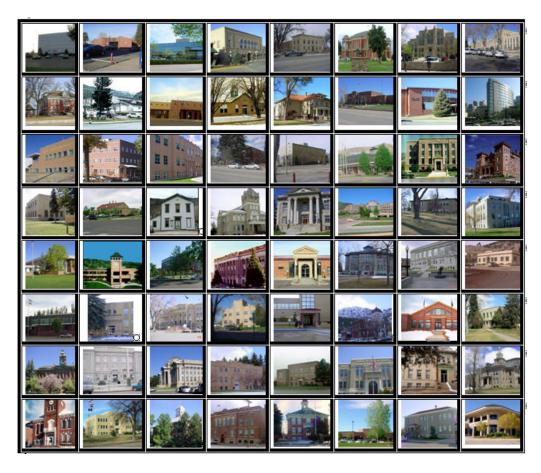


# 2014 GUNNISON COUNTY PROPERTY ASSESSMENT STUDY







September 15, 2014

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

RE: Final Report for the 2014 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2014 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.

Harry J. Fuller Project Manager

Harry J. Zulln

Wildrose Appraisal Inc. – Audit Division



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# INTRODUCTION



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 twopart 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 subdivision and discounting procedures. Valuation methodology for vacant land, improved properties commercial residential and 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 2014 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 15,324 people with 4.73 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 9.8 percent change from the 2000 Census.

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 2011 and June 2012. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2012 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 pricerelated 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:

	Gunnison County Ratio Grid							
Property Class	Coefficient of Dispersion	Time Trend Analysis						
Commercial/Industrial	48	1.002	1.080	12.3	Compliant			
Condominium	355	0.981	1.040	14.1	Compliant			
Single Family	491	0.994	1.040	15.3	Compliant			
Vacant Land	480	1.000	1.065	19	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



# 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



# 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 2012 and 2014 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. 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 nonparametric 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 multivariate 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.



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

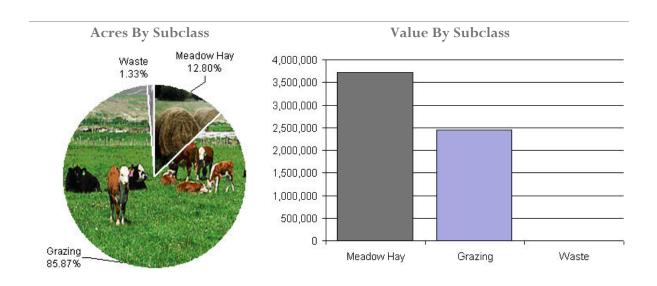
#### Conclusions

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



# AGRICULTURAL LAND STUDY



# **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 locally developed yields, 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:



	Gunnison County Agricultural Land Ratio Grid							
Number County County WRA Abstract Of Value Assessed Total Code Land Class Acres Per Acre Total Value Value Rat								
4137	Meadow Hay	41,022	91.00	3,718,888	3,718,888	1.00		
4147	Grazing	275,221	9.00	2,453,988	2,453,988	1.00		
4167	Waste	4,253	2.00	7,424	7,424	1.00		
Total/Avg		320,496	19.00	6,180,301	6,180,301	1.00		

#### Recommendations

None

# **Agricultural Outbuildings**

## 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

# **Agricultural Land Under Improvements**

# Methodology

Data was collected and reviewed to determine if the guidelines found in the Assessor's Reference Library (ARL) Volume 3, pages 5.19 and 5.20 were being followed.

#### Conclusions

Gunnison County has substantially complied with the procedures provided by the Division

of Property Taxation for the valuation of land under residential improvements that may or may not be integral to an agricultural operation.

#### Recommendations



# 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 2014 for Gunnison County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 36 sales listed as unqualified.

All of the sales in the unqualified sales sample had reasons that were clear and supportable.

#### Conclusions

Gunnison County appears to be doing an excellent job of verifying their sales. WRA agreed with the county's reason for disqualifying each of the sales selected in the sample. There are no recommendations or suggestions.

#### Recommendations



# 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



# NATURAL RESOURCES

#### **Earth and Stone Products**

#### 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 The operator variables: life and tonnage. 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

# **Producing Coal Mines**

# 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

## **Producing Oil and Gas**

#### 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



# VACANT LAND

#### **Subdivision Discounting**

Subdivisions were reviewed in 2014 in Gunnison County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14) and by applying the recommended methodology in ARL Vol 3, Chap 4. Subdivision Discounting in the intervening year was accomplished by reducing the absorption period by one year.

In instances where the number of sales within an approved plat was less than the absorption

rate per year calculated for the plat, the absorption period was left unchanged.

#### **Conclusions**

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

#### Recommendations



# 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 Chapter 39-1-103 (17)(a)(II)C.R.S. Possessory Interest is defined by the Property Tax Administrator's Publication ARL Volume 3, Chapter 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 under lease, permit, 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



# 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
- MLS Listing and/or Sold Books
- Chamber of Commerce/Economic Development Contacts
- 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

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 2014 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:

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



Accounts protested with substantial disagreement

**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



# WILDROSE AUDITOR STAFF

Harry J. Fuller, Audit Project Manager

Suzanne Howard, Audit Administrative Manager

Steve Kane, Audit Statistician

Carl W. Ross, Agricultural/Natural Resource Analyst

J. Andrew Rodriguez, Field Analyst



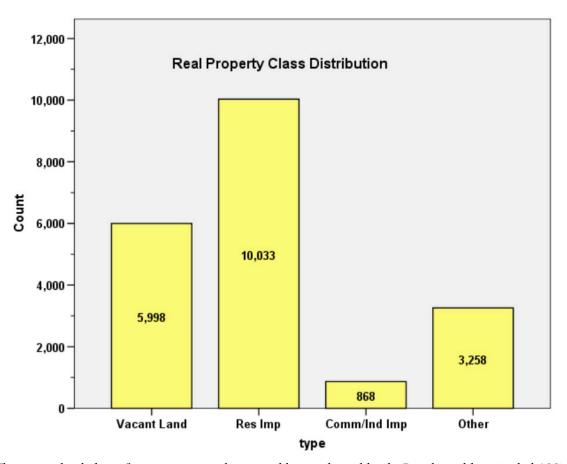
# APPENDICES



#### STATISTICAL COMPLIANCE REPORT FOR GUNNISON COUNTY 2014

#### I. OVERVIEW

Gunnison County is a mountain resort located in western Colorado. The county has a total of 20,157 real property parcels, according to data submitted by the county assessor's office in 2014. The following provides a breakdown of property classes for this county:



The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 67.9% of all vacant land parcels.

For residential improved properties, single family properties accounted for 67.6% of all residential properties. Residential condominiums accounted for 27.6% 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 4.3% of all such properties in this county.



#### II. DATA FILES

The following sales analyses were based on the requirements of the 2014 Colorado Property Assessment Study. The data included all 5 property record files as specified by the Auditor.

#### III. RESIDENTIAL SALES RESULTS

There were 912 qualified residential sales, after trimming 18 sales with extreme ratios. The sale period for residential non-condominium properties was 36 months prior to June 30, 2014 and the residential condominium sale period range was 48 months prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

#### Residential Non-Condominiums (491 Sales)

Median	0.994
Price Related Differential	1.040
Coefficient of Dispersion	.153

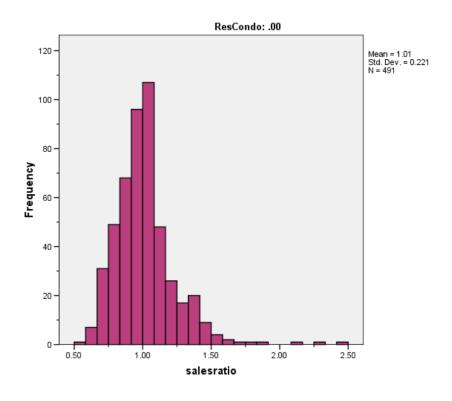
#### Residential Condominiums (355 Sales)

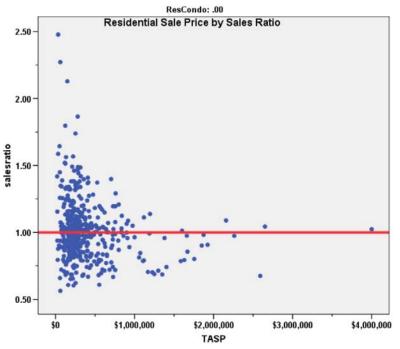
Median	0.981
Price Related Differential	1.040
Coefficient of Dispersion	.141

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:



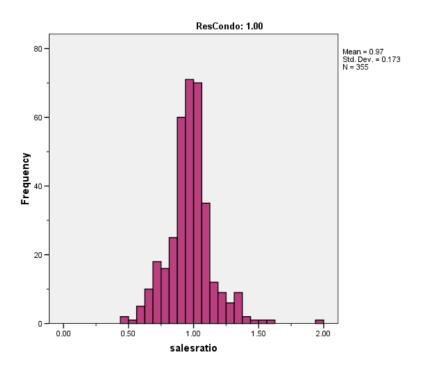
#### **Residential Non-Condominiums**

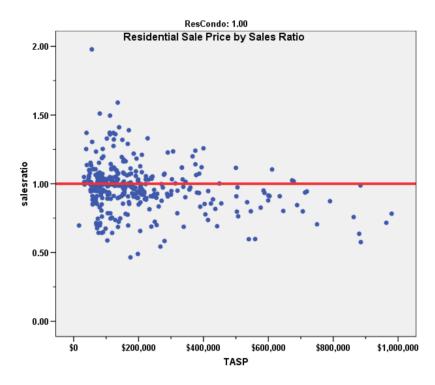






#### **Residential Condominiums**





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 36-month and 48-month sale periods for any residual market trending. We stratified the sales by residential non-condominiums and residential condominiums, with the following results:

Coefficients<sup>a</sup>

	ResCondo	Model		Unstandardized Coefficients		Standardized Coefficients		
l				В	Std. Error	Beta	t	Sig.
Γ	.00	1	(Constant)	.960	.013		75.451	.000
١			SalePeriod	.000	.001	.011	.229	.819
١	1.00	1	(Constant)	.960	.014		68.049	.000
L			SalePeriod	.000	.001	040	731	.466

a. Dependent Variable: salesratio

#### 0 = Residential non-condominiums, 1 = residential condominiums

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 2014 between each group, as follows:

RESIDENTIAL NON-CONDOMINIUMS

Group	No.	Median	Mean
Unsold	6,803	\$156	\$206
Sold	491	\$157	\$190

#### RESIDENTIAL CONDOMINIUMS

Group	No.	Median	Mean
Unsold	2,281	\$141	\$154
Sold	353	\$152	\$170

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

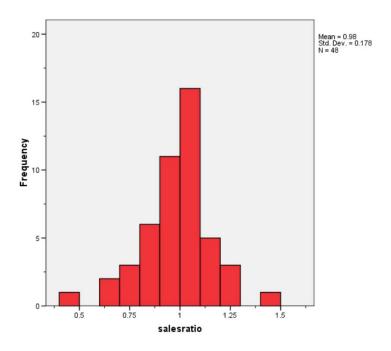


#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

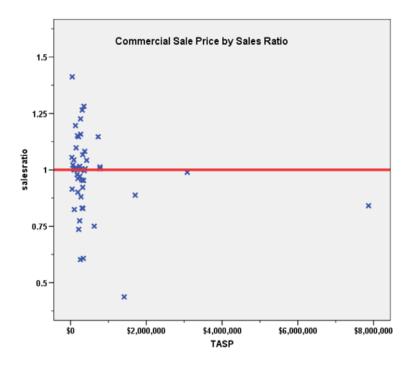
There were 48 qualified commercial/industrial sales. The sale period for this class was 60 months prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	1.002
Price Related Differential	1.080
Coefficient of Dispersion	.123

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 Market Trend Analysis**

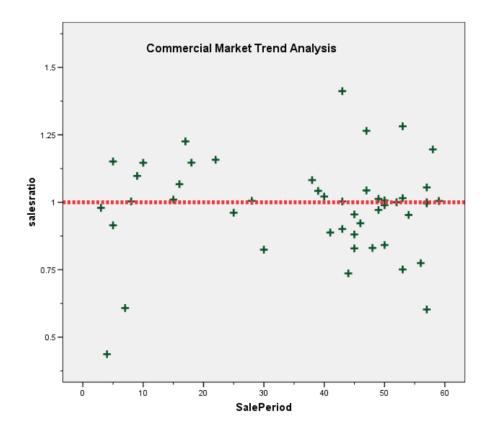
We next analyzed the 57 commercial/industrial sales to determine if there was any residual market trending across the 60 month sale period, with the following results:

Coefficients<sup>a</sup>

Model		Unstandardized Coefficients		Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	.976	.060		16.311	.000
	SalePeriod	7.523E-5	.001	.008	.052	.959

a. Dependent Variable: salesratio





The market trend results indicated no statistically significant trend. We concur that the assessor has adequately accounted for market trending in 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:

Group	No.	Median	Mean		
Unsold	789	\$142	\$207		
Sold	48	\$169	\$188		

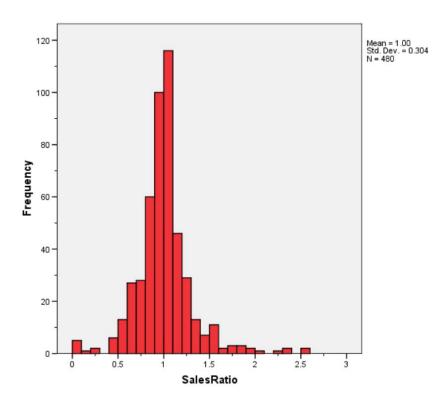


#### V. VACANT LAND SALE RESULTS

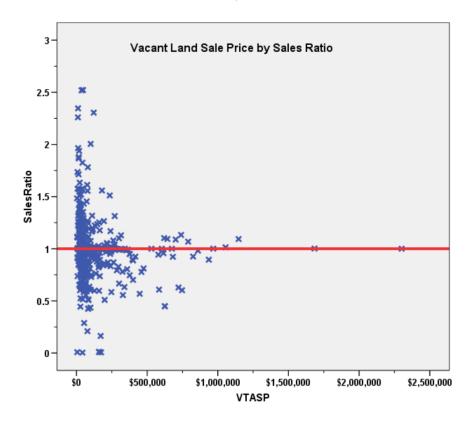
There were 480 qualified vacant land sales. The sale period for this class was 60 months prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Median	1.000
Price Related Differential	1.065
Coefficient of Dispersion	.190

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 Market Trend Analysis**

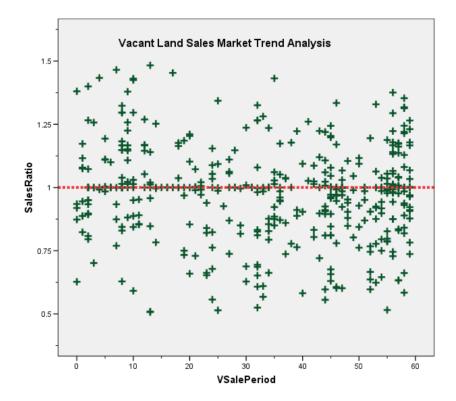
The assessor did not apply any market trend adjustment to the vacant land dataset. The 480 vacant land sales were analyzed, examining the sale ratios across the 60 month sale period with the following results:

Coefficients<sup>a</sup>

Mo	odel	Unstandardize	d Coefficients	Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.013	.018		56.156	.000
L	VSalePeriod	001	.000	107	-2.240	.026

a. Dependent Variable: SalesRatio





The market trend results indicated a statistically significant trend, but the magnitude of that trend was not significant. We concur that the assessor has adequately addressed market trending for vacant land in Gunnison County.

#### **Sold/Unsold Analysis**

We compared the median change in actual value between 2012 and 2014 for vacant land properties to determine if sold and unsold properties were valued consistently, with the following results:

Group			Mean Chg Val		
Unsold	4,995	0.7500	0.7622		
Sold	<del>4</del> 73	0.7380	0.7402		

The above results 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 **SFR** \$97.51 \$.877 Mean 95% Confidence Interval for Lower Bound \$95.79 Mean Upper Bound \$99.23 5% Trimmed Mean \$94.76 Median \$93.02 Variance 1672.084 Std. Deviation \$40.891 Minimum \$3 Maximum \$567 \$564 Range Interquartile Range \$33 2.727 .053 Skewness Kurtosis 19.863 .105 Αg \$6.553 Mean \$97.81 Res 95% Confidence Interval for Lower Bound \$84.83 Mean Upper Bound \$110.80 5% Trimmed Mean \$93.58 Median \$83.76 4809.238 Variance Std. Deviation \$69.349 Minimum \$0 Maximum \$302 \$302 Range Interquartile Range \$98

#### VI. CONCLUSIONS

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

.843

.279

.228

453

Skewness

Kurtosis



#### **STATISTICAL ABSTRACT**

#### Residential

#### Ratio Statistics for CURRTOT / TASP

ResCondo		95% Confider Me	nce Interval for an		95% Confidence Interval for Median				95% Confider Weighte				Coefficient of Variation
	Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.00	1.014	.994	1.033	.994	.975	1.007	95.3%	.974	.954	.995	1.040	.153	21.8%
1.00	.973	.955	.991	.981	.958	.993	95.6%	.936	.912	.959	1.040	.123	17.8%

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

	95% Confiden Me	ce Interval for an		95% Confidence Interval for Median				95% Confiden Weighte				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.979	.927	1.031	1.002	.955	1.015	97.1%	.907	.832	.982	1.080	.123	18.2%

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

	95% Confider Me			95% Confidence Interval for Median				95% Confiden Weighte				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.003	.976	1.030	1.000	.996	1.000	95.0%	.942	.912	.972	1.065	.190	30.4%

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	4	.5%
	\$25K to \$50K	19	2.2%
	\$50K to \$100K	119	14.1%
	\$100K to \$150K	109	12.9%
	\$150K to \$200K	138	16.3%
	\$200K to \$300K	189	22.3%
	\$300K to \$500K	139	16.4%
	\$500K to \$750K	74	8.7%
	\$750K to \$1,000K	27	3.2%
	Over \$1,000K	28	3.3%
Overall		846	100.0%
Excluded	I	0	
Total		846	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	1.046	.985	.224	29.4%
\$25K to \$50K	1.049	1.010	.175	36.3%
\$50K to \$100K	.991	1.008	.141	23.3%
\$100K to \$150K	1.012	.996	.167	24.5%
\$150K to \$200K	.994	1.001	.115	15.8%
\$200K to \$300K	.974	.997	.135	20.1%
\$300K to \$500K	1.002	1.002	.129	16.8%
\$500K to \$750K	.909	.999	.142	18.1%
\$750K to \$1,000K	.987	1.005	.130	17.8%
Over \$1,000K	.851	.982	.144	16.9%
Overall	.986	1.034	.141	20.7%



## Subclass

## **Case Processing Summary**

		Count	Percent
ABSTRIMP	1212	483	57.1%
	1215	5	.6%
	1220	2	.2%
	1230	355	42.0%
	4279	1	.1%
Overall		846	100.0%
Excluded		0	
Total		846	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
1212	.995	1.041	.152	22.3%
1215	.986	1.001	.215	30.9%
1220	.927	1.003	.039	5.5%
1230	.981	1.040	.123	17.7%
4279	.911	1.000	.000	.%
Overall	.986	1.034	.141	20.7%



## Age

## **Case Processing Summary**

		Count	Percent
AgeRec	75 to 100	1	.1%
	50 to 75	28	3.3%
	25 to 50	324	38.3%
	5 to 25	459	54.3%
	5 or Newer	34	4.0%
Overall		846	100.0%
Excluded		0	
Total		846	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
75 to 100	1.154	1.000	.000	.%
50 to 75	.992	1.045	.196	35.7%
25 to 50	.990	1.008	.138	20.3%
5 to 25	.981	1.038	.141	20.0%
5 or Newer	.974	1.041	.124	16.7%
Overall	.986	1.034	.141	20.7%



# Improved Area

## **Case Processing Summary**

		Count	Percent
ImpSFRec	LE 500 sf	58	6.9%
	500 to 1,000 sf	174	20.6%
	1,000 to 1,500 sf	263	31.1%
	1,500 to 2,000 sf	178	21.0%
	2,000 to 3,000 sf	122	14.4%
	3,000 sf or Higher	51	6.0%
Overall		846	100.0%
Excluded		0	
Total		846	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LE 500 sf	.971	1.032	.132	17.6%
500 to 1,000 sf	.968	1.029	.142	20.6%
1,000 to 1,500 sf	.984	1.034	.131	19.9%
1,500 to 2,000 sf	1.000	1.049	.142	20.6%
2,000 to 3,000 sf	.988	1.042	.137	18.3%
3,000 sf or Higher	1.019	1.095	.193	29.0%
Overall	.986	1.034	.141	20.7%



# Improvement Quality

## **Case Processing Summary**

		Count	Percent
QUALITY	Average	322	38.1%
	Excellent	61	7.2%
	Fair	296	35.0%
	Good	139	16.4%
	Low	6	.7%
	Poor	2	.2%
	Very Good	20	2.4%
Overall		846	100.0%
Excluded		0	
Total		846	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Average	.999	1.024	.135	19.0%
Excellent	.909	1.007	.142	18.3%
Fair	.987	1.024	.140	21.6%
Good	.994	1.029	.141	21.9%
Low	1.068	1.066	.304	38.8%
Poor	.981	.976	.080	11.3%
Very Good	.962	1.035	.121	16.1%
Overall	.986	1.034	.141	20.7%



# **Improvement Condition**

### **Case Processing Summary**

		Count	Percent
CONDITION	DITION Average		79.0%
	Below Average	52	6.1%
	Excellent	9	1.1%
	Good	50	5.9%
	Minimum	3	.4%
	Salvage	2	.2%
	Very Good	62	7.3%
Overall		846	100.0%
Excluded		0	
Total		846	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Average	.991	1.026	.137	20.5%
Below Average	.991	1.042	.168	25.8%
Excellent	.924	1.067	.127	19.2%
Good	1.007	1.017	.129	17.2%
Minimum	.891	.965	.140	22.8%
Salvage	1.263	.953	.257	36.3%
Very Good	.908	1.052	.142	18.5%
Overall	.986	1.034	.141	20.7%



## **Commercial Median Ratio Stratification**

### Sale Price

### **Case Processing Summary**

		Count	Percent
SPRec	\$25K to \$50K	3	6.3%
	\$50K to \$100K	4	8.3%
	\$100K to \$150K	5	10.4%
	\$150K to \$200K	4	8.3%
	\$200K to \$300K	12	25.0%
	\$300K to \$500K	12	25.0%
	\$500K to \$750K	2	4.2%
	\$750K to \$1,000K	2	4.2%
	Over \$1,000K	4	8.3%
Overall		48	100.0%
Excluded	I	0	
Total		48	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
\$25K to \$50K	1.055	.993	.157	25.7%
\$50K to \$100K	1.011	1.010	.060	10.8%
\$100K to \$150K	1.010	.996	.057	10.2%
\$150K to \$200K	.970	1.002	.069	11.5%
\$200K to \$300K	.987	.998	.138	18.9%
\$300K to \$500K	1.001	.997	.134	18.6%
\$500K to \$750K	.949	.984	.209	29.5%
\$750K to \$1,000K	1.009	1.000	.004	.5%
Over \$1,000K	.865	.941	.173	29.8%
Overall	1.002	1.080	.123	17.9%



### **Subclass**

## **Case Processing Summary**

		Count	Percent
ABSTRIMP	2212	2	4.2%
	2215	3	6.3%
	2220	3	6.3%
	2230	13	27.1%
	2235	2	4.2%
	2240	2	4.2%
	2245	22	45.8%
	3230	1	2.1%
Overall		48	100.0%
Excluded		0	
Total		48	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
2212	1.008	.998	.005	.7%
2215	.842	.906	.179	34.2%
2220	1.226	.963	.148	28.4%
2230	1.005	.997	.109	16.1%
2235	1.154	.950	.096	13.5%
2240	.949	.984	.209	29.5%
2245	.998	1.028	.098	15.3%
3230	1.000	1.000	.000	.%
Overall	1.002	1.080	.123	17.9%



# Age

## **Case Processing Summary**

		Count	Percent
AgeRec	75 to 100	2	4.2%
	50 to 75	5	10.4%
	25 to 50	16	33.3%
	5 to 25	22	45.8%
	5 or Newer	3	6.3%
Overall		48	100.0%
Excluded		0	
Total		48	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
75 to 100	.890	.970	.130	18.3%
50 to 75	1.003	.950	.172	22.2%
25 to 50	.984	1.067	.142	22.4%
5 to 25	1.011	1.135	.098	14.1%
5 or Newer	.881	1.002	.048	7.2%
Overall	1.002	1.080	.123	17.9%



## Improved Area

## **Case Processing Summary**

		Count	Percent
ImpSFRec	LE 500 sf	8	16.7%
	500 to 1,000 sf	7	14.6%
	1,000 to 1,500 sf	5	10.4%
	1,500 to 2,000 sf	11	22.9%
	2,000 to 3,000 sf	4	8.3%
	3,000 sf or Higher	13	27.1%
Overall		48	100.0%
Excluded		0	
Total		48	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LE 500 sf	1.005	1.018	.104	17.5%
500 to 1,000 sf	.922	1.072	.165	23.0%
1,000 to 1,500 sf	.961	.985	.102	15.5%
1,500 to 2,000 sf	1.015	1.206	.172	23.5%
2,000 to 3,000 sf	1.012	1.002	.044	5.2%
3,000 sf or Higher	1.005	1.076	.097	14.1%
Overall	1.002	1.080	.123	17.9%



# Improvement Quality

## **Case Processing Summary**

		Count	Percent
QUALITY	Average	17	35.4%
	Fair	25	52.1%
	Good	3	6.3%
	Low	3	6.3%
Overall		48	100.0%
Excluded		0	
Total		48	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Average	1.000	1.010	.100	15.3%
Fair	1.003	1.011	.108	15.6%
Good	.842	1.107	.130	26.1%
Low	.608	1.400	.333	54.5%
Overall	1.002	1.080	.123	17.9%



# **Improvement Condition**

## **Case Processing Summary**

		Count	Percent
CONDITION	Average	41	85.4%
	Below Average	6	12.5%
	Excellent	1	2.1%
Overall		48	100.0%
Excluded		0	
Total		48	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Average	1.000	1.098	.110	16.4%
Below Average	.917	.937	.209	25.7%
Excellent	1.265	1.000	.000	.%
Overall	1.002	1.080	.123	17.9%



## **Vacant Land Median Ratio Stratification**

### **Sale Price**

## **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	82	17.1%
	\$25K to \$50K	139	29.0%
	\$50K to \$100K	115	24.0%
	\$100K to \$150K	38	7.9%
	\$150K to \$200K	29	6.0%
	\$200K to \$300K	32	6.7%
	\$300K to \$500K	21	4.4%
	\$500K to \$750K	15	3.1%
	\$750K to \$1,000K	5	1.0%
	Over \$1,000K	4	.8%
Overall		480	100.0%
Excluded	ı	0	
Total		480	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	1.112	1.017	.230	33.2%
\$25K to \$50K	1.002	1.002	.189	29.9%
\$50K to \$100K	.953	.994	.186	27.4%
\$100K to \$150K	1.000	.999	.128	26.3%
\$150K to \$200K	.922	.995	.273	41.9%
\$200K to \$300K	1.000	1.000	.090	15.5%
\$300K to \$500K	.888	1.005	.149	18.5%
\$500K to \$750K	.957	1.000	.196	27.5%
\$750K to \$1,000K	.982	1.002	.051	6.9%
Over \$1,000K	1.008	1.007	.026	4.9%
Overall	1.000	1.065	.190	30.4%



## Subclass

## **Case Processing Summary**

		Count	Percent
ABSTRLND	0	13	2.7%
	100	307	64.0%
	200	10	2.1%
	300	4	.8%
	400	7	1.5%
	510	1	.2%
	520	3	.6%
	530	4	.8%
	540	9	1.9%
	550	17	3.5%
	560	1	.2%
	606	1	.2%
	1112	88	18.3%
	1135	5	1.0%
	2112	1	.2%
	2130	2	.4%
	2630	1	.2%
	4147	5	1.0%
	4151	1	.2%
Overall		480	100.0%
Excluded		0	
Total		480	



Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
0	1.038	1.003	.153	25.8%
100	1.000	1.072	.201	30.8%
200	.990	.988	.034	5.4%
300	.993	1.080	.180	33.8%
400	.935	1.243	.299	42.0%
510	.998	1.000	.000	.%
520	1.008	1.285	.183	32.5%
530	1.047	1.101	.293	44.6%
540	.992	.958	.127	19.2%
550	.971	.990	.089	14.5%
560	1.188	1.000	.000	.%
606	2.522	1.000	.000	.%
1112	1.000	1.021	.118	17.8%
1135	1.000	1.192	.183	27.7%
2112	.568	1.000	.000	.%
2130	.817	1.177	.221	31.3%
2630	.164	1.000	.000	.%
4147	.010	.584	10.514	2582.0%
4151	.007	1.000	.000	.%
Overall	1.000	1.065	.190	30.4%