential: Sales by Economic Area Group

Frequencies

Statistics

economic_area

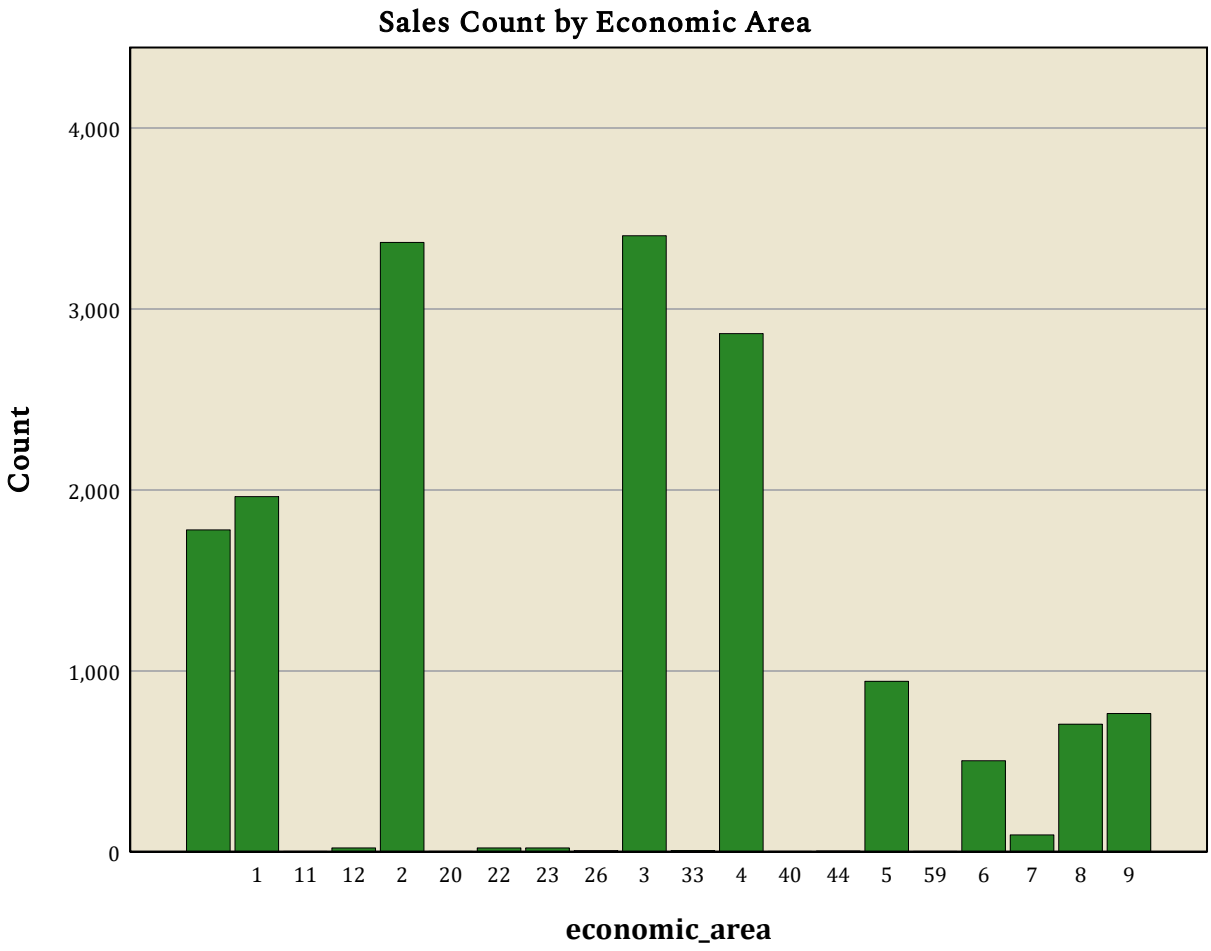
N	Valid	16453
	Missing	0

economic_area

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1778	10.8	10.8	10.8
	1	1962	11.9	11.9	22.7
	11	1	.0	.0	22.7
	12	20	.1	.1	22.9
	2	3367	20.5	20.5	43.3
	20	1	.0	.0	43.3
	22	20	.1	.1	43.5
	23	19	.1	.1	43.6
	26	5	.0	.0	43.6
	3	3404	20.7	20.7	64.3
	33	6	.0	.0	64.3
	4	2863	17.4	17.4	81.7
	40	1	.0	.0	81.7
	44	3	.0	.0	81.7
	5	941	5.7	5.7	87.5
	59	1	.0	.0	87.5
	6	502	3.1	3.1	90.5
	7	92	.6	.6	91.1
	8	704	4.3	4.3	95.4
	9	763	4.6	4.6	100.0
	Total	16453	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
	1778	.973	.101
1	1962	.984	.073
11	1	1.025	.000
12	20	.977	.040
2	3367	.979	.093
20	1	.947	.000
22	20	.982	.056
23	19	.984	.062
26	5	.926	.025
3	3404	.983	.086
33	6	.973	.093
4	2863	.977	.080
40	1	1.042	.000
44	3	.930	.132
5	941	.979	.092
59	1	.906	.000
6	502	.970	.113
7	92	.973	.145
8	704	.961	.123
9	763	.980	.130
Overall	16453	.979	.091

Ratio Statistics

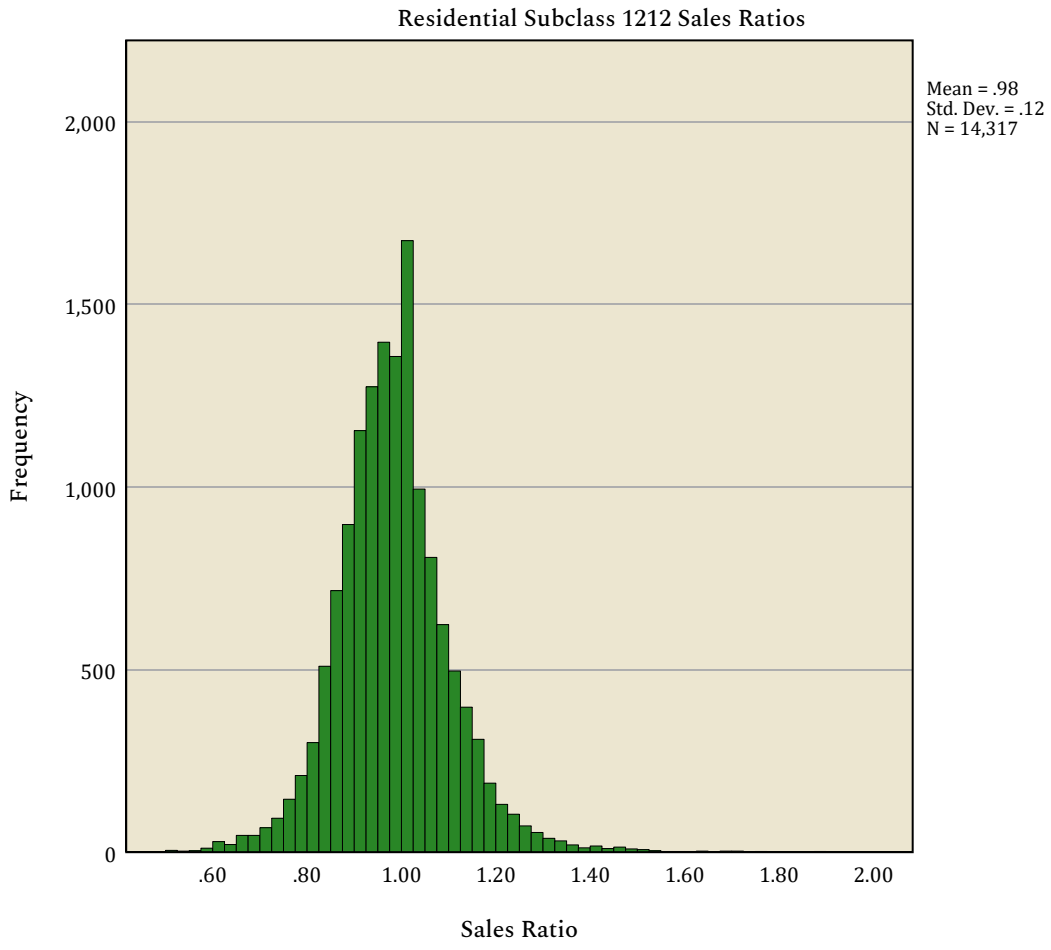
OVERALL Residential: Central Tendencies by Economic Area Group

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
	1778	.003	1.011
1	1962	.001	1.005
11	1	.	1.000
12	20	.011	.981
2	3367	-.096	1.021
20	1	.	1.000
22	20	.014	.991
23	19	-.004	1.015
26	5	.022	1.000
3	3404	-.024	1.012
33	6	.015	.946
4	2863	.004	1.008
40	1	.	1.000
44	3	.092	.842
5	941	.019	1.008
59	1	.	1.000
6	502	-.051	1.024
7	92	-.023	1.032
8	704	-.036	1.024
9	763	-.015	1.019
Overall	16453	-.015	1.014

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 Dispersion
14364	.979	.090

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.024	1.015

Residential Subclass 1212: Sales Price by Sales Ratio

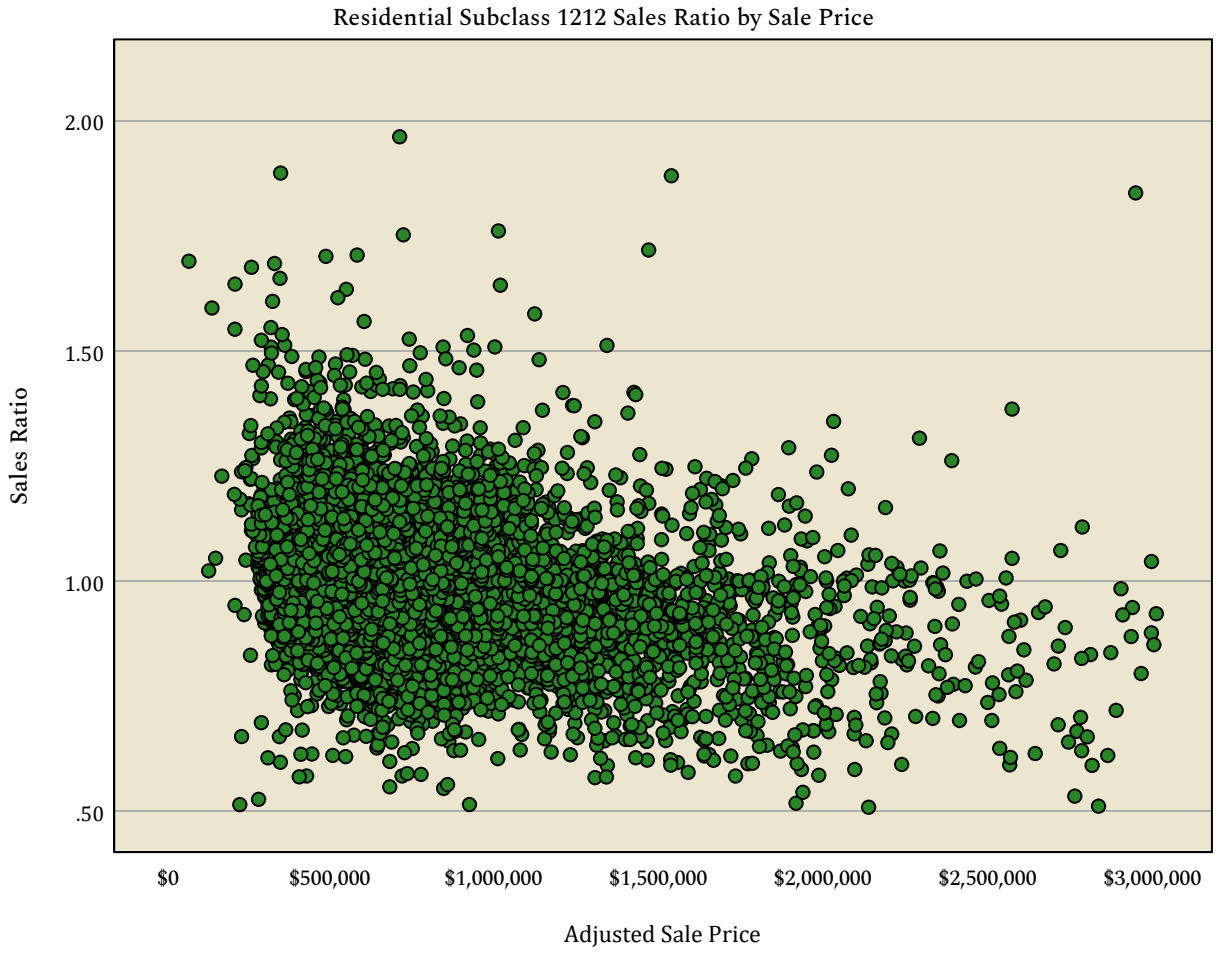
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.041	.002		470.389	<.001
	Adjusted Sale Price	-7.938E-8	.000	-.242	-29.845	<.001

a. Dependent Variable: Sales Ratio

Graph



Residential Subclass 1212: Months by Inverted Sales Ratio

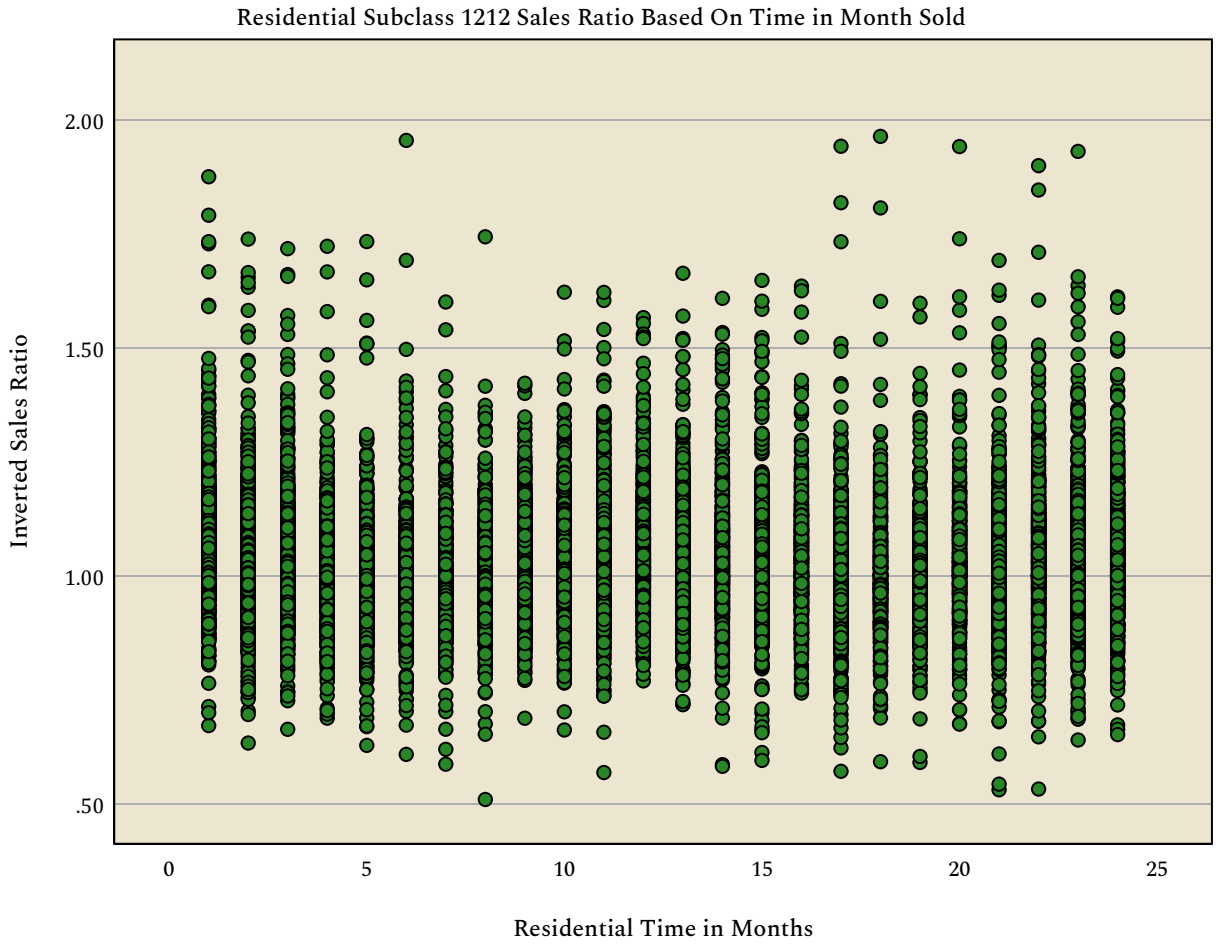
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.035	.002		480.317	<.001
	Residential Time in Months	.000	.000	-.007	-.897	.370

a. Dependent Variable: Inverted Sales Ratio

Graph



Residential Subclass 1212: Descriptive Statistics

Frequencies

Statistics

		Previous Price Per Foot	Price Per Foot	Difference in Price Per Foot
N	Valid	14364	14364	14364
	Missing	0	0	0
Mean		$320.42	$339.53	1.08
Median		$306.83	$323.08	1.05
Percentiles	2.5	$200.84	$223.05	.89
	25	$264.40	$280.59	1.00
	50	$306.83	$323.08	1.05
	75	$359.73	$376.20	1.11
	97.5	$527.47	$557.16	1.33

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	14364	14364	14364
	Missing	0	0	0
Mean		$675,600.01	$722,443.50	$46,843.49
Median		$607,888.50	$639,201.50	$28,631.50
Percentiles	2.5	$316,685.38	$337,926.63	-$75,048.50
	25	$515,058.75	$539,912.00	-$1,408.50
	50	$607,888.50	$639,201.50	$28,631.50
	75	$757,838.50	$810,306.50	$73,072.75
	97.5	$1,418,484.00	$1,567,370.13	$272,469.00

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

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	169293
Mann-Whitney U	748957173.500
Wilcoxon W	13131379569.500
Test Statistic	748957173.500
Standard Error	5145381.331
Standardized Test Statistic	-36.800
Asymptotic Sig.(2-sided test)	<.001

Nonparametric Tests

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

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	169294
Mann-Whitney U	893763008.000
Wilcoxon W	13233103973.000
Test Statistic	893763008.000
Standard Error	5199854.088
Standardized Test Statistic	-12.406
Asymptotic Sig.(2-sided test)	<.001

Nonparametric Tests

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

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	169294
Mann-Whitney U	725069437.000
Wilcoxon W	13143240247.000
Test Statistic	725069437.000
Standard Error	5100080.492
Standardized Test Statistic	-38.584
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	12786	1.05	1.06
UNSOLD	165420	1.02	1.03
Total	178206	1.02	1.03

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
	SOLD	1	1.07	1.07
	UNSOLD	145	1.00	.98
	Total	146	1.00	.98
1	SOLD	1873	1.04	1.05
	UNSOLD	25280	1.00	1.01
	Total	27153	1.00	1.01
10	UNSOLD	12	1.06	1.14
	Total	12	1.06	1.14
11	UNSOLD	8	1.04	1.04
	Total	8	1.04	1.04
12	UNSOLD	42	1.04	1.16
	Total	42	1.04	1.16
15	UNSOLD	4	1.01	1.01
	Total	4	1.01	1.01
2	SOLD	2624	1.04	1.06
	UNSOLD	33071	1.01	1.02
	Total	35695	1.01	1.02
20	UNSOLD	42	1.10	1.22
	Total	42	1.10	1.22
22	UNSOLD	36	1.08	1.04
	Total	36	1.08	1.04

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
23	UNSOLD	20	1.01	1.06
	Total	20	1.01	1.06
25	UNSOLD	12	1.04	1.03
	Total	12	1.04	1.03
26	UNSOLD	34	1.02	1.02
	Total	34	1.02	1.02
28	UNSOLD	12	1.05	1.09
	Total	12	1.05	1.09
3	SOLD	2855	1.03	1.04
	UNSOLD	35027	1.01	1.01
	Total	37882	1.01	1.01
30	UNSOLD	4	1.01	1.01
	Total	4	1.01	1.01
33	UNSOLD	12	.93	.94
	Total	12	.93	.94
4	SOLD	2639	1.07	1.08
	UNSOLD	35058	1.04	1.05
	Total	37697	1.04	1.05
40	UNSOLD	4	1.00	1.00
	Total	4	1.00	1.00
44	UNSOLD	9	1.24	1.13
	Total	9	1.24	1.13
5	SOLD	796	1.06	1.07
	UNSOLD	10524	1.04	1.05
	Total	11320	1.04	1.05
50	UNSOLD	24	1.03	.99
	Total	24	1.03	.99
57	UNSOLD	8	1.04	1.04
	Total	8	1.04	1.04
58	UNSOLD	31	1.03	1.03
	Total	31	1.03	1.03

Residential Subclass 1212: Unit Comparison Method

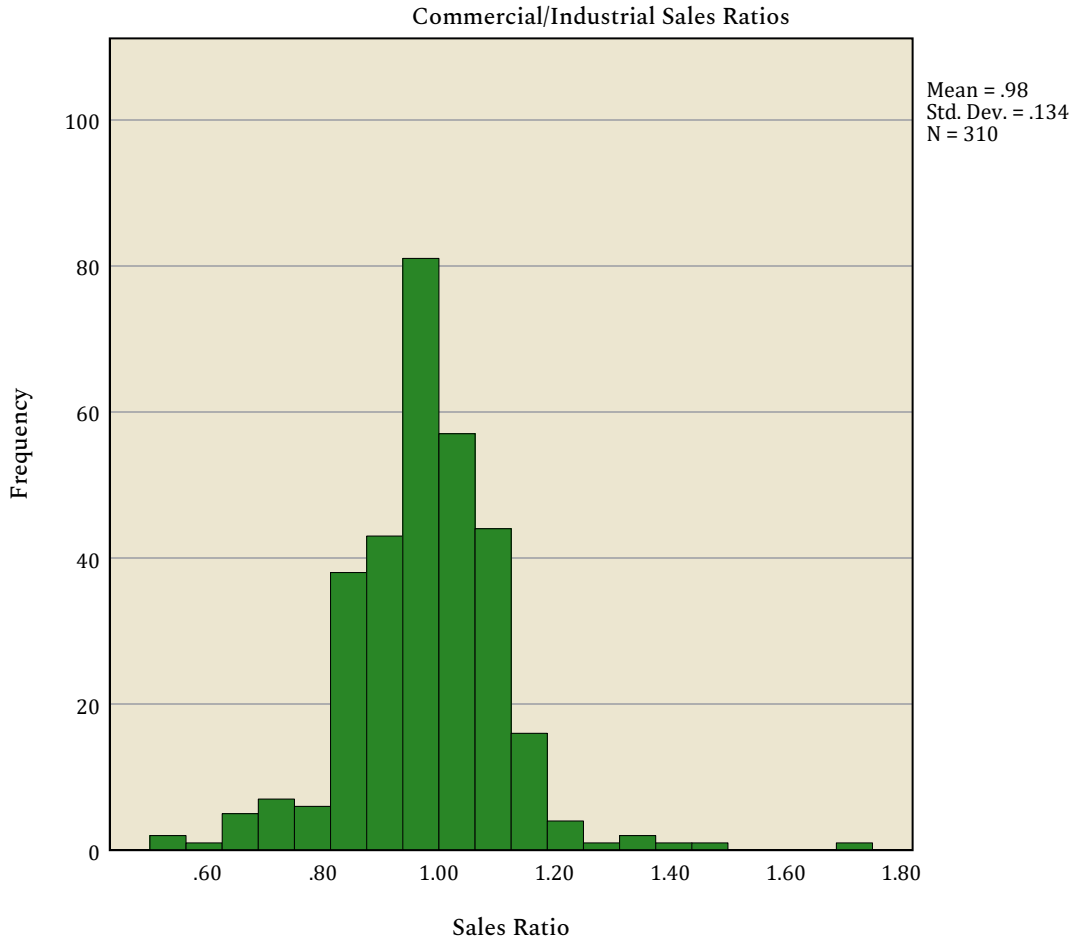
Sold vs Unsold Percent Change for Subclass 1212 by Economic Area

Difference in Price Per Foot

economic_area	Residential Sold vs Unsold	N	Median	Mean
59	UNSOLD	36	1.01	1.09
	Total	36	1.01	1.09
6	SOLD	479	1.15	1.15
	UNSOLD	7208	1.13	1.17
	Total	7687	1.13	1.17
7	SOLD	92	.98	.99
	UNSOLD	1204	.96	.97
	Total	1296	.96	.97
8	SOLD	678	1.09	1.10
	UNSOLD	8264	1.05	1.06
	Total	8942	1.05	1.06
9	SOLD	749	1.03	1.05
	UNSOLD	9289	1.01	1.01
	Total	10038	1.01	1.02
Total	SOLD	12786	1.05	1.06
	UNSOLD	165420	1.02	1.03
	Total	178206	1.02	1.03

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
332	.974	.100

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.008	1.008

OVERALL Commercial/Industrial: Sales Price by Sales Ratio

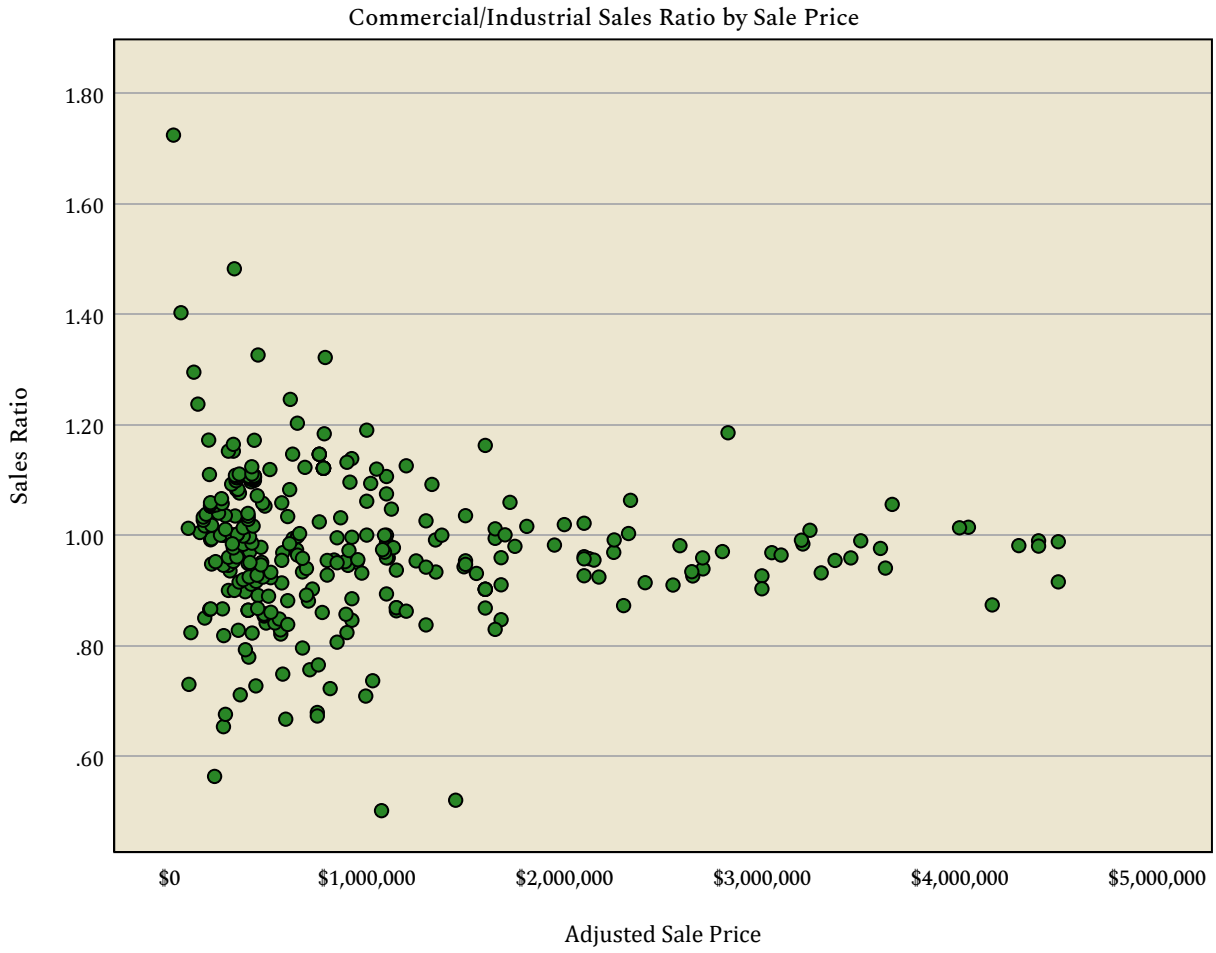
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.978	.009		107.121	<.001
	Adjusted Sale Price	-2.137E-9	.000	-.035	-.639	.523

a. Dependent Variable: Sales Ratio

Graph



OVERALL Commercial/Industrial: Months by Inverted Sales Ratio

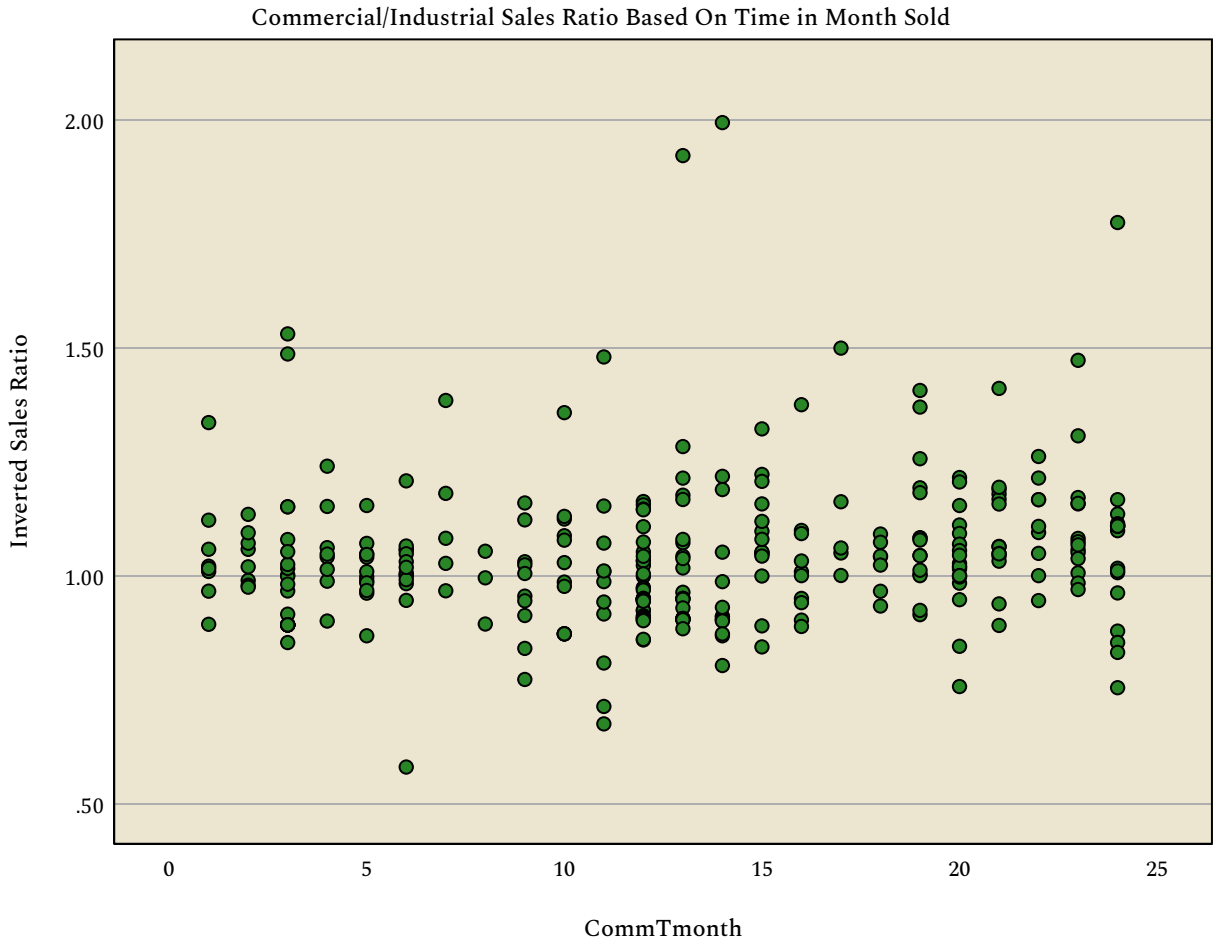
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.016	.025		40.162	<.001
	CommTmonth	.003	.002	.094	1.713	.088

a. Dependent Variable: Inverted Sales Ratio

Graph



OVERALL Commercial/Industrial: Descriptive Statistics

Frequencies

Statistics

		Previous Price Per Foot	Price Per Foot	Difference in Price Per Foot
N	Valid	332	332	332
	Missing	0	0	0
Mean		$231.69	$290.89	1.31
Median		$230.43	$288.27	1.27
Percentiles	2.5	$66.92	$87.49	.79
	25	$165.00	$210.04	1.07
	50	$230.43	$288.27	1.27
	75	$250.98	$330.00	1.42
	97.5	$601.50	$644.65	2.36

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	332	332	332
	Missing	0	0	0
Mean		$1,148,532.21	$1,387,815.56	$239,283.35
Median		$531,586.00	$647,710.00	$99,720.00
Percentiles	2.5	$131,462.50	$158,412.38	-$229,154.00
	25	$283,820.00	$374,411.00	$36,220.00
	50	$531,586.00	$647,710.00	$99,720.00
	75	$1,060,848.75	$1,417,322.50	$268,351.75
	97.5	$6,061,660.00	$7,231,355.00	$1,648,502.88

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

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	6497
Mann-Whitney U	605903.000
Wilcoxon W	20102793.000
Test Statistic	605903.000
Standard Error	29239.221
Standardized Test Statistic	-6.292
Asymptotic Sig.(2-sided test)	<.001

Nonparametric Tests

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

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
1	The distribution of Price Per Foot is the same across categories of CommSOLDFLG.	Independent-Samples Mann-Whitney U Test	.246

Hypothesis Test Summary

	Decision
1	Retain 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	6500
Mann-Whitney U	788503.000
Wilcoxon W	20235469.000
Test Statistic	788503.000
Standard Error	29863.246
Standardized Test Statistic	-1.160
Asymptotic Sig.(2-sided test)	.246

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
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	6502
Mann-Whitney U	491298.500
Wilcoxon W	20119543.500
Test Statistic	491298.500
Standard Error	28357.451
Standardized Test Statistic	-8.855
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	269	1.22	1.30
UNSOLD	6572	1.05	1.12
Total	6841	1.06	1.12

Summarize

Sold vs Unsold

Difference in Price Per Foot

Improvement Abstract Codes	CommSOLDFLG	N	Median	Mean
2212	SOLD	50	1.11	1.17
	UNSOLD	1628	1.04	1.07
	Total	1678	1.04	1.08
2215	SOLD	2	1.29	1.29
	UNSOLD	188	1.10	1.12
	Total	190	1.10	1.12
2220	SOLD	41	1.39	1.38
	UNSOLD	807	1.04	1.15
	Total	848	1.04	1.16
2225	UNSOLD	63	1.00	1.07
	Total	63	1.00	1.07
2230	SOLD	43	1.07	1.34
	UNSOLD	1349	1.02	1.05
	Total	1392	1.02	1.06
2235	SOLD	43	1.33	1.46
	UNSOLD	1032	1.08	1.12
	Total	1075	1.08	1.13
2245	SOLD	42	1.17	1.24
	UNSOLD	525	1.11	1.23
	Total	567	1.11	1.24

OVERALL Commercial/Industrial: Unit Value Comparison

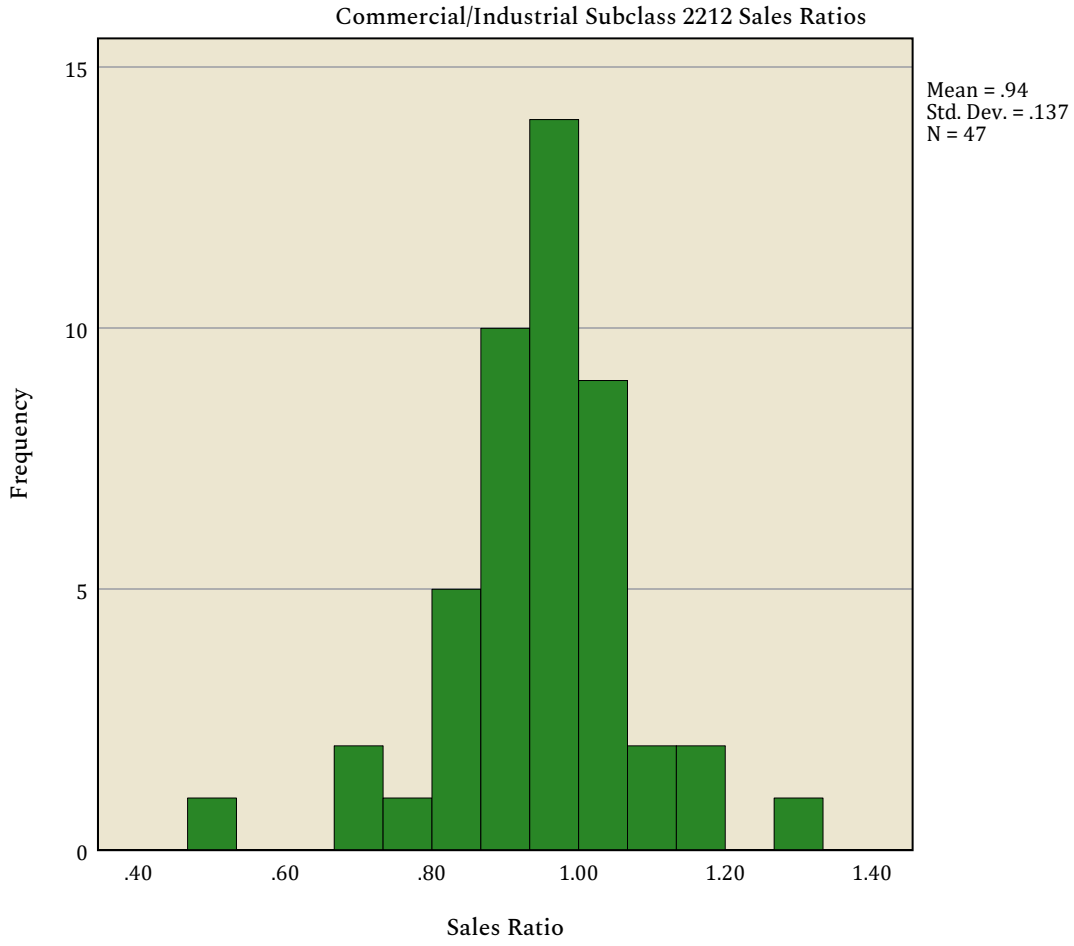
Sold vs Unsold

Difference in Price Per Foot

Improvement Abstract Codes	CommSOLDFLG	N	Median	Mean
2250	UNSOLD	65	.98	1.03
	Total	65	.98	1.03
3212	UNSOLD	5	.86	.91
	Total	5	.86	.91
3215	SOLD	4	1.15	1.18
	UNSOLD	119	1.10	1.18
	Total	123	1.10	1.18
3230	SOLD	44	1.25	1.24
	UNSOLD	791	1.23	1.21
	Total	835	1.25	1.21
Total	SOLD	269	1.22	1.30
	UNSOLD	6572	1.05	1.12
	Total	6841	1.06	1.12

Commercial/Industrial Subclass 2212: Sales Ratio Distribution

Graph



Commercial/Industrial Subclass 2212: Central Tendencies

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

N	Median	Coefficient of Dispersion
51	.951	.092

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
.024	.981

Commercial/Industrial Subclass 2212: Sales Price by Sales Ratio

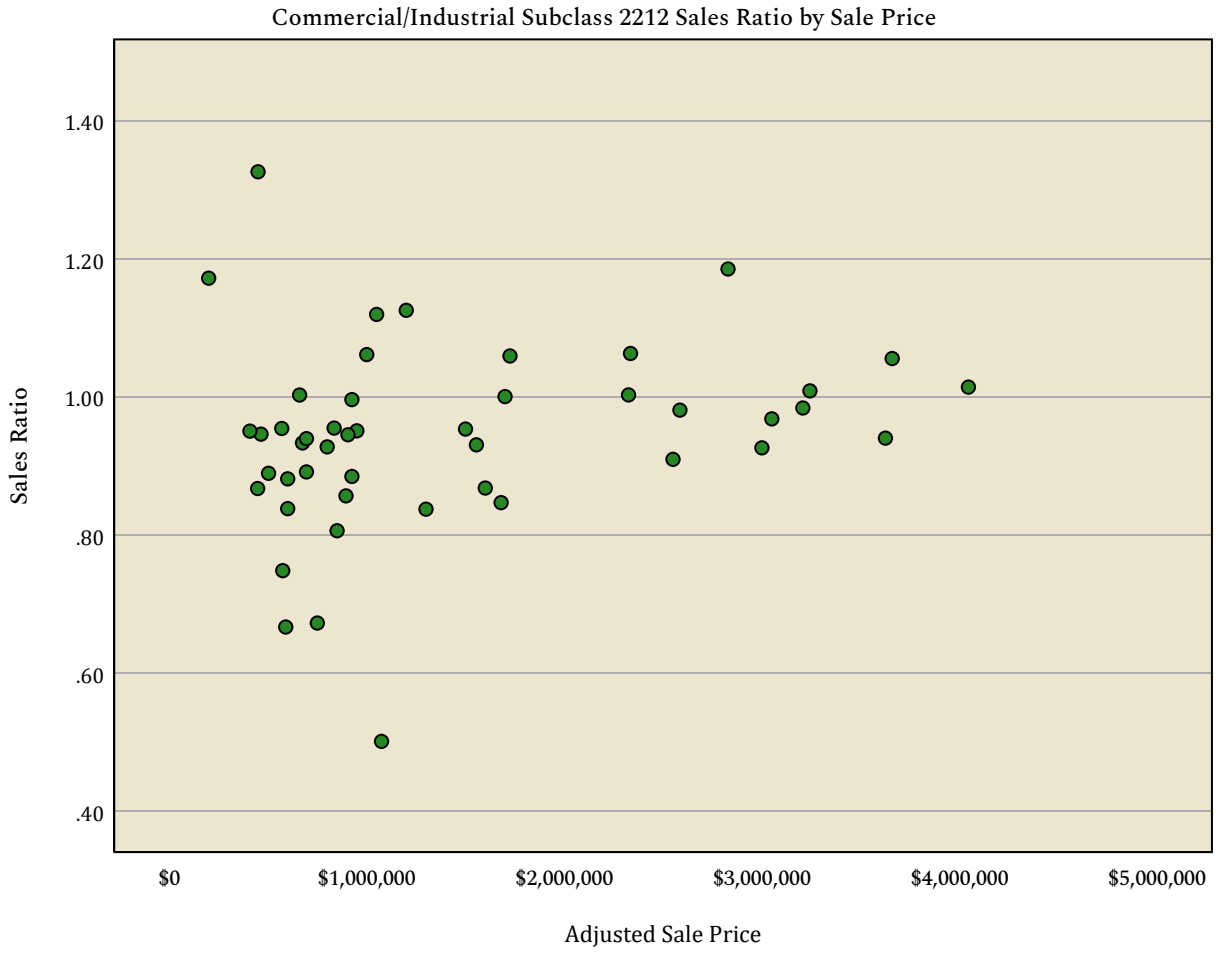
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.924	.027		34.335	<.001
	Adjusted Sale Price	1.147E-8	.000	.152	1.079	.286

a. Dependent Variable: Sales Ratio

Graph



Commercial/Industrial Subclass 2212: Months by Inverted Sales Ratio

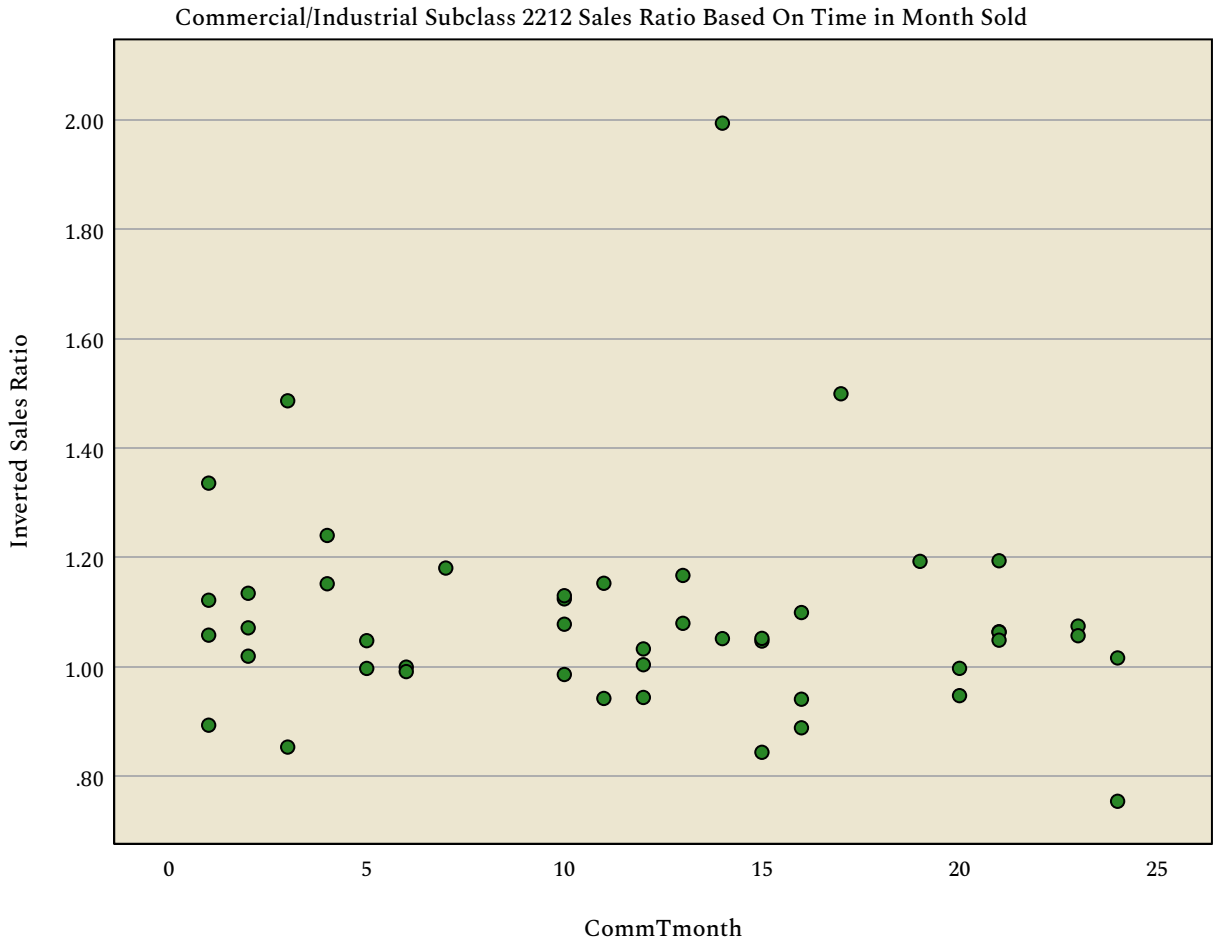
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.107	.049		22.649	<.001
	CommTmonth	-.002	.004	-.085	-.600	.551

a. Dependent Variable: Inverted Sales Ratio

Graph



Commercial/Industrial Subclass 2212: Descriptive Statistics

Frequencies

Statistics

		Previous Price Per Foot	Price Per Foot	Difference in Price Per Foot
N	Valid	51	51	51
	Missing	0	0	0
Mean		$293.37	$327.70	1.16
Median		$226.33	$258.77	1.11
Percentiles	2.5	$62.99	$64.32	.61
	25	$181.06	$208.62	.98
	50	$226.33	$258.77	1.11
	75	$396.20	$422.86	1.35
	97.5	$826.19	$897.04	2.09

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	51	51	51
	Missing	0	0	0
Mean		$1,572,592.65	$1,775,578.53	$202,985.88
Median		$863,499.00	$1,061,400.00	$91,300.00
Percentiles	2.5	$254,903.10	$280,675.00	-$263,340.00
	25	$524,564.00	$596,700.00	-$66,055.00
	50	$863,499.00	$1,061,400.00	$91,300.00
	75	$2,325,000.00	$2,535,800.00	$242,400.00
	97.5	$7,220,350.00	$7,785,680.00	$2,098,150.00

Commercial/Industrial Subclass 2212: Mann-Whitney U-Test (Rank-sum)

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
1	The distribution of Difference in Total Value is the same across categories of CommSOLDFLG.	Independent-Samples Mann-Whitney U Test	.137

Hypothesis Test Summary

	Decision
1	Retain 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	1594
Mann-Whitney U	31728.500
Wilcoxon W	1229106.500
Test Statistic	31728.500
Standard Error	3108.520
Standardized Test Statistic	-1.488
Asymptotic Sig.(2-sided test)	.137

Nonparametric Tests

Commercial/Industrial Subclass 2212: Mann-Whitney U-Test (Rank-sum)

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
1	The distribution of Price Per Foot is the same across categories of CommSOLDFLG.	Independent-Samples Mann-Whitney U Test	.345

Hypothesis Test Summary

	Decision
1	Retain 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	1594
Mann-Whitney U	34855.000
Wilcoxon W	1229140.000
Test Statistic	34855.000
Standard Error	3172.072
Standardized Test Statistic	-.945
Asymptotic Sig.(2-sided test)	.345

Nonparametric Tests

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]
1	The distribution of Difference in Price Per Foot is the same across categories of CommSOLDFLG.	Independent-Samples Mann-Whitney U Test	.067

Commercial/Industrial Subclass 2212: Mann-Whitney U-Test (Rank-sum)

Hypothesis Test Summary

	Decision
1	Retain 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	1597
Mann-Whitney U	28642.500
Wilcoxon W	1235323.500
Test Statistic	28642.500
Standard Error	3016.313
Standardized Test Statistic	-1.831
Asymptotic Sig.(2-sided test)	.067

Commercial/Industrial Subclass 2212: Unit Comparison Method

Summarize

Sold vs Unsold Percent Change for Subclass 2212

Difference in Price Per Foot

CommSOLDFLG	N	Median	Mean
SOLD	50	1.11	1.17
UNSOLD	1646	1.04	1.07
Total	1696	1.04	1.08

Commercial/Industrial Subclass 2212: Economic Area Analysis

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Median	Coefficient of Dispersion
10	20	.708	.411
11	1	.806	.000
12	4	.808	.106
20	44	.955	1.704
22	1	.838	.000
23	4	.937	.005
30	13	.940	.253
33	3	.954	.001
40	6	.959	.294
50	5	.857	.247
59	4	.307	.000
Overall	105	.928	.898

Ratio Statistics

Commercial/Industrial Subclass 2212: Economic Area Analysis

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
10	20	-.174	1.725
11	1	.	1.000
12	4	-.662	1.011
20	44	-.992	2.550
22	1	.	1.000
23	4	.011	.999
30	13	-.115	1.632
33	3	-.004	1.000
40	6	.291	1.036
50	5	-.265	1.267
59	4	.	1.000
Overall	105	-.458	2.297

Summarize

Commercial/Industrial Subclass 2212: Economic Area Analysis

Sold vs Unsold Percent Change for Subclass 2212 by Economic Area

Difference in Price Per Foot

economic_area	CommSOLDFLG	N	Median	Mean
	UNSOLD	20	1.00	1.00
	Total	20	1.00	1.00
10	SOLD	7	1.11	1.25
	UNSOLD	307	1.02	1.06
	Total	314	1.02	1.06
11	SOLD	1	.86	.86
	UNSOLD	1	.92	.92
	Total	2	.89	.89
12	SOLD	4	.80	1.00
	UNSOLD	56	.98	.96
	Total	60	.93	.96
15	UNSOLD	3	.82	.89
	Total	3	.82	.89
20	SOLD	20	1.09	1.11
	UNSOLD	623	1.09	1.11
	Total	643	1.09	1.11
22	SOLD	1	1.19	1.19
	UNSOLD	57	.89	.94
	Total	58	.90	.94
23	SOLD	2	1.29	1.29
	UNSOLD	39	1.02	.96
	Total	41	1.03	.98
26	UNSOLD	35	.95	1.05
	Total	35	.95	1.05
28	UNSOLD	11	1.01	1.01
	Total	11	1.01	1.01
30	SOLD	5	1.47	1.41
	UNSOLD	155	1.07	1.14
	Total	160	1.07	1.15

Commercial/Industrial Subclass 2212: Economic Area Analysis

Sold vs Unsold Percent Change for Subclass 2212 by Economic Area

Difference in Price Per Foot

economic_area	CommSOLDFLG	N	Median	Mean
33	SOLD	3	.92	1.06
	UNSOLD	28	1.06	1.00
	Total	31	1.06	1.01
40	SOLD	4	1.15	1.30
	UNSOLD	129	1.00	1.01
	Total	133	1.00	1.02
44	UNSOLD	9	.88	.88
	Total	9	.88	.88
50	SOLD	3	1.09	1.11
	UNSOLD	122	1.11	1.17
	Total	125	1.11	1.16
58	UNSOLD	26	.89	.95
	Total	26	.89	.95
59	UNSOLD	25	1.01	.97
	Total	25	1.01	.97
Total	SOLD	50	1.11	1.17
	UNSOLD	1646	1.04	1.07
	Total	1696	1.04	1.08

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	165	.994	.955	1.032	.975
Residential	16453	.982	.980	.984	.979
Commercial/Industrial	332	.975	.959	.990	.974
Overall	16950	.982	.980	.984	.979

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	.957	.992	95.7%	.970	.910
Residential	.977	.981	95.1%	.969	.966
Commercial/Industrial	.959	.990	95.8%	.967	.954
Overall	.977	.981	95.2%	.969	.966

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	95% Confidence Interval for ...	Price Related Differential	Coefficient of Dispersion
	Upper Bound		
Vacant Land	1.031	1.024	.129
Residential	.972	1.014	.091
Commercial/Industrial	.979	1.008	.100
Overall	.972	1.014	.092

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.

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Final Analysis: OVERALL Statistical Abstract.

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