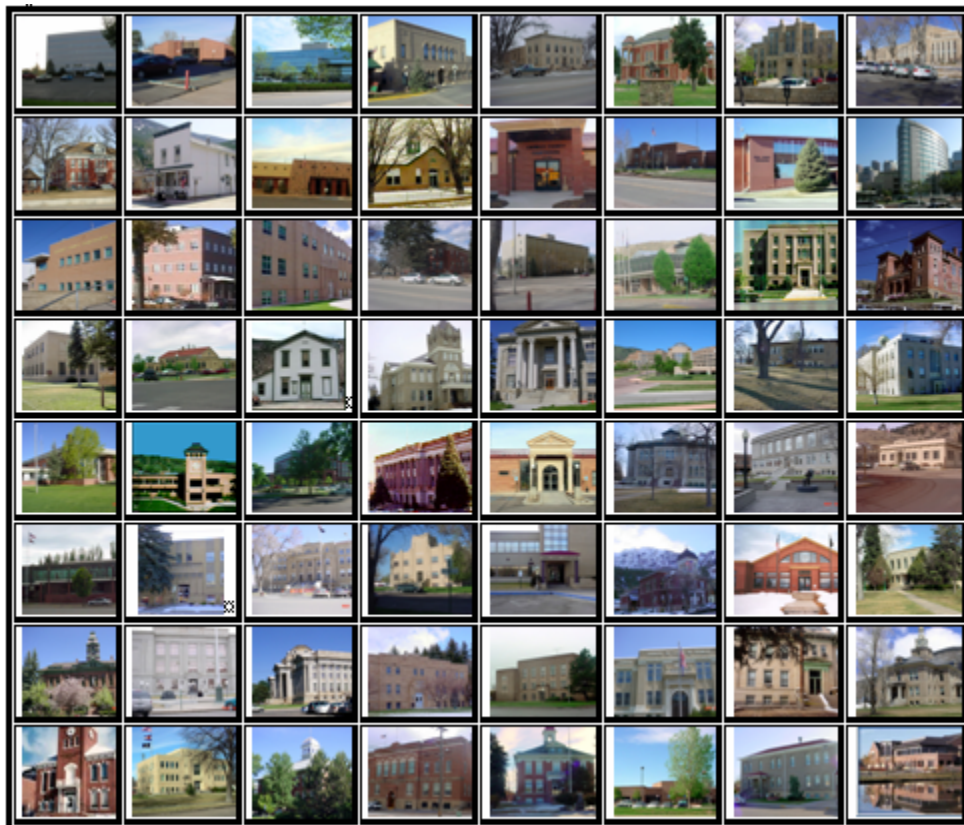




2009  
GUNNISON COUNTY  
PROPERTY ASSESSMENT  
STUDY

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WILDROSE  
APPRAISAL, INCORPORATED  
Audit Division



September 15, 2009

Mr. Mike Mauer  
Director of Research  
Colorado Legislative Council  
Room 029, State Capitol Building  
Denver, Colorado 80203

**RE: Final Report for the 2009 Colorado Property Assessment Study**

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2009 Colorado Property Assessment Study.

These reports are the result of two analyses: A procedural audit and a statistical audit.

The procedural audit examines all classes of property. It specifically looks at how the assessor develops economic areas, confirms and qualifies sales, develops time adjustments and performs periodic physical property inspections. The audit reviews the procedures for determining subdivision absorption and subdivision discounting. Valuation methodology is examined for residential properties and commercial properties. Procedures are reviewed for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests, and non-producing patented mining claims.

Statistical audits are performed on vacant land, residential properties, commercial/industrial properties and agricultural land. A statistical analysis is performed for personal property compliance on the eleven largest counties: Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. The remaining counties receive a personal property procedural study.

Wildrose Appraisal Inc. – Audit Division appreciates the opportunity to be of service to the State of Colorado. Please contact us with any questions or concerns.

A handwritten signature in black ink that reads "Harry J. Fuller". The signature is written in a cursive, flowing style.

Harry J. Fuller  
Project Manager  
Wildrose Appraisal Inc. – Audit Division

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# INTRODUCTION

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## Colorado

The State Board of Equalization (SBOE) reviews assessments for conformance to the Constitution. The SBOE will order revaluations for counties whose valuations do not reflect the proper valuation period level of value.

The statutory basis for the audit is found in C.R.S. 39-1-104 (16)(a)(b) and (c).

The legislative council sets forth two criteria that are the focus of the audit group:

To determine whether each county assessor is applying correctly the constitutional and statutory provisions, compliance requirements of the State Board of Equalization, and the manuals published by the State Property Tax Administrator to arrive at the actual value of each class of property.

To determine if each assessor is applying correctly the provisions of law to the actual values when arriving at valuations for assessment of all locally valued properties subject to the property tax.

The property assessment audit conducts a two-part analysis: A procedural analysis and a statistical analysis.

The procedural analysis includes all classes of property and specifically looks at how the assessor develops economic areas, confirms and qualifies sales, and develops time adjustments. The audit also examines the procedures for adequately discovering, classifying and valuing agricultural outbuildings, discovering subdivision build-out and subdivision discounting procedures. Valuation methodology for vacant land, improved residential properties and commercial properties is examined. Procedures for producing mines, oil and gas leaseholds and lands producing, producing coal mines, producing earth and stone products, severed mineral interests and non-producing patented mining claims are also reviewed.

Statistical analysis is performed on vacant land, residential properties, commercial industrial properties, agricultural land, and personal property. The statistical study results are compared with State Board of Equalization compliance requirements and the manuals published by the State Property Tax Administrator.

Wildrose Audit has completed the Property Assessment Study for 2009 and is pleased to report its findings for Gunnison County in the following report.

# REGIONAL/HISTORICAL SKETCH OF GUNNISON COUNTY

## Regional Information

Gunnison County is located in the Western Slope region of Colorado. The Western Slope of Colorado refers to the region west of the Rocky Mountains. It includes Archuleta, Delta, Dolores, Eagle, Garfield, Grand,

Gunnison, Hinsdale, Jackson, La Plata, Mesa, Moffat, Montezuma, Montrose, Ouray, Pitkin, Rio Blanco, Routt, San Juan, San Miguel, and Summit counties.



## Historical Information

Gunnison County has a population of approximately 14,331 people with 4.3 people per square mile, according to the U.S. Census Bureau's 2006 estimated population data.

The county was named for John W. Gunnison, a United States Army officer and captain in the Army Topographical Engineers, who surveyed for the transcontinental railroad in 1853. The county seat is the City of Gunnison.

Long before today's residents settled in, Ute Indians roamed the area's valleys and mountains. As early as 1810, fur traders came to the region in search of animal pelts. The 1860's brought placer miners to the rivers and streams. Sylvester Richardson, regarded as the founder of Gunnison, established a colony along the Gunnison River in 1874. Hopes of establishing a farming community were dashed as these early settlers learned the hardships imposed by a 70-day growing season. Ranching quickly emerged as the agricultural mainstay of the region. Silver brought tens of

thousands to the area during the 1870s and 80s and Gunnison developed into a smelting, railroad and supply town. After the turn of the century, coal and cattle ruled the area. Today, Western State College is a major employer, as are the county hospital, City of Gunnison and the recreation industry.

Crested Butte, a former coal mining town now called "the last great Colorado ski town," is a destination for skiing, mountain biking, and a variety of other outdoor activities.

The area has what many consider to be the country's best fly-fishing and big game hunting. Snow sports abound during winter, while warm summer months provide some of the most scenic hiking and camping in the Rockies. Bird watchers will enjoy sighting an American Bald Eagle or Red Tailed Hawk, while botanists will delight at the bloom of summer wildflowers throughout the local mountains. (*Wikipedia.org & Visitgunnison.com*)

# RATIO ANALYSIS

## Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 2007 and June 2008. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2008 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and price-related differential for each class of property. Counties were not passed or failed by these

latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either “Q” or “C.” The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were “lost” because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

## Conclusions

For this final analysis report, the minimum acceptable statistical standards allowed by the State Board of Equalization are:

ALLOWABLE STANDARDS RATIO GRID		
Property Class	Unweighted Median Ratio	Coefficient of Dispersion
Commercial/Industrial	Between .95-1.05	Less than 20.99
Condominium	Between .95-1.05	Less than 15.99
Single Family	Between .95-1.05	Less than 15.99
Vacant Land	Between .95-1.05	Less than 20.99

The results for Gunnison County are:

<b>Gunnison County Ratio Grid</b>					
<b>Property Class</b>	<b>Number of Qualified Sales</b>	<b>Unweighted Median Ratio</b>	<b>Price Related Differential</b>	<b>Coefficient of Dispersion</b>	<b>Time Trend Analysis</b>
Commercial/Industrial	42	0.989	1.027	8.7	Compliant
Condominium	196	0.986	1.024	6.4	Compliant
Single Family	340	0.993	1.020	12.2	Compliant
Vacant Land	257	1.000	1.019	16.5	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that Gunnison County is in compliance

with SBOE, DPT, and Colorado State Statute valuation guidelines.

**Recommendations**

None

**Random Deed Analysis**

An additional analysis was performed as part of the Ratio Analysis. Ten randomly selected deeds with documentary fees were obtained from the Clerk and Recorder. These deeds were for sales that occurred from January 1, 2007 through June 30, 2008. These sales were then checked for inclusion on the Assessor’s qualified or unqualified database.

**Conclusions**

After comparing the list of randomly selected deeds with the Assessor’s database, Gunnison County has accurately transferred sales data from the recorded deeds to the qualified or unqualified database.

**Recommendations**

None



# TIME TRENDING VERIFICATION

## Methodology

While we recommend that counties use the inverted ratio regression analysis method to account for market (time) trending, some counties have used other IAAO-approved methods, such as the weighted monthly median approach. We are not auditing the methods used, but rather the results of the methods used. Given this range of methodologies used to account for market trending, we concluded that the best validation method was to examine the sale ratios for each class across the appropriate sale period. To be specific, if a county has considered and adjusted correctly for market trending, then the sale ratios should remain stable (i.e. flat) across the sale period. If a residual market trend is detected, then the county may or may not have addressed market trending adequately, and a further examination

is warranted. This validation methodology also considers the number of sales and the length of the sale period. Counties with few sales across the sale period were carefully examined to determine if the statistical results were valid.

## Conclusions

After verification and analysis, it has been determined that Gunnison County has complied with the statutory requirements to analyze the effects of time on value in their county. Gunnison County has also satisfactorily applied the results of their time trending analysis to arrive at the time adjusted sales price (TASP).

## Recommendations

None

## SOLD / UNSOLD ANALYSIS

### Methodology

Gunnison County was tested for the equal treatment of sold and unsold properties to ensure that “sales chasing” has not occurred. The auditors employed a multi-step process to determine if sold and unsold properties were valued in a consistent manner.

All qualified residential and commercial class properties were examined using the unit value method, where the actual value per square foot was compared between sold and unsold properties. A class was considered qualified if it met the criteria for the ratio analysis. The median value per square foot for both groups was compared from an appraisal and statistical perspective. If no significant difference was indicated, then we concluded that no further testing was warranted and that the county was in compliance in terms of sold/unsold consistency.

If either residential or commercial differences were significant using the unit value method, or if data limitations made the comparison invalid, then the next step was to perform a ratio analysis comparing the 2008 and 2009 actual values for each qualified class of property. All qualified vacant land classes were tested using this method. The sale property ratios were arrayed using a range of 0.8 to 1.5, which theoretically excluded changes between years that were due to other unrelated changes in the property. These ratios were also stratified at the appropriate level of analysis. Once the percent change was determined for each appropriate class and sub-class, the next step was to select the unsold sample. This sample

was at least 1% of the total population of unsold properties and excluded any sale properties. The unsold sample was filtered based on the attributes of the sold dataset to closely correlate both groups. The ratio analysis was then performed on the unsold properties and stratified. The median and mean ratio distribution was then compared between the sold and unsold group. A non-parametric test such as the Mann-Whitney test for differences between independent samples was undertaken to determine whether any observed differential was significant. If this test determined that the unsold properties were treated in a manner similar to the sold properties, it was concluded that no further testing was warranted and that the county was in compliance.

If a class or sub-class of property was determined to be significantly different by this method, the final step was to perform a multi-variate mass appraisal model that developed ratio statistics from the sold properties that were then applied to the unsold sample. This test compared the measures of central tendency and confidence intervals for the sold properties with the unsold property sample. If this comparison was also determined to be significantly different, then the conclusion was that the county had treated the unsold properties in a different manner than sold properties.

These tests were supported by both tabular and chart presentations, along with saved sold and unsold sample files.

<b>Sold/Unsold Results</b>	
<b>Property Class</b>	<b>Results</b>
Commercial/Industrial	Compliant
Condominium	Compliant
Single Family	Compliant
Vacant Land	Compliant

### **Conclusions**

After applying the above described methodologies, it is concluded that Gunnison County is reasonably treating its sold and unsold properties in the same manner.

### **Recommendations**

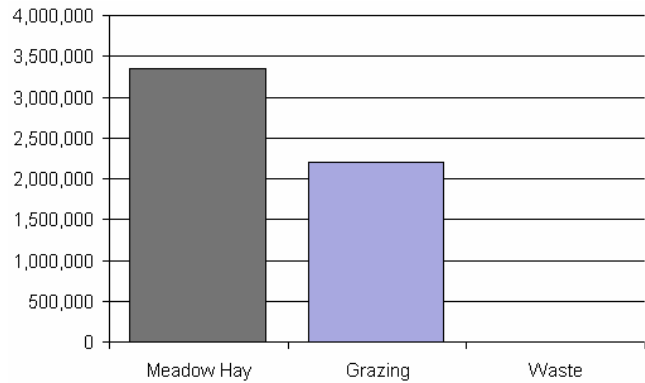
None

# AGRICULTURAL LAND STUDY

Acres By Subclass



Value By Subclass



## Agricultural Land

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: Aerial photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and any locally developed yields, carrying capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax

Administrator (PTA), were applied properly. (See Assessor Reference Library Volume 3 Chapter 5.)

### Conclusions

An analysis of the agricultural land data indicates an acceptable appraisal of this property type. Directives, commodity prices and expenses provided by the PTA were properly applied. County yields compared favorably to those published by Colorado Agricultural Statistics. Expenses used by the county were allowable expenses and were in an acceptable range. Grazing lands carrying capacities were in an acceptable range. The data analyzed resulted in the following ratios:



<b>Gunnison County Agricultural Land Ratio Grid</b>						
<b>Abstract Code</b>	<b>Land Class</b>	<b>Number Of Acres</b>	<b>County Value Per Acre</b>	<b>County Assessed Total Value</b>	<b>WRA Total Value</b>	<b>Ratio</b>
4137	Meadow Hay	40,851	82.09	3,353,382	3,353,382	1.00
4147	Grazing	276,873	7.94	2,198,149	2,198,149	1.00
4167	Waste	4,308	1.62	6,958	6,958	1.00
<b>Total/Avg</b>		<b>322,032</b>	<b>17.26</b>	<b>5,558,488</b>	<b>5,558,488</b>	<b>1.00</b>

### **Recommendations**

None



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## Agricultural Outbuildings

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### **Methodology**

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.74 through 5.77 were being followed.

### **Conclusions**

Gunnison County has substantially complied with the procedures provided by the Division of Property Taxation for the valuation of agricultural outbuildings.

### **Recommendations**

None

## SALES VERIFICATION

According to 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.)*

Part of the Property Assessment Study is the sales verification analysis. WRA has used the above-cited statutes as a guide in our study of the county's procedures and practices for verifying sales.

WRA reviewed the sales verification procedures in 2009 for Gunnison County. This study was conducted by checking selected sales from the master sales list for the Jan 1, 2007 - June 30, 2008 valuation period. Specifically WRA selected 31 sales listed as unqualified. All but one of the sales selected in the sample gave reasons that were clear and supportable. One sale had insufficient documentation.

### **Conclusions**

Gunnison County appears to be doing a good job of verifying their sales. There are no recommendations.

### **Recommendations**

None

# ECONOMIC AREA REVIEW AND EVALUATION

## **Methodology**

Gunnison County has submitted a written narrative describing the economic areas that make up the county's market areas. Gunnison County has also submitted a map illustrating these areas. Each of these narratives have been read and analyzed for logic and appraisal sensibility. The maps were also compared to the narrative for consistency between the written description and the map.

## **Conclusions**

After review and analysis, it has been determined that Gunnison County has

adequately identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

## **Recommendations**

None

# NATURAL RESOURCES

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## Earth and Stone Products

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### Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Natural Resource Valuation Procedures, the income approach was applied to determine value for production of earth and stone products. The number of tons was multiplied by an economic royalty rate determined by the Division of Property Taxation to determine income. The income was multiplied by a recommended Hoskold factor to determine the actual value. The Hoskold factor is determined by the life of the reserves or the lease. Value is based on two variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

### Conclusions

The County has applied the correct formulas and state guidelines to earth and stone production.

### Recommendations

None

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## Producing Oil and Gas Procedures

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### Methodology

Assessors Reference Library (ARL) Volume 3, Chapter 6: Valuation of Natural Resources

### STATUTORY REFERENCES

Section § 39-1-103, C.R.S., specifies that producing oil or gas leaseholds and lands are valued according to article 7 of title 39, C.R.S.

**Actual value determined - when.**

(2) The valuation for assessment of leaseholds and lands producing oil or gas shall be determined as provided in article 7 of this title.

### § 39-1-103, C.R.S.

Article 7 covers the listing, valuation, and assessment of producing oil and gas leaseholds and lands.

### Valuation:

#### Valuation for assessment.

(1) Except as provided in subsection (2) of this section, on the basis of the information contained in such statement, the assessor shall value such oil and gas leaseholds and lands for assessment, as real property, at an amount equal to eighty-seven and one-half percent of:

(a) The selling price of the oil or gas sold there from during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year;

(b) The selling price of oil or gas sold in the same field area for oil or gas transported from the premises which is not sold during the preceding calendar year, after excluding the selling price of all oil or gas delivered to the United States government or any agency thereof, the state of Colorado or any agency thereof, or any political subdivision of the state as royalty during the preceding calendar year.

### § 39-7-102, C.R.S.

### Conclusions

The county applied approved appraisal procedures in the valuation of oil and gas.

### Recommendations:

None



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## Producing Coal Mines

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### Methodology

Under the guidelines of the Assessor's Reference Library (ARL), Volume 3, Section 6, Valuation of Producing Coal Leaseholds and Lands, the income approach is the primary method applied to find value for the valuation of coalmines. This methodology estimates annual economic royalty income based on previous year's production, then capitalizes

that income to value using a Hoskold factor to estimate the present worth of the permitted acres. The operator provides production data and the life of the leases.

### Conclusions

County has applied the correct formulas and state guidelines to coal mine valuation.

### Recommendations

None

## VACANT LAND

### **Subdivision Discounting**

Subdivisions were reviewed in 2009 in Gunnison County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was developed using the summation method.

Subdivision land with structures was appraised at full market value.

### **Conclusions**

Gunnison County has implemented proper procedures to adequately estimate absorption periods, discount rates, and lot values for qualifying subdivisions.

### **Recommendations**

None

# POSSESSORY INTEREST PROPERTIES

## Possessory Interest

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 in accordance with the requirements of 39-1-103 (17)(a) (II) C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Section 7: A private property interest in government-owned property or the right to the occupancy and use of any benefit in government-owned property that has been granted under lease, permit, license, concession, contract, or other agreement.

Gunnison County has been reviewed for their procedures and adherence to guidelines when assessing and valuing agricultural, commercial

and ski area possessory interest properties. The county has also been queried as to their confidence that the possessory interest properties have been discovered and placed on the tax rolls.

## Conclusions

Gunnison County has implemented a discovery process to place possessory interest properties on the roll. They have also correctly and consistently applied the correct procedures and valuation methods in the valuation of possessory interest properties.

## Recommendations

None

## PERSONAL PROPERTY AUDIT

Gunnison County was studied for its procedural compliance with the personal property assessment outlined in the Assessor's Reference Library (ARL) Volume 5, and in the State Board of Equalization (SBOE) requirements for the assessment of personal property. The SBOE requires that counties use ARL Volume 5, including current discovery, classification, documentation procedures, current economic lives table, cost factor tables, depreciation table, and level of value adjustment factor table.

The personal property audit standards narrative must be in place and current. A listing of businesses that have been audited by the assessor within the twelve-month period reflected in the plan is given to the auditor. The audited businesses must be in conformity with those described in the plan.

Aggregate ratio will be determined solely from the personal property accounts that have been physically inspected. The minimum assessment sample is one percent or ten schedules, whichever is greater, and the maximum assessment audit sample is 100 schedules.

For the counties having over 100,000 population, WRA selected a sample of all personal property schedules to determine whether the assessor is correctly applying the provisions of law and manuals of the Property Tax Administrator in arriving at the assessment levels of such property. This sample was selected from the personal property schedules audited by the assessor. In no event was the sample selected by the contractor less than 30 schedules. The counties to be included in this study are Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, and Weld. All other counties received a procedural study.

Gunnison County is compliant with the guidelines set forth in ARL Volume 5 regarding discovery procedures, using the following methods to discover personal property accounts in the county:

- Public Record Documents
- Local Telephone Directories, Newspapers or Other Local Publications
- Personal Observation, Physical Canvassing or Word of Mouth
- Questionnaires, Letters and/or Phone Calls to Buyer, Seller and/or Realtor
- Physical Inspections

The county uses the Division of Property Taxation (DPT) recommended classification and documentation procedures. The DPT's recommended cost factor tables, depreciation tables and level of value adjustment factor tables are also used.

Gunnison County submitted their personal property written audit plan and was current for the 2009 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- Accounts with greater than 10% change
- Incomplete or inconsistent declarations
- Accounts with omitted property
- Same business type or use
- Businesses with no deletions or additions for 2 or more years



- Non-filing Accounts - Best Information Available
- Accounts close to the \$4,000 actual value exemption status
- Accounts protested with substantial disagreement
- Questionable returns

### **Conclusions**

Gunnison County has employed adequate discovery, classification, documentation, valuation, and auditing procedures for their personal property assessment and is in statistical compliance with SBOE requirements.

### **Recommendations**

None

## WILDROSE AUDITOR STAFF

**Harry J. Fuller**, *Audit Project Manager*

**Suzanne Howard**, *Audit Administrative Manager*

**Steve Kane**, *Audit Statistician / Field Analyst*

**Carl W. Ross**, *Agricultural / Natural Resource Analyst*

**Andy Rodriguez**, *Field Analyst*

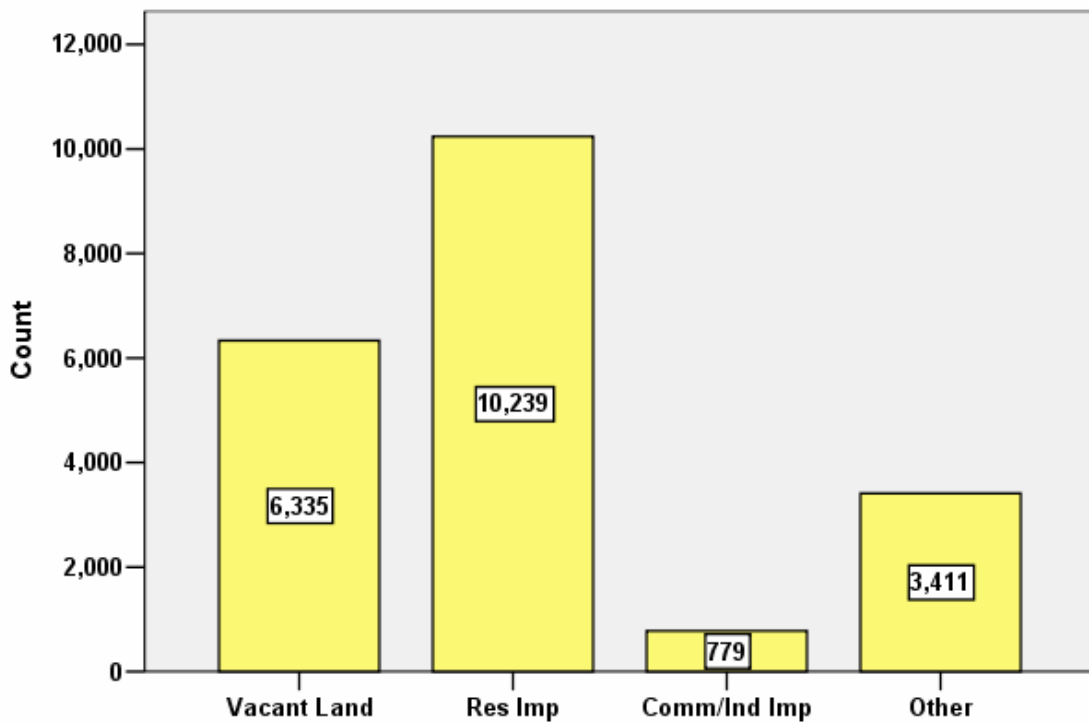
# APPENDICES

## STATISTICAL COMPLIANCE RESULTS FOR GUNNISON COUNTY 2009

### I. OVERVIEW

Gunnison County is a mountain resort located in western Colorado. The county has a total of 20,764 real property parcels, according to data submitted by the county assessor's office in 2009. The following provides a breakdown of property classes for this county:

**Real Property Class Distribution**



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 68% of all vacant land parcels.

For residential improved properties, single family properties accounted for 64% of all residential properties. Residential condominiums accounted for 25% of all residential improved properties. Based on the guidelines for the state audit statistical compliance analysis, we will analyze residential condominiums separately.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 3.8% of all such properties in this county.

## II. DATA FILES

The following sales analyses were based on the requirements of the 2009 Colorado Property Assessment Study. Information was provided by the Gunnison Assessor's Office on April 22, 2009. The data included all 5 property record files as specified by the Auditor.

## III. RESIDENTIAL SALES RESULTS

The following steps were taken to analyze the residential sales:

1. Total sales	4,518
2. Selected qualified sales	3,176
3. Select improved sales	2,000
4. Non duplicate sales	1,908
5. Select residential sales only	1,795
6. Sales between January 1, 2007 and June 30, 2008	572
7. Select non 1235 sales	536

The sales ratio analysis was analyzed as follows:

### Residential Non-Condominiums (340 Sales)

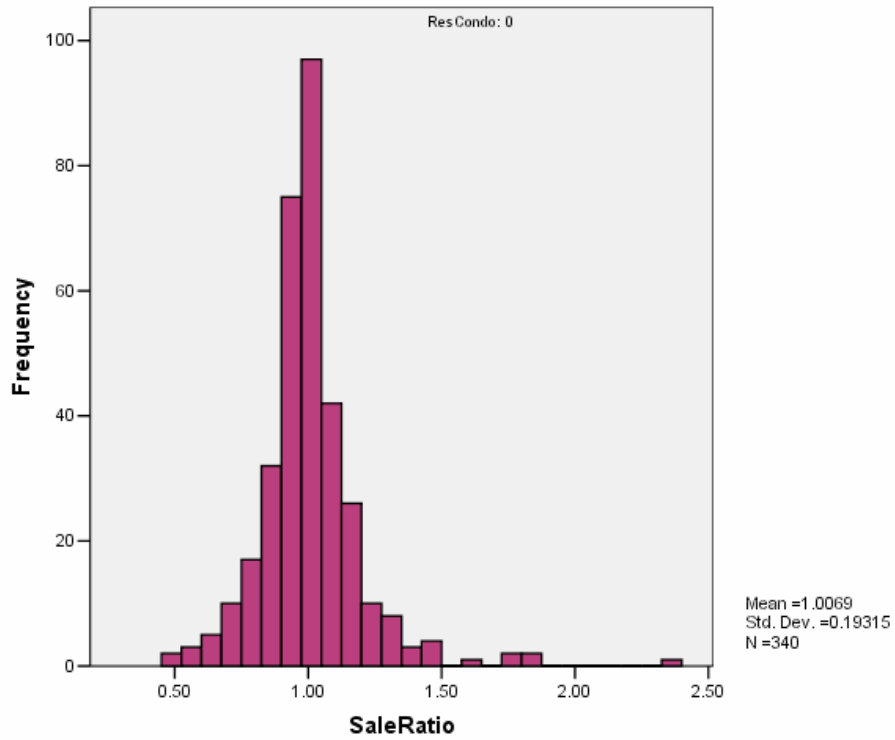
Median	<b>0.993</b>
Price Related Differential	<b>1.020</b>
Coefficient of Dispersion	<b>.122</b>

### Residential Condominiums (196 Sales)

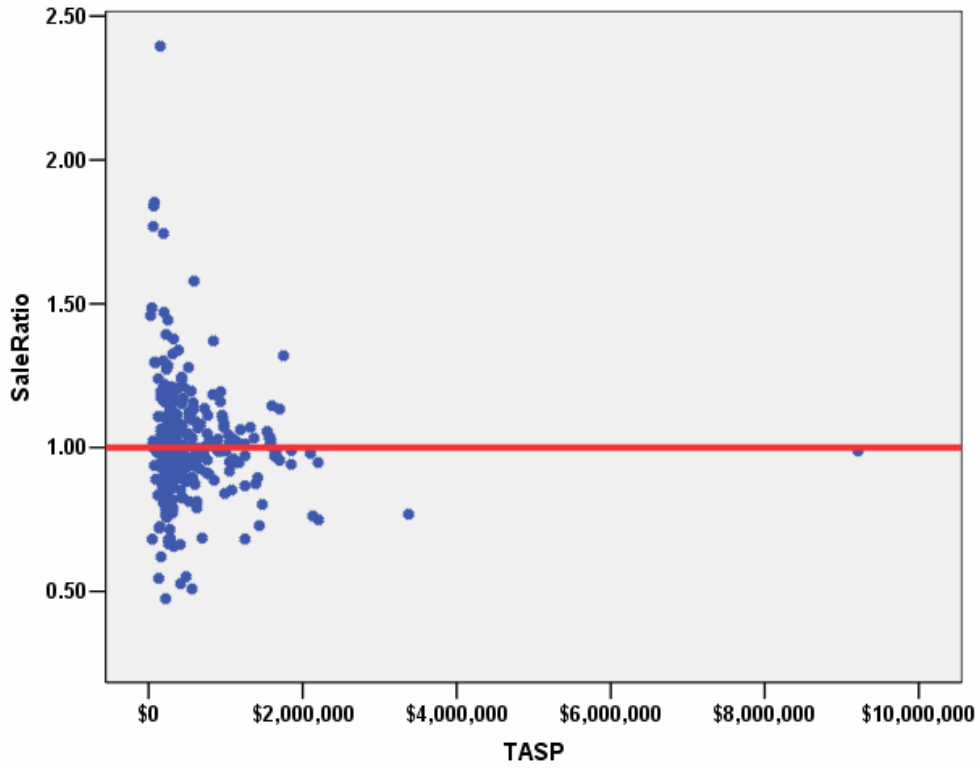
Median	<b>0.986</b>
Price Related Differential	<b>1.024</b>
Coefficient of Dispersion	<b>.064</b>

The above ratio statistics were in compliance with the standards set forth by the Colorado State Board of Equalization (SBOE) for the overall residential sales. The following graphs describe further the sales ratio distribution for these properties:

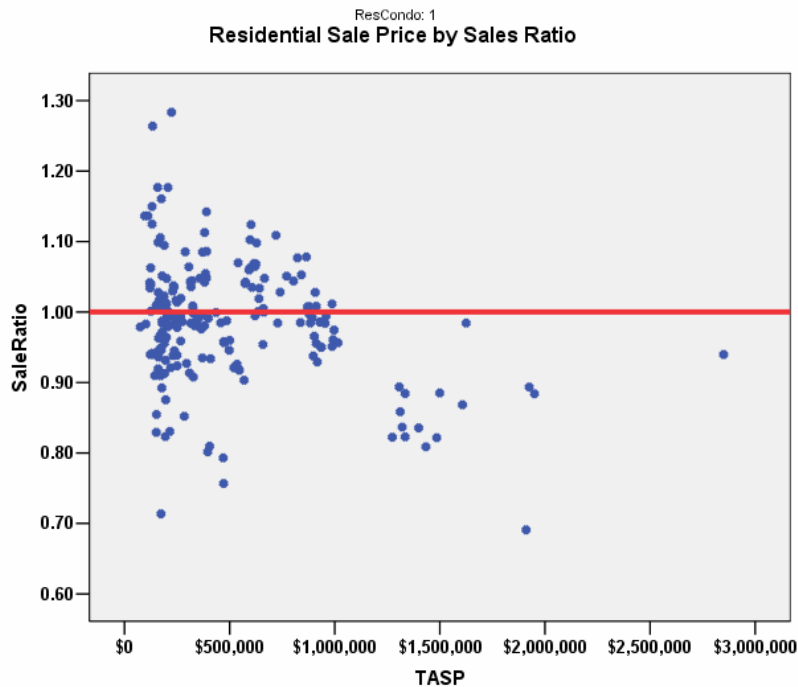
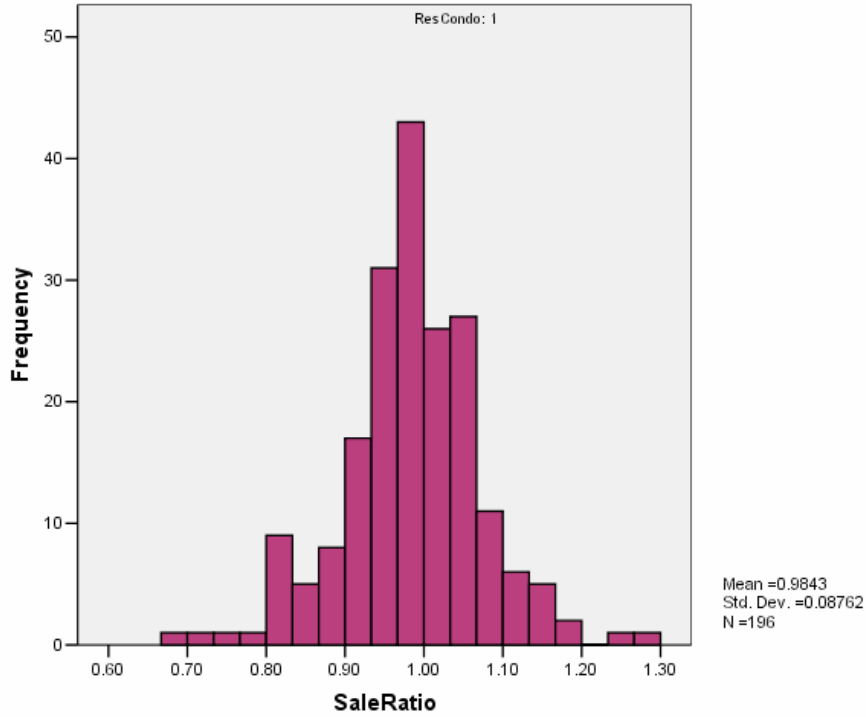
### Residential Non-Condominiums



ResCondo: 0  
**Residential Sale Price by Sales Ratio**



## Residential Condominiums



The above graphs indicate that the distribution of the sale ratios was within state mandated limits. No sales were trimmed.

### Residential Market Trend Analysis

We next analyzed the residential dataset using the 18-month sale period for any residual market trending. We stratified the sales by residential non-condominiums and residential condominiums (0 = residential non-condominiums, 1 = residential condominiums), with the following results:

**Coefficients<sup>a</sup>**

ResCondo	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
0	1	(Constant)	1.013	.024		42.820	.000
		SalePeriod	-.001	.002	-.017	-.305	.761
1	1	(Constant)	.991	.016		62.342	.000
		SalePeriod	-.001	.001	-.035	-.481	.631

a. Dependent Variable: SaleRatio

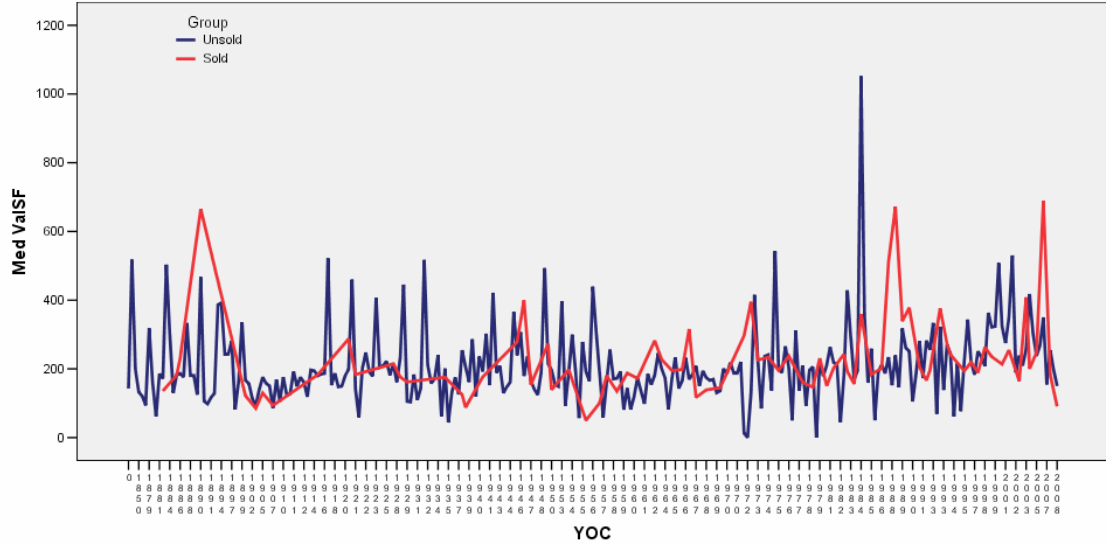
The above analysis indicated that the assessor has adequately addressed market trending in the valuation of residential properties (both condominium and non-condominium).

### Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median actual value per square foot for 2009 between each group, as follows:

Group	No.	Median	Mean
Unsold	9,652	\$226	\$285
Sold	535	\$238	\$343

We also tracked the median value per square foot for sold and unsold residential properties by year of construction, as follows:



The above results indicate that sold and unsold residential properties were valued in a consistent manner.

**IV. COMMERCIAL/INDUSTRIAL SALE RESULTS**

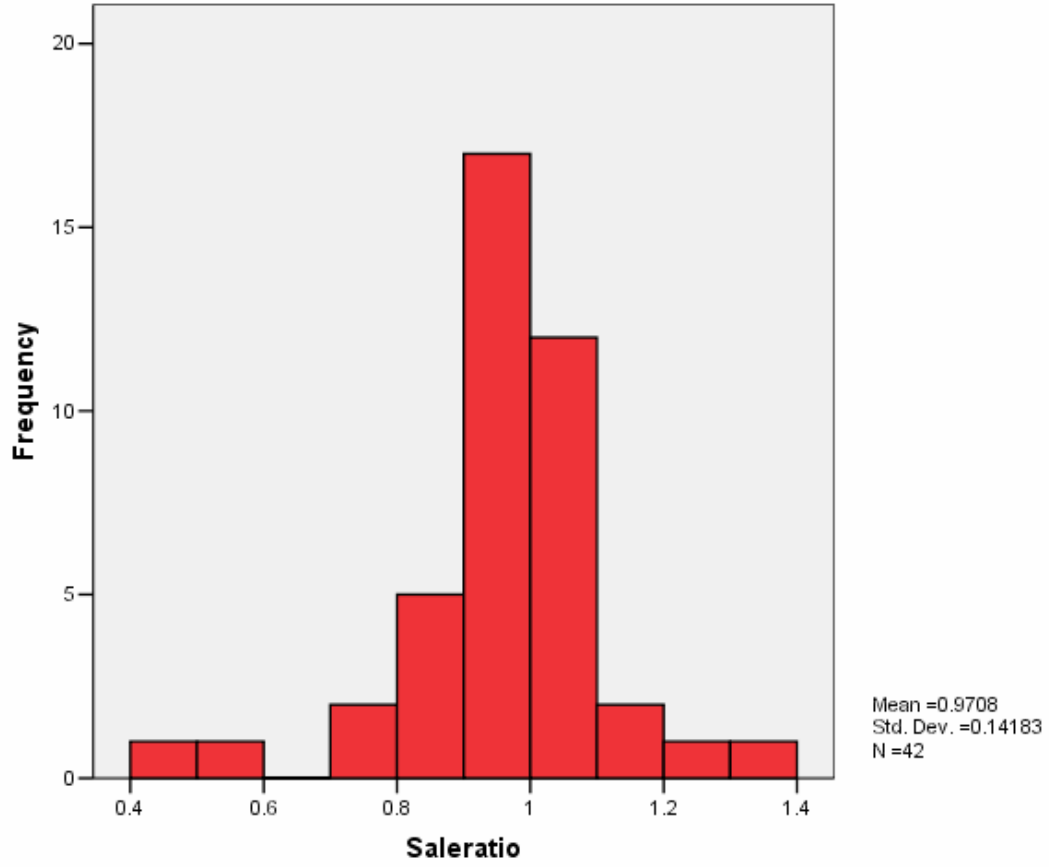
The following steps were taken to analyze the commercial sales:

- |   |       |
|---|-------|
| 1. Total sales                                  | 4,518 |
| 2. Selected qualified sales                     | 3,176 |
| 3. Select improved sales                        | 2,000 |
| 4. Non duplicate sales                          | 1,908 |
| 5. Select commercial/industrial sales only      | 74    |
| 6. Sales between July 1, 2006 and June 30, 2008 | 42    |

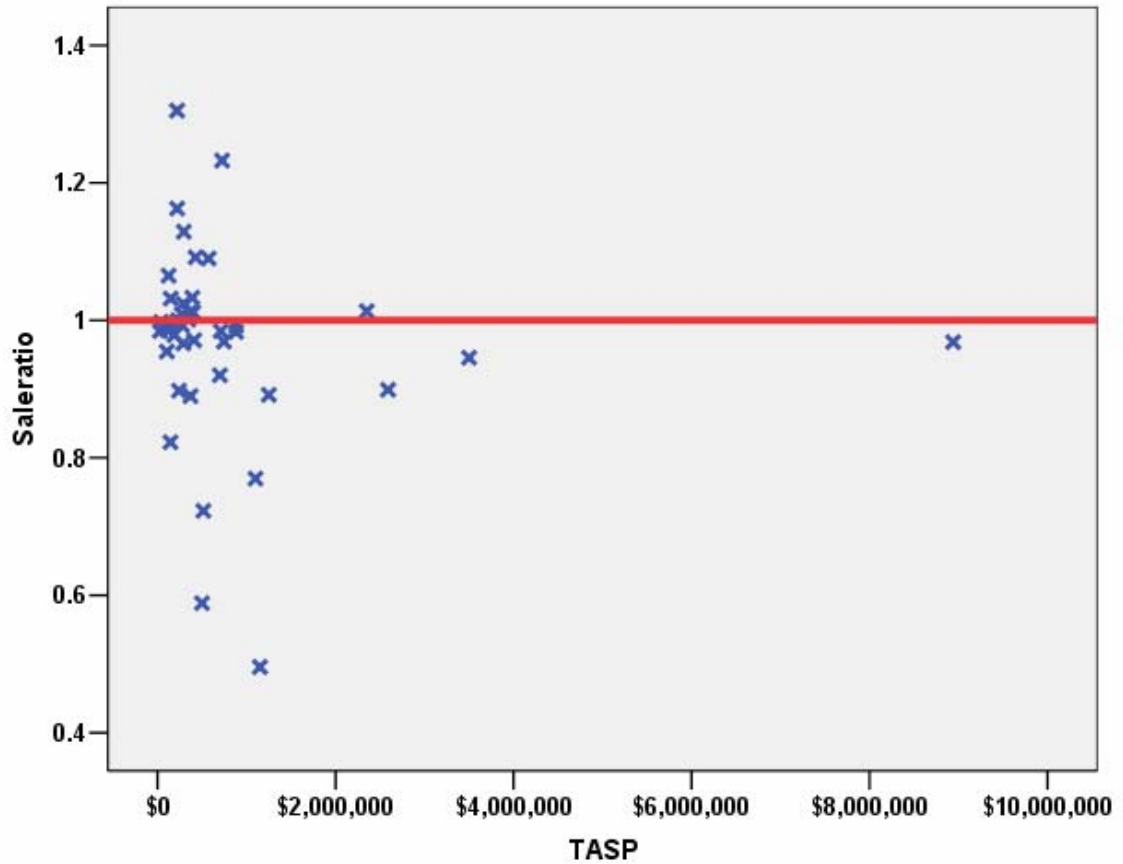
The sales ratio analysis was analyzed as follows:

Median	<b>0.989</b>
Price Related Differential	<b>1.027</b>
Coefficient of Dispersion	<b>.087</b>

The above tables indicate that the Gunnison County commercial/industrial sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:



### Commercial Sale Price by Sales Ratio



### Commercial Market Trend Analysis

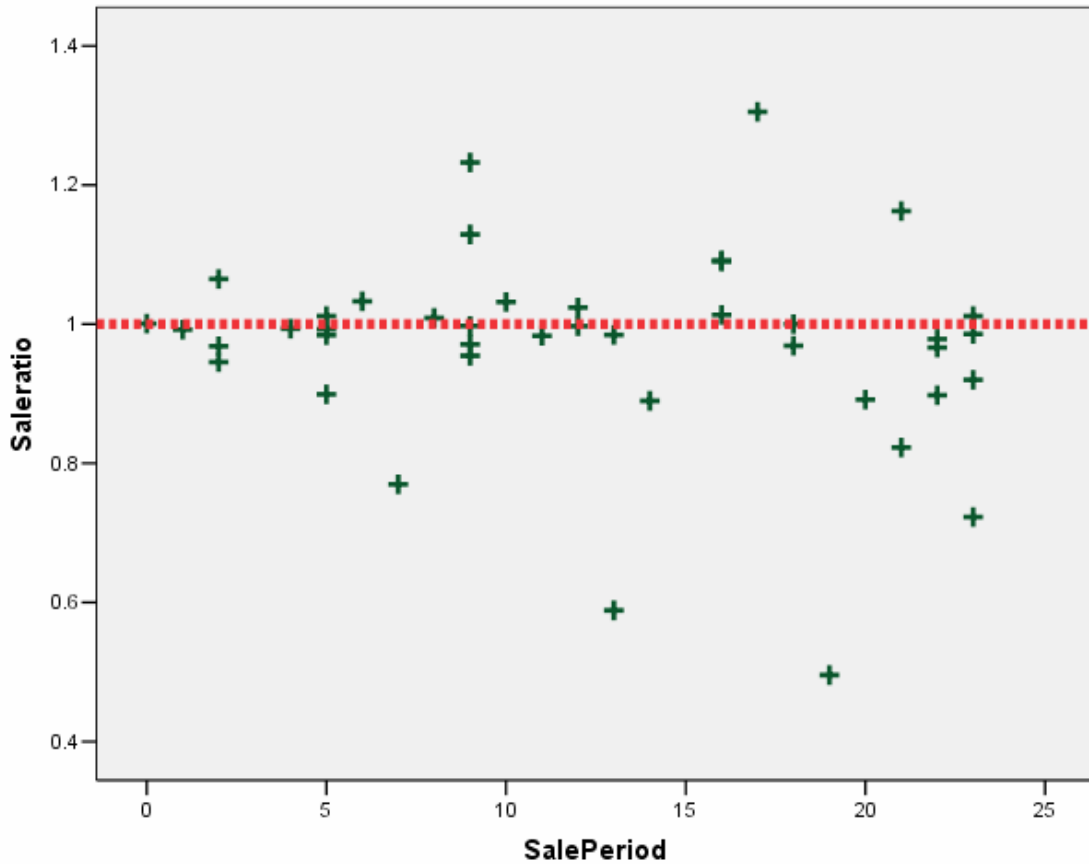
The assessor did not apply any market trend adjustment to the commercial dataset. The 42 commercial sales were analyzed, examining the sale ratios across a 24 month sale period with the following results:

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.011	.044		23.088	.000
	SalePeriod	-.003	.003	-.164	-1.052	.299

a. Dependent Variable: Saleratio

### Commercial Market Trend Analysis



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Gunnison County.

### Sold/Unsold Analysis

We compared the median actual value per square foot between sold and unsold commercial properties to determine if the assessor was valuing each group consistently. We stratified the analysis by subclass in the following table, which indicated that sold and unsold commercial properties were valued consistently:

Abstrimp	Group	No.	Median	Mean
2212.00	Unsold	76	\$141	\$178
	Sold	8	\$121	\$146
2213.50	Unsold	11	\$169	\$170
	Sold	1	\$124	\$124
2215.00	Unsold	60	\$59	\$114
	Sold	1	\$124	\$124

2220.00	<b>Unsold</b>	41	\$186	\$201
	<b>Sold</b>	3	\$122	\$259
2230.00	<b>Unsold</b>	98	\$158	\$179
	<b>Sold</b>	12	\$222	\$228
2235.00	<b>Unsold</b>	42	\$84	\$119
	<b>Sold</b>	1	\$82	\$82
2240.00	<b>Unsold</b>	13	\$119	\$189
	<b>Sold</b>	1	\$83	\$83
2245.00	<b>Unsold</b>	297	\$189	\$209
	<b>Sold</b>	12	\$268	\$270
3230.00	<b>Unsold</b>	5	\$282	\$270
	<b>Sold</b>	1	\$240	\$240

### V. VACANT LAND SALE RESULTS

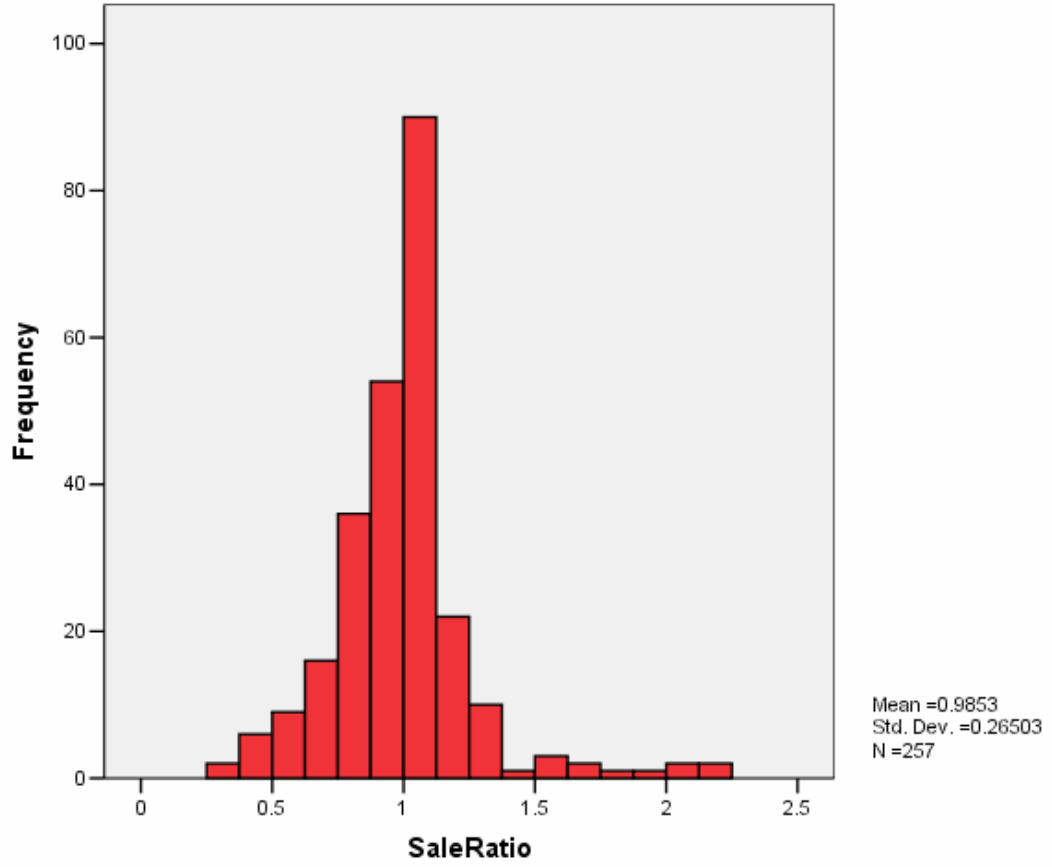
The following steps were taken to analyze vacant land sales:

1. Total sales	4,518
2. Selected qualified sales	3,176
3. Select vacant land sales	1,112
4. Select non-agricultural sales	1,028
5. Sales between July 1, 2006 and June 30, 2008	257

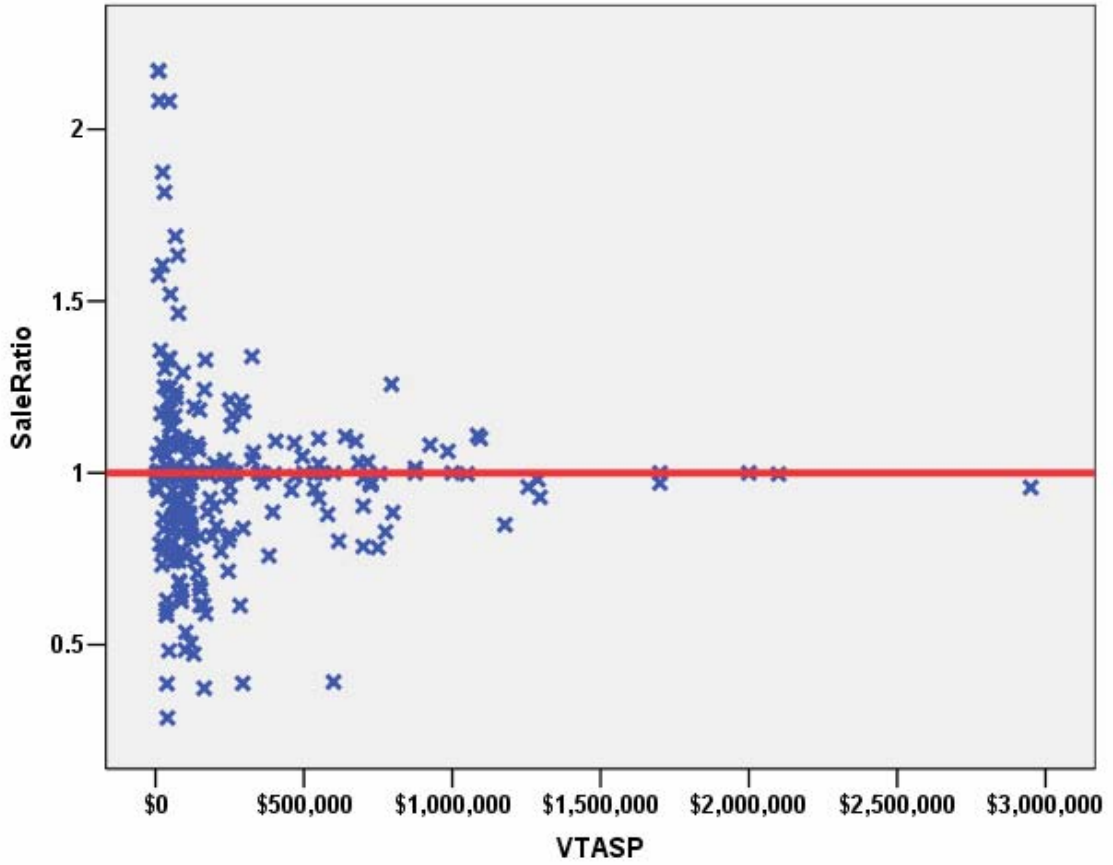
The sales ratio analysis was analyzed as follows:

Median	<b>1.000</b>
Price Related Differential	<b>1.019</b>
Coefficient of Dispersion	<b>.165</b>

The above tables indicate that the Gunnison County vacant land sale ratios were in compliance with the SBOE standards. The following histogram and scatter plot describe the sales ratio distribution further:



### Vacant Land Sale Price by Sales Ratio



### Vacant Land Market Trend Analysis

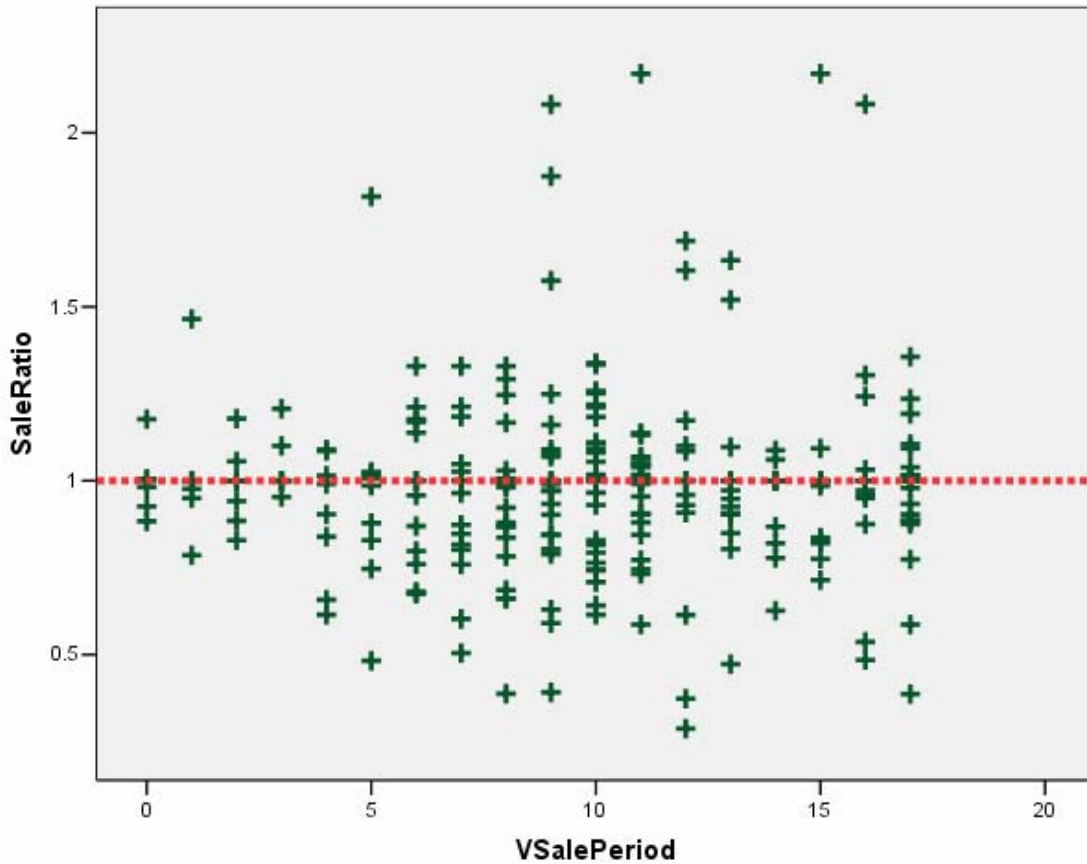
The assessor did not apply any market trend adjustment to the vacant land dataset. The 257 vacant land sales were analyzed, examining the sale ratios across the 18 month sale period with the following results:

**Coefficients<sup>a</sup>**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.977	.040		24.177	.000
	VSalePeriod	.001	.004	.014	.231	.817

a. Dependent Variable: SaleRatio

### Vacant Land Sales Market Trend Analysis



The market trend results indicated no statistically significant trend. We concur that no market trend adjustments were warranted for properties in this class for Gunnison County.

### Sold/Unsold Analysis

We compared the median change in actual value between 2008 and 2009 for vacant land properties to determine if sold and unsold properties were valued consistently. We performed the analysis stratifying the properties by subdivisions with at least 5 sales, as follows:

SUBDIVNO	Group	N	Median	Mean
50.00	UNSOLD	147	1.59	1.62
	SOLD	9	1.53	1.50
51.00	UNSOLD	185	1.53	1.65
	SOLD	10	1.59	1.62
52.00	UNSOLD	207	1.59	1.60
	SOLD	11	1.53	1.56
110.00	UNSOLD	198	2.45	3.04

	<b>SOLD</b>	8	4.57	4.64
360.00	<b>UNSOLD</b>	74	1.00	1.10
	<b>SOLD</b>	6	1.12	1.08
370.00	<b>UNSOLD</b>	305	.51	.58
	<b>SOLD</b>	19	.51	.57
820.00	<b>UNSOLD</b>	12	2.44	2.11
	<b>SOLD</b>	5	2.44	2.44
1030.00	<b>UNSOLD</b>	239	1.13	1.13
	<b>SOLD</b>	15	1.13	1.10
1300.00	<b>UNSOLD</b>	37	1.24	1.26
	<b>SOLD</b>	7	1.21	1.74
5269.00	<b>UNSOLD</b>	67	1.18	1.32
	<b>SOLD</b>	5	1.43	1.41
5389.00	<b>UNSOLD</b>	190	1.47	1.36
	<b>SOLD</b>	11	1.47	1.37
5479.00	<b>UNSOLD</b>	43	2.33	2.61
	<b>SOLD</b>	9	2.33	2.00
5485.00	<b>UNSOLD</b>	50	2.07	2.55
	<b>SOLD</b>	20	1.60	1.80
5503.00	<b>UNSOLD</b>	30	2.41	2.41
	<b>SOLD</b>	5	2.41	2.21

The above results when stratified by subdivision indicated that sold and unsold vacant land properties were valued consistently overall.

## V. AGRICULTURAL IMPROVEMENTS ANALYSIS

The final statistical verification concerned the assigned actual values for agricultural residential improvements. We compared the actual value per square foot rate for this group and compared it to rates assigned to residential single family improvements in Gunnison County.

The following indicates that agricultural residential improvements were valued in a manner similar to the single family residential improvements in this county:

**Descriptives**

Abstrimp		Statistic	Std. Error		
ImpValSF	1212.00	Mean	\$135.39	\$1.086	
		95% Confidence Interval for Mean	Lower Bound \$133.26		
			Upper Bound \$137.52		
		5% Trimmed Mean	\$133.13		
		Median	\$128.97		
		Variance	2350.078		
		Std. Deviation	\$48.478		
		Minimum	\$5		
		Maximum	\$1,254		
		Range	\$1,249		
		Interquartile Range	\$48		
		Skewness	6.686	.055	
		Kurtosis	142.869	.110	
	4277.00		Mean	\$135.20	\$2.944
			95% Confidence Interval for Mean	Lower Bound \$129.42	
			Upper Bound \$140.98		
		5% Trimmed Mean	\$132.33		
		Median	\$130.42		
		Variance	4567.159		
		Std. Deviation	\$67.581		
		Minimum	\$7		
		Maximum	\$497		
		Range	\$489		
		Interquartile Range	\$81		
		Skewness	.923	.106	
		Kurtosis	2.661	.212	

**VI. CONCLUSIONS**

Based on this statistical analysis, there were no significant compliance issues concluded for Gunnison County as of the date of this report.

## STATISTICAL ABSTRACT

### Residential

**Ratio Statistics for CURRTOT / TASP**

Mean		.999
95% Confidence Interval for Mean	Lower Bound	.985
	Upper Bound	1.012
Median		.991
95% Confidence Interval for Median	Lower Bound	.984
	Upper Bound	.997
	Actual Coverage	95.8%
Weighted Mean		.978
95% Confidence Interval for Weighted Mean	Lower Bound	.963
	Upper Bound	.992
Price Related Differential		1.021
Coefficient of Dispersion		.101
Coefficient of Variation	Mean Centered	16.3%

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.

### Commercial/Industrial

**Ratio Statistics for CURRTOT / TASP**

Mean		.971
95% Confidence Interval for Mean	Lower Bound	.927
	Upper Bound	1.015
Median		.989
95% Confidence Interval for Median	Lower Bound	.969
	Upper Bound	1.001
	Actual Coverage	95.6%
Weighted Mean		.945
95% Confidence Interval for Weighted Mean	Lower Bound	.902
	Upper Bound	.989
Price Related Differential		1.027
Coefficient of Dispersion		.087
Coefficient of Variation	Mean Centered	14.6%

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.

**Vacant Land**

**Ratio Statistics for CURRLND / VTASP**

Mean		.985
95% Confidence Interval for Mean	Lower Bound	.953
	Upper Bound	1.018
Median		1.000
95% Confidence Interval for Median	Lower Bound	.985
	Upper Bound	1.000
	Actual Coverage	95.4%
Weighted Mean		.967
95% Confidence Interval for Weighted Mean	Lower Bound	.945
	Upper Bound	.989
Price Related Differential		1.019
Coefficient of Dispersion		.165
Coefficient of Variation	Mean Centered	26.9%

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.

**Residential Median Ratio Stratification**

**Sale Price**

**Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	1	.2%
	\$25K to \$50K	2	.4%
	\$50K to \$100K	16	3.0%
	\$100K to \$150K	27	5.0%
	\$150K to \$200K	71	13.2%
	\$200K to \$300K	120	22.4%
	\$300K to \$500K	122	22.8%
	\$500K to \$750K	70	13.1%
	\$750K to \$1,000K	49	9.1%
	Over \$1,000K	58	10.8%
Overall		536	100.0%
Excluded		0	
Total		536	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT \$25K	1.459	1.000	.000	.
\$25K to \$50K	1.084	1.020	.371	52.5%
\$50K to \$100K	1.006	1.012	.212	38.0%
\$100K to \$150K	1.001	.995	.156	31.4%
\$150K to \$200K	.984	.998	.101	16.0%
\$200K to \$300K	.990	1.000	.096	14.1%
\$300K to \$500K	.987	1.004	.093	13.5%
\$500K to \$750K	1.003	1.000	.090	13.4%
\$750K to \$1,000K	.995	1.001	.058	9.0%
Over \$1,000K	.948	1.000	.094	12.4%
Overall	.991	1.021	.101	16.5%

**Subclass**

**Case Processing Summary**

	Count	Percent
PredUse 1212	325	60.6%
1215	11	2.1%
1220	3	.6%
1225	1	.2%
1230	196	36.6%
Overall	536	100.0%
Excluded	0	
Total	536	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1212	.993	1.017	.117	17.7%
1215	1.013	1.082	.280	50.9%
1220	.920	1.031	.053	9.0%
1225	.988	1.000	.000	.
1230	.986	1.024	.064	8.9%
Overall	.991	1.021	.101	16.5%

## Age

### Case Processing Summary

		Count	Percent
AgeRec	Over 100	18	3.4%
	75 to 100	6	1.1%
	50 to 75	19	3.5%
	25 to 50	146	27.2%
	5 to 25	178	33.2%
	5 or Newer	169	31.5%
Overall		536	100.0%
Excluded		0	
Total		536	

### Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	1.015	1.042	.225	33.0%
75 to 100	.952	1.004	.109	14.5%
50 to 75	.959	1.002	.147	20.8%
25 to 50	.984	1.031	.110	20.1%
5 to 25	.993	1.013	.092	13.9%
5 or Newer	.994	1.017	.084	12.1%
Overall	.991	1.021	.101	16.5%

## Improved Area

### Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	34	6.3%
	500 to 1,000 sf	129	24.1%
	1,000 to 1,500 sf	155	28.9%
	1,500 to 2,000 sf	105	19.6%
	2,000 to 3,000 sf	92	17.2%
	3,000 sf or Higher	21	3.9%
Overall		536	100.0%
Excluded		0	
Total		536	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	.980	.998	.091	14.1%
500 to 1,000 sf	.995	1.000	.085	13.9%
1,000 to 1,500 sf	.985	1.005	.094	16.0%
1,500 to 2,000 sf	.997	1.034	.116	17.2%
2,000 to 3,000 sf	.987	1.031	.105	14.4%
3,000 sf or Higher	.992	1.091	.171	35.0%
Overall	.991	1.021	.101	16.5%

**Improvement Quality**

**Case Processing Summary**

	Count	Percent
QUAL 1.00	5	.9%
2.00	167	31.2%
2.50	2	.4%
3.00	192	35.8%
4.00	66	12.3%
5.00	77	14.4%
6.00	4	.7%
20.00	2	.4%
30.00	3	.6%
40.00	5	.9%
50.00	13	2.4%
Overall	536	100.0%
Excluded	0	
Total	536	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1.00	.991	1.090	.235	33.7%
2.00	.965	1.009	.110	17.1%
2.50	1.639	1.322	.462	65.3%
3.00	1.000	1.022	.093	13.4%
4.00	1.005	1.019	.081	12.2%
5.00	.994	1.022	.065	9.1%
6.00	.917	1.001	.040	5.2%
20.00	1.070	1.124	.363	51.4%
30.00	1.006	1.018	.278	58.6%
40.00	.986	1.018	.120	17.8%
50.00	.991	1.056	.144	28.0%
Overall	.991	1.021	.101	16.5%

**Commercial Median Ratio Stratification**

**Sale Price**

**Case Processing Summary**

		Count	Percent
SPRec	\$25K to \$50K	2	4.8%
	\$100K to \$150K	6	14.3%
	\$150K to \$200K	2	4.8%
	\$200K to \$300K	9	21.4%
	\$300K to \$500K	8	19.0%
	\$500K to \$750K	6	14.3%
	\$750K to \$1,000K	2	4.8%
	Over \$1,000K	7	16.7%
Overall		42	100.0%
Excluded		0	
Total		42	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
\$25K to \$50K	.991	.999	.006	.9%
\$100K to \$150K	.990	1.002	.055	8.6%
\$150K to \$200K	.988	1.001	.009	1.3%
\$200K to \$300K	1.009	1.005	.084	13.1%
\$300K to \$500K	1.006	1.012	.087	16.7%
\$500K to \$750K	.977	.990	.119	17.5%
\$750K to \$1,000K	.988	1.000	.005	.6%
Over \$1,000K	.899	.929	.122	20.3%
Overall	.989	1.027	.087	14.5%

**Subclass**

**Case Processing Summary**

	Count	Percent
PredUse 2212	8	19.0%
2215	2	4.8%
2220	3	7.1%
2230	13	31.0%
2235	1	2.4%
2240	1	2.4%
2245	12	28.6%
3215	1	2.4%
3230	1	2.4%
Overall	42	100.0%
Excluded	0	
Total	42	

**Ratio Statistics for CURRTOT / TASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
2212	.989	.981	.058	11.0%
2215	.976	1.008	.008	1.2%
2220	1.012	1.120	.129	19.9%
2230	.983	1.047	.095	17.0%
2235	1.305	1.000	.000	.
2240	.920	1.000	.000	.
2245	.995	.993	.056	8.3%
3215	.589	1.000	.000	.
3230	.993	1.000	.000	.
Overall	.989	1.027	.087	14.5%

**Vacant Land Median Ratio Stratification**

**Case Processing Summary**

	Count	Percent
VPredUse 100	183	71.2%
200	8	3.1%
300	2	.8%
400	2	.8%
520	1	.4%
530	3	1.2%
540	2	.8%
550	7	2.7%
560	1	.4%
600	3	1.2%
1135	4	1.6%
1212	38	14.8%
2212	1	.4%
2230	1	.4%
2235	1	.4%
Overall	257	100.0%
Excluded	0	
Total	257	

**Ratio Statistics for CURRLND / VTASP**

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
100	1.000	1.027	.169	27.1%
200	.999	1.012	.049	8.9%
300	.938	.964	.064	9.0%
400	1.057	.995	.040	5.7%
520	1.006	1.000	.000	.
530	1.080	1.219	.449	72.0%
540	1.038	1.025	.046	6.5%
550	.926	1.151	.245	34.8%
560	.816	1.000	.000	.
600	1.575	1.280	.237	49.1%
1135	.991	1.078	.110	21.5%
1212	.983	.963	.125	19.6%
2212	.828	1.000	.000	.
2230	.615	1.000	.000	.
2235	1.000	1.000	.000	.
Overall	1.000	1.019	.165	26.5%