ADAMS COUNTY
COLORADO

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A D A M S   C O U N T Y
P R O P E R T Y   A S S E S S M E N T
S T U D Y

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

September 15, 2017

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

RE: Final Report for the 2017 Colorado Property Assessment Study

Dear Mr. Mauer:

Wildrose Appraisal Inc.-Audit Division is pleased to submit the Final Reports for the 2017 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

TABLE OF CONTENTS

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 2017 and is pleased to report its findings for Adams County in the following report.

REGIONAL/HISTORICAL SKETCH OF ADAMS COUNTY

Regional Information

Adams County is located in the Front Range region of Colorado. The Colorado Front Range is a colloquial geographic term for the populated areas of the State that are just east of the foothills of the Front Range. It includes Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Pueblo, and Weld counties.
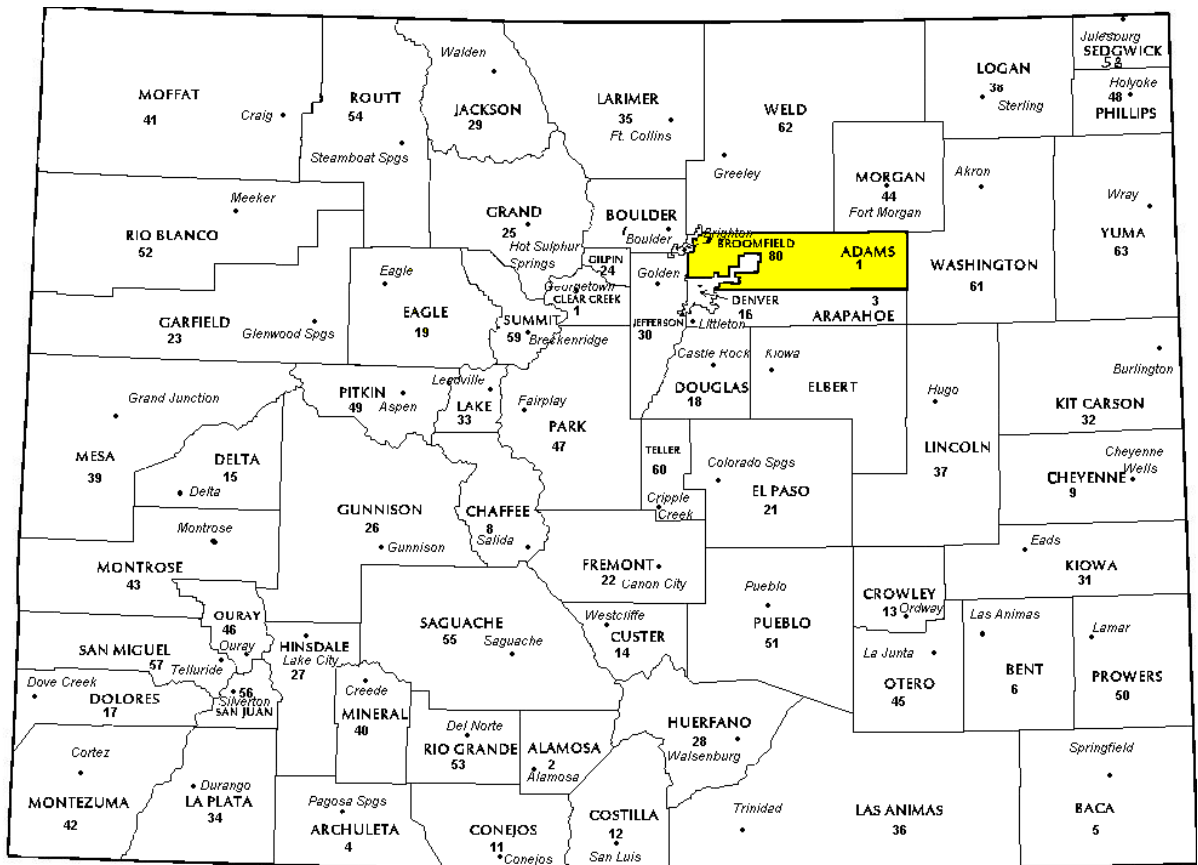
Historical Information

Adams County had an estimated population of approximately 498,187 people with 426.5 people per square mile, according to the U.S. Census Bureau's 2016 estimated census data. This represents a 12.8 percent change from April 1, 2010 to July 1, 2016.

Adams County is the fifth most populous of the 64 counties of the State of Colorado. It is named for Alva Adams, Governor of the State of Colorado 1887-1889, 1897-1899, and 1905. The county seat is Brighton.

On May 30, 1854, the Kansas-Nebraska Act created the Territory of Nebraska and Territory of Kansas, divided by the Parallel 40° North (168th Avenue in present-day Adams County). The future Adams County, Colorado, occupied a strip of northern Arapahoe County, Kansas Territory, immediately south of the Nebraska Territory.

In 1859, John D. "Colonel Jack" Henderson built a ranch, trading post, and hotel on Henderson Island in the South Platte River in Arapahoe County, Kansas Territory. Jack Henderson was the former editor and proprietor of the Leavenworth (Kansas Territory) Journal and an outspoken pro-slavery politician who had been accused of vote fraud in eastern Kansas. Henderson sold meat and provisions to gold seekers on their way up the South Platte River Trail to the gold fields during the Pike's Peak Gold Rush. Henderson Island was the first permanent settlement in the South Platte River Valley between Fort Saint Vrain in the Nebraska Territory and the Cherry Creek Diggings in the Kansas Territory. Jack Henderson eventually returned to eastern Kansas and (ironically) fought for the Union in the American Civil War. Henderson Island is today the site of the Adams County Regional Park and Fairgrounds.

The eastern portion of the Kansas Territory was admitted to the Union as the State of Kansas on January 29, 1861, and on February 28, 1861, the remaining western portion of the territory was made part of the new Colorado Territory. The Colorado Territory created Arapahoe County, on November 1, 1861, and Colorado was admitted to the Union on August 1, 1876.

In 1901, the Colorado General Assembly voted to split Arapahoe County into three parts: a new Adams County, a new consolidated City and County of Denver, and the remainder of the Arapahoe County to be renamed South Arapahoe County. A ruling by the Colorado Supreme Court, subsequent legislation, and a referendum delayed the creation of Adams County until November 15, 1902. Governor James Bradley Orman designated Brighton as the temporary Adams County Seat. Adams County originally stretched 160 miles from present-day Sheridan Boulevard to the Kansas state border. On May 12, 1903, the eastern 88 miles of Adams County was transferred to the new Washington County and the new Yuma County, reducing the length of Adams County to the present 72 miles . On November 8, 1904, Adams County voters chose Brighton as the permanent county seat.

A 1989 vote transferred 53 square miles of Adams County to the City and County of Denver for the proposed Denver International Airport, leaving the densely populated western portion of the county as two oddly-shaped peninsulas. Adams County lost the tip of its northwest corner when the consolidated City and County of Broomfield was created on November 15, 2001.

(Wikipedia.org)

RATIO ANALYSIS

Methodology

All significant classes of property were analyzed. Sales were collected for each property class over the eighteen month period from January 1, 2015 through June 20, 2016. Property classes with less than thirty sales had the sales period extended in six month increments up to an additional forty-two months. If this extended sales period did not produce the minimum thirty qualified sales, the Audit performed supplemental appraisals to reach the minimum.

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 Adams County are:

Adams County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	153	0.945	1.063	14.3	Compliant
Condominium	N/A	N/A	N/A	N/A	N/A
Single Family	17,994	0.994	1.009	5.1	Compliant
Vacant Land	277	0.968	1.106	20.9	Compliant

Ratio Statistics for currtot / tasp			
Group	Median	Price Related Differential	Coefficient of Dispersion
1	.995	1.005	.054
2	.997	1.003	.047
3	.994	1.009	.052
4	.993	1.014	.051
5	.976	1.004	.055
6	.997	1.007	.047
Overall	.994	1.009	.051

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

Adams 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.

We test the hypothesis that the assessor has valued unsold properties consistent with what is observed with the sold properties based on several units of comparison and tests. The units of comparison include the actual value per square foot and the change in value from the previous base year period to the current base year. The first test compares the actual value per square foot between sold and unsold properties by class. The median and mean value per square foot is compared and tested for any significant difference. This is tested using non-parametric methods, such as the Mann-Whitney test for differences in the distributions or medians between sold and unsold groups. It is also examined graphically and from an appraisal perspective. Data can be stratified based on location and subclass. The second test compares the difference in the median change in value from the previous base year to the current base year between sold and unsold properties by class. The same combination of non-parametric and appraisal testing is used as with the first test. A third test employing a valuation model testing a sold/unsold binary variable while controlling for property attributes such as location, size, age and other attributes. The model determines if the sold/unsold variable is statistically and empirically significant. If all three tests indicate a significant difference between sold and unsold properties for a given class, the Auditor may meet with the county to determine if sale chasing is actually occurring,

or if there are other explanations for the observed difference.

If the unsold properties have a higher median value per square foot than the sold properties, or if the median change in value is greater for the unsold properties than the sold properties, the analysis is stopped and the county is concluded to be in compliance with sold and unsold guidelines. All sold and unsold properties in a given class are first tested, although properties with extreme unit values or percent changes can be trimmed to stabilize the analysis. The median is the primary comparison metric, although the mean can also be used as a comparison metric if the distribution supports that type of measure of central tendency.

The first test (unit value method) is applied to both residential and commercial/industrial sold and unsold properties. The second test is applied to sold and unsold vacant land properties. The second test (change in value method) is also applied to residential or commercial sold and unsold properties if the first test results in a significant difference observed and/or tested between sold and unsold properties. The third test (valuation modeling) is used in instances where the results from the first two tests indicate a significant difference between sold and unsold properties. It can also be used when the number of sold and unsold properties is so large that the non-parametric testing is indicating a false rejection of the hypothesis that there is no difference between the sold and unsold property values.

These tests were supported by both tabular and graphics presentations, along with written documentation explaining the methodology used.

| Sold/Unsold 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 Adams County is reasonably treating its sold and unsold properties in the same manner.

Recommendations

None

AGRICULTURAL LAND STUDY

Acres By Subclass	Value By Subclass

Acres By Subclass:
- Waste 2.70%
- Sprinkler 2.41%
- Flood 0.98%
- Grazing 23.59%
- Dry Farm 70.34%

Value By Subclass (bar chart): Sprinkler, Flood, Dry Farm, Grazing, Waste
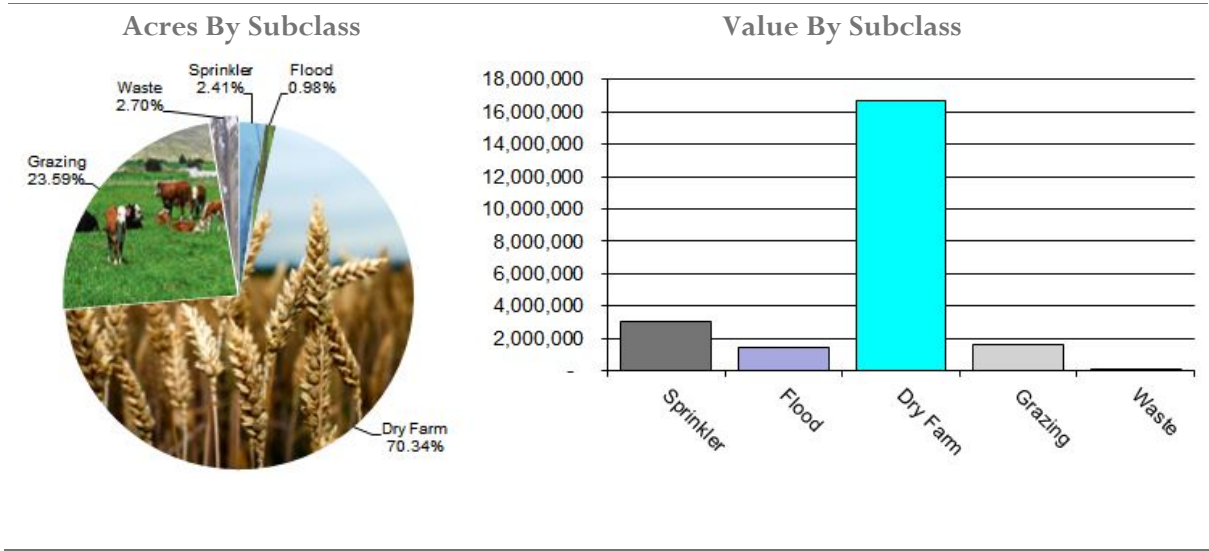
Agricultural Land

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:

Adams County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4107	Sprinkler	13,494	225.01	3,036,372	3,025,082	1.00
4117	Flood	5,485	258.68	1,418,835	1,469,486	0.97
4127	Dry Farm	394,562	42.25	16,668,809	16,274,474	1.02
4147	Grazing	132,310	12.48	1,651,234	1,651,234	1.00
4167	Waste	15,123	2.22	33,602	33,602	1.00
Total/Avg		560,975	40.66	22,808,852	22,453,878	1.02

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

Adams 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

Adams County has used the following methods to discover land under a residential improvement on a farm or ranch that is determined to be not integral under 39-1-102, C.R.S.:

- Questionnaires
- Field Inspections
- In-Person Interviews with Owners/Tenants
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Adams County has used the following methods to discover the land area under a residential improvement that is determined to be not integral under 39-1-102, C.R.S.:

- Questionnaires
- Field Inspections
- In-Person Interviews with Owners/Tenants
- Personal Knowledge of Occupants at Assessment Date
- Aerial Photography/Pictometry

Adams 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

S A L E S   V E R I F I C A T I O N

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 2017 for Adams County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 62 sales listed as unqualified.

All but two of the sales selected in the sample gave reasons that were clear and supportable. Two sales had insufficient reason for disqualification.

For residential, commercial, and vacant land sales with considerations over $500, the contractor has examined and reported the ratio of qualified sales to total sales by class and performed the following analyses of unqualified sales:

> The contractor has examined the manner in which sales have been classified as qualified or unqualified, including a listing of each step in the sales verification process, any adjustment procedures, and the county official responsible for making the final decision on qualification.
>
> When less than 50 percent of sales are qualified in any of the three property classes (residential, commercial, and vacant land), the contractor analyzed the reasons for disqualifying sales in any subclass that constitutes at least 20 percent of the class, either by number

of properties or by value, from the prior year. The contractor has reviewed with the assessor any analysis indicating that sales data are inadequate, fail to reflect typical properties, or have been disqualified for insufficient cause. In addition, the contractor has reviewed the disqualified sales by assigned code. If there appears to be any inconsistency in the coding, the contractor has conducted further analysis to determine if the sales included in that code have been assigned appropriately.

If 50 percent or more of the sales are qualified, the contractor has reviewed a statistically significant sample of unqualified sales, excluding sales that were disqualified for obvious reasons.

Adams County did not qualify for in-depth subclass analysis.

Conclusions

Adams County appears to be doing a good job of verifying their sales.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

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

None

VACANT LAND

Subdivision Discounting

Subdivisions were reviewed in 2017 in Adams County. The review showed that subdivisions were discounted pursuant to the Colorado Revised Statutes in Article 39-1-103 (14). Discounting procedures were applied to all subdivisions where less than 80 percent of all sites were sold using the present worth method. The market approach was applied where 80 percent or more of the subdivision sites were sold. An absorption period was estimated for each subdivision that was discounted. An appropriate discount rate was developed using the summation method. Subdivision land with structures was appraised at full market value.

Conclusions

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

Recommendations

None

POSSESSORY INTEREST PROPERTIES

Possessory Interest

Possessory interest property discovery and valuation is described in the Assessor's Reference Library (ARL) Volume 3 section 7 in accordance with the requirements of 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.

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

Adams 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

Adams 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.

Adams 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

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.

Adams County submitted their personal property written audit plan and was current for the 2017 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
- 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 $7,400 actual value exemption status
- Accounts protested with substantial disagreement

Adams County's median ratio is 1.00. This is in compliance with the State Board of Equalization (SBOE) compliance requirements which range from .90 to 1.10 with no COD requirements.

Conclusions

Adams 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

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A PPENDICES

STATISTICAL COMPLIANCE REPORT
FOR ADAMS COUNTY
2017

I. OVERVIEW

Adams County is an urban county located along Colorado's Front Range. The county has a total of 150,111 real property parcels, according to data submitted by the county assessor's office in 2017. The following provides a breakdown of property classes for this county:
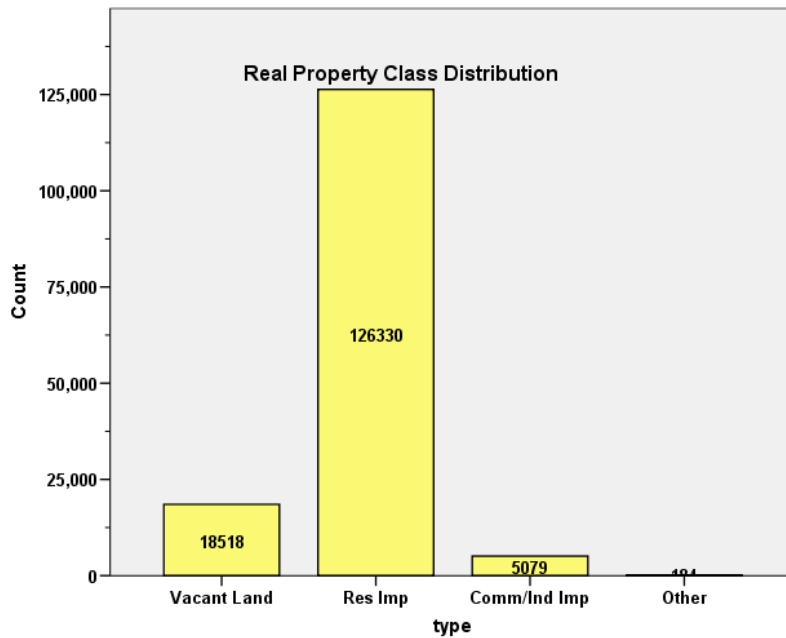
The vacant land class of properties was dominated by residential land. Residential lots (coded 100) accounted for 64.4% of all vacant land parcels.

For residential improved properties, single family properties accounted for 81.1% of all residential properties.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 3.4% of all such properties in this county.

II. DATA FILES

The following sales analyses were based on the requirements of the 2017 Colorado Property Assessment Study. Information was provided by the Adams Assessor's Office in April 2017. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 17,994 qualified residential sales for the 24-month period prior to June 30, 2014. The sales ratio analysis was analyzed as follows:

Case Processing Summary

		Count	Percent
ECONAREA	1	548	3.0%
	2	4158	23.1%
	3	5347	29.7%
	4	5599	31.1%
	5	1246	6.9%
	6	1096	6.1%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.995	1.005	.054
2	.997	1.003	.047
3	.994	1.009	.052
4	.993	1.014	.051
5	.976	1.004	.055
6	.997	1.007	.047
Overall	.994	1.009	.051

The above sales ratio analysis indicates that both from an overall perspective and broken down by economic area, the residential sale ratios are in compliance.

The following graphs describe the overall sales ratio results for Adams County:

Residential Sale Price by Sales Ratio
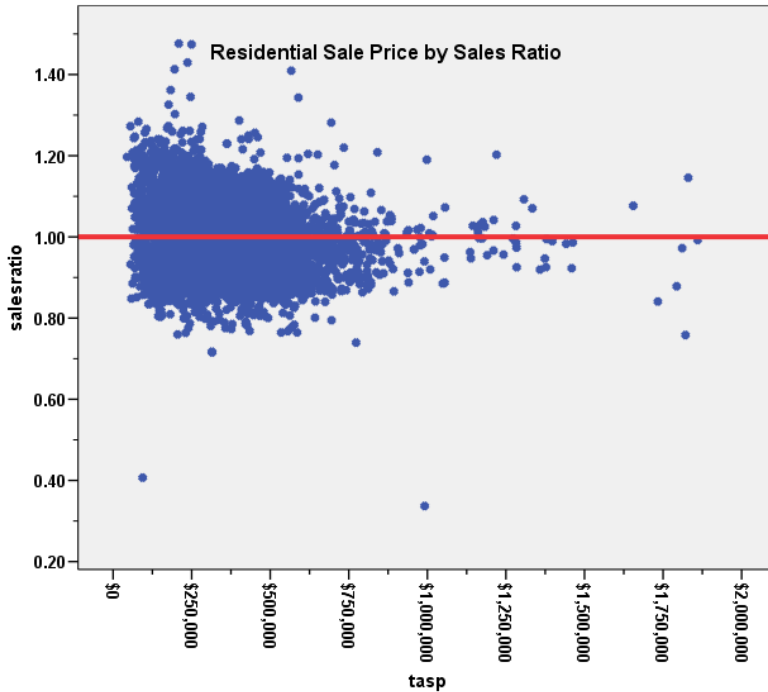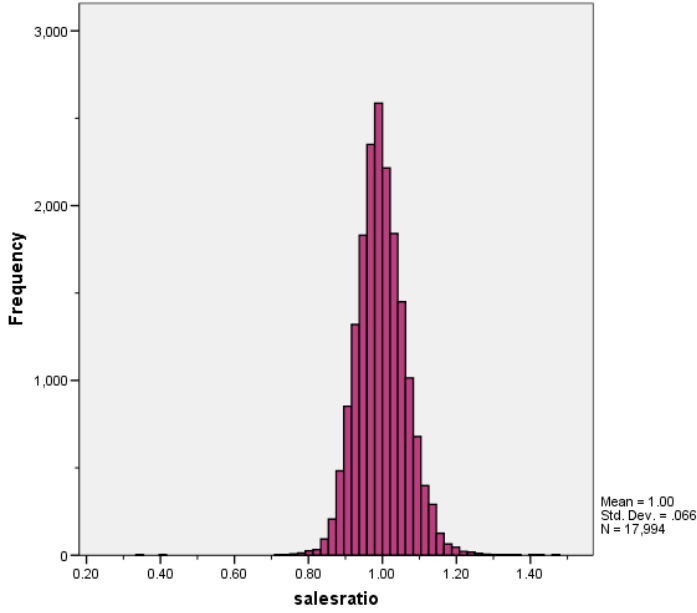
NOTE: Scale adjusted for above chart for illustration purposes.

The above graphs indicate that the distribution of the sale ratios was within state mandated limits.

Residential Market Trend Analysis

We next analyzed the residential dataset using the 24-month sale period for any residual market trending and broken down by economic area, as follows:

Coefficients[a]

ECONAREA	Model		Unstandardized Coefficients		Standardized Coefficients		
			B	Std. Error	Beta	t	Sig.
1	1	(Constant)	.995	.006		167.216	.000
		SalePeriod	.000	.000	.028	.653	.514
2	1	(Constant)	.999	.002		545.406	.000
		SalePeriod	.000	.000	.013	.836	.403
3	1	(Constant)	.999	.002		589.048	.000
		SalePeriod	.000	.000	-.016	-1.172	.241
4	1	(Constant)	.994	.002		600.583	.000
		SalePeriod	.000	.000	.044	3.273	.001
5	1	(Constant)	.989	.004		253.128	.000
		SalePeriod	-.001	.000	-.093	-3.283	.001
6	1	(Constant)	.990	.004		265.866	.000
		SalePeriod	.001	.000	.085	2.827	.005

a. Dependent Variable: salesratio

There was no residual market trending present in the sale ratio data for most economic areas. While several economic areas had statistically significant results, the magnitude of each trend was not significant; we therefore concluded that the assessor has adequately addressed market trending in the valuation of residential properties.

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 2017 between each group. The data was analyzed both as a whole and broken down by economic area, as follows:

Report

VALSF

sold	N	Median	Mean
UNSOLD	108,273	$189	$196
SOLD	17,994	$188	$197

Report

VALSF

ECONAREA	sold	N	Median	Mean
1	UNSOLD	3,204	$169	$168
	SOLD	548	$186	$183
2	UNSOLD	16,284	$166	$171
	SOLD	4,158	$168	$173
3	UNSOLD	26,714	$189	$195
	SOLD	5,347	$194	$200
4	UNSOLD	43,367	$198	$203
	SOLD	5,599	$194	$206
5	UNSOLD	11,178	$205	$212
	SOLD	1,246	$219	$225
6	UNSOLD	7,523	$199	$200
	SOLD	1,096	$192	$200

Given that there were minor indications that the value per square foot was higher for sold properties than unsold properties in several economic areas, we also examined the percent change in actual value from taxable years 2016 to 2017 for residential properties, again by class and by economic area, as follows:

Report
DIFF

sold	N	Median	Mean
UNSOLD	104,866	1.37	1.39
SOLD	17,259	1.39	1.41

Report
DIFF

ECONAREA	sold	N	Median	Mean
1	UNSOLD	3,080	1.31	1.34
	SOLD	531	1.35	1.38
2	UNSOLD	15,523	1.33	1.37
	SOLD	3,976	1.35	1.37
3	UNSOLD	25,903	1.30	1.31
	SOLD	5,142	1.33	1.34
4	UNSOLD	42,821	1.40	1.41
	SOLD	5,527	1.46	1.47
5	UNSOLD	10,354	1.50	1.51
	SOLD	1,064	1.52	1.52
6	UNSOLD	7,184	1.50	1.51
	SOLD	1,019	1.53	1.53

As a final check, we compared sold and unsold residential properties by major subclass, as follows:

Report
DIFF

ABSTRIMP	sold	N	Median	Mean
1212.00	UNSOLD	87232	1.36	1.38
	SOLD	13285	1.36	1.39
1214.00	UNSOLD	8386	1.38	1.41
	SOLD	1802	1.39	1.42
1215.00	UNSOLD	1303	1.39	1.41
	SOLD	132	1.45	1.48
1220.00	UNSOLD	336	1.50	1.50
	SOLD	58	1.55	1.53
1225.00	UNSOLD	272	1.58	1.52
	SOLD	39	1.55	1.56
1230.00	UNSOLD	6636	1.52	1.55
	SOLD	1934	1.53	1.56

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

IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 161 qualified commercial and industrial sales for the 24-month period ending June 30, 2016; eight sales were trimmed for their extreme ratios, resulting in a final total of 153 commercial/industrial sales. The sales ratio analysis was analyzed as follows:

Median	0.945
Price Related Differential	1.063
Coefficient of Dispersion	14.3

The above table indicates that the Adams County commercial/industrial sale ratios were in compliance with the SBOE standards, although the sale ratio was at the extreme lower threshold. The following histogram and scatter plot describe the sales ratio distribution further:
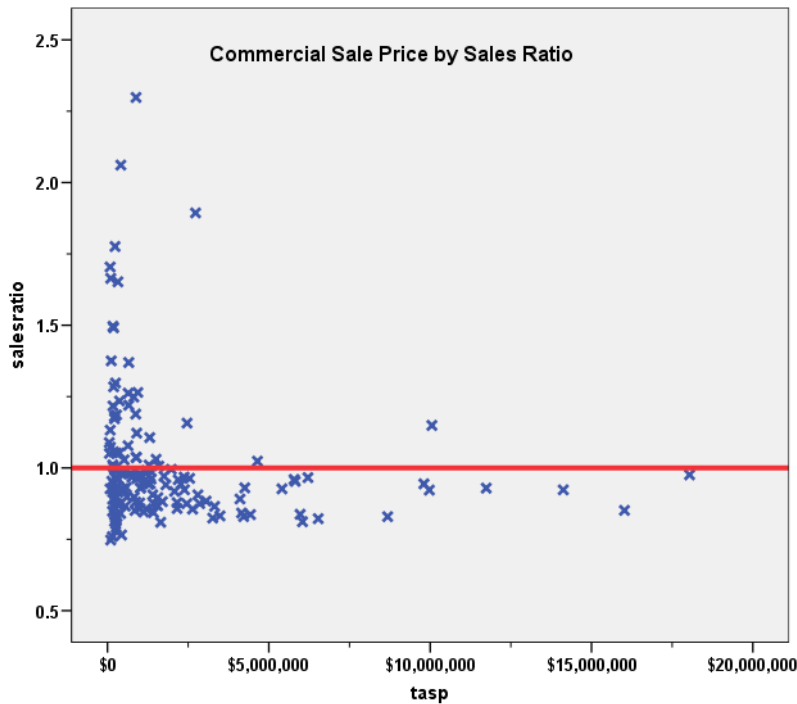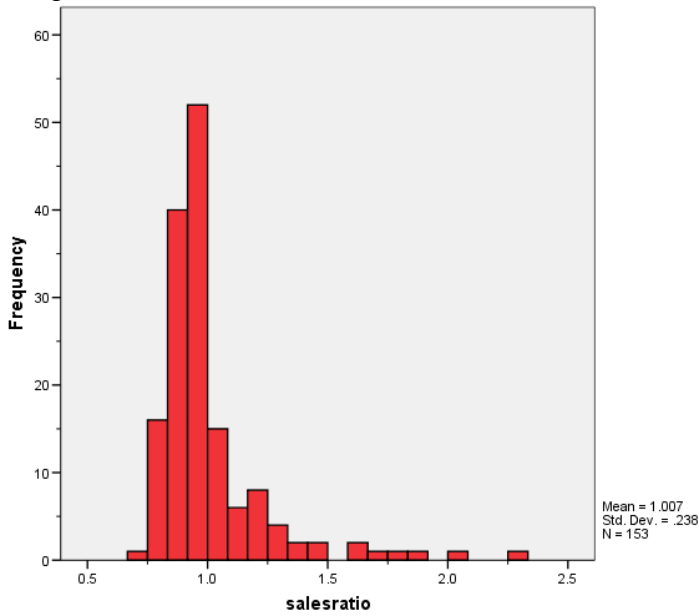
Commercial/Industrial Market Trend Analysis

The 153 commercial/industrial sales were next analyzed by examining the sale ratios across the 24-month sale period. The purpose was to check for any residual market trending. The results were as follows:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.071	.036		30.045	.000
	SalePeriod	-.006	.003	-.171	-2.130	.035

a. Dependent Variable: salesratio
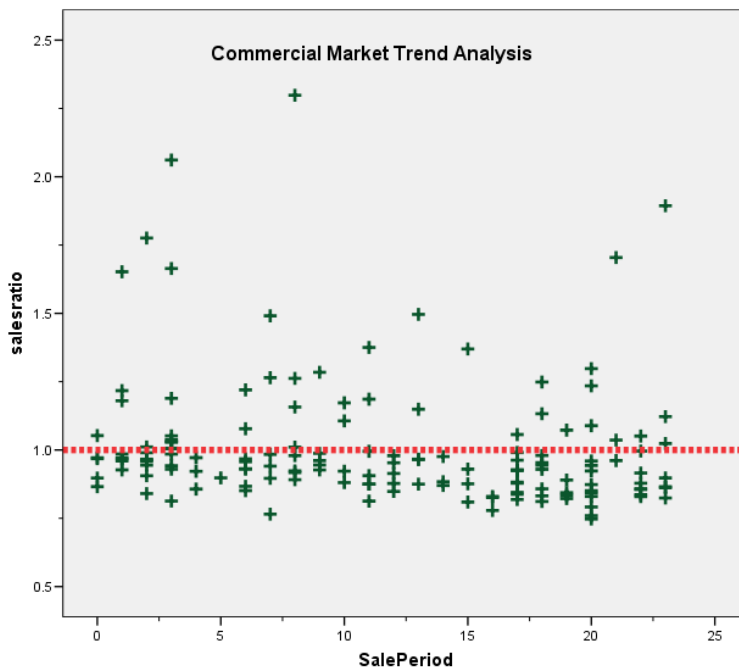
Based on no significant statistical market trend, we concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the 2017 median and mean value per square feet for sold and unsold commercial/industrial properties, as follows:

Report
VALSF

sold	N	Median	Mean
UNSOLD	4,828	$75	$102
SOLD	153	$94	$109

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of VALSF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Given that there was a marginally significant difference between sold and unsold properties, we next stratified this comparison by subclass. The following table compared sold and unsold commercial/industrial properties for subclasses with at least 1 sale:

Report

VALSF

ABSTRIMP	sold	N	Median	Mean
2212.00	UNSOLD	1,294	$94	$123
	SOLD	34	$97	$115
2220.00	UNSOLD	294	$108	$125
	SOLD	17	$96	$104
2221.00	UNSOLD	29	$145	$167
	SOLD	3	$144	$148
2223.50	UNSOLD	25	$63	$71
	SOLD	2	$89	$89
2230.00	UNSOLD	793	$120	$154
	SOLD	30	$120	$147
2235.00	UNSOLD	1,220	$53	$62
	SOLD	31	$66	$84
2240.00	UNSOLD	1	$139	$139
2245.00	UNSOLD	792	$75	$79
	SOLD	23	$110	$106
3212.00	UNSOLD	54	$63	$77
	SOLD	2	$76	$76
3215.00	UNSOLD	84	$48	$55
	SOLD	7	$78	$75
3225.00	UNSOLD	3	$110	$205
	SOLD	1	$74	$74

The above comparison indicates that when stratified by subclass, there were instances where the sold property had a greater value per square foot, where the sold properties had a greater value per square foot, and instances where there was little difference. Based on this pattern, we concluded that there was no evidence that sold commercial/industrial properties were systematically valued higher than unsold properties. **Please note that we also compared the median change in actual value for taxable years 2016 and 2017 for commercial subclass 2245 and found no significant difference between sold and unsold properties, as follows:**

Report
DIFF

sold	N	Median	Mean
UNSOLD	791	1.06	1.26
SOLD	23	1.09	1.10

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.731	Retain the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

V. VACANT LAND SALE RESULTS

There were 283 qualified vacant land sales for the 24-month period ending June 30, 2016. We trimmed six sales due to their extreme sale ratios, resulting in a final total of 277 vacant land sales. The sales ratio analysis was analyzed as follows:

Median	0.968
Price Related Differential	1.106
Coefficient of Dispersion	20.9

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

Vacant Land Sale Price by Sales Ratio
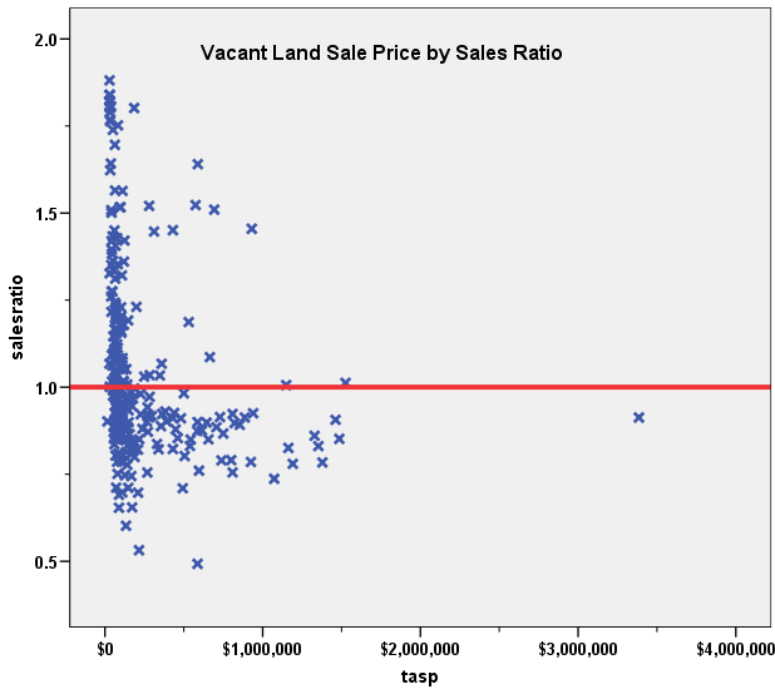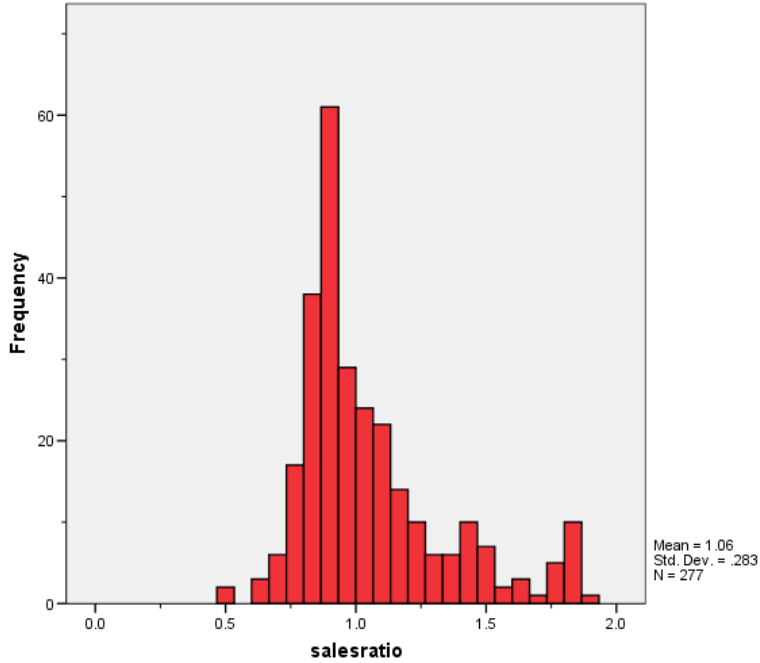
The above graphs indicate that the distribution of the vacant land sale ratios was within state mandated limits. No sales were trimmed.

Vacant Land Market Trend Analysis

We next analyzed the vacant land dataset using the 24-month sale period, with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.987	.032		30.746	.000
	SalePeriod	.006	.002	.149	2.494	.013

a. Dependent Variable: salesratio

Vacant Land Sales Market Trend Analysis
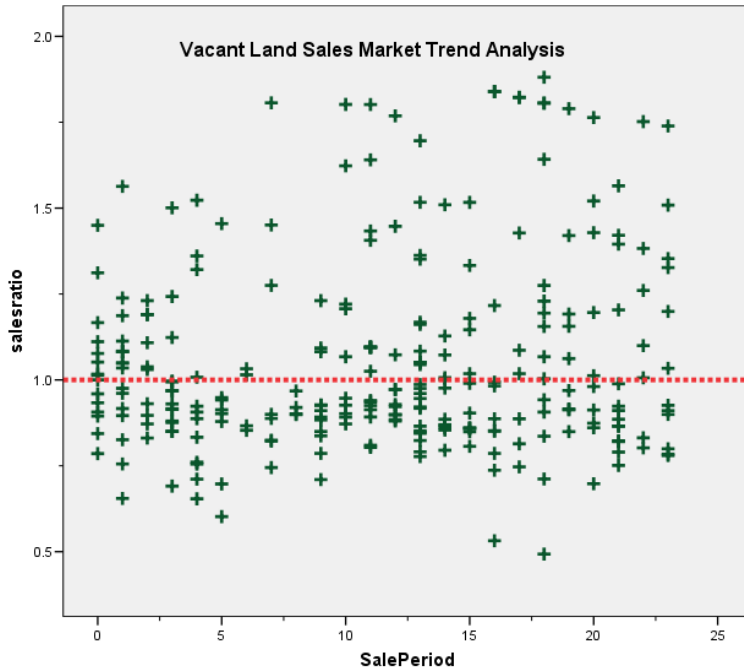
The above analysis indicated that no significant market trending was present in the vacant land sale data. We concluded that the assessor has adequately dealt with market trending for vacant land properties.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold vacant land properties, we compared the median change in actual value for taxable years 2016 and 2017 between each group, as follows:

Report

DIFF

sold	N	Median	Mean
UNSOLD	8,907	1.12	1.23
SOLD	229	1.29	1.30

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of DIFF is the same across categories of sold.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .05.

Although there was a significant difference in the above comparison, when broken down by subdivision with at least 5 sales, sold and unsold vacant land properties were valued consistently:

Report

DIFF

SUBDIVNO	sold	N	Median	Mean
195BB	UNSOLD	18	1.84	1.52
	SOLD	9	1.84	1.79
255HA	UNSOLD	9	1.33	1.33
	SOLD	5	1.33	1.33
268BA	UNSOLD	50	1.39	1.39
	SOLD	8	1.39	1.39
311AA	UNSOLD	1	1.38	1.38
	SOLD	12	1.38	1.38
339GA	UNSOLD	11	1.46	1.35
	SOLD	16	1.46	1.39
365CA	UNSOLD	12	1.29	1.29
	SOLD	8	1.29	1.29
613CB	UNSOLD	48	1.00	1.07
	SOLD	11	1.39	1.39
747BA	UNSOLD	30	1.00	1.00
	SOLD	18	1.00	1.00

Overall, we concluded that the county assessor valued sold and unsold vacant properties consistently.

VI. AGRICULTURAL IMPROVEMENTS ANALYSIS

Based on the parameters of the state audit analysis, this county was exempt from this analysis for 2017.

VII. CONCLUSION

Based on the results of these analyses, we concluded that there were no significant compliance issues with Adams County.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for currtot / tasp

ECON AREA	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
1	.998	.992	1.004	.995	.988	1.001	95.5%	.993	.984	1.003	1.005	.054	7.3%
2	1.000	.998	1.002	.997	.995	.999	95.1%	.997	.995	1.000	1.003	.047	6.1%
3	.997	.996	.999	.994	.992	.997	95.1%	.988	.980	.997	1.009	.052	6.6%
4	.999	.997	1.000	.993	.991	.995	95.2%	.985	.976	.995	1.014	.051	6.6%
5	.979	.974	.983	.976	.972	.979	95.6%	.974	.969	.979	1.004	.055	7.7%
6	.999	.995	1.003	.997	.992	1.001	95.0%	.992	.987	.998	1.007	.047	6.2%

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

Commercial Land

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
1.007	.969	1.045	.945	.927	.966	96.5%	.947	.916	.979	1.063	.143	23.6%

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

Vacant Land

Ratio Statistics for currlnd / 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
1.056	1.022	1.089	.968	.927	1.000	95.9%	.955	.919	.990	1.106	.209	26.8%

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

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	1	0.0%
	$50K to $100K	124	0.7%
	$100K to $150K	325	1.8%
	$150K to $200K	1146	6.4%
	$200K to $300K	7503	41.7%
	$300K to $500K	7640	42.5%
	$500K to $750K	1066	5.9%
	$750K to $1,000K	111	0.6%
	Over $1,000K	78	0.4%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$25K to $50K	1.197	1.000	.000	.
$50K to $100K	1.054	1.002	.080	10.9%
$100K to $150K	1.024	1.001	.079	9.6%
$150K to $200K	1.003	1.000	.059	7.7%
$200K to $300K	.997	1.001	.049	6.3%
$300K to $500K	.991	1.001	.048	6.1%
$500K to $750K	.971	1.001	.058	7.5%
$750K to $1,000K	.971	1.000	.056	9.2%
Over $1,000K	.988	1.028	.057	7.5%
Overall	.994	1.009	.051	6.6%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	1212.00	13876	77.1%
	1213.50	3	0.0%
	1214.00	1661	9.2%
	1214.50	173	1.0%
	1215.00	109	0.6%
	1215.33	20	0.1%
	1215.75	6	0.0%
	1216.00	3	0.0%
	1216.29	1	0.0%
	1217.00	1	0.0%
	1220.00	64	0.4%
	1225.00	42	0.2%
	1225.06	1	0.0%
	1225.06	2	0.0%
	1225.07	1	0.0%
	1225.08	2	0.0%
	1225.08	1	0.0%
	1225.09	1	0.0%
	1225.10	1	0.0%
	1225.11	1	0.0%
	1225.14	1	0.0%
	1230.00	2022	11.2%
	1239.60	1	0.0%
	1247.50	1	0.0%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
1212.00	.995	1.003	.049	6.2%
1213.50	.994	.989	.075	15.8%
1214.00	.983	1.006	.053	7.0%
1214.50	.997	1.004	.066	8.2%
1215.00	.949	1.006	.066	8.1%
1215.33	1.046	1.001	.077	9.7%
1215.75	.971	.999	.051	6.6%
1216.00	1.069	.997	.024	4.2%
1216.29	1.048	1.000	.000	.
1217.00	.337	1.000	.000	.
1220.00	.975	1.007	.102	13.3%
1225.00	.995	1.033	.073	8.5%
1225.06	.861	1.000	.000	.
1225.06	.965	.988	.036	5.2%
1225.07	.837	1.000	.000	.
1225.08	.941	1.007	.040	5.7%
1225.08	1.005	1.000	.000	.
1225.09	.949	1.000	.000	.
1225.10	.949	1.000	.000	.
1225.11	.969	1.000	.000	.
1225.14	1.022	1.000	.000	.
1230.00	.995	1.006	.059	7.9%
1239.60	.758	1.000	.000	.
1247.50	1.059	1.000	.000	.
Overall	.994	1.009	.051	6.6%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	23	0.1%
	75 to 100	141	0.8%
	50 to 75	2860	15.9%
	25 to 50	3738	20.8%
	5 to 25	8343	46.4%
	5 or Newer	2889	16.1%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.010	1.064	.071	9.8%
75 to 100	.990	1.004	.070	9.8%
50 to 75	.993	1.004	.052	6.7%
25 to 50	.994	1.015	.057	7.3%
5 to 25	.995	1.007	.046	5.9%
5 or Newer	.990	1.006	.055	7.0%
Overall	.994	1.009	.051	6.6%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	15	0.1%
	500 to 1,000 sf	2422	13.5%
	1,000 to 1,500 sf	5955	33.1%
	1,500 to 2,000 sf	4567	25.4%
	2,000 to 3,000 sf	4103	22.8%
	3,000 sf or Higher	932	5.2%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LE 500 sf	1.026	1.000	.088	11.3%
500 to 1,000 sf	.992	1.004	.058	7.6%
1,000 to 1,500 sf	.993	1.003	.050	6.5%
1,500 to 2,000 sf	.992	1.004	.049	6.4%
2,000 to 3,000 sf	.996	1.004	.049	6.2%
3,000 sf or Higher	.998	1.031	.055	7.4%
Overall	.994	1.009	.051	6.6%

Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	12459	69.2%
	Excellent	58	0.3%
	Fair	94	0.5%
	Good	4893	27.2%
	Low	9	0.1%
	Very Good	481	2.7%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.994	1.007	.050	6.5%
Excellent	.996	1.004	.033	4.4%
Fair	.983	1.005	.080	11.8%
Good	.994	1.011	.051	6.5%
Low	.986	1.003	.068	9.3%
Very Good	.994	1.006	.063	7.9%
Overall	.994	1.009	.051	6.6%

Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	11121	61.8%
	Excellent	2	0.0%
	Fair	223	1.2%
	Good	6589	36.6%
	Low	19	0.1%
	Very Good	40	0.2%
Overall		17994	100.0%
Excluded		0	
Total		17994	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.993	1.004	.052	6.8%
Excellent	1.012	1.003	.029	4.1%
Fair	.993	1.018	.062	8.5%
Good	.995	1.014	.048	6.1%
Low	1.059	1.012	.084	10.7%
Very Good	.985	1.010	.031	4.1%
Overall	.994	1.009	.051	6.6%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$50K to $100K	6	3.9%
	$100K to $150K	4	2.6%
	$150K to $200K	13	8.5%
	$200K to $300K	24	15.7%
	$300K to $500K	15	9.8%
	$500K to $750K	10	6.5%
	$750K to $1,000K	15	9.8%
	Over $1,000K	66	43.1%
Overall		153	100.0%
Excluded		0	
Total		153	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
$50K to $100K	1.081	.993	.135	26.7%
$100K to $150K	1.164	1.008	.287	35.5%
$150K to $200K	1.005	.994	.173	24.4%
$200K to $300K	.938	1.003	.153	24.0%
$300K to $500K	.960	1.007	.197	37.9%
$500K to $750K	1.006	.993	.129	17.7%
$750K to $1,000K	.979	1.001	.190	38.7%
Over $1,000K	.923	1.005	.078	15.3%
Overall	.945	1.063	.143	26.0%

Subclass

Case Processing Summary

		Count	Percent
ABSTRIMP	2212.00	34	22.2%
	2219.67	1	0.7%
	2220.00	17	11.1%
	2221.00	3	2.0%
	2223.50	2	1.3%
	2227.50	1	0.7%
	2230.00	30	19.6%
	2232.00	1	0.7%
	2235.00	31	20.3%
	2245.00	23	15.0%
	3212.00	2	1.3%
	3215.00	7	4.6%
	3225.00	1	0.7%
Overall		153	100.0%
Excluded		0	
Total		153	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
2212.00	.957	1.075	.144	25.1%
2219.67	.988	1.000	.000	.
2220.00	.945	1.092	.178	33.5%
2221.00	.875	.959	.038	5.8%
2223.50	.873	1.028	.058	8.2%
2227.50	.916	1.000	.000	.
2230.00	1.033	1.036	.199	34.6%
2232.00	.812	1.000	.000	.
2235.00	.923	1.019	.070	11.6%
2245.00	.890	.949	.143	19.8%
3212.00	.952	.982	.057	8.1%
3215.00	.930	1.043	.055	7.4%
3225.00	.927	1.000	.000	.
Overall	.945	1.063	.143	26.0%

Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	3	2.0%
	75 to 100	5	3.3%
	50 to 75	24	15.7%
	25 to 50	75	49.0%
	5 to 25	41	26.8%
	5 or Newer	5	3.3%
Overall		153	100.0%
Excluded		0	
Total		153	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Over 100	1.217	1.027	.088	15.2%
75 to 100	.927	.994	.165	31.4%
50 to 75	.949	1.075	.145	26.3%
25 to 50	.942	1.093	.156	29.5%
5 to 25	.943	1.002	.090	12.4%
5 or Newer	1.038	1.004	.260	43.6%
Overall	.945	1.063	.143	26.0%

Improved Area

Case Processing Summary

		Count	Percent
ImpSFRec	500 to 1,000 sf	1	0.7%
	1,000 to 1,500 sf	2	1.3%
	1,500 to 2,000 sf	8	5.2%
	2,000 to 3,000 sf	13	8.5%
	3,000 sf or Higher	129	84.3%
Overall		153	100.0%
Excluded		0	
Total		153	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
500 to 1,000 sf	1.011	1.000	.000	.
1,000 to 1,500 sf	1.138	.962	.072	10.1%
1,500 to 2,000 sf	1.039	1.102	.245	35.5%
2,000 to 3,000 sf	.945	1.036	.142	23.4%
3,000 sf or Higher	.941	1.052	.135	25.5%
Overall	.945	1.063	.143	26.0%

Quality

Case Processing Summary

		Count	Percent
QUALITY	Average	135	88.2%
	Excellent	1	0.7%
	Fair	4	2.6%
	Good	11	7.2%
	Low	2	1.3%
Overall		153	100.0%
Excluded		0	
Total		153	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.945	1.075	.148	27.2%
Excellent	1.149	1.000	.000	.
Fair	.988	.989	.047	6.1%
Good	.923	1.021	.117	15.7%
Low	.862	1.013	.113	16.0%
Overall	.945	1.063	.143	26.0%

Condition

Case Processing Summary

		Count	Percent
CONDITION	Average	139	90.8%
	Fair	2	1.3%
	Good	12	7.8%
Overall		153	100.0%
Excluded		0	
Total		153	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
Average	.944	1.075	.144	26.8%
Fair	.951	1.096	.145	20.5%
Good	.991	.983	.127	15.6%
Overall	.945	1.063	.143	26.0%

Vacant Land Median Ratio Stratification

Sale Price
Case Processing Summary

		Count	Percent
SPRec	LT $25K	1	0.4%
	$25K to $50K	32	11.6%
	$50K to $100K	108	39.0%
	$100K to $150K	43	15.5%
	$150K to $200K	17	6.1%
	$200K to $300K	19	6.9%
	$300K to $500K	18	6.5%
	$500K to $750K	18	6.5%
	$750K to $1,000K	10	3.6%
	Over $1,000K	11	4.0%
Overall		277	100.0%
Excluded		0	
Total		277	

Ratio Statistics for currlnd / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
LT $25K	.902	1.000	.000	.
$25K to $50K	1.505	1.021	.172	19.5%
$50K to $100K	.994	1.006	.162	22.5%
$100K to $150K	.961	1.011	.165	21.5%
$150K to $200K	.899	.994	.161	28.7%
$200K to $300K	.915	.989	.116	20.6%
$300K to $500K	.911	1.008	.125	22.1%
$500K to $750K	.881	.999	.216	36.0%
$750K to $1,000K	.894	.993	.114	22.3%
Over $1,000K	.852	.989	.079	10.5%
Overall	.968	1.106	.209	30.6%

Subclass

Case Processing Summary

		Count	Percent
ABSTRLND	100	145	52.3%
	200	38	13.7%
	300	11	4.0%
	520	2	0.7%
	540	2	0.7%
	700	3	1.1%
	1112	48	17.3%
	1140	1	0.4%
	1620	1	0.4%
	2112	9	3.2%
	2115	1	0.4%
	2130	11	4.0%
	2135	4	1.4%
	2170	1	0.4%
Overall		277	100.0%
Excluded		0	
Total		277	

Ratio Statistics for currlnd / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation Median Centered
100	1.006	1.091	.208	29.9%
200	.909	1.060	.189	32.9%
300	.837	.993	.160	21.6%
520	1.217	1.000	.250	35.3%
540	.770	.917	.150	21.2%
700	1.420	1.021	.089	15.2%
1112	.998	1.039	.199	27.9%
1140	.826	1.000	.000	.
1620	.861	1.000	.000	.
2112	.925	1.006	.135	28.4%
2115	.852	1.000	.000	.
2130	.822	.989	.067	9.7%
2135	1.480	1.037	.116	23.1%
2170	.891	1.000	.000	.
Overall	.968	1.106	.209	30.6%