

# 2014 LA PLATA 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 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 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 La Plata County in the following report.



# REGIONAL/HISTORICAL SKETCH OF LA PLATA COUNTY

#### **Regional Information**

La Plata 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

La Plata County has a population of approximately 51,334 people with 30.34 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 16.82 percent change from the 2000 Census.

La Plata County is in the San Juan Mountains in southwestern Colorado. It is named for the Spanish word for "silver." The search for gold in the La Plata Mountains resulted in a thriving mining industry for several years. It was one of the first places to be prospected in southwestern Colorado. Some of the richest gold mines in the state were located in La Plata County, with a great quantity of ore extracted. During the mining era in La Plata Canyon, coal mining became a prosperous industry around the Hesperus and Hay Gulch areas.

Agriculture replaced mining as the principle industry, with ranching leading in the earlier years. All the mesa lands were considered open range, and numerous herds of cattle, horses and sheep grazed from the New Mexico border to the mountain area. Open range was terminated with the enactment of the Homestead law when the area became settled

by farmers and ranchers who occupied limited acreages.

The county seat is in Durango which was founded in 1880 when the Denver & Rio Grande Railroad built a track to Silverton and established Durango as the hub of its rail system to transport ore from the mountains to smelters in Durango. The Durango & Silverton Narrow Gauge Railroad now only hauls visitors to Silverton, and in 2006 will have been in continuous operation for 125 years.

Many of the original buildings constructed by Durango's pioneers are still standing and are used today in the historic districts of Main and Third Avenues.

Durango is near the Four Corners junction with New Mexico, Arizona and Utah, and is perched at 6,512 feet, nestled between red sandstone bluffs in the vast Animas River Valley. To the north lie the peaks of the San Juan and Needles Mountains, which rise to an average elevation above 10,500 feet. To the west are arid desert lands, and to the south lies the southern border of the two million acre San Juan National Forest and stark canyon country.

(co.laplata.co.us, www.sangres.com & durango.org)



# 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 La Plata County are:

La Plata County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	34	0.995	1.017	11.2	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	1,172	1.003	1.009	7.8	Compliant
Vacant Land	229	0.998	1.042	13.5	Compliant

After applying the above described methodologies, it is concluded from the sales ratios that La Plata 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 La Plata County has complied with the statutory requirements to analyze the effects of time on value in their county. La Plata 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

La Plata 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 I	Results
Property Class	Results
Commercial/Industrial	Compliant
Condominium	N/A
Single Family	Compliant
Vacant Land	Compliant

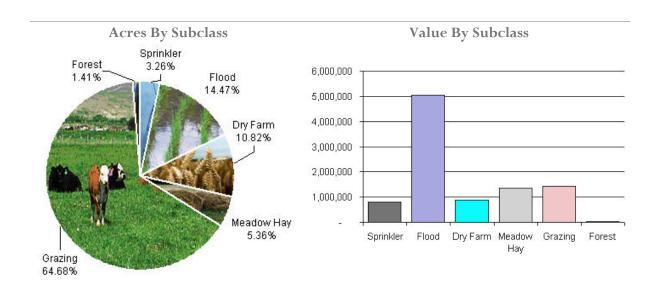
#### Conclusions

After applying the above described methodologies, it is concluded that La Plata 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: 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, 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:



	La Plata County Agricultural Land Ratio Grid					
Abstract Code	Land Class	Number Of Acres	County Value Per Acre T	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	8,853	90.00	794,782	793,333	1.00
4117	Flood	39,351	128.00	5,054,781	5,048,920	1.00
4127	Dry Farm	29,404	30.00	874,226	874,226	1.00
4137	Meadow Hay	14,561	93.00	1,347,444	1,347,444	1.00
4147	Grazing	175,850	8.00	1,425,061	1,425,061	1.00
4177	Forest	3,842	8.00	31,984	31,984	1.00
Total/Avg		271,861	35.00	9,528,278	9,520,968	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

La Plata 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

La Plata 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 La Plata County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 38 sales listed as unqualified.

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

#### Conclusions

La Plata 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

La Plata County has submitted a written narrative describing the economic areas that make up the county's market areas. La Plata 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 La Plata 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 La Plata 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**

La Plata 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 C.R.S. Chapter 39-1-103 (17)(a)(II)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.

La Plata 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

La Plata 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

La Plata 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.

La Plata 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
- 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
- Internet

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.

La Plata 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:

- Businesses in a selected area
- Accounts with obvious discrepancies
- New businesses filing for the first time
- 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 \$7,000 actual value exemption status
- Accounts protested with substantial disagreement

#### **Conclusions**

La Plata 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

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Carl W. Ross, Agricultural/Natural Resource Analyst

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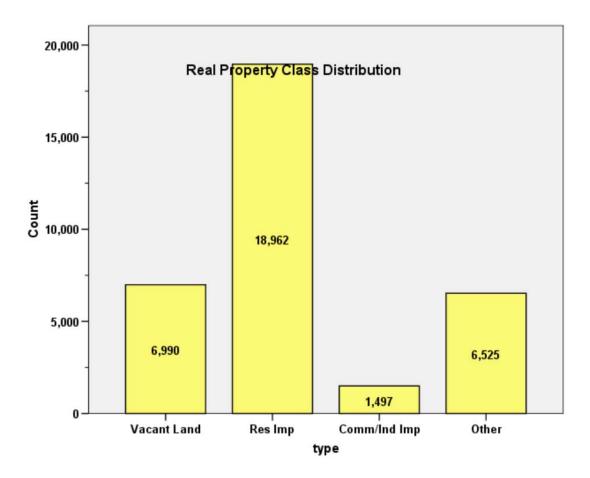
# APPENDICES



#### STATISTICAL COMPLIANCE REPORT FOR LA PLATA COUNTY 2014

#### I. OVERVIEW

La Plata County is located in southwestern Colorado. The county has a total of 33,974 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 and 1112) accounted for 73.9% of all vacant land parcels.

For residential improved properties, single family properties accounted for 84.5% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial sales accounted for 4.4% of all such properties in this county.



#### II. DATA FILES

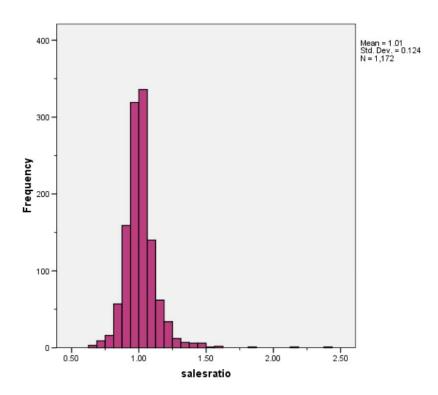
The following sales analyses were based on the requirements of the 2014 Colorado Property Assessment Study. Information was provided by the La Plata Assessor's Office in April 2014. The data included all 5 property record files as specified by the Auditor.

#### III. RESIDENTIAL SALES RESULTS

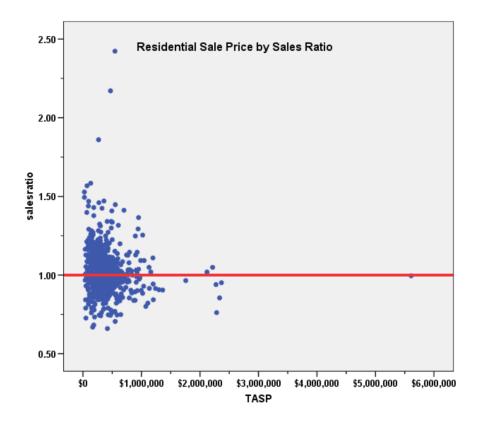
There were 1,172 qualified residential sales for the 24 month period prior to June 2012. The sales ratio analysis was analyzed as follows:

Median	1.003
Price Related Differential	1.009
Coefficient of Dispersion	.078

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:







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

#### **Residential Market Trend Analysis**

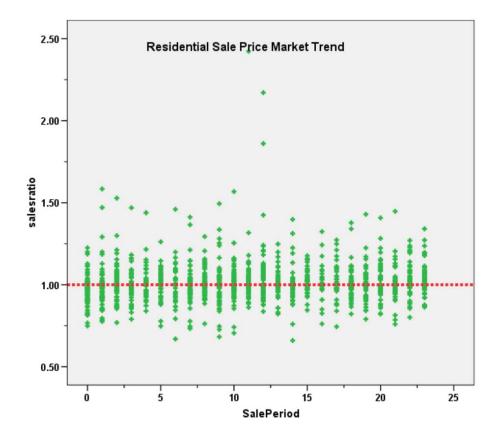
We next analyzed the residential dataset using the 24-month sale period for any residual market trending, with the following results:

Coefficients<sup>a</sup>

	Model		Unstandardize	d Coefficients	Standardized Coefficients		
L			В	Std. Error	Beta	t	Sig.
Γ	1	(Constant)	.997	.007		145.313	.000
L		SalePeriod	.001	.001	.079	2.725	.007

a. Dependent Variable: salesratio





The above analysis indicated that the assessor has adequately addressed market trending in the valuation of residential properties. Although the market trend had statistical significance, the magnitude of the trend was minimal.

#### 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:

Group	No.	Median	Mean
Unsold	17,785	\$180	\$192
Sold	1,171	\$190	\$202

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

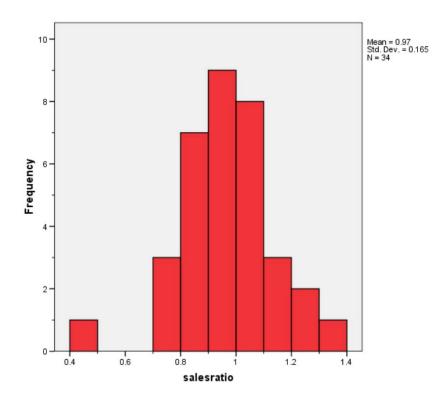


#### IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

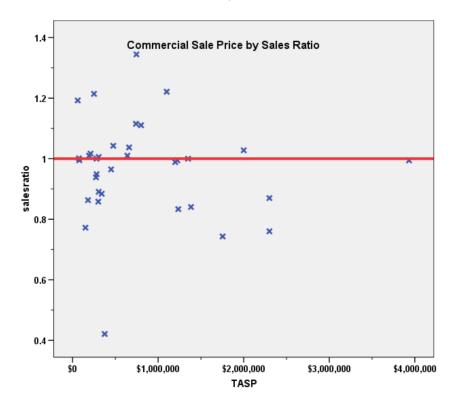
There were 34 qualified commercial sales for the 18 month period prior to June 2012. The sales ratio analysis was analyzed as follows:

Median	0.995
Price Related Differential	1.017
Coefficient of Dispersion	.112

The above tables indicate that the La Plata 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**

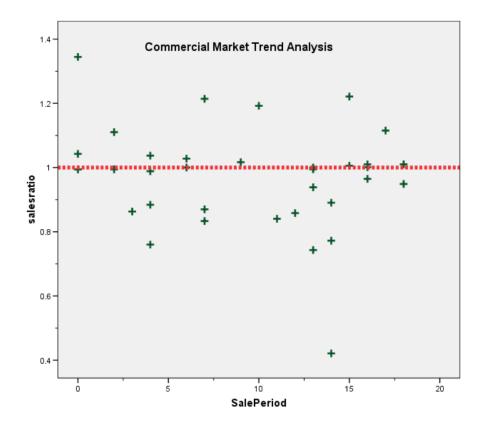
The 32 commercial/industrial sales were next analyzed, examining the sales ratios across the 18-month sale period with the following results:

Coefficients<sup>a</sup>

Mod	el	Unstandardize	d Coefficients	Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.018	.055		18.488	.000
	SalePeriod	005	.005	183	-1.055	.299

a. Dependent Variable: salesratio





The market trend results indicated no statistically significant trend, indicating that the assessor has adequately addressed the issue of market trending for commercial/industrial properties in La Plata County.

#### Sold/Unsold Analysis

We compared the median 2014 value per square foot for sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows:

Group	N	Median Val/SF	Mean Val/SF
Unsold	1,454	\$148	\$199
Sold	34	\$175	\$229

Due to the gap in the value per square foot between sold and unsold commercial/industrial properties, we also compared the change in value between 2012 and 2014 for sold and unsold properties, as follows:

Group	N	Median Chg Val	Mean Chg Val
Unsold	1,445	0.9487	0.9779
Sold	34	0.9723	1.0114



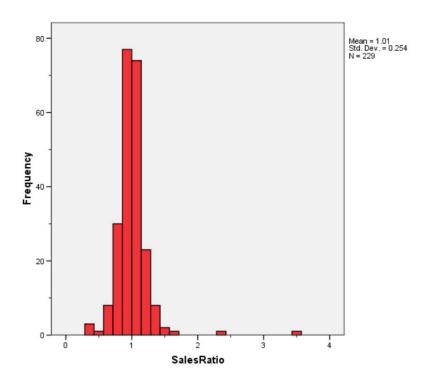
Based on these results, we concluded that the assessor was valuing sold and unsold commercial properties consistently in La Plata County.

#### V. VACANT LAND SALE RESULTS

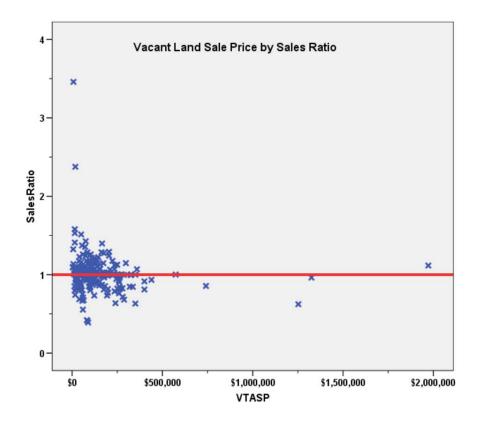
There were 229 qualified vacant land sales for the 24 month period prior to June 2012. The sales ratio analysis was analyzed as follows:

Median	0.998
Price Related Differential	1.042
Coefficient of Dispersion	.135

The above tables indicate that the La Plata 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**

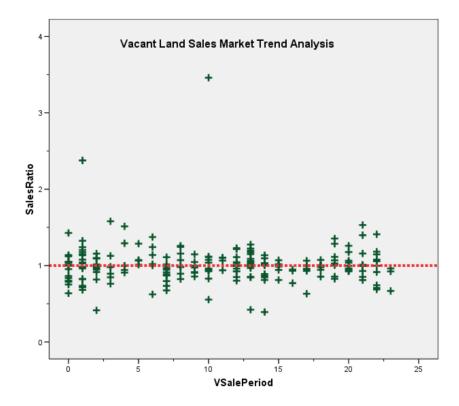
The 229 vacant land sales were next analyzed, examining the sales ratios across the 24 month sale period with the following results:

Coefficients<sup>a</sup>

Mo	odel	Unstandardize	d Coefficients	Standardized Coefficients		
		В	Std. Error	Beta	t	Sig.
1	(Constant)	1.023	.031		33.500	.000
L	VSalePeriod	001	.002	028	425	.671

a. Dependent Variable: SalesRatio





Based on the above results, we concluded that the assessor has adequately addressed market trending in the vacant land valuation.

#### 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, as follows:

Group	N	Median	Mean
Unsold	6,520	0.9027	0.8926
Sold	227	0.9544	0.9601

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



**Descriptives** 

	ABSTR	RIMP		Statistic	Std. Error
ImpValSF	1212	Mean		\$103.70	\$.816
		95% Confidence Interval for	Lower Bound	\$102.10	
		Mean	Upper Bound	\$105.30	
		5% Trimmed Mean		\$101.44	
		Median		\$97.36	
		Variance		1282.601	
		Std. Deviation		\$35.813	
		Minimum		\$8	
		Maximum		\$349	
		Range		\$342	
		Interquartile Range		\$43	
		Skewness		1.240	.056
		Kurtosis		3.440	.111
	4277	Mean		\$103.67	\$1.470
		95% Confidence Interval for	Lower Bound	\$100.78	
		Mean	Upper Bound	\$106.55	
		5% Trimmed Mean		\$100.08	
		Median		\$95.83	
		Variance		2267.914	
		Std. Deviation		\$47.623	
		Minimum		\$3	
		Maximum		\$460	
		Range		\$457	
		Interquartile Range		\$49	
		Skewness		2.076	.076
		Kurtosis		9.094	.151

#### **VI CONCLUSIONS**

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



#### STATISTICAL ABSTRACT

#### **Residential**

#### Ratio Statistics for CURRTOT / TASP

ſ		95% Confidence Interval for Mean			95% Confidence Interval for Median			95% Confidence Interval for Weighted Mean				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
ı	1.013	1.006	1.020	1.003	.999	1.005	95.6%	1.004	.996	1.013	1.009	.078	12.3%

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

	95% Confidence Interval for Mean 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
.968	.910	1.026	.995	.891	1.010	97.6%	.951	.888	1.014	1.017	.112	17.0%

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% Confidence Interval for Mean			95% Con	fidence Interval fo	or 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	1.012	.979	1.045	.998	.994	1.006	95.3%	.971	.935	1.007	1.042	.135	25.1%

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	2	.2%
	\$25K to \$50K	6	.5%
	\$50K to \$100K	30	2.6%
	\$100K to \$150K	59	5.0%
	\$150K to \$200K	124	10.6%
	\$200K to \$300K	308	26.3%
	\$300K to \$500K	462	39.4%
	\$500K to \$750K	123	10.5%
	\$750K to \$1,000K	35	3.0%
	Over \$1,000K	23	2.0%
Overall		1172	100.0%
Excluded		0	
Total		1172	

#### Ratio Statistics for CURRTOT / TASP

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	1.511	1.000	.011	1.6%
\$25K to \$50K	.987	1.003	.118	15.1%
\$50K to \$100K	1.068	.993	.137	18.5%
\$100K to \$150K	1.041	1.000	.097	13.6%
\$150K to \$200K	1.006	1.001	.086	11.8%
\$200K to \$300K	1.010	.999	.070	10.3%
\$300K to \$500K	.998	1.000	.067	10.9%
\$500K to \$750K	.993	1.001	.083	17.1%
\$750K to \$1,000K	1.006	.998	.086	12.1%
Over \$1,000K	.940	1.001	.088	12.0%
Overall	1.003	1.009	.078	12.4%



# Subclass

### **Case Processing Summary**

		Count	Percent
ABSTRIMP	0	1	.1%
	1212	999	85.2%
	1215	10	.9%
	1220	5	.4%
	1225	1	.1%
	1230	156	13.3%
Overall		1172	100.0%
Excluded		0	
Total		1172	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
0	.886	1.000	.000	.%
1212	1.003	1.008	.075	12.1%
1215	.991	1.006	.055	7.0%
1220	1.004	1.006	.041	6.2%
1225	.949	1.000	.000	.%
1230	.999	1.017	.104	14.8%
Overall	1.003	1.009	.078	12.4%



# Age

# **Case Processing Summary**

		Count	Percent
AgeRec	.00	1	.1%
	Over 100	35	3.0%
	75 to 100	24	2.0%
	50 to 75	88	7.5%
	25 to 50	271	23.1%
	5 to 25	549	46.8%
	5 or Newer	204	17.4%
Overall		1172	100.0%
Excluded		0	
Total		1172	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
.00	.886	1.000	.000	.%
Over 100	1.005	1.015	.082	12.9%
75 to 100	1.007	1.003	.094	19.5%
50 to 75	1.005	1.006	.088	13.4%
25 to 50	1.000	1.007	.094	15.4%
5 to 25	1.007	1.010	.073	11.2%
5 or Newer	.993	1.007	.065	9.3%
Overall	1.003	1.009	.078	12.4%



# Improved Area

### **Case Processing Summary**

		Count	Percent
ImpSFRec	.00	1	.1%
	LE 500 sf	16	1.4%
	500 to 1,000 sf	124	10.6%
	1,000 to 1,500 sf	330	28.2%
	1,500 to 2,000 sf	347	29.6%
	2,000 to 3,000 sf	264	22.5%
	3,000 sf or Higher	90	7.7%
Overall		1172	100.0%
Excluded		0	
Total		1172	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
.00	.886	1.000	.000	.%
LE 500 sf	.958	1.043	.159	24.2%
500 to 1,000 sf	1.003	1.011	.085	12.0%
1,000 to 1,500 sf	1.004	1.013	.076	10.6%
1,500 to 2,000 sf	1.002	1.010	.073	11.4%
2,000 to 3,000 sf	1.004	1.007	.070	10.0%
3,000 sf or Higher	1.001	1.027	.107	23.0%
Overall	1.003	1.009	.078	12.4%



# **Improvement Quality**

# Case Processing Summary

	Count	Percent
QUALITY 1	3	.3%
2	39	3.3%
3	479	40.9%
4	128	10.9%
5	77	6.6%
6	47	4.0%
7	26	2.2%
8	26	2.2%
9	3	.3%
10	1	.1%
17	1	.1%
20	1	.1%
21	1	.1%
24	1	.1%
26	1	.1%
28	1	.1%
33	79	6.7%
37	89	7.6%
45	52	4.4%
53	23	2.0%
57	25	2.1%
63	8	.7%
65	10	.9%
67	11	.9%
71	5	.4%
72	6	.5%
75	11	.9%
77	4	.3%
78	3	.3%
79	10	.9%
Overall	1171	100.0%
Excluded	1	
Total	1172	



Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
1	1.078	1.004	.010	1.7%
2	1.061	1.013	.098	13.5%
3	1.005	1.006	.069	10.3%
4	.986	1.014	.090	13.7%
5	1.007	1.009	.083	11.2%
6	1.003	1.019	.085	13.8%
7	1.017	1.005	.063	10.0%
8	1.013	1.045	.186	38.4%
9	.952	.983	.058	8.8%
10	.995	1.000	.000	.%
17	.880	1.000	.000	.%
20	.972	1.000	.000	.%
21	.942	1.000	.000	.%
24	.982	1.000	.000	.%
26	1.109	1.000	.000	.%
28	.997	1.000	.000	.%
33	.999	1.007	.066	8.5%
37	.998	1.000	.079	11.6%
45	.995	1.006	.060	7.8%
53	1.002	1.016	.066	11.7%
57	1.012	1.001	.052	7.9%
63	1.003	1.012	.060	8.5%
65	.956	.988	.089	12.5%
67	.987	.990	.064	9.6%
71	.993	1.011	.026	4.6%
72	1.059	1.024	.116	13.2%
75	1.020	1.010	.127	19.1%
77	1.005	1.003	.045	5.5%
78	.822	1.093	.158	28.9%
79	.976	1.022	.125	16.8%
Overall	1.003	1.009	.078	12.4%



# **Commercial Median Ratio Stratification**

### Sale Price

### **Case Processing Summary**

		Count	Percent
SPRec	\$50K to \$100K	3	8.8%
	\$100K to \$150K	1	2.9%
	\$150K to \$200K	2	5.9%
	\$200K to \$300K	6	17.6%
	\$300K to \$500K	6	17.6%
	\$500K to \$750K	4	11.8%
	\$750K to \$1,000K	1	2.9%
	Over \$1,000K	11	32.4%
Overall		34	100.0%
Excluded	t	0	
Total		34	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
\$50K to \$100K	1.001	1.009	.066	13.5%
\$100K to \$150K	.772	1.000	.000	.%
\$150K to \$200K	.937	.997	.078	11.1%
\$200K to \$300K	.974	1.007	.083	12.6%
\$300K to \$500K	.928	.993	.147	25.5%
\$500K to \$750K	1.076	.994	.096	15.1%
\$750K to \$1,000K	1.110	1.000	.000	.%
Over \$1,000K	.989	1.009	.109	15.3%
Overall	.995	1.017	.112	16.8%



# Subclass

# **Case Processing Summary**

		Count	Percent
ABSTRIMP	1721	1	2.9%
	2212	3	8.8%
	2215	1	2.9%
	2220	5	14.7%
	2225	1	2.9%
	2230	10	29.4%
	2235	2	5.9%
	2245	11	32.4%
Overall		34	100.0%
Excluded		0	
Total		34	

Group				Coefficient of Variation	
	Median	Price Related Differential	Coefficient of Dispersion		edian ntered
1721	1.345	1.000	.000	.%	
2212	.870	1.026	.088		13.1%
2215	.743	1.000	.000	.%	
2220	1.006	.991	.035		4.6%
2225	.994	1.000	.000	.%	
2230	.939	.968	.178		24.5%
2235	1.071	1.019	.041		5.8%
2245	1.000	1.027	.072		11.8%
Overall	.995	1.017	.112		16.8%



# Age

# **Case Processing Summary**

		Count	Percent
AgeRec	Over 100	3	8.8%
	75 to 100	2	5.9%
	50 to 75	3	8.8%
	25 to 50	6	17.6%
	5 to 25	17	50.0%
	5 or Newer	3	8.8%
Overall		34	100.0%
Excluded		0	
Total		34	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
Over 100	.965	1.000	.023	3.6%
75 to 100	.904	1.002	.050	7.1%
50 to 75	.760	1.068	.129	25.8%
25 to 50	1.030	1.001	.070	10.2%
5 to 25	.995	.987	.144	21.2%
5 or Newer	1.000	1.002	.007	1.1%
Overall	.995	1.017	.112	16.8%



# Improved Area

# **Case Processing Summary**

		Count	Percent
ImpSFRec	LE 500 sf	2	5.9%
	500 to 1,000 sf	7	20.6%
	1,000 to 1,500 sf	5	14.7%
	1,500 to 2,000 sf	1	2.9%
	2,000 to 3,000 sf	7	20.6%
	3,000 sf or Higher	12	35.3%
Overall		34	100.0%
Excluded		0	
Total		34	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LE 500 sf	.982	1.101	.214	30.2%
500 to 1,000 sf	1.000	1.015	.085	12.3%
1,000 to 1,500 sf	.949	1.048	.142	28.3%
1,500 to 2,000 sf	1.006	1.000	.000	.%
2,000 to 3,000 sf	1.017	1.014	.059	9.0%
3,000 sf or Higher	.994	1.042	.127	17.9%
Overall	.995	1.017	.112	16.8%



# **Improvement Quality**

# **Case Processing Summary**

	Count	Percent
QUALITY 2	5	14.7%
3	22	64.7%
4	6	17.6%
5	1	2.9%
Overall	34	100.0%
Excluded	0	
Total	34	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
2	.863	1.150	.133	21.2%
3	1.001	.985	.105	17.9%
4	.982	1.016	.062	9.1%
5	.833	1.000	.000	.%
Overall	.995	1.017	.112	16.8%



# **Vacant Land Median Ratio Stratification**

### Sale Price

### **Case Processing Summary**

		Count	Percent
SPRec	LT \$25K	23	10.0%
	\$25K to \$50K	33	14.4%
	\$50K to \$100K	54	23.6%
	\$100K to \$150K	40	17.5%
	\$150K to \$200K	25	10.9%
	\$200K to \$300K	36	15.7%
	\$300K to \$500K	13	5.7%
	\$500K to \$750K	2	.9%
	Over \$1,000K	3	1.3%
Overall		229	100.0%
Excluded	I	0	
Total		229	

Group				Coefficient of Variation
	Median	Price Related Differential	Coefficient of Dispersion	Median Centered
LT \$25K	1.009	1.057	.303	63.3%
\$25K to \$50K	1.010	.997	.094	14.1%
\$50K to \$100K	.996	1.001	.159	22.5%
\$100K to \$150K	1.016	1.001	.095	11.7%
\$150K to \$200K	.996	1.006	.109	15.9%
\$200K to \$300K	.998	1.007	.102	15.0%
\$300K to \$500K	.998	1.002	.083	13.9%
\$500K to \$750K	.929	1.010	.078	11.0%
Over \$1,000K	.963	.963	.171	27.4%
Overall	.998	1.042	.135	25.5%



# Subclass

#### **Case Processing Summary**

		Count	Percent
AbstrLnd	100	98	42.8%
	200	1	.4%
	510	1	.4%
	520	2	.9%
	530	3	1.3%
	540	3	1.3%
	550	7	3.1%
	560	1	.4%
	1112	107	46.7%
	1115	1	.4%
	1140	1	.4%
	1621	1	.4%
	2112	1	.4%
	2115	1	.4%
	2130	1	.4%
Overall		229	100.0%
Excluded		0	
Total		229	

Group					fficient of riation
	Median	Price Related Differential	Coefficient of Dispersion		edian intered
100	.998	1.066	.177		35.4%
200	.624	1.000	.000	.%	
510	1.095	1.000	.000	.%	
520	.920	1.022	.080		11.3%
530	1.092	.899	.176		26.4%
540	.950	1.001	.059		9.6%
550	.998	1.048	.071		11.4%
560	1.147	1.000	.000	.%	
1112	1.005	1.021	.101		14.0%
1115	.925	1.000	.000	.%	
1140	.963	1.000	.000	.%	
1621	1.223	1.000	.000	.%	
2112	1.000	1.000	.000	.%	
2115	1.117	1.000	.000	.%	
2130	1.001	1.000	.000	.%	
Overall	.998	1.042	.135		25.5%