2014
DENVER COUNTY
PROPERTY ASSESSMENT
STUDY

WILDROSE
APPRAISAL, INCORPORATED
Audit Division

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APPRAISAL, INCORPORATED
Audit Division

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 Denver County in the following report.

REGIONAL/HISTORICAL SKETCH OF DENVER COUNTY

Regional Information

Denver 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

Denver County has a population of approximately 600,158 people with 3,922.6 people per square mile, according to the U.S. Census Bureau's 2010 census data. This represents a 8.21 percent change from the 2000 Census.

Denver is the capital and the most populous city of the state of Colorado. Denver is a consolidated city-county located in the South Platte River Valley on the High Plains just east of the Front Range of the Rocky Mountains.

Denver City was founded in November 1858 as a mining town during the Pikes Peak Gold Rush in western Kansas Territory. That summer, a group of gold prospectors from Lawrence, Kansas, arrived and established Montana City on the banks of the South Platte River. This was the first settlement in what was later to become the city of Denver. The site faded quickly, however, and was abandoned in favor of Auraria (named after the gold-mining town of Auraria, Georgia) and St. Charles City by the summer of 1859. The Montana City site is now Grant-Frontier Park and includes mining equipment and a log cabin replica.

On November 22, 1858, General William Larimer, a land speculator from eastern Kansas, placed cottonwood logs to stake a claim on the hill overlooking the confluence of the South Platte River and Cherry Creek, across the creek from the existing mining settlement of Auraria. Larimer named the town site Denver City to curry favor with Kansas Territorial Governor James W. Denver. Larimer hoped that the town's name would help make it the county seat of Arapaho County, but ironically Governor Denver had already resigned from office. The location was accessible to existing trails and was across the South Platte River from the site of seasonal encampments of the Cheyenne and Arapaho. The site of these first towns is now the site of Confluence Park in downtown Denver. Larimer, along with associates in the St. Charles City Land Company, sold parcels in the town to merchants and miners, with the intention of creating a major city that would cater to new emigrants. Denver City was a frontier town, with an economy based on servicing local miners with gambling, saloons, livestock and goods trading. In the early years, land parcels were often traded for grubstakes or gambled away by miners in Auraria.

The Colorado Territory was created on February 28, 1861. Arapahoe County was formed on November 1, 1861 and Denver City was incorporated on November 7, 1861. Denver City served as the Arapahoe County Seat from 1861 until consolidation in 1902. In 1865, Denver City became the Territorial Capital and became the State Capital when Colorado was admitted to the Union.

In 1901 the Colorado General Assembly voted to split Arapahoe County into three parts: a new consolidated City and County of Denver, a new Adams County, 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 the City and County of Denver until November 15, 1902.

Denver has hosted the Democratic National Convention twice, during the years of 1908 and again in 2008, taking the opportunity to promote the city's status on the national, political, and socioeconomic stage. *(Wikipedia.org)*

RATIO ANALYSIS

Methodology

All significant classes of properties were analyzed. Sales were collected for each property class over the appropriate sale period, which was typically defined as the 18-month period between January 2011 and June 2012. Counties with less than 30 sales typically extended the sale period back up to 5 years prior to June 30, 2012 in 6-month increments. If there were still fewer than 30 sales, supplemental appraisals were performed and treated as proxy sales. Residential sales for all counties using this method totaled at least 30 per county. For commercial sales, the total number analyzed was allowed, in some cases, to fall below 30. There were no sale quantity issues for counties requiring vacant land analysis or condominium analysis. Although it was required that we examine the median and coefficient of dispersion for all counties, we also calculated the weighted mean and 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 Denver County are:

Denver County Ratio Grid					
Property Class	Number of Qualified Sales	Unweighted Median Ratio	Price Related Differential	Coefficient of Dispersion	Time Trend Analysis
Commercial/Industrial	225	0.991	1.376	13.4	Compliant
Condominium	3,364	1.001	1.006	5.7	Compliant
Single Family	15,621	1.002	1.008	6.2	Compliant
Vacant Land	240	0.953	1.048	15.2	Compliant

SINGLE FAMILY Ratio Statistics for currtot / tasp
N = 10,338

Group	Median	Price Related Differential	Coefficient of Dispersion
1	1.003	1.004	.050
2	1.003	1.003	.047
3	1.005	1.005	.051
4	1.001	1.006	.060
5	.991	1.014	.100
6	1.001	1.003	.050
7	1.003	1.001	.055
8	.999	1.013	.084
9	1.009	1.009	.060
10	1.010	1.004	.052
11	1.003	1.014	.089
12	1.000	1.005	.048
13	1.003	1.021	.087
14	1.010	1.009	.069
15	1.000	1.019	.103
16	1.002	1.007	.055
17	.999	1.017	.077
18	1.005	1.023	.101
19	1.000	1.009	.050
20	1.002	1.023	.119
22	1.001	1.003	.044
23	1.004	1.005	.050
24	1.000	1.006	.054
25	1.003	1.003	.055
26	1.002	1.006	.054
27	1.004	1.002	.054
29	1.001	1.002	.040
30	1.001	1.007	.061
31	1.001	1.013	.064
32	1.005	1.014	.074
Overall	**1.002**	**1.004**	**.062**

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

Denver 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	Compliant

Conclusions

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

Denver County Agricultural Land Ratio Grid						
Abstract Code	Land Class	Number Of Acres	County Value Per Acre	County Assessed Total Value	WRA Total Value	Ratio
4127	Dry Farm	1,670	37.00	61,016	61,016	1.00
Total/Avg		**1,670**	**37.00**	**61,016**	**61,016**	**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

Denver 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

Denver 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 Denver County. This study was conducted by checking selected sales from the master sales list for the current valuation period. Specifically WRA selected 60 sales listed as unqualified.

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

Conclusions

Denver County appears to be doing an adequate job of verifying their sales. There are no recommendations.

Recommendations

None

ECONOMIC AREA REVIEW AND EVALUATION

Methodology

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

Denver County is exempt from the Natural Resources Study.

VACANT LAND

Subdivision Discounting

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

In instances where the number of sales within an approved plat was less than the absorption rate per year calculated for the plat, the absorption period was left unchanged.

Conclusions

Denver 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.

Denver County has been reviewed for their procedures and adherence to guidelines when assessing and valuing 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

Denver 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

Denver 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.

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

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

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.

Denver County submitted their personal property written audit plan and was current for the 2014 valuation period. The number and listing of businesses audited was also submitted and was in conformance with the written audit plan. The following audit triggers were used by the county to select accounts to be audited:

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

- Non-filing Accounts - Best Information Available
- Accounts close to the $7,000 actual value exemption status
- Lowest or highest quartile of value per
- square foot
- Accounts protested with substantial disagreement

Denver County's median ratio is .99. 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

Denver 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*

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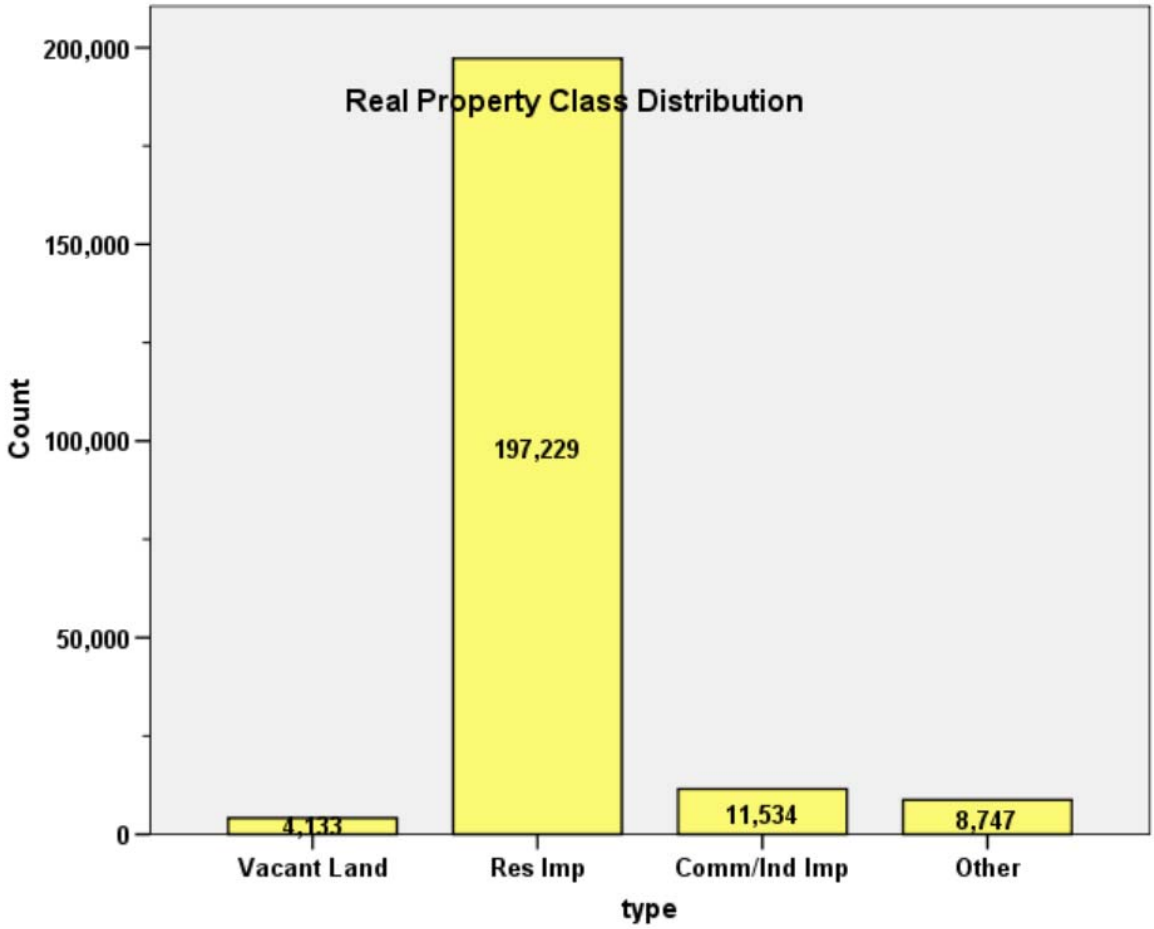
APPENDICES

STATISTICAL COMPLIANCE REPORT
FOR DENVER COUNTY
2014

I. OVERVIEW

Denver County is an urban county located along Colorado's Front Range. The county has a total of 221,643 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 48.7% of all vacant land parcels.

For residential improved properties, single family properties accounted for **66.1**% of all residential properties, while condominiums accounted for **22.5%** of all residential properties. We broke down our residential analysis by both economic area and residential subclass.

Commercial and industrial properties represented a much smaller proportion of property classes in comparison. Commercial/industrial properties accounted for 5.2% 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 Denver Assessor's Office in April 2014. The data included all 5 property record files as specified by the Auditor.

III. RESIDENTIAL SALES RESULTS

There were 15,621 qualified commercial sales in the 24 month sale period ending June 30, 2014. We stratified the sales ratio results by residential subclass and economic area, as follows:

SINGLE FAMILY Ratio Statistics for currtot / tasp
N = 10,338

Group	Median	Price Related Differential	Coefficient of Dispersion
1	1.003	1.004	.050
2	1.003	1.003	.047
3	1.005	1.005	.051
4	1.001	1.006	.060
5	.991	1.014	.100
6	1.001	1.003	.050
7	1.003	1.001	.055
8	.999	1.013	.084
9	1.009	1.009	.060
10	1.010	1.004	.052
11	1.003	1.014	.089
12	1.000	1.005	.048
13	1.003	1.021	.087
14	1.010	1.009	.069
15	1.000	1.019	.103
16	1.002	1.007	.055
17	.999	1.017	.077
18	1.005	1.023	.101
19	1.000	1.009	.050
20	1.002	1.023	.119
22	1.001	1.003	.044
23	1.004	1.005	.050
24	1.000	1.006	.054
25	1.003	1.003	.055
26	1.002	1.006	.054
27	1.004	1.002	.054
29	1.001	1.002	.040

30	1.001	1.007	.061
31	1.001	1.013	.064
32	1.005	1.014	.074
Overall	**1.002**	**1.004**	**.062**

ROWHOUSE/TOWN HOMES Ratio Statistics for currtot / tasp
N = 1,748

Group	Median	Price Related Differential	Coefficient of Dispersion
41	1.017	1.000	.019
51	.997	1.002	.048
52	1.000	1.009	.074
53	.997	1.001	.041
54	1.003	1.013	.062
55	1.002	1.008	.051
Overall	**1.000**	**1.008**	**.054**

DUPLEX/TRIPLEX Ratio Statistics for currtot / tasp
N = 161

Group	Median	Price Related Differential	Coefficient of Dispersion
Overall	**1.009**	**1.026**	**.092**

MULTI-FAM UNITS 4-8 Ratio Statistics for currtot / tasp
N = 67

Group	Median	Price Related Differential	Coefficient of Dispersion
1	.978	1.011	.071
2	1.009	1.112	.143
Overall	**.988**	**1.057**	**.096**

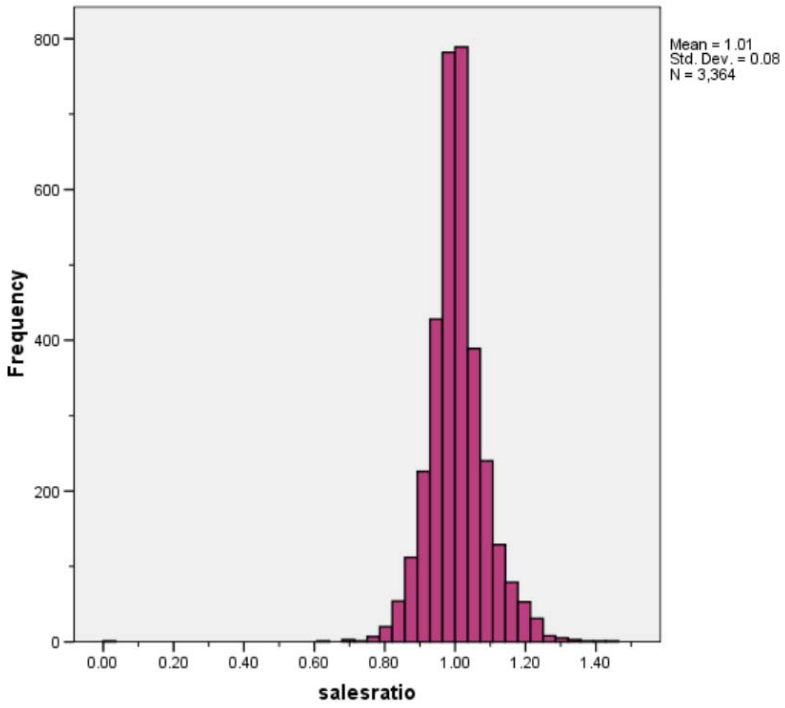
MULTI-FAM UNITS 9 AND UP Ratio Statistics for currtot / tasp
N = 126

Group	Median	Price Related Differential	Coefficient of Dispersion
Overall	**.998**	**1.025**	**.138**

CONDOMINIUM Ratio Statistics for currtot / tasp
N = 3,364

Group	Median	Price Related Differential	Coefficient of Dispersion
38	1.000	1.001	.054
39	1.002	1.000	.060
40	1.000	1.007	.044
41	1.006	1.008	.070
42	1.005	1.005	.058
43	.999	1.007	.061
44	1.000	1.006	.053
45	1.000	1.003	.043
46	1.000	1.006	.057
47	1.000	1.004	.051
48	1.002	1.009	.084
50	1.001	1.003	.029
51	1.247	1.000	.000
Overall	**1.001**	**1.006**	**.057**

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



The above graph indicates 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 subclass and economic area, as follows:

SINGLE FAMILY ANALYSIS

Coefficients[a]

econarea	Model		Unstandardized Coefficients		Standardized Coefficients		
			B	Std. Error	Beta	t	Sig.
1	1	(Constant)	.999	.006		166.726	.000
		SalePeriod	.001	.000	.068	1.390	.165
2	1	(Constant)	1.015	.007		142.900	.000
		SalePeriod	-.001	.001	-.063	-1.247	.213
3	1	(Constant)	1.015	.009		107.737	.000
		SalePeriod	.000	.001	-.022	-.325	.746
4	1	(Constant)	1.032	.016		64.011	.000
		SalePeriod	.000	.001	-.014	-.264	.792
5	1	(Constant)	1.004	.034		29.646	.000
		SalePeriod	.001	.002	.037	.405	.687
6	1	(Constant)	1.007	.005		192.760	.000
		SalePeriod	.000	.000	-.029	-.706	.480
7	1	(Constant)	1.001	.011		90.233	.000
		SalePeriod	.001	.001	.071	1.500	.134
8	1	(Constant)	1.055	.019		55.653	.000
		SalePeriod	-.003	.002	-.090	-1.724	.086
9	1	(Constant)	1.040	.014		75.118	.000
		SalePeriod	-.001	.001	-.073	-1.171	.243
10	1	(Constant)	1.023	.008		133.983	.000
		SalePeriod	.000	.001	-.015	-.254	.799
11	1	(Constant)	1.015	.013		77.768	.000
		SalePeriod	.000	.001	.014	.295	.768
12	1	(Constant)	1.020	.009		117.619	.000
		SalePeriod	-7.926E-5	.001	-.006	-.114	.910
13	1	(Constant)	1.098	.026		42.981	.000
		SalePeriod	-.006	.002	-.143	-2.652	.008
14	1	(Constant)	1.048	.015		68.503	.000
		SalePeriod	-.001	.001	-.037	-.625	.533
15	1	(Constant)	1.119	.027		40.951	.000
		SalePeriod	-.005	.002	-.159	-2.467	.014
16	1	(Constant)	1.005	.010		99.526	.000
		SalePeriod	.001	.001	.058	.953	.341
17	1	(Constant)	1.046	.017		61.685	.000
		SalePeriod	-.002	.001	-.069	-1.293	.197
18	1	(Constant)	1.118	.029		38.020	.000

		SalePeriod	-.005	.002	-.139	-2.147	.033
19	1	(Constant)	1.024	.014		71.147	.000
		SalePeriod	-.001	.001	-.028	-.534	.594
20	1	(Constant)	1.178	.054		21.618	.000
		SalePeriod	-.009	.004	-.160	-2.105	.037
22	1	(Constant)	1.003	.003		305.519	.000
		SalePeriod	-4.713E-5	.000	-.006	-.175	.861
23	1	(Constant)	1.004	.008		120.144	.000
		SalePeriod	.000	.001	.037	.727	.468
24	1	(Constant)	1.000	.007		146.946	.000
		SalePeriod	.000	.001	.020	.398	.691
25	1	(Constant)	.995	.008		118.146	.000
		SalePeriod	.001	.001	.099	1.570	.118
26	1	(Constant)	1.025	.013		76.945	.000
		SalePeriod	-.001	.001	-.042	-.632	.528
27	1	(Constant)	1.028	.009		113.610	.000
		SalePeriod	-.001	.001	-.067	-1.099	.273
29	1	(Constant)	1.009	.005		189.473	.000
		SalePeriod	.000	.000	-.019	-.371	.711
30	1	(Constant)	1.033	.011		96.814	.000
		SalePeriod	-.002	.001	-.121	-1.863	.064
31	1	(Constant)	1.051	.022		48.082	.000
		SalePeriod	-.002	.002	-.053	-.845	.399
32	1	(Constant)	1.019	.011		91.444	.000
		SalePeriod	.000	.001	.017	.376	.707

a. Dependent Variable: salesratio

ROWHOUSE/TOWN HOME ANALYSIS

Coefficients[a]

econarea	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
41	1	(Constant)	.984	.073		13.486	.047
		SalePeriod	.002	.005	.424	.468	.721
51	1	(Constant)	1.011	.007		143.199	.000
		SalePeriod	-.001	.001	-.138	-2.180	.030
52	1	(Constant)	1.003	.019		53.789	.000
		SalePeriod	.000	.001	.013	.160	.873
53	1	(Constant)	1.003	.006		179.291	.000
		SalePeriod	-.001	.000	-.095	-1.577	.116
54	1	(Constant)	1.004	.012		82.061	.000
		SalePeriod	.002	.001	.089	1.811	.071
55	1	(Constant)	1.008	.008		121.657	.000
		SalePeriod	.001	.001	.032	.820	.413

a. Dependent Variable: salesratio

DUPLEX/TRIPLEX ANALYSIS

Coefficients[a]

econarea	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	1	(Constant)	1.022	.026		38.876	.000
		SalePeriod	6.967E-5	.002	.003	.033	.974

a. Dependent Variable: salesratio

MULTI-FAM UNITS 4-8 ANALYSIS

Coefficients[a]

econarea	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	1	(Constant)	.971	.033		29.841	.000
		SalePeriod	.001	.003	.070	.462	.647
2	1	(Constant)	.899	.100		8.956	.000
		SalePeriod	.006	.007	.181	.823	.420

a. Dependent Variable: salesratio

MULTI-FAM UNITS 9 AND UP ANALYSIS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.946	.036		26.276	.000
	SalePeriod	-.002	.003	-.060	-.667	.506

a. Dependent Variable: salesratio

CONDOMINIUM ANALYSIS

Coefficients[a]

econarea	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
38	1	(Constant)	.996	.008		120.317	.000
		SalePeriod	.001	.001	.056	.977	.329
39	1	(Constant)	1.006	.012		82.013	.000
		SalePeriod	-.001	.001	-.070	-.800	.425
40	1	(Constant)	1.008	.008		125.427	.000
		SalePeriod	.000	.001	-.040	-.576	.565
41	1	(Constant)	1.008	.009		116.507	.000
		SalePeriod	.000	.001	.018	.364	.716
42	1	(Constant)	1.006	.007		139.078	.000
		SalePeriod	.000	.001	.027	.544	.587
43	1	(Constant)	.997	.008		117.249	.000
		SalePeriod	.001	.001	.096	1.753	.081
44	1	(Constant)	.993	.006		162.575	.000
		SalePeriod	.002	.001	.152	3.029	.003
45	1	(Constant)	.999	.006		171.829	.000
		SalePeriod	.000	.000	.050	.966	.334
46	1	(Constant)	1.022	.009		109.665	.000
		SalePeriod	-.002	.001	-.165	-2.313	.022
47	1	(Constant)	1.018	.012		85.304	.000
		SalePeriod	-.001	.001	-.064	-.681	.497
48	1	(Constant)	1.013	.010		104.390	.000
		SalePeriod	-.001	.001	-.035	-.601	.549
50	1	(Constant)	.990	.006		166.498	.000
		SalePeriod	.001	.000	.121	1.760	.080

a. Dependent Variable: salesratio

The above indicates that market trending was insignificant from either a statistical or a relative magnitude perspective for each subclass and economic area. Based on this analysis, we concluded that Denver County adequately addressed market trending.

Sold/Unsold Analysis

In terms of the valuation consistency between sold and unsold residential properties, we compared the median value per square foot between sold and unsold groups. The data was analyzed both as a whole and broken down by subclass, as follows:

Abstrimp	Group	N	Median	Mean
1112.00	**Unsold**	119,824	$168.73	$184.07
	Sold	10,337	$202.28	$200.34
1114.00	**Unsold**	13,662	$180.86	$188.74
	Sold	1,748	$220.20	$217.61
1115.00	**Unsold**	3,703	$141.45	$151.83
	Sold	161	$117.97	$147.61
1120.00	**Unsold**	936	$131.69	$140.05
	Sold	67	$149.14	$147.67
1125.00	**Unsold**	1,268	$108.95	$150.50
	Sold	123	$115.16	$112.49
1130.00	**Unsold**	37,463	$148.33	$177.20
	Sold	3,363	$188.37	$193.52
Total	**Unsold**	176,859	$164.68	$181.83
	Sold	15,799	$199.35	$205.25

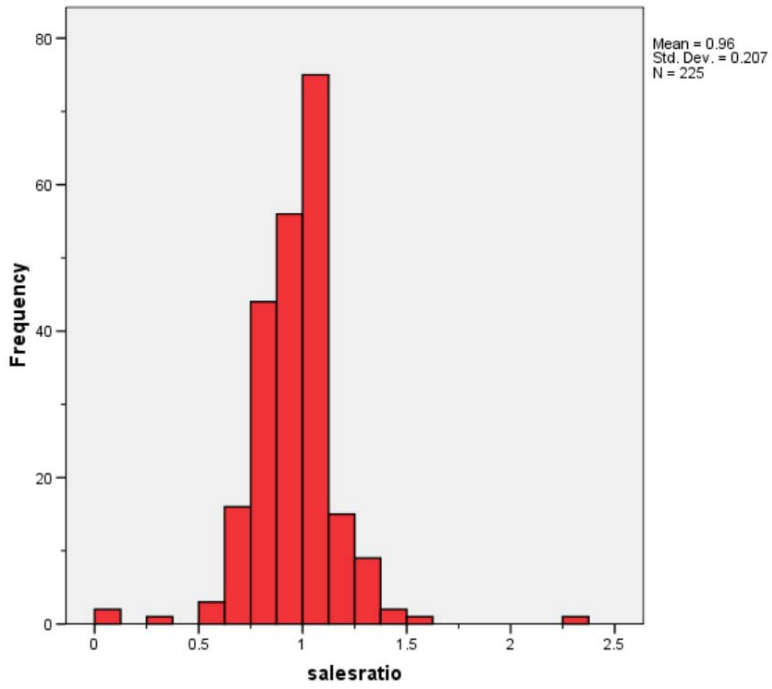
The above results indicate that sold and unsold residential properties were valued in a consistent manner.

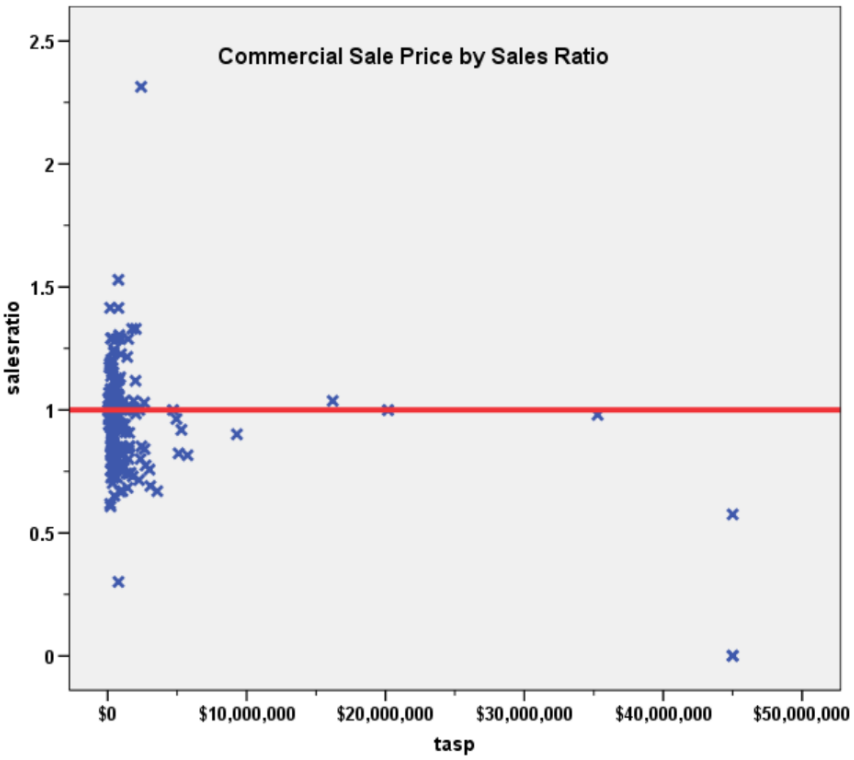
IV. COMMERCIAL/INDUSTRIAL SALE RESULTS

There were 225 qualified commercial/industrial sales in the 24 month sale period ending June 30, 2014. We stratified the sales ratio results by residential subclass and economic area, as follows:

Median	**0.991**
Price Related Differential	**1.376**
Coefficient of Dispersion	**.134**

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


Mean = 0.96
Std. Dev. = 0.207
N = 225
Frequency
salesratio


Commercial Sale Price by Sales Ratio
salesratio
tasp
$0
$10,000,000
$20,000,000
$30,000,000
$40,000,000
$50,000,000

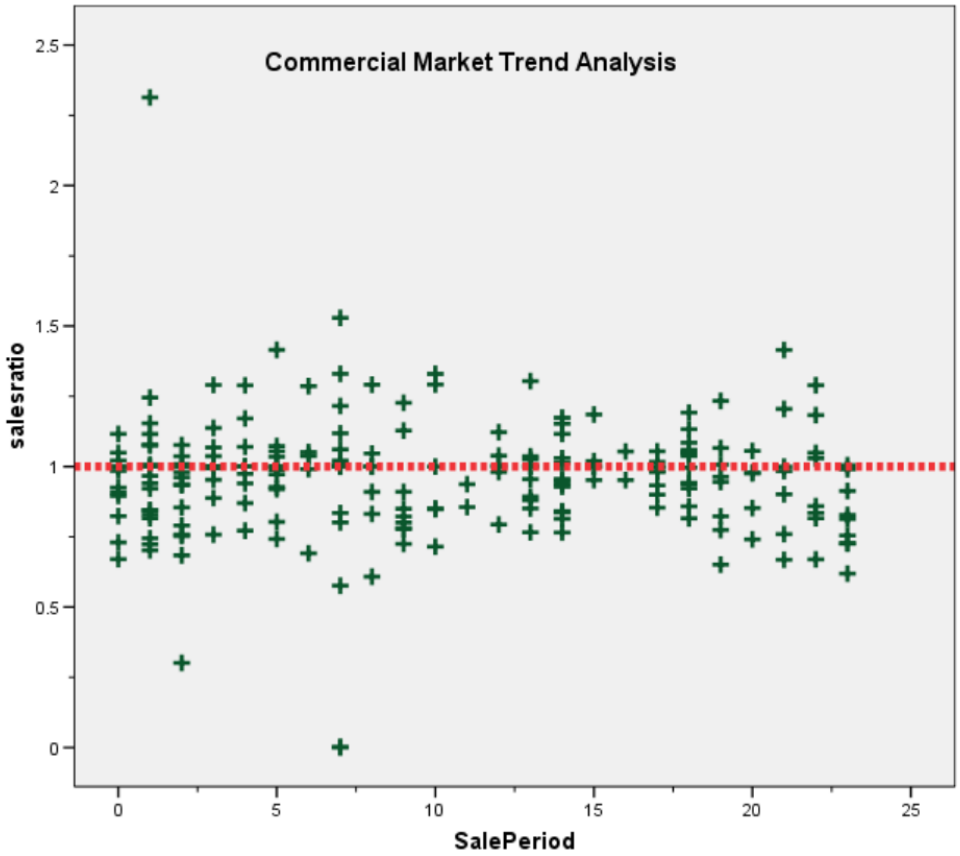
Commercial/Industrial Market Trend Analysis

The assessor did apply market trend adjustments to the commercial/industrial dataset. The 225 commercial/industrial sales were analyzed, examining the sale ratios across the 24 month sale period with the following results:

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.970	.023		41.354	.000
	SalePeriod	-.001	.002	-.033	-.500	.617

a. Dependent Variable: salesratio



There was no residual market trending present in the commercial sale ratios. We concluded that the assessor has adequately considered market trending adjustments as part of the commercial/industrial valuation.

Sold/Unsold Analysis

We compared the median value per square foot between sold and unsold commercial/industrial properties, as follows:

Group	N	Median	Mean
Unsold	8,770	$101	$129
Sold	221	$110	$124

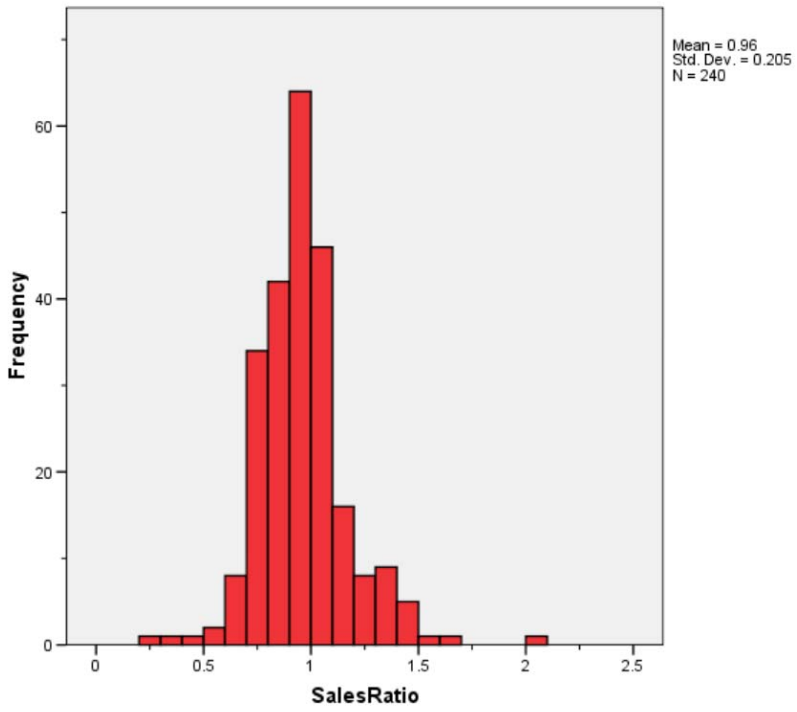
The above results indicated that sold and unsold commercial/industrial properties were valued consistently.

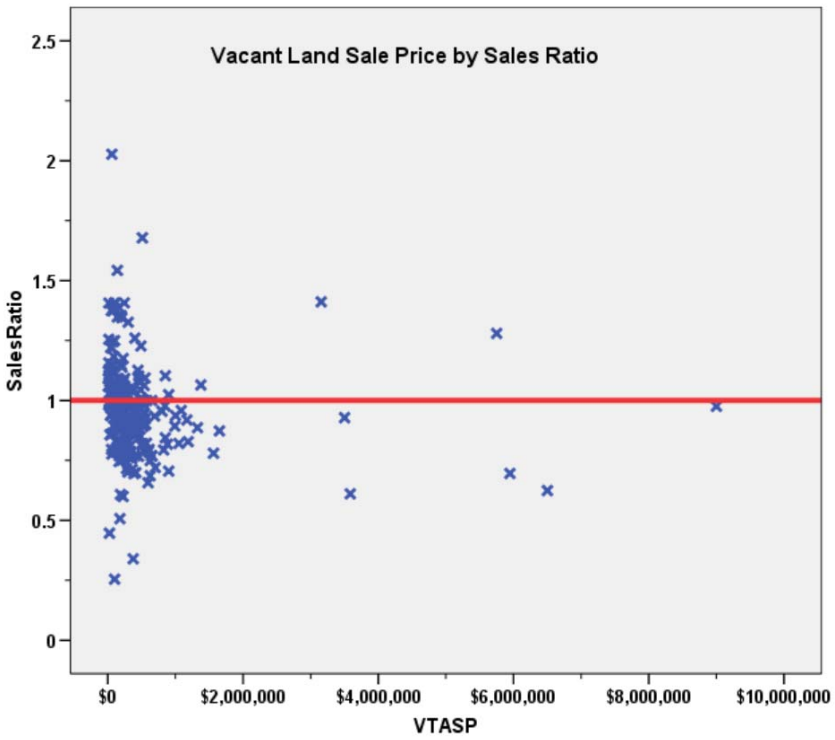
V. VACANT LAND SALE RESULTS

There were 240 qualified vacant land sales in the 24 month sale period ending June 30, 2014. We stratified the sales ratio results by residential subclass and economic area, as follows:

Median	**0.953**
Price Related Differential	**1.048**
Coefficient of Dispersion	**.152**

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:





The above histogram indicates that the distribution of the vacant land sale ratios was within state mandated limits. No sales were trimmed.

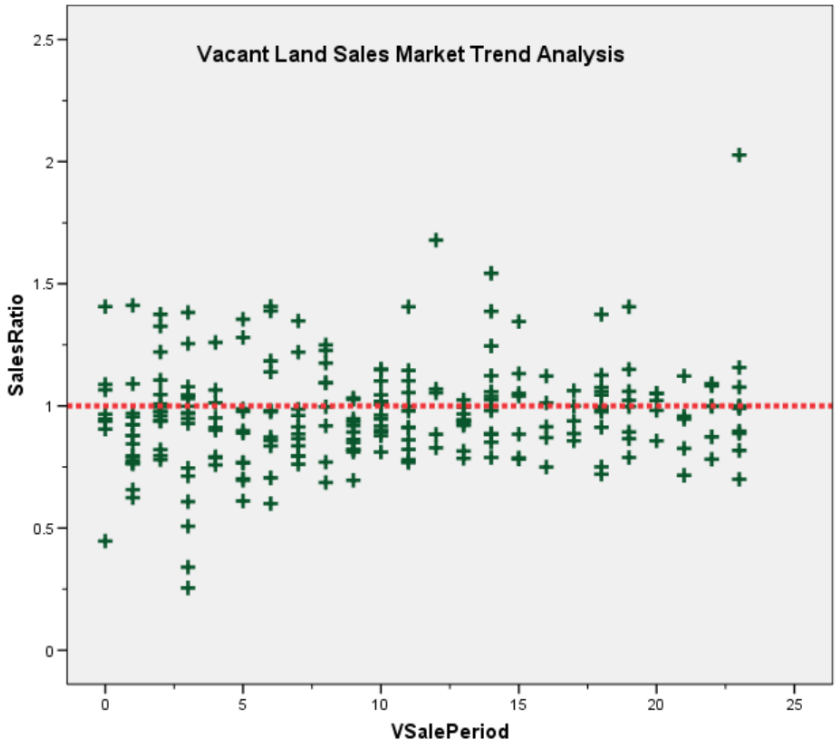
Vacant Land Market Trend Analysis

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

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.923	.023		39.399	.000
	VSalePeriod	.004	.002	.140	2.179	.030

a. Dependent Variable: SalesRatio



The above analysis indicated that no significant (at the .01 tolerance level) 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 value for 2012 and 2014 between each group. We stratified the vacant land properties by subdivision and found overall consistency. The following results present the overall comparison results:

Group	No. Props	Median Chg Val	Mean Chg Val
Unsold	2,800	1.0000	0.9413
Sold	234	1.0000	1.0653

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

V. CONCLUSIONS

Based on this 2014 audit statistical analysis, residential, commercial/industrial and vacant land properties were found to be in compliance with state guidelines.

STATISTICAL ABSTRACT

Residential

Ratio Statistics for currtot / tasp

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
1.015	1.013	1.017	1.002	1.001	1.002	95.1%	.997	.988	1.005	1.018	.061	13.2%

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

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.960	.933	.987	.991	.956	1.000	95.5%	.698	.461	.935	1.376	.134	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.

Vacant Land

Ratio Statistics for currInd / VTASP

	95% Confidence Interval for Mean			95% Confidence Interval for Median				95% Confidence Interval for Weighted Mean				Coefficient of Variation
Mean	Lower Bound	Upper Bound	Median	Lower Bound	Upper Bound	Actual Coverage	Weighted Mean	Lower Bound	Upper Bound	Price Related Differential	Coefficient of Dispersion	Mean Centered
.965	.939	.991	.953	.929	.979	95.5%	.920	.853	.988	1.048	.152	21.2%

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.

Residential Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	4	.0%
	$25K to $50K	166	1.1%
	$50K to $100K	1149	7.3%
	$100K to $150K	2247	14.2%
	$150K to $200K	2048	13.0%
	$200K to $300K	3625	22.9%
	$300K to $500K	4232	26.8%
	$500K to $750K	1492	9.4%
	$750K to $1,000K	429	2.7%
	Over $1,000K	412	2.6%
Overall		15804	100.0%
Excluded		0	
Total		15804	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
LT $25K	1.066	1.003	.050	8.2%
$25K to $50K	1.037	1.000	.111	29.1%
$50K to $100K	1.027	1.000	.086	15.3%
$100K to $150K	1.003	1.001	.061	9.6%
$150K to $200K	1.006	1.000	.064	16.8%
$200K to $300K	1.002	1.000	.060	14.2%
$300K to $500K	1.000	1.000	.052	10.9%
$500K to $750K	.998	1.001	.052	12.7%
$750K to $1,000K	.996	1.000	.050	7.1%
Over $1,000K	.994	1.036	.078	15.9%
Overall	1.002	1.018	.061	13.4%

Subclass

Case Processing Summary

		Count	Percent
abstrimp	1112	10338	65.4%
	1114	1748	11.1%
	1115	161	1.0%
	1120	67	.4%
	1125	126	.8%
	1130	3364	21.3%
Overall		15804	100.0%
Excluded		0	
Total		15804	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
1112	1.002	1.004	.062	14.7%
1114	1.000	1.008	.054	11.5%
1115	1.009	1.026	.092	18.3%
1120	.988	1.057	.096	15.9%
1125	.980	1.025	.138	24.0%
1130	1.001	1.006	.057	8.0%
Overall	1.002	1.018	.061	13.4%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	2177	13.8%
	75 to 100	1900	12.0%
	50 to 75	3982	25.2%
	25 to 50	2732	17.3%
	5 to 25	3408	21.6%
	5 or Newer	1605	10.2%
Overall		15804	100.0%
Excluded		0	
Total		15804	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	1.001	1.058	.067	14.5%
75 to 100	1.002	1.004	.062	13.0%
50 to 75	1.003	1.009	.064	13.1%
25 to 50	1.002	1.028	.061	8.9%
5 to 25	1.002	1.007	.049	6.8%
5 or Newer	1.000	1.017	.070	25.1%
Overall	1.002	1.018	.061	13.4%

Improved Size

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	93	.6%
	500 to 1,000 sf	3814	24.1%
	1,000 to 1,500 sf	5491	34.7%
	1,500 to 2,000 sf	3175	20.1%
	2,000 to 3,000 sf	2321	14.7%
	3,000 sf or Higher	910	5.8%
Overall		15804	100.0%
Excluded		0	
Total		15804	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	.992	6.127	.147	32.6%
500 to 1,000 sf	1.002	1.005	.059	8.9%
1,000 to 1,500 sf	1.001	1.006	.056	10.2%
1,500 to 2,000 sf	1.002	1.005	.052	9.3%
2,000 to 3,000 sf	1.001	1.013	.066	18.7%
3,000 sf or Higher	1.003	1.059	.108	29.4%
Overall	1.002	1.018	.061	13.4%

Improvement Quality

Case Processing Summary

		Count	Percent
quality		5	.0%
	A	3	.0%
	Average	10285	65.1%
	B	7	.0%
	C	325	2.1%
	C-	1	.0%
	C+	1	.0%
	D	14	.1%
	Excellent	56	.4%
	Fair	170	1.1%
	Good	4278	27.1%
	Superior	659	4.2%
Overall		15804	100.0%
Excluded		0	
Total		15804	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
	.000	144.711	1466.563	347194.6%
A	.966	.994	.033	5.2%
Average	1.002	1.005	.060	11.5%
B	.981	.987	.094	16.6%
C	.991	1.053	.105	18.6%
C-	1.137	1.000	.000	.%
C+	1.290	1.000	.000	.%
D	1.026	1.001	.038	4.7%
Excellent	1.003	1.007	.051	14.2%
Fair	1.008	1.006	.080	12.6%
Good	1.001	1.007	.057	15.8%
Superior	1.004	1.009	.073	18.8%
Overall	1.002	1.018	.061	13.4%

Improvement Condition

Case Processing Summary

		Count	Percent
condition		2	.0%
	Avg	12006	76.0%
	Excellent	20	.1%
	Fair	2	.0%
	Good	3486	22.1%
	None	4	.0%
	Poor	6	.0%
	VGood	278	1.8%
Overall		15804	100.0%
Excluded		0	
Total		15804	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
	.306	.998	.891	125.9%
Avg	1.002	1.015	.060	12.6%
Excellent	1.032	1.153	.208	48.8%
Fair	1.059	1.037	.047	6.7%
Good	1.001	1.004	.060	14.4%
None	.000	.674	2973.609	686725.6%
Poor	1.019	1.051	.051	6.5%
VGood	1.006	1.028	.083	21.7%
Overall	1.002	1.018	.061	13.4%

Commercial Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	$25K to $50K	2	.9%
	$50K to $100K	4	1.8%
	$100K to $150K	11	4.9%
	$150K to $200K	13	5.8%
	$200K to $300K	28	12.4%
	$300K to $500K	57	25.3%
	$500K to $750K	36	16.0%
	$750K to $1,000K	19	8.4%
	Over $1,000K	55	24.4%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
$25K to $50K	1.023	.996	.023	3.2%
$50K to $100K	.981	.996	.043	6.0%
$100K to $150K	1.000	1.002	.041	6.8%
$150K to $200K	1.000	1.005	.139	21.5%
$200K to $300K	.919	1.000	.133	16.6%
$300K to $500K	1.000	1.001	.100	13.7%
$500K to $750K	.989	.999	.087	12.6%
$750K to $1,000K	1.000	1.002	.209	28.4%
Over $1,000K	.907	1.426	.204	33.7%
Overall	.991	1.376	.134	21.1%

Subclass

Case Processing Summary

		Count	Percent
abstrimp	2112	39	17.3%
	2120	32	14.2%
	2125	2	.9%
	2130	37	16.4%
	2135	68	30.2%
	2230	41	18.2%
	3115	6	2.7%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
2112	.940	2.589	.199	29.8%
2120	.987	1.003	.112	16.2%
2125	1.373	1.026	.031	4.4%
2130	.981	1.042	.152	20.2%
2135	.984	.998	.130	22.3%
2230	.999	1.013	.078	12.8%
3115	1.028	1.060	.083	14.2%
Overall	.991	1.376	.134	21.1%

Improvement Age

Case Processing Summary

		Count	Percent
AgeRec	Over 100	148	65.8%
	75 to 100	14	6.2%
	50 to 75	14	6.2%
	25 to 50	14	6.2%
	5 to 25	32	14.2%
	5 or Newer	3	1.3%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Over 100	.997	1.647	.128	19.8%
75 to 100	.964	.991	.160	23.7%
50 to 75	.972	.967	.131	17.4%
25 to 50	.992	1.500	.234	41.5%
5 to 25	.964	.979	.115	16.0%
5 or Newer	1.000	.984	.048	7.3%
Overall	.991	1.376	.134	21.1%

Improved Size

Case Processing Summary

		Count	Percent
ImpSFRec	LE 500 sf	7	3.1%
	500 to 1,000 sf	8	3.6%
	1,000 to 1,500 sf	22	9.8%
	1,500 to 2,000 sf	29	12.9%
	2,000 to 3,000 sf	31	13.8%
	3,000 sf or Higher	128	56.9%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LE 500 sf	1.000	95.859	.392	64.4%
500 to 1,000 sf	.978	1.012	.133	21.4%
1,000 to 1,500 sf	.937	1.020	.084	11.4%
1,500 to 2,000 sf	.999	1.025	.122	16.3%
2,000 to 3,000 sf	.999	1.022	.093	13.0%
3,000 sf or Higher	.989	1.090	.139	21.1%
Overall	.991	1.376	.134	21.1%

Improvement Quality

Case Processing Summary

		Count	Percent
quality		4	1.8%
	A	8	3.6%
	B	35	15.6%
	B-	1	.4%
	C	168	74.7%
	C-	2	.9%
	C+	3	1.3%
	D	1	.4%
	X	1	.4%
	X+	2	.9%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
	.151	81.487	2.224	355.8%
A	.876	.928	.086	12.4%
B	1.000	1.202	.131	18.7%
B-	.896	1.000	.000	.%
C	.988	1.005	.126	19.1%
C-	1.071	1.009	.042	6.0%
C+	.988	1.034	.082	14.6%
D	1.019	1.000	.000	.%
X	.956	1.000	.000	.%
X+	1.001	.999	.001	.1%
Overall	.991	1.376	.134	21.1%

Improvement Condition

Case Processing Summary

		Count	Percent
condition	Avg	206	91.6%
	Fair	2	.9%
	Good	13	5.8%
	None	4	1.8%
Overall		225	100.0%
Excluded		0	
Total		225	

Ratio Statistics for currtot / tasp

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
Avg	.992	1.074	.128	19.0%
Fair	.955	.981	.047	6.7%
Good	.956	1.022	.067	8.2%
None	.151	81.487	2.224	355.8%
Overall	.991	1.376	.134	21.1%

Vacant Land Median Ratio Stratification

Sale Price

Case Processing Summary

		Count	Percent
SPRec	LT $25K	15	6.3%
	$25K to $50K	9	3.8%
	$50K to $100K	27	11.3%
	$100K to $150K	18	7.5%
	$150K to $200K	32	13.3%
	$200K to $300K	41	17.1%
	$300K to $500K	46	19.2%
	$500K to $750K	27	11.3%
	$750K to $1,000K	10	4.2%
	Over $1,000K	15	6.3%
Overall		240	100.0%
Excluded		0	
Total		240	

Ratio Statistics for currInd / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation
				Median Centered
LT $25K	1.060	1.023	.108	19.1%
$25K to $50K	.987	.997	.101	12.7%
$50K to $100K	1.145	1.006	.189	27.2%
$100K to $150K	.956	.994	.126	20.1%
$150K to $200K	.960	1.000	.112	17.7%
$200K to $300K	.918	1.005	.147	19.3%
$300K to $500K	.917	.991	.127	17.3%
$500K to $750K	.899	1.009	.140	21.5%
$750K to $1,000K	.915	1.000	.103	13.0%
Over $1,000K	.887	1.002	.173	24.8%
Overall	.953	1.048	.152	21.5%

Subclass

Case Processing Summary

		Count	Percent
abstrInd	100	19	7.9%
	101	9	3.8%
	200	12	5.0%
	300	3	1.3%
	1112	158	65.8%
	1114	6	2.5%
	1115	1	.4%
	1125	5	2.1%
	2112	3	1.3%
	2120	1	.4%
	2125	2	.8%
	2130	16	6.7%
	2135	2	.8%
	2140	2	.8%
	3115	1	.4%
Overall		240	100.0%
Excluded		0	
Total		240	

Ratio Statistics for currInd / VTASP

Group	Median	Price Related Differential	Coefficient of Dispersion	Coefficient of Variation: Median Centered
100	1.033	1.093	.137	26.4%
101	1.000	1.243	.237	29.5%
200	.932	1.202	.174	23.9%
300	.938	.928	.072	11.6%
1112	.946	1.029	.133	18.4%
1114	1.022	.952	.228	37.7%
1115	.785	1.000	.000	.%
1125	.821	1.013	.182	24.0%
2112	.912	.708	.392	58.9%
2120	1.407	1.000	.000	.%
2125	1.114	1.008	.102	14.4%
2130	.917	1.009	.099	13.5%
2135	1.278	1.034	.100	14.2%
2140	1.054	.877	.214	30.3%
3115	.818	1.000	.000	.%
Overall	.953	1.048	.152	21.5%