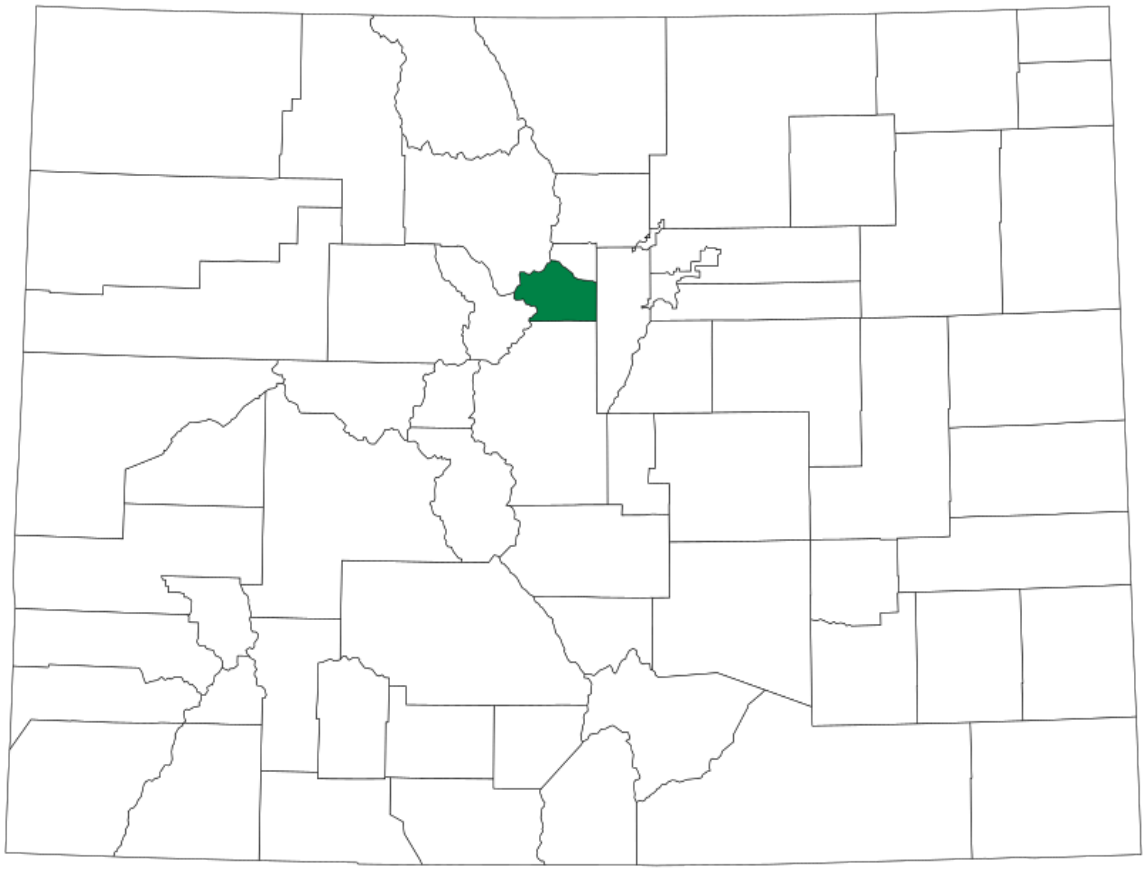
San Matteo

DATA ANALYTICS

2025 Property Assessment Study

Clear Creek 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 Clear Creek 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.

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San Matteo
DATA ANALYTICS

Table of Contents

1. Statistical Overview

Compliance and Evaluations

Clear Creek 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
Vacant Land		
Median Sales Ratio	Pass	0.97
Coefficient of Dispersion	Fail	32.50%
Time Adjustments	Fail	0.004
Price Related Differential	Insufficient	1.35
Price Related Bias	Insufficient	-0.19
Sold/Unsold Similarity	Insufficient	-
Qualified Sales > 50%	Yes	-

	Result	Value
Residential		
Median Sales Ratio	Pass	1.00
Coefficient of Dispersion	Pass	11.56%
Time Adjustments	Pass	0.084
Price Related Differential	Insufficient	1.03
Price Related Bias	Sufficient	-0.04
Sold/Unsold Similarity	Insufficient	-
Qualified Sales > 50%	Yes	-

Property Types

Below is a breakdown of the property types of the 16,063 parcels in Clear Creek County.

2. Vacant Land

Overview

After ongoing communication with Clear Creek County, statistical anomalies remain that have not yet been explained. We will continue to work with the county to better understand the processes used to value vacant land.

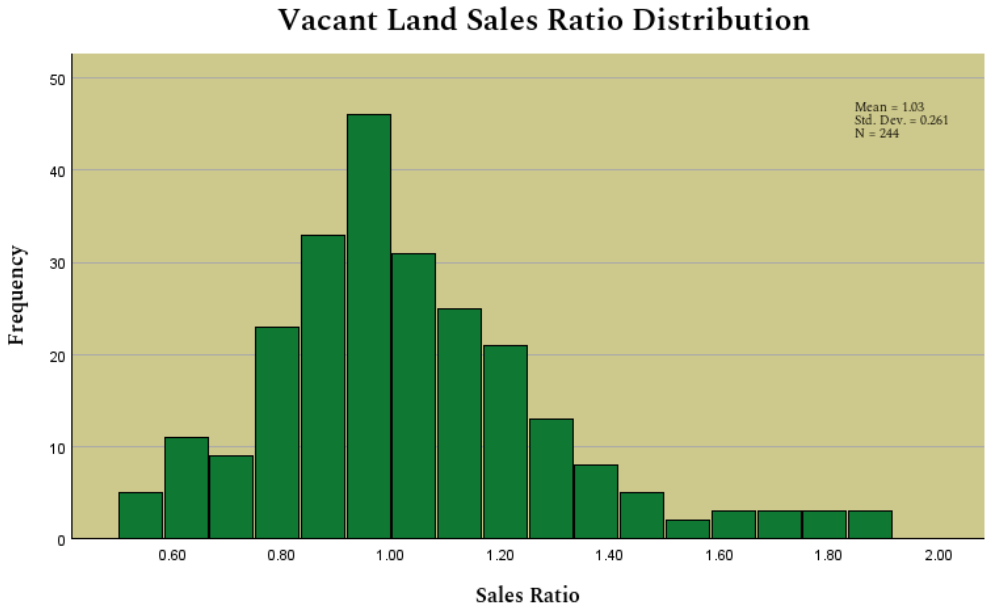
Recommendations

The audit team plans to conduct a more in-depth review of the vacant land valuation in Clear Creek County.

	Result	Value
Vacant Land		
Median Sales Ratio	Pass	0.97
Coefficient of Dispersion	Fail	32.50%
Time Adjustments	Fail	0.004
Price Related Differential	Insufficient	1.35
Price Related Bias	Insufficient	-0.19
Sold/Unsold Similarity	Insufficient	-
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 Clear Creek 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 15 Vacant Land 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.

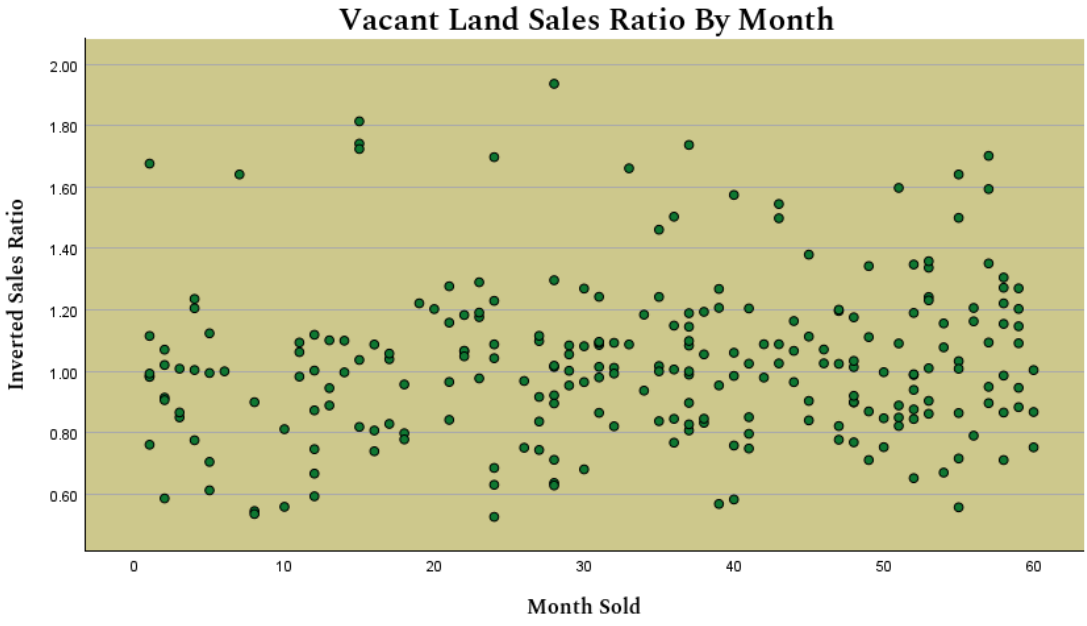


Vacant Land Coefficient of Dispersion

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 Clear Creek County was calculated at 32.50% which is not 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.

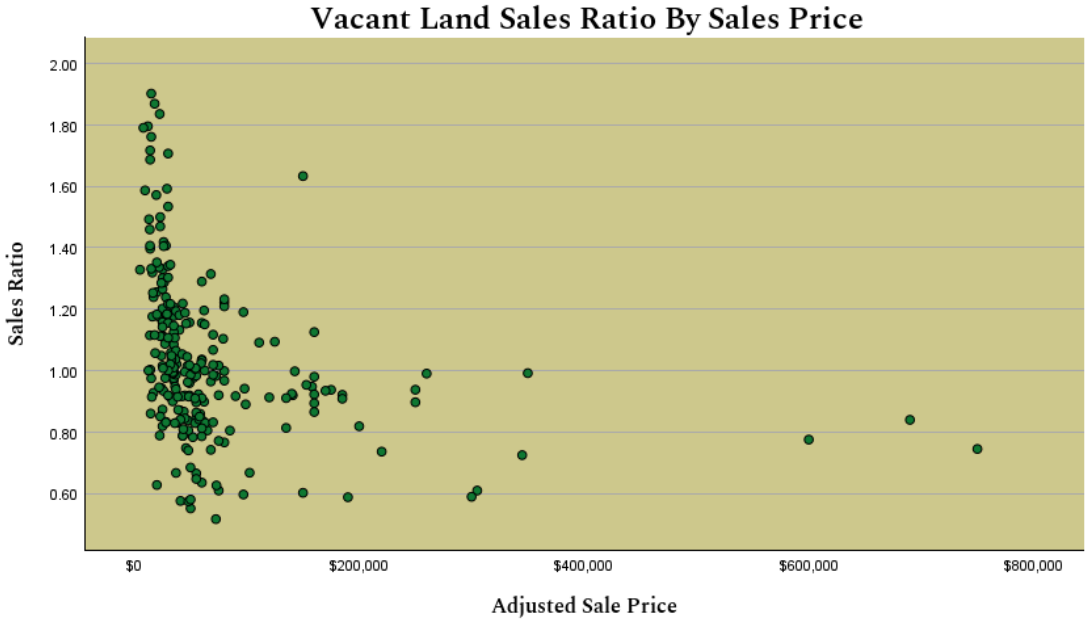
Vacant Land Market (Time) Adjustments

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 60 - month period of sales. There appears to be a significant effect of time on Clear Creek'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 Clear Creek County was calculated at 1.35, which is not 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 Clear Creek County, the PRB was calculated at -0.19 which is not 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 not treated the same. See appendix for more details.

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

3. Residential

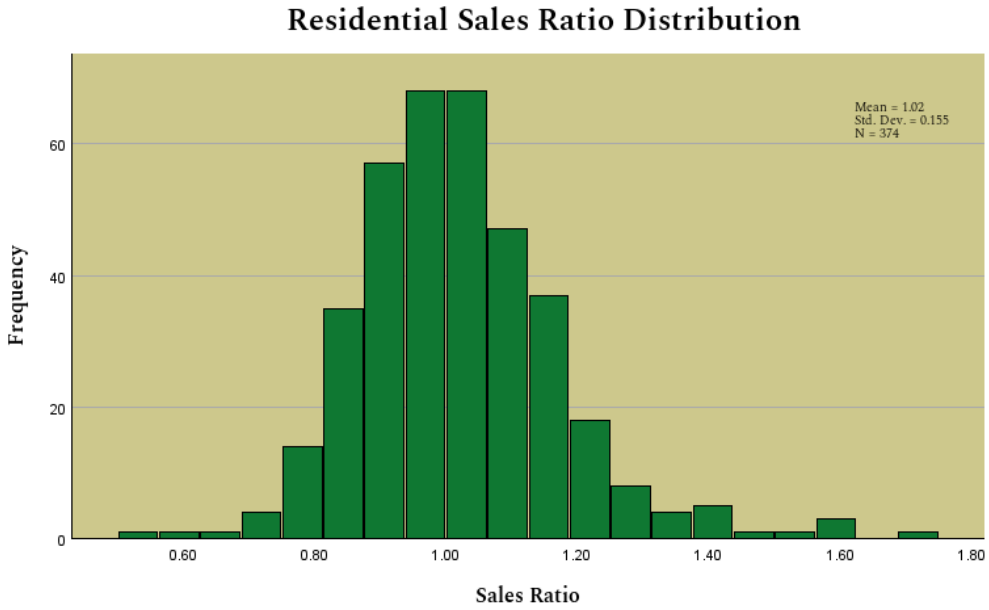
Overview

Clear Creek County was found to be compliant for Residential properties.

	Result	Value
Residential		
Median Sales Ratio	Pass	1.00
Coefficient of Dispersion	Pass	11.56%
Time Adjustments	Pass	0.084
Price Related Differential	Sufficient	1.03
Price Related Bias	Sufficient	-0.04
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 Clear Creek County was calculated to be 1.00, 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.

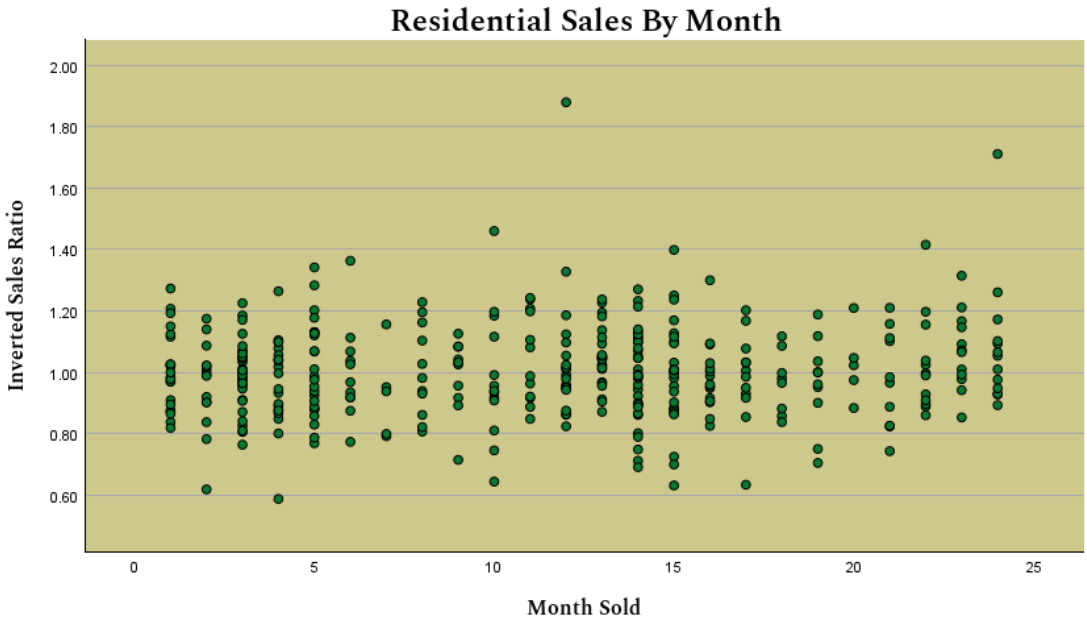


Residential Coefficient of Dispersion

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 Clear Creek County was calculated at 11.56% 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 Clear Creek 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 Clear Creek County was calculated at 1.03, which is not 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 Clear Creek County, the PRB was calculated at -0.04 which is not 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 not treated the same. 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 379 Residential sales. We have confirmed that more than 50% of all sales were qualified.

4. Commercial and Industrial

Overview

Over the three-year extended base period, there were too few commercial and industrial sales to support a valid statistical analysis. As a result, Clear Creek County is excused from this portion of the statistical audit for commercial and industrial properties.

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).

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

- 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

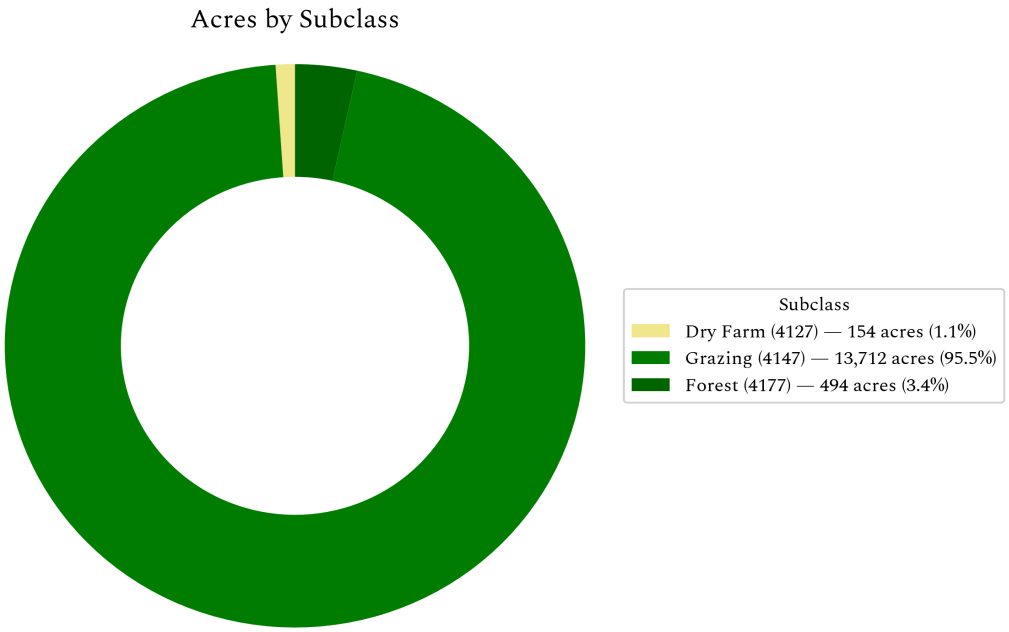
Based on the review and analysis, SMDA considers Clear Creek County's appraisal practices for agricultural property acceptable and in alignment with statutory requirements. The directives, commodity pricing, and expense figures issued by the Property Tax Administrator were correctly applied throughout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

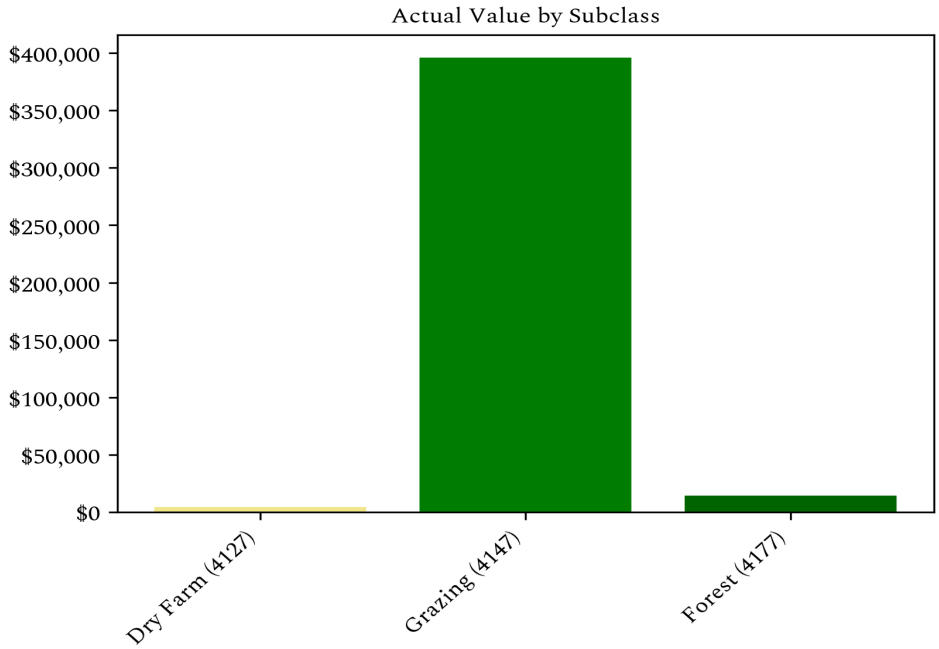
Recommendations

None

Agricultural Land Breakdown

Abstract	Class	Acres	Actual Value	Actual Value/Acre	Assessed Value
4127	Dry Farm	153.91	$4,470	$29.04	$1,210
4147	Grazing	13,711.68	$395,920	$28.87	$107,030
4177	Forest	493.71	$14,320	$29.00	$3,870





6. Agriculture Non-Integral

Methodology

SMDA reviewed Clear Creek 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 Clear Creek 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, Clear Creek County applied the following discovery methods:

- Field Inspections
- Personal Knowledge of Occupants

For Residential Improvements Not Integral to Agriculture

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

- Field Inspections
- Personal Knowledge of Occupants

Conclusions

Clear Creek 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

Clear Creek 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

Producing Mines

Methodology

In accordance with the **Assessor's Reference Library** (**ARL**), **Volume 3, Chapter 6: Valuation of Natural Resources for Producing Mines**, the process begins by determining the gross value of the ore extracted during the previous year. From this, all treatment, reduction, transportation, and sales costs are deducted to calculate gross proceeds. Next, extraction costs are subtracted from the gross proceeds to arrive at net proceeds. For assessment purposes, the greater of 25% of gross proceeds or 100% of net proceeds is used to establish the property's assessed value.

Conclusions

The county applied the correct formulas and state guidelines to producing mines resources.

Recommendations

None

9. Personal Property

Methodology

SMDA reviewed Clear Creek 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.

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

- Public record documents
- MLS listing or sold books
- 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.

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

- Accounts protested with substantial disagreement
- Non-filing taxpayers
- Incomplete or inconsistent declarations
- New businesses filing for the first time
- Accounts with obvious discrepancies
- Businesses in selected area

Conclusions

Clear Creek 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 Clear Creek 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 Clear Creek County's assessment procedures for compliance with these guidelines for **commercial and ski** 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

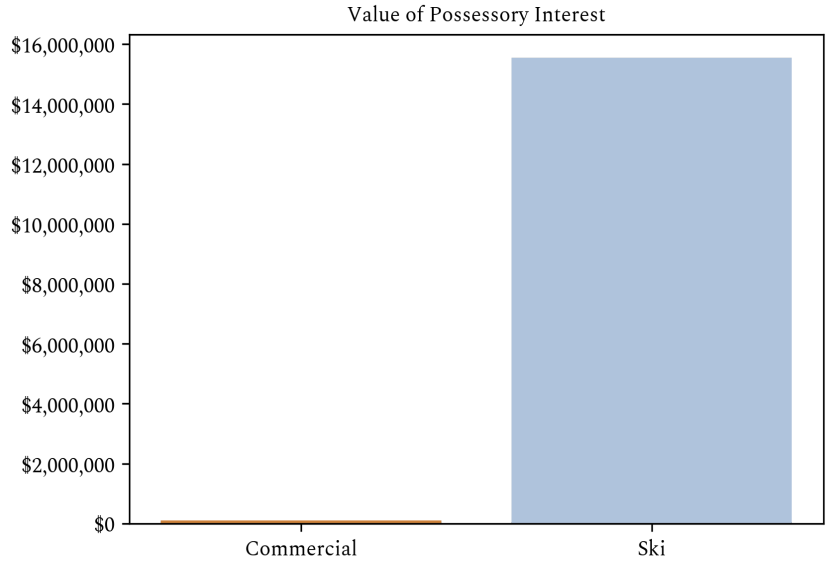
Clear Creek County established an effective discovery process to ensure that possessory interest properties were added to the tax roll. The county consistently applied the proper procedures and valuation methods according to State guidelines, resulting in accurate and compliant assessments.

Recommendations

None

Possessory Interest Breakdown

Possessory Interest Type	Value
Commercial	$103,090
Ski	$15,544,820



11. Sales Verification

Methodology

As part of the Property Assessment Study, SMDA conducted an evaluation of Clear Creek 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 Clear Creek County's sales verification practices for the 2025 valuation period by reviewing a selection of sales from Clear Creek County's master sales list. A total of 34 unqualified and 10 qualified sales were analyzed. Of these, the 34 unqualified sales provided clear and supportable reasons for disqualification, while the 10 qualified sales were corrected to be unqualified.

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

Conclusions

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

Recommendations

None

12. Subdivision Discounting

Methodology

SMDA reviewed Clear Creek 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

Clear Creek 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.

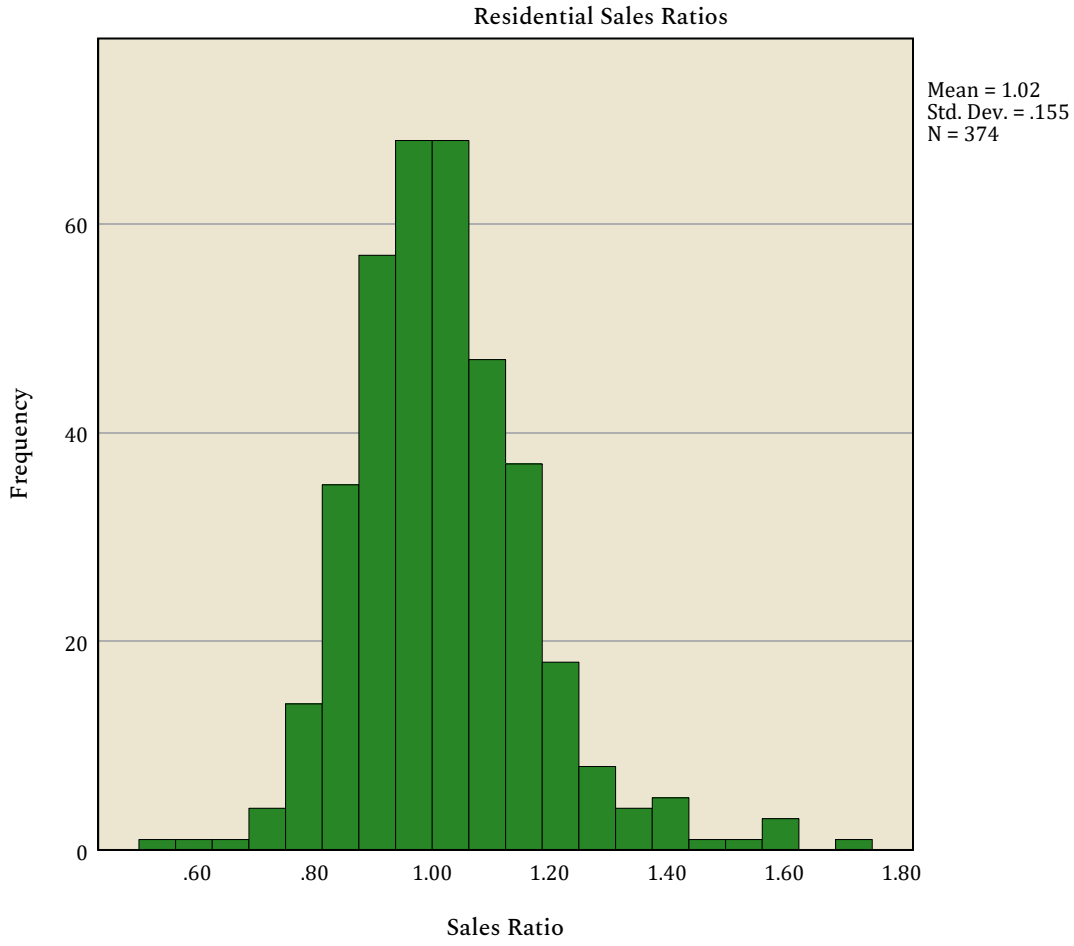
Recommendations

None

13. Appendix

OVERALL 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
379	1.003	.116

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.040	1.031

OVERALL Residential: Sales Price by Sales Ratio

Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.088	.014		77.309	<.001
	Adjusted Sale Price	-9.894E-8	.000	-.300	-6.108	<.001

a. Dependent Variable: Sales Ratio

Graph

OVERALL Residential: Months by Inverted Sales Ratio

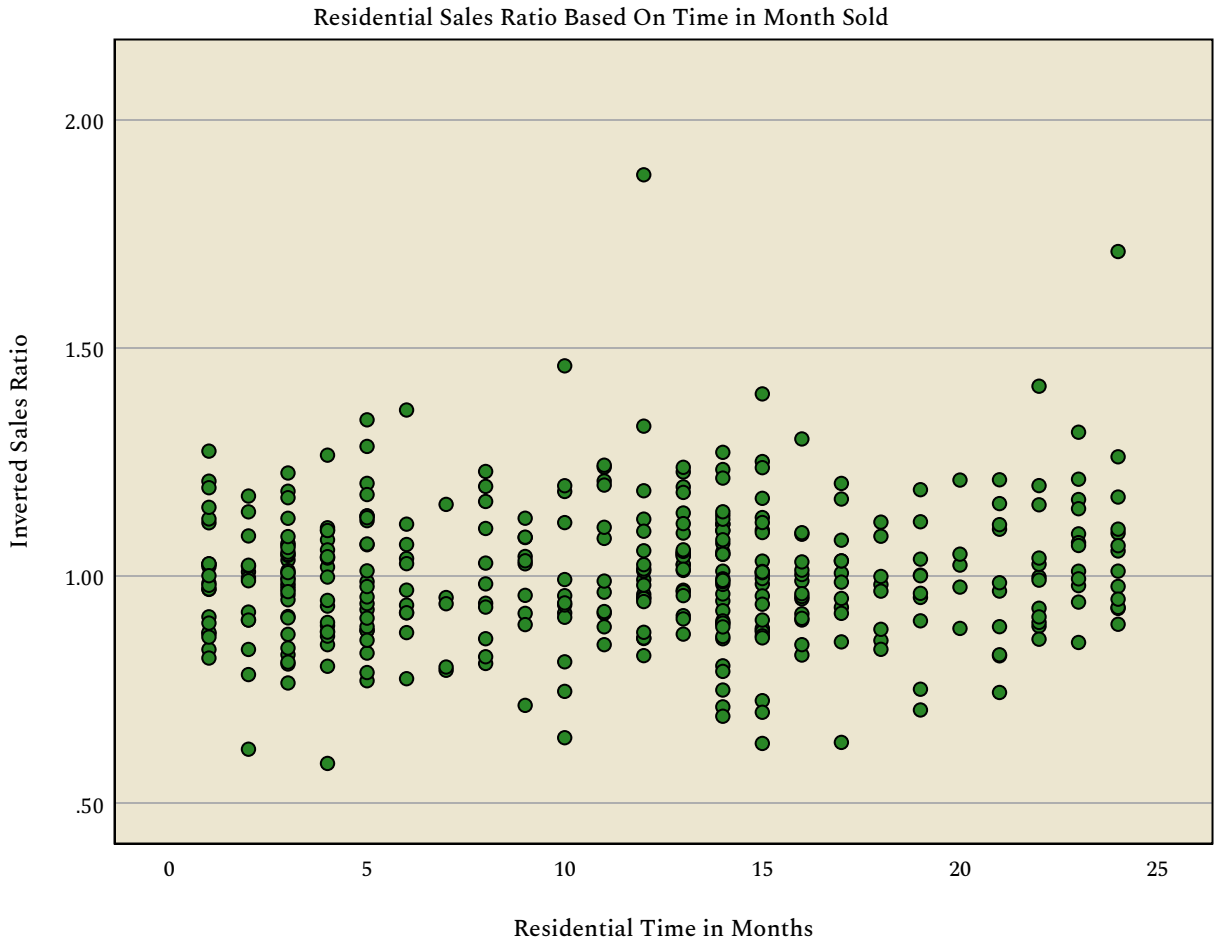
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.985	.016		63.410	<.001
	Residential Time in Months	.002	.001	.089	1.734	.084

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	379	379	379
	Missing	0	0	0
Mean		$901.27	$379.59	1.47
Median		$269.05	$357.31	1.35
Percentiles	2.5	$136.71	$224.28	1.00
	25	$216.90	$315.35	1.25
	50	$269.05	$357.31	1.35
	75	$315.00	$428.04	1.50
	97.5	$482.50	$628.27	2.37

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	379	379	378
	Missing	0	0	1
Mean		$802,004.64	$716,829.50	$178,394.66
Median		$449,620.00	$632,200.00	$167,750.00
Percentiles	2.5	$146,555.00	$277,530.00	$2,517.25
	25	$315,000.00	$438,970.00	$107,725.00
	50	$449,620.00	$632,200.00	$167,750.00
	75	$662,790.00	$878,160.00	$234,750.00
	97.5	$1,699,310.00	$1,831,445.00	$388,293.50

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	4606
Mann-Whitney U	522339.000
Wilcoxon W	9606792.000
Test Statistic	522339.000
Standard Error	23724.763
Standardized Test Statistic	-8.882
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	4618
Mann-Whitney U	681102.000
Wilcoxon W	9718728.000
Test Statistic	681102.000
Standard Error	24505.401
Standardized Test Statistic	-4.038
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	4618
Mann-Whitney U	653143.500
Wilcoxon W	9741859.500
Test Statistic	653143.500
Standard Error	24135.433
Standardized Test Statistic	-4.290
Asymptotic Sig.(2-sided test)	<.001

OVERALL Residential: Unit Value Comparison

Summarize

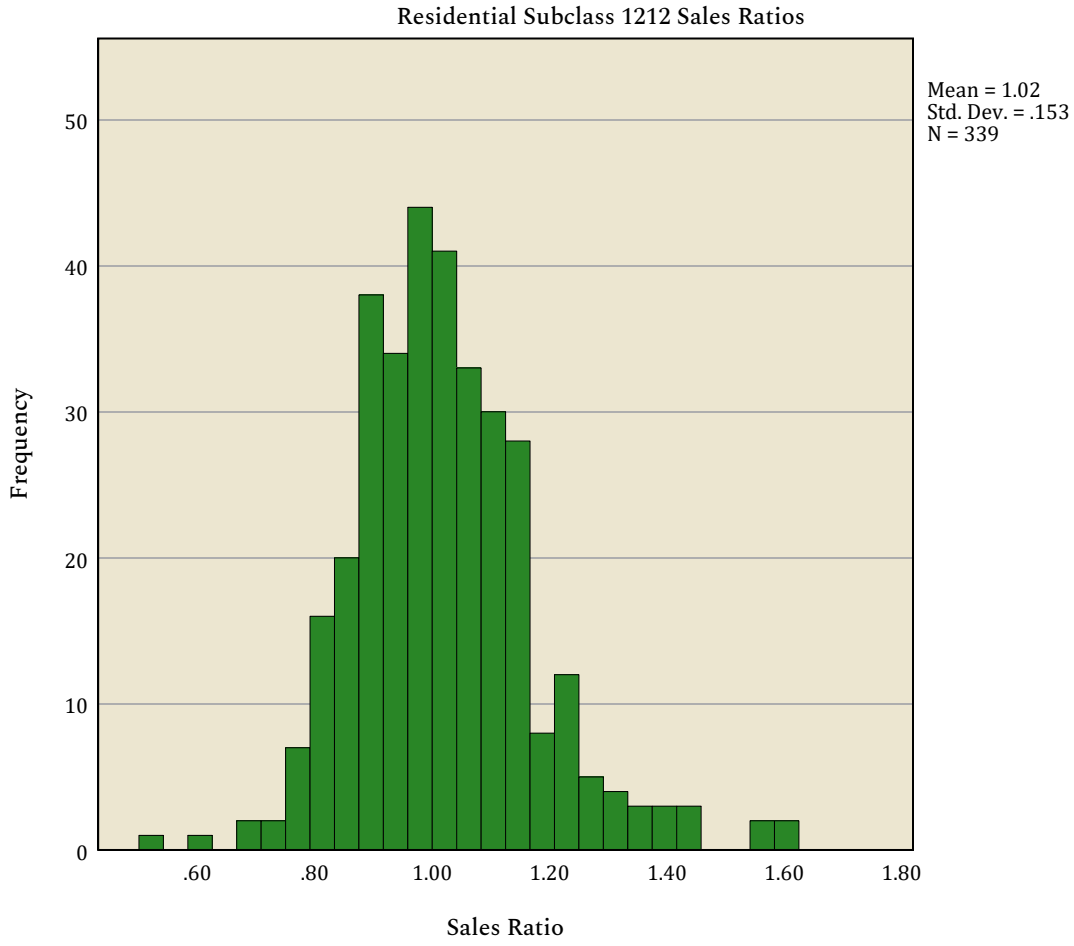
Sold vs Unsold

Difference in Price Per Foot

Residential Sold vs Unsold	N	Median	Mean
SOLD	379	1.35	1.47
UNSOLD	4483	1.31	1.52
Total	4862	1.31	1.51

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
344	1.004	.116

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.046	1.031

Residential Subclass 1212: Sales Price by Sales Ratio

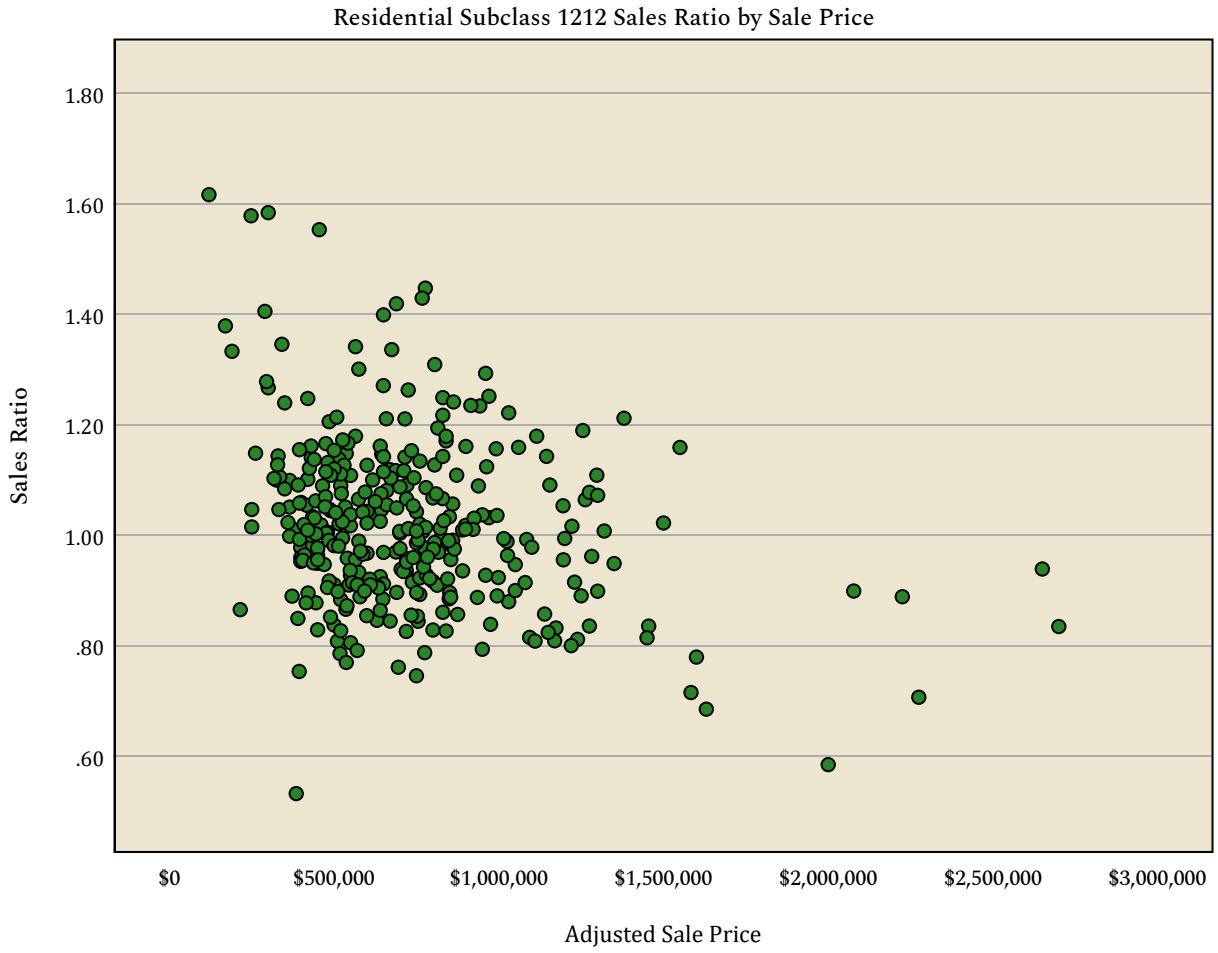
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.094	.015		72.736	<.001
	Adjusted Sale Price	-1.028E-7	.000	-.317	-6.185	<.001

a. Dependent Variable: Sales Ratio

Graph



Residential Subclass 1212: Months by Inverted Sales Ratio

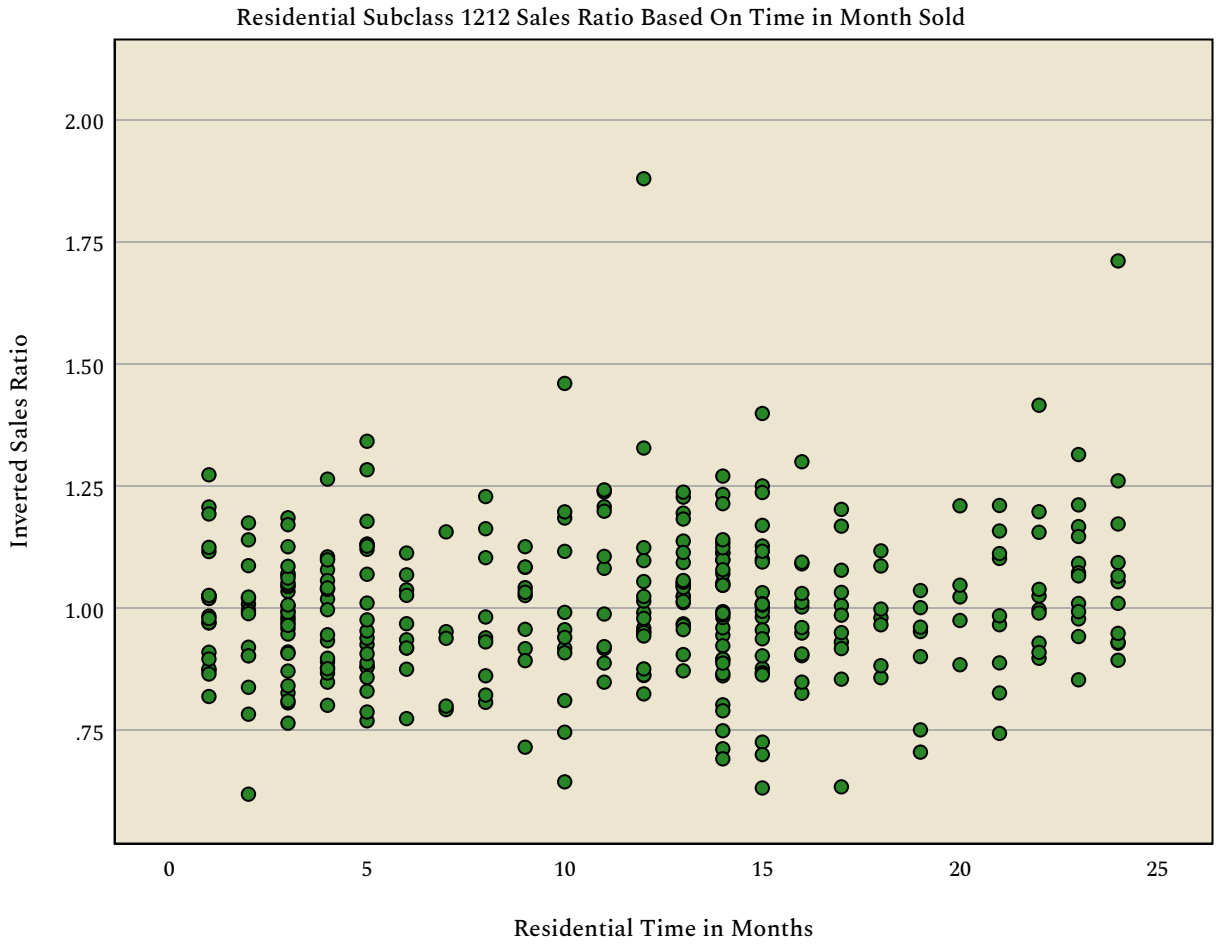
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.978	.016		60.048	<.001
	Residential Time in Months	.003	.001	.117	2.172	.031

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	344	344	344
	Missing	0	0	0
Mean		$279.17	$380.68	1.45
Median		$273.08	$360.25	1.33
Percentiles	2.5	$151.03	$221.47	1.00
	25	$220.41	$315.60	1.23
	50	$273.08	$360.25	1.33
	75	$321.81	$430.92	1.47
	97.5	$482.19	$628.23	2.26

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	344	344	344
	Missing	0	0	0
Mean		$572,828.08	$755,798.58	$182,970.49
Median		$475,885.00	$675,220.00	$175,845.00
Percentiles	2.5	$154,678.75	$299,005.00	$1,323.75
	25	$359,807.50	$492,235.00	$111,950.00
	50	$475,885.00	$675,220.00	$175,845.00
	75	$690,327.50	$906,787.50	$241,025.00
	97.5	$1,692,565.00	$1,908,181.25	$412,372.50

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	4361
Mann-Whitney U	417813.000
Wilcoxon W	8629191.000
Test Statistic	417813.000
Standard Error	21333.557
Standardized Test Statistic	-9.760
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	4365
Mann-Whitney U	581741.000
Wilcoxon W	8712269.000
Test Statistic	581741.000
Standard Error	22102.103
Standardized Test Statistic	-4.053
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	4365
Mann-Whitney U	570276.500
Wilcoxon W	8745222.500
Test Statistic	570276.500
Standard Error	21763.615
Standardized Test Statistic	-3.706
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	344	1.33	1.45
UNSOLD	4251	1.30	1.51
Total	4595	1.31	1.50

Summarize

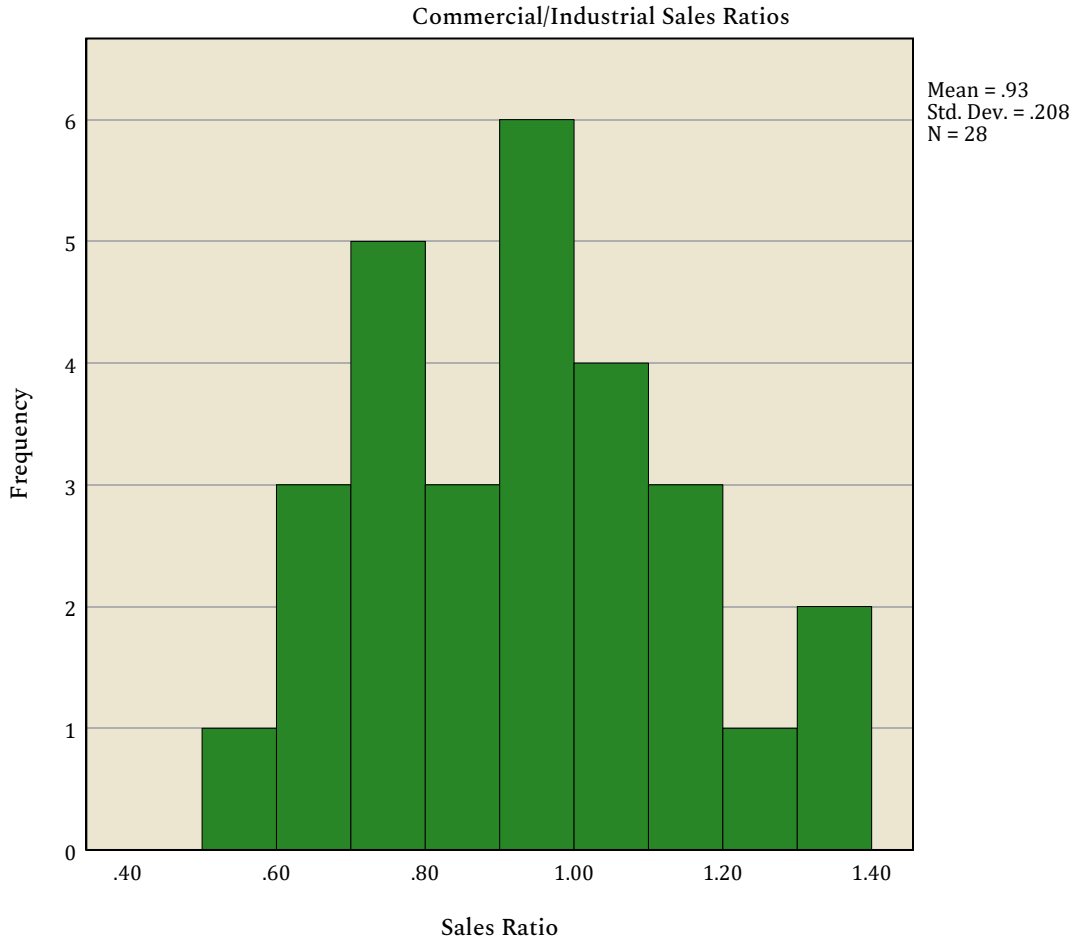
Sold vs Unsold Percent Change for Subclass 1212 by Economic Area

Difference in Price Per Foot

economic_area	Residential Sold vs Unsold	N	Median	Mean
	SOLD	344	1.33	1.45
	UNSOLD	4251	1.30	1.51
	Total	4595	1.31	1.50
Total	SOLD	344	1.33	1.45
	UNSOLD	4251	1.30	1.51
	Total	4595	1.31	1.50

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
29	.925	.202

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
.133	.951

OVERALL Commercial/Industrial: Sales Price by Sales Ratio

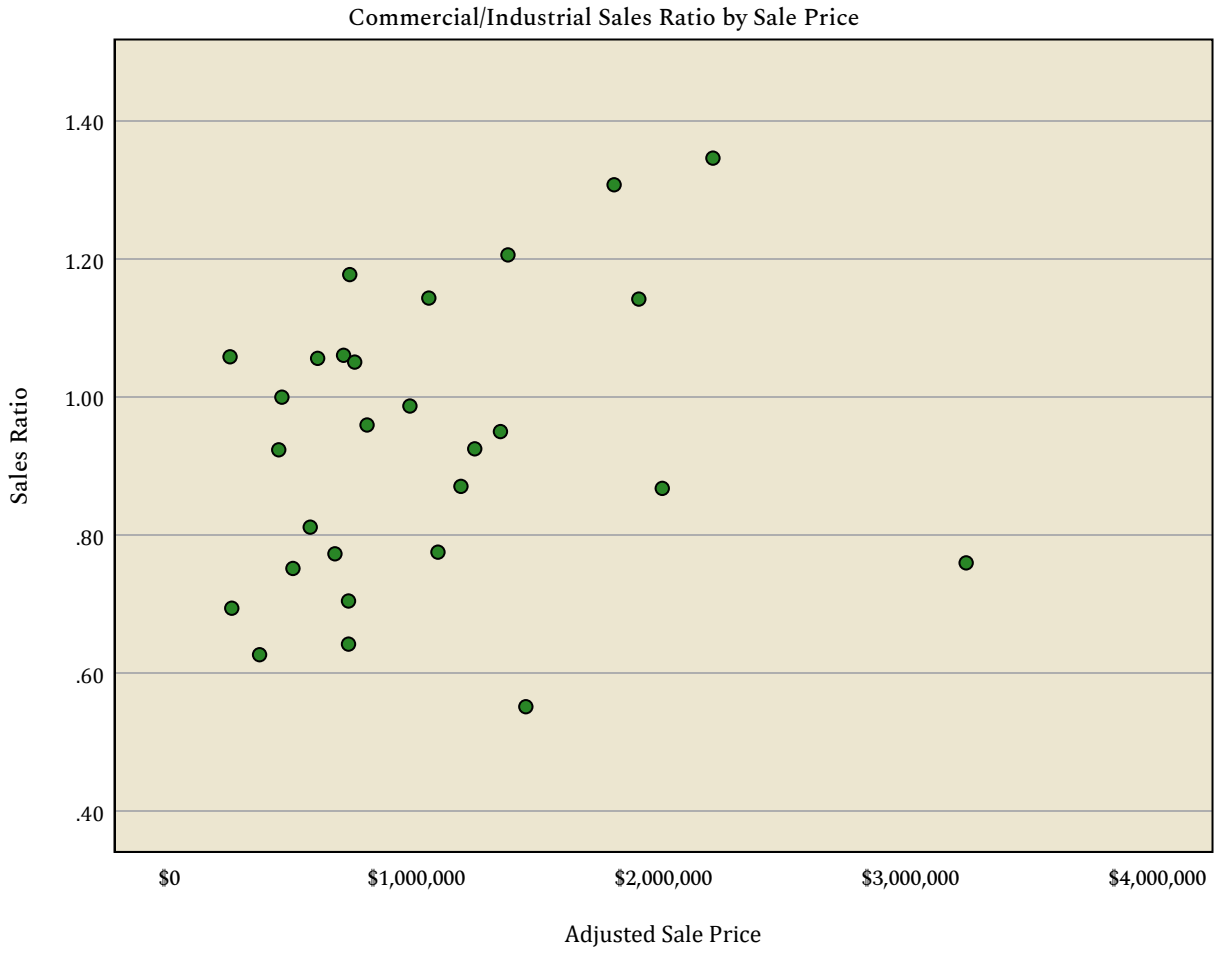
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.804	.078		10.377	<.001
	Adjusted Sale Price	1.040E-7	.000	.301	1.641	.112

a. Dependent Variable: Sales Ratio

Graph



OVERALL Commercial/Industrial: Months by Inverted Sales Ratio

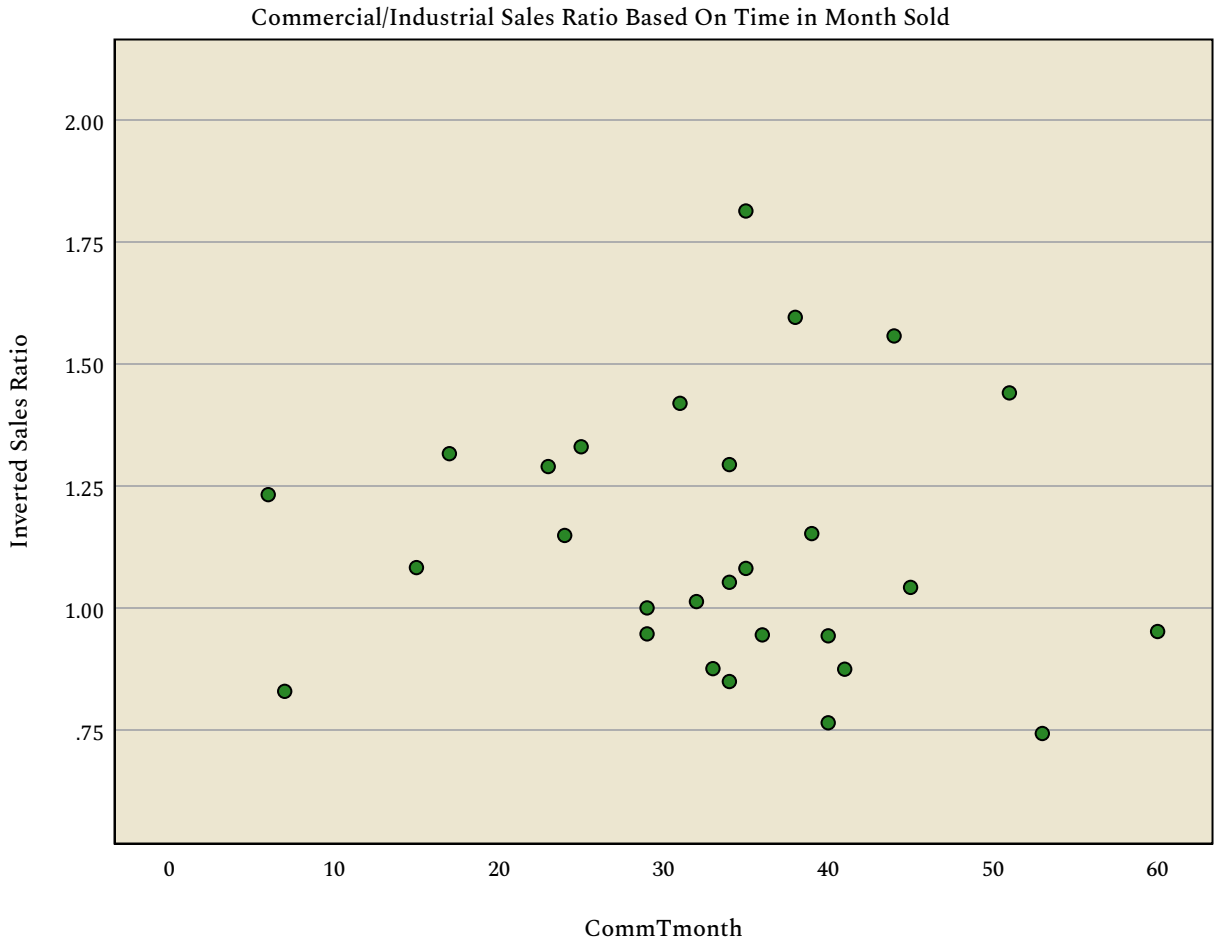
Regression

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.870	.272		3.197	.004
	CommTmonth	.010	.007	.250	1.342	.191

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	2	2	2
	Missing	27	27	27
Mean		$283.58	$388.86	1.44
Median		$283.58	$388.86	1.44
Percentiles	2.5	$201.48	$336.73	1.21
	25	$201.48	$336.73	1.21
	50	$283.58	$388.86	1.44
	75	.	.	.
	97.5	.	.	.

Frequencies

Statistics

		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	29	29	29
	Missing	0	0	0
Mean		$613,395.52	$974,961.72	$361,566.21
Median		$527,960.00	$787,860.00	$220,420.00
Percentiles	2.5	$59,050.00	$59,050.00	-$205,660.00
	25	$273,445.00	$458,850.00	$85,000.00
	50	$527,960.00	$787,860.00	$220,420.00
	75	$804,055.00	$1,236,600.00	$355,585.00
	97.5	.	.	.

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	1.000[c]

Hypothesis Test Summary

	Decision
1	Retain the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

c. Exact significance is displayed for this test.

Independent-Samples Mann-Whitney U Test

Difference in Total Value across CommSOLDFLG

Independent-Samples Mann-Whitney U Test Summary

Total N	10
Mann-Whitney U	9.000
Wilcoxon W	45.000
Test Statistic	9.000
Standard Error	3.830
Standardized Test Statistic	.261
Asymptotic Sig.(2-sided test)	.794
Exact Sig.(2-sided test)	1.000

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	.889[c]

Hypothesis Test Summary

	Decision
1	Retain the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

c. Exact significance is displayed for this test.

Independent-Samples Mann-Whitney U Test

Price Per Foot across CommSOLDFLG

Independent-Samples Mann-Whitney U Test Summary

Total N	10
Mann-Whitney U	7.000
Wilcoxon W	43.000
Test Statistic	7.000
Standard Error	3.830
Standardized Test Statistic	-.261
Asymptotic Sig.(2-sided test)	.794
Exact Sig.(2-sided test)	.889

Nonparametric Tests

OVERALL Commercial/Industrial: 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 CommSOLDFLG.	Independent-Samples Mann-Whitney U Test	.533[c]

Hypothesis Test Summary

	Decision
1	Retain the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

c. Exact significance is displayed for this test.

Independent-Samples Mann-Whitney U Test

Difference in Price Per Foot across CommSOLDFLG

Independent-Samples Mann-Whitney U Test Summary

Total N	10
Mann-Whitney U	5.000
Wilcoxon W	41.000
Test Statistic	5.000
Standard Error	3.830
Standardized Test Statistic	-.783
Asymptotic Sig.(2-sided test)	.433
Exact Sig.(2-sided test)	.533

OVERALL Commercial/Industrial: Unit Value Comparison

Summarize

Sold vs Unsold

Difference in Price Per Foot

CommSOLDFLG	N	Median	Mean
SOLD	2	1.44	1.44
UNSOLD	10	1.32	2.54
Total	12	1.32	2.35

Summarize

Sold vs Unsold

Difference in Price Per Foot

Improvement Abstract Codes	CommSOLDFLG	N	Median	Mean
2215	SOLD	2	1.44	1.44
	UNSOLD	4	1.46	4.47
	Total	6	1.46	3.46
2225	UNSOLD	2	1.40	1.40
	Total	2	1.40	1.40
2230	UNSOLD	4	1.18	1.18
	Total	4	1.18	1.18
Total	SOLD	2	1.44	1.44
	UNSOLD	10	1.32	2.54
	Total	12	1.32	2.35

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	
Residential	379	1.016	1.000	1.031	1.003
Commercial/Industrial	29	.910	.820	1.001	.925
Overall	408	1.008	.992	1.024	1.000

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
Residential	.989	1.019	96.0%	.985	.964
Commercial/Industrial	.773	1.056	97.6%	.957	.847
Overall	.987	1.015	95.8%	.982	.961

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	95% Confidence Interval for ...	Price Related Differential	Coefficient of Dispersion
	Upper Bound		
Residential	1.006	1.031	.116
Commercial/Industrial	1.067	.951	.202
Overall	1.004	1.026	.122

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.