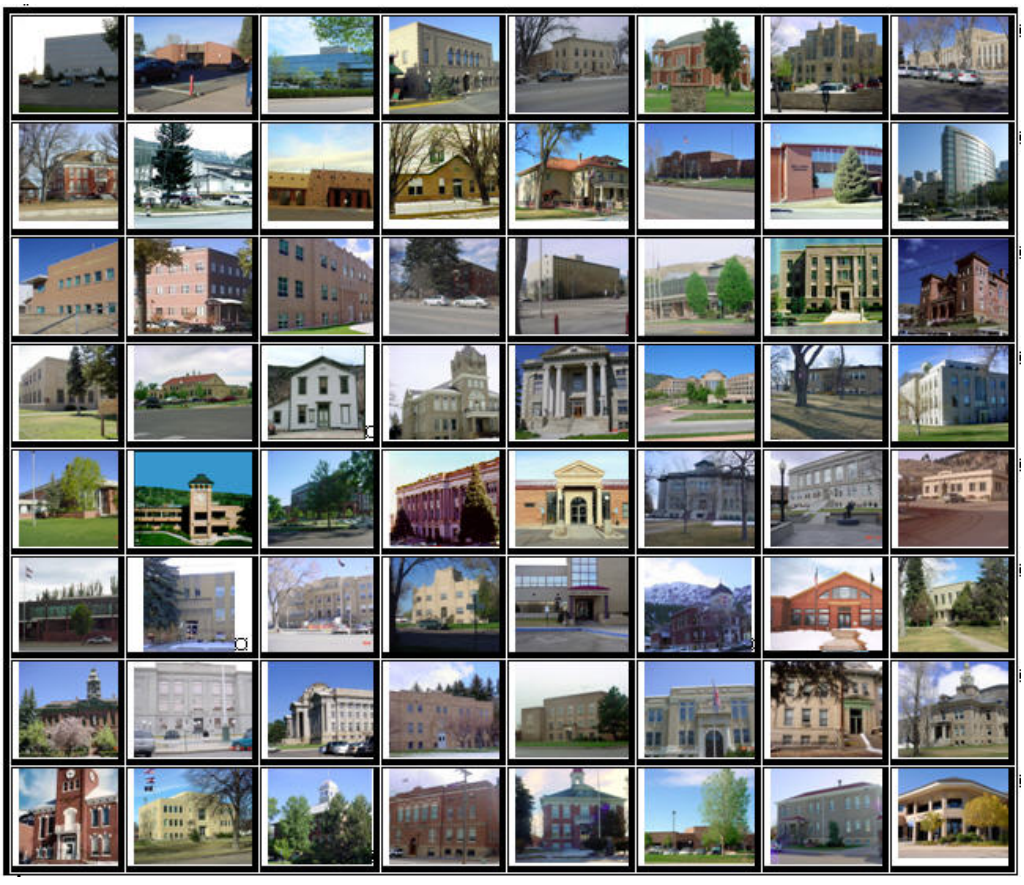
2014
PITKIN COUNTY
PROPERTY ASSESSMENT
STUDY



WILDROSE
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Audit Division

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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
Wildrose Appraisal Inc. – Audit Division

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INTRODUCTION

Colorado

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

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

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

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

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

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

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

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

Wildrose Audit has completed the Property Assessment Study for 2014 and is pleased to report its findings for Pitkin County in the following report.

REGIONAL/HISTORICAL SKETCH OF PITKIN COUNTY

Regional Information

Pitkin 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

Pitkin County has a population of approximately 17,148 people with 25.59 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 15.3 percent change from the 2000 Census.

Pitkin County was created in 1881 from a part of Gunnison County. The county was named for Governor Frederick W. Pitkin.

The county seat is Aspen, named by town site surveyor, B. Clark Wheeler, for the quaking aspen trees growing in the area. Originally named Ute City, the community was renamed Aspen in 1880 and in its peak production years of 1891 and 1892 surpassed Leadville as the United States' most productive silver-mining district.

Aspen's development as a ski resort first flickered in the 1930s when investors conceived of a ski area, but the project was interrupted by World War II. Friedl Pfeifer, a member of the 10th Mountain Division who had trained in the area, returned to the area and linked up with industrialist Walter Paepcke and his wife Elizabeth. The Aspen Skiing Corporation was founded in 1946 and the town quickly became a well-known resort.

The city sits along the southeast (upper) end of the Roaring Fork Valley, along the Roaring Fork River, a tributary of the Colorado River. It is surrounded by mountain and wilderness areas on three sides: Red Mountain to the north, Smuggler Mountain to the east, and Aspen Mountain to the south. *(www.Wikipedia.org, William Bright, Colorado Place Names, 3rd Edition, Johnson Books, 2004, p. 141 and 11)*

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 price-related differential for each class of property. Counties were not passed or failed by these latter measures, but were counseled if there were anomalies noted during our analysis. Qualified sales were based on the qualification code used by each county, which were typically coded as either "Q" or "C." The ratio analysis included all sales. The data was trimmed for counties with obvious outliers using IAAO standards for data analysis. In every case, we examined the loss in data from trimming to ensure that only true outliers were excluded. Any county with a significant portion of sales excluded by this trimming method was examined further. No county was allowed to pass the audit if more than 5% of the sales were "lost" because of trimming. For the largest 11 counties, the residential ratio statistics were broken down by economic area as well.

Conclusions

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

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

The results for Pitkin County are:

Pitkin County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	28	0.998	0.971	12.1	Compliant
Condominium	283	1.001	1.021	11	Compliant
Single Family	299	1.005	1.055	13.6	Compliant
Vacant Land	N/A	N/A	N/A	N/A	N/A

After applying the above described methodologies, it is concluded from the sales ratios that Pitkin County is in compliance with SBOE, DPT, and Colorado State Statute valuation guidelines.

Recommendations

None

TIME TRENDING VERIFICATION

Methodology

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

Conclusions

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

Recommendations

None

SOLD / UNSOLD ANALYSIS

Methodology

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

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

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

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

Conclusions

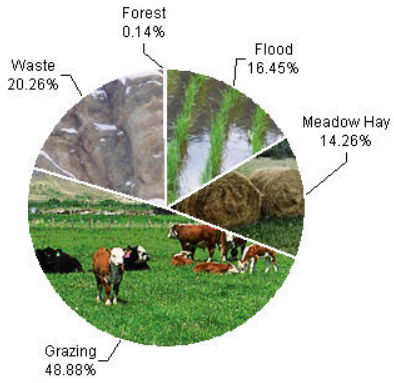
After applying the above described methodologies, it is concluded that Pitkin County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

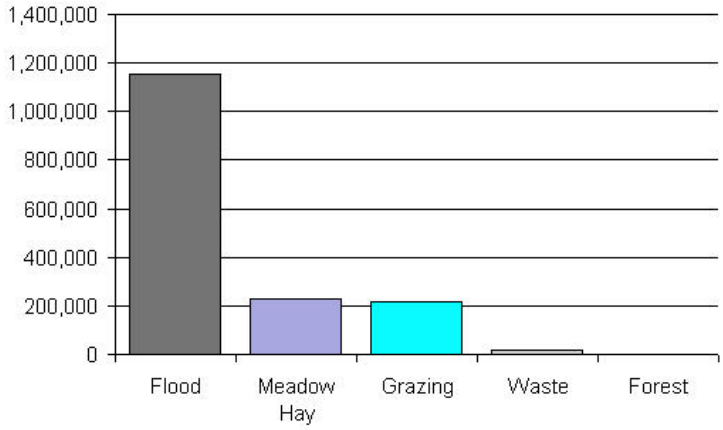
None

AGRICULTURAL LAND STUDY

Acres By Subclass



Value By Subclass



Agricultural Land

County records were reviewed to determine major land categories such as irrigated farm, dry farm, meadow hay, grazing and other lands. In addition, county records were reviewed in order to determine if: Aerial photographs are available and are being used; soil conservation guidelines have been used to classify lands based on productivity; crop rotations have been documented; typical commodities and yields have been determined; orchard lands have been properly classified and valued; expenses reflect a ten year average and are typical landlord expenses; grazing lands have been properly classified and valued; the number of acres in each class and subclass have been determined; the capitalization rate was properly applied. Also, documentation was required for the valuation methods used and any locally developed yields, carrying capacities, and expenses. Records were also checked to ensure that the commodity prices and expenses, furnished by the Property Tax Administrator (PTA), were applied properly. (See Assessor Reference Library Volume 3 Chapter 5.)

Conclusions

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

Pitkin County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4117	Flood	7,291	158.00	1,151,199	1,089,513	1.06
4137	Meadow Hay	6,318	36.00	229,786	229,786	1.00
4147	Grazing	21,658	10.00	215,250	215,250	1.00
4177	Forest	63	14.00	899	899	1.00
4167	Waste	8,979	2.00	15,674	15,674	1.00
Total/Avg		**44,309**	**36.00**	**899**	**899**	**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

Pitkin 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

Pitkin 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

None

SALES VERIFICATION

According to Colorado Revised Statutes:

A representative body of sales is required when considering the market approach to appraisal.

(8) In any case in which sales prices of comparable properties within any class or subclass are utilized when considering the market approach to appraisal in the determination of actual value of any taxable property, the following limitations and conditions shall apply:

(a)(I) Use of the market approach shall require a representative body of sales, including sales by a lender or government, sufficient to set a pattern, and appraisals shall reflect due consideration of the degree of comparability of sales, including the extent of similarities and dissimilarities among properties that are compared for assessment purposes. In order to obtain a reasonable sample and to reduce sudden price changes or fluctuations, all sales shall be included in the sample that reasonably reflect a true or typical sales price during the period specified in section 39-1-104 (10.2). Sales of personal property exempt pursuant to the provisions of sections 39-3-102, 39-3-103, and 39-3-119 to 39-3-122 shall not be included in any such sample.

(b) Each such sale included in the sample shall be coded to indicate a typical, negotiated sale, as screened and verified by the assessor. (39-1-103, C.R.S.)

The assessor is required to use sales of real property only in the valuation process.

(8)(f) Such true and typical sales shall include only those sales which have been determined on an individual basis to reflect the selling price of the real property only or which have been adjusted on an individual basis to reflect the selling price of the real property only. (39-1-103, C.R.S.)

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

WRA reviewed the sales verification procedures in 2014 for Pitkin 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

Pitkin 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

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

Pitkin County has submitted a written narrative describing the economic areas that make up the county's market areas. Pitkin 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 Pitkin County has adequately identified homogeneous economic areas comprised of smaller neighborhoods. Each economic area defined is equally subject to a set of economic forces that impact the value of the properties within that geographic area and this has been adequately addressed. Each economic area defined adequately delineates an area that will give "similar values for similar properties in similar areas."

Recommendations

None

NATURAL RESOURCES

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 variables: life and tonnage. The operator determines these since there is no other means to obtain production data through any state or private agency.

Conclusions

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

Recommendations

None

VACANT LAND

Pitkin County is exempt from the Vacant Land Subdivision Discount Study.

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 granted under lease, permit, license, concession, contract, or other agreement.

Pitkin 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

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

Recommendations

None

PERSONAL PROPERTY AUDIT

Pitkin 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.

Pitkin 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
- 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
- Websites

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.

Pitkin 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

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

Recommendations

None

WILDROSE AUDITOR STAFF

Harry J. Fuller, *Audit Project Manager*

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Steve Kane, *Audit Statistician*

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

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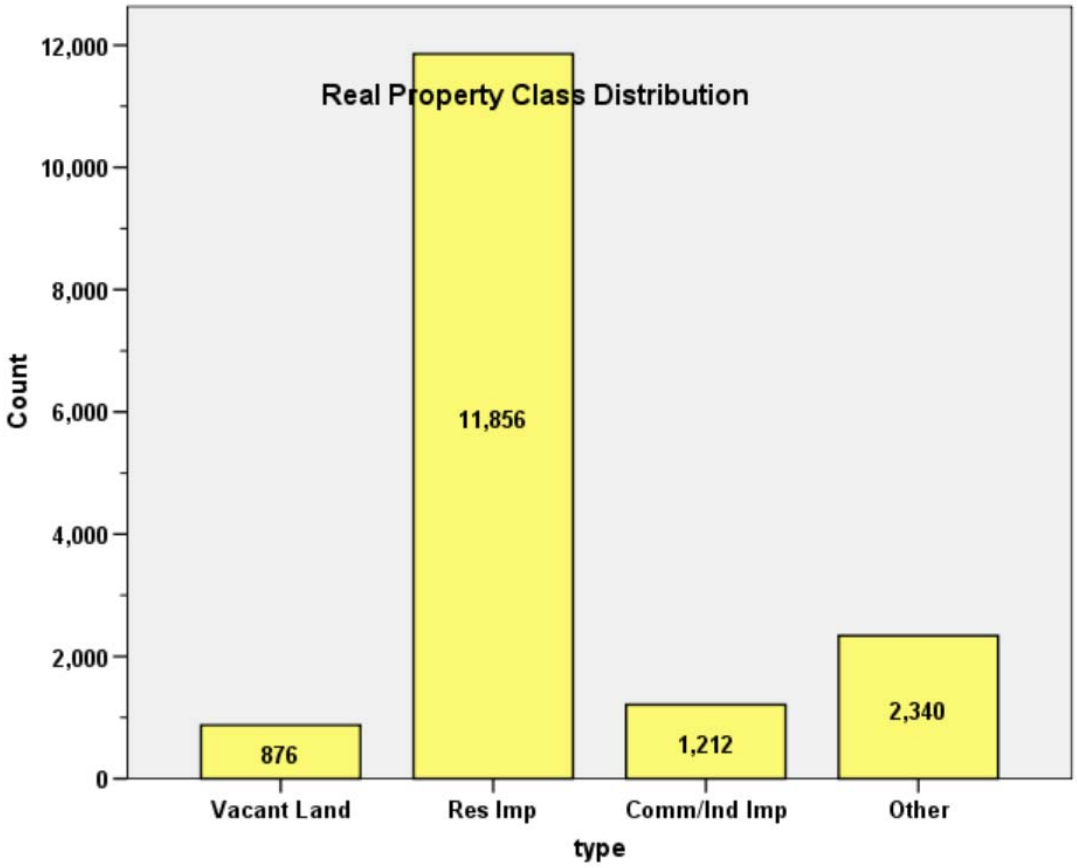
APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR PITKIN COUNTY
2014

I. OVERVIEW

Pitkin County is a mountain resort located in western Colorado. The county has a total of 16,284 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 49.2% of all vacant land parcels. Because there are fewer than 1,200 vacant land parcels, this county is exempt from statistical compliance analysis.

For residential improved properties, single family properties accounted for 43.3% of all residential properties. Residential condominiums accounted for 50.0% 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 7% 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 Pitkin Assessor's Office in May 2014. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 582 qualified residential sales for the 24 month period prior to June 30, 2012. The sales ratio analysis was analyzed as follows:

Residential Non-Condominiums (299 Sales)

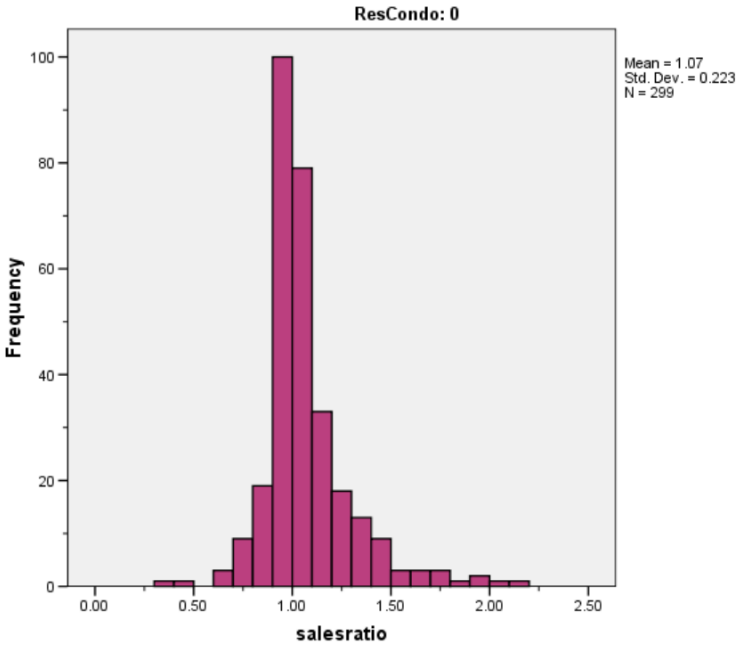
Median	**1.005**
Price Related Differential	**1.055**
Coefficient of Dispersion	**.136**

Residential Condominiums (283 Sales)

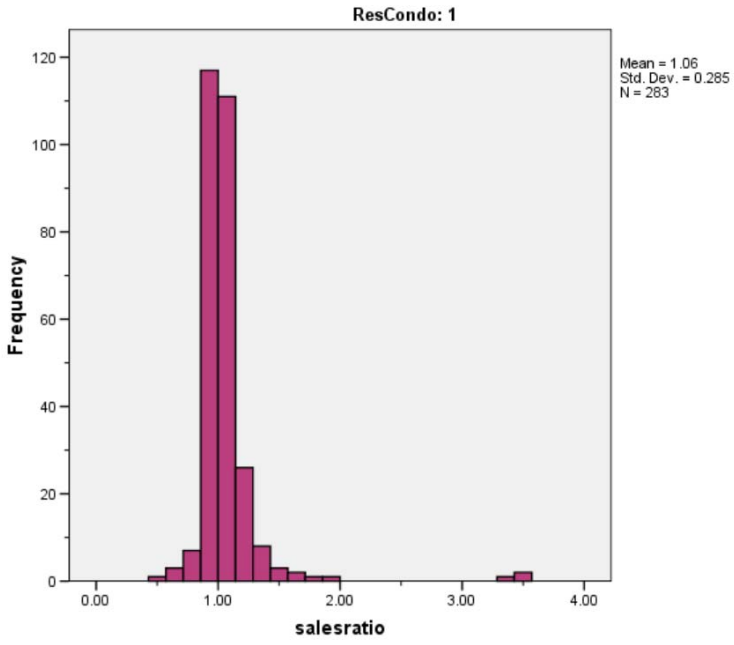
Median	**1.001**
Price Related Differential	**1.021**
Coefficient of Dispersion	**.110**

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

Coefficients[a]

ResCondo	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
0	1	(Constant)	1.050	.024		43.873	.000
		SalePeriod	.002	.002	.059	1.026	.306
1	1	(Constant)	1.099	.033		33.735	.000
		SalePeriod	-.003	.002	-.081	-1.359	.175

a. Dependent Variable: salesratio

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

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, stratified by residential non-condominiums and condominiums, as follows:

Type	Group	N	Median SPSF	Mean SPSF
Non-Condo	**Unsold**	5,539	$645	$775
	Sold	294	$947	$1,052
Condos	**Unsold**	5,519	$636	$6655
	Sold	277	$813	$862

Given the difference between sold and unsold residential non-condominium and condominium sold and unsold properties, we next examined the change in value from 2012 to 2014 for each group as follows:

Type	Group	N	Median Pct Chg	Mean Pct Chg
Non-Condo	**Unsold**	5,588	.8931	.9145
	Sold	299	.9171	.9728
Condos	**Unsold**	5,594	.8991	.9052
	Sold	283	.8995	.9424

Based on the second test, we concluded that the assessor valued sold and unsold residential properties consistently.

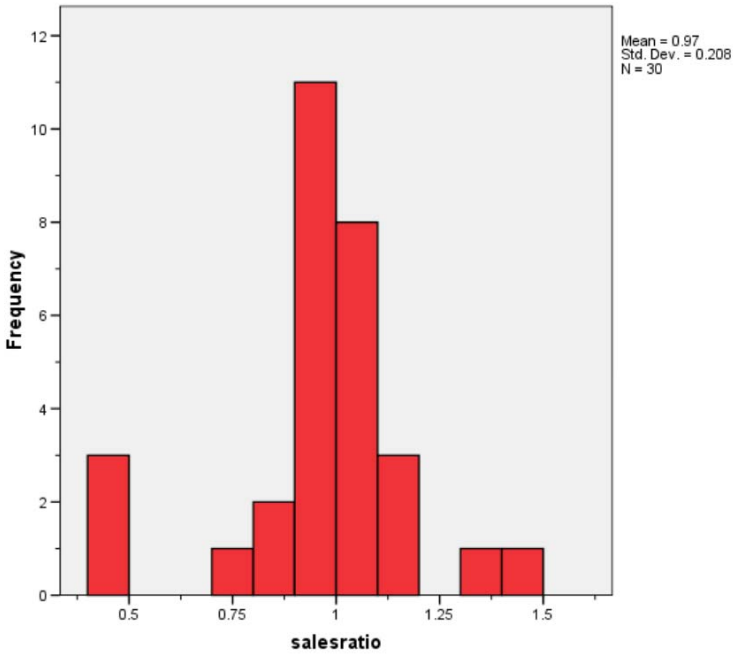
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

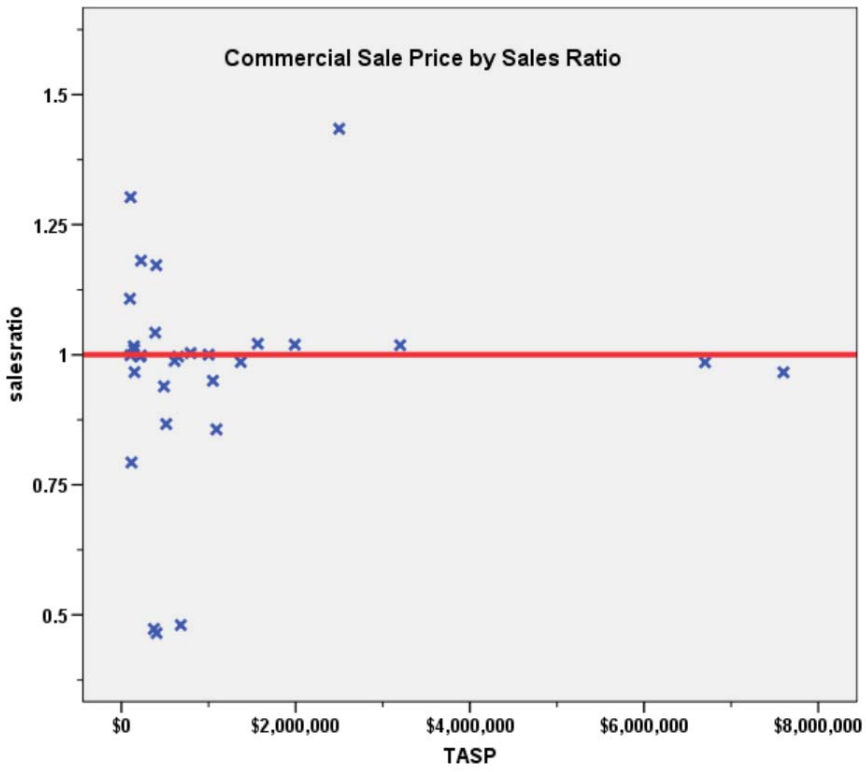
There were 28 qualified commercial and industrial sales in the 54-month sale period ending June 30, 2012. Given that there were less than 30 sales, we added two supplemental appraisals to bring the total for the ratio analysis to 30 properties. Please note that the market trending and sold unsold analysis will use only the 28 sold properties.

The sales ratio analysis was analyzed as follows:

Median	**0.998**
Price Related Differential	**0.971**
Coefficient of Dispersion	**.121**

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





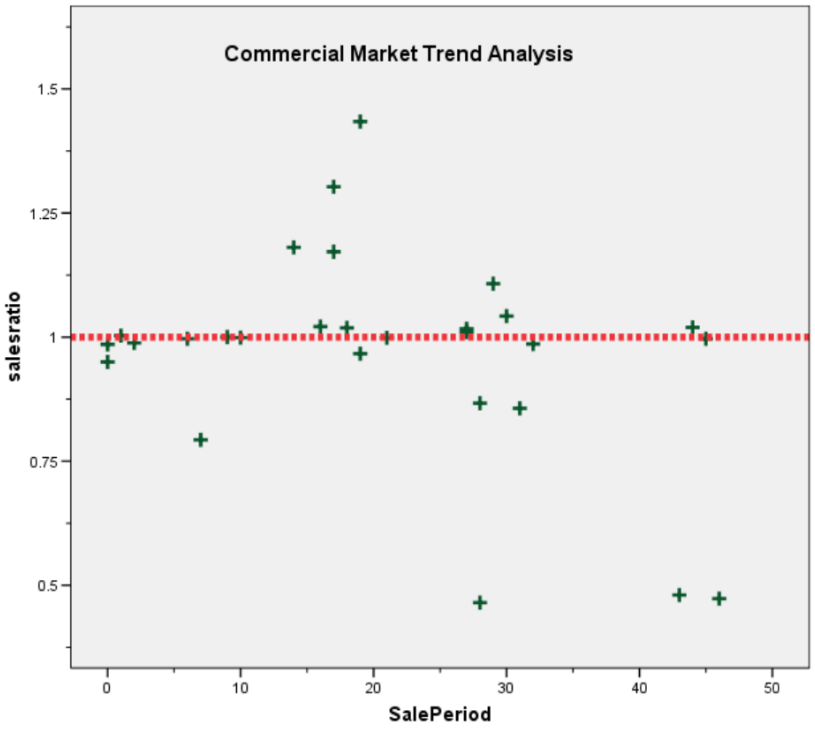
Commercial Market Trend Analysis

The 28 commercial sales were analyzed, examining the sale ratios across the 54 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.085	.071		15.299	.000
	SalePeriod	-.006	.003	-.357	-1.951	.062

a. Dependent Variable: salesratio



The market trend results indicated no statistically significant trend. We concluded that the assessor has adequately addressed market trending for commercial and industrial sales.

Sold/Unsold Analysis

We compared the median change in value from 2012 to 2014 for sold and unsold commercial properties to determine if the assessor was valuing each group consistently, as follows:

Group	N	Median Chg Val	Mean Chg Val
Unsold	1,124	1.0110	1.2992
Sold	28	1.0156	1.2243

Based on the above results, there was no evidence that sold properties were valued consistently higher than unsold properties.

V. VACANT LAND SALE RESULTS

Based on the guidelines of the 2014 audit, vacant land properties were exempt from analysis.

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 Pitkin County.

Descriptives

ABSTRIMP				Statistic	Std. Error
ImpValSF	SFR	Mean		$114.99	$2.859
		95% Confidence Interval for Mean	Lower Bound	$109.37	
			Upper Bound	$120.61	
		5% Trimmed Mean		$110.17	
		Median		$101.54	
		Variance		3499.397	
		Std. Deviation		$59.156	
		Minimum		$13	
		Maximum		$376	
		Range		$363	
		Interquartile Range		$69	
		Skewness		1.362	.118
		Kurtosis		2.393	.235
	AG RES	Mean		$186.63	$45.833
		95% Confidence Interval for Mean	Lower Bound	$93.15	
			Upper Bound	$280.10	
		5% Trimmed Mean		$148.20	
		Median		$94.12	
		Variance		67222.316	
		Std. Deviation		$259.273	
		Minimum		$0	
		Maximum		$1,371	
		Range		$1,371	
		Interquartile Range		$196	
		Skewness		3.364	.414
		Kurtosis		14.040	.809

VI. CONCLUSIONS

Based on this statistical analysis, there were no significant compliance issues concluded for Pitkin County as of the date of this report for residential, commercial/industrial and agricultural residential properties.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for CURRTOT / TASP

ResCondo	Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
		Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
0	1.071	1.046	1.096	1.005	1.000	1.015	95.1%	1.015	.987	1.043	1.055	.136	20.8%
1	1.061	1.028	1.095	1.001	1.000	1.006	95.7%	1.039	1.015	1.063	1.021	.110	26.9%

The confidence interval for the median is constructed without any distribution assumptions. The actual coverage level may be greater than the specified level. Other confidence intervals are constructed by assuming a Normal distribution for the ratios.

Commercial

Ratio Statistics for CURRTOT / TASP

Mean	95% Confidence Interval for Mean		Median	95% Confidence Interval for Median			Weighted Mean	95% Confidence Interval for Weighted Mean		Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
	Lower Bound	Upper Bound		Lower Bound	Upper Bound	Actual Coverage		Lower Bound	Upper Bound			Mean Centered
.968	.890	1.045	.998	.967	1.017	95.7%	.997	.924	1.071	.971	.121	21.5%

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	$50K to $100K	3	.5%
	$100K to $150K	11	1.9%
	$150K to $200K	9	1.5%
	$200K to $300K	23	4.0%
	$300K to $500K	44	7.6%
	$500K to $750K	79	13.6%
	$750K to $1,000K	60	10.3%
	Over $1,000K	353	60.7%
Overall		582	100.0%
Excluded		0	
Total		582	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
$50K to $100K	1.011	1.000	.010	1.6%
$100K to $150K	.999	1.002	.119	22.6%
$150K to $200K	1.139	1.004	.214	30.4%
$200K to $300K	1.002	.996	.071	13.7%
$300K to $500K	1.000	1.000	.052	11.5%
$500K to $750K	1.004	.992	.231	54.0%
$750K to $1,000K	1.006	1.000	.098	14.0%
Over $1,000K	1.001	1.037	.113	19.4%
Overall	1.002	1.045	.124	26.3%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212	255	43.8%
	1218	1	.2%
	1218	1	.2%
	1228	1	.2%
	1229	1	.2%
	1230	1	.2%
	1230	283	48.6%
	1231	39	6.7%
Overall		582	100.0%
Excluded		0	
Total		582	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1212	1.004	1.064	.142	24.1%
1218	1.008	1.000	.000	.%
1218	.949	1.000	.000	.%
1228	1.161	1.000	.000	.%
1229	1.115	1.000	.000	.%
1230	1.043	1.000	.000	.%
1230	1.001	1.021	.110	29.1%
1231	1.004	.998	.104	17.6%
Overall	1.002	1.045	.124	26.3%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	.00	5	.9%
	Over 100	23	4.0%
	50 to 75	27	4.6%
	25 to 50	310	53.3%
	5 to 25	192	33.0%
	5 or Newer	25	4.3%
Overall		582	100.0%
Excluded		0	
Total		582	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
.00	1.168	1.085	.223	29.2%
Over 100	.991	.985	.149	25.1%
50 to 75	1.027	1.143	.454	87.0%
25 to 50	1.003	1.020	.116	19.7%
5 to 25	1.000	1.033	.085	14.4%
5 or Newer	1.001	1.042	.087	18.4%
Overall	1.002	1.045	.124	26.3%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	41	7.0%
	500 to 1,000 sf	97	16.7%
	1,000 to 1,500 sf	112	19.2%
	1,500 to 2,000 sf	55	9.5%
	2,000 to 3,000 sf	108	18.6%
	3,000 sf or Higher	169	29.0%
Overall		582	100.0%
Excluded		0	
Total		582	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	.999	.973	.103	16.6%
500 to 1,000 sf	1.001	1.007	.103	18.9%
1,000 to 1,500 sf	1.003	1.027	.102	19.0%
1,500 to 2,000 sf	1.000	1.081	.167	48.3%
2,000 to 3,000 sf	1.004	1.025	.126	28.9%
3,000 sf or Higher	1.011	1.072	.137	23.9%
Overall	1.002	1.045	.124	26.3%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	2	6	1.0%
	3	58	10.1%
	4	51	8.8%
	5	68	11.8%
	6	55	9.5%
	7	14	2.4%
	20	3	.5%
	23	1	.2%
	24	11	1.9%
	25	27	4.7%
	26	3	.5%
	30	73	12.7%
	40	63	10.9%
	50	90	15.6%
	60	41	7.1%
	70	13	2.3%
Overall		577	100.0%
Excluded		5	
Total		582	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
2	1.092	1.064	.207	38.1%
3	.999	1.001	.083	17.8%
4	1.129	1.066	.159	20.6%
5	1.000	1.060	.146	27.3%
6	1.011	1.033	.139	21.4%
7	.991	1.020	.065	11.5%
20	1.006	.974	.044	8.9%
23	1.002	1.000	.000	.%
24	.985	.994	.061	9.7%
25	1.006	1.006	.103	16.2%
26	1.069	1.002	.056	8.8%
30	1.000	1.017	.097	18.4%
40	1.003	1.016	.081	15.6%
50	1.001	1.044	.153	45.9%
60	1.001	1.031	.097	16.1%
70	.998	1.008	.083	13.4%
Overall	1.002	1.045	.122	26.2%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$50K to $100K	1	3.3%
	$100K to $150K	6	20.0%
	$200K to $300K	3	10.0%
	$300K to $500K	5	16.7%
	$500K to $750K	4	13.3%
	$750K to $1,000K	1	3.3%
	Over $1,000K	10	33.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
$50K to $100K	1.108	1.000	.000	.%
$100K to $150K	1.005	1.006	.095	16.4%
$200K to $300K	.999	.999	.061	12.9%
$300K to $500K	.939	.990	.272	37.9%
$500K to $750K	.928	1.011	.172	28.7%
$750K to $1,000K	1.003	1.000	.000	.%
Over $1,000K	.993	1.001	.075	15.7%
Overall	.998	.971	.121	21.0%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1464	1	3.3%
	1719	1	3.3%
	1724	1	3.3%
	1726	1	3.3%
	2212	1	3.3%
	2220	3	10.0%
	2240	1	3.3%
	2245	21	70.0%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
1464	.985	1.000	.000	.%
1719	1.000	1.000	.000	.%
1724	.988	1.000	.000	.%
1726	1.020	1.000	.000	.%
2212	1.434	1.000	.000	.%
2220	.997	1.004	.018	3.3%
2240	.966	1.000	.000	.%
2245	.999	1.005	.145	23.3%
Overall	.998	.971	.121	21.0%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	.00	3	10.0%
	Over 100	2	6.7%
	50 to 75	2	6.7%
	25 to 50	9	30.0%
	5 to 25	13	43.3%
	5 or Newer	1	3.3%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
.00	.967	.990	.077	13.2%
Over 100	1.200	1.109	.195	27.6%
50 to 75	.993	1.005	.007	1.0%
25 to 50	1.021	1.045	.090	13.6%
5 to 25	.988	.974	.153	26.7%
5 or Newer	1.003	1.000	.000	.%
Overall	.998	.971	.121	21.0%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	9	30.0%
	500 to 1,000 sf	9	30.0%
	1,000 to 1,500 sf	2	6.7%
	2,000 to 3,000 sf	4	13.3%
	3,000 sf or Higher	6	20.0%
Overall		30	100.0%
Excluded		0	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	1.017	.999	.096	14.4%
500 to 1,000 sf	.997	.990	.160	27.7%
1,000 to 1,500 sf	.733	.896	.345	48.8%
2,000 to 3,000 sf	1.003	.949	.152	26.2%
3,000 sf or Higher	.993	1.007	.023	2.9%
Overall	.998	.971	.121	21.0%

Improvement Quality

Case Processing Summary

		Count	Percent
QUALITY	2	1	3.7%
	3	9	33.3%
	4	14	51.9%
	5	3	11.1%
Overall		27	100.0%
Excluded		3	
Total		30	

Ratio Statistics for CURRTOT / TASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
2	1.000	1.000	.000	.%
3	.999	.879	.187	30.6%
4	.998	1.047	.070	11.8%
5	.857	.836	.215	35.0%
Overall	.999	.975	.125	21.8%