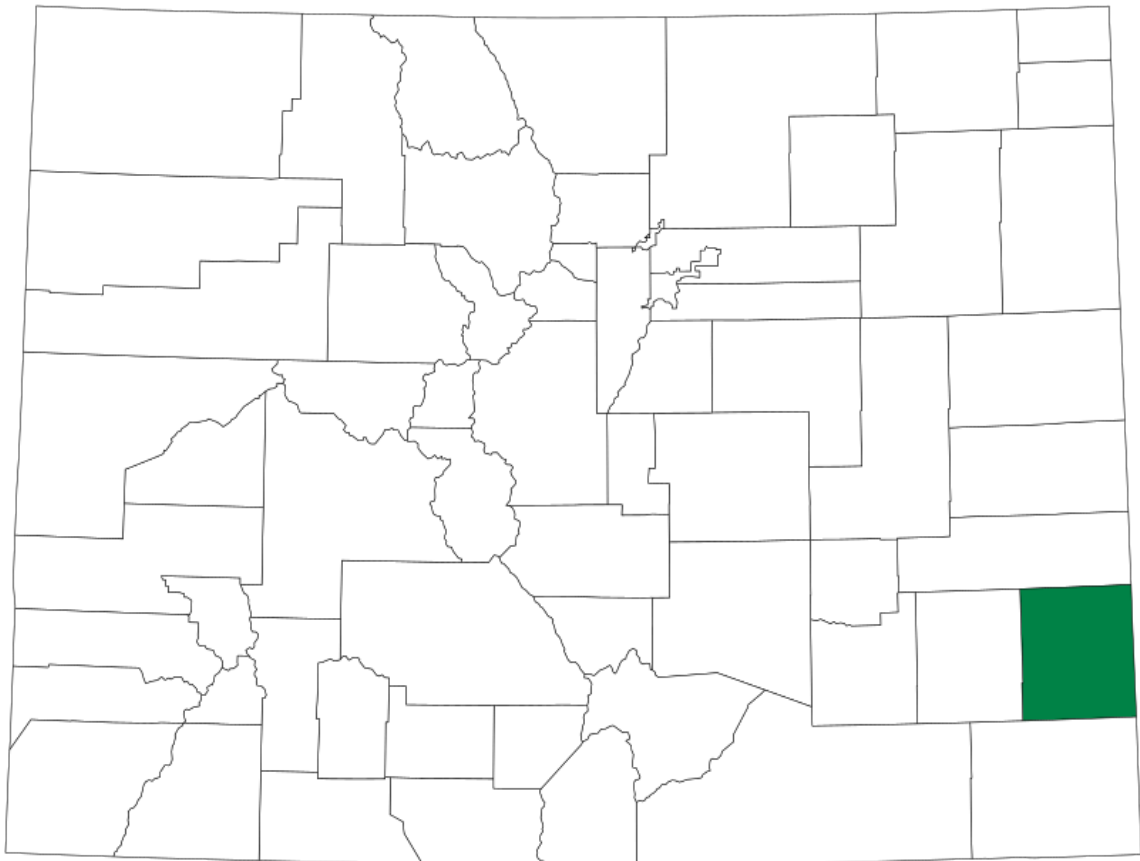


San Matteo

DATA ANALYTICS

2025 Property Assessment Study Prowers 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 Prowers 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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1. Statistical Overview

Compliance and Evaluations

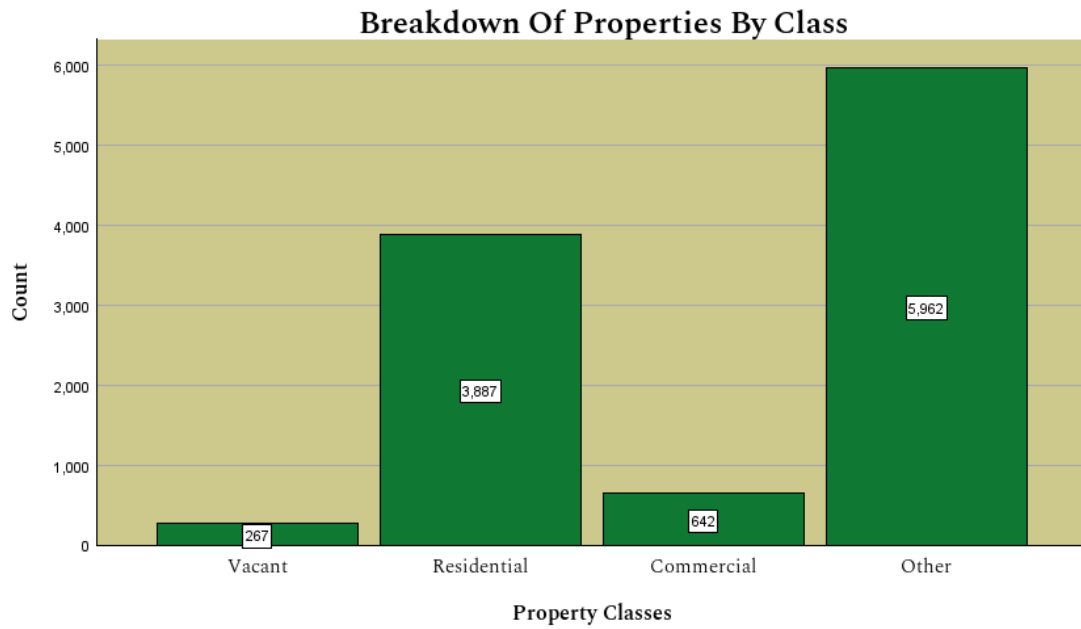
Prowers County was found to be in compliance.

	Result	Value
Residential		
Median Sales Ratio	Pass	0.99
Coefficient of Dispersion	Pass	4.28%
Time Adjustments	Pass	0.000
Price Related Differential	Sufficient	1.01
Price Related Bias	Sufficient	-0.03
Sold/Unsold Similarity	Insufficient	See Section 3
Qualified Sales > 50%	Yes	

	Result	Value
Commercial/Industrial		
Median Sales Ratio	Pass	0.99
Coefficient of Dispersion	Pass	6.96%
Time Adjustments	Pass	0.090
Price Related Differential	Sufficient	1.02
Price Related Bias	Sufficient	-0.01
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	No	See Section 11

Prowers County
Property Types

Below is a breakdown of the property types of the 174,819 parcels in Prowers County.



2. Vacant Land

Overview

The vacant land portion of the analysis was not included in this report because the county did not meet the minimum requirement of 1,200 vacant land parcels. The 2025 Colorado Property Assessment Study specifies that any county with fewer than 1,200 vacant land parcels is exempt from statistical review. Accordingly, vacant land was excluded from analysis for Prowers County. This exclusion is consistent with the scope of work established in the Request for Proposals and ensures that only those counties meeting the threshold requirement are subject to detailed ratio studies and compliance testing.

3. Residential

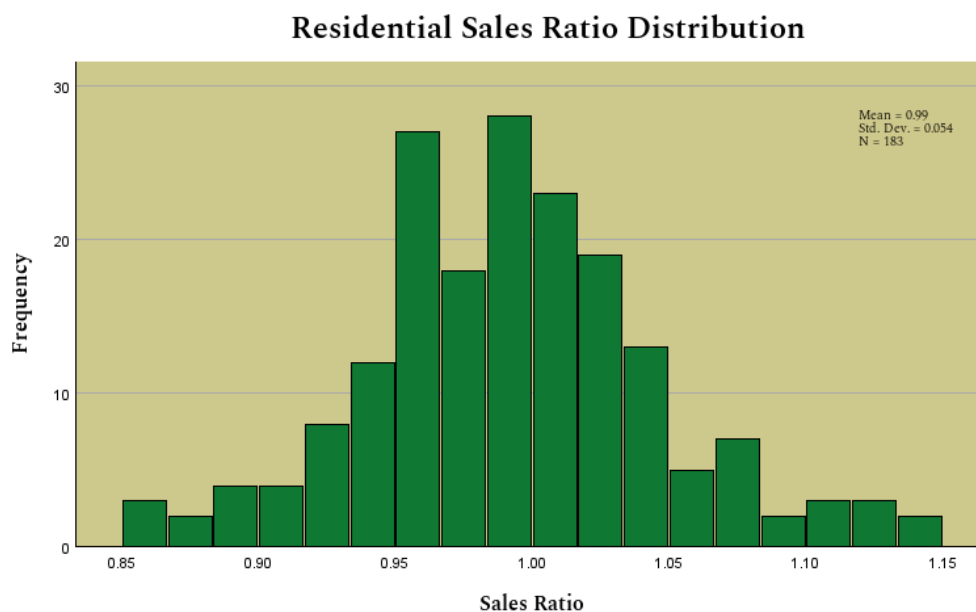
Overview

Prowers County was found to be compliant for Residential properties.

	Result	Value
Residential		
Median Sales Ratio	Pass	0.99
Coefficient of Dispersion	Pass	4.28%
Time Adjustments	Pass	0.000
Price Related Differential	Sufficient	1.01
Price Related Bias	Sufficient	-0.03
Sold/Unsold Similarity	Insufficient	See Comments
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 Prowers County was calculated to be 0.99, which is within the acceptable statistical range of 0.95 to 1.05 established by the State Board of Equalization (SBOE). We trimmed 8 Residential 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 Prowers County was calculated at 4.28% 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 Prowers 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 Prowers County was calculated at 1.01, which is within the acceptable range of 0.98 to 1.03 established by the International Association of Assessing Officers (IAAO). The PRD was also calculated for all applicable class, subclass, neighborhoods, economic areas, size, and valuation strata identified by the auditor. See appendix for more details.



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 Prowers County, the PRB was calculated at -0.03 which is within the acceptable statistical range of -0.05 to 0.05 established by the International Association of Assessing Officers. The PRB was also analyzed across all applicable categories, including property class, subclass, neighborhood, economic area, size, and valuation strata as identified by the auditor. Additional details are provided in the appendix.

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 similarly and will need further review. See appendix for more details.

Recommendations: Residential Sold/Unsold Comparison

The audit team plans to conduct an in-depth review of the residential sold/unsold comparison process in Prowers County.

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 183 Residential sales. We have confirmed that more than 50% of all sales were qualified.

4. Commercial and Industrial

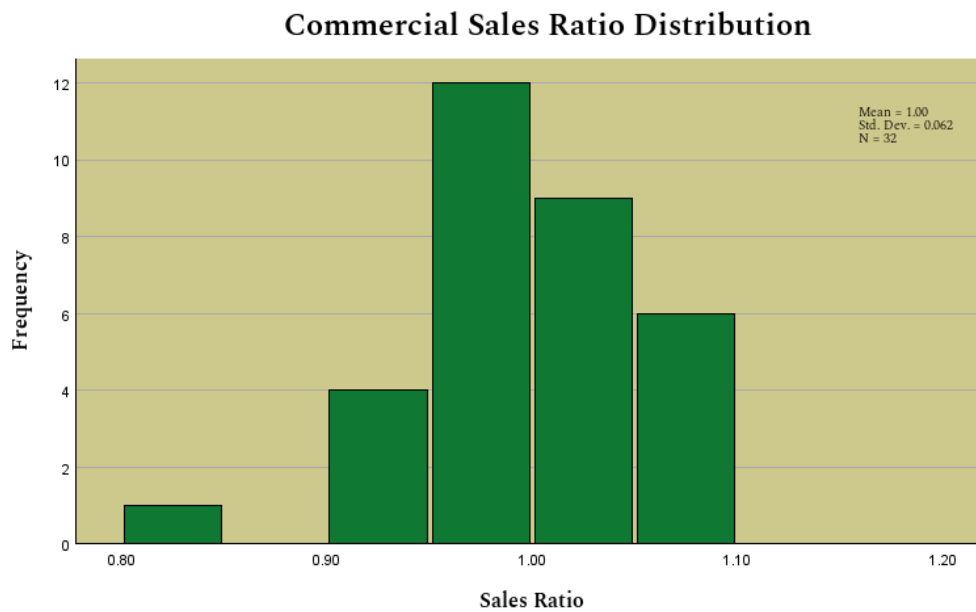
Overview

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

	Result	Value
Commercial and Industrial		
Median Sales Ratio	Pass	0.99
Coefficient of Dispersion	Pass	6.96%
Time Adjustments	Pass	0.090
Price Related Differential	Sufficient	1.02
Price Related Bias	Sufficient	-0.01
Sold/Unsold Similarity	Sufficient	
Qualified Sales > 50%	No	See Section 11

Commercial Median Sales Ratio

The median sales ratio (MSR) tests how close the Assessor's valuations (estimates of market value) are to the true market value. The distribution of these sales ratios should be centered around 1.00. The Commercial MSR for Prowers County was calculated to be 0.99, 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.

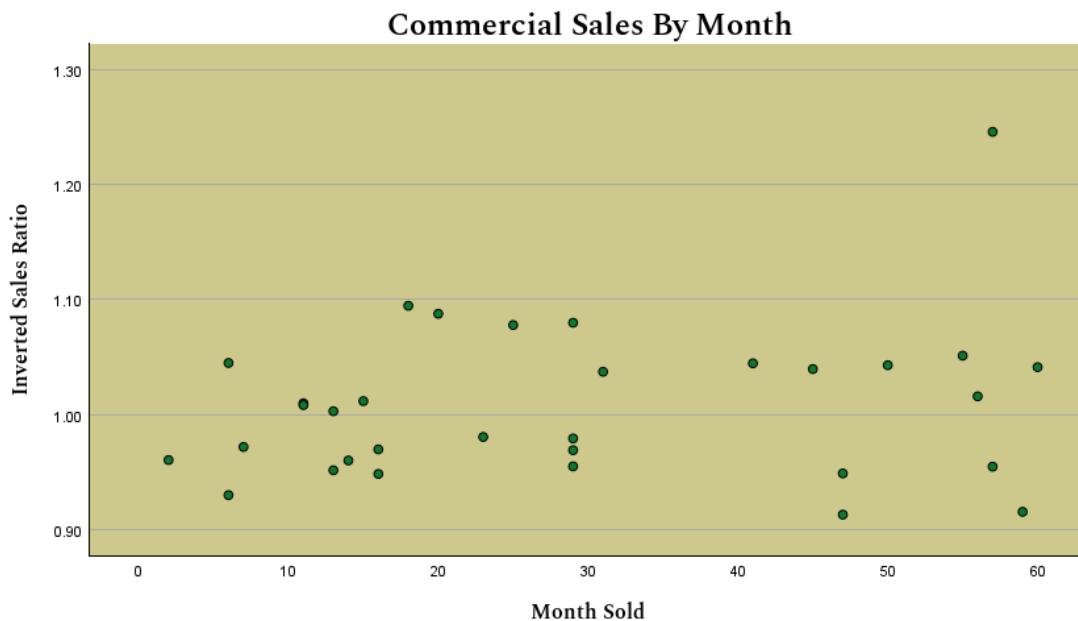


Commercial Coefficient of Dispersion

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 Prowers County was calculated at 6.96% 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.

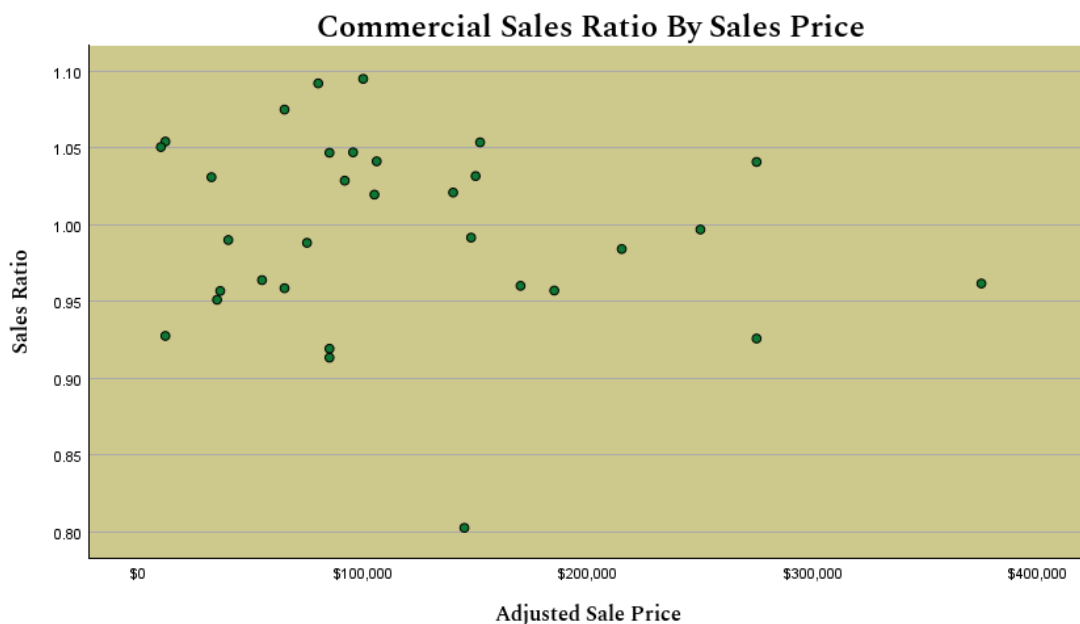
Commercial Market (Time) Adjustments

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 Prowers 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 Prowers 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). The PRD was also calculated for all applicable class, subclass, neighborhoods, economic areas, size, and valuation strata identified by the auditor. See appendix for more details.



Commercial Price Related Bias

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

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

5. Agriculture

Methodology

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

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

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

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

Conclusions

Based on the review and analysis, SMDA considers Prowers 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.

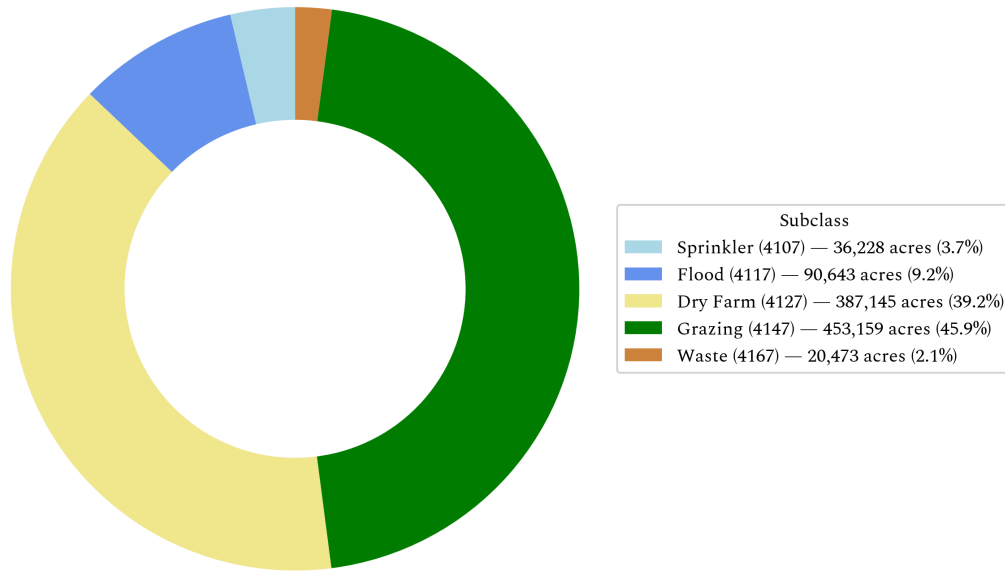
Recommendations

None

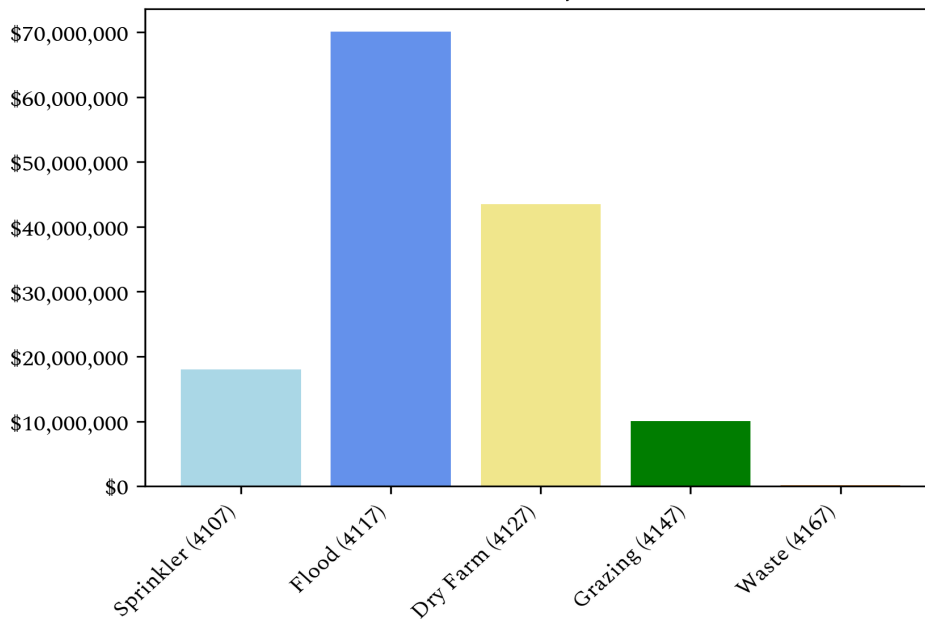
Agricultural Land Breakdown

Abstract	Class	Acres	Actual Value	Actual Value/Acre	Assessed Value
4107	Sprinkler	36,228	\$17,989,700	\$496.57	\$4,857,219
4117	Flood	90,643	\$70,089,163	\$773.24	\$18,924,074
4127	Dry Farm	387,145	\$43,518,815	\$112.41	\$11,750,080
4147	Grazing	453,159	\$10,032,011	\$22.14	\$2,708,643
4167	Waste	20,473	\$167,685	\$8.19	\$45,275

Acres by Subclass



Actual Value by Subclass



6. Agriculture Non-Integral

Methodology

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

- In Person Interviews
- 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, Prowers County applied the following discovery methods:

- Field Inspections
- In Person Interviews
- Personal Knowledge of Occupants

Conclusions

Prowers County does not have non-integral agriculture.

Recommendations

None

7. Economic Areas

Methodology

Prowers 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 Oil and Gas

Methodology

Under the guidelines of the **Assessor's Reference Library (ARL), Volume 3, Chapter 6: Valuation of Natural Resources**, the valuation of producing oil and gas leaseholds and lands follows the statutory requirements outlined in **§39-1-103, C.R.S.** and **Article 7 of Title 39, C.R.S.** By law, producing oil and gas properties are assessed based on **87.5% of the selling price** of oil or gas from the previous calendar year. When calculating this value, sales delivered as royalty to federal, state, or local government entities are excluded. For oil or gas produced but not sold during the prior year, valuation is based on the average selling price of comparable production within the same field.

The assessor relies on the production and sales information reported by operators to determine the appropriate valuation for assessment purposes, ensuring that the procedures conform to state statutes and the ARL's established methodologies.

Conclusions

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

Recommendations

None

9. Personal Property

Methodology

SMDA reviewed Prowers 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, Prowers County used several methods:

- Public record documents and MLS listing or sold books
- Personal observation and Questionnaires

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.

Prowers 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
- Lowest or highest quartile of value per square foot
- Accounts protested with substantial disagreement
- Non-filing taxpayers
- Businesses with no deletions or additions for 2 or more years
- Same business type or use and Accounts with omitted property
- Incomplete or inconsistent declarations
- Accounts with greater than 10% change
- New businesses filing for the first time
- Accounts with obvious discrepancies
- Businesses in selected area

Conclusions

Prowers 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 Prowers 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 Prowers County's assessment procedures for compliance with these guidelines for **agricultural** 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

Prowers 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	\$183,457

11. Sales Verification

Methodology

As part of the Property Assessment Study, SMDA conducted an evaluation of Prowers 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 Prowers County's sales verification practices for the 2025 valuation period by reviewing a selection of sales from Prowers County's master sales list. SMDA analyzed a total of 45 unqualified sales. 43 of the sales provided clear and supportable reasons for disqualification. Two of the sales were amended to qualified status.

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.

Prowers County

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

Conclusions

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

Qualified commercial sales represented less than 50% of the total over the 5-year period. Given the variety of commercial subclasses and the limited number of sales, the County's sales verification is considered sufficient.

Recommendations

None

12. Subdivision Discounting

Methodology

SMDA reviewed Prowers 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

Prowers 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.

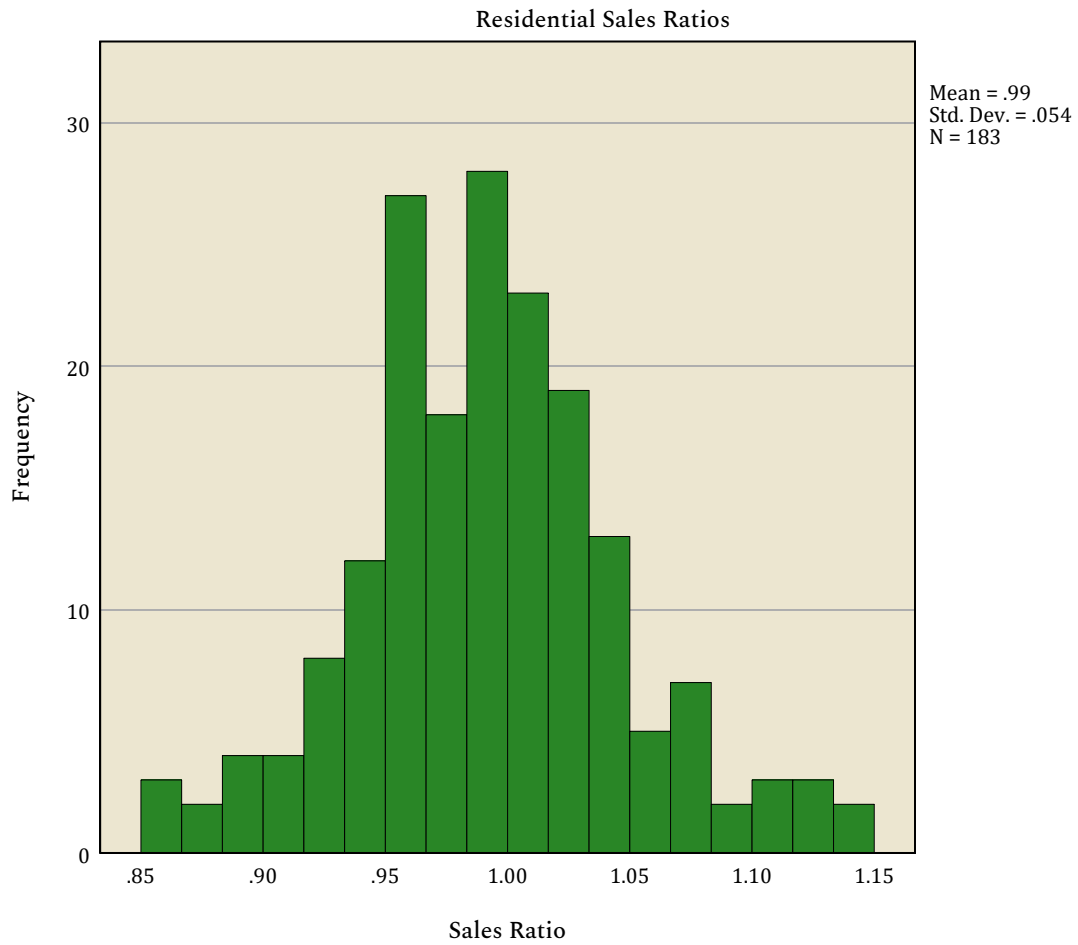
Recommendations

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
183	.992	.042

Ratio Statistics

Ratio Statistics for Current Total
Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.010	1.004

OVERALL Residential: Sales Price by Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.014	.010		103.574	<.001
	Adjusted Sale Price	-1.102E-7	.000	-.173	-2.362	.019

a. Dependent Variable: Sales Ratio

Graph



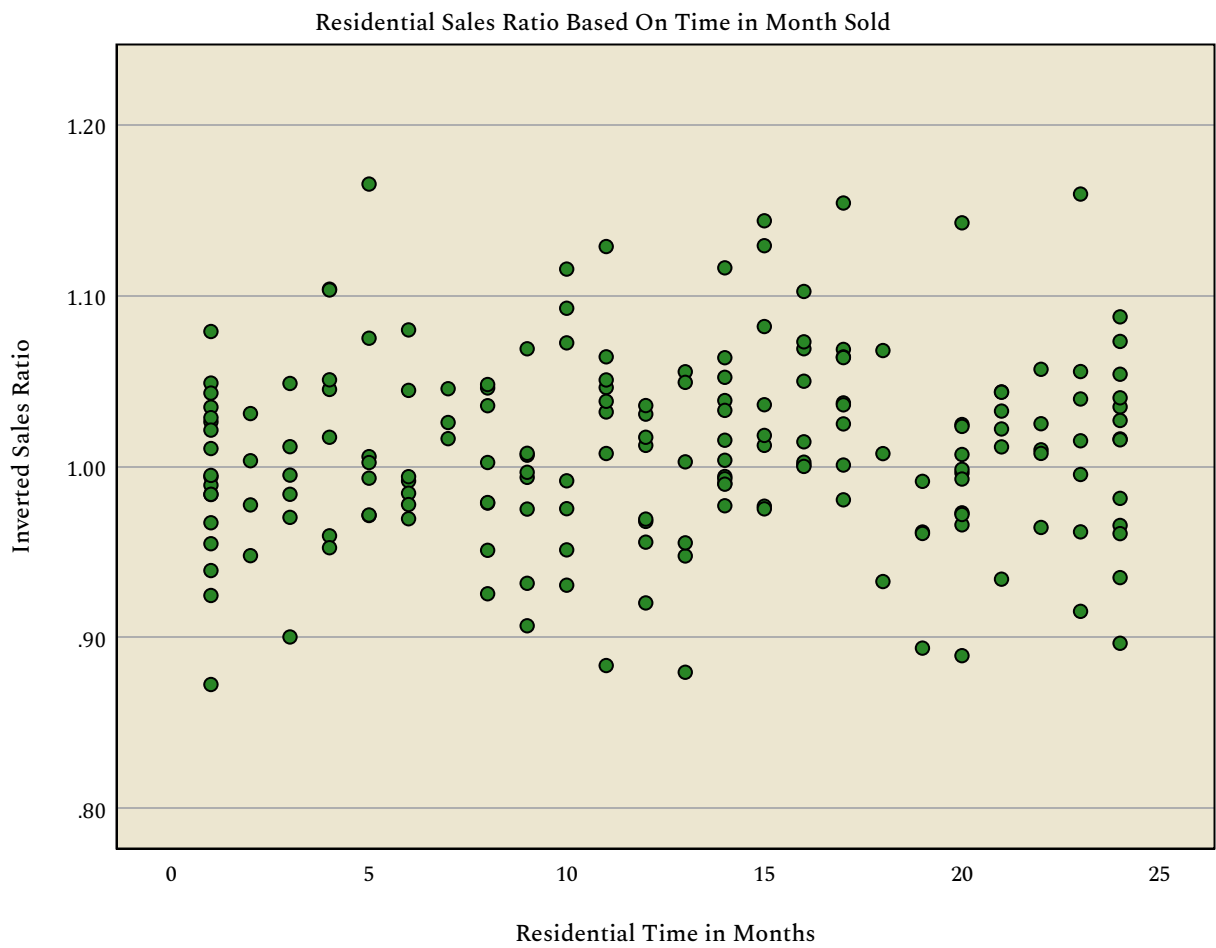
OVERALL Residential: Months by Inverted Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	1.004	.008		124.157	<.001
	Residential Time in Months	.001	.001	.073	.987	.325

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	182	182	182
	Missing	1	1	1
Mean		\$102.76	\$153.04	1.77
Median		\$99.97	\$147.86	1.44
Percentiles	2.5	\$12.63	\$32.07	.94
	25	\$60.43	\$114.20	1.17
	50	\$99.97	\$147.86	1.44
	75	\$131.41	\$177.92	1.93
	97.5	\$258.32	\$380.61	5.21

Frequencies

		Statistics		
		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	183	183	183
	Missing	0	0	0
Mean		\$129,930.64	\$189,575.49	\$59,644.85
Median		\$123,985.00	\$188,149.00	\$51,778.00
Percentiles	2.5	\$14,035.80	\$28,518.20	-\$10,131.40
	25	\$75,972.00	\$138,125.00	\$28,155.00
	50	\$123,985.00	\$188,149.00	\$51,778.00
	75	\$179,103.00	\$241,757.00	\$85,555.00
	97.5	\$307,099.00	\$378,383.60	\$178,503.40

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	3427
Mann-Whitney U	55392.500
Wilcoxon W	5598177.500
Test Statistic	55392.500
Standard Error	9653.831
Standardized Test Statistic	-11.159
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	3429
Mann-Whitney U	143977.000
Wilcoxon W	5498605.000
Test Statistic	143977.000
Standard Error	12117.497
Standardized Test Statistic	-9.315
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	3429
Mann-Whitney U	96707.000
Wilcoxon W	5586348.000
Test Statistic	96707.000
Standard Error	10480.841
Standardized Test Statistic	-9.107
Asymptotic Sig.(2-sided test)	<.001

OVERALL Residential: Unit Value Comparison

Summarize

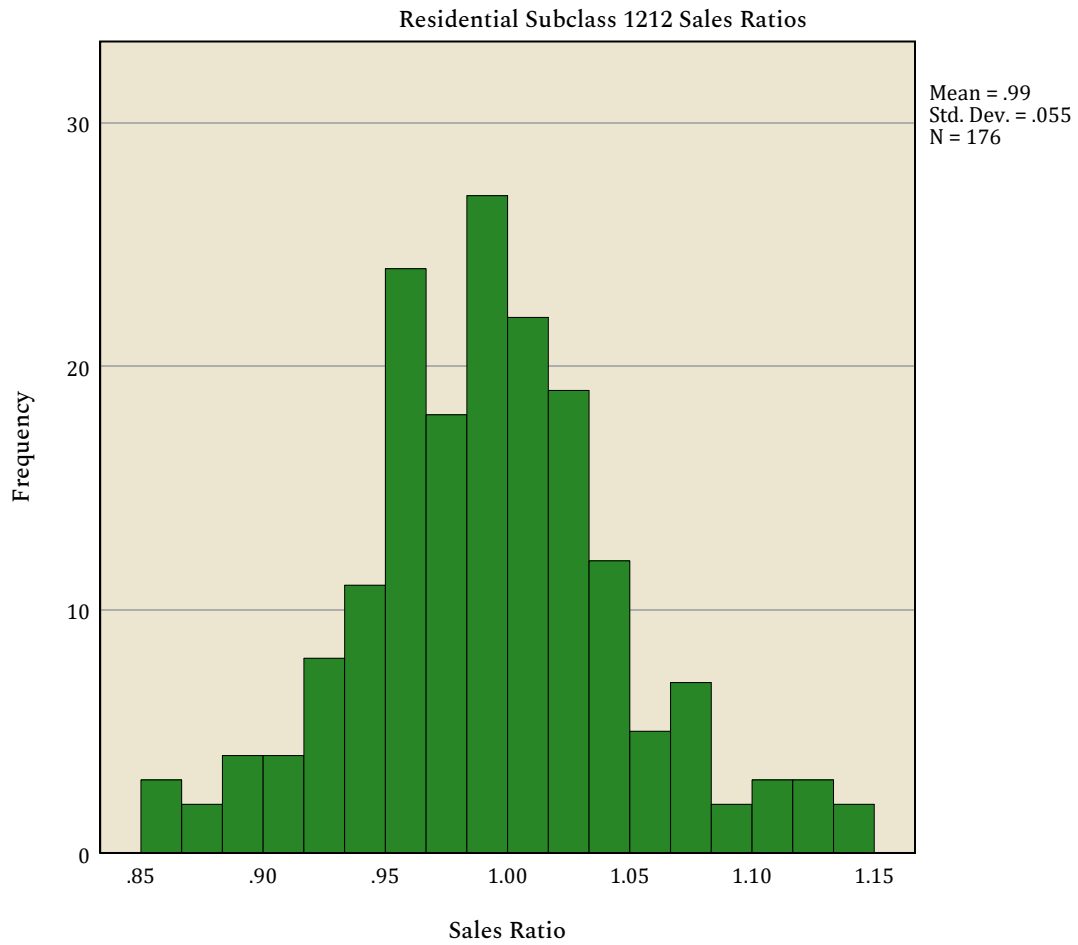
Sold vs Unsold

Difference in Price Per Foot

Residential Sold vs Unsold	N	Median	Mean
SOLD	173	1.46	1.78
UNSOLD	3438	1.12	1.19
Total	3611	1.12	1.22

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
176	.992	.042

Ratio Statistics

Ratio Statistics for Current Total
Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.010	1.004

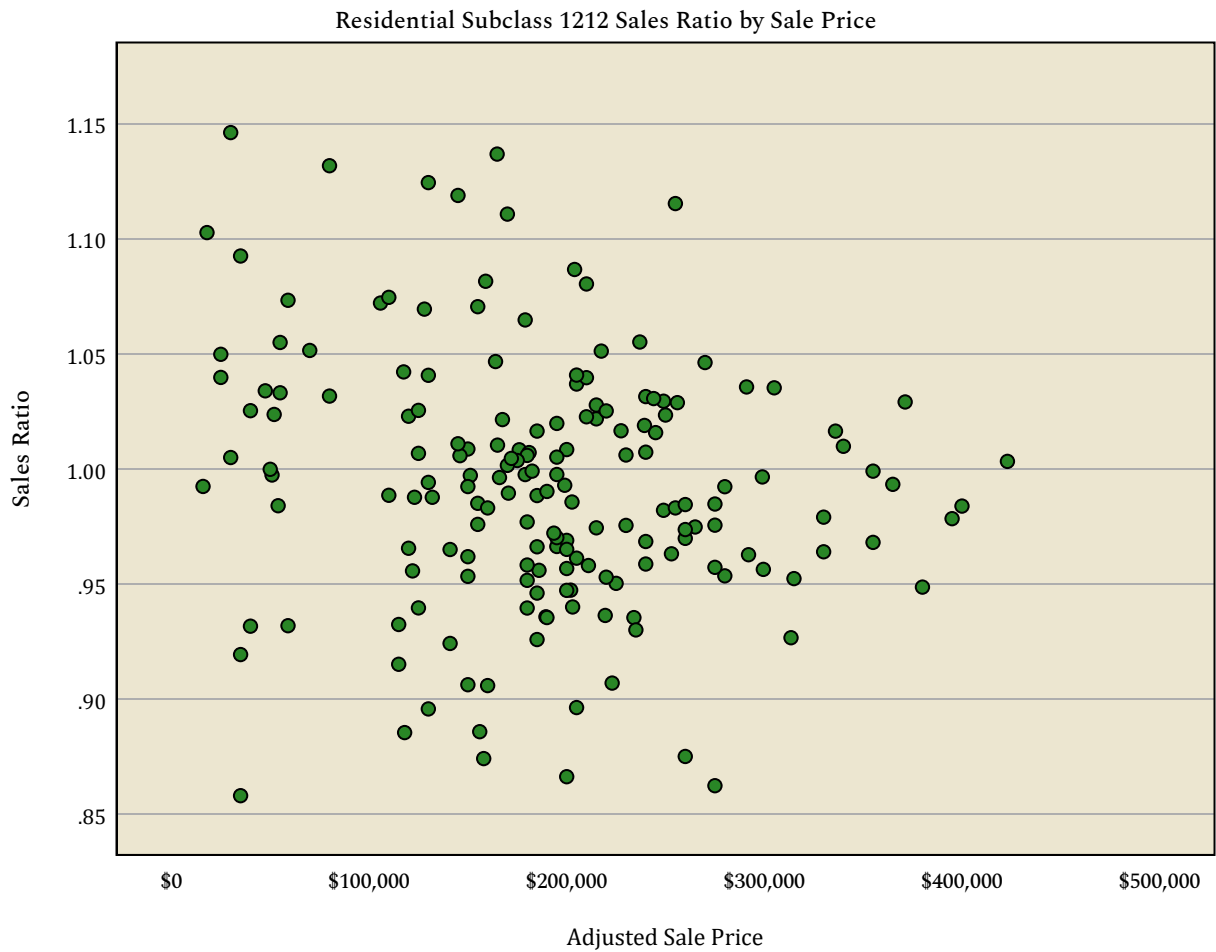
Residential Subclass 1212: Sales Price by Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.014	.010		100.773	<.001
	Adjusted Sale Price	-1.103E-7	.000	-.169	-2.256	.025

a. Dependent Variable: Sales Ratio

Graph



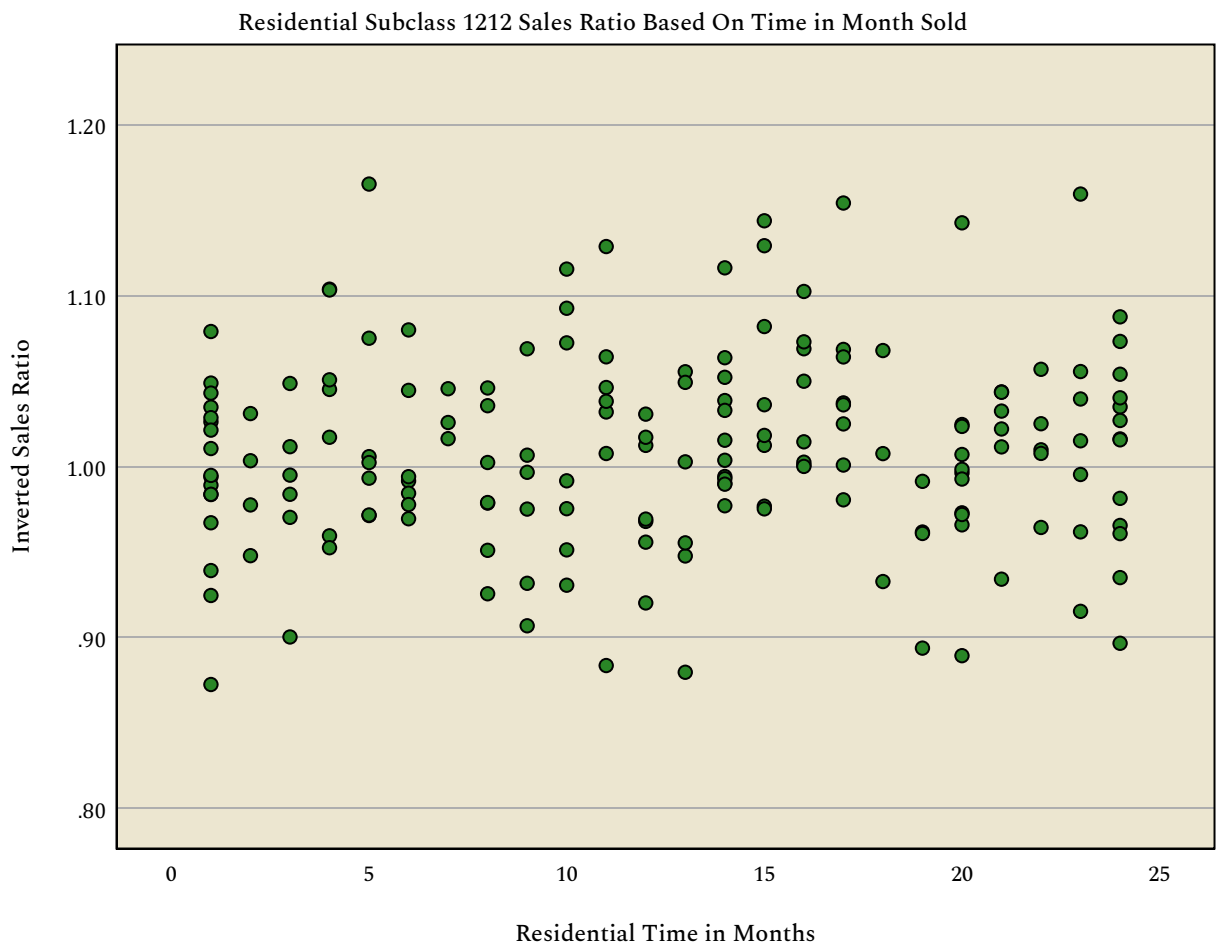
Residential Subclass 1212: Months by Inverted Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.004	.008		120.439	<.001
	Residential Time in Months	.000	.001	.065	.856	.393

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	176	176	176
	Missing	0	0	0
Mean		\$103.69	\$154.13	1.78
Median		\$103.22	\$148.64	1.43
Percentiles	2.5	\$12.40	\$31.23	.94
	25	\$59.90	\$116.88	1.17
	50	\$103.22	\$148.64	1.43
	75	\$133.17	\$178.52	1.92
	97.5	\$260.31	\$380.82	5.29

Frequencies

		Statistics		
		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	176	176	176
	Missing	0	0	0
Mean		\$127,850.87	\$186,008.94	\$58,158.07
Median		\$120,963.00	\$185,558.00	\$50,265.00
Percentiles	2.5	\$13,648.52	\$27,855.47	-\$11,186.83
	25	\$74,300.25	\$136,275.50	\$26,936.75
	50	\$120,963.00	\$185,558.00	\$50,265.00
	75	\$179,067.75	\$232,182.75	\$85,450.25
	97.5	\$299,732.45	\$373,781.20	\$179,804.70

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	3215
Mann-Whitney U	49537.500
Wilcoxon W	4921418.500
Test Statistic	49537.500
Standard Error	8867.030
Standardized Test Statistic	-10.956
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	3217
Mann-Whitney U	134210.000
Wilcoxon W	4832855.000
Test Statistic	134210.000
Standard Error	11177.365
Standardized Test Statistic	-8.833
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	3217
Mann-Whitney U	91086.000
Wilcoxon W	4910046.000
Test Statistic	91086.000
Standard Error	9698.453
Standardized Test Statistic	-8.691
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	168	1.45	1.79
UNSOLD	3219	1.12	1.18
Total	3387	1.13	1.21

Summarize

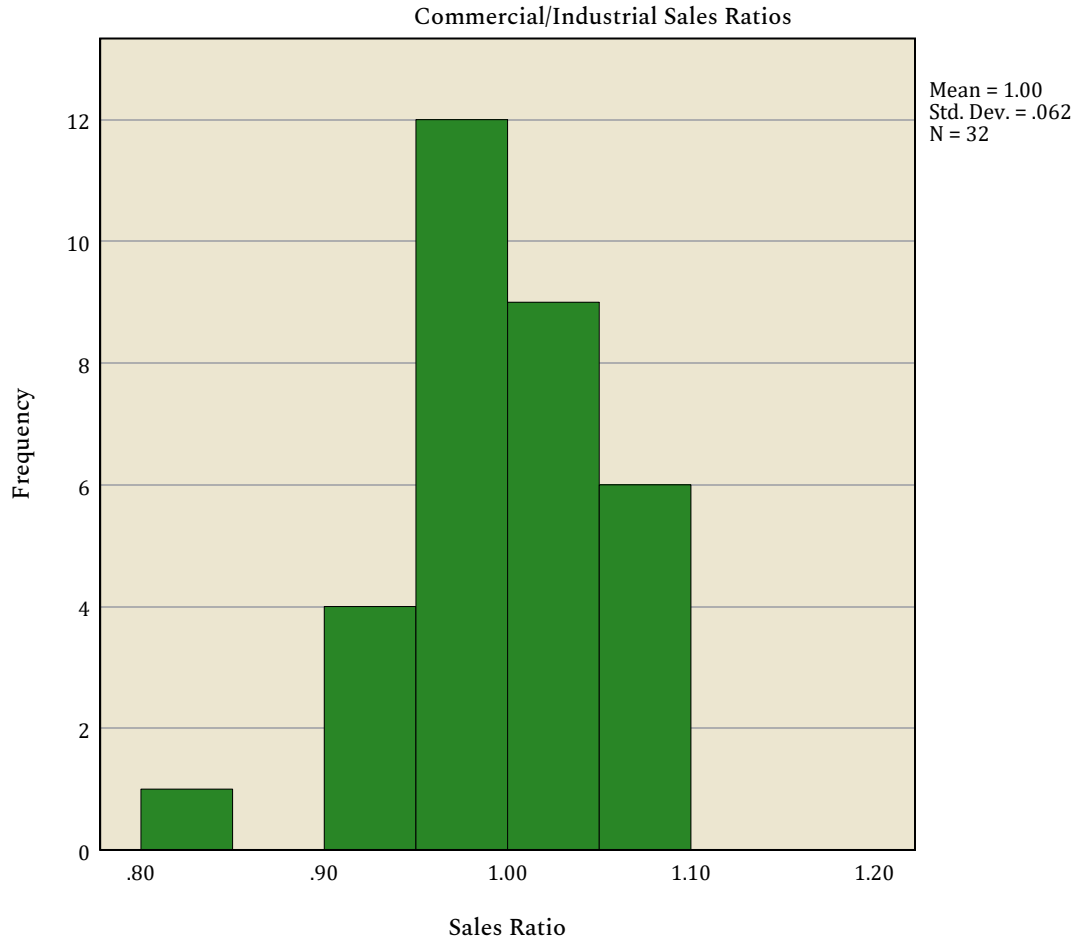
Sold vs Unsold Percent Change for Subclass 1212 by Economic Area

Difference in Price Per Foot

economic_area	Residential Sold vs Unsold	N	Median	Mean
	UNSOLD	2	.94	.94
	Total	2	.94	.94
1	SOLD	168	1.45	1.79
	UNSOLD	3217	1.12	1.18
	Total	3385	1.13	1.21
Total	SOLD	168	1.45	1.79
	UNSOLD	3219	1.12	1.18
	Total	3387	1.13	1.21

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
33	.997	30.411

Ratio Statistics

Ratio Statistics for Current Total
Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
66.514	1.161

OVERALL Commercial/Industrial: Sales Price by Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	39.640	52.607		.754	.457
	Adjusted Sale Price	-7.173E-5	.000	-.035	-.196	.846

a. Dependent Variable: Sales Ratio

Graph



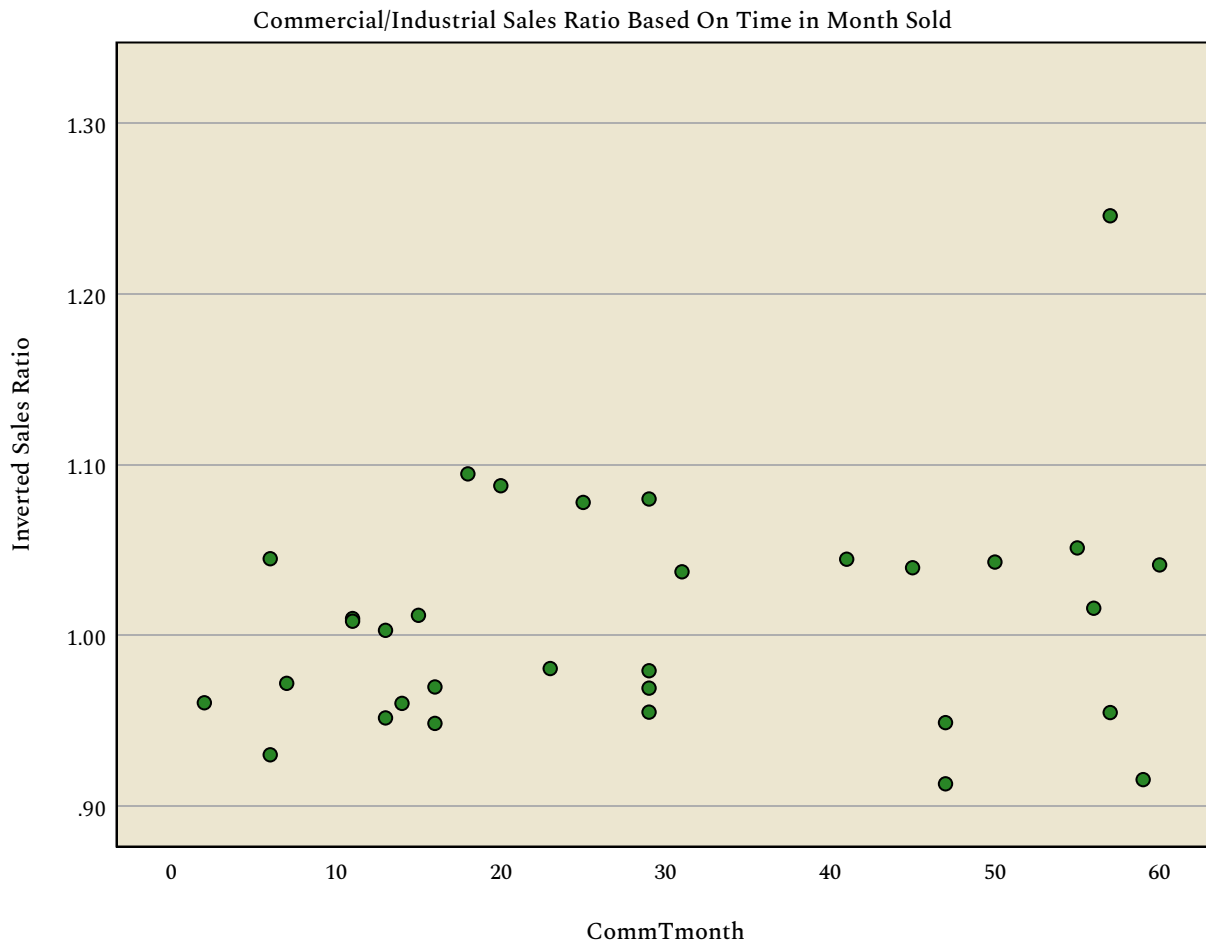
OVERALL Commercial/Industrial: Months by Inverted Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	.960	.063		15.234	<.001
	CommTmonth	.001	.002	.056	.313	.757

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	33	33	33
	Missing	0	0	0
Mean		\$704.63	\$715.46	1.67
Median		\$21.00	\$35.98	1.10
Percentiles	2.5	\$2.07	\$3.83	.81
	25	\$11.46	\$12.26	1.00
	50	\$21.00	\$35.98	1.10
	75	\$46.94	\$58.39	1.70
	97.5	.	.	.

Frequencies

		Statistics		
		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	33	33	33
	Missing	0	0	0
Mean		\$3,114,343.24	\$3,142,800.82	\$28,457.58
Median		\$81,558.00	\$100,013.00	\$6,210.00
Percentiles	2.5	\$6,011.00	\$10,507.00	-\$22,898.00
	25	\$27,974.00	\$57,673.00	\$38.50
	50	\$81,558.00	\$100,013.00	\$6,210.00
	75	\$143,683.50	\$161,714.50	\$33,981.00
	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	.294

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	464
Mann-Whitney U	4218.000
Wilcoxon W	102121.000
Test Statistic	4218.000
Standard Error	613.333
Standardized Test Statistic	-1.050
Asymptotic Sig.(2-sided test)	.294

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	.257

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	465
Mann-Whitney U	6285.000
Wilcoxon W	99813.000
Test Statistic	6285.000
Standard Error	744.048
Standardized Test Statistic	-1.133
Asymptotic Sig.(2-sided test)	.257

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	.135

OVERALL Commercial/Industrial: 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	465
Mann-Whitney U	3954.000
Wilcoxon W	102300.000
Test Statistic	3954.000
Standard Error	614.690
Standardized Test Statistic	-1.495
Asymptotic Sig.(2-sided test)	.135

OVERALL Commercial/Industrial: Unit Value Comparison

Summarize

Sold vs Unsold

Difference in Price Per Foot

CommSOLDFLG	N	Median	Mean
SOLD	33	1.10	1.67
UNSOLD	458	1.04	1.09
Total	491	1.04	1.13

Summarize

Sold vs Unsold

Difference in Price Per Foot

Improvement Abstract Codes	CommSOLDFLG	N	Median	Mean
2212	SOLD	10	1.33	2.01
	UNSOLD	67	1.10	1.15
	Total	77	1.10	1.27
2213	UNSOLD	3	1.03	1.03
	Total	3	1.03	1.03
2215	UNSOLD	12	1.00	1.00
	Total	12	1.00	1.00
2220	SOLD	8	1.04	1.84
	UNSOLD	69	1.04	1.06
	Total	77	1.04	1.14
2225	UNSOLD	2	1.37	1.37
	Total	2	1.37	1.37
2230	SOLD	7	1.03	1.07
	UNSOLD	123	1.03	1.06
	Total	130	1.03	1.06
2231	UNSOLD	10	1.02	1.03
	Total	10	1.02	1.03
2232	SOLD	1	.81	.81
	UNSOLD	9	1.03	1.03
	Total	10	1.02	1.01

OVERALL Commercial/Industrial: Unit Value Comparison

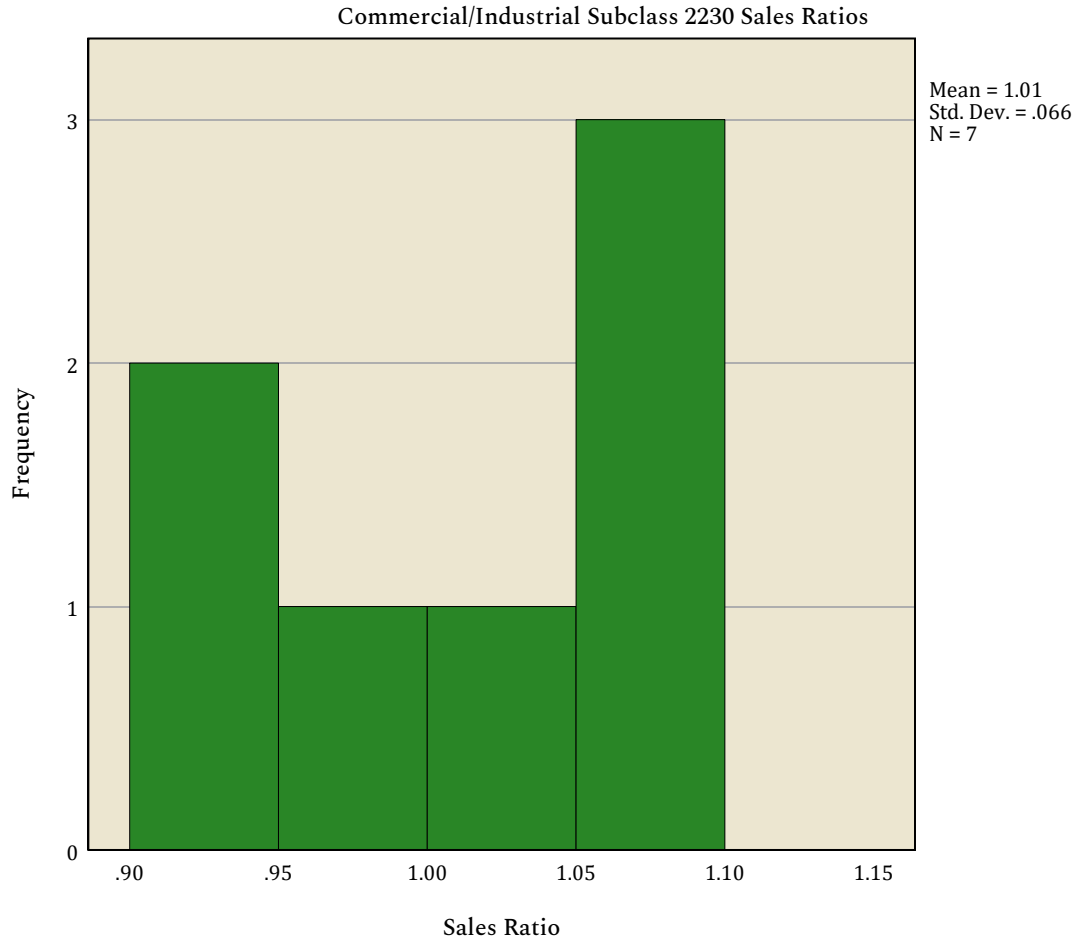
Sold vs Unsold

Difference in Price Per Foot

Improvement Abstract Codes	CommSOLDFLG	N	Median	Mean
2233	SOLD	1	1.00	1.00
	UNSOLD	18	1.01	.99
	Total	19	1.01	.99
2234	SOLD	1	2.48	2.48
	UNSOLD	24	1.12	1.40
	Total	25	1.12	1.44
2235	SOLD	4	1.33	1.70
	UNSOLD	85	1.06	1.08
	Total	89	1.06	1.11
2240	UNSOLD	3	1.03	1.07
	Total	3	1.03	1.07
2250	UNSOLD	2	1.08	1.08
	Total	2	1.08	1.08
2280	UNSOLD	9	1.03	1.03
	Total	9	1.03	1.03
2281	UNSOLD	3	1.02	1.04
	Total	3	1.02	1.04
3215	SOLD	1	1.55	1.55
	UNSOLD	19	1.03	1.04
	Total	20	1.03	1.07
Total	SOLD	33	1.10	1.67
	UNSOLD	458	1.04	1.09
	Total	491	1.04	1.13

Commercial/Industrial Subclass 2230: Sales Ratio Distribution

Graph



Commercial/Industrial Subclass 2230: Central Tendencies

Ratio Statistics

Ratio Statistics for Current Total Value /
Adjusted Sale Price

N	Median	Coefficient of Dispersion
7	1.020	.050

Ratio Statistics

Ratio Statistics for Current Total
Value / Adjusted Sale Price

Price Related Bias	Price Related Differential
-.021	1.033

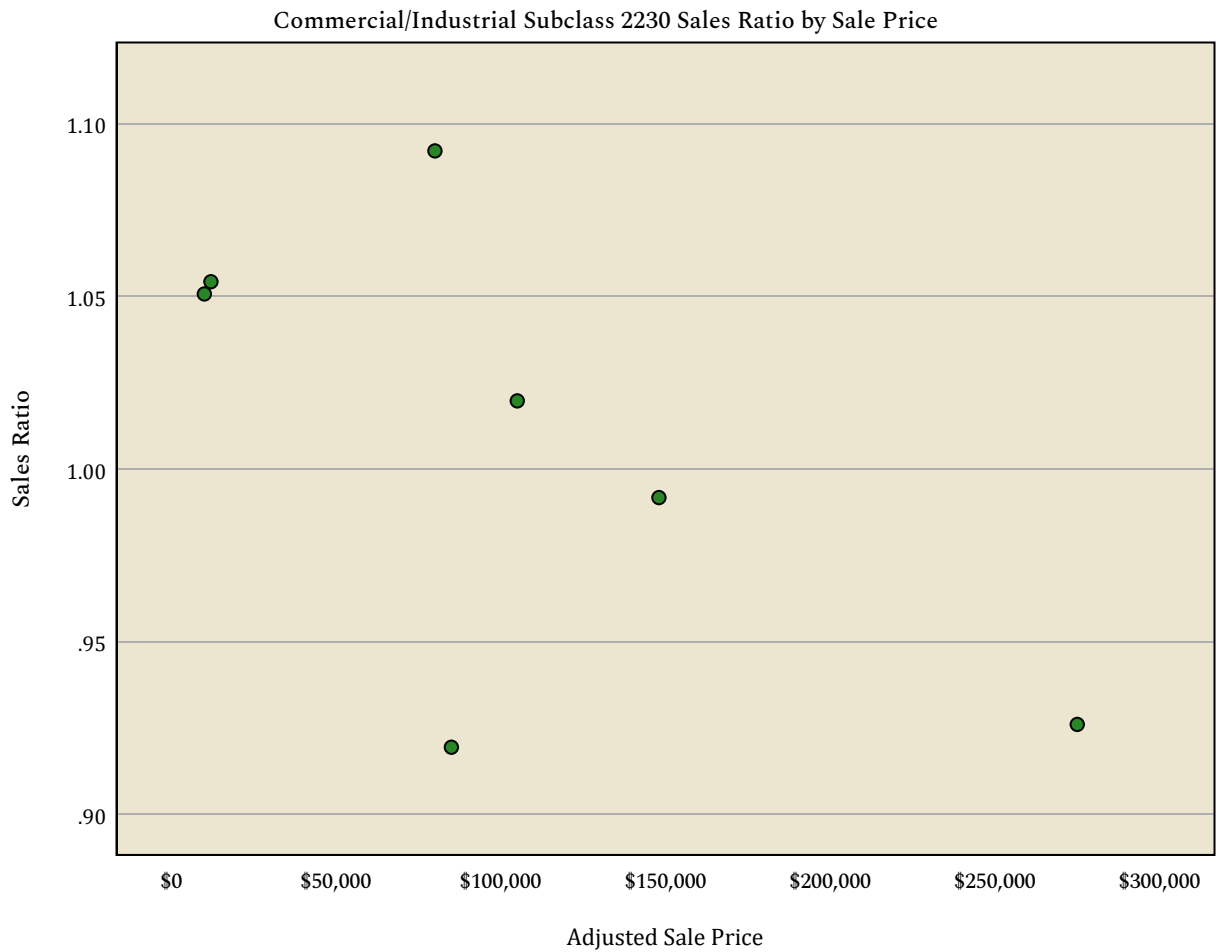
Commercial/Industrial Subclass 2230: Sales Price by Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.056	.033		32.411	<.001
	Adjusted Sale Price	-4.723E-7	.000	-.651	-1.917	.113

a. Dependent Variable: Sales Ratio

Graph



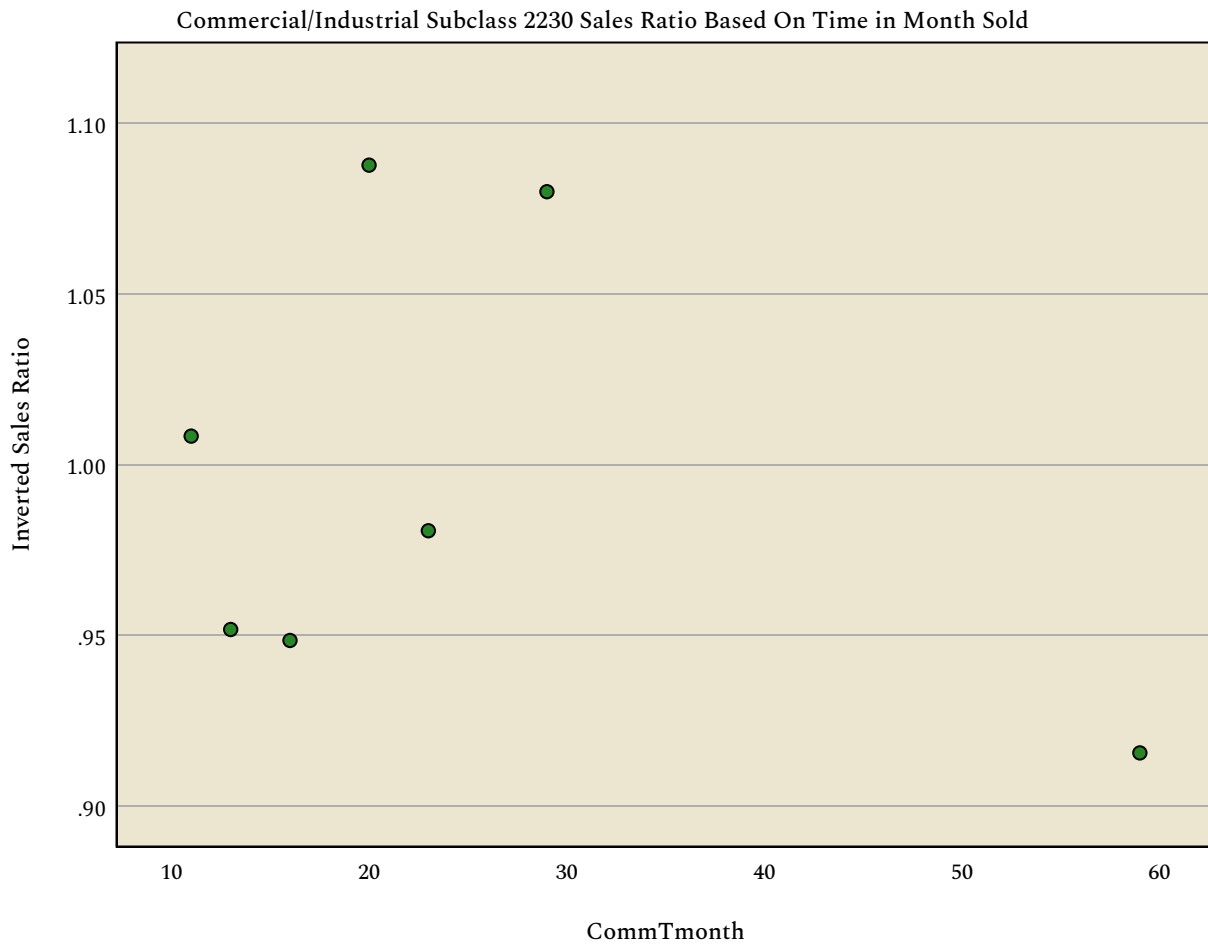
Commercial/Industrial Subclass 2230: Months by Inverted Sales Ratio

Regression

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.027	.049		20.760	<.001
	CommTmonth	-.001	.002	-.311	-.732	.497

a. Dependent Variable: Inverted Sales Ratio

Graph



Commercial/Industrial Subclass 2230: Descriptive Statistics

Frequencies

		Statistics		
		Previous Price Per Foot	Price Per Foot	Difference in Price Per Foot
N	Valid	7	7	7
	Missing	0	0	0
Mean		\$29.11	\$31.19	1.07
Median		\$26.02	\$26.77	1.03
Percentiles	2.5	\$6.95	\$7.00	.96
	25	\$10.95	\$11.16	.97
	50	\$26.02	\$26.77	1.03
	75	\$43.79	\$42.62	1.10
	97.5	.	.	.

Frequencies

		Statistics		
		Previous Total Value	Current Total Value	Difference in Total Value
N	Valid	7	7	7
	Missing	0	0	0
Mean		\$88,386.00	\$99,598.29	\$11,212.29
Median		\$89,768.00	\$87,371.00	\$1,155.00
Percentiles	2.5	\$10,430.00	\$10,507.00	-\$3,407.00
	25	\$11,496.00	\$12,651.00	-\$2,397.00
	50	\$89,768.00	\$87,371.00	\$1,155.00
	75	\$142,099.00	\$146,776.00	\$4,677.00
	97.5	.	.	.

Commercial/Industrial Subclass 2230: 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	.931

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	122
Mann-Whitney U	242.000
Wilcoxon W	7263.000
Test Statistic	242.000
Standard Error	69.552
Standardized Test Statistic	.086
Asymptotic Sig.(2-sided test)	.931

Nonparametric Tests

Commercial/Industrial Subclass 2230: 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	.796

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	122
Mann-Whitney U	379.000
Wilcoxon W	7049.000
Test Statistic	379.000
Standard Error	90.836
Standardized Test Statistic	-.259
Asymptotic Sig.(2-sided test)	.796

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	.813

Commercial/Industrial Subclass 2230: 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	122
Mann-Whitney U	328.000
Wilcoxon W	7114.000
Test Statistic	328.000
Standard Error	84.458
Standardized Test Statistic	-.237
Asymptotic Sig.(2-sided test)	.813

Commercial/Industrial Subclass 2230: Unit Comparison Method

Summarize

Sold vs Unsold Percent Change for Subclass 2230

Difference in Price Per Foot

CommSOLDFLG	N	Median	Mean
SOLD	7	1.03	1.07
UNSOLD	123	1.03	1.06
Total	130	1.03	1.06

Commercial/Industrial Subclass 2230: Economic Area Analysis

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Median	Coefficient of Dispersion
1	20	.524	.728
Overall	20	.524	.728

Ratio Statistics

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	N	Price Related Bias	Price Related Differential
1	20	-.188	2.224
Overall	20	-.188	2.224

Summarize

Sold vs Unsold Percent Change for Subclass 2230 by Economic Area

Difference in Price Per Foot

economic_area	CommSOLDFLG	N	Median	Mean
	UNSOLD	3	1.07	1.08
	Total	3	1.07	1.08
1	SOLD	7	1.03	1.07
	UNSOLD	120	1.03	1.06
	Total	127	1.03	1.06
Total	SOLD	7	1.03	1.07
	UNSOLD	123	1.03	1.06
	Total	130	1.03	1.06

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	16	313.355	-352.601	979.312	.815
Residential	183	.993	.985	1.000	.992
Commercial/Industrial	33	31.269	-30.395	92.933	.997
Overall	232	26.841	-16.417	70.100	.992

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	.617	1.140	97.9%	391.049	-448.223
Residential	.983	1.000	96.2%	.988	.981
Commercial/Industrial	.962	1.041	96.5%	26.930	-26.569
Overall	.984	1.000	95.8%	6.085	-1.052

Ratio Statistics for Current Total Value / Adjusted Sale Price

Group	95% Confidence Interval for ...	Price Related Differential	Coefficient of Dispersion
	Upper Bound		
Vacant Land	1230.321	.801	383.861
Residential	.996	1.004	.042
Commercial/Industrial	80.429	1.161	30.411
Overall	13.222	4.411	26.122

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.