



Division of Property Valuation

2011

Kansas Real Estate Ratio Study

DAVID HARPER, RMA, DIRECTOR

ABBREVIATIONS

Ag.	Agricultural
BMed.	Broadened Median Ratio
C/I	Commercial/Industrial
COD	Coefficient of Dispersion
Comm.	Commercial
COTA	Court of Tax Appeals
Ex.	Exempt
IAAO	International Association of Assessing Officers
Impr.	Improvement
Ind.	Industrial
K.S.A.	Kansas Statutes Annotated
N/A	Not applicable
NP	Not-for-profit
PRD	Price-Related Differential
PVD	Property Valuation Division
Res.	Residential
S	Supplemental sales
T	Time trended
Ut.	Utility
w	With

TABLE OF CONTENTS

I. 2011 OFFICIAL APPRAISAL/SALES RATIO STUDY	
PURPOSE & OVERVIEW	11
COUNTY STATISTICAL DATA	15
STATEWIDE STATISTICAL DATA	50
GRAPHS & CHARTS	51
DETAILED STATISTICAL DATA	65
II. KANSAS REAL ESTATE SALES VALIDATION QUESTIONNAIRES	
EXAMPLE	121
III. RATIO STUDY VALIDATION & STATISTICAL PROCEDURES	
DISTRIBUTION-FREE STATISTICS	
MEDIAN RATIO	129
BROADENED MEDIAN RATIO	130
COEFFICIENT OF DISPERSION	131
WEIGHTED COEFFICIENT OF DISPERSION	133
COEFFICIENT OF CONCENTRATION	134
COEFFICIENT OF INTERQUARTILE DEVIATION	135
MEDIAN PERCENT DEVIATION	136
PERCENTILES & QUARTILES	136
25 TH PERCENTILE (1 ST QUARTILE)	136
75 TH PERCENTILE (3 RD QUARTILE)	137
NORMALITY TEST	137
SKEWNESS	138
KURTOSIS	138
PARAMETRIC STATISTICS	
ARITHMETIC MEAN RATIO	139
WEIGHTED MEAN RATIO	140
GEOMETRIC MEAN RATIO	141
HARMONIC MEAN RATIO	141
STANDARD DEVIATION	142
COEFFICIENT OF VARIATION	143
PRICE-RELATED DIFFERENTIAL	144
AVERAGE SALE PRICE	145
AVERAGE MARKET VALUE ESTIMATE	145
TRIMMING OUTLIER RATIOS	146
TOLERANCE LIMITS	147
BOOTSTRAP CONFIDENCE INTERVALS	148
RESIDENTIAL SAMPLING	149
SUPPLEMENTAL SALES	150
IV. KANSAS STATUTES PERTAINING TO THE 2011 SALES RATIO STUDY	
KANSAS STATUTES	
79-503A, 79-1437C	153
79-1437 D & E	154

KANSAS STATUTES (CONTINUED)

79-1437F	155
79-1437G, 79-1444, 79-1485, 1486	156
79-1487, 79-1488	157
79-1489, 79-1490, 79-1491, 79-1492, 79-1493	158
PROPERTY VALUATION DIVISION DIRECTIVES	
#92-002 SUBSTANTIAL COMPLIANCE	161
#03-041 RE SALES VALIDAITON QUESTIONNAIRES	169
CONSTITUTIONAL REAL PROPERTY SUBCLASSES AND ASSESSMENT RATES	173
REAL ESTATE RATIO STUDY PERMANENT ADMINISTRATIVE REGULATIONS	174
V. GLOSSARY OF TERMINOLOGY	177



INTRODUCTION

This publication contains the Official 2011 Kansas Appraisal/Sales Ratio Study that is based upon real estate transfers occurring from January 1, 2011, through December 31, 2011. This study is conducted annually by the Kansas Department of Revenue, Division of Property Valuation for all 105 Kansas Counties.



Historical ratio study results (1993-2010) are located on the Kansas Department of Revenue's Website

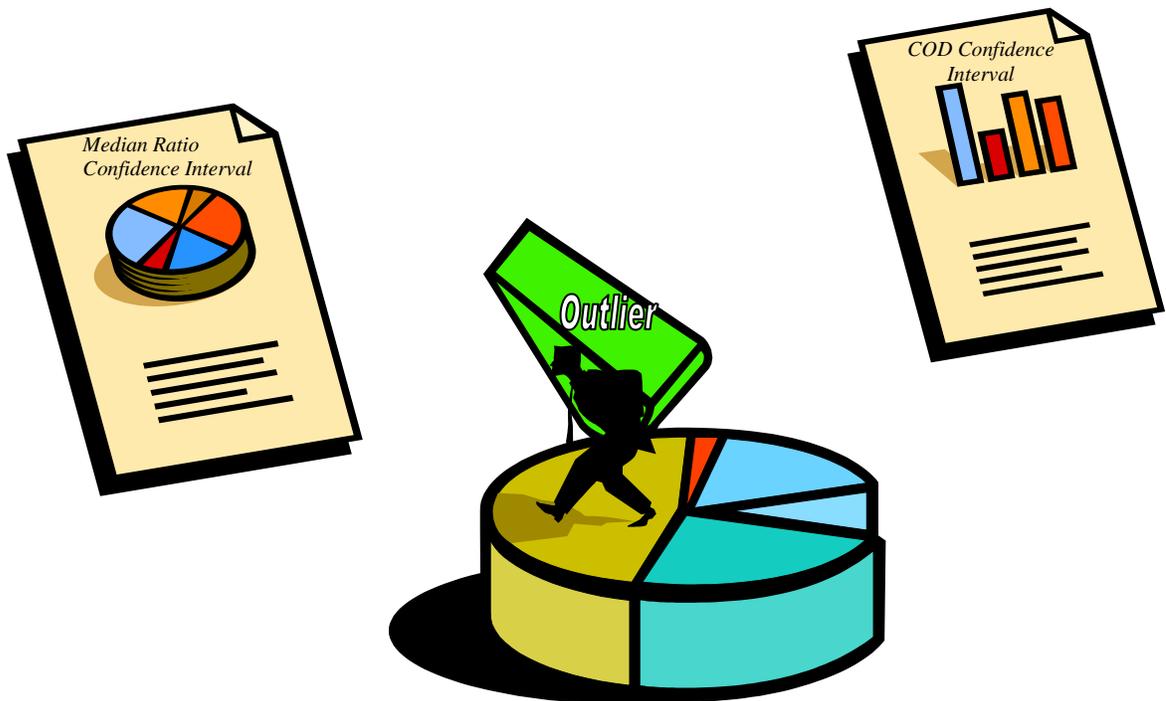


<http://www.ksrevenue.org/pvdratiostats.html>

Section 1

Year 2011

Official Appraisal/Sales Ratio Study



Purpose and Overview

Fundamental to the administration of the property tax is the concept that all property should be appraised and assessed on a uniform basis. The Kansas Constitution requires that all taxable property be appraised and assessed uniformly as to class. Uniformity of like property assures an equitable distribution of the property tax burden.

The *purpose* of the 2011 Official *Kansas Appraisal/Sales Ratio Study* is to meet the requirements pursuant to K.S.A. 79-1489. It also provides statistical information used to evaluate appraisal *level* and *uniformity* for substantial statutory compliance as set forth in Property Valuation's Directive #92-002 pursuant to the provisions of L. 1992, ch. 249, §1. A copy of the Kansas Statutes and Directives is located in Section IV of this publication.

The study includes sales that are *valid arm's-length* transactions. Supplemental sales from the four prior years have been included for the commercial/industrial subclass if less than six valid commercial sales were available in the year 2011. In addition, the sales were trimmed of outliers prior to the computation of some statistical measures. A further explanation of the validation and trimming procedures are discussed in Section III of this publication.

In 1994, changes in statute permitted the use of a sampling process for the residential subclass of property in counties with a total parcel count in excess of 15,000 parcels. These counties must also have experienced at least 200 valid residential sales based on previous studies to be considered for sampling. The 2011 ratio study has used a representative sampling for those counties meeting the aforementioned criteria. A brief explanation of the sampling process is included in Section III of this publication.

The letter *T* denotes the subclass (residential or commercial/industrial) where sale prices have been *trended back* to January 1, 2011, the date of appraisal, where inflation or deflationary market trends were identifiable and documented by the county.

The ratios analyzed in this study are appraisal/sales ratios computed by dividing the appraised value of real estate as determined by the county appraiser by the total selling price of the real property. A perfect ratio would be 100.0. Care should be taken when reviewing the agricultural subclass. Agricultural land is appraised according to its *use* value; therefore, for *Agricultural Land Only* and *Agricultural with/Improvements* no ideal ratio exists. The statistical measures can be misleading because the ratios for agricultural land are combined with the ratios of all subclasses to determine the county *TOTAL with/Agricultural & Farm* category.

We are grateful to the Kansas County Appraisers and their professional organization for their cooperation shown in this effort. Our appreciation further extends to our support staff at the Department of Revenue, our associates within the Division and to the Ratio Study Technical Advisory Committee for their service and guidance.

<i>2011 Ratio Study Technical Advisory Committee</i>		
Dr. John Boyer Prof. of Statistics 101 Dickens Hall Kansas State University Manhattan, KS 66506	Dr. Ronald L. Wasserstein Executive Director American Statistical Assn. 732 N Washington St. Alexandria, Virginia 22314-3402	Dr. Paul Byrne Assoc. Prof. of Economics Washburn University School of Business Henderson 310-P 1700 SW College Ave. Topeka, KS 66621

<i>2011 County Appraiser's Ratio Study Committee</i>		
Chairman: Jerry Denny, Gray County Appraiser--		
Members:	Barry Porter Republic-Cloud County Appraiser	Truette McQueen Ottawa County Appraiser
	Sue Poltera Reno County	Judy Wallis Bourbon County Appraiser



(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales
Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended
PRD = .98 to 1.03

001 - ALLEN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.0	96.5 to 105.1	19.6	16.1 to 23.7	1.08	1.04 to 1.12	107	11
Comm./Ind.	94.1	60.8 to 133.5	37.0	23.5 to 63.2	1.11	0.99 to 1.31	11	1
Vac. Lot	27.5	N/A	149.8	N/A	2.11	N/A	4	0
Farm & Home	42.4	N/A	76.9	N/A	1.39	N/A	12	0
Ag. Land Only	6.4	N/A	28.9	N/A	1.06	N/A	12	0
Ag. w/Impr.'s	6.9	N/A	36.9	N/A	0.97	N/A	16	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	95.1	N/A	35.7	N/A	1.33	N/A	150	9
TOTAL MARKET	99.8	N/A	22.9	N/A	1.08	N/A	122	12

002 - ANDERSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	108.1	98.2 to 119.9	21.8	17.5 to 29.0	1.04	0.99 to 1.10	52	4
Comm./Ind.	119.8	65.6 to 136.0	22.9	9.1 to 61.0	1.35	1.06 to 1.84	7	0
Vac. Lot	121.2	N/A	68.2	N/A	1.40	N/A	3	0
Farm & Home	43.9	N/A	38.5	N/A	1.08	N/A	7	0
Ag. Land Only	6.8	N/A	41.0	N/A	0.87	N/A	24	0
Ag. w/Impr.'s	6.9	N/A	43.3	N/A	0.89	N/A	29	0
Other/Ex./Ut./NP/Mix-Use	50.6	N/A	33.0	N/A	1.36	N/A	2	0
TOTAL w/ AG. & FARM	85.0	N/A	57.9	N/A	1.27	N/A	100	2
TOTAL MARKET	110.8	N/A	23.9	N/A	1.11	N/A	64	5

003 - ATCHISON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	103.0	100.4 to 108.9	10.9	9.1 to 13.1	1.01	0.99 to 1.02	100	9
Comm./Ind.	99.4	88.1 to 109.2	11.6	4.7 to 24.5	1.02	0.97 to 1.14	7	0
Vac. Lot	89.7	N/A	24.0	N/A	1.06	N/A	5	0
Farm & Home	102.8	N/A	28.5	N/A	1.06	N/A	5	0
Ag. Land Only	5.4	N/A	117.2	N/A	0.97	N/A	3	0
Ag. w/Impr.'s	4.8	N/A	102.7	N/A	1.07	N/A	4	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	102.0	N/A	11.1	N/A	1.01	N/A	121	16
TOTAL MARKET	102.1	N/A	11.3	N/A	1.01	N/A	112	10

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

T – Time Trended

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

PRD = .98 to 1.03

004 - BARBER								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.8	88.0 to 97.9	10.1	7.4 to 13.7	1.00	0.97 to 1.03	43	4
Comm./Ind. S-4	100.6	84.9 to 106.0	2.5	0.6 to 4.5	1.03	1.01 to 1.07	6	1
Vac. Lot	62.3	N/A	108.2	N/A	1.80	N/A	3	0
Farm & Home	57.5	N/A	22.0	N/A	1.00	N/A	2	0
Ag. Land Only							0	
Ag. w/Impr.'s							0	
Other/Ex./Ut./NP/Mix-Use	60.6	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	96.8	N/A	13.8	N/A	0.98	N/A	55	4
TOTAL MARKET	96.9	N/A	12.7	N/A	0.98	N/A	53	4

005 - BARTON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	95.6	94.7 to 97.5	13.6	12.3 to 15.0	1.02	1.01 to 1.04	314	22
Comm./Ind.	91.3	75.3 to 101.6	21.7	13.6 to 33.4	1.19	0.90 to 1.42	14	0
Vac. Lot	60.3	N/A	102.2	N/A	1.27	N/A	13	0
Farm & Home	50.9	N/A	38.7	N/A	1.03	N/A	9	0
Ag. Land Only	8.8	N/A	44.1	N/A	1.03	N/A	8	0
Ag. w/Impr.'s	8.8	N/A	48.4	N/A	1.10	N/A	9	0
Other/Ex./Ut./NP/Mix-Use	51.4	N/A	37.3	N/A	0.89	N/A	2	0
TOTAL w/ AG. & FARM	94.9	N/A	15.4	N/A	1.03	N/A	361	36
TOTAL MARKET	95.5	N/A	14.4	N/A	1.03	N/A	343	29

006 - BOURBON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	103.5	99.8 to 110.0	18.1	15.2 to 22.2	1.07	1.03 to 1.11	101	8
Comm./Ind.	102.6	88.5 to 219.7	52.3	28.0 to 101.7	1.26	0.97 to 1.88	8	0
Vac. Lot	72.4	N/A	22.1	N/A	0.99	N/A	10	1
Farm & Home	60.9	N/A	47.8	N/A	1.18	N/A	25	0
Ag. Land Only	3.0	N/A	104.0	N/A	1.06	N/A	20	0
Ag. w/Impr.'s	3.5	N/A	83.4	N/A	1.01	N/A	28	1
Other/Ex./Ut./NP/Mix-Use	90.3	N/A	13.1	N/A	1.03	N/A	2	0
TOTAL w/ AG. & FARM	91.6	N/A	39.1	N/A	1.18	N/A	174	11
TOTAL MARKET	102.1	N/A	19.0	N/A	1.03	N/A	121	11

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

007 - BROWN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	98.7	93.8 to 103.7	14.1	11.5 to 17.6	1.04	1.01 to 1.07	62	4
Comm./Ind. S-8	91.3	69.4 to 102.0	18.5	12.2 to 28.2	1.09	1.01 to 1.21	10	0
Vac. Lot	73.0	N/A	368.5	N/A	4.01	N/A	3	0
Farm & Home	66.4	N/A	38.2	N/A	1.44	N/A	7	0
Ag. Land Only	8.0	N/A	16.7	N/A	1.02	N/A	12	2
Ag. w/Impr.'s	8.1	N/A	22.4	N/A	1.05	N/A	16	2
Other/Ex./Ut./NP/Mix-Use	95.6	N/A	10.4	N/A	1.07	N/A	2	0
TOTAL w/ AG. & FARM	91.1	N/A	18.4	N/A	1.11	N/A	100	20
TOTAL MARKET	98.5	N/A	15.0	N/A	1.05	N/A	77	5

008 - BUTLER								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	102.6	100.4 to 104.7	10.8	9.6 to 12.3	1.02	1.00 to 1.03	230	29
Comm./Ind.	111.1	100.0 to 127.5	20.0	12.8 to 31.9	0.98	0.90 to 1.11	16	0
Vac. Lot	88.3	N/A	27.7	N/A	1.01	N/A	58	4
Farm & Home	67.6	N/A	24.9	N/A	1.01	N/A	27	0
Ag. Land Only	1.6	N/A	60.0	N/A	0.75	N/A	34	4
Ag. w/Impr.'s	1.7	N/A	113.4	N/A	0.95	N/A	41	3
Other/Ex./Ut./NP/Mix-Use	105.7	N/A	2.9	N/A	0.99	N/A	2	0
TOTAL w/ AG. & FARM	97.7	N/A	17.5	N/A	1.03	N/A	374	64
TOTAL MARKET	100.8	N/A	12.7	N/A	1.01	N/A	306	43

009 - CHASE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.6	88.8 to 117.0	21.5	15.3 to 33.6	1.06	0.96 to 1.16	27	0
Comm./Ind. S-3	95.4	74.9 to 126.8	19.3	8.9 to 46.0	1.05	0.99 to 1.16	6	0
Vac. Lot	260.0	N/A		N/A		N/A	1	0
Farm & Home	49.8	N/A	25.0	N/A	1.06	N/A	5	0
Ag. Land Only	5.4	N/A	36.3	N/A	0.94	N/A	6	0
Ag. w/Impr.'s	5.4	N/A	36.3	N/A	0.94	N/A	6	0
Other/Ex./Ut./NP/Mix-Use	108.1	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	94.8	N/A	37.0	N/A	1.40	N/A	46	1
TOTAL MARKET	104.6	N/A	18.9	N/A	1.08	N/A	35	2

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

010 - CHAUTAUQUA								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	92.7	86.5 to 104.2	20.2	15.4 to 29.2	1.12	1.03 to 1.26	22	0
Comm./Ind.	124.7	83.1 to 181.1	28.7	16.1 to 82.0	0.98	0.77 to 1.18	6	0
Vac. Lot	90.0	N/A	24.3	N/A	0.86	N/A	5	0
Farm & Home	36.0	N/A	40.0	N/A	1.05	N/A	9	0
Ag. Land Only	1.8	N/A	6.1	N/A	1.00	N/A	10	1
Ag. w/Impr.'s	1.8	N/A	6.1	N/A	1.00	N/A	11	2
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	81.4	N/A	52.0	N/A	1.77	N/A	53	0
TOTAL MARKET	102.0	N/A	23.0	N/A	1.08	N/A	33	1

011 - CHEROKEE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.5	98.3 to 106.9	16.1	13.8 to 18.7	1.04	1.02 to 1.06	140	15
Comm./Ind.	101.2	77.4 to 128.2	34.2	24.6 to 51.1	1.08	0.98 to 1.25	19	0
Vac. Lot	83.2	N/A	28.0	N/A	1.21	N/A	15	3
Farm & Home	48.9	N/A	50.1	N/A	1.08	N/A	17	0
Ag. Land Only	7.2	N/A	51.3	N/A	0.90	N/A	8	0
Ag. w/Impr.'s	7.2	N/A	56.1	N/A	0.89	N/A	11	0
Other/Ex./Ut./NP/Mix-Use	54.7	N/A	45.8	N/A	1.13	N/A	2	0
TOTAL w/ AG. & FARM	96.9	N/A	20.9	N/A	1.05	N/A	204	34
TOTAL MARKET	100.0	N/A	18.3	N/A	1.02	N/A	176	22

012 - CHEYENNE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.7	94.7 to 104.9	12.5	9.2 to 17.5	1.03	0.99 to 1.08	33	1
Comm./Ind. S-3	108.2	57.0 to 212.2	49.3	14.3 to 135.1	1.40	0.98 to 2.43	6	0
Vac. Lot	55.7	N/A	83.2	N/A	4.78	N/A	2	0
Farm & Home	37.4	N/A	42.9	N/A	1.64	N/A	3	0
Ag. Land Only	3.0	N/A	11.3	N/A	1.05	N/A	7	1
Ag. w/Impr.'s	3.3	N/A	45.0	N/A	1.29	N/A	9	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	94.7	N/A	33.6	N/A	1.96	N/A	53	1
TOTAL MARKET	100.2	N/A	13.4	N/A	1.03	N/A	41	3

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

013 - CLARK								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	90.0	83.5 to 100.0	13.6	9.7 to 19.8	1.04	0.99 to 1.10	24	2
Comm./Ind. S-3	98.5	64.3 to 108.6	15.0	4.3 to 26.6	0.97	0.91 to 1.02	6	0
Vac. Lot	209.3	N/A		N/A		N/A	1	0
Farm & Home	26.5	N/A	3.2	N/A	1.03	N/A	2	0
Ag. Land Only	1.4	N/A	25.9	N/A	0.80	N/A	2	0
Ag. w/Impr.'s	1.7	N/A	17.8	N/A	0.83	N/A	3	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	88.5	N/A	20.1	N/A	1.06	N/A	36	5
TOTAL MARKET	90.4	N/A	14.8	N/A	1.03	N/A	31	3

014 - CLAY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.0	99.4 to 103.7	11.9	9.3 to 15.0	1.03	1.01 to 1.05	72	5
Comm./Ind. S-8	93.7	73.9 to 100.6	19.9	11.3 to 33.7	0.99	0.94 to 1.09	12	0
Vac. Lot	112.8	N/A	24.9	N/A	1.18	N/A	6	0
Farm & Home	14.3	N/A		N/A		N/A	1	0
Ag. Land Only	6.5	N/A	38.2	N/A	1.04	N/A	6	0
Ag. w/Impr.'s	8.1	N/A	42.9	N/A	1.04	N/A	10	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	100.0	N/A	13.7	N/A	1.02	N/A	101	17
TOTAL MARKET	100.0	N/A	12.9	N/A	1.03	N/A	90	8

015 - CLOUD								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.9	95.3 to 100.0	10.0	8.4 to 12.1	1.03	1.01 to 1.05	107	14
Comm./Ind.	99.5	71.2 to 143.8	33.7	17.1 to 93.9	1.01	0.82 to 1.44	8	0
Vac. Lot	49.2	N/A		N/A		N/A	1	0
Farm & Home	40.9	N/A	52.5	N/A	1.72	N/A	4	0
Ag. Land Only	3.8	N/A	56.9	N/A	0.86	N/A	9	0
Ag. w/Impr.'s	3.8	N/A	56.9	N/A	0.86	N/A	9	0
Other/Ex./Ut./NP/Mix-Use	90.0	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	95.9	N/A	12.9	N/A	1.05	N/A	130	21
TOTAL MARKET	96.7	N/A	10.2	N/A	1.03	N/A	117	17

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

016 - COFFEY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	102.7	98.5 to 107.2	14.8	12.3 to 17.8	1.03	1.00 to 1.06	78	3
Comm./Ind. S-7	101.0	84.8 to 126.0	21.6	14.3 to 42.1	1.21	0.98 to 1.55	12	0
Vac. Lot	90.9	N/A	37.3	N/A	1.35	N/A	8	0
Farm & Home	42.0	N/A	10.8	N/A	0.97	N/A	4	0
Ag. Land Only	7.0	N/A	41.7	N/A	0.91	N/A	14	0
Ag. w/Impr.'s	6.4	N/A	40.5	N/A	0.92	N/A	16	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	97.0	N/A	20.5	N/A	1.05	N/A	118	17
TOTAL MARKET	101.8	N/A	15.6	N/A	1.04	N/A	98	6

017 - COMANCHE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	92.2	69.8 to 102.8	22.4	13.7 to 37.2	1.20	0.99 to 1.49	13	0
Comm./Ind. S-6	84.2	65.0 to 103.3	15.4	8.5 to 26.0	1.09	1.01 to 1.27	8	1
Vac. Lot	462.0	N/A		N/A		N/A	1	0
Farm & Home	99.5	N/A	1.5	N/A	1.01	N/A	2	0
Ag. Land Only	8.4	N/A	41.4	N/A	1.02	N/A	5	0
Ag. w/Impr.'s	8.4	N/A	41.4	N/A	1.02	N/A	5	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	89.9	N/A	37.1	N/A	1.73	N/A	29	1
TOTAL MARKET	90.3	N/A	23.6	N/A	1.13	N/A	22	1

018 - COWLEY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	101.4	99.6 to 105.9	14.8	13.4 to 16.5	1.03	1.01 to 1.04	273	30
Comm./Ind.	95.2	70.3 to 123.0	31.6	22.8 to 46.3	1.09	1.01 to 1.21	16	0
Vac. Lot	77.5	N/A	48.9	N/A	1.15	N/A	16	2
Farm & Home	63.6	N/A	38.7	N/A	1.22	N/A	12	0
Ag. Land Only	5.5	N/A	81.5	N/A	0.79	N/A	17	0
Ag. w/Impr.'s	5.6	N/A	96.4	N/A	0.94	N/A	21	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	99.1	N/A	17.5	N/A	1.04	N/A	338	56
TOTAL MARKET	100.6	N/A	16.6	N/A	1.02	N/A	305	34

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales
 Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended
 PRD = .98 to 1.03

019 - CRAWFORD								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	98.6	97.5 to 99.9	12.3	11.0 to 13.6	1.03	1.01 to 1.04	338	31
Comm./Ind.	115.1	92.6 to 154.5	32.8	22.2 to 61.4	1.11	0.97 to 1.37	17	2
Vac. Lot	90.7	N/A	39.8	N/A	1.04	N/A	27	3
Farm & Home	59.3	N/A	35.3	N/A	1.41	N/A	12	0
Ag. Land Only	3.5	N/A	67.3	N/A	1.05	N/A	21	2
Ag. w/Impr.'s	3.5	N/A	71.3	N/A	1.09	N/A	25	2
Other/Ex./Ut./NP/Mix-Use	176.4	N/A	9.6	N/A	1.02	N/A	2	0
TOTAL w/ AG. & FARM	97.5	N/A	13.5	N/A	1.02	N/A	421	76
TOTAL MARKET	98.7	N/A	12.9	N/A	1.02	N/A	384	49

020 - DECATUR								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.9	92.6 to 108.2	18.8	14.5 to 24.9	1.06	1.01 to 1.13	35	2
Comm./Ind. S-4	92.0	77.5 to 115.1	14.1	8.5 to 28.8	0.98	0.92 to 1.04	8	1
Vac. Lot	420.0	N/A		N/A		N/A	1	0
Farm & Home	47.6	N/A	32.7	N/A	0.81	N/A	2	0
Ag. Land Only	4.0	N/A	20.6	N/A	1.13	N/A	6	0
Ag. w/Impr.'s	4.0	N/A	20.6	N/A	1.13	N/A	6	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	96.0	N/A	26.9	N/A	1.16	N/A	52	6
TOTAL MARKET	98.4	N/A	19.7	N/A	1.06	N/A	44	3

021 - DICKINSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.5	97.4 to 102.0	11.8	10.3 to 13.4	1.03	1.02 to 1.05	174	13
Comm./Ind.	106.2	61.4 to 137.4	26.1	13.3 to 50.7	1.12	0.97 to 1.43	8	0
Vac. Lot	100.0	N/A	102.7	N/A	1.17	N/A	19	2
Farm & Home	77.7	N/A	36.6	N/A	1.64	N/A	19	0
Ag. Land Only	10.3	N/A	56.1	N/A	1.02	N/A	23	2
Ag. w/Impr.'s	10.3	N/A	64.5	N/A	1.10	N/A	26	2
Other/Ex./Ut./NP/Mix-Use	91.0	N/A	32.3	N/A	1.19	N/A	3	0
TOTAL w/ AG. & FARM	97.3	N/A	15.9	N/A	1.04	N/A	249	43
TOTAL MARKET	99.5	N/A	13.3	N/A	1.03	N/A	204	23

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

022 - DONIPHAN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.2	98.7 to 114.2	17.6	13.5 to 23.1	1.08	1.04 to 1.13	41	4
Comm./Ind. S-7	103.0	72.3 to 201.2	42.9	30.2 to 74.3	0.77	0.64 to 0.92	8	0
Vac. Lot	97.6	N/A	2.5	N/A	1.01	N/A	2	0
Farm & Home	51.4	N/A	50.4	N/A	1.11	N/A	5	0
Ag. Land Only	12.6	N/A	178.7	N/A	0.97	N/A	5	0
Ag. w/Impr.'s	12.6	N/A	177.5	N/A	1.00	N/A	6	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	101.7	N/A	25.5	N/A	1.15	N/A	62	7
TOTAL MARKET	104.2	N/A	19.5	N/A	1.07	N/A	51	5

023 - DOUGLAS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.2	103.2 to 105.6	7.7	6.9 to 8.6	1.01	1.01 to 1.02	289	26
Comm./Ind.	92.7	82.1 to 102.4	21.1	15.7 to 30.0	0.97	0.87 to 1.06	29	1
Vac. Lot	111.8	N/A	26.3	N/A	1.06	N/A	63	1
Farm & Home	71.3	N/A	28.5	N/A	0.99	N/A	22	0
Ag. Land Only	1.9	N/A	84.3	N/A	0.97	N/A	22	1
Ag. w/Impr.'s	2.0	N/A	92.1	N/A	1.00	N/A	24	1
Other/Ex./Ut./NP/Mix-Use	99.9	N/A	5.5	N/A	0.99	N/A	8	1
TOTAL w/ AG. & FARM	103.1	N/A	10.6	N/A	1.03	N/A	435	75
TOTAL MARKET	104.0	N/A	9.8	N/A	1.02	N/A	389	48

024 - EDWARDS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.9	96.5 to 112.9	13.9	10.6 to 18.9	0.99	0.96 to 1.02	29	2
Comm./Ind. S-5	108.6	95.9 to 182.3	29.3	12.6 to 57.9	0.87	0.80 to 1.03	7	0
Vac. Lot	276.0	N/A		N/A		N/A	1	0
Farm & Home	56.2	N/A		N/A		N/A	1	0
Ag. Land Only	5.0	N/A	56.0	N/A	0.87	N/A	7	0
Ag. w/Impr.'s	5.0	N/A	56.0	N/A	0.87	N/A	7	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	98.6	N/A	20.2	N/A	1.21	N/A	45	9
TOTAL MARKET	104.3	N/A	15.5	N/A	1.00	N/A	37	4

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

025 - ELK								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	93.2	81.2 to 119.7	27.5	14.9 to 46.1	1.14	1.01 to 1.39	17	2
Comm./Ind. S-12	74.0	68.4 to 94.3	20.2	12.7 to 34.9	0.98	0.87 to 1.15	13	1
Vac. Lot	66.7	N/A	43.0	N/A	1.13	N/A	3	0
Farm & Home	60.6	N/A	54.7	N/A	1.69	N/A	2	0
Ag. Land Only	1.9	N/A	244.2	N/A	1.92	N/A	3	0
Ag. w/Impr.'s	4.3	N/A	84.2	N/A	1.55	N/A	7	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	75.0	N/A	42.6	N/A	2.23	N/A	42	4
TOTAL MARKET	86.0	N/A	29.8	N/A	1.06	N/A	33	2

026 - ELLIS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.5	96.3 to 98.5	7.0	6.4 to 7.8	1.01	1.00 to 1.01	310	25
Comm./Ind.	104.8	93.0 to 113.1	15.3	8.9 to 28.1	0.97	0.90 to 1.02	18	3
Vac. Lot	71.1	N/A	31.5	N/A	0.96	N/A	32	2
Farm & Home	61.1	N/A	16.1	N/A	1.01	N/A	5	0
Ag. Land Only	0.9	N/A	89.8	N/A	0.50	N/A	13	2
Ag. w/Impr.'s	1.1	N/A	165.1	N/A	0.74	N/A	15	1
Other/Ex./Ut./NP/Mix-Use	98.1	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	96.5	N/A	8.5	N/A	1.00	N/A	381	52
TOTAL MARKET	97.1	N/A	8.2	N/A	1.00	N/A	361	38

027 - ELLSWORTH								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.1	90.6 to 101.2	16.5	13.6 to 20.2	1.03	1.00 to 1.07	78	5
Comm./Ind.	92.6	42.5 to 168.8	39.8	20.6 to 97.0	1.03	0.73 to 1.44	9	1
Vac. Lot	45.5	N/A	124.9	N/A	2.06	N/A	4	0
Farm & Home	119.1	N/A	32.8	N/A	1.22	N/A	2	0
Ag. Land Only	6.9	N/A	38.2	N/A	1.03	N/A	9	1
Ag. w/Impr.'s	6.9	N/A	38.2	N/A	1.03	N/A	9	1
Other/Ex./Ut./NP/Mix-Use	75.3	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	92.6	N/A	20.9	N/A	1.02	N/A	103	16
TOTAL MARKET	95.5	N/A	18.3	N/A	1.01	N/A	92	10

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

028 - FINNEY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.0	95.2 to 98.3	8.8	7.9 to 9.8	1.02	1.01 to 1.03	265	23
Comm./Ind.	84.8	79.9 to 97.9	8.7	6.5 to 12.2	1.00	0.97 to 1.03	12	1
Vac. Lot	76.5	N/A	38.0	N/A	1.19	N/A	19	1
Farm & Home	27.8	N/A	34.7	N/A	1.12	N/A	3	0
Ag. Land Only	4.1	N/A	44.0	N/A	1.08	N/A	9	0
Ag. w/Impr.'s	4.8	N/A	44.0	N/A	1.08	N/A	10	1
Other/Ex./Ut./NP/Mix-Use	80.1	N/A	34.1	N/A	1.00	N/A	7	0
TOTAL w/ AG. & FARM	95.3	N/A	9.6	N/A	1.02	N/A	316	43
TOTAL MARKET	96.0	N/A	9.5	N/A	1.02	N/A	303	31

029 - FORD								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	95.0	92.5 to 96.7	9.5	8.4 to 10.9	1.00	0.99 to 1.02	188	25
Comm./Ind.	63.9	55.2 to 93.1	23.1	13.4 to 39.5	1.14	1.03 to 1.31	8	0
Vac. Lot	60.8	N/A	59.8	N/A	1.89	N/A	17	0
Farm & Home	46.6	N/A	38.4	N/A	1.08	N/A	10	0
Ag. Land Only	6.0	N/A	72.9	N/A	1.21	N/A	12	0
Ag. w/Impr.'s	6.7	N/A	61.5	N/A	1.20	N/A	13	0
Other/Ex./Ut./NP/Mix-Use	50.4	N/A	N/A	N/A	N/A	N/A	1	0
TOTAL w/ AG. & FARM	92.5	N/A	13.8	N/A	1.02	N/A	237	38
TOTAL MARKET	94.1	N/A	10.0	N/A	1.01	N/A	214	38

030 - FRANKLIN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	102.8	101.1 to 107.8	14.2	12.1 to 16.8	1.01	1.00 to 1.04	130	12
Comm./Ind. S-12	102.9	86.9 to 148.7	32.6	21.1 to 56.0	1.30	1.05 to 1.76	17	1
Vac. Lot	115.4	N/A	19.1	N/A	1.16	N/A	11	1
Farm & Home	64.9	N/A	43.3	N/A	1.18	N/A	39	0
Ag. Land Only	5.0	N/A	33.1	N/A	0.92	N/A	28	1
Ag. w/Impr.'s	5.0	N/A	35.1	N/A	0.90	N/A	33	3
Other/Ex./Ut./NP/Mix-Use	98.1	N/A	N/A	N/A	N/A	N/A	1	0
TOTAL w/ AG. & FARM	97.3	N/A	34.4	N/A	1.20	N/A	231	11
TOTAL MARKET	102.9	N/A	15.2	N/A	1.06	N/A	159	17

Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

031 - GEARY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.9	97.9 to 101.7	9.1	8.2 to 10.2	1.01	1.00 to 1.01	240	21
Comm./Ind.	109.1	82.7 to 146.2	26.9	18.2 to 52.9	1.23	1.04 to 1.62	10	1
Vac. Lot	112.4	N/A	41.6	N/A	1.69	N/A	26	2
Farm & Home	44.4	N/A	33.0	N/A	1.00	N/A	4	0
Ag. Land Only	25.7	N/A	70.4	N/A	2.06	N/A	2	0
Ag. w/Impr.'s	9.7	N/A	124.3	N/A	1.88	N/A	3	0
Other/Ex./Ut./NP/Mix-Use	286.3	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	99.9	N/A	10.4	N/A	1.02	N/A	284	40
TOTAL MARKET	100.2	N/A	10.0	N/A	1.02	N/A	277	36

032 - GOVE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.5	83.3 to 100.8	12.0	7.1 to 21.1	0.97	0.90 to 1.02	15	2
Comm./Ind. S-3	74.9	49.8 to 103.1	32.8	18.2 to 40.2	0.96	0.85 to 1.06	6	0
Vac. Lot	124.3	N/A	59.7	N/A	1.50	N/A	5	0
Farm & Home	36.9	N/A	40.9	N/A	1.27	N/A	6	0
Ag. Land Only	4.6	N/A	35.3	N/A	1.14	N/A	10	0
Ag. w/Impr.'s	4.8	N/A	33.3	N/A	1.12	N/A	14	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	60.7	N/A	66.1	N/A	2.52	N/A	46	2
TOTAL MARKET	96.5	N/A	20.9	N/A	1.00	N/A	26	2

033 - GRAHAM								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.0	91.7 to 100.0	6.4	4.0 to 10.0	1.02	0.99 to 1.05	17	0
Comm./Ind. S-5	86.4	73.0 to 96.6	18.4	9.5 to 38.5	1.05	0.94 to 1.25	7	0
Vac. Lot	66.7	N/A		N/A		N/A	1	0
Farm & Home							0	
Ag. Land Only	3.2	N/A	45.4	N/A	0.88	N/A	7	0
Ag. w/Impr.'s	3.2	N/A	46.8	N/A	0.91	N/A	9	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	89.4	N/A	33.2	N/A	1.39	N/A	34	0
TOTAL MARKET	96.6	N/A	8.4	N/A	1.06	N/A	25	3

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

034 - GRANT								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.2	96.8 to 101.4	7.2	5.9 to 8.9	1.02	1.01 to 1.03	65	6
Comm./Ind. S-4	88.4	68.8 to 103.3	15.0	10.2 to 23.6	0.98	0.94 to 1.02	9	0
Vac. Lot	69.9	N/A	59.4	N/A	1.36	N/A	5	0
Farm & Home							0	
Ag. Land Only	2.5	N/A	44.2	N/A	0.83	N/A	5	0
Ag. w/Impr.'s	2.5	N/A	44.2	N/A	0.83	N/A	5	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	97.5	N/A	9.4	N/A	1.01	N/A	84	12
TOTAL MARKET	98.7	N/A	8.7	N/A	1.01	N/A	79	9

035 - GRAY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.1	89.9 to 104.8	11.5	9.4 to 14.3	1.02	1.00 to 1.04	51	3
Comm./Ind. S-4	57.7	54.4 to 113.0	35.0	17.2 to 41.4	1.01	0.95 to 1.14	6	0
Vac. Lot	111.8	N/A		N/A		N/A	1	0
Farm & Home	67.4	N/A	13.3	N/A	1.00	N/A	4	0
Ag. Land Only	5.3	N/A	48.8	N/A	0.79	N/A	11	1
Ag. w/Impr.'s	5.3	N/A	50.6	N/A	0.81	N/A	13	2
Other/Ex./Ut./NP/Mix-Use	121.2	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	88.9	N/A	31.3	N/A	1.15	N/A	76	1
TOTAL MARKET	99.1	N/A	14.6	N/A	1.03	N/A	59	2

036 - GREELEY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	94.8	71.3 to 118.0	17.2	10.4 to 30.0	1.13	1.06 to 1.26	7	0
Comm./Ind. S-6	101.4	67.9 to 144.1	27.0	15.5 to 52.6	1.10	0.89 to 1.40	6	0
Vac. Lot	115.5	N/A	19.1	N/A	1.09	N/A	3	0
Farm & Home	217.2	N/A	33.5	N/A	1.49	N/A	2	0
Ag. Land Only	3.4	N/A	17.8	N/A	0.98	N/A	10	1
Ag. w/Impr.'s	3.4	N/A	17.8	N/A	0.98	N/A	10	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	77.1	N/A	65.9	N/A	2.86	N/A	28	1
TOTAL MARKET	97.6	N/A	23.4	N/A	1.16	N/A	16	0

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)S – Supplemental Sales

T – Time Trended

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

PRD = .98 to 1.03

037 - GREENWOOD								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	91.4	84.2 to 101.7	15.8	12.8 to 21.0	0.98	0.92 to 1.04	38	4
Comm./Ind.	95.9	71.8 to 100.0	11.2	3.5 to 29.3	0.96	0.89 to 1.00	6	0
Vac. Lot	190.9	N/A	30.7	N/A	1.19	N/A	3	0
Farm & Home	50.0	N/A	58.5	N/A	1.50	N/A	5	0
Ag. Land Only	2.5	N/A	56.8	N/A	1.35	N/A	5	0
Ag. w/Impr.'s	2.7	N/A	49.5	N/A	1.31	N/A	6	0
Other/Ex./Ut./NP/Mix-Use	76.2	N/A	143.8	N/A	2.66	N/A	4	0
TOTAL w/ AG. & FARM	89.5	N/A	21.1	N/A	1.11	N/A	62	12
TOTAL MARKET	94.0	N/A	16.9	N/A	0.98	N/A	51	7

038 - HAMILTON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	95.5	88.0 to 101.1	12.7	9.4 to 17.5	1.02	0.99 to 1.06	29	2
Comm./Ind. S-3	116.0	58.9 to 134.8	22.6	10.2 to 47.7	1.50	1.32 to 1.95	5	0
Vac. Lot	50.7	N/A	19.8	N/A	0.95	N/A	4	0
Farm & Home	47.3	N/A	1.8	N/A	0.99	N/A	2	0
Ag. Land Only	4.4	N/A	28.1	N/A	1.20	N/A	20	0
Ag. w/Impr.'s	4.4	N/A	28.1	N/A	1.20	N/A	20	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	73.3	N/A	58.0	N/A	1.49	N/A	60	0
TOTAL MARKET	95.1	N/A	18.4	N/A	1.06	N/A	38	2

039 - HARPER								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.0	96.4 to 104.7	14.7	12.4 to 17.6	1.05	1.02 to 1.08	95	8
Comm./Ind.	101.2	53.2 to 175.9	41.7	21.9 to 110.1	1.03	0.92 to 1.22	6	0
Vac. Lot	31.5	N/A	33.3	N/A	0.88	N/A	2	0
Farm & Home	25.8	N/A	38.8	N/A	1.03	N/A	4	0
Ag. Land Only	8.8	N/A	32.8	N/A	1.00	N/A	16	0
Ag. w/Impr.'s	9.3	N/A	27.8	N/A	1.00	N/A	21	0
Other/Ex./Ut./NP/Mix-Use	29.4	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	93.6	N/A	34.6	N/A	1.44	N/A	129	7
TOTAL MARKET	100.0	N/A	15.1	N/A	1.04	N/A	104	13

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

040 - HARVEY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	102.0	99.9 to 105.6	11.8	10.4 to 13.5	1.02	1.01 to 1.03	176	20
Comm./Ind.	66.3	57.9 to 100.0	28.2	19.1 to 48.6	1.14	1.05 to 1.29	15	1
Vac. Lot	88.1	N/A	46.4	N/A	1.29	N/A	8	0
Farm & Home	52.9	N/A	35.3	N/A	1.06	N/A	4	0
Ag. Land Only	0.7	N/A	180.4	N/A	0.60	N/A	13	0
Ag. w/Impr.'s	1.3	N/A	118.9	N/A	0.56	N/A	14	0
Other/Ex./Ut./NP/Mix-Use	127.0	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	99.9	N/A	14.5	N/A	1.04	N/A	218	37
TOTAL MARKET	101.2	N/A	13.4	N/A	1.03	N/A	200	25

041 - HASKELL								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	81.8	73.7 to 106.8	18.6	14.1 to 29.8	1.09	1.03 to 1.25	11	1
Comm./Ind. S-5	80.4	73.5 to 91.1	10.5	6.4 to 17.5	1.02	0.99 to 1.08	10	1
Vac. Lot	70.4	N/A	40.3	N/A	1.33	N/A	3	0
Farm & Home							0	
Ag. Land Only	1.6	N/A	41.0	N/A	1.21	N/A	2	0
Ag. w/Impr.'s	1.6	N/A	41.0	N/A	1.21	N/A	2	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	78.8	N/A	16.8	N/A	1.12	N/A	26	4
TOTAL MARKET	80.4	N/A	16.8	N/A	1.12	N/A	24	2

042 - HODGEMAN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	98.7	82.8 to 120.9	14.9	8.9 to 25.9	1.07	1.01 to 1.15	7	0
Comm./Ind. S-3	97.7	61.8 to 113.7	16.1	7.6 to 31.1	0.99	0.97 to 1.00	4	0
Vac. Lot	38.7	N/A	90.1	N/A	1.51	N/A	2	0
Farm & Home	27.7	N/A	15.9	N/A	1.07	N/A	3	0
Ag. Land Only	3.0	N/A	47.2	N/A	0.86	N/A	2	0
Ag. w/Impr.'s	3.7	N/A	36.1	N/A	1.01	N/A	4	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	77.2	N/A	50.4	N/A	1.57	N/A	20	0
TOTAL MARKET	93.4	N/A	16.6	N/A	1.02	N/A	13	1

Comm./Ind. - 85% level of Confidence

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

043 - JACKSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	98.8	93.0 to 106.3	15.6	13.0 to 19.5	1.02	0.99 to 1.06	71	8
Comm./Ind.	98.2	85.0 to 120.8	22.6	12.2 to 41.3	1.04	0.91 to 1.11	10	0
Vac. Lot	54.4	N/A	26.5	N/A	0.95	N/A	2	0
Farm & Home	78.0	N/A	21.9	N/A	1.01	N/A	36	1
Ag. Land Only	4.7	N/A	48.5	N/A	0.83	N/A	22	2
Ag. w/Impr.'s	4.9	N/A	53.3	N/A	0.81	N/A	29	2
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	85.6	N/A	39.3	N/A	1.07	N/A	148	4
TOTAL MARKET	98.3	N/A	17.7	N/A	1.01	N/A	83	7

044 - JEFFERSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.1	98.2 to 108.4	15.9	13.8 to 18.5	1.05	1.03 to 1.07	120	6
Comm./Ind. S-15	102.1	76.1 to 123.1	29.8	21.4 to 43.1	1.11	0.94 to 1.44	20	0
Vac. Lot	79.6	N/A	28.1	N/A	0.94	N/A	32	4
Farm & Home	75.3	N/A	26.7	N/A	1.05	N/A	27	0
Ag. Land Only	3.6	N/A	53.9	N/A	0.85	N/A	18	1
Ag. w/Impr.'s	4.0	N/A	50.0	N/A	0.85	N/A	23	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	94.8	N/A	22.2	N/A	1.06	N/A	222	31
TOTAL MARKET	99.9	N/A	20.9	N/A	1.03	N/A	172	8

045 - JEWELL								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	87.4	73.4 to 99.8	22.1	16.7 to 31.2	1.04	0.98 to 1.11	33	1
Comm./Ind. S-1	75.3	33.9 to 135.0	56.5	23.9 to 117.0	1.30	0.98 to 2.03	6	0
Vac. Lot	14.4	N/A	96.6	N/A	1.15	N/A	5	0
Farm & Home	28.0	N/A	57.0	N/A	1.52	N/A	9	0
Ag. Land Only	5.5	N/A	44.3	N/A	1.04	N/A	15	0
Ag. w/Impr.'s	5.7	N/A	45.5	N/A	1.02	N/A	16	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	54.7	N/A	67.5	N/A	2.19	N/A	69	0
TOTAL MARKET	82.3	N/A	34.4	N/A	0.97	N/A	44	0

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

046 - JOHNSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.6	100.0 to 101.7	7.0	6.4 to 7.7	1.01	1.00 to 1.02	346	27
Comm./Ind.	98.4	86.2 to 101.2	23.5	19.2 to 28.6	1.16	1.04 to 1.32	82	3
Vac. Lot	92.5	N/A	30.0	N/A	1.07	N/A	72	4
Farm & Home	71.4	N/A	54.8	N/A	1.46	N/A	11	0
Ag. Land Only	.	N/A	32.8	N/A	1.04	N/A	326	32
Ag. w/Impr.'s	.	N/A	32.8	N/A	1.04	N/A	326	32
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	84.0	N/A	55.6	N/A	0.82	N/A	837	3
TOTAL MARKET	100.0	N/A	9.0	N/A	1.02	N/A	500	75

047 - KEARNY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	93.7	83.5 to 98.9	13.4	10.3 to 17.7	1.02	1.00 to 1.06	37	3
Comm./Ind. S-4	87.7	48.1 to 131.0	32.2	15.8 to 72.2	1.07	0.90 to 1.27	7	0
Vac. Lot	117.7	N/A		N/A		N/A	1	0
Farm & Home	39.7	N/A	52.6	N/A	1.15	N/A	5	0
Ag. Land Only	7.1	N/A	28.1	N/A	1.00	N/A	9	1
Ag. w/Impr.'s	7.1	N/A	28.1	N/A	1.00	N/A	9	1
Other/Ex./Ut./NP/Mix-Use	72.7	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	83.9	N/A	36.1	N/A	1.30	N/A	60	0
TOTAL MARKET	92.5	N/A	17.1	N/A	1.02	N/A	46	3

048 - KINGMAN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	101.4	94.3 to 105.2	18.3	14.7 to 22.6	1.04	1.00 to 1.07	67	5
Comm./Ind.	109.2	100.0 to 152.6	20.6	11.0 to 37.2	0.93	0.85 to 1.01	8	0
Vac. Lot	115.2	N/A	45.3	N/A	1.11	N/A	7	0
Farm & Home	26.0	N/A	39.2	N/A	1.04	N/A	15	1
Ag. Land Only	6.6	N/A	42.6	N/A	0.94	N/A	13	0
Ag. w/Impr.'s	6.6	N/A	45.5	N/A	0.94	N/A	15	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	92.8	N/A	42.6	N/A	1.32	N/A	112	2
TOTAL MARKET	101.9	N/A	19.5	N/A	1.01	N/A	82	7

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

Com./Ind - 90% level of Confidence								
049 - KIOWA								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	84.2	60.1 to 119.2	22.1	15.1 to 35.8	0.96	0.87 to 1.05	9	1
Comm./Ind. S-5	91.0	29.5 to 122.9	26.4	9.7 to 173.8	2.92	1.02 to 3.54	5	0
Vac. Lot	111.9	N/A	32.5	N/A	1.19	N/A	5	0
Farm & Home	38.9	N/A	67.2	N/A	1.37	N/A	3	0
Ag. Land Only	6.8	N/A	38.5	N/A	0.88	N/A	3	0
Ag. w/Impr.'s	7.9	N/A	33.1	N/A	0.92	N/A	4	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	81.8	N/A	45.8	N/A	1.96	N/A	26	1
TOTAL MARKET	91.0	N/A	24.1	N/A	1.70	N/A	19	2

050 - LABETTE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	102.1	100.0 to 104.3	11.8	10.3 to 13.6	1.04	1.02 to 1.05	167	16
Comm./Ind.	97.7	82.2 to 282.3	69.8	30.0 to 130.5	1.15	1.01 to 1.45	7	0
Vac. Lot	81.0	N/A	44.1	N/A	1.62	N/A	11	1
Farm & Home	61.0	N/A	47.5	N/A	1.27	N/A	10	0
Ag. Land Only	5.0	N/A	54.6	N/A	0.89	N/A	13	0
Ag. w/Impr.'s	4.3	N/A	51.7	N/A	0.91	N/A	22	0
Other/Ex./Ut./NP/Mix-Use	110.7	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	99.7	N/A	14.3	N/A	1.06	N/A	218	43
TOTAL MARKET	101.8	N/A	12.3	N/A	1.03	N/A	186	23

051 - LANE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.0	78.3 to 110.0	20.0	14.8 to 29.1	1.05	0.98 to 1.15	27	1
Comm./Ind. S-4	95.0	81.9 to 119.9	16.7	9.7 to 30.3	0.91	0.85 to 1.08	7	0
Vac. Lot	19.6	N/A		N/A		N/A	1	0
Farm & Home							0	
Ag. Land Only	6.5	N/A	41.7	N/A	1.42	N/A	4	0
Ag. w/Impr.'s	6.5	N/A	61.4	N/A	1.77	N/A	6	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	91.3	N/A	25.1	N/A	1.01	N/A	41	4
TOTAL MARKET	95.0	N/A	21.2	N/A	1.00	N/A	35	1

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

052 - LEAVENWORTH								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	101.9	100.0 to 104.4	7.4	6.5 to 8.5	1.01	1.00 to 1.02	196	26
Comm./Ind.	103.5	90.0 to 184.2	36.9	25.8 to 89.7	1.20	1.01 to 1.55	7	0
Vac. Lot	100.3	N/A	19.2	N/A	1.29	N/A	45	6
Farm & Home	79.3	N/A	15.0	N/A	1.01	N/A	26	3
Ag. Land Only	1.1	N/A	136.5	N/A	0.99	N/A	19	1
Ag. w/Impr.'s	1.1	N/A	106.2	N/A	1.31	N/A	23	2
Other/Ex./Ut./NP/Mix-Use	130.2	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	100.0	N/A	10.9	N/A	1.02	N/A	298	58
TOTAL MARKET	101.5	N/A	8.6	N/A	1.01	N/A	249	40

053 - LINCOLN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.1	95.0 to 112.8	11.8	9.1 to 16.1	1.08	1.00 to 1.17	22	1
Comm./Ind.	87.1	48.0 to 109.8	27.1	11.7 to 131.5	1.04	0.92 to 1.20	6	0
Vac. Lot	117.5	N/A	34.7	N/A	1.43	N/A	4	1
Farm & Home	30.8	N/A	19.2	N/A	1.06	N/A	4	0
Ag. Land Only	10.8	N/A	22.9	N/A	0.96	N/A	5	0
Ag. w/Impr.'s	11.1	N/A	793.7	N/A	7.09	N/A	8	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	95.0	N/A	34.8	N/A	1.37	N/A	44	4
TOTAL MARKET	100.7	N/A	15.2	N/A	1.08	N/A	32	3

054 - LINN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.2	95.7 to 102.7	15.1	12.3 to 19.0	1.04	1.01 to 1.07	83	12
Comm./Ind. S-5	90.4	75.6 to 100.8	15.6	8.4 to 48.9	1.02	0.92 to 1.11	8	1
Vac. Lot	114.3	N/A	80.5	N/A	1.67	N/A	155	15
Farm & Home	58.4	N/A	46.1	N/A	1.23	N/A	25	1
Ag. Land Only	7.1	N/A	31.2	N/A	0.96	N/A	27	0
Ag. w/Impr.'s	7.2	N/A	30.8	N/A	1.02	N/A	34	1
Other/Ex./Ut./NP/Mix-Use	44.7	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	94.3	N/A	50.2	N/A	1.52	N/A	306	42
TOTAL MARKET	100.7	N/A	40.4	N/A	1.10	N/A	247	34

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

055 - LOGAN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	101.6	95.0 to 107.6	10.3	7.4 to 15.1	1.02	1.00 to 1.07	23	2
Comm./Ind. S-5	72.8	52.0 to 141.9	48.0	28.0 to 79.2	1.43	1.12 to 2.01	6	0
Vac. Lot							0	
Farm & Home							0	
Ag. Land Only	3.7	N/A	23.3	N/A	0.96	N/A	8	1
Ag. w/Impr.'s	3.7	N/A	23.3	N/A	0.96	N/A	8	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	93.9	N/A	36.6	N/A	1.19	N/A	37	0
TOTAL MARKET	100.1	N/A	16.9	N/A	1.08	N/A	29	1

056 - LYON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.4	99.0 to 102.7	10.7	9.5 to 12.1	1.02	1.01 to 1.03	245	27
Comm./Ind.	94.6	80.8 to 110.5	21.3	14.7 to 32.8	1.01	0.91 to 1.15	19	0
Vac. Lot	98.4	N/A	55.5	N/A	1.26	N/A	8	0
Farm & Home	82.8	N/A	17.5	N/A	1.03	N/A	27	2
Ag. Land Only	6.4	N/A	25.9	N/A	0.91	N/A	18	2
Ag. w/Impr.'s	6.4	N/A	25.9	N/A	0.91	N/A	18	2
Other/Ex./Ut./NP/Mix-Use	101.9	N/A	34.9	N/A	1.22	N/A	5	0
TOTAL w/ AG. & FARM	98.6	N/A	12.1	N/A	1.03	N/A	322	53
TOTAL MARKET	100.2	N/A	11.1	N/A	1.02	N/A	277	35

057 - MARION								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.7	100.3 to 109.8	16.8	14.4 to 19.8	1.08	1.04 to 1.15	103	6
Comm./Ind.	122.3	103.5 to 237.8	34.8	12.4 to 68.3	0.87	0.75 to 1.17	9	0
Vac. Lot	114.0	N/A	46.7	N/A	1.42	N/A	8	1
Farm & Home	52.1	N/A	58.4	N/A	1.01	N/A	8	0
Ag. Land Only	5.9	N/A	42.8	N/A	1.00	N/A	21	0
Ag. w/Impr.'s	5.9	N/A	42.8	N/A	1.00	N/A	21	0
Other/Ex./Ut./NP/Mix-Use	146.0	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	100.8	N/A	21.5	N/A	1.11	N/A	150	27
TOTAL MARKET	105.5	N/A	16.9	N/A	1.08	N/A	121	10

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

058 - MARSHALL								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.7	93.2 to 99.4	12.0	10.1 to 14.5	1.04	1.01 to 1.07	88	3
Comm./Ind.	91.3	80.7 to 119.0	14.0	4.6 to 28.4	1.05	0.99 to 1.14	6	0
Vac. Lot	29.0	N/A	180.5	N/A	1.67	N/A	3	0
Farm & Home	19.8	N/A	78.6	N/A	1.58	N/A	4	0
Ag. Land Only	3.7	N/A	36.4	N/A	0.91	N/A	11	1
Ag. w/Impr.'s	3.9	N/A	45.4	N/A	0.92	N/A	12	1
Other/Ex./Ut./NP/Mix-Use	62.0	N/A	27.7	N/A	0.92	N/A	3	0
TOTAL w/ AG. & FARM	92.5	N/A	13.3	N/A	1.05	N/A	116	21
TOTAL MARKET	95.2	N/A	12.9	N/A	1.04	N/A	100	6

059 - MCPHERSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.8	98.8 to 100.7	7.1	6.2 to 8.1	1.01	1.00 to 1.02	190	23
Comm./Ind.	100.0	95.0 to 105.7	7.2	3.8 to 12.4	1.04	1.01 to 1.09	14	1
Vac. Lot	103.1	N/A	26.2	N/A	1.12	N/A	13	2
Farm & Home	81.4	N/A	24.8	N/A	1.04	N/A	13	0
Ag. Land Only	7.7	N/A	32.3	N/A	0.99	N/A	28	1
Ag. w/Impr.'s	7.8	N/A	28.5	N/A	0.95	N/A	29	2
Other/Ex./Ut./NP/Mix-Use	91.7	N/A	29.1	N/A	0.99	N/A	6	0
TOTAL w/ AG. & FARM	98.1	N/A	9.5	N/A	1.02	N/A	265	49
TOTAL MARKET	99.9	N/A	7.4	N/A	1.01	N/A	223	30

060 - MEADE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	89.0	78.6 to 97.0	15.2	10.8 to 23.4	1.02	1.00 to 1.05	21	2
Comm./Ind. S-6	79.9	51.1 to 133.7	32.8	17.7 to 65.3	1.35	1.03 to 1.76	8	0
Vac. Lot	104.4	N/A	10.9	N/A	1.03	N/A	2	0
Farm & Home	106.9	N/A	34.8	N/A	1.14	N/A	2	0
Ag. Land Only	5.9	N/A	19.3	N/A	0.93	N/A	5	0
Ag. w/Impr.'s	5.9	N/A	16.8	N/A	0.94	N/A	6	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	82.4	N/A	34.8	N/A	1.45	N/A	39	2
TOTAL MARKET	87.8	N/A	15.9	N/A	1.02	N/A	31	5

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

061 - MIAMI								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential T	102.9	100.3 to 106.5	9.2	8.1 to 10.5	1.02	1.01 to 1.03	189	17
Comm./Ind.	84.6	69.0 to 105.2	13.9	10.3 to 20.8	1.08	1.01 to 1.20	9	1
Vac. Lot	112.8	N/A	30.9	N/A	1.22	N/A	20	2
Farm & Home	70.9	N/A	39.6	N/A	1.11	N/A	24	0
Ag. Land Only	2.1	N/A	80.1	N/A	1.16	N/A	19	0
Ag. w/Impr.'s	2.1	N/A	77.0	N/A	1.16	N/A	21	0
Other/Ex./Ut./NP/Mix-Use	76.4	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	100.0	N/A	11.6	N/A	1.06	N/A	264	53
TOTAL MARKET	103.2	N/A	9.9	N/A	1.05	N/A	219	28

062 - MITCHELL								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	94.9	89.7 to 100.0	16.6	14.0 to 20.1	1.04	1.01 to 1.07	90	5
Comm./Ind. S-8	100.0	85.4 to 150.3	20.5	11.9 to 33.8	1.00	0.93 to 1.12	11	2
Vac. Lot	100.0	N/A	37.1	N/A	0.95	N/A	11	1
Farm & Home	61.3	N/A	55.3	N/A	1.16	N/A	6	0
Ag. Land Only	8.0	N/A	15.4	N/A	1.05	N/A	8	0
Ag. w/Impr.'s	8.0	N/A	15.4	N/A	1.05	N/A	8	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	93.1	N/A	20.0	N/A	1.03	N/A	126	16
TOTAL MARKET	95.8	N/A	18.6	N/A	1.03	N/A	112	8

063 - MONTGOMERY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	106.5	100.5 to 111.1	16.8	14.3 to 20.3	1.08	1.06 to 1.12	142	20
Comm./Ind.	95.2	78.6 to 104.8	22.2	15.6 to 36.1	1.11	1.01 to 1.26	21	2
Vac. Lot	45.0	N/A	117.1	N/A	0.70	N/A	19	2
Farm & Home	44.1	N/A	48.5	N/A	1.20	N/A	15	0
Ag. Land Only	5.2	N/A	30.8	N/A	0.99	N/A	14	1
Ag. w/Impr.'s	4.8	N/A	40.5	N/A	0.92	N/A	18	1
Other/Ex./Ut./NP/Mix-Use	167.9	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	99.8	N/A	25.9	N/A	1.11	N/A	216	38
TOTAL MARKET	102.2	N/A	20.4	N/A	1.10	N/A	183	29

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

064 - MORRIS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	103.0	93.8 to 109.3	14.9	11.6 to 19.2	1.05	1.02 to 1.09	40	3
Comm./Ind. S-2	87.2	74.6 to 100.7	12.9	5.7 to 29.0	0.93	0.80 to 1.02	7	1
Vac. Lot	90.7	N/A		N/A		N/A	1	0
Farm & Home	94.7	N/A	36.8	N/A	1.39	N/A	5	0
Ag. Land Only	5.7	N/A	32.2	N/A	1.28	N/A	12	1
Ag. w/Impr.'s	6.1	N/A	30.4	N/A	1.21	N/A	15	1
Other/Ex./Ut./NP/Mix-Use	46.7	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	93.0	N/A	39.4	N/A	1.27	N/A	69	0
TOTAL MARKET	100.4	N/A	16.5	N/A	1.04	N/A	49	4

065 - MORTON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	91.1	85.5 to 98.5	12.9	9.2 to 18.9	1.04	1.00 to 1.10	27	3
Comm./Ind. S-5	106.5	76.5 to 146.9	28.2	16.0 to 53.9	1.09	1.01 to 1.20	7	0
Vac. Lot							0	
Farm & Home	30.4	N/A	100.8	N/A	1.51	N/A	3	0
Ag. Land Only	3.1	N/A	20.6	N/A	1.01	N/A	17	3
Ag. w/Impr.'s	3.4	N/A	28.1	N/A	1.13	N/A	18	2
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	83.1	N/A	50.7	N/A	1.42	N/A	55	0
TOTAL MARKET	91.3	N/A	17.8	N/A	1.07	N/A	34	2

066 - NEMAHA								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.0	98.3 to 104.6	15.5	12.7 to 18.9	1.02	0.99 to 1.05	87	8
Comm./Ind.	94.0	61.7 to 108.1	24.8	15.4 to 45.9	1.29	0.96 to 1.45	13	0
Vac. Lot	72.0	N/A	254.7	N/A	3.44	N/A	5	0
Farm & Home	49.1	N/A	49.3	N/A	1.32	N/A	11	0
Ag. Land Only	5.7	N/A	35.3	N/A	0.77	N/A	17	1
Ag. w/Impr.'s	5.7	N/A	34.4	N/A	0.80	N/A	21	3
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	91.9	N/A	36.0	N/A	1.26	N/A	137	7
TOTAL MARKET	100.0	N/A	16.4	N/A	1.08	N/A	105	11

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

067 - NEOSHO									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	107.3	101.6 to 112.2	19.2	16.5 to 22.7	1.05	1.03 to 1.08	114	7	
Comm./Ind.	91.0	65.3 to 127.6	40.9	26.0 to 76.9	1.74	1.16 to 2.40	12	0	
Vac. Lot	97.2	N/A	63.5	N/A	1.52	N/A	5	0	
Farm & Home	36.9	N/A	61.8	N/A	1.03	N/A	7	0	
Ag. Land Only	5.3	N/A	31.8	N/A	1.00	N/A	11	1	
Ag. w/Impr.'s	5.1	N/A	30.9	N/A	1.01	N/A	12	1	
Other/Ex./Ut./NP/Mix-Use							0		
TOTAL w/ AG. & FARM	101.6	N/A	23.5	N/A	1.16	N/A	150	20	
TOTAL MARKET	105.6	N/A	20.5	N/A	1.13	N/A	131	10	

068 - NESS									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	71.6	62.9 to 83.2	21.3	16.4 to 29.1	1.05	1.01 to 1.12	34	3	
Comm./Ind. S-4	91.5	74.0 to 150.0	37.5	20.9 to 115.4	1.10	1.02 to 1.44	7	0	
Vac. Lot	90.0	N/A	144.8	N/A	1.47	N/A	3	0	
Farm & Home	21.4	N/A		N/A		N/A	1	0	
Ag. Land Only	4.0	N/A	39.3	N/A	1.07	N/A	9	0	
Ag. w/Impr.'s	4.0	N/A	39.3	N/A	1.07	N/A	9	0	
Other/Ex./Ut./NP/Mix-Use							0		
TOTAL w/ AG. & FARM	67.9	N/A	43.0	N/A	1.46	N/A	54	5	
TOTAL MARKET	76.0	N/A	25.7	N/A	1.06	N/A	44	5	

069 - NORTON									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	91.5	82.7 to 98.4	16.8	13.9 to 21.2	1.01	0.97 to 1.06	60	2	
Comm./Ind.	82.8	73.2 to 103.0	16.9	10.7 to 31.4	1.10	1.01 to 1.29	7	0	
Vac. Lot	84.1	N/A	92.3	N/A	2.15	N/A	6	0	
Farm & Home	45.3	N/A	25.8	N/A	0.90	N/A	6	0	
Ag. Land Only	6.2	N/A	34.6	N/A	0.83	N/A	7	0	
Ag. w/Impr.'s	6.4	N/A	31.5	N/A	0.85	N/A	8	0	
Other/Ex./Ut./NP/Mix-Use							0		
TOTAL w/ AG. & FARM	82.7	N/A	30.3	N/A	1.14	N/A	87	1	
TOTAL MARKET	90.3	N/A	20.0	N/A	1.03	N/A	73	1	

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

070 - OSAGE									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	106.3	101.2 to 109.5	13.9	12.0 to 16.5	1.02	1.00 to 1.04	112	7	
Comm./Ind.	87.2	62.7 to 118.7	23.6	12.4 to 47.7	1.01	0.87 to 1.25	6	0	
Vac. Lot	107.1	N/A	15.1	N/A	0.99	N/A	11	2	
Farm & Home	72.2	N/A	25.4	N/A	0.94	N/A	10	0	
Ag. Land Only	5.5	N/A	16.8	N/A	0.95	N/A	23	4	
Ag. w/Impr.'s	5.5	N/A	27.2	N/A	0.93	N/A	26	2	
Other/Ex./Ut./NP/Mix-Use	131.3	N/A	25.7	N/A	1.01	N/A	4	0	
TOTAL w/ AG. & FARM	99.8	N/A	18.9	N/A	1.03	N/A	169	29	
TOTAL MARKET	106.2	N/A	14.2	N/A	1.02	N/A	133	12	

071 - OSBORNE									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	84.2	78.6 to 98.1	24.5	19.1 to 34.4	1.04	0.97 to 1.13	36	2	
Comm./Ind. S-4	80.5	56.4 to 150.5	39.2	20.6 to 105.5	1.15	1.03 to 1.61	6	0	
Vac. Lot	71.7	N/A		N/A		N/A	1	0	
Farm & Home	14.1	N/A		N/A		N/A	1	0	
Ag. Land Only	5.7	N/A	56.8	N/A	1.10	N/A	8	0	
Ag. w/Impr.'s	5.7	N/A	56.8	N/A	1.10	N/A	8	0	
Other/Ex./Ut./NP/Mix-Use	27.5	N/A		N/A		N/A	1	0	
TOTAL w/ AG. & FARM	80.0	N/A	40.7	N/A	1.84	N/A	53	1	
TOTAL MARKET	81.7	N/A	25.5	N/A	1.07	N/A	44	3	

072 - OTTAWA									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	97.1	94.0 to 100.5	8.4	6.6 to 11.2	1.01	0.99 to 1.03	47	6	
Comm./Ind. S-8	100.3	58.8 to 117.8	23.0	11.3 to 47.6	1.09	0.90 to 1.32	9	0	
Vac. Lot	94.5	N/A	39.2	N/A	1.33	N/A	6	0	
Farm & Home	94.5	N/A	10.7	N/A	1.05	N/A	3	0	
Ag. Land Only	9.0	N/A	54.0	N/A	1.19	N/A	16	0	
Ag. w/Impr.'s	9.3	N/A	50.0	N/A	1.17	N/A	19	0	
Other/Ex./Ut./NP/Mix-Use							0		
TOTAL w/ AG. & FARM	93.1	N/A	35.7	N/A	1.29	N/A	84	0	
TOTAL MARKET	96.8	N/A	8.5	N/A	1.01	N/A	62	12	

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

073 - PAWNEE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	98.4	94.7 to 106.9	14.3	11.2 to 18.6	1.04	1.01 to 1.08	59	7
Comm./Ind. S-3	100.9	49.4 to 105.1	22.0	6.9 to 54.7	1.14	0.87 to 1.50	8	0
Vac. Lot	317.1	N/A	55.8	N/A	1.81	N/A	2	0
Farm & Home	26.4	N/A	7.2	N/A	1.01	N/A	2	0
Ag. Land Only	8.0	N/A	35.8	N/A	1.12	N/A	12	0
Ag. w/Impr.'s	8.1	N/A	40.8	N/A	1.13	N/A	13	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	94.8	N/A	27.3	N/A	1.25	N/A	84	12
TOTAL MARKET	99.3	N/A	14.1	N/A	1.14	N/A	69	10

074 - PHILLIPS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.4	84.8 to 99.7	16.7	12.3 to 21.9	1.06	1.03 to 1.11	38	2
Comm./Ind. S-5	76.6	65.5 to 97.3	17.8	12.8 to 27.3	1.05	0.99 to 1.17	7	0
Vac. Lot	325.9	N/A	96.4	N/A	3.61	N/A	2	0
Farm & Home	27.6	N/A		N/A		N/A	1	0
Ag. Land Only	7.4	N/A	54.7	N/A	1.93	N/A	3	0
Ag. w/Impr.'s	6.6	N/A	51.7	N/A	1.70	N/A	4	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	87.6	N/A	22.2	N/A	1.10	N/A	52	6
TOTAL MARKET	95.6	N/A	17.2	N/A	1.05	N/A	47	5

075 - POTTAWATOMIE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.9	96.4 to 100.0	7.1	6.2 to 8.1	1.01	1.00 to 1.01	173	24
Comm./Ind.	82.5	77.3 to 110.0	17.7	11.9 to 24.9	1.07	0.95 to 1.21	10	0
Vac. Lot	56.5	N/A	34.4	N/A	1.08	N/A	33	1
Farm & Home	70.7	N/A	35.9	N/A	1.08	N/A	12	0
Ag. Land Only	0.6	N/A	57.1	N/A	0.88	N/A	30	5
Ag. w/Impr.'s	0.7	N/A	250.2	N/A	0.49	N/A	37	3
Other/Ex./Ut./NP/Mix-Use	191.2	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	93.8	N/A	20.8	N/A	0.99	N/A	266	32
TOTAL MARKET	96.1	N/A	11.0	N/A	1.00	N/A	217	30

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

076 - PRATT								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	101.0	98.7 to 103.8	12.2	10.2 to 14.8	1.03	1.01 to 1.05	92	5
Comm./Ind.	98.9	87.5 to 143.8	23.9	10.9 to 61.1	1.19	1.02 to 1.59	7	0
Vac. Lot	11.2	N/A		N/A		N/A	1	0
Farm & Home	90.7	N/A	30.8	N/A	1.12	N/A	4	0
Ag. Land Only	9.0	N/A	32.5	N/A	0.94	N/A	10	1
Ag. w/Impr.'s	8.9	N/A	38.6	N/A	0.91	N/A	11	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	99.2	N/A	13.8	N/A	1.12	N/A	115	16
TOTAL MARKET	100.3	N/A	11.9	N/A	1.12	N/A	100	9

077 - RAWLINS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	92.9	81.3 to 100.0	14.7	11.0 to 22.5	1.06	1.02 to 1.11	22	1
Comm./Ind. S-4	86.4	63.5 to 100.1	14.4	5.2 to 27.3	1.00	0.94 to 1.06	6	0
Vac. Lot	136.0	N/A	56.4	N/A	1.69	N/A	2	0
Farm & Home	88.7	N/A	17.4	N/A	1.20	N/A	2	0
Ag. Land Only	2.2	N/A	12.5	N/A	0.99	N/A	5	0
Ag. w/Impr.'s	2.2	N/A	12.5	N/A	0.99	N/A	5	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	86.1	N/A	15.9	N/A	1.05	N/A	37	7
TOTAL MARKET	87.8	N/A	15.7	N/A	1.03	N/A	30	2

078 - RENO								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.6	93.8 to 99.9	12.6	11.1 to 14.4	1.01	1.00 to 1.03	186	22
Comm./Ind.	95.8	85.9 to 107.9	20.0	16.1 to 25.5	1.04	0.97 to 1.15	45	4
Vac. Lot	96.7	N/A	68.3	N/A	1.36	N/A	45	3
Farm & Home	49.0	N/A	38.6	N/A	0.99	N/A	22	1
Ag. Land Only	6.5	N/A	66.4	N/A	1.14	N/A	51	2
Ag. w/Impr.'s	6.5	N/A	64.9	N/A	1.12	N/A	59	3
Other/Ex./Ut./NP/Mix-Use	98.1	N/A	28.4	N/A	1.20	N/A	2	0
TOTAL w/ AG. & FARM	91.0	N/A	35.9	N/A	1.09	N/A	359	22
TOTAL MARKET	97.4	N/A	16.5	N/A	1.01	N/A	278	37

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

079 - REPUBLIC								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	103.0	94.8 to 112.5	16.9	13.4 to 22.1	1.07	1.02 to 1.14	47	3
Comm./Ind.	89.5	37.7 to 112.5	28.0	9.1 to 88.7	1.10	0.99 to 1.39	6	0
Vac. Lot	96.0	N/A	46.2	N/A	2.10	N/A	7	0
Farm & Home	18.4	N/A	53.9	N/A	1.51	N/A	2	0
Ag. Land Only	6.3	N/A	37.6	N/A	1.32	N/A	12	0
Ag. w/Impr.'s	6.4	N/A	37.0	N/A	1.30	N/A	13	0
Other/Ex./Ut./NP/Mix-Use	15.5	N/A	N/A	N/A	N/A	N/A	1	0
TOTAL w/ AG. & FARM	93.1	N/A	40.2	N/A	2.15	N/A	76	1
TOTAL MARKET	101.8	N/A	18.2	N/A	1.07	N/A	61	7

080 - RICE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.3	95.9 to 99.7	11.0	9.1 to 13.2	1.00	0.98 to 1.02	102	7
Comm./Ind. S-10	105.2	78.5 to 142.5	30.8	21.8 to 53.4	1.18	0.99 to 1.59	15	0
Vac. Lot	64.6	N/A	68.0	N/A	0.97	N/A	7	0
Farm & Home	56.7	N/A	72.9	N/A	0.98	N/A	7	1
Ag. Land Only	9.1	N/A	58.7	N/A	1.11	N/A	21	0
Ag. w/Impr.'s	9.1	N/A	56.9	N/A	1.10	N/A	22	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	95.1	N/A	24.7	N/A	1.19	N/A	153	15
TOTAL MARKET	97.2	N/A	12.9	N/A	1.00	N/A	124	14

081 - RILEY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.6	100.0 to 102.6	7.6	6.9 to 8.6	1.02	1.01 to 1.04	233	15
Comm./Ind.	103.5	76.9 to 112.2	14.2	10.9 to 18.8	0.95	0.90 to 1.01	9	1
Vac. Lot	29.7	N/A	26.7	N/A	1.05	N/A	87	12
Farm & Home	90.3	N/A	23.5	N/A	1.04	N/A	6	0
Ag. Land Only	1.2	N/A	104.2	N/A	1.00	N/A	14	1
Ag. w/Impr.'s	1.5	N/A	84.4	N/A	0.82	N/A	17	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	96.7	N/A	28.5	N/A	0.88	N/A	352	3
TOTAL MARKET	97.4	N/A	13.5	N/A	0.97	N/A	329	60

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

082 - ROOKS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	93.5	84.0 to 98.8	19.6	15.5 to 24.7	1.12	1.06 to 1.19	58	2
Comm./Ind.	51.0	43.2 to 97.5	38.3	25.7 to 48.8	0.89	0.71 to 1.04	6	0
Vac. Lot	88.2	N/A	3.2	N/A	1.03	N/A	3	0
Farm & Home							0	
Ag. Land Only	4.9	N/A	51.1	N/A	1.07	N/A	6	0
Ag. w/Impr.'s	6.5	N/A	44.5	N/A	0.98	N/A	8	0
Other/Ex./Ut./NP/Mix-Use	11.6	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	87.9	N/A	28.1	N/A	1.19	N/A	76	4
TOTAL MARKET	92.1	N/A	20.9	N/A	1.10	N/A	68	3

083 - RUSH								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	94.6	90.0 to 103.5	16.0	11.7 to 22.4	1.02	0.97 to 1.07	36	3
Comm./Ind. S-10	82.3	70.3 to 107.8	27.4	16.4 to 81.0	0.98	0.90 to 1.19	11	1
Vac. Lot	82.0	N/A		N/A		N/A	1	0
Farm & Home							0	
Ag. Land Only	3.5	N/A	30.9	N/A	1.19	N/A	5	0
Ag. w/Impr.'s	4.2	N/A	30.9	N/A	1.19	N/A	6	1
Other/Ex./Ut./NP/Mix-Use	40.5	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	90.0	N/A	22.6	N/A	1.02	N/A	55	7
TOTAL MARKET	94.2	N/A	17.3	N/A	1.05	N/A	49	6

084 - RUSSELL								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.0	89.5 to 99.0	16.3	13.7 to 19.5	1.04	1.02 to 1.07	94	7
Comm./Ind. S-8	89.3	85.3 to 126.5	30.7	21.5 to 56.9	1.11	0.98 to 1.33	13	0
Vac. Lot	80.0	N/A	39.9	N/A	0.79	N/A	11	2
Farm & Home	54.1	N/A	32.0	N/A	1.01	N/A	5	0
Ag. Land Only	6.0	N/A	38.1	N/A	1.07	N/A	10	0
Ag. w/Impr.'s	5.9	N/A	35.3	N/A	1.06	N/A	11	0
Other/Ex./Ut./NP/Mix-Use	145.6	N/A	23.3	N/A	1.14	N/A	3	0
TOTAL w/ AG. & FARM	89.5	N/A	22.5	N/A	1.06	N/A	137	20
TOTAL MARKET	94.6	N/A	21.0	N/A	1.05	N/A	121	8

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

085 - SALINE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.7	102.3 to 107.6	10.5	9.4 to 11.8	1.03	1.02 to 1.05	237	20
Comm./Ind.	115.0	100.0 to 131.5	22.4	17.5 to 30.1	1.04	0.96 to 1.15	35	3
Vac. Lot	97.7	N/A	26.7	N/A	1.89	N/A	9	0
Farm & Home	103.1	N/A	24.2	N/A	1.15	N/A	11	1
Ag. Land Only	1.9	N/A	132.6	N/A	0.63	N/A	40	2
Ag. w/Impr.'s	2.4	N/A	137.8	N/A	0.67	N/A	42	2
Other/Ex./Ut./NP/Mix-Use	79.1	N/A	20.5	N/A	1.02	N/A	4	0
TOTAL w/ AG. & FARM	102.2	N/A	12.5	N/A	1.03	N/A	338	67
TOTAL MARKET	104.7	N/A	12.2	N/A	1.03	N/A	285	25

086 - SCOTT								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	88.7	84.2 to 90.9	15.7	12.9 to 19.3	1.04	1.01 to 1.09	73	4
Comm./Ind.	71.7	44.6 to 85.8	23.7	12.1 to 44.3	0.93	0.82 to 1.06	7	0
Vac. Lot	80.0	N/A	21.4	N/A	1.02	N/A	7	0
Farm & Home	69.7	N/A		N/A		N/A	1	0
Ag. Land Only	5.1	N/A	11.9	N/A	1.02	N/A	6	0
Ag. w/Impr.'s	4.9	N/A	12.7	N/A	1.00	N/A	7	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	84.4	N/A	17.4	N/A	1.03	N/A	95	11
TOTAL MARKET	86.1	N/A	17.3	N/A	1.03	N/A	87	4

087 - SEDGWICK								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	100.9	98.9 to 103.2	11.7	10.5 to 13.1	1.07	1.03 to 1.13	331	46
Comm./Ind.	95.0	89.8 to 99.9	19.8	17.5 to 23.2	1.13	1.00 to 1.33	134	8
Vac. Lot	84.3	N/A	48.3	N/A	0.96	N/A	187	11
Farm & Home	80.1	N/A	24.4	N/A	1.13	N/A	55	3
Ag. Land Only	0.5	N/A	317.1	N/A	0.81	N/A	76	4
Ag. w/Impr.'s	0.6	N/A	337.2	N/A	0.80	N/A	81	4
Other/Ex./Ut./NP/Mix-Use	98.0	N/A	31.8	N/A	1.11	N/A	12	1
TOTAL w/ AG. & FARM	94.5	N/A	25.2	N/A	1.06	N/A	800	129
TOTAL MARKET	97.9	N/A	18.0	N/A	1.10	N/A	664	106

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

088 - SEWARD								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	99.3	96.7 to 101.7	8.9	7.8 to 10.2	1.02	1.01 to 1.03	147	8
Comm./Ind.	78.6	65.8 to 82.0	10.8	6.6 to 18.4	1.05	1.02 to 1.11	8	0
Vac. Lot							0	
Farm & Home	35.1	N/A	81.7	N/A	1.05	N/A	2	0
Ag. Land Only	4.5	N/A	82.2	N/A	0.64	N/A	4	0
Ag. w/Impr.'s	4.5	N/A	82.2	N/A	0.64	N/A	4	0
Other/Ex./Ut./NP/Mix-Use	31.9	N/A	26.8	N/A	1.00	N/A	3	0
TOTAL w/ AG. & FARM	97.5	N/A	9.6	N/A	1.02	N/A	164	17
TOTAL MARKET	97.7	N/A	8.9	N/A	1.01	N/A	158	15

089 - SHAWNEE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	103.6	102.4 to 105.6	9.1	8.2 to 10.1	1.02	1.00 to 1.03	339	52
Comm./Ind.	104.7	97.9 to 123.2	23.3	18.3 to 31.4	1.04	0.96 to 1.13	42	3
Vac. Lot	85.7	N/A	50.7	N/A	1.04	N/A	103	10
Farm & Home	85.7	N/A	12.8	N/A	1.04	N/A	10	0
Ag. Land Only	4.2	N/A	109.1	N/A	2.55	N/A	22	1
Ag. w/Impr.'s	5.2	N/A	69.7	N/A	2.59	N/A	24	1
Other/Ex./Ut./NP/Mix-Use	89.7	N/A	32.7	N/A	0.89	N/A	7	0
TOTAL w/ AG. & FARM	101.9	N/A	15.2	N/A	1.02	N/A	525	102
TOTAL MARKET	102.8	N/A	13.1	N/A	1.02	N/A	491	95

090 - SHERIDAN								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	90.1	77.9 to 106.4	19.3	14.9 to 25.8	1.10	1.06 to 1.16	25	0
Comm./Ind. S-2	86.9	49.3 to 232.2	23.2	9.8 to 43.0	1.29	1.14 to 1.66	6	1
Vac. Lot	55.0	N/A	11.2	N/A	1.04	N/A	3	0
Farm & Home	43.2	N/A	34.9	N/A	1.14	N/A	4	0
Ag. Land Only	3.3	N/A	10.2	N/A	1.02	N/A	8	0
Ag. w/Impr.'s	3.3	N/A	9.9	N/A	1.02	N/A	10	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	75.7	N/A	44.1	N/A	1.99	N/A	48	1
TOTAL MARKET	88.2	N/A	22.3	N/A	1.10	N/A	34	1

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

091 : SHERMAN COUNTY									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	95.9	90.7 to 100.0	12.8	11.0 to 15.3	1.03	1.01 to 1.06	103	8	
Comm./Ind.	100.0	75.5 to 117.9	14.3	6.6 to 25.6	1.01	0.93 to 1.17	7	0	
Vacant Lot	1808.9	N/A		N/A		N/A	1	0	
Farm & Home	19.2	N/A	32.9	N/A	1.14	N/A	4	0	
Ag. Land Only	2.8	N/A	20.6	N/A	0.94	N/A	12	0	
Ag. (Impr.+ Land)	3.2	N/A	20.3	N/A	0.94	N/A	15	2	
Other/Ex/Ut/NP/M							0		
Total w/Ag.&F&H	92.1	N/A	14.5	N/A	1.03	N/A	130	24	
Total Market	96.3	N/A	12.9	N/A	1.03	N/A	111	9	

092 - SMITH									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	100.0	89.4 to 114.5	24.0	19.3 to 31.5	1.07	1.02 to 1.14	41	3	
Comm./Ind. S-3	69.0	46.1 to 150.9	50.0	23.4 to 112.9	1.22	1.05 to 1.63	7	0	
Vac. Lot	96.7	N/A		N/A		N/A	1	0	
Farm & Home	26.2	N/A	42.8	N/A	1.17	N/A	5	0	
Ag. Land Only	5.7	N/A	27.0	N/A	0.92	N/A	10	0	
Ag. w/Impr.'s	5.7	N/A	27.0	N/A	0.92	N/A	10	0	
Other/Ex./Ut./NP/Mix-Use	78.6	N/A		N/A		N/A	1	0	
TOTAL w/ AG. & FARM	85.1	N/A	43.7	N/A	1.58	N/A	65	3	
TOTAL MARKET	95.9	N/A	27.2	N/A	1.07	N/A	50	3	

093 - STAFFORD									
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales	
Residential	93.1	79.0 to 101.5	24.7	18.6 to 33.5	1.10	1.01 to 1.25	37	1	
Comm./Ind. S-5	81.3	40.6 to 114.8	23.5	11.7 to 54.0	1.03	0.90 to 1.26	9	1	
Vac. Lot							0		
Farm & Home	129.9	N/A	11.7	N/A	1.07	N/A	2	0	
Ag. Land Only	7.4	N/A	74.3	N/A	1.17	N/A	22	0	
Ag. w/Impr.'s	7.4	N/A	74.3	N/A	1.17	N/A	22	0	
Other/Ex./Ut./NP/Mix-Use							0		
TOTAL w/ AG. & FARM	76.5	N/A	52.9	N/A	2.03	N/A	70	1	
TOTAL MARKET	92.3	N/A	24.4	N/A	1.10	N/A	46	3	

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

094 - STANTON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.7	53.8 to 162.8	34.5	21.5 to 67.9	1.09	1.01 to 1.24	9	1
Comm./Ind. S-7	104.4	92.4 to 151.5	22.4	12.4 to 46.8	1.05	0.97 to 1.17	7	1
Vac. Lot	61.3	N/A	50.8	N/A	0.90	N/A	2	0
Farm & Home	83.5	N/A		N/A		N/A	1	0
Ag. Land Only	5.4	N/A	11.7	N/A	1.03	N/A	10	1
Ag. w/Impr.'s	5.4	N/A	11.7	N/A	1.03	N/A	10	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	74.8	N/A	75.2	N/A	1.60	N/A	29	2
TOTAL MARKET	96.7	N/A	30.3	N/A	1.03	N/A	18	2

095 - STEVENS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.5	88.9 to 99.7	11.0	7.7 to 15.7	1.02	0.99 to 1.05	28	2
Comm./Ind. S-4	82.4	58.5 to 122.7	27.4	15.8 to 58.1	1.09	1.02 to 1.25	6	0
Vac. Lot	12.4	N/A		N/A		N/A	1	0
Farm & Home	94.5	N/A	10.0	N/A	0.98	N/A	2	0
Ag. Land Only	4.5	N/A	41.8	N/A	1.05	N/A	8	1
Ag. w/Impr.'s	4.9	N/A	35.4	N/A	1.04	N/A	9	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	88.9	N/A	19.4	N/A	0.99	N/A	46	7
TOTAL MARKET	93.6	N/A	14.0	N/A	1.02	N/A	35	3

096 - SUMNER								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	104.3	100.4 to 109.6	18.8	16.2 to 22.0	1.04	1.01 to 1.06	171	21
Comm./Ind.	78.1	56.5 to 135.0	47.2	33.6 to 72.0	1.11	0.99 to 1.25	16	0
Vac. Lot	131.1	N/A	51.6	N/A	1.46	N/A	18	2
Farm & Home	73.2	N/A	26.1	N/A	0.93	N/A	11	0
Ag. Land Only	5.6	N/A	35.3	N/A	1.61	N/A	26	3
Ag. w/Impr.'s	5.9	N/A	34.9	N/A	1.56	N/A	32	4
Other/Ex./Ut./NP/Mix-Use	104.5	N/A	41.0	N/A	1.18	N/A	2	0
TOTAL w/ AG. & FARM	99.3	N/A	35.5	N/A	1.45	N/A	250	19
TOTAL MARKET	104.0	N/A	24.6	N/A	1.06	N/A	207	19

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

097 - THOMAS								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	96.1	94.0 to 98.4	9.6	8.1 to 11.2	1.02	1.00 to 1.04	112	9
Comm./Ind.	99.1	72.3 to 123.4	17.9	11.8 to 28.4	1.07	0.95 to 1.26	9	0
Vac. Lot	82.9	N/A	28.2	N/A	1.77	N/A	4	0
Farm & Home	56.6	N/A	65.6	N/A	0.87	N/A	2	0
Ag. Land Only	3.2	N/A	36.7	N/A	1.05	N/A	12	0
Ag. w/Impr.'s	3.2	N/A	33.7	N/A	1.05	N/A	14	0
Other/Ex./Ut./NP/Mix-Use	67.4	N/A	31.0	N/A	1.13	N/A	2	0
TOTAL w/ AG. & FARM	94.2	N/A	11.4	N/A	1.02	N/A	143	22
TOTAL MARKET	95.9	N/A	10.6	N/A	1.02	N/A	127	10

098 - TREGO								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	91.8	86.6 to 95.9	14.7	11.4 to 19.9	0.98	0.94 to 1.02	40	3
Comm./Ind. S-6	68.7	37.4 to 126.4	54.3	30.1 to 108.1	1.44	1.05 to 2.08	7	1
Vac. Lot	47.5	N/A	49.3	N/A	1.32	N/A	4	0
Farm & Home	11.8	N/A	51.6	N/A	1.24	N/A	3	0
Ag. Land Only	5.0	N/A	31.9	N/A	1.19	N/A	9	0
Ag. w/Impr.'s	5.1	N/A	33.8	N/A	1.19	N/A	10	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	81.9	N/A	40.8	N/A	1.62	N/A	64	2
TOTAL MARKET	89.2	N/A	20.4	N/A	0.99	N/A	51	4

099 - WABAUNSEE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.0	90.4 to 101.5	17.2	14.0 to 21.6	0.98	0.95 to 1.02	62	1
Comm./Ind. S-3	108.4	69.6 to 135.9	22.7	11.4 to 43.1	0.97	0.90 to 1.01	6	0
Vac. Lot	108.9	N/A	51.5	N/A	1.91	N/A	3	0
Farm & Home	66.2	N/A	26.1	N/A	0.98	N/A	11	0
Ag. Land Only	3.2	N/A	56.0	N/A	0.90	N/A	11	1
Ag. w/Impr.'s	3.2	N/A	56.0	N/A	0.90	N/A	11	1
Other/Ex./Ut./NP/Mix-Use	40.3	N/A		N/A		N/A	1	0
TOTAL w/ AG. & FARM	89.6	N/A	27.4	N/A	1.05	N/A	94	6
TOTAL MARKET	97.5	N/A	18.7	N/A	1.01	N/A	72	2

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

Comm./Ind - 85% Level of Confidence								
100 - WALLACE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	98.6	90.5 to 105.7	13.9	8.2 to 21.0	1.06	1.01 to 1.15	16	0
Comm./Ind. S-4	105.2	66.1 to 107.0	10.9	0.9 to 25.1	1.00	0.94 to 1.01	4	0
Vac. Lot	33.8	N/A	36.6	N/A	0.87	N/A	4	0
Farm & Home	94.5	N/A	15.4	N/A	0.90	N/A	2	0
Ag. Land Only	3.8	N/A	25.0	N/A	1.12	N/A	10	0
Ag. w/Impr.'s	3.8	N/A	25.0	N/A	1.12	N/A	10	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	80.0	N/A	49.2	N/A	2.16	N/A	36	0
TOTAL MARKET	97.3	N/A	17.2	N/A	1.01	N/A	24	2
101 - WASHINGTON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	108.0	101.8 to 115.1	17.3	13.6 to 22.2	1.06	1.00 to 1.15	55	6
Comm./Ind.	74.1	38.2 to 91.4	29.6	12.9 to 93.7	0.87	0.64 to 1.11	7	0
Vac. Lot	46.8	N/A	223.4	N/A	3.21	N/A	4	0
Farm & Home	56.9	N/A	55.4	N/A	1.68	N/A	2	0
Ag. Land Only	7.2	N/A	26.8	N/A	1.09	N/A	14	2
Ag. w/Impr.'s	7.7	N/A	31.0	N/A	1.11	N/A	15	2
Other/Ex./Ut./NP/Mix-Use	33.3	N/A	72.5	N/A	0.86	N/A	2	0
TOTAL w/ AG. & FARM	94.7	N/A	43.5	N/A	1.62	N/A	85	4
TOTAL MARKET	105.5	N/A	22.9	N/A	1.05	N/A	68	8
102 - WICHITA								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	103.5	94.1 to 116.7	9.0	4.7 to 16.8	1.04	1.00 to 1.15	10	1
Comm./Ind. S-2	90.6	66.5 to 112.6	18.0	8.4 to 39.0	1.10	1.05 to 1.22	6	0
Vac. Lot							0	
Farm & Home	58.1	N/A	27.8	N/A	1.19	N/A	2	0
Ag. Land Only	4.6	N/A	15.9	N/A	1.02	N/A	8	0
Ag. w/Impr.'s	4.2	N/A	18.5	N/A	1.06	N/A	9	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	76.9	N/A	53.3	N/A	2.55	N/A	27	0
TOTAL MARKET	97.9	N/A	11.3	N/A	1.05	N/A	16	2

(Confidence Intervals have been calculated only on the Residential and Commercial Subclass)

S – Supplemental Sales

Median Ratio = 90.0 to 110.0

COD = 20.0 or Less

T – Time Trended

PRD = .98 to 1.03

103 - WILSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	102.0	96.0 to 112.2	17.4	14.9 to 21.1	1.04	1.02 to 1.09	75	9
Comm./Ind.	119.3	98.0 to 140.2	14.4	7.7 to 31.8	1.04	1.02 to 1.16	8	1
Vac. Lot	107.2	N/A	61.5	N/A	1.97	N/A	14	2
Farm & Home	65.7	N/A	23.0	N/A	1.02	N/A	4	0
Ag. Land Only	3.9	N/A	56.3	N/A	1.15	N/A	9	0
Ag. w/Impr.'s	3.9	N/A	71.1	N/A	1.20	N/A	11	0
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	99.2	N/A	23.5	N/A	1.11	N/A	112	20
TOTAL MARKET	104.4	N/A	18.3	N/A	1.06	N/A	97	14

104 - WOODSON								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	97.4	88.5 to 114.5	25.6	18.6 to 37.4	1.05	0.99 to 1.15	34	4
Comm./Ind.	95.0	88.9 to 108.7	10.4	5.9 to 19.4	1.05	0.99 to 1.16	8	1
Vac. Lot	40.0	N/A	53.7	N/A	1.48	N/A	3	0
Farm & Home	48.6	N/A	56.8	N/A	1.24	N/A	7	0
Ag. Land Only	3.9	N/A	20.2	N/A	1.02	N/A	2	0
Ag. w/Impr.'s	7.5	N/A	57.7	N/A	1.47	N/A	11	1
Other/Ex./Ut./NP/Mix-Use							0	
TOTAL w/ AG. & FARM	88.9	N/A	42.1	N/A	1.66	N/A	63	4
TOTAL MARKET	94.1	N/A	23.4	N/A	1.05	N/A	45	5

105 - WYANDOTTE								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential	107.0	104.3 to 112.5	19.1	16.7 to 21.9	1.05	1.03 to 1.08	225	33
Comm./Ind.	93.8	79.7 to 101.3	34.9	27.8 to 48.7	1.02	0.84 to 1.25	52	3
Vac. Lot	78.5	N/A	52.6	N/A	0.91	N/A	28	2
Farm & Home	69.1	N/A	35.0	N/A	1.10	N/A	6	0
Ag. Land Only	0.1	N/A	10.2	N/A	1.06	N/A	13	2
Ag. w/Impr.'s	0.1	N/A	10.2	N/A	1.06	N/A	13	2
Other/Ex./Ut./NP/Mix-Use	129.9	N/A	17.4	N/A	1.00	N/A	5	0
TOTAL w/ AG. & FARM	102.2	N/A	23.8	N/A	1.10	N/A	330	56
TOTAL MARKET	104.7	N/A	24.2	N/A	1.10	N/A	311	40

County Summary - Final Ratio Study 2011								
STATE TOTALS COUNTY								
PROPERTY CLASS	Median Ratio	Confidence Interval	COD	Confidence Interval	PRD	Confidence Interval	Valid Sales	Trim Sales
Residential*	100.9	N/A	11.4	N/A	1.03	N/A	10,579	981
Commercial/Industrial*	95.3	N/A	24.4	N/A	1.09	N/A	1,306	57
Vacant Lot	87.9	N/A	46.9	N/A	1.07	N/A	1,476	140
Farm & Home	63.7	N/A	41.8	N/A	1.10	N/A	836	10
Ag. Land Only	3.3	N/A	92.4	N/A	0.91	N/A	1,695	61
Ag. (Impr.+ Land)	3.8	N/A	86.9	N/A	0.92	N/A	1,914	90
Other/Ex/Ut/NP/M	89.8	N/A	36.0	N/A	0.98	N/A	122	7
Total w/Ag.&F&H	96.0	N/A	18.4	N/A	1.04	N/A	16,234	2,973
Total Market	99.6	N/A	14.4	N/A	1.04	N/A	13,484	1,691

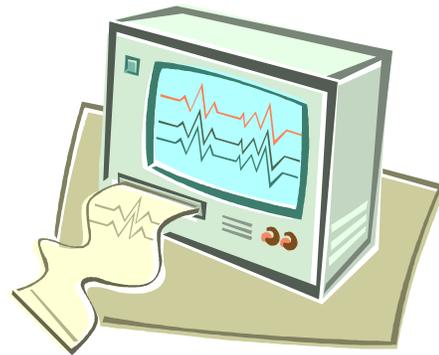
Confidence Intervals have not been computed for statewide totals.

*Subclass measures weighted by parcel count.

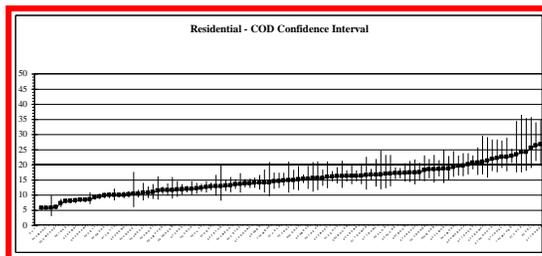
**Approximately 270 supplemental sales included in the commercial subclass.

Time trending

Miami County applied for a time trend on the residential subclass for 2011.



Charts & Graphs



Charts and Graphs

Overview

The summary statistics provided in this ratio study report include the standard industry measures used to evaluate appraisal performance: these consist of the Median Ratio, Coefficient of Dispersion (*COD*), Price-Related Differential (*PRD*) and their confidence intervals. This study also uses trended sales prices and supplemental sales where needed. Additional sales validation documentation has been reviewed and outliers have been trimmed for the uniformity measurement (*COD*).

The information provided by this 2011 Final Ratio Study, *pages 15-49*, indicates that a large portion of the residential and commercial/industrial subclasses of property meet the important mass appraisal standards.

GRAPHICS:

The following pie charts depict an overall appraisal performance for residential and commercial properties based on accepted standards. Weighting calculations are based on the 2011 certified assessed values. These numbers are weighted by county abstract assessed valuation.

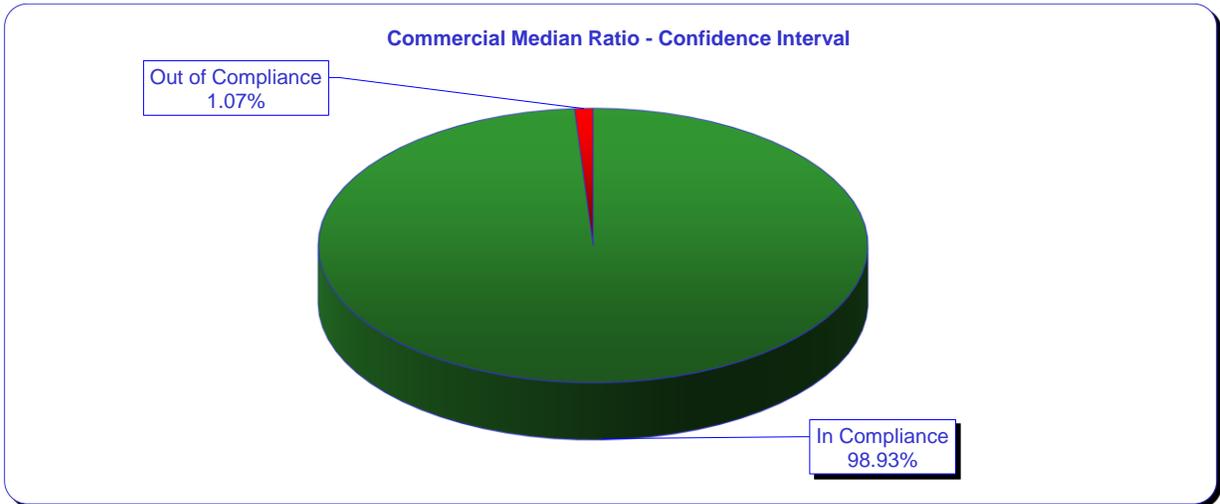
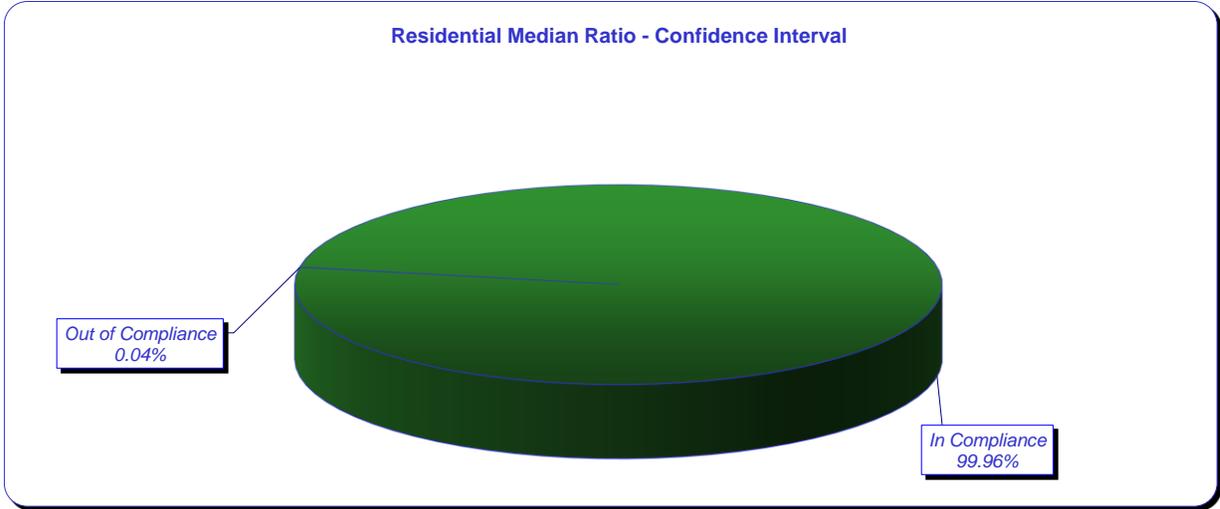
1. ***Exhibit I*** depicts the residential and commercial *median ratios*. The residential chart show that greater than 99 percent of the residential value statewide falls within a range of 90.0 percent to 110.0 percent. The commercial chart indicates that 98 percent of the commercial value statewide falls within the acceptable range of 90.0 percent to 110.0 percent, the recognized standard according to IAAO (*International Association of Assessing Officers*).
2. ***Exhibit II*** presents the residential and commercial *coefficient of dispersion (COD)*. The acceptable standard for Kansas is a range of 0 to 20.0 for the COD. This chart indicates that 99.9 percent of the residential property value and 87.8 percent of the commercial/industrial property values fall within counties with a COD of 20.0 or less.

3. **Exhibit III** is a display of residential and commercial appraisal bias. The *price-related differential* provides only an indication, not proof, of appraisal bias. When sample sizes are small, a price-related differential outside the acceptable range may occur simply because of random sampling error¹. The acceptable range for the PRD is between .98 and 1.03. This chart indicates that 64.8 percent of the commercial property value and greater than 94 percent of the residential property values fall within the acceptable range for the PRD.
4. Residential and commercial bar charts have been prepared to show the confidence interval widths for the Median Ratio, Coefficient of Dispersion (*COD*) and the Price-Related Differential (*PRD*). Confidence intervals provide a range of values that can be used to estimate performance measures for each county with a specified degree of probability. A county with many sales in the study will tend to have a more compressed confidence interval. A county with fewer sales and greater dispersion in the real estate market will tend to have wider confidence intervals.

¹ International Association of Assessing Officers, 1990. *Property appraisal & assessment administration*. Chicago: International Association of Assessing Officers.

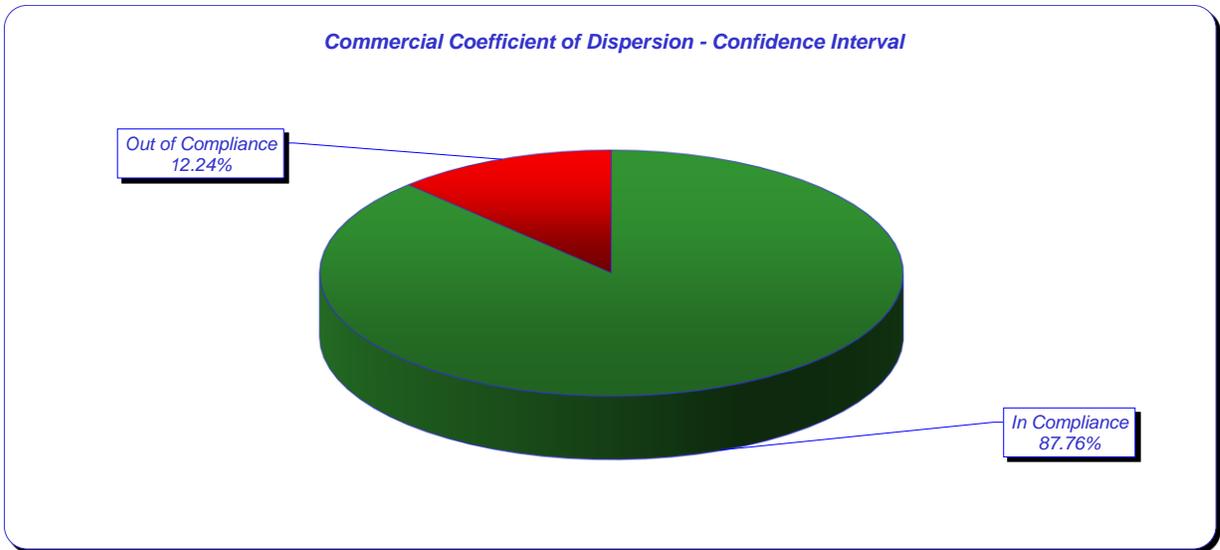
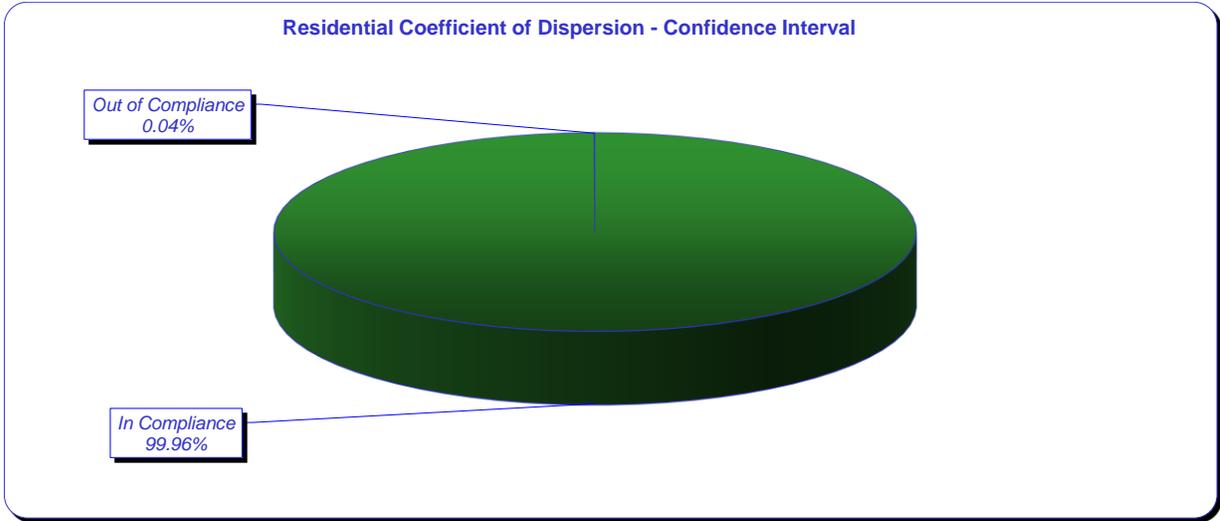
Pie Charts Based on 2011 Total Assessed Valuation

Exhibit I



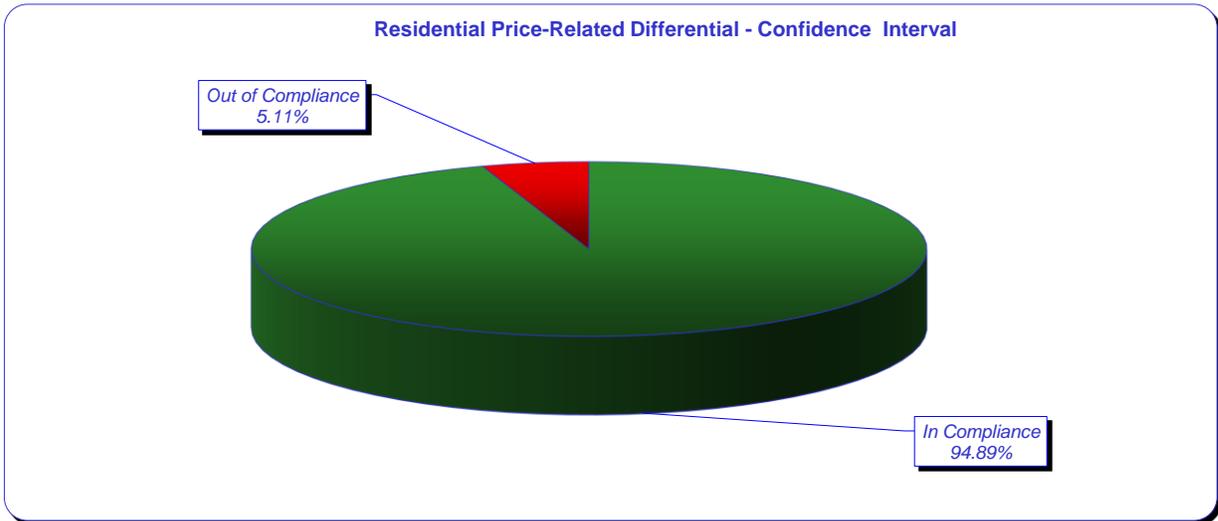
Pie Charts Based on 2011 Total Assessed Valuation

Exhibit II

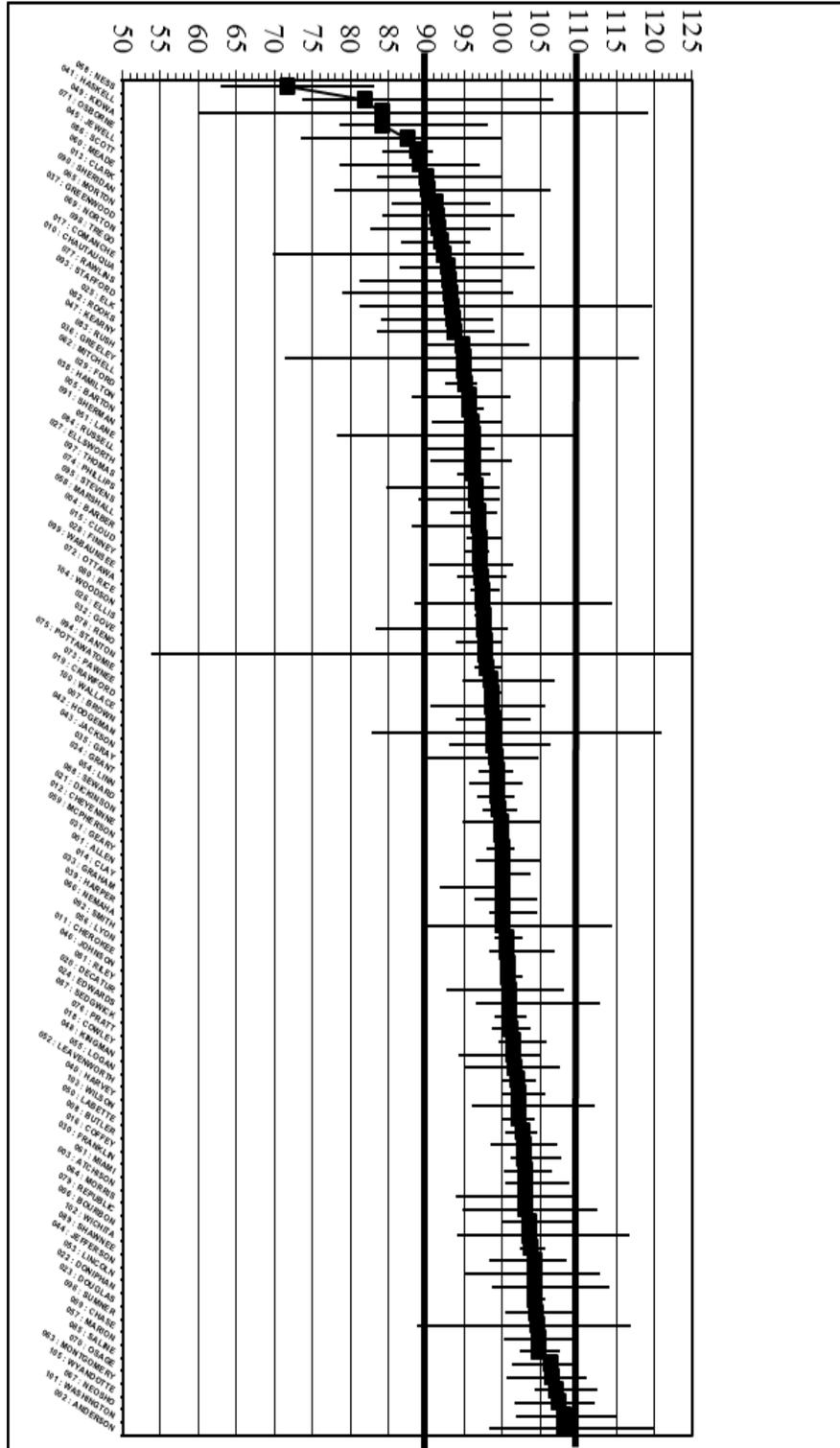


Pie Charts Based on 2011 Total Assessed Valuation

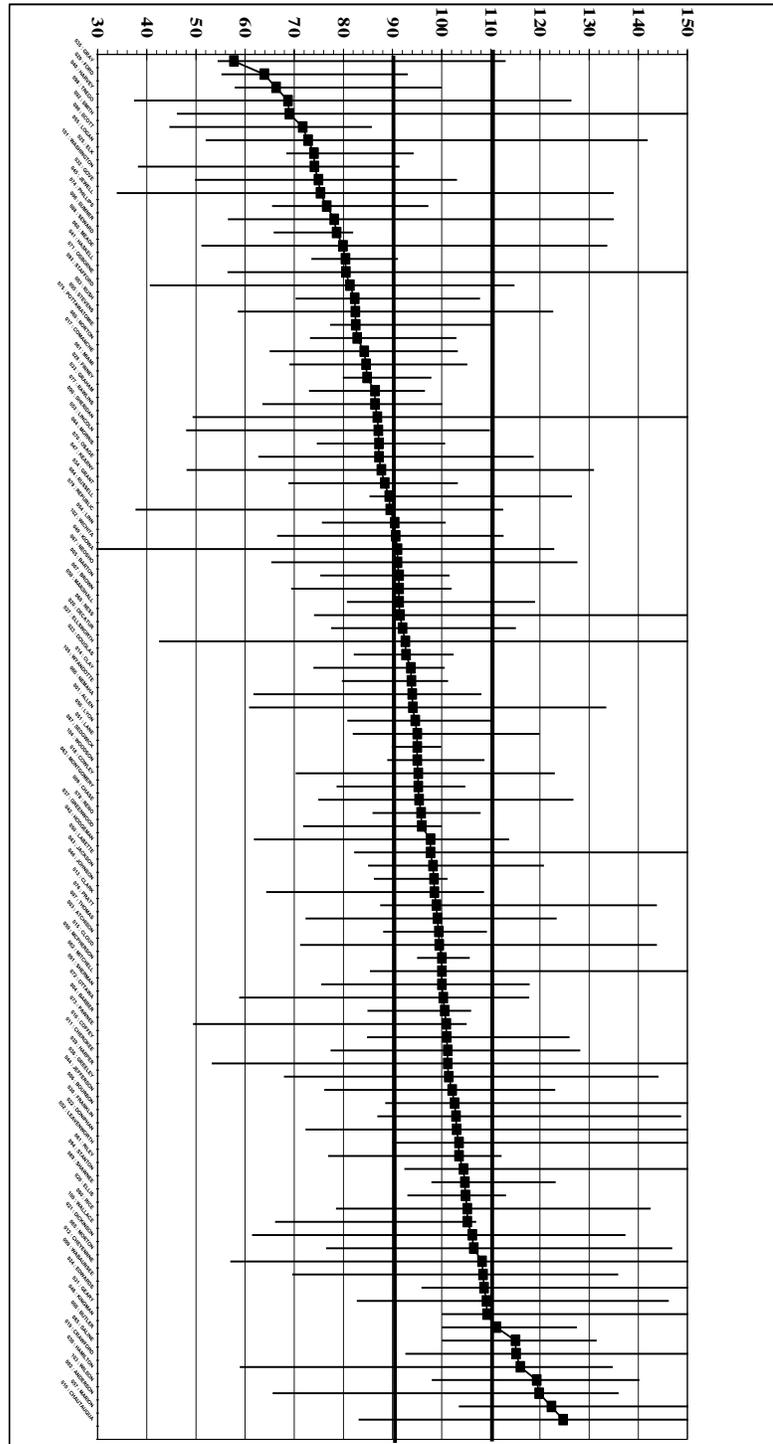
Exhibit III



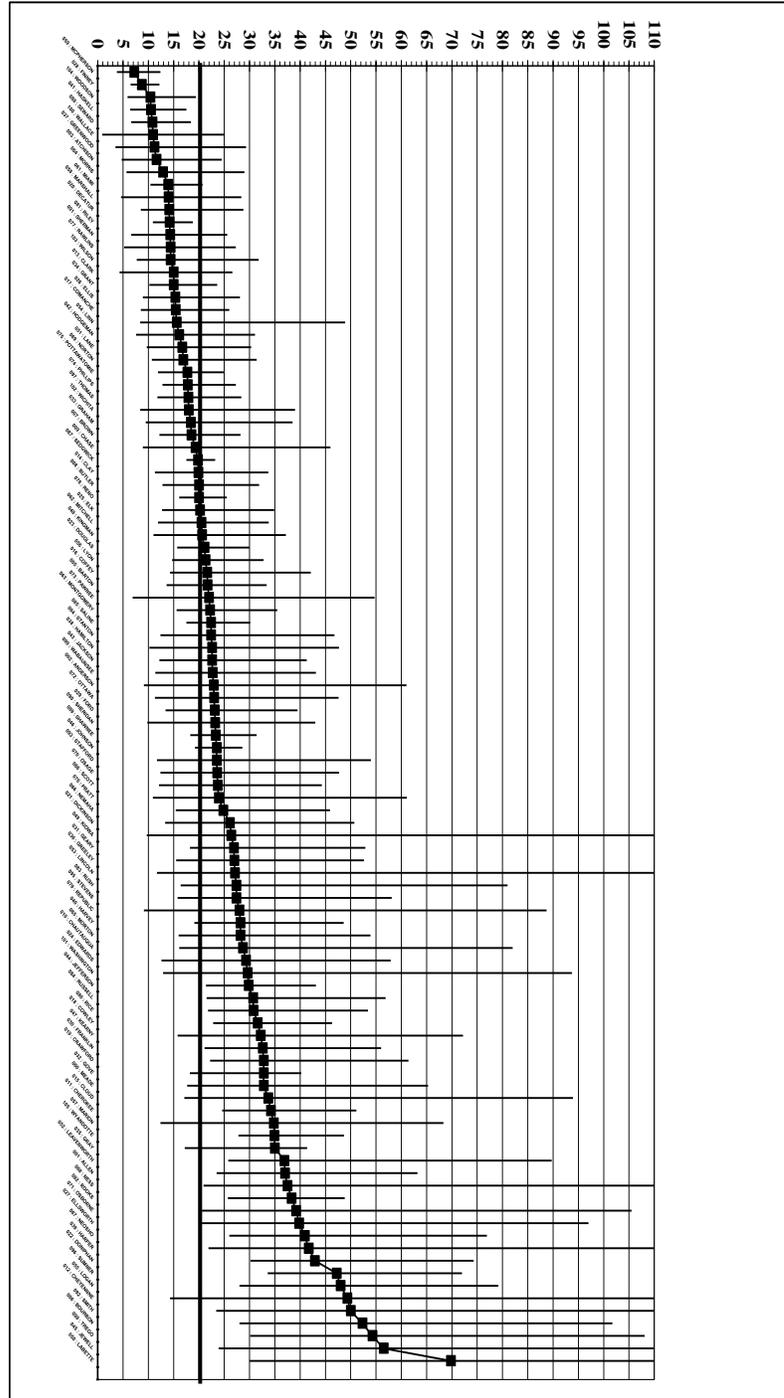
Residential – Median Ratio Confidence Interval



Commercial - Median Confidence Interval



Commercial – COD Confidence Interval



Detailed Statistics

Residential and Commercial/Industrial

Subclass



Detailed Statistics for the Commercial/Industrial & Residential Subclass

001 - ALLEN			002 - ANDERSON		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	107	11	Original Number of Sales	52	7
Number of Sales Trimmed	11	1	Number of Sales Trimmed	4	0
Number of Ratios: Outliers Removed	96	10	Number of Ratios: Outliers Removed	48	7
Minimum Ratio	34.5	52.9	Minimum Ratio	26.2	56.6
Maximum Ratio	572.3	323.1	Maximum Ratio	762.0	172.9
Minimum Sale Price	1,500	5,000	Minimum Sale Price	1,500	2,000
Maximum Sale Price	175,000	160,000	Maximum Sale Price	325,000	355,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	100.0	94.1	Median Ratio	108.1	119.8
Bootstrap Median Ratio	100.0	94.1	Bootstrap Median Ratio	108.1	119.8
Lower Median Confidence Interval	96.5	60.8	Lower Median Confidence Interval	98.2	65.6
Upper Median Confidence Interval	105.1	133.5	Upper Median Confidence Interval	119.9	136.0
Broadened Median Ratio (BMED)	100.4	91.5	Broadened Median Ratio (BMED)	108.2	120.0
Coefficient of Dispersion (COD)	19.6	37.0	Coefficient of Dispersion (COD)	21.8	22.9
Bootstrap Coefficient of Dispersion	19.5	33.0	Bootstrap Coefficient of Dispersion	21.2	21.7
Lower COD Confidence Interval	16.1	23.5	Lower COD Confidence Interval	17.5	9.1
Upper COD Confidence Interval	23.7	63.2	Upper COD Confidence Interval	29.0	61.0
Weighted Coefficient of Dispersion	15.2	24.7	Weighted Coefficient of Dispersion	17.2	33.4
Coefficient of Concentration @ 10%	38.3	18.2	Coefficient of Concentration @ 10%	30.8	42.9
Coefficient of Concentration @ 15%	50.5	27.3	Coefficient of Concentration @ 15%	42.3	57.1
Coefficient of Concentration @ 20%	57.0	27.3	Coefficient of Concentration @ 20%	53.8	57.1
Coefficient of Concentration @ 50%	81.3	81.8	Coefficient of Concentration @ 50%	84.6	85.7
Coefficient of Concentration @ 100%	92.5	90.9	Coefficient of Concentration @ 100%	96.2	100.0
Coefficient of Interquartile Deviation	17.8	38.6	Coefficient of Interquartile Deviation	19.6	29.4
Median Percent Deviation	14.1	40.9	Median Percent Deviation	18.2	13.5
Lower Quartile (25th Percentile)	89.5	60.8	Lower Quartile (25th Percentile)	89.0	65.6
Upper Quartile (75th Percentile)	125.2	133.5	Upper Quartile (75th Percentile)	131.4	136.0
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	0.61	0.82	Relative Skewness	-0.11	-0.16
Relative Kurtosis	3.40	2.64	Relative Kurtosis	3.67	2.11
Arithmetic Mean Ratio	103.6	96.2	Arithmetic Mean Ratio	107.0	113.0
Weighted Mean Ratio	96.3	86.4	Weighted Mean Ratio	103.1	83.8
Geometric Mean Ratio	100.2	88.8	Geometric Mean Ratio	101.9	106.0
Harmonic Mean Ratio	96.8	82.4	Harmonic Mean Ratio	94.7	98.5
Standard Deviation	26.8	41.9	Standard Deviation	30.1	40.2
Coefficient of Variation	25.9	43.6	Coefficient of Variation	28.1	35.6
Price Related Differential (PRD)	1.08	1.11	Price Related Differential (PRD)	1.04	1.35
Bootstrap Price Related Differential	1.08	1.09	Bootstrap Price Related Differential	1.04	1.28
Lower PRD Confidence Interval	1.04	0.99	Lower PRD Confidence Interval	0.99	1.06
Upper PRD Confidence Interval	1.12	1.31	Upper PRD Confidence Interval	1.10	1.84
Average Sale Price	53,057	60,206	Average Sale Price	63,880	85,483
Average Market Value	51,084	52,026	Average Market Value	65,870	71,673

Detailed Statistics for the Commercial/Industrial & Residential Subclass

003 - ATCHISON			004 - BARBER		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	RES	C/I		RES	C/I
Original Number of Sales	100	7	Original Number of Sales	43	6
Number of Sales Trimmed	9	0	Number of Sales Trimmed	4	1
Number of Ratios: Outliers Removed	91	7	Number of Ratios: Outliers Removed	39	5
Minimum Ratio	68.3	66.7	Minimum Ratio	22.0	70.7
Maximum Ratio	323.9	125.9	Maximum Ratio	144.8	110.4
Minimum Sale Price	5,000	6,500	Minimum Sale Price	12,000	5,000
Maximum Sale Price	255,000	75,000	Maximum Sale Price	257,000	284,000
<i>DISTRIBUTION-FREE STATISTICS</i>			<i>DISTRIBUTION-FREE STATISTICS</i>		
Median Ratio	103.0	99.4	Median Ratio	96.8	100.6
Bootstrap Median Ratio	103.0	99.4	Bootstrap Median Ratio	96.8	100.6
Lower Median Confidence Interval	100.4	88.1	Lower Median Confidence Interval	88.0	84.9
Upper Median Confidence Interval	108.9	109.2	Upper Median Confidence Interval	97.9	106.0
Broadened Median Ratio (BMED)	102.9	99.6	Broadened Median Ratio (BMED)	96.2	100.5
Coefficient of Dispersion (COD)	10.9	11.6	Coefficient of Dispersion (COD)	10.1	2.5
Bootstrap Coefficient of Dispersion	10.8	10.8	Bootstrap Coefficient of Dispersion	10.0	2.4
Lower COD Confidence Interval	9.1	4.7	Lower COD Confidence Interval	7.4	0.6
Upper COD Confidence Interval	13.1	24.5	Upper COD Confidence Interval	13.7	4.5
Weighted Coefficient of Dispersion	8.4	15.7	Weighted Coefficient of Dispersion	9.1	1.7
Coefficient of Concentration @ 10%	53.0	57.1	Coefficient of Concentration @ 10%	55.8	83.3
Coefficient of Concentration @ 15%	65.0	71.4	Coefficient of Concentration @ 15%	65.1	83.3
Coefficient of Concentration @ 20%	78.0	71.4	Coefficient of Concentration @ 20%	74.4	83.3
Coefficient of Concentration @ 50%	91.0	100.0	Coefficient of Concentration @ 50%	95.3	100.0
Coefficient of Concentration @ 100%	97.0	100.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	9.7	10.6	Coefficient of Interquartile Deviation	10.3	5.8
Median Percent Deviation	8.4	9.8	Median Percent Deviation	8.9	1.2
Lower Quartile (25th Percentile)	97.6	88.1	Lower Quartile (25th Percentile)	81.2	92.0
Upper Quartile (75th Percentile)	117.7	109.2	Upper Quartile (75th Percentile)	101.2	103.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectW
Relative Skewness	0.28	-0.33	Relative Skewness	-0.68	1.33
Relative Kurtosis	3.26	2.85	Relative Kurtosis	2.67	3.04
Arithmetic Mean Ratio	104.0	98.4	Arithmetic Mean Ratio	92.5	102.4
Weighted Mean Ratio	103.2	96.6	Weighted Mean Ratio	92.9	99.7
Geometric Mean Ratio	102.9	96.8	Geometric Mean Ratio	91.6	102.4
Harmonic Mean Ratio	101.9	95.2	Harmonic Mean Ratio	90.6	102.3
Standard Deviation	14.9	18.2	Standard Deviation	12.8	4.5
Coefficient of Variation	14.3	18.5	Coefficient of Variation	13.9	4.4
Price Related Differential (PRD)	1.01	1.02	Price Related Differential (PRD)	1.00	1.03
Bootstrap Price Related Differential	1.01	1.02	Bootstrap Price Related Differential	1.00	1.02
Lower PRD Confidence Interval	0.99	0.97	Lower PRD Confidence Interval	0.97	1.01
Upper PRD Confidence Interval	1.02	1.14	Upper PRD Confidence Interval	1.03	1.07
Average Sale Price	100,080	40,071	Average Sale Price	64,969	84,480
Average Market Value	103,310	38,714	Average Market Value	60,360	84,200

Detailed Statistics for the Commercial/Industrial & Residential Subclass

005 - BARTON			006 - BOURBON		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	314	14	Original Number of Sales	101	8
Number of Sales Trimmed	22	0	Number of Sales Trimmed	8	0
Number of Ratios: Outliers Removed	292	14	Number of Ratios: Outliers Removed	93	8
Minimum Ratio	25.7	55.0	Minimum Ratio	44.6	86.4
Maximum Ratio	380.0	146.2	Maximum Ratio	305.7	334.5
Minimum Sale Price	1,000	10,000	Minimum Sale Price	1,500	7,500
Maximum Sale Price	420,000	820,000	Maximum Sale Price	236,000	450,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	95.6	91.3	Median Ratio	103.5	102.6
Bootstrap Median Ratio	95.6	91.3	Bootstrap Median Ratio	103.5	102.6
Lower Median Confidence Interval	94.7	75.3	Lower Median Confidence Interval	99.8	88.5
Upper Median Confidence Interval	97.5	101.6	Upper Median Confidence Interval	110.0	219.7
Broadened Median Ratio (BMED)	95.6	89.7	Broadened Median Ratio (BMED)	104.2	108.1
Coefficient of Dispersion (COD)	13.6	21.7	Coefficient of Dispersion (COD)	18.1	52.3
Bootstrap Coefficient of Dispersion	13.6	20.9	Bootstrap Coefficient of Dispersion	17.8	43.3
Lower COD Confidence Interval	12.3	13.6	Lower COD Confidence Interval	15.2	28.0
Upper COD Confidence Interval	15.0	33.4	Upper COD Confidence Interval	22.2	101.7
Weighted Coefficient of Dispersion	12.2	30.2	Weighted Coefficient of Dispersion	14.8	22.9
Coefficient of Concentration @ 10%	44.3	28.6	Coefficient of Concentration @ 10%	38.6	37.5
Coefficient of Concentration @ 15%	58.9	50.0	Coefficient of Concentration @ 15%	47.5	50.0
Coefficient of Concentration @ 20%	67.8	50.0	Coefficient of Concentration @ 20%	64.4	62.5
Coefficient of Concentration @ 50%	93.9	92.9	Coefficient of Concentration @ 50%	86.1	75.0
Coefficient of Concentration @ 100%	97.1	100.0	Coefficient of Concentration @ 100%	93.1	75.0
Coefficient of Interquartile Deviation	11.8	20.1	Coefficient of Interquartile Deviation	16.7	53.5
Median Percent Deviation	11.7	17.5	Median Percent Deviation	15.8	14.7
Lower Quartile (25th Percentile)	84.3	69.4	Lower Quartile (25th Percentile)	89.7	90.5
Upper Quartile (75th Percentile)	106.8	106.2	Upper Quartile (75th Percentile)	124.3	200.3
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	RejectK
Relative Skewness	0.11	0.54	Relative Skewness	0.66	1.42
Relative Kurtosis	3.03	2.60	Relative Kurtosis	3.95	3.60
Arithmetic Mean Ratio	94.9	91.9	Arithmetic Mean Ratio	104.8	146.6
Weighted Mean Ratio	92.9	77.1	Weighted Mean Ratio	98.1	116.2
Geometric Mean Ratio	93.4	88.5	Geometric Mean Ratio	101.9	129.9
Harmonic Mean Ratio	91.7	85.3	Harmonic Mean Ratio	98.8	118.8
Standard Deviation	17.0	26.2	Standard Deviation	25.2	87.9
Coefficient of Variation	18.0	28.5	Coefficient of Variation	24.1	60.0
Price Related Differential (PRD)	1.02	1.19	Price Related Differential (PRD)	1.07	1.26
Bootstrap Price Related Differential	1.02	1.17	Bootstrap Price Related Differential	1.07	1.24
Lower PRD Confidence Interval	1.01	0.90	Lower PRD Confidence Interval	1.03	0.97
Upper PRD Confidence Interval	1.04	1.42	Upper PRD Confidence Interval	1.11	1.88
Average Sale Price	83,038	105,357	Average Sale Price	63,838	193,125
Average Market Value	77,162	81,208	Average Market Value	62,652	224,423

Detailed Statistics for the Commercial/Industrial & Residential Subclass

007 - BROWN		S-8		008 - BUTLER			
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		62	10	Original Number of Sales		230	16
Number of Sales Trimmed		4	0	Number of Sales Trimmed		29	0
Number of Ratios: Outliers Removed		58	10	Number of Ratios: Outliers Removed		201	16
Minimum Ratio		28.6	65.9	Minimum Ratio		44.6	46.8
Maximum Ratio		300.0	124.9	Maximum Ratio		271.9	167.4
Minimum Sale Price		900	22,500	Minimum Sale Price		15,000	12,500
Maximum Sale Price		175,000	297,600	Maximum Sale Price		1,135,000	462,500
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		98.7	91.3	Median Ratio		102.6	111.1
Bootstrap Median Ratio		98.7	91.3	Bootstrap Median Ratio		102.6	111.1
Lower Median Confidence Interval		93.8	69.4	Lower Median Confidence Interval		100.4	100.0
Upper Median Confidence Interval		103.7	102.0	Upper Median Confidence Interval		104.7	127.5
Broadened Median Ratio (BMED)		98.7	89.4	Broadened Median Ratio (BMED)		102.6	109.0
Coefficient of Dispersion (COD)		14.1	18.5	Coefficient of Dispersion (COD)		10.8	20.0
Bootstrap Coefficient of Dispersion		14.0	16.5	Bootstrap Coefficient of Dispersion		10.8	19.2
Lower COD Confidence Interval		11.5	12.2	Lower COD Confidence Interval		9.6	12.8
Upper COD Confidence Interval		17.6	28.2	Upper COD Confidence Interval		12.3	31.9
Weighted Coefficient of Dispersion		11.6	19.6	Weighted Coefficient of Dispersion		10.6	21.5
Coefficient of Concentration @ 10%		41.9	30.0	Coefficient of Concentration @ 10%		50.9	50.0
Coefficient of Concentration @ 15%		58.1	50.0	Coefficient of Concentration @ 15%		65.7	56.3
Coefficient of Concentration @ 20%		67.7	50.0	Coefficient of Concentration @ 20%		73.5	62.5
Coefficient of Concentration @ 50%		91.9	100.0	Coefficient of Concentration @ 50%		89.6	87.5
Coefficient of Concentration @ 100%		96.8	100.0	Coefficient of Concentration @ 100%		97.4	100.0
Coefficient of Interquartile Deviation		14.9	17.5	Coefficient of Interquartile Deviation		10.2	16.9
Median Percent Deviation		10.6	17.9	Median Percent Deviation		9.7	11.6
Lower Quartile (25th Percentile)		88.6	70.3	Lower Quartile (25th Percentile)		93.9	97.3
Upper Quartile (75th Percentile)		118.0	102.3	Upper Quartile (75th Percentile)		114.9	134.8
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptK	Normality Test		RejectK	AcceptK
Relative Skewness		0.58	0.32	Relative Skewness		0.40	-0.18
Relative Kurtosis		3.49	1.97	Relative Kurtosis		3.72	2.96
Arithmetic Mean Ratio		101.4	88.9	Arithmetic Mean Ratio		101.9	110.4
Weighted Mean Ratio		97.7	81.5	Weighted Mean Ratio		100.3	113.2
Geometric Mean Ratio		99.8	87.0	Geometric Mean Ratio		100.9	105.9
Harmonic Mean Ratio		98.3	85.1	Harmonic Mean Ratio		99.8	100.5
Standard Deviation		18.2	19.8	Standard Deviation		14.6	30.4
Coefficient of Variation		17.9	22.3	Coefficient of Variation		14.4	27.6
Price Related Differential (PRD)		1.04	1.09	Price Related Differential (PRD)		1.02	0.98
Bootstrap Price Related Differential		1.04	1.08	Bootstrap Price Related Differential		1.02	0.98
Lower PRD Confidence Interval		1.01	1.01	Lower PRD Confidence Interval		1.00	0.90
Upper PRD Confidence Interval		1.07	1.21	Upper PRD Confidence Interval		1.03	1.11
Average Sale Price		83,030	112,270	Average Sale Price		144,346	117,259
Average Market Value		81,119	91,485	Average Market Value		144,832	132,739

Detailed Statistics for the Commercial/Industrial & Residential Subclass

009 - CHASE		S-3		010 - CHAUTAUQUA			
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		27	6	Original Number of Sales		22	6
Number of Sales Trimmed		0	0	Number of Sales Trimmed		0	0
Number of Ratios: Outliers Removed		27	6	Number of Ratios: Outliers Removed		22	6
Minimum Ratio		24.6	59.1	Minimum Ratio		50.2	52.3
Maximum Ratio		160.3	146.9	Maximum Ratio		143.9	198.4
Minimum Sale Price		7,400	5,000	Minimum Sale Price		2,500	3,000
Maximum Sale Price		244,000	59,500	Maximum Sale Price		150,000	40,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		104.6	95.4	Median Ratio		92.7	124.7
Bootstrap Median Ratio		104.6	95.4	Bootstrap Median Ratio		92.7	124.7
Lower Median Confidence Interval		88.8	74.9	Lower Median Confidence Interval		86.5	83.1
Upper Median Confidence Interval		117.0	126.8	Upper Median Confidence Interval		104.2	181.1
Broadened Median Ratio (BMED)		105.6	96.5	Broadened Median Ratio (BMED)		94.8	129.4
Coefficient of Dispersion (COD)		21.5	19.3	Coefficient of Dispersion (COD)		20.2	28.7
Bootstrap Coefficient of Dispersion		20.7	17.4	Bootstrap Coefficient of Dispersion		18.9	24.1
Lower COD Confidence Interval		15.3	8.9	Lower COD Confidence Interval		15.4	16.1
Upper COD Confidence Interval		33.6	46.0	Upper COD Confidence Interval		29.2	82.0
Weighted Coefficient of Dispersion		21.6	17.4	Weighted Coefficient of Dispersion		15.2	16.9
Coefficient of Concentration @ 10%		33.3	50.0	Coefficient of Concentration @ 10%		31.8	50.0
Coefficient of Concentration @ 15%		48.1	66.7	Coefficient of Concentration @ 15%		54.5	50.0
Coefficient of Concentration @ 20%		59.3	66.7	Coefficient of Concentration @ 20%		54.5	50.0
Coefficient of Concentration @ 50%		92.6	83.3	Coefficient of Concentration @ 50%		95.5	66.7
Coefficient of Concentration @ 100%		100.0	100.0	Coefficient of Concentration @ 100%		100.0	100.0
Coefficient of Interquartile Deviation		18.8	17.8	Coefficient of Interquartile Deviation		18.4	29.6
Median Percent Deviation		15.1	8.3	Median Percent Deviation		11.7	20.0
Lower Quartile (25th Percentile)		78.4	82.8	Lower Quartile (25th Percentile)		84.6	98.5
Upper Quartile (75th Percentile)		117.7	116.7	Upper Quartile (75th Percentile)		118.7	172.4
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptW	Normality Test		AcceptK	AcceptW
Relative Skewness		-0.35	0.43	Relative Skewness		0.12	-0.19
Relative Kurtosis		3.21	2.84	Relative Kurtosis		2.48	2.34
Arithmetic Mean Ratio		100.8	99.0	Arithmetic Mean Ratio		97.3	129.6
Weighted Mean Ratio		95.2	94.3	Weighted Mean Ratio		86.8	131.7
Geometric Mean Ratio		95.3	95.6	Geometric Mean Ratio		94.3	120.1
Harmonic Mean Ratio		87.3	92.1	Harmonic Mean Ratio		91.1	108.8
Standard Deviation		30.0	28.5	Standard Deviation		24.2	49.7
Coefficient of Variation		29.7	28.8	Coefficient of Variation		24.8	38.3
Price Related Differential (PRD)		1.06	1.05	Price Related Differential (PRD)		1.12	0.98
Bootstrap Price Related Differential		1.05	1.04	Bootstrap Price Related Differential		1.11	0.99
Lower PRD Confidence Interval		0.96	0.99	Lower PRD Confidence Interval		1.03	0.77
Upper PRD Confidence Interval		1.16	1.16	Upper PRD Confidence Interval		1.26	1.18
Average Sale Price		50,863	23,000	Average Sale Price		38,659	18,833
Average Market Value		48,432	21,685	Average Market Value		33,570	24,807

Detailed Statistics for the Commercial/Industrial & Residential Subclass

011 - CHEROKEE		
GENERAL STATISTICS	RES	C/I
Original Number of Sales	140	19
Number of Sales Trimmed	15	0
Number of Ratios: Outliers Removed	125	19
Minimum Ratio	41.2	50.2
Maximum Ratio	397.4	192.6
Minimum Sale Price	3,500	6,000
Maximum Sale Price	222,500	205,000
DISTRIBUTION-FREE STATISTICS		
Median Ratio	100.5	101.2
Bootstrap Median Ratio	100.5	101.2
Lower Median Confidence Interval	98.3	77.4
Upper Median Confidence Interval	106.9	128.2
Broadened Median Ratio (BMED)	100.6	101.6
Coefficient of Dispersion (COD)	16.1	34.2
Bootstrap Coefficient of Dispersion	16.1	32.8
Lower COD Confidence Interval	13.8	24.6
Upper COD Confidence Interval	18.7	51.1
Weighted Coefficient of Dispersion	12.4	24.8
Coefficient of Concentration @ 10%	37.1	21.1
Coefficient of Concentration @ 15%	52.1	36.8
Coefficient of Concentration @ 20%	62.1	36.8
Coefficient of Concentration @ 50%	86.4	73.7
Coefficient of Concentration @ 100%	95.7	100.0
Coefficient of Interquartile Deviation	15.6	35.6
Median Percent Deviation	14.6	26.9
Lower Quartile (25th Percentile)	88.9	74.0
Upper Quartile (75th Percentile)	120.2	146.0
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK
Relative Skewness	0.37	0.59
Relative Kurtosis	3.51	2.13
Arithmetic Mean Ratio	101.0	111.2
Weighted Mean Ratio	97.1	102.6
Geometric Mean Ratio	98.7	103.1
Harmonic Mean Ratio	96.3	95.7
Standard Deviation	21.4	44.7
Coefficient of Variation	21.2	40.2
Price Related Differential (PRD)	1.04	1.08
Bootstrap Price Related Differential	1.04	1.08
Lower PRD Confidence Interval	1.02	0.98
Upper PRD Confidence Interval	1.06	1.25
Average Sale Price	62,800	53,816
Average Market Value	60,983	55,195

012 - CHEYENNE			S-3
GENERAL STATISTICS	RES	C/I	
Original Number of Sales	33	6	
Number of Sales Trimmed	1	0	
Number of Ratios: Outliers Removed	32	6	
Minimum Ratio	55.2	41.4	
Maximum Ratio	136.2	303.7	
Minimum Sale Price	8,000	5,000	
Maximum Sale Price	150,000	75,000	
DISTRIBUTION-FREE STATISTICS			
Median Ratio	99.7	108.2	
Bootstrap Median Ratio	99.7	108.2	
Lower Median Confidence Interval	94.7	57.0	
Upper Median Confidence Interval	104.9	212.2	
Broadened Median Ratio (BMED)	98.7	104.3	
Coefficient of Dispersion (COD)	12.5	49.3	
Bootstrap Coefficient of Dispersion	12.3	45.4	
Lower COD Confidence Interval	9.2	14.3	
Upper COD Confidence Interval	17.5	135.1	
Weighted Coefficient of Dispersion	10.4	40.9	
Coefficient of Concentration @ 10%	60.6	33.3	
Coefficient of Concentration @ 15%	63.6	50.0	
Coefficient of Concentration @ 20%	75.8	50.0	
Coefficient of Concentration @ 50%	100.0	66.7	
Coefficient of Concentration @ 100%	100.0	83.3	
Coefficient of Interquartile Deviation	9.9	46.9	
Median Percent Deviation	8.2	22.2	
Lower Quartile (25th Percentile)	87.2	64.8	
Upper Quartile (75th Percentile)	106.9	166.4	
PARAMETRIC STATISTICS			
Normality Test	AcceptK	RejectW	
Relative Skewness	0.12	1.37	
Relative Kurtosis	3.30	3.56	
Arithmetic Mean Ratio	98.9	125.8	
Weighted Mean Ratio	96.2	89.9	
Geometric Mean Ratio	97.4	104.3	
Harmonic Mean Ratio	95.9	88.2	
Standard Deviation	17.1	92.0	
Coefficient of Variation	17.3	73.1	
Price Related Differential (PRD)	1.03	1.40	
Bootstrap Price Related Differential	1.03	1.31	
Lower PRD Confidence Interval	0.99	0.98	
Upper PRD Confidence Interval	1.08	2.43	
Average Sale Price	48,584	28,000	
Average Market Value	46,733	25,185	

Detailed Statistics for the Commercial/Industrial & Residential Subclass

013 - CLARK			014 - CLAY		
		S-3			S-8
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	24	6	Original Number of Sales	72	12
Number of Sales Trimmed	2	0	Number of Sales Trimmed	5	0
Number of Ratios: Outliers Removed	22	6	Number of Ratios: Outliers Removed	67	12
Minimum Ratio	31.7	62.4	Minimum Ratio	48.6	56.3
Maximum Ratio	184.0	111.2	Maximum Ratio	374.0	146.9
Minimum Sale Price	1,500	15,000	Minimum Sale Price	5,000	800
Maximum Sale Price	215,000	55,000	Maximum Sale Price	390,000	114,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	90.0	98.5	Median Ratio	100.0	93.7
Bootstrap Median Ratio	90.0	98.5	Bootstrap Median Ratio	100.0	93.7
Lower Median Confidence Interval	83.5	64.3	Lower Median Confidence Interval	99.4	73.9
Upper Median Confidence Interval	100.0	108.6	Upper Median Confidence Interval	103.7	100.6
Broadened Median Ratio (BMED)	89.5	94.3	Broadened Median Ratio (BMED)	100.0	92.6
Coefficient of Dispersion (COD)	13.6	15.0	Coefficient of Dispersion (COD)	11.9	19.9
Bootstrap Coefficient of Dispersion	13.1	14.4	Bootstrap Coefficient of Dispersion	11.8	19.3
Lower COD Confidence Interval	9.7	4.3	Lower COD Confidence Interval	9.3	11.3
Upper COD Confidence Interval	19.8	26.6	Upper COD Confidence Interval	15.0	33.7
Weighted Coefficient of Dispersion	13.2	10.0	Weighted Coefficient of Dispersion	9.7	16.6
Coefficient of Concentration @ 10%	45.8	50.0	Coefficient of Concentration @ 10%	58.3	41.7
Coefficient of Concentration @ 15%	58.3	66.7	Coefficient of Concentration @ 15%	66.7	58.3
Coefficient of Concentration @ 20%	62.5	66.7	Coefficient of Concentration @ 20%	72.2	58.3
Coefficient of Concentration @ 50%	91.7	100.0	Coefficient of Concentration @ 50%	94.4	91.7
Coefficient of Concentration @ 100%	95.8	100.0	Coefficient of Concentration @ 100%	97.2	100.0
Coefficient of Interquartile Deviation	12.6	21.3	Coefficient of Interquartile Deviation	10.7	16.5
Median Percent Deviation	11.0	10.2	Median Percent Deviation	8.7	12.1
Lower Quartile (25th Percentile)	83.0	65.2	Lower Quartile (25th Percentile)	92.8	70.0
Upper Quartile (75th Percentile)	105.7	107.2	Upper Quartile (75th Percentile)	114.3	100.9
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectA	Normality Test	RejectK	RejectK
Relative Skewness	-0.33	-0.55	Relative Skewness	0.57	0.56
Relative Kurtosis	3.07	1.54	Relative Kurtosis	3.24	2.90
Arithmetic Mean Ratio	91.2	90.4	Arithmetic Mean Ratio	104.0	92.2
Weighted Mean Ratio	87.8	93.0	Weighted Mean Ratio	101.2	93.3
Geometric Mean Ratio	89.6	88.2	Geometric Mean Ratio	102.7	89.0
Harmonic Mean Ratio	87.9	85.9	Harmonic Mean Ratio	101.5	85.9
Standard Deviation	16.5	20.9	Standard Deviation	16.6	25.9
Coefficient of Variation	18.1	23.1	Coefficient of Variation	16.0	28.1
Price Related Differential (PRD)	1.04	0.97	Price Related Differential (PRD)	1.03	0.99
Bootstrap Price Related Differential	1.04	0.98	Bootstrap Price Related Differential	1.03	0.99
Lower PRD Confidence Interval	0.99	0.91	Lower PRD Confidence Interval	1.01	0.94
Upper PRD Confidence Interval	1.10	1.02	Upper PRD Confidence Interval	1.05	1.09
Average Sale Price	61,923	30,433	Average Sale Price	84,443	54,898
Average Market Value	54,348	28,302	Average Market Value	85,431	51,221

Detailed Statistics for the Commercial/Industrial & Residential Subclass

015 - CLOUD			016 - COFFEY		
GENERAL STATISTICS		RES	C/I	S-7	
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS	
Original Number of Sales		107	8	Original Number of Sales	78
Number of Sales Trimmed		14	0	Number of Sales Trimmed	3
Number of Ratios: Outliers Removed		93	8	Number of Ratios: Outliers Removed	75
Minimum Ratio		34.4	24.8	Minimum Ratio	58.3
Maximum Ratio		457.8	196.2	Maximum Ratio	304.8
Minimum Sale Price		4,000	4,500	Minimum Sale Price	5,000
Maximum Sale Price		355,000	110,000	Maximum Sale Price	370,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio		96.9	99.5	Median Ratio	102.7
Bootstrap Median Ratio		96.9	99.5	Bootstrap Median Ratio	102.7
Lower Median Confidence Interval		95.3	71.2	Lower Median Confidence Interval	98.5
Upper Median Confidence Interval		100.0	143.8	Upper Median Confidence Interval	107.2
Broadened Median Ratio (BMED)		96.8	100.0	Broadened Median Ratio (BMED)	102.7
Coefficient of Dispersion (COD)		10.0	33.7	Coefficient of Dispersion (COD)	14.8
Bootstrap Coefficient of Dispersion		10.0	30.6	Bootstrap Coefficient of Dispersion	14.7
Lower COD Confidence Interval		8.4	17.1	Lower COD Confidence Interval	12.3
Upper COD Confidence Interval		12.1	93.9	Upper COD Confidence Interval	17.8
Weighted Coefficient of Dispersion		8.8	32.6	Weighted Coefficient of Dispersion	12.6
Coefficient of Concentration @ 10%		54.2	50.0	Coefficient of Concentration @ 10%	43.6
Coefficient of Concentration @ 15%		65.4	50.0	Coefficient of Concentration @ 15%	57.7
Coefficient of Concentration @ 20%		73.8	50.0	Coefficient of Concentration @ 20%	64.1
Coefficient of Concentration @ 50%		94.4	75.0	Coefficient of Concentration @ 50%	96.2
Coefficient of Concentration @ 100%		98.1	100.0	Coefficient of Concentration @ 100%	97.4
Coefficient of Interquartile Deviation		8.8	29.4	Coefficient of Interquartile Deviation	11.7
Median Percent Deviation		8.9	19.0	Median Percent Deviation	11.9
Lower Quartile (25th Percentile)		89.5	76.7	Lower Quartile (25th Percentile)	90.1
Upper Quartile (75th Percentile)		106.5	135.1	Upper Quartile (75th Percentile)	114.1
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test		RejectK	AcceptK	Normality Test	RejectK
Relative Skewness		0.26	0.34	Relative Skewness	0.25
Relative Kurtosis		3.50	2.94	Relative Kurtosis	2.79
Arithmetic Mean Ratio		96.6	104.6	Arithmetic Mean Ratio	101.8
Weighted Mean Ratio		93.6	103.8	Weighted Mean Ratio	98.9
Geometric Mean Ratio		95.7	91.7	Geometric Mean Ratio	99.9
Harmonic Mean Ratio		94.8	75.1	Harmonic Mean Ratio	98.0
Standard Deviation		13.0	50.2	Standard Deviation	19.5
Coefficient of Variation		13.5	48.0	Coefficient of Variation	19.2
Price Related Differential (PRD)		1.03	1.01	Price Related Differential (PRD)	1.03
Bootstrap Price Related Differential		1.03	1.02	Bootstrap Price Related Differential	1.03
Lower PRD Confidence Interval		1.01	0.82	Lower PRD Confidence Interval	1.00
Upper PRD Confidence Interval		1.05	1.44	Upper PRD Confidence Interval	1.06
Average Sale Price		67,040	37,563	Average Sale Price	91,573
Average Market Value		62,760	38,989	Average Market Value	90,542

Detailed Statistics for the Commercial/Industrial & Residential Subclass

017 - COMANCHE		<i>S-6</i>		018 - COWLEY			
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		13	8	Original Number of Sales		273	16
Number of Sales Trimmed		0	1	Number of Sales Trimmed		30	0
Number of Ratios: Outliers Removed		13	7	Number of Ratios: Outliers Removed		243	16
Minimum Ratio		44.0	11.9	Minimum Ratio		19.7	51.8
Maximum Ratio		147.4	114.5	Maximum Ratio		580.0	165.2
Minimum Sale Price		9,000	2,000	Minimum Sale Price		1,750	12,000
Maximum Sale Price		200,000	41,000	Maximum Sale Price		450,000	125,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		92.2	84.2	Median Ratio		101.4	95.2
Bootstrap Median Ratio		92.2	84.2	Bootstrap Median Ratio		101.4	95.2
Lower Median Confidence Interval		69.8	65.0	Lower Median Confidence Interval		99.6	70.3
Upper Median Confidence Interval		102.8	103.3	Upper Median Confidence Interval		105.9	123.0
Broadened Median Ratio (BMED)		90.4	82.5	Broadened Median Ratio (BMED)		101.3	94.9
Coefficient of Dispersion (COD)		22.4	15.4	Coefficient of Dispersion (COD)		14.8	31.6
Bootstrap Coefficient of Dispersion		21.8	13.8	Bootstrap Coefficient of Dispersion		14.8	29.7
Lower COD Confidence Interval		13.7	8.5	Lower COD Confidence Interval		13.4	22.8
Upper COD Confidence Interval		37.2	26.0	Upper COD Confidence Interval		16.5	46.3
Weighted Coefficient of Dispersion		31.1	17.0	Weighted Coefficient of Dispersion		11.9	26.8
Coefficient of Concentration @ 10%		30.8	37.5	Coefficient of Concentration @ 10%		39.6	18.8
Coefficient of Concentration @ 15%		46.2	37.5	Coefficient of Concentration @ 15%		53.1	25.0
Coefficient of Concentration @ 20%		46.2	50.0	Coefficient of Concentration @ 20%		65.2	25.0
Coefficient of Concentration @ 50%		84.6	87.5	Coefficient of Concentration @ 50%		88.3	81.3
Coefficient of Concentration @ 100%		100.0	100.0	Coefficient of Concentration @ 100%		93.4	100.0
Coefficient of Interquartile Deviation		23.2	20.4	Coefficient of Interquartile Deviation		13.9	35.8
Median Percent Deviation		24.3	21.1	Median Percent Deviation		14.0	27.7
Lower Quartile (25th Percentile)		68.3	65.7	Lower Quartile (25th Percentile)		87.8	69.2
Upper Quartile (75th Percentile)		111.1	100.1	Upper Quartile (75th Percentile)		115.9	137.5
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		AcceptK	AcceptW	Normality Test		RejectK	RejectK
Relative Skewness		0.30	0.20	Relative Skewness		0.13	0.36
Relative Kurtosis		2.64	1.84	Relative Kurtosis		3.34	1.82
Arithmetic Mean Ratio		91.3	87.1	Arithmetic Mean Ratio		99.8	100.6
Weighted Mean Ratio		76.3	80.2	Weighted Mean Ratio		97.2	92.3
Geometric Mean Ratio		87.2	85.5	Geometric Mean Ratio		97.9	94.6
Harmonic Mean Ratio		83.0	83.9	Harmonic Mean Ratio		95.9	89.0
Standard Deviation		27.9	18.1	Standard Deviation		19.1	36.1
Coefficient of Variation		30.6	20.8	Coefficient of Variation		19.2	35.9
Price Related Differential (PRD)		1.20	1.09	Price Related Differential (PRD)		1.03	1.09
Bootstrap Price Related Differential		1.18	1.07	Bootstrap Price Related Differential		1.03	1.08
Lower PRD Confidence Interval		0.99	1.01	Lower PRD Confidence Interval		1.01	1.01
Upper PRD Confidence Interval		1.49	1.27	Upper PRD Confidence Interval		1.04	1.21
Average Sale Price		47,215	20,857	Average Sale Price		83,400	46,056
Average Market Value		36,002	16,736	Average Market Value		81,070	42,529

Detailed Statistics for the Commercial/Industrial & Residential Subclass

019 - CRAWFORD			020 - DECATUR		
			<i>S-4</i>		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	338	17	Original Number of Sales	35	8
Number of Sales Trimmed	31	2	Number of Sales Trimmed	2	1
Number of Ratios: Outliers Removed	307	15	Number of Ratios: Outliers Removed	33	7
Minimum Ratio	48.9	57.1	Minimum Ratio	56.3	62.3
Maximum Ratio	488.6	511.6	Maximum Ratio	222.3	384.6
Minimum Sale Price	534	1,200	Minimum Sale Price	2,700	4,000
Maximum Sale Price	820,500	950,000	Maximum Sale Price	178,000	85,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	98.6	115.1	Median Ratio	100.9	92.0
Bootstrap Median Ratio	98.6	115.1	Bootstrap Median Ratio	100.9	92.0
Lower Median Confidence Interval	97.5	92.6	Lower Median Confidence Interval	92.6	77.5
Upper Median Confidence Interval	99.9	154.5	Upper Median Confidence Interval	108.2	115.1
Broadened Median Ratio (BMED)	98.6	112.0	Broadened Median Ratio (BMED)	100.2	91.8
Coefficient of Dispersion (COD)	12.3	32.8	Coefficient of Dispersion (COD)	18.8	14.1
Bootstrap Coefficient of Dispersion	12.3	30.1	Bootstrap Coefficient of Dispersion	18.2	12.2
Lower COD Confidence Interval	11.0	22.2	Lower COD Confidence Interval	14.5	8.5
Upper COD Confidence Interval	13.6	61.4	Upper COD Confidence Interval	24.9	28.8
Weighted Coefficient of Dispersion	9.9	12.3	Weighted Coefficient of Dispersion	15.4	12.8
Coefficient of Concentration @ 10%	49.4	23.5	Coefficient of Concentration @ 10%	42.9	50.0
Coefficient of Concentration @ 15%	61.2	29.4	Coefficient of Concentration @ 15%	48.6	50.0
Coefficient of Concentration @ 20%	68.6	41.2	Coefficient of Concentration @ 20%	48.6	62.5
Coefficient of Concentration @ 50%	91.4	76.5	Coefficient of Concentration @ 50%	94.3	87.5
Coefficient of Concentration @ 100%	96.7	82.4	Coefficient of Concentration @ 100%	97.1	87.5
Coefficient of Interquartile Deviation	11.1	33.1	Coefficient of Interquartile Deviation	17.4	17.3
Median Percent Deviation	10.2	29.3	Median Percent Deviation	22.3	12.0
Lower Quartile (25th Percentile)	89.3	87.0	Lower Quartile (25th Percentile)	90.4	79.2
Upper Quartile (75th Percentile)	111.2	163.3	Upper Quartile (75th Percentile)	125.5	111.0
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	AcceptK	AcceptW
Relative Skewness	0.34	1.18	Relative Skewness	0.11	-0.03
Relative Kurtosis	3.34	4.24	Relative Kurtosis	2.33	2.42
Arithmetic Mean Ratio	98.2	114.9	Arithmetic Mean Ratio	100.1	88.9
Weighted Mean Ratio	95.7	103.8	Weighted Mean Ratio	94.7	90.5
Geometric Mean Ratio	96.9	106.5	Geometric Mean Ratio	97.3	87.4
Harmonic Mean Ratio	95.5	99.1	Harmonic Mean Ratio	94.4	86.0
Standard Deviation	16.2	48.8	Standard Deviation	23.8	16.9
Coefficient of Variation	16.5	42.4	Coefficient of Variation	23.8	19.0
Price Related Differential (PRD)	1.03	1.11	Price Related Differential (PRD)	1.06	0.98
Bootstrap Price Related Differential	1.03	1.10	Bootstrap Price Related Differential	1.05	0.98
Lower PRD Confidence Interval	1.01	0.97	Lower PRD Confidence Interval	1.01	0.92
Upper PRD Confidence Interval	1.04	1.37	Upper PRD Confidence Interval	1.13	1.04
Average Sale Price	96,406	139,247	Average Sale Price	46,353	29,857
Average Market Value	92,306	144,513	Average Market Value	43,883	27,030

Detailed Statistics for the Commercial/Industrial & Residential Subclass

021 - DICKINSON			022 - DONIPHAN			
GENERAL STATISTICS		RES	C/I	S-7		
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		
Original Number of Sales		174	8	Original Number of Sales	41	8
Number of Sales Trimmed		13	0	Number of Sales Trimmed	4	0
Number of Ratios: Outliers Removed		161	8	Number of Ratios: Outliers Removed	37	8
Minimum Ratio		52.3	44.9	Minimum Ratio	62.0	66.7
Maximum Ratio		375.4	144.9	Maximum Ratio	280.0	205.0
Minimum Sale Price		2,500	3,500	Minimum Sale Price	2,000	15,000
Maximum Sale Price		425,000	368,500	Maximum Sale Price	210,000	188,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS			
Median Ratio		99.5	106.2	Median Ratio	104.2	103.0
Bootstrap Median Ratio		99.5	106.2	Bootstrap Median Ratio	104.2	103.0
Lower Median Confidence Interval		97.4	61.4	Lower Median Confidence Interval	98.7	72.3
Upper Median Confidence Interval		102.0	137.4	Upper Median Confidence Interval	114.2	201.2
Broadened Median Ratio (BMED)		99.5	102.1	Broadened Median Ratio (BMED)	104.6	109.3
Coefficient of Dispersion (COD)		11.8	26.1	Coefficient of Dispersion (COD)	17.6	42.9
Bootstrap Coefficient of Dispersion		11.7	24.6	Bootstrap Coefficient of Dispersion	17.2	36.4
Lower COD Confidence Interval		10.3	13.3	Lower COD Confidence Interval	13.5	30.2
Upper COD Confidence Interval		13.4	50.7	Upper COD Confidence Interval	23.1	74.3
Weighted Coefficient of Dispersion		10.9	26.5	Weighted Coefficient of Dispersion	14.1	68.0
Coefficient of Concentration @ 10%		48.3	37.5	Coefficient of Concentration @ 10%	41.5	25.0
Coefficient of Concentration @ 15%		65.5	37.5	Coefficient of Concentration @ 15%	48.8	25.0
Coefficient of Concentration @ 20%		74.7	37.5	Coefficient of Concentration @ 20%	53.7	25.0
Coefficient of Concentration @ 50%		94.3	87.5	Coefficient of Concentration @ 50%	87.8	62.5
Coefficient of Concentration @ 100%		97.7	100.0	Coefficient of Concentration @ 100%	95.1	100.0
Coefficient of Interquartile Deviation		10.5	31.1	Coefficient of Interquartile Deviation	17.9	56.6
Median Percent Deviation		10.2	29.0	Median Percent Deviation	16.3	32.6
Lower Quartile (25th Percentile)		90.6	65.0	Lower Quartile (25th Percentile)	93.4	74.7
Upper Quartile (75th Percentile)		111.5	131.1	Upper Quartile (75th Percentile)	130.8	191.3
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptK	Normality Test	RejectK	RejectK
Relative Skewness		0.32	-0.20	Relative Skewness	0.48	0.50
Relative Kurtosis		3.25	1.81	Relative Kurtosis	2.73	1.59
Arithmetic Mean Ratio		100.0	98.6	Arithmetic Mean Ratio	106.5	124.4
Weighted Mean Ratio		96.9	87.8	Weighted Mean Ratio	98.8	161.7
Geometric Mean Ratio		98.8	92.3	Geometric Mean Ratio	103.9	113.7
Harmonic Mean Ratio		97.6	85.4	Harmonic Mean Ratio	101.4	104.6
Standard Deviation		15.4	35.4	Standard Deviation	23.9	56.8
Coefficient of Variation		15.4	35.9	Coefficient of Variation	22.5	45.7
Price Related Differential (PRD)		1.03	1.12	Price Related Differential (PRD)	1.08	0.77
Bootstrap Price Related Differential		1.03	1.10	Bootstrap Price Related Differential	1.08	0.81
Lower PRD Confidence Interval		1.02	0.97	Lower PRD Confidence Interval	1.04	0.64
Upper PRD Confidence Interval		1.05	1.43	Upper PRD Confidence Interval	1.13	0.92
Average Sale Price		111,711	89,938	Average Sale Price	77,983	51,000
Average Market Value		108,244	78,923	Average Market Value	77,061	82,458

Detailed Statistics for the Commercial/Industrial & Residential Subclass

023 - DOUGLAS			024 - EDWARDS		
			S-5		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	289	29	Original Number of Sales	29	7
Number of Sales Trimmed	26	1	Number of Sales Trimmed	2	0
Number of Ratios: Outliers Removed	263	28	Number of Ratios: Outliers Removed	27	7
Minimum Ratio	58.4	52.5	Minimum Ratio	70.0	56.4
Maximum Ratio	378.6	278.4	Maximum Ratio	308.8	187.6
Minimum Sale Price	20,000	20,000	Minimum Sale Price	2,000	10,000
Maximum Sale Price	1,600,000	5,000,000	Maximum Sale Price	65,000	80,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	104.2	92.7	Median Ratio	100.9	108.6
Bootstrap Median Ratio	104.2	92.7	Bootstrap Median Ratio	100.9	108.6
Lower Median Confidence Interval	103.2	82.1	Lower Median Confidence Interval	96.5	95.9
Upper Median Confidence Interval	105.6	102.4	Upper Median Confidence Interval	112.9	182.3
Broadened Median Ratio (BMED)	104.2	93.8	Broadened Median Ratio (BMED)	101.6	108.1
Coefficient of Dispersion (COD)	7.7	21.1	Coefficient of Dispersion (COD)	13.9	29.3
Bootstrap Coefficient of Dispersion	7.7	20.5	Bootstrap Coefficient of Dispersion	13.5	25.9
Lower COD Confidence Interval	6.9	15.7	Lower COD Confidence Interval	10.6	12.6
Upper COD Confidence Interval	8.6	30.0	Upper COD Confidence Interval	18.9	57.9
Weighted Coefficient of Dispersion	7.4	22.2	Weighted Coefficient of Dispersion	12.1	42.7
Coefficient of Concentration @ 10%	65.1	31.0	Coefficient of Concentration @ 10%	37.9	42.9
Coefficient of Concentration @ 15%	78.2	48.3	Coefficient of Concentration @ 15%	62.1	57.1
Coefficient of Concentration @ 20%	84.4	58.6	Coefficient of Concentration @ 20%	65.5	57.1
Coefficient of Concentration @ 50%	97.2	89.7	Coefficient of Concentration @ 50%	93.1	71.4
Coefficient of Concentration @ 100%	99.3	96.6	Coefficient of Concentration @ 100%	96.6	100.0
Coefficient of Interquartile Deviation	7.0	19.2	Coefficient of Interquartile Deviation	15.5	39.8
Median Percent Deviation	6.6	16.7	Median Percent Deviation	12.7	11.7
Lower Quartile (25th Percentile)	98.5	79.9	Lower Quartile (25th Percentile)	89.0	95.9
Upper Quartile (75th Percentile)	113.2	115.5	Upper Quartile (75th Percentile)	120.3	182.3
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	0.35	0.89	Relative Skewness	0.48	0.40
Relative Kurtosis	3.29	3.46	Relative Kurtosis	2.76	1.99
Arithmetic Mean Ratio	105.0	97.2	Arithmetic Mean Ratio	102.8	120.9
Weighted Mean Ratio	103.7	100.2	Weighted Mean Ratio	104.2	138.7
Geometric Mean Ratio	104.5	94.0	Geometric Mean Ratio	101.4	112.9
Harmonic Mean Ratio	103.9	91.0	Harmonic Mean Ratio	99.9	104.9
Standard Deviation	10.6	26.3	Standard Deviation	18.0	47.5
Coefficient of Variation	10.1	27.1	Coefficient of Variation	17.5	39.2
Price Related Differential (PRD)	1.01	0.97	Price Related Differential (PRD)	0.99	0.87
Bootstrap Price Related Differential	1.01	0.98	Bootstrap Price Related Differential	0.99	0.89
Lower PRD Confidence Interval	1.01	0.87	Lower PRD Confidence Interval	0.96	0.80
Upper PRD Confidence Interval	1.02	1.06	Upper PRD Confidence Interval	1.02	1.03
Average Sale Price	198,394	976,776	Average Sale Price	25,844	29,857
Average Market Value	205,645	978,386	Average Market Value	26,929	41,400

Detailed Statistics for the Commercial/Industrial & Residential Subclass

025 - ELK		S-12	026 - ELLIS				
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		17	13	Original Number of Sales		310	18
Number of Sales Trimmed		2	1	Number of Sales Trimmed		25	3
Number of Ratios: Outliers Removed		15	12	Number of Ratios: Outliers Removed		285	15
Minimum Ratio		54.2	49.7	Minimum Ratio		69.5	27.6
Maximum Ratio		360.7	154.1	Maximum Ratio		598.0	225.5
Minimum Sale Price		2,000	5,000	Minimum Sale Price		5,000	10,000
Maximum Sale Price		73,700	45,000	Maximum Sale Price		470,000	800,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		93.2	74.0	Median Ratio		97.5	104.8
Bootstrap Median Ratio		93.2	74.0	Bootstrap Median Ratio		97.5	104.8
Lower Median Confidence Interval		81.2	68.4	Lower Median Confidence Interval		96.3	93.0
Upper Median Confidence Interval		119.7	94.3	Upper Median Confidence Interval		98.5	113.1
Broadened Median Ratio (BMED)		93.2	75.5	Broadened Median Ratio (BMED)		97.4	104.7
Coefficient of Dispersion (COD)		27.5	20.2	Coefficient of Dispersion (COD)		7.0	15.3
Bootstrap Coefficient of Dispersion		27.1	18.7	Bootstrap Coefficient of Dispersion		7.0	14.4
Lower COD Confidence Interval		14.9	12.7	Lower COD Confidence Interval		6.4	8.9
Upper COD Confidence Interval		46.1	34.9	Upper COD Confidence Interval		7.8	28.1
Weighted Coefficient of Dispersion		16.8	30.3	Weighted Coefficient of Dispersion		7.2	15.2
Coefficient of Concentration @ 10%		35.3	38.5	Coefficient of Concentration @ 10%		67.7	44.4
Coefficient of Concentration @ 15%		41.2	46.2	Coefficient of Concentration @ 15%		80.3	50.0
Coefficient of Concentration @ 20%		47.1	53.8	Coefficient of Concentration @ 20%		88.1	61.1
Coefficient of Concentration @ 50%		76.5	84.6	Coefficient of Concentration @ 50%		97.7	77.8
Coefficient of Concentration @ 100%		88.2	92.3	Coefficient of Concentration @ 100%		99.4	94.4
Coefficient of Interquartile Deviation		40.7	20.3	Coefficient of Interquartile Deviation		6.2	16.7
Median Percent Deviation		27.7	17.1	Median Percent Deviation		5.9	15.3
Lower Quartile (25th Percentile)		74.3	66.1	Lower Quartile (25th Percentile)		92.3	84.7
Upper Quartile (75th Percentile)		150.1	96.1	Upper Quartile (75th Percentile)		104.4	119.6
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	RejectK	Normality Test		RejectK	RejectK
Relative Skewness		1.22	0.98	Relative Skewness		0.06	0.81
Relative Kurtosis		3.68	3.57	Relative Kurtosis		3.17	4.59
Arithmetic Mean Ratio		97.6	78.0	Arithmetic Mean Ratio		97.4	103.2
Weighted Mean Ratio		85.3	79.8	Weighted Mean Ratio		96.7	106.8
Geometric Mean Ratio		91.6	75.6	Geometric Mean Ratio		97.0	100.7
Harmonic Mean Ratio		86.5	73.5	Harmonic Mean Ratio		96.6	98.2
Standard Deviation		38.7	20.9	Standard Deviation		9.0	24.1
Coefficient of Variation		39.6	26.8	Coefficient of Variation		9.2	23.4
Price Related Differential (PRD)		1.14	0.98	Price Related Differential (PRD)		1.01	0.97
Bootstrap Price Related Differential		1.13	0.98	Bootstrap Price Related Differential		1.01	0.97
Lower PRD Confidence Interval		1.01	0.87	Lower PRD Confidence Interval		1.00	0.90
Upper PRD Confidence Interval		1.39	1.15	Upper PRD Confidence Interval		1.01	1.02
Average Sale Price		36,747	15,667	Average Sale Price		153,373	207,797
Average Market Value		31,357	12,508	Average Market Value		148,372	221,958

Detailed Statistics for the Commercial/Industrial & Residential Subclass

027 - ELLSWORTH			028 - FINNEY		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	78	9	Original Number of Sales	265	12
Number of Sales Trimmed	5	1	Number of Sales Trimmed	23	1
Number of Ratios: Outliers Removed	73	8	Number of Ratios: Outliers Removed	242	11
Minimum Ratio	51.6	19.3	Minimum Ratio	47.2	75.1
Maximum Ratio	329.0	470.0	Maximum Ratio	232.3	136.5
Minimum Sale Price	4,561	1,000	Minimum Sale Price	10,000	55,000
Maximum Sale Price	220,000	590,000	Maximum Sale Price	925,000	475,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	96.1	92.6	Median Ratio	97.0	84.8
Bootstrap Median Ratio	96.1	92.6	Bootstrap Median Ratio	97.0	84.8
Lower Median Confidence Interval	90.6	42.5	Lower Median Confidence Interval	95.2	79.9
Upper Median Confidence Interval	101.2	168.8	Upper Median Confidence Interval	98.3	97.9
Broadened Median Ratio (BMED)	96.3	94.3	Broadened Median Ratio (BMED)	97.0	85.5
Coefficient of Dispersion (COD)	16.5	39.8	Coefficient of Dispersion (COD)	8.8	8.7
Bootstrap Coefficient of Dispersion	16.4	36.9	Bootstrap Coefficient of Dispersion	8.7	7.8
Lower COD Confidence Interval	13.6	20.6	Lower COD Confidence Interval	7.9	6.5
Upper COD Confidence Interval	20.2	97.0	Upper COD Confidence Interval	9.8	12.2
Weighted Coefficient of Dispersion	14.5	15.3	Weighted Coefficient of Dispersion	8.7	8.1
Coefficient of Concentration @ 10%	34.6	22.2	Coefficient of Concentration @ 10%	58.9	58.3
Coefficient of Concentration @ 15%	55.1	33.3	Coefficient of Concentration @ 15%	73.6	75.0
Coefficient of Concentration @ 20%	64.1	33.3	Coefficient of Concentration @ 20%	82.6	91.7
Coefficient of Concentration @ 50%	93.6	55.6	Coefficient of Concentration @ 50%	96.2	91.7
Coefficient of Concentration @ 100%	96.2	88.9	Coefficient of Concentration @ 100%	98.5	100.0
Coefficient of Interquartile Deviation	14.1	50.8	Coefficient of Interquartile Deviation	7.5	11.0
Median Percent Deviation	14.0	33.5	Median Percent Deviation	7.2	8.0
Lower Quartile (25th Percentile)	82.5	52.1	Lower Quartile (25th Percentile)	90.2	79.5
Upper Quartile (75th Percentile)	109.6	146.2	Upper Quartile (75th Percentile)	104.8	98.2
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	RejectK
Relative Skewness	0.11	0.25	Relative Skewness	0.29	0.40
Relative Kurtosis	2.94	2.35	Relative Kurtosis	3.30	1.64
Arithmetic Mean Ratio	94.2	87.3	Arithmetic Mean Ratio	96.6	86.6
Weighted Mean Ratio	91.3	85.0	Weighted Mean Ratio	94.8	86.7
Geometric Mean Ratio	91.9	73.7	Geometric Mean Ratio	95.9	86.2
Harmonic Mean Ratio	89.6	58.1	Harmonic Mean Ratio	95.3	85.8
Standard Deviation	20.3	47.2	Standard Deviation	11.2	8.9
Coefficient of Variation	21.5	54.1	Coefficient of Variation	11.5	10.3
Price Related Differential (PRD)	1.03	1.03	Price Related Differential (PRD)	1.02	1.00
Bootstrap Price Related Differential	1.03	1.08	Bootstrap Price Related Differential	1.02	1.00
Lower PRD Confidence Interval	1.00	0.73	Lower PRD Confidence Interval	1.01	0.97
Upper PRD Confidence Interval	1.07	1.44	Upper PRD Confidence Interval	1.03	1.03
Average Sale Price	70,630	105,875	Average Sale Price	150,314	175,580
Average Market Value	64,515	90,013	Average Market Value	142,551	152,214

029 - FORD		
GENERAL STATISTICS	RES	C/I
Original Number of Sales	188	8
Number of Sales Trimmed	25	0
Number of Ratios: Outliers Removed	163	8
Minimum Ratio	27.3	39.8
Maximum Ratio	225.5	100.4
Minimum Sale Price	10,000	15,000
Maximum Sale Price	280,000	778,000
DISTRIBUTION-FREE STATISTICS		
Median Ratio	95.0	63.9
Bootstrap Median Ratio	95.0	63.9
Lower Median Confidence Interval	92.5	55.2
Upper Median Confidence Interval	96.7	93.1
Broadened Median Ratio (BMED)	95.0	63.8
Coefficient of Dispersion (COD)	9.5	23.1
Bootstrap Coefficient of Dispersion	9.5	20.5
Lower COD Confidence Interval	8.4	13.4
Upper COD Confidence Interval	10.9	39.5
Weighted Coefficient of Dispersion	8.3	16.8
Coefficient of Concentration @ 10%	55.9	50.0
Coefficient of Concentration @ 15%	66.0	62.5
Coefficient of Concentration @ 20%	75.5	62.5
Coefficient of Concentration @ 50%	91.5	87.5
Coefficient of Concentration @ 100%	98.4	100.0
Coefficient of Interquartile Deviation	8.5	24.5
Median Percent Deviation	8.5	11.5
Lower Quartile (25th Percentile)	86.3	55.9
Upper Quartile (75th Percentile)	102.4	87.1
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK
Relative Skewness	0.06	0.46
Relative Kurtosis	3.34	2.21
Arithmetic Mean Ratio	93.9	67.9
Weighted Mean Ratio	93.5	59.7
Geometric Mean Ratio	93.2	65.4
Harmonic Mean Ratio	92.4	62.9
Standard Deviation	11.9	20.0
Coefficient of Variation	12.7	29.5
Price Related Differential (PRD)	1.00	1.14
Bootstrap Price Related Differential	1.01	1.12
Lower PRD Confidence Interval	0.99	1.03
Upper PRD Confidence Interval	1.02	1.31
Average Sale Price	102,709	223,125
Average Market Value	96,001	133,206

030 - FRANKLIN			S-12
GENERAL STATISTICS	RES	C/I	
Original Number of Sales	130	17	
Number of Sales Trimmed	12	1	
Number of Ratios: Outliers Removed	118	16	
Minimum Ratio	37.3	51.4	
Maximum Ratio	443.0	458.6	
Minimum Sale Price	5,000	5,066	
Maximum Sale Price	620,000	1,241,000	
DISTRIBUTION-FREE STATISTICS			
Median Ratio	102.8	102.9	
Bootstrap Median Ratio	102.8	102.9	
Lower Median Confidence Interval	101.1	86.9	
Upper Median Confidence Interval	107.8	148.7	
Broadened Median Ratio (BMED)	102.8	105.3	
Coefficient of Dispersion (COD)	14.2	32.6	
Bootstrap Coefficient of Dispersion	14.1	30.8	
Lower COD Confidence Interval	12.1	21.1	
Upper COD Confidence Interval	16.8	56.0	
Weighted Coefficient of Dispersion	12.1	31.5	
Coefficient of Concentration @ 10%	43.8	23.5	
Coefficient of Concentration @ 15%	59.2	35.3	
Coefficient of Concentration @ 20%	70.0	47.1	
Coefficient of Concentration @ 50%	90.0	76.5	
Coefficient of Concentration @ 100%	95.4	88.2	
Coefficient of Interquartile Deviation	13.0	30.7	
Median Percent Deviation	12.2	20.9	
Lower Quartile (25th Percentile)	93.3	86.7	
Upper Quartile (75th Percentile)	120.1	149.9	
PARAMETRIC STATISTICS			
Normality Test	RejectK	RejectK	
Relative Skewness	0.06	1.22	
Relative Kurtosis	3.45	4.22	
Arithmetic Mean Ratio	103.4	114.1	
Weighted Mean Ratio	101.9	87.6	
Geometric Mean Ratio	101.4	105.7	
Harmonic Mean Ratio	99.2	98.2	
Standard Deviation	19.8	48.8	
Coefficient of Variation	19.2	42.8	
Price Related Differential (PRD)	1.01	1.30	
Bootstrap Price Related Differential	1.02	1.27	
Lower PRD Confidence Interval	1.00	1.05	
Upper PRD Confidence Interval	1.04	1.76	
Average Sale Price	118,199	258,644	
Average Market Value	120,388	226,493	

Detailed Statistics for the Commercial/Industrial & Residential Subclass

031 - GEARY			032 - GOVE		
GENERAL STATISTICS			GENERAL STATISTICS		
	RES	C/I		RES	C/I
Original Number of Sales	240	10	Original Number of Sales	15	6
Number of Sales Trimmed	21	1	Number of Sales Trimmed	2	0
Number of Ratios: Outliers Removed	219	9	Number of Ratios: Outliers Removed	13	6
Minimum Ratio	56.0	62.0	Minimum Ratio	60.3	47.3
Maximum Ratio	271.7	331.3	Maximum Ratio	148.8	104.8
Minimum Sale Price	6,000	19,500	Minimum Sale Price	3,600	10,000
Maximum Sale Price	326,500	1,300,000	Maximum Sale Price	92,000	40,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	99.9	109.1	Median Ratio	97.5	74.9
Bootstrap Median Ratio	99.9	109.1	Bootstrap Median Ratio	97.5	74.9
Lower Median Confidence Interval	97.9	82.7	Lower Median Confidence Interval	83.3	49.8
Upper Median Confidence Interval	101.7	146.2	Upper Median Confidence Interval	100.8	103.1
Broadened Median Ratio (BMED)	99.9	108.2	Broadened Median Ratio (BMED)	97.1	75.6
Coefficient of Dispersion (COD)	9.1	26.9	Coefficient of Dispersion (COD)	12.0	32.8
Bootstrap Coefficient of Dispersion	9.1	23.2	Bootstrap Coefficient of Dispersion	11.3	29.4
Lower COD Confidence Interval	8.2	18.2	Lower COD Confidence Interval	7.1	18.2
Upper COD Confidence Interval	10.2	52.9	Upper COD Confidence Interval	21.1	40.2
Weighted Coefficient of Dispersion	8.2	15.5	Weighted Coefficient of Dispersion	12.3	32.9
Coefficient of Concentration @ 10%	58.8	30.0	Coefficient of Concentration @ 10%	53.3	0.0
Coefficient of Concentration @ 15%	71.3	40.0	Coefficient of Concentration @ 15%	60.0	0.0
Coefficient of Concentration @ 20%	80.4	40.0	Coefficient of Concentration @ 20%	66.7	0.0
Coefficient of Concentration @ 50%	96.7	80.0	Coefficient of Concentration @ 50%	93.3	100.0
Coefficient of Concentration @ 100%	97.9	90.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	8.1	31.8	Coefficient of Interquartile Deviation	9.3	34.2
Median Percent Deviation	7.5	27.0	Median Percent Deviation	9.1	32.8
Lower Quartile (25th Percentile)	93.0	83.3	Lower Quartile (25th Percentile)	83.3	51.1
Upper Quartile (75th Percentile)	109.1	152.7	Upper Quartile (75th Percentile)	101.5	102.3
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	AcceptK	RejectW
Relative Skewness	0.22	0.53	Relative Skewness	-0.23	0.01
Relative Kurtosis	3.21	2.36	Relative Kurtosis	3.16	1.08
Arithmetic Mean Ratio	100.0	107.9	Arithmetic Mean Ratio	91.8	76.0
Weighted Mean Ratio	99.2	88.0	Weighted Mean Ratio	94.9	79.0
Geometric Mean Ratio	99.3	102.9	Geometric Mean Ratio	90.4	71.8
Harmonic Mean Ratio	98.6	98.2	Harmonic Mean Ratio	89.0	67.8
Standard Deviation	11.8	35.4	Standard Deviation	15.8	27.2
Coefficient of Variation	11.8	32.8	Coefficient of Variation	17.2	35.8
Price Related Differential (PRD)	1.01	1.23	Price Related Differential (PRD)	0.97	0.96
Bootstrap Price Related Differential	1.01	1.19	Bootstrap Price Related Differential	0.97	0.97
Lower PRD Confidence Interval	1.00	1.04	Lower PRD Confidence Interval	0.90	0.85
Upper PRD Confidence Interval	1.01	1.62	Upper PRD Confidence Interval	1.02	1.06
Average Sale Price	146,484	326,944	Average Sale Price	44,169	30,500
Average Market Value	145,325	287,749	Average Market Value	41,922	24,087

Detailed Statistics for the Commercial/Industrial & Residential Subclass

033 - GRAHAM			S-5			034 - GRANT			S-4		
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		17	7	Original Number of Sales		65	9	Original Number of Sales		65	9
Number of Sales Trimmed		0	0	Number of Sales Trimmed		6	0	Number of Sales Trimmed		6	0
Number of Ratios: Outliers Removed		17	7	Number of Ratios: Outliers Removed		59	9	Number of Ratios: Outliers Removed		59	9
Minimum Ratio		76.4	50.6	Minimum Ratio		69.2	62.7	Minimum Ratio		69.2	62.7
Maximum Ratio		113.3	123.6	Maximum Ratio		141.4	104.5	Maximum Ratio		141.4	104.5
Minimum Sale Price		5,000	20,000	Minimum Sale Price		10,000	25,000	Minimum Sale Price		10,000	25,000
Maximum Sale Price		150,000	315,000	Maximum Sale Price		275,000	100,000	Maximum Sale Price		275,000	100,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		100.0	86.4	Median Ratio		99.2	88.4	Median Ratio		99.2	88.4
Bootstrap Median Ratio		100.0	86.4	Bootstrap Median Ratio		99.2	88.4	Bootstrap Median Ratio		99.2	88.4
Lower Median Confidence Interval		91.7	73.0	Lower Median Confidence Interval		96.8	68.8	Lower Median Confidence Interval		96.8	68.8
Upper Median Confidence Interval		100.0	96.6	Upper Median Confidence Interval		101.4	103.3	Upper Median Confidence Interval		101.4	103.3
Broadened Median Ratio (BMED)		99.4	84.8	Broadened Median Ratio (BMED)		99.3	86.9	Broadened Median Ratio (BMED)		99.3	86.9
Coefficient of Dispersion (COD)		6.4	18.4	Coefficient of Dispersion (COD)		7.2	15.0	Coefficient of Dispersion (COD)		7.2	15.0
Bootstrap Coefficient of Dispersion		6.3	16.6	Bootstrap Coefficient of Dispersion		7.2	13.4	Bootstrap Coefficient of Dispersion		7.2	13.4
Lower COD Confidence Interval		4.0	9.5	Lower COD Confidence Interval		5.9	10.2	Lower COD Confidence Interval		5.9	10.2
Upper COD Confidence Interval		10.0	38.5	Upper COD Confidence Interval		8.9	23.6	Upper COD Confidence Interval		8.9	23.6
Weighted Coefficient of Dispersion		6.5	10.4	Weighted Coefficient of Dispersion		7.4	15.0	Weighted Coefficient of Dispersion		7.4	15.0
Coefficient of Concentration @ 10%		76.5	28.6	Coefficient of Concentration @ 10%		61.5	33.3	Coefficient of Concentration @ 10%		61.5	33.3
Coefficient of Concentration @ 15%		94.1	57.1	Coefficient of Concentration @ 15%		81.5	44.4	Coefficient of Concentration @ 15%		81.5	44.4
Coefficient of Concentration @ 20%		94.1	71.4	Coefficient of Concentration @ 20%		89.2	77.8	Coefficient of Concentration @ 20%		89.2	77.8
Coefficient of Concentration @ 50%		100.0	100.0	Coefficient of Concentration @ 50%		100.0	100.0	Coefficient of Concentration @ 50%		100.0	100.0
Coefficient of Concentration @ 100%		100.0	100.0	Coefficient of Concentration @ 100%		100.0	100.0	Coefficient of Concentration @ 100%		100.0	100.0
Coefficient of Interquartile Deviation		5.9	13.7	Coefficient of Interquartile Deviation		7.2	16.7	Coefficient of Interquartile Deviation		7.2	16.7
Median Percent Deviation		6.8	11.7	Median Percent Deviation		6.8	16.8	Median Percent Deviation		6.8	16.8
Lower Quartile (25th Percentile)		90.9	73.0	Lower Quartile (25th Percentile)		90.7	70.0	Lower Quartile (25th Percentile)		90.7	70.0
Upper Quartile (75th Percentile)		102.6	96.6	Upper Quartile (75th Percentile)		105.0	99.5	Upper Quartile (75th Percentile)		105.0	99.5
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptW	Normality Test		RejectK	Reject4	Normality Test		RejectK	Reject4
Relative Skewness		-0.46	0.19	Relative Skewness		0.08	-0.13	Relative Skewness		0.08	-0.13
Relative Kurtosis		3.19	2.72	Relative Kurtosis		2.64	1.49	Relative Kurtosis		2.64	1.49
Arithmetic Mean Ratio		97.5	85.5	Arithmetic Mean Ratio		98.0	85.2	Arithmetic Mean Ratio		98.0	85.2
Weighted Mean Ratio		95.9	81.1	Weighted Mean Ratio		96.3	87.4	Weighted Mean Ratio		96.3	87.4
Geometric Mean Ratio		97.1	82.8	Geometric Mean Ratio		97.5	83.9	Geometric Mean Ratio		97.5	83.9
Harmonic Mean Ratio		96.7	80.0	Harmonic Mean Ratio		97.1	82.6	Harmonic Mean Ratio		97.1	82.6
Standard Deviation		8.9	22.6	Standard Deviation		9.2	15.7	Standard Deviation		9.2	15.7
Coefficient of Variation		9.1	26.4	Coefficient of Variation		9.4	18.4	Coefficient of Variation		9.4	18.4
Price Related Differential (PRD)		1.02	1.05	Price Related Differential (PRD)		1.02	0.98	Price Related Differential (PRD)		1.02	0.98
Bootstrap Price Related Differential		1.02	1.04	Bootstrap Price Related Differential		1.02	0.98	Bootstrap Price Related Differential		1.02	0.98
Lower PRD Confidence Interval		0.99	0.94	Lower PRD Confidence Interval		1.01	0.94	Lower PRD Confidence Interval		1.01	0.94
Upper PRD Confidence Interval		1.05	1.25	Upper PRD Confidence Interval		1.03	1.02	Upper PRD Confidence Interval		1.03	1.02
Average Sale Price		52,029	103,571	Average Sale Price		118,407	56,978	Average Sale Price		118,407	56,978
Average Market Value		49,918	83,993	Average Market Value		114,005	49,774	Average Market Value		114,005	49,774

Detailed Statistics for the Commercial/Industrial & Residential Subclass

035 - GRAY		S-4		036 - GREELEY		S-6	
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		51	6	Original Number of Sales		7	6
Number of Sales Trimmed		3	0	Number of Sales Trimmed		0	0
Number of Ratios: Outliers Removed		48	6	Number of Ratios: Outliers Removed		7	6
Minimum Ratio		63.5	54.3	Minimum Ratio		70.7	53.0
Maximum Ratio		257.9	121.7	Maximum Ratio		126.2	145.2
Minimum Sale Price		2,000	60,000	Minimum Sale Price		27,000	4,500
Maximum Sale Price		280,000	197,500	Maximum Sale Price		172,500	61,740
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		99.1	57.7	Median Ratio		94.8	101.4
Bootstrap Median Ratio		99.1	57.7	Bootstrap Median Ratio		94.8	101.4
Lower Median Confidence Interval		89.9	54.4	Lower Median Confidence Interval		71.3	67.9
Upper Median Confidence Interval		104.8	113.0	Upper Median Confidence Interval		118.0	144.1
Broadened Median Ratio (BMED)		99.1	64.9	Broadened Median Ratio (BMED)		94.1	105.3
Coefficient of Dispersion (COD)		11.5	35.0	Coefficient of Dispersion (COD)		17.2	27.0
Bootstrap Coefficient of Dispersion		11.3	29.6	Bootstrap Coefficient of Dispersion		15.3	22.1
Lower COD Confidence Interval		9.4	17.2	Lower COD Confidence Interval		10.4	15.5
Upper COD Confidence Interval		14.3	41.4	Upper COD Confidence Interval		30.0	52.6
Weighted Coefficient of Dispersion		10.8	33.6	Weighted Coefficient of Dispersion		19.4	36.0
Coefficient of Concentration @ 10%		47.1	66.7	Coefficient of Concentration @ 10%		42.9	33.3
Coefficient of Concentration @ 15%		72.5	66.7	Coefficient of Concentration @ 15%		42.9	33.3
Coefficient of Concentration @ 20%		84.3	66.7	Coefficient of Concentration @ 20%		42.9	50.0
Coefficient of Concentration @ 50%		96.1	66.7	Coefficient of Concentration @ 50%		100.0	100.0
Coefficient of Concentration @ 100%		98.0	83.3	Coefficient of Concentration @ 100%		100.0	100.0
Coefficient of Interquartile Deviation		11.3	47.0	Coefficient of Interquartile Deviation		24.7	33.6
Median Percent Deviation		10.2	5.8	Median Percent Deviation		24.5	29.6
Lower Quartile (25th Percentile)		85.8	54.4	Lower Quartile (25th Percentile)		71.3	75.4
Upper Quartile (75th Percentile)		108.2	108.6	Upper Quartile (75th Percentile)		118.0	143.6
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	RejectW	Normality Test		AcceptW	AcceptW
Relative Skewness		-0.40	0.80	Relative Skewness		0.19	-0.11
Relative Kurtosis		2.37	1.79	Relative Kurtosis		1.76	1.82
Arithmetic Mean Ratio		95.3	75.0	Arithmetic Mean Ratio		95.5	104.5
Weighted Mean Ratio		93.6	74.4	Weighted Mean Ratio		84.2	94.9
Geometric Mean Ratio		94.3	70.7	Geometric Mean Ratio		93.5	98.9
Harmonic Mean Ratio		93.3	67.2	Harmonic Mean Ratio		91.4	92.9
Standard Deviation		13.2	30.0	Standard Deviation		21.3	35.6
Coefficient of Variation		13.9	40.0	Coefficient of Variation		22.3	34.1
Price Related Differential (PRD)		1.02	1.01	Price Related Differential (PRD)		1.13	1.10
Bootstrap Price Related Differential		1.02	1.00	Bootstrap Price Related Differential		1.11	1.09
Lower PRD Confidence Interval		1.00	0.95	Lower PRD Confidence Interval		1.06	0.89
Upper PRD Confidence Interval		1.04	1.14	Upper PRD Confidence Interval		1.26	1.40
Average Sale Price		100,198	114,583	Average Sale Price		64,543	24,640
Average Market Value		93,825	85,232	Average Market Value		54,346	23,377

Detailed Statistics for the Commercial/Industrial & Residential Subclass

90% Conf Level

037 - GREENWOOD			038 - HAMILTON		
GENERAL STATISTICS			GENERAL STATISTICS		
	RES	C/I		RES	C/I
Original Number of Sales	38	6	Original Number of Sales	29	5
Number of Sales Trimmed	4	0	Number of Sales Trimmed	2	0
Number of Ratios: Outliers Removed	34	6	Number of Ratios: Outliers Removed	27	5
Minimum Ratio	56.6	54.7	Minimum Ratio	60.9	58.0
Maximum Ratio	255.0	100.0	Maximum Ratio	231.1	137.2
Minimum Sale Price	2,000	4,400	Minimum Sale Price	725	5,000
Maximum Sale Price	137,000	30,000	Maximum Sale Price	130,000	345,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	91.4	95.9	Median Ratio	95.5	116.0
Bootstrap Median Ratio	91.4	95.9	Bootstrap Median Ratio	95.5	116.0
Lower Median Confidence Interval	84.2	71.8	Lower Median Confidence Interval	88.0	58.9
Upper Median Confidence Interval	101.7	100.0	Upper Median Confidence Interval	101.1	134.8
Broadened Median Ratio (BMED)	91.2	95.4	Broadened Median Ratio (BMED)	96.2	99.4
Coefficient of Dispersion (COD)	15.8	11.2	Coefficient of Dispersion (COD)	12.7	22.6
Bootstrap Coefficient of Dispersion	15.2	9.4	Bootstrap Coefficient of Dispersion	12.5	21.1
Lower COD Confidence Interval	12.8	3.5	Lower COD Confidence Interval	9.4	10.2
Upper COD Confidence Interval	21.0	29.3	Upper COD Confidence Interval	17.5	47.7
Weighted Coefficient of Dispersion	16.7	9.2	Weighted Coefficient of Dispersion	13.1	43.7
Coefficient of Concentration @ 10%	36.8	83.3	Coefficient of Concentration @ 10%	41.4	40.0
Coefficient of Concentration @ 15%	52.6	83.3	Coefficient of Concentration @ 15%	58.6	40.0
Coefficient of Concentration @ 20%	65.8	83.3	Coefficient of Concentration @ 20%	69.0	60.0
Coefficient of Concentration @ 50%	89.5	100.0	Coefficient of Concentration @ 50%	93.1	100.0
Coefficient of Concentration @ 100%	89.5	100.0	Coefficient of Concentration @ 100%	96.6	100.0
Coefficient of Interquartile Deviation	16.0	10.2	Coefficient of Interquartile Deviation	13.5	28.2
Median Percent Deviation	14.1	4.3	Median Percent Deviation	11.9	18.3
Lower Quartile (25th Percentile)	79.4	80.4	Lower Quartile (25th Percentile)	84.1	61.7
Upper Quartile (75th Percentile)	108.7	100.0	Upper Quartile (75th Percentile)	110.0	127.1
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	AcceptK	RejectW	Normality Test	RejectK	AcceptW
Relative Skewness	0.12	-1.51	Relative Skewness	-0.28	-0.24
Relative Kurtosis	2.54	3.67	Relative Kurtosis	2.45	1.34
Arithmetic Mean Ratio	90.5	89.3	Arithmetic Mean Ratio	93.9	98.7
Weighted Mean Ratio	92.6	92.9	Weighted Mean Ratio	92.2	65.7
Geometric Mean Ratio	88.9	87.4	Geometric Mean Ratio	92.5	93.3
Harmonic Mean Ratio	87.2	85.2	Harmonic Mean Ratio	91.1	87.7
Standard Deviation	17.5	17.6	Standard Deviation	15.6	35.0
Coefficient of Variation	19.3	19.7	Coefficient of Variation	16.6	35.4
Price Related Differential (PRD)	0.98	0.96	Price Related Differential (PRD)	1.02	1.50
Bootstrap Price Related Differential	0.98	0.97	Bootstrap Price Related Differential	1.02	1.41
Lower PRD Confidence Interval	0.92	0.89	Lower PRD Confidence Interval	0.99	1.32
Upper PRD Confidence Interval	1.04	1.00	Upper PRD Confidence Interval	1.06	1.95
Average Sale Price	42,528	14,208	Average Sale Price	63,734	110,800
Average Market Value	39,391	13,202	Average Market Value	58,778	72,794

Detailed Statistics for the Commercial/Industrial & Residential Subclass

039 - HARPER			040 - HARVEY		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	95	6	Original Number of Sales	176	15
Number of Sales Trimmed	8	0	Number of Sales Trimmed	20	1
Number of Ratios: Outliers Removed	87	6	Number of Ratios: Outliers Removed	156	14
Minimum Ratio	38.6	33.8	Minimum Ratio	30.4	30.8
Maximum Ratio	2590.0	190.1	Maximum Ratio	439.3	400.7
Minimum Sale Price	1,000	5,000	Minimum Sale Price	6,400	10,000
Maximum Sale Price	233,500	55,000	Maximum Sale Price	386,000	640,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	100.0	101.2	Median Ratio	102.0	66.3
Bootstrap Median Ratio	100.0	101.2	Bootstrap Median Ratio	102.0	66.3
Lower Median Confidence Interval	96.4	53.2	Lower Median Confidence Interval	99.9	57.9
Upper Median Confidence Interval	104.7	175.9	Upper Median Confidence Interval	105.6	100.0
Broadened Median Ratio (BMED)	100.0	106.5	Broadened Median Ratio (BMED)	102.1	69.9
Coefficient of Dispersion (COD)	14.7	41.7	Coefficient of Dispersion (COD)	11.8	28.2
Bootstrap Coefficient of Dispersion	14.7	35.1	Bootstrap Coefficient of Dispersion	11.7	26.1
Lower COD Confidence Interval	12.4	21.9	Lower COD Confidence Interval	10.4	19.1
Upper COD Confidence Interval	17.6	110.1	Upper COD Confidence Interval	13.5	48.6
Weighted Coefficient of Dispersion	14.1	36.3	Weighted Coefficient of Dispersion	10.9	22.5
Coefficient of Concentration @ 10%	38.9	33.3	Coefficient of Concentration @ 10%	48.3	33.3
Coefficient of Concentration @ 15%	53.7	33.3	Coefficient of Concentration @ 15%	61.4	40.0
Coefficient of Concentration @ 20%	65.3	33.3	Coefficient of Concentration @ 20%	69.9	40.0
Coefficient of Concentration @ 50%	90.5	50.0	Coefficient of Concentration @ 50%	90.9	60.0
Coefficient of Concentration @ 100%	96.8	100.0	Coefficient of Concentration @ 100%	94.9	93.3
Coefficient of Interquartile Deviation	13.6	52.3	Coefficient of Interquartile Deviation	10.3	31.8
Median Percent Deviation	13.9	44.0	Median Percent Deviation	11.0	27.0
Lower Quartile (25th Percentile)	86.0	62.9	Lower Quartile (25th Percentile)	93.8	57.9
Upper Quartile (75th Percentile)	113.2	168.8	Upper Quartile (75th Percentile)	114.7	100.0
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptK
Relative Skewness	0.19	0.17	Relative Skewness	0.28	0.03
Relative Kurtosis	3.13	1.86	Relative Kurtosis	3.22	2.19
Arithmetic Mean Ratio	98.4	110.1	Arithmetic Mean Ratio	101.6	69.8
Weighted Mean Ratio	93.8	106.5	Weighted Mean Ratio	99.9	61.0
Geometric Mean Ratio	96.6	95.7	Geometric Mean Ratio	100.4	65.2
Harmonic Mean Ratio	94.7	80.4	Harmonic Mean Ratio	99.3	60.1
Standard Deviation	18.9	57.4	Standard Deviation	15.5	24.9
Coefficient of Variation	19.3	52.2	Coefficient of Variation	15.2	35.7
Price Related Differential (PRD)	1.05	1.03	Price Related Differential (PRD)	1.02	1.14
Bootstrap Price Related Differential	1.05	1.03	Bootstrap Price Related Differential	1.02	1.13
Lower PRD Confidence Interval	1.02	0.92	Lower PRD Confidence Interval	1.01	1.05
Upper PRD Confidence Interval	1.08	1.22	Upper PRD Confidence Interval	1.03	1.29
Average Sale Price	53,620	24,167	Average Sale Price	117,676	135,500
Average Market Value	50,281	25,748	Average Market Value	117,539	82,639

Detailed Statistics for the Commercial/Industrial & Residential Subclass

85% Conf Level

041 - HASKELL			042 - HODGEMAN		
		S-5			S-3
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	11	10	Original Number of Sales	7	4
Number of Sales Trimmed	1	1	Number of Sales Trimmed	0	0
Number of Ratios: Outliers Removed	10	9	Number of Ratios: Outliers Removed	7	4
Minimum Ratio	56.7	41.1	Minimum Ratio	80.8	60.1
Maximum Ratio	229.5	106.2	Maximum Ratio	136.7	114.3
Minimum Sale Price	7,500	12,500	Minimum Sale Price	12,000	15,000
Maximum Sale Price	215,000	250,000	Maximum Sale Price	169,000	20,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	81.8	80.4	Median Ratio	98.7	97.7
Bootstrap Median Ratio	81.8	80.4	Bootstrap Median Ratio	98.7	97.7
Lower Median Confidence Interval	73.7	73.5	Lower Median Confidence Interval	82.8	61.8
Upper Median Confidence Interval	106.8	91.1	Upper Median Confidence Interval	120.9	113.7
Broadened Median Ratio (BMED)	85.2	80.6	Broadened Median Ratio (BMED)	98.2	94.2
Coefficient of Dispersion (COD)	18.6	10.5	Coefficient of Dispersion (COD)	14.9	16.1
Bootstrap Coefficient of Dispersion	15.9	9.5	Bootstrap Coefficient of Dispersion	13.3	13.3
Lower COD Confidence Interval	14.1	6.4	Lower COD Confidence Interval	8.9	7.6
Upper COD Confidence Interval	29.8	17.5	Upper COD Confidence Interval	25.9	31.1
Weighted Coefficient of Dispersion	15.9	7.3	Weighted Coefficient of Dispersion	13.0	15.3
Coefficient of Concentration @ 10%	36.4	50.0	Coefficient of Concentration @ 10%	42.9	50.0
Coefficient of Concentration @ 15%	45.5	70.0	Coefficient of Concentration @ 15%	42.9	50.0
Coefficient of Concentration @ 20%	54.5	80.0	Coefficient of Concentration @ 20%	71.4	75.0
Coefficient of Concentration @ 50%	90.9	100.0	Coefficient of Concentration @ 50%	100.0	100.0
Coefficient of Concentration @ 100%	90.9	100.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	20.2	12.4	Coefficient of Interquartile Deviation	19.3	21.9
Median Percent Deviation	19.5	11.0	Median Percent Deviation	16.1	10.7
Lower Quartile (25th Percentile)	73.7	72.4	Lower Quartile (25th Percentile)	82.8	68.4
Upper Quartile (75th Percentile)	106.8	92.4	Upper Quartile (75th Percentile)	120.9	111.2
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	AcceptK	RejectK	Normality Test	AcceptW	AcceptW
Relative Skewness	0.18	0.62	Relative Skewness	0.64	-0.69
Relative Kurtosis	1.90	2.47	Relative Kurtosis	2.18	2.04
Arithmetic Mean Ratio	85.2	84.3	Arithmetic Mean Ratio	102.3	92.5
Weighted Mean Ratio	78.4	82.5	Weighted Mean Ratio	95.8	93.5
Geometric Mean Ratio	83.4	83.6	Geometric Mean Ratio	100.6	90.0
Harmonic Mean Ratio	81.7	83.0	Harmonic Mean Ratio	99.1	87.2
Standard Deviation	18.2	11.6	Standard Deviation	20.3	23.2
Coefficient of Variation	21.4	13.8	Coefficient of Variation	19.8	25.1
Price Related Differential (PRD)	1.09	1.02	Price Related Differential (PRD)	1.07	0.99
Bootstrap Price Related Differential	1.08	1.02	Bootstrap Price Related Differential	1.06	0.99
Lower PRD Confidence Interval	1.03	0.99	Lower PRD Confidence Interval	1.01	0.97
Upper PRD Confidence Interval	1.25	1.08	Upper PRD Confidence Interval	1.15	1.00
Average Sale Price	108,750	50,750	Average Sale Price	61,643	17,000
Average Market Value	85,264	41,864	Average Market Value	59,037	15,893

Detailed Statistics for the Commercial/Industrial & Residential Subclass

043 - JACKSON			044 - JEFFERSON		
			S-15		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	71	10	Original Number of Sales	120	20
Number of Sales Trimmed	8	0	Number of Sales Trimmed	6	0
Number of Ratios: Outliers Removed	63	10	Number of Ratios: Outliers Removed	114	20
Minimum Ratio	15.6	73.6	Minimum Ratio	60.3	47.8
Maximum Ratio	1326.7	180.6	Maximum Ratio	322.4	170.0
Minimum Sale Price	1,500	15,000	Minimum Sale Price	5,000	5,500
Maximum Sale Price	465,381	200,000	Maximum Sale Price	334,000	876,973
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	98.8	98.2	Median Ratio	104.1	102.1
Bootstrap Median Ratio	98.8	98.2	Bootstrap Median Ratio	104.1	102.1
Lower Median Confidence Interval	93.0	85.0	Lower Median Confidence Interval	98.2	76.1
Upper Median Confidence Interval	106.3	120.8	Upper Median Confidence Interval	108.4	123.1
Broadened Median Ratio (BMED)	99.6	97.1	Broadened Median Ratio (BMED)	103.9	100.1
Coefficient of Dispersion (COD)	15.6	22.6	Coefficient of Dispersion (COD)	15.9	29.8
Bootstrap Coefficient of Dispersion	15.2	21.1	Bootstrap Coefficient of Dispersion	15.6	28.9
Lower COD Confidence Interval	13.0	12.2	Lower COD Confidence Interval	13.8	21.4
Upper COD Confidence Interval	19.5	41.3	Upper COD Confidence Interval	18.5	43.1
Weighted Coefficient of Dispersion	14.2	25.6	Weighted Coefficient of Dispersion	14.3	29.6
Coefficient of Concentration @ 10%	45.1	30.0	Coefficient of Concentration @ 10%	39.2	15.0
Coefficient of Concentration @ 15%	52.1	50.0	Coefficient of Concentration @ 15%	56.7	20.0
Coefficient of Concentration @ 20%	63.4	60.0	Coefficient of Concentration @ 20%	65.8	30.0
Coefficient of Concentration @ 50%	88.7	90.0	Coefficient of Concentration @ 50%	95.0	85.0
Coefficient of Concentration @ 100%	95.8	100.0	Coefficient of Concentration @ 100%	96.7	100.0
Coefficient of Interquartile Deviation	14.3	19.9	Coefficient of Interquartile Deviation	13.6	29.6
Median Percent Deviation	12.3	15.5	Median Percent Deviation	12.9	25.6
Lower Quartile (25th Percentile)	88.9	83.0	Lower Quartile (25th Percentile)	91.7	75.9
Upper Quartile (75th Percentile)	117.2	122.2	Upper Quartile (75th Percentile)	120.2	136.2
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	AcceptK	RejectK	Normality Test	RejectK	RejectK
Relative Skewness	0.00	1.25	Relative Skewness	0.40	0.32
Relative Kurtosis	2.99	3.72	Relative Kurtosis	2.75	2.01
Arithmetic Mean Ratio	100.4	105.6	Arithmetic Mean Ratio	104.8	104.0
Weighted Mean Ratio	98.3	102.0	Weighted Mean Ratio	99.8	93.4
Geometric Mean Ratio	98.4	101.6	Geometric Mean Ratio	102.8	97.7
Harmonic Mean Ratio	96.3	98.3	Harmonic Mean Ratio	100.9	91.6
Standard Deviation	19.6	32.9	Standard Deviation	20.4	36.7
Coefficient of Variation	19.5	31.2	Coefficient of Variation	19.5	35.3
Price Related Differential (PRD)	1.02	1.04	Price Related Differential (PRD)	1.05	1.11
Bootstrap Price Related Differential	1.02	1.04	Bootstrap Price Related Differential	1.05	1.10
Lower PRD Confidence Interval	0.99	0.91	Lower PRD Confidence Interval	1.03	0.94
Upper PRD Confidence Interval	1.06	1.11	Upper PRD Confidence Interval	1.07	1.44
Average Sale Price	106,363	71,420	Average Sale Price	120,164	157,053
Average Market Value	104,590	72,821	Average Market Value	119,888	146,751

Detailed Statistics for the Commercial/Industrial & Residential Subclass

045 - JEWELL		<i>S-1</i>		046 - JOHNSON			
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		33	6	Original Number of Sales		346	82
Number of Sales Trimmed		1	0	Number of Sales Trimmed		27	3
Number of Ratios: Outliers Removed		32	6	Number of Ratios: Outliers Removed		319	79
Minimum Ratio		11.2	25.0	Minimum Ratio		41.3	46.5
Maximum Ratio		135.4	161.3	Maximum Ratio		246.0	285.8
Minimum Sale Price		600	4,000	Minimum Sale Price		35,000	25,000
Maximum Sale Price		84,000	70,000	Maximum Sale Price		1,500,000	19,125,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		87.4	75.3	Median Ratio		100.6	98.4
Bootstrap Median Ratio		87.4	75.3	Bootstrap Median Ratio		100.6	98.4
Lower Median Confidence Interval		73.4	33.9	Lower Median Confidence Interval		100.0	86.2
Upper Median Confidence Interval		99.8	135.0	Upper Median Confidence Interval		101.7	101.2
Broadened Median Ratio (BMED)		87.0	75.4	Broadened Median Ratio (BMED)		100.5	97.7
Coefficient of Dispersion (COD)		22.1	56.5	Coefficient of Dispersion (COD)		7.0	23.5
Bootstrap Coefficient of Dispersion		21.4	47.2	Bootstrap Coefficient of Dispersion		6.9	23.4
Lower COD Confidence Interval		16.7	23.9	Lower COD Confidence Interval		6.4	19.2
Upper COD Confidence Interval		31.2	117.0	Upper COD Confidence Interval		7.7	28.6
Weighted Coefficient of Dispersion		23.3	45.2	Weighted Coefficient of Dispersion		6.9	27.7
Coefficient of Concentration @ 10%		21.2	0.0	Coefficient of Concentration @ 10%		67.6	28.0
Coefficient of Concentration @ 15%		42.4	0.0	Coefficient of Concentration @ 15%		79.5	41.5
Coefficient of Concentration @ 20%		51.5	0.0	Coefficient of Concentration @ 20%		87.9	46.3
Coefficient of Concentration @ 50%		87.9	66.7	Coefficient of Concentration @ 50%		98.6	89.0
Coefficient of Concentration @ 100%		100.0	83.3	Coefficient of Concentration @ 100%		99.4	98.8
Coefficient of Interquartile Deviation		19.8	55.6	Coefficient of Interquartile Deviation		5.8	18.9
Median Percent Deviation		19.0	44.0	Median Percent Deviation		5.6	21.3
Lower Quartile (25th Percentile)		65.6	38.3	Lower Quartile (25th Percentile)		96.0	73.7
Upper Quartile (75th Percentile)		100.1	121.9	Upper Quartile (75th Percentile)		107.6	111.0
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptW	Normality Test		RejectK	RejectK
Relative Skewness		-0.21	0.43	Relative Skewness		0.15	0.26
Relative Kurtosis		2.78	1.87	Relative Kurtosis		3.17	2.46
Arithmetic Mean Ratio		86.8	81.4	Arithmetic Mean Ratio		101.3	93.0
Weighted Mean Ratio		83.8	62.7	Weighted Mean Ratio		100.3	79.9
Geometric Mean Ratio		82.9	67.3	Geometric Mean Ratio		100.8	88.8
Harmonic Mean Ratio		78.0	55.0	Harmonic Mean Ratio		100.4	84.5
Standard Deviation		24.4	51.5	Standard Deviation		9.3	27.6
Coefficient of Variation		28.1	63.3	Coefficient of Variation		9.1	29.7
Price Related Differential (PRD)		1.04	1.30	Price Related Differential (PRD)		1.01	1.16
Bootstrap Price Related Differential		1.04	1.21	Bootstrap Price Related Differential		1.01	1.16
Lower PRD Confidence Interval		0.98	0.98	Lower PRD Confidence Interval		1.00	1.04
Upper PRD Confidence Interval		1.11	2.03	Upper PRD Confidence Interval		1.02	1.32
Average Sale Price		28,136	22,275	Average Sale Price		239,013	1,288,893
Average Market Value		23,576	13,963	Average Market Value		239,667	1,029,381

Detailed Statistics for the Commercial/Industrial & Residential Subclass

047 - KEARNY		<i>S-4</i>		048 - KINGMAN		
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		C/I
Original Number of Sales		37	7	Original Number of Sales	67	8
Number of Sales Trimmed		3	0	Number of Sales Trimmed	5	0
Number of Ratios: Outliers Removed		34	7	Number of Ratios: Outliers Removed	62	8
Minimum Ratio		58.5	46.8	Minimum Ratio	39.8	78.9
Maximum Ratio		163.4	148.5	Maximum Ratio	395.3	181.5
Minimum Sale Price		9,000	16,000	Minimum Sale Price	3,000	10,500
Maximum Sale Price		220,000	180,000	Maximum Sale Price	235,000	86,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS		
Median Ratio		93.7	87.7	Median Ratio	101.4	109.2
Bootstrap Median Ratio		93.7	87.7	Bootstrap Median Ratio	101.4	109.2
Lower Median Confidence Interval		83.5	48.1	Lower Median Confidence Interval	94.3	100.0
Upper Median Confidence Interval		98.9	131.0	Upper Median Confidence Interval	105.2	152.6
Broadened Median Ratio (BMED)		94.0	84.9	Broadened Median Ratio (BMED)	101.4	110.2
Coefficient of Dispersion (COD)		13.4	32.2	Coefficient of Dispersion (COD)	18.3	20.6
Bootstrap Coefficient of Dispersion		13.1	29.6	Bootstrap Coefficient of Dispersion	18.3	18.5
Lower COD Confidence Interval		10.3	15.8	Lower COD Confidence Interval	14.7	11.0
Upper COD Confidence Interval		17.7	72.2	Upper COD Confidence Interval	22.6	37.2
Weighted Coefficient of Dispersion		11.7	18.0	Weighted Coefficient of Dispersion	13.0	23.5
Coefficient of Concentration @ 10%		40.5	28.6	Coefficient of Concentration @ 10%	35.8	50.0
Coefficient of Concentration @ 15%		54.1	42.9	Coefficient of Concentration @ 15%	50.7	62.5
Coefficient of Concentration @ 20%		70.3	42.9	Coefficient of Concentration @ 20%	59.7	62.5
Coefficient of Concentration @ 50%		94.6	85.7	Coefficient of Concentration @ 50%	88.1	87.5
Coefficient of Concentration @ 100%		100.0	100.0	Coefficient of Concentration @ 100%	95.5	100.0
Coefficient of Interquartile Deviation		12.2	47.3	Coefficient of Interquartile Deviation	15.3	20.5
Median Percent Deviation		12.0	45.2	Median Percent Deviation	14.7	10.4
Lower Quartile (25th Percentile)		80.0	48.1	Lower Quartile (25th Percentile)	88.9	100.4
Upper Quartile (75th Percentile)		102.8	131.0	Upper Quartile (75th Percentile)	119.9	145.1
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS		
Normality Test		RejectK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness		0.27	0.37	Relative Skewness	0.65	0.84
Relative Kurtosis		2.88	1.87	Relative Kurtosis	2.90	2.69
Arithmetic Mean Ratio		91.4	89.9	Arithmetic Mean Ratio	104.0	119.4
Weighted Mean Ratio		89.5	83.9	Weighted Mean Ratio	100.5	128.8
Geometric Mean Ratio		90.1	82.8	Geometric Mean Ratio	101.2	115.8
Harmonic Mean Ratio		88.8	76.0	Harmonic Mean Ratio	98.6	112.6
Standard Deviation		15.6	38.5	Standard Deviation	24.7	32.8
Coefficient of Variation		17.0	42.9	Coefficient of Variation	23.7	27.4
Price Related Differential (PRD)		1.02	1.07	Price Related Differential (PRD)	1.04	0.93
Bootstrap Price Related Differential		1.02	1.07	Bootstrap Price Related Differential	1.03	0.94
Lower PRD Confidence Interval		1.00	0.90	Lower PRD Confidence Interval	1.00	0.85
Upper PRD Confidence Interval		1.06	1.27	Upper PRD Confidence Interval	1.07	1.01
Average Sale Price		95,943	83,857	Average Sale Price	80,685	34,063
Average Market Value		85,868	70,386	Average Market Value	81,064	43,861

Detailed Statistics for the Commercial/Industrial & Residential Subclass

90% Conf level

049 - KIOWA		S-5
GENERAL STATISTICS		
	RES	C/I
Original Number of Sales	9	5
Number of Sales Trimmed	1	0
Number of Ratios: Outliers Removed	8	5
Minimum Ratio	57.6	21.5
Maximum Ratio	241.0	125.5
Minimum Sale Price	10,000	8,000
Maximum Sale Price	180,000	775,000
DISTRIBUTION-FREE STATISTICS		
Median Ratio	84.2	91.0
Bootstrap Median Ratio	84.2	91.0
Lower Median Confidence Interval	60.1	29.5
Upper Median Confidence Interval	119.2	122.9
Broadened Median Ratio (BMED)	82.7	94.4
Coefficient of Dispersion (COD)	22.1	26.4
Bootstrap Coefficient of Dispersion	18.5	22.5
Lower COD Confidence Interval	15.1	9.7
Upper COD Confidence Interval	35.8	173.8
Weighted Coefficient of Dispersion	19.2	70.5
Coefficient of Concentration @ 10%	11.1	40.0
Coefficient of Concentration @ 15%	33.3	60.0
Coefficient of Concentration @ 20%	44.4	60.0
Coefficient of Concentration @ 50%	88.9	80.0
Coefficient of Concentration @ 100%	88.9	100.0
Coefficient of Interquartile Deviation	26.1	33.0
Median Percent Deviation	20.0	14.4
Lower Quartile (25th Percentile)	63.7	54.8
Upper Quartile (75th Percentile)	107.7	114.8
PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW
Relative Skewness	0.56	-0.95
Relative Kurtosis	2.24	2.69
Arithmetic Mean Ratio	81.1	86.0
Weighted Mean Ratio	84.7	29.5
Geometric Mean Ratio	78.8	74.2
Harmonic Mean Ratio	76.6	57.8
Standard Deviation	21.1	39.0
Coefficient of Variation	26.1	45.3
Price Related Differential (PRD)	0.96	2.92
Bootstrap Price Related Differential	0.96	2.74
Lower PRD Confidence Interval	0.87	1.02
Upper PRD Confidence Interval	1.05	3.54
Average Sale Price	67,750	171,600
Average Market Value	57,390	50,570

050 - LABETTE		
GENERAL STATISTICS		
	RES	C/I
Original Number of Sales	167	7
Number of Sales Trimmed	16	0
Number of Ratios: Outliers Removed	151	7
Minimum Ratio	33.8	56.9
Maximum Ratio	564.4	310.4
Minimum Sale Price	2,500	16,000
Maximum Sale Price	247,500	73,000
DISTRIBUTION-FREE STATISTICS		
Median Ratio	102.1	97.7
Bootstrap Median Ratio	102.1	97.7
Lower Median Confidence Interval	100.0	82.2
Upper Median Confidence Interval	104.3	282.3
Broadened Median Ratio (BMED)	102.1	101.0
Coefficient of Dispersion (COD)	11.8	69.8
Bootstrap Coefficient of Dispersion	11.8	56.7
Lower COD Confidence Interval	10.3	30.0
Upper COD Confidence Interval	13.6	130.5
Weighted Coefficient of Dispersion	9.8	51.0
Coefficient of Concentration @ 10%	50.9	28.6
Coefficient of Concentration @ 15%	61.1	28.6
Coefficient of Concentration @ 20%	70.1	57.1
Coefficient of Concentration @ 50%	90.4	71.4
Coefficient of Concentration @ 100%	95.2	71.4
Coefficient of Interquartile Deviation	11.0	102.4
Median Percent Deviation	9.6	17.3
Lower Quartile (25th Percentile)	93.8	82.2
Upper Quartile (75th Percentile)	116.3	282.3
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectW
Relative Skewness	0.33	0.87
Relative Kurtosis	3.06	1.93
Arithmetic Mean Ratio	101.9	147.8
Weighted Mean Ratio	98.3	128.6
Geometric Mean Ratio	100.6	122.6
Harmonic Mean Ratio	99.4	105.3
Standard Deviation	15.9	103.3
Coefficient of Variation	15.6	69.9
Price Related Differential (PRD)	1.04	1.15
Bootstrap Price Related Differential	1.04	1.12
Lower PRD Confidence Interval	1.02	1.01
Upper PRD Confidence Interval	1.05	1.45
Average Sale Price	59,372	30,857
Average Market Value	58,392	39,696

Detailed Statistics for the Commercial/Industrial & Residential Subclass

051 - LANE		<i>S-4</i>		052 - LEAVENWORTH			
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		27	7	Original Number of Sales		196	7
Number of Sales Trimmed		1	0	Number of Sales Trimmed		26	0
Number of Ratios: Outliers Removed		26	7	Number of Ratios: Outliers Removed		170	7
Minimum Ratio		35.5	73.0	Minimum Ratio		25.4	61.3
Maximum Ratio		216.2	137.5	Maximum Ratio		533.0	192.2
Minimum Sale Price		4,000	10,000	Minimum Sale Price		8,000	10,000
Maximum Sale Price		180,000	100,000	Maximum Sale Price		460,000	350,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		96.0	95.0	Median Ratio		101.9	103.5
Bootstrap Median Ratio		96.0	95.0	Bootstrap Median Ratio		101.9	103.5
Lower Median Confidence Interval		78.3	81.9	Lower Median Confidence Interval		100.0	90.0
Upper Median Confidence Interval		110.0	119.9	Upper Median Confidence Interval		104.4	184.2
Broadened Median Ratio (BMED)		96.0	95.4	Broadened Median Ratio (BMED)		101.9	115.5
Coefficient of Dispersion (COD)		20.0	16.7	Coefficient of Dispersion (COD)		7.4	36.9
Bootstrap Coefficient of Dispersion		19.6	14.8	Bootstrap Coefficient of Dispersion		7.3	27.8
Lower COD Confidence Interval		14.8	9.7	Lower COD Confidence Interval		6.5	25.8
Upper COD Confidence Interval		29.1	30.3	Upper COD Confidence Interval		8.5	89.7
Weighted Coefficient of Dispersion		16.6	25.8	Weighted Coefficient of Dispersion		6.7	22.3
Coefficient of Concentration @ 10%		29.6	42.9	Coefficient of Concentration @ 10%		67.3	28.6
Coefficient of Concentration @ 15%		33.3	57.1	Coefficient of Concentration @ 15%		74.0	42.9
Coefficient of Concentration @ 20%		51.9	57.1	Coefficient of Concentration @ 20%		79.6	42.9
Coefficient of Concentration @ 50%		92.6	100.0	Coefficient of Concentration @ 50%		91.8	71.4
Coefficient of Concentration @ 100%		96.3	100.0	Coefficient of Concentration @ 100%		96.9	100.0
Coefficient of Interquartile Deviation		19.7	20.0	Coefficient of Interquartile Deviation		6.9	45.5
Median Percent Deviation		18.6	13.8	Median Percent Deviation		6.0	37.7
Lower Quartile (25th Percentile)		74.0	81.9	Lower Quartile (25th Percentile)		96.8	90.0
Upper Quartile (75th Percentile)		111.9	119.9	Upper Quartile (75th Percentile)		110.7	184.2
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptW	Normality Test		RejectK	AcceptW
Relative Skewness		-0.35	0.59	Relative Skewness		0.33	0.29
Relative Kurtosis		2.62	2.24	Relative Kurtosis		3.69	1.67
Arithmetic Mean Ratio		92.4	99.8	Arithmetic Mean Ratio		102.8	124.9
Weighted Mean Ratio		88.2	109.8	Weighted Mean Ratio		101.6	104.2
Geometric Mean Ratio		88.9	97.8	Geometric Mean Ratio		102.3	116.4
Harmonic Mean Ratio		84.8	95.9	Harmonic Mean Ratio		101.8	108.2
Standard Deviation		23.8	22.2	Standard Deviation		10.0	49.5
Coefficient of Variation		25.8	22.2	Coefficient of Variation		9.7	39.6
Price Related Differential (PRD)		1.05	0.91	Price Related Differential (PRD)		1.01	1.20
Bootstrap Price Related Differential		1.04	0.91	Bootstrap Price Related Differential		1.01	1.17
Lower PRD Confidence Interval		0.98	0.85	Lower PRD Confidence Interval		1.00	1.01
Upper PRD Confidence Interval		1.15	1.08	Upper PRD Confidence Interval		1.02	1.55
Average Sale Price		43,390	33,754	Average Sale Price		166,696	116,071
Average Market Value		38,280	37,073	Average Market Value		169,392	120,923

Detailed Statistics for the Commercial/Industrial & Residential Subclass

053 - LINCOLN			054 - LINN		
GENERAL STATISTICS			GENERAL STATISTICS		
	RES	C/I		RES	C/I
Original Number of Sales	22	6	Original Number of Sales	83	8
Number of Sales Trimmed	1	0	Number of Sales Trimmed	12	1
Number of Ratios: Outliers Removed	21	6	Number of Ratios: Outliers Removed	71	7
Minimum Ratio	78.3	22.2	Minimum Ratio	39.1	47.0
Maximum Ratio	305.9	113.3	Maximum Ratio	492.5	154.6
Minimum Sale Price	3,000	10,000	Minimum Sale Price	423	2,500
Maximum Sale Price	570,000	100,000	Maximum Sale Price	265,000	184,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	104.1	87.1	Median Ratio	99.2	90.4
Bootstrap Median Ratio	104.1	87.1	Bootstrap Median Ratio	99.2	90.4
Lower Median Confidence Interval	95.0	48.0	Lower Median Confidence Interval	95.7	75.6
Upper Median Confidence Interval	112.8	109.8	Upper Median Confidence Interval	102.7	100.8
Broadened Median Ratio (BMED)	103.7	88.1	Broadened Median Ratio (BMED)	99.2	90.6
Coefficient of Dispersion (COD)	11.8	27.1	Coefficient of Dispersion (COD)	15.1	15.6
Bootstrap Coefficient of Dispersion	11.2	22.5	Bootstrap Coefficient of Dispersion	14.9	13.1
Lower COD Confidence Interval	9.1	11.7	Lower COD Confidence Interval	12.3	8.4
Upper COD Confidence Interval	16.1	131.5	Upper COD Confidence Interval	19.0	48.9
Weighted Coefficient of Dispersion	14.8	22.4	Weighted Coefficient of Dispersion	12.5	8.7
Coefficient of Concentration @ 10%	50.0	0.0	Coefficient of Concentration @ 10%	41.0	37.5
Coefficient of Concentration @ 15%	68.2	33.3	Coefficient of Concentration @ 15%	50.6	62.5
Coefficient of Concentration @ 20%	72.7	50.0	Coefficient of Concentration @ 20%	61.4	75.0
Coefficient of Concentration @ 50%	95.5	83.3	Coefficient of Concentration @ 50%	83.1	87.5
Coefficient of Concentration @ 100%	95.5	100.0	Coefficient of Concentration @ 100%	94.0	100.0
Coefficient of Interquartile Deviation	10.6	27.0	Coefficient of Interquartile Deviation	14.9	13.1
Median Percent Deviation	10.2	18.6	Median Percent Deviation	14.6	11.3
Lower Quartile (25th Percentile)	93.3	61.0	Lower Quartile (25th Percentile)	89.5	77.1
Upper Quartile (75th Percentile)	115.4	108.1	Upper Quartile (75th Percentile)	119.0	100.7
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	AcceptK	AcceptW	Normality Test	RejectK	Reject3
Relative Skewness	0.09	-0.99	Relative Skewness	0.44	-1.04
Relative Kurtosis	2.13	2.84	Relative Kurtosis	3.58	3.09
Arithmetic Mean Ratio	103.3	81.6	Arithmetic Mean Ratio	100.1	83.7
Weighted Mean Ratio	95.6	78.8	Weighted Mean Ratio	96.5	81.8
Geometric Mean Ratio	102.3	72.8	Geometric Mean Ratio	98.1	81.5
Harmonic Mean Ratio	101.3	60.0	Harmonic Mean Ratio	96.0	78.8
Standard Deviation	14.8	32.9	Standard Deviation	20.3	18.9
Coefficient of Variation	14.3	40.3	Coefficient of Variation	20.3	22.5
Price Related Differential (PRD)	1.08	1.04	Price Related Differential (PRD)	1.04	1.02
Bootstrap Price Related Differential	1.07	1.03	Bootstrap Price Related Differential	1.04	1.03
Lower PRD Confidence Interval	1.00	0.92	Lower PRD Confidence Interval	1.01	0.92
Upper PRD Confidence Interval	1.17	1.20	Upper PRD Confidence Interval	1.07	1.11
Average Sale Price	103,895	42,367	Average Sale Price	74,480	62,571
Average Market Value	99,282	33,368	Average Market Value	71,842	51,177

Detailed Statistics for the Commercial/Industrial & Residential Subclass

055 - LOGAN			056 - LYON		
<i>S-5</i>					
GENERAL STATISTICS	RES	CI	GENERAL STATISTICS	RES	CI
Original Number of Sales	23	6	Original Number of Sales	245	19
Number of Sales Trimmed	2	0	Number of Sales Trimmed	27	0
Number of Ratios: Outliers Removed	21	6	Number of Ratios: Outliers Removed	218	19
Minimum Ratio	61.5	50.5	Minimum Ratio	40.5	38.3
Maximum Ratio	124.9	172.4	Maximum Ratio	388.8	142.8
Minimum Sale Price	7,000	15,000	Minimum Sale Price	3,000	15,000
Maximum Sale Price	157,500	331,000	Maximum Sale Price	550,000	1,000,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	101.6	72.8	Median Ratio	100.4	94.6
Bootstrap Median Ratio	101.6	72.8	Bootstrap Median Ratio	100.4	94.6
Lower Median Confidence Interval	95.0	52.0	Lower Median Confidence Interval	99.0	80.8
Upper Median Confidence Interval	107.6	141.9	Upper Median Confidence Interval	102.7	110.5
Broadened Median Ratio (BMED)	101.0	76.0	Broadened Median Ratio (BMED)	100.3	92.4
Coefficient of Dispersion (COD)	10.3	48.0	Coefficient of Dispersion (COD)	10.7	21.3
Bootstrap Coefficient of Dispersion	9.9	35.6	Bootstrap Coefficient of Dispersion	10.7	20.5
Lower COD Confidence Interval	7.4	28.0	Lower COD Confidence Interval	9.5	14.7
Upper COD Confidence Interval	15.1	79.2	Upper COD Confidence Interval	12.1	32.8
Weighted Coefficient of Dispersion	10.2	32.4	Weighted Coefficient of Dispersion	9.1	16.2
Coefficient of Concentration @ 10%	56.5	0.0	Coefficient of Concentration @ 10%	52.7	26.3
Coefficient of Concentration @ 15%	65.2	0.0	Coefficient of Concentration @ 15%	67.8	42.1
Coefficient of Concentration @ 20%	73.9	0.0	Coefficient of Concentration @ 20%	75.1	63.2
Coefficient of Concentration @ 50%	100.0	66.7	Coefficient of Concentration @ 50%	91.4	84.2
Coefficient of Concentration @ 100%	100.0	83.3	Coefficient of Concentration @ 100%	97.6	100.0
Coefficient of Interquartile Deviation	8.3	50.8	Coefficient of Interquartile Deviation	9.9	18.7
Median Percent Deviation	8.2	28.6	Median Percent Deviation	9.5	18.6
Lower Quartile (25th Percentile)	93.3	52.7	Lower Quartile (25th Percentile)	92.5	76.7
Upper Quartile (75th Percentile)	110.2	126.7	Upper Quartile (75th Percentile)	112.3	112.2
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptK
Relative Skewness	-0.47	0.96	Relative Skewness	0.29	-0.14
Relative Kurtosis	2.62	2.57	Relative Kurtosis	3.64	2.96
Arithmetic Mean Ratio	101.6	88.9	Arithmetic Mean Ratio	100.4	92.9
Weighted Mean Ratio	99.2	62.1	Weighted Mean Ratio	98.4	92.0
Geometric Mean Ratio	100.6	80.1	Geometric Mean Ratio	99.4	88.8
Harmonic Mean Ratio	99.6	73.2	Harmonic Mean Ratio	98.3	83.9
Standard Deviation	13.9	47.3	Standard Deviation	14.4	26.5
Coefficient of Variation	13.7	53.2	Coefficient of Variation	14.3	28.5
Price Related Differential (PRD)	1.02	1.43	Price Related Differential (PRD)	1.02	1.01
Bootstrap Price Related Differential	1.02	1.32	Bootstrap Price Related Differential	1.02	1.01
Lower PRD Confidence Interval	1.00	1.12	Lower PRD Confidence Interval	1.01	0.91
Upper PRD Confidence Interval	1.07	2.01	Upper PRD Confidence Interval	1.03	1.15
Average Sale Price	71,143	101,833	Average Sale Price	103,072	251,054
Average Market Value	70,586	63,212	Average Market Value	101,403	230,896

Detailed Statistics for the Commercial/Industrial & Residential Subclass

057 - MARION			058 - MARSHALL		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	103	9	Original Number of Sales	88	6
Number of Sales Trimmed	6	0	Number of Sales Trimmed	3	0
Number of Ratios: Outliers Removed	97	9	Number of Ratios: Outliers Removed	85	6
Minimum Ratio	61.2	82.2	Minimum Ratio	50.7	74.3
Maximum Ratio	619.2	297.3	Maximum Ratio	164.2	136.2
Minimum Sale Price	5,000	15,000	Minimum Sale Price	1,200	7,500
Maximum Sale Price	1,200,000	150,000	Maximum Sale Price	220,000	108,400
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	104.7	122.3	Median Ratio	96.7	91.3
Bootstrap Median Ratio	104.7	122.3	Bootstrap Median Ratio	96.7	91.3
Lower Median Confidence Interval	100.3	103.5	Lower Median Confidence Interval	93.2	80.7
Upper Median Confidence Interval	109.8	237.8	Upper Median Confidence Interval	99.4	119.0
Broadened Median Ratio (BMED)	104.3	122.9	Broadened Median Ratio (BMED)	96.7	92.4
Coefficient of Dispersion (COD)	16.8	34.8	Coefficient of Dispersion (COD)	12.0	14.0
Bootstrap Coefficient of Dispersion	16.6	32.4	Bootstrap Coefficient of Dispersion	11.9	12.7
Lower COD Confidence Interval	14.4	12.4	Lower COD Confidence Interval	10.1	4.6
Upper COD Confidence Interval	19.8	68.3	Upper COD Confidence Interval	14.5	28.4
Weighted Coefficient of Dispersion	14.8	55.0	Weighted Coefficient of Dispersion	12.8	14.5
Coefficient of Concentration @ 10%	38.8	33.3	Coefficient of Concentration @ 10%	47.7	50.0
Coefficient of Concentration @ 15%	53.4	55.6	Coefficient of Concentration @ 15%	64.8	66.7
Coefficient of Concentration @ 20%	65.0	66.7	Coefficient of Concentration @ 20%	76.1	83.3
Coefficient of Concentration @ 50%	93.2	77.8	Coefficient of Concentration @ 50%	98.9	100.0
Coefficient of Concentration @ 100%	95.1	88.9	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	15.3	33.9	Coefficient of Interquartile Deviation	11.6	14.5
Median Percent Deviation	14.3	14.6	Median Percent Deviation	11.0	8.0
Lower Quartile (25th Percentile)	91.8	104.0	Lower Quartile (25th Percentile)	84.9	83.9
Upper Quartile (75th Percentile)	123.8	186.8	Upper Quartile (75th Percentile)	107.3	110.4
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	Reject3
Relative Skewness	0.42	1.31	Relative Skewness	-0.14	1.10
Relative Kurtosis	2.72	3.24	Relative Kurtosis	2.87	3.17
Arithmetic Mean Ratio	106.6	147.8	Arithmetic Mean Ratio	95.1	97.0
Weighted Mean Ratio	98.5	169.4	Weighted Mean Ratio	91.7	92.4
Geometric Mean Ratio	104.3	135.9	Geometric Mean Ratio	93.9	95.3
Harmonic Mean Ratio	102.0	127.2	Harmonic Mean Ratio	92.6	93.7
Standard Deviation	22.4	71.2	Standard Deviation	14.9	21.2
Coefficient of Variation	21.0	48.2	Coefficient of Variation	15.7	21.8
Price Related Differential (PRD)	1.08	0.87	Price Related Differential (PRD)	1.04	1.05
Bootstrap Price Related Differential	1.08	0.89	Bootstrap Price Related Differential	1.04	1.05
Lower PRD Confidence Interval	1.04	0.75	Lower PRD Confidence Interval	1.01	0.99
Upper PRD Confidence Interval	1.15	1.17	Upper PRD Confidence Interval	1.07	1.14
Average Sale Price	97,921	41,278	Average Sale Price	70,261	56,900
Average Market Value	96,460	69,923	Average Market Value	64,409	52,567

Detailed Statistics for the Commercial/Industrial & Residential Subclass

059 - MCPHERSON			060 - MEADE		
			S-6		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	190	14	Original Number of Sales	21	8
Number of Sales Trimmed	23	1	Number of Sales Trimmed	2	0
Number of Ratios: Outliers Removed	167	13	Number of Ratios: Outliers Removed	19	8
Minimum Ratio	40.2	82.9	Minimum Ratio	52.1	32.5
Maximum Ratio	255.8	145.7	Maximum Ratio	170.2	133.8
Minimum Sale Price	5,000	25,000	Minimum Sale Price	5,000	9,500
Maximum Sale Price	400,000	319,500	Maximum Sale Price	125,000	100,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	99.8	100.0	Median Ratio	89.0	79.9
Bootstrap Median Ratio	99.8	100.0	Bootstrap Median Ratio	89.0	79.9
Lower Median Confidence Interval	98.8	95.0	Lower Median Confidence Interval	78.6	51.1
Upper Median Confidence Interval	100.7	105.7	Upper Median Confidence Interval	97.0	133.7
Broadened Median Ratio (BMED)	99.8	99.4	Broadened Median Ratio (BMED)	88.9	79.1
Coefficient of Dispersion (COD)	7.1	7.2	Coefficient of Dispersion (COD)	15.2	32.8
Bootstrap Coefficient of Dispersion	7.1	7.0	Bootstrap Coefficient of Dispersion	14.3	30.2
Lower COD Confidence Interval	6.2	3.8	Lower COD Confidence Interval	10.8	17.7
Upper COD Confidence Interval	8.1	12.4	Upper COD Confidence Interval	23.4	65.3
Weighted Coefficient of Dispersion	6.9	8.0	Weighted Coefficient of Dispersion	14.7	42.2
Coefficient of Concentration @ 10%	66.3	64.3	Coefficient of Concentration @ 10%	47.6	37.5
Coefficient of Concentration @ 15%	77.4	71.4	Coefficient of Concentration @ 15%	61.9	37.5
Coefficient of Concentration @ 20%	84.7	85.7	Coefficient of Concentration @ 20%	61.9	50.0
Coefficient of Concentration @ 50%	95.3	100.0	Coefficient of Concentration @ 50%	90.5	62.5
Coefficient of Concentration @ 100%	98.9	100.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	6.9	7.7	Coefficient of Interquartile Deviation	11.9	42.0
Median Percent Deviation	7.0	6.2	Median Percent Deviation	11.8	26.0
Lower Quartile (25th Percentile)	92.5	93.1	Lower Quartile (25th Percentile)	75.9	55.1
Upper Quartile (75th Percentile)	106.3	108.4	Upper Quartile (75th Percentile)	97.2	122.2
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	AcceptK	AcceptK
Relative Skewness	-0.09	0.84	Relative Skewness	0.12	0.29
Relative Kurtosis	3.44	3.47	Relative Kurtosis	3.04	2.04
Arithmetic Mean Ratio	99.7	100.0	Arithmetic Mean Ratio	85.8	83.2
Weighted Mean Ratio	98.9	96.2	Weighted Mean Ratio	84.3	61.7
Geometric Mean Ratio	99.2	99.5	Geometric Mean Ratio	84.1	76.0
Harmonic Mean Ratio	98.8	99.0	Harmonic Mean Ratio	82.4	68.6
Standard Deviation	9.4	11.0	Standard Deviation	17.1	35.9
Coefficient of Variation	9.4	11.0	Coefficient of Variation	20.0	43.1
Price Related Differential (PRD)	1.01	1.04	Price Related Differential (PRD)	1.02	1.35
Bootstrap Price Related Differential	1.01	1.04	Bootstrap Price Related Differential	1.02	1.32
Lower PRD Confidence Interval	1.00	1.01	Lower PRD Confidence Interval	1.00	1.03
Upper PRD Confidence Interval	1.02	1.09	Upper PRD Confidence Interval	1.05	1.76
Average Sale Price	129,089	125,039	Average Sale Price	61,289	28,313
Average Market Value	127,647	120,254	Average Market Value	51,665	17,458

Detailed Statistics for the Commercial/Industrial & Residential Subclass

061 - MIAMI			062 - MITCHELL		
T			S-8		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	189	9	Original Number of Sales	90	11
Number of Sales Trimmed	17	1	Number of Sales Trimmed	5	2
Number of Ratios: Outliers Removed	172	8	Number of Ratios: Outliers Removed	85	9
Minimum Ratio	74.1	68.3	Minimum Ratio	35.5	65.8
Maximum Ratio	421.5	273.9	Maximum Ratio	194.2	308.3
Minimum Sale Price	3,070	15,000	Minimum Sale Price	3,000	1,000
Maximum Sale Price	490,980	4,010,000	Maximum Sale Price	262,500	150,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	102.9	84.6	Median Ratio	94.9	100.0
Bootstrap Median Ratio	102.9	84.6	Bootstrap Median Ratio	94.9	100.0
Lower Median Confidence Interval	100.3	69.0	Lower Median Confidence Interval	89.7	85.4
Upper Median Confidence Interval	106.5	105.2	Upper Median Confidence Interval	100.0	150.3
Broadened Median Ratio (BMED)	102.9	86.0	Broadened Median Ratio (BMED)	94.8	104.3
Coefficient of Dispersion (COD)	9.2	13.9	Coefficient of Dispersion (COD)	16.6	20.5
Bootstrap Coefficient of Dispersion	9.1	11.9	Bootstrap Coefficient of Dispersion	16.5	19.0
Lower COD Confidence Interval	8.1	10.3	Lower COD Confidence Interval	14.0	11.9
Upper COD Confidence Interval	10.5	20.8	Upper COD Confidence Interval	20.1	33.8
Weighted Coefficient of Dispersion	8.6	7.9	Weighted Coefficient of Dispersion	13.9	15.0
Coefficient of Concentration @ 10%	60.3	33.3	Coefficient of Concentration @ 10%	40.0	27.3
Coefficient of Concentration @ 15%	74.6	55.6	Coefficient of Concentration @ 15%	54.4	45.5
Coefficient of Concentration @ 20%	83.1	77.8	Coefficient of Concentration @ 20%	66.7	45.5
Coefficient of Concentration @ 50%	92.6	88.9	Coefficient of Concentration @ 50%	93.3	72.7
Coefficient of Concentration @ 100%	95.2	88.9	Coefficient of Concentration @ 100%	97.8	81.8
Coefficient of Interquartile Deviation	8.6	16.6	Coefficient of Interquartile Deviation	13.8	32.5
Median Percent Deviation	7.3	14.6	Median Percent Deviation	14.0	20.4
Lower Quartile (25th Percentile)	97.2	73.1	Lower Quartile (25th Percentile)	82.2	85.4
Upper Quartile (75th Percentile)	114.9	101.1	Upper Quartile (75th Percentile)	108.3	150.3
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	RejectK
Relative Skewness	0.60	0.25	Relative Skewness	0.26	0.56
Relative Kurtosis	3.67	1.67	Relative Kurtosis	3.11	2.23
Arithmetic Mean Ratio	103.8	84.3	Arithmetic Mean Ratio	94.6	102.8
Weighted Mean Ratio	101.8	77.8	Weighted Mean Ratio	91.1	103.0
Geometric Mean Ratio	103.2	83.4	Geometric Mean Ratio	92.4	99.7
Harmonic Mean Ratio	102.5	82.4	Harmonic Mean Ratio	90.1	96.7
Standard Deviation	12.2	13.7	Standard Deviation	20.3	27.6
Coefficient of Variation	11.7	16.2	Coefficient of Variation	21.4	26.9
Price Related Differential (PRD)	1.02	1.08	Price Related Differential (PRD)	1.04	1.00
Bootstrap Price Related Differential	1.02	1.08	Bootstrap Price Related Differential	1.04	1.00
Lower PRD Confidence Interval	1.01	1.01	Lower PRD Confidence Interval	1.01	0.93
Upper PRD Confidence Interval	1.03	1.20	Upper PRD Confidence Interval	1.07	1.12
Average Sale Price	183,022	859,125	Average Sale Price	71,691	65,575
Average Market Value	186,322	668,000	Average Market Value	65,310	67,533

Detailed Statistics for the Commercial/Industrial & Residential Subclass

063 - MONTGOMERY			064 - MORRIS		
GENERAL STATISTICS			GENERAL STATISTICS		
	RES	C/I		RES	C/I
Original Number of Sales	142	21	Original Number of Sales	40	7
Number of Sales Trimmed	20	2	Number of Sales Trimmed	3	1
Number of Ratios: Outliers Removed	122	19	Number of Ratios: Outliers Removed	37	6
Minimum Ratio	49.2	62.4	Minimum Ratio	29.8	55.0
Maximum Ratio	651.7	287.1	Maximum Ratio	206.4	144.6
Minimum Sale Price	1,900	482	Minimum Sale Price	1,000	1,000
Maximum Sale Price	359,000	1,535,000	Maximum Sale Price	215,000	350,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	106.5	95.2	Median Ratio	103.0	87.2
Bootstrap Median Ratio	106.5	95.2	Bootstrap Median Ratio	103.0	87.2
Lower Median Confidence Interval	100.5	78.6	Lower Median Confidence Interval	93.8	74.6
Upper Median Confidence Interval	111.1	104.8	Upper Median Confidence Interval	109.3	100.7
Broadened Median Ratio (BMED)	106.7	94.8	Broadened Median Ratio (BMED)	103.1	88.2
Coefficient of Dispersion (COD)	16.8	22.2	Coefficient of Dispersion (COD)	14.9	12.9
Bootstrap Coefficient of Dispersion	16.6	21.0	Bootstrap Coefficient of Dispersion	14.7	11.5
Lower COD Confidence Interval	14.3	15.6	Lower COD Confidence Interval	11.6	5.7
Upper COD Confidence Interval	20.3	36.1	Upper COD Confidence Interval	19.2	29.0
Weighted Coefficient of Dispersion	13.1	11.3	Weighted Coefficient of Dispersion	13.2	6.5
Coefficient of Concentration @ 10%	39.4	28.6	Coefficient of Concentration @ 10%	47.5	42.9
Coefficient of Concentration @ 15%	52.1	38.1	Coefficient of Concentration @ 15%	57.5	57.1
Coefficient of Concentration @ 20%	62.0	52.4	Coefficient of Concentration @ 20%	65.0	71.4
Coefficient of Concentration @ 50%	80.3	85.7	Coefficient of Concentration @ 50%	92.5	85.7
Coefficient of Concentration @ 100%	88.7	90.5	Coefficient of Concentration @ 100%	97.5	100.0
Coefficient of Interquartile Deviation	17.2	22.5	Coefficient of Interquartile Deviation	14.8	14.9
Median Percent Deviation	14.2	19.7	Median Percent Deviation	12.3	14.4
Lower Quartile (25th Percentile)	95.6	74.2	Lower Quartile (25th Percentile)	91.1	74.6
Upper Quartile (75th Percentile)	132.3	117.1	Upper Quartile (75th Percentile)	121.6	100.7
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	1.04	1.15	Relative Skewness	0.38	-0.75
Relative Kurtosis	4.35	3.98	Relative Kurtosis	2.51	2.54
Arithmetic Mean Ratio	107.0	94.8	Arithmetic Mean Ratio	106.4	82.5
Weighted Mean Ratio	98.9	85.6	Weighted Mean Ratio	101.3	89.2
Geometric Mean Ratio	104.5	91.5	Geometric Mean Ratio	104.6	81.0
Harmonic Mean Ratio	102.1	88.6	Harmonic Mean Ratio	102.8	79.4
Standard Deviation	24.2	27.5	Standard Deviation	20.0	16.0
Coefficient of Variation	22.6	29.0	Coefficient of Variation	18.8	19.4
Price Related Differential (PRD)	1.08	1.11	Price Related Differential (PRD)	1.05	0.93
Bootstrap Price Related Differential	1.08	1.10	Bootstrap Price Related Differential	1.05	0.93
Lower PRD Confidence Interval	1.06	1.01	Lower PRD Confidence Interval	1.02	0.80
Upper PRD Confidence Interval	1.12	1.26	Upper PRD Confidence Interval	1.09	1.02
Average Sale Price	73,017	211,774	Average Sale Price	80,849	107,167
Average Market Value	72,189	181,281	Average Market Value	81,938	95,558

Detailed Statistics for the Commercial/Industrial & Residential Subclass

065 - MORTON		<i>S-5</i>		066 - NEMAHA			
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I
Original Number of Sales		27	7	Original Number of Sales		87	13
Number of Sales Trimmed		3	0	Number of Sales Trimmed		8	0
Number of Ratios: Outliers Removed		24	7	Number of Ratios: Outliers Removed		79	13
Minimum Ratio		52.6	76.4	Minimum Ratio		54.6	43.0
Maximum Ratio		151.4	185.6	Maximum Ratio		437.5	133.6
Minimum Sale Price		10,000	25,000	Minimum Sale Price		3,000	17,000
Maximum Sale Price		187,000	128,000	Maximum Sale Price		249,000	837,597
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS			
Median Ratio		91.1	106.5	Median Ratio		100.0	94.0
Bootstrap Median Ratio		91.1	106.5	Bootstrap Median Ratio		100.0	94.0
Lower Median Confidence Interval		85.5	76.5	Lower Median Confidence Interval		98.3	61.7
Upper Median Confidence Interval		98.5	146.9	Upper Median Confidence Interval		104.6	108.1
Broadened Median Ratio (BMED)		91.3	102.4	Broadened Median Ratio (BMED)		100.1	91.0
Coefficient of Dispersion (COD)		12.9	28.2	Coefficient of Dispersion (COD)		15.5	24.8
Bootstrap Coefficient of Dispersion		12.4	24.9	Bootstrap Coefficient of Dispersion		15.6	23.7
Lower COD Confidence Interval		9.2	16.0	Lower COD Confidence Interval		12.7	15.4
Upper COD Confidence Interval		18.9	53.9	Upper COD Confidence Interval		18.9	45.9
Weighted Coefficient of Dispersion		11.9	27.4	Weighted Coefficient of Dispersion		11.9	38.9
Coefficient of Concentration @ 10%		55.6	28.6	Coefficient of Concentration @ 10%		37.9	30.8
Coefficient of Concentration @ 15%		59.3	28.6	Coefficient of Concentration @ 15%		57.5	38.5
Coefficient of Concentration @ 20%		66.7	28.6	Coefficient of Concentration @ 20%		64.4	38.5
Coefficient of Concentration @ 50%		88.9	85.7	Coefficient of Concentration @ 50%		89.7	92.3
Coefficient of Concentration @ 100%		100.0	100.0	Coefficient of Concentration @ 100%		96.6	100.0
Coefficient of Interquartile Deviation		12.6	33.1	Coefficient of Interquartile Deviation		15.4	28.2
Median Percent Deviation		8.8	28.2	Median Percent Deviation		13.5	25.1
Lower Quartile (25th Percentile)		83.4	76.5	Lower Quartile (25th Percentile)		88.3	59.3
Upper Quartile (75th Percentile)		106.3	146.9	Upper Quartile (75th Percentile)		119.1	112.4
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptW	Normality Test		RejectK	AcceptK
Relative Skewness		-0.41	0.79	Relative Skewness		0.43	-0.14
Relative Kurtosis		3.07	2.34	Relative Kurtosis		3.34	1.79
Arithmetic Mean Ratio		89.3	113.2	Arithmetic Mean Ratio		99.8	87.9
Weighted Mean Ratio		86.0	104.0	Weighted Mean Ratio		97.5	68.0
Geometric Mean Ratio		87.9	107.6	Geometric Mean Ratio		97.6	83.1
Harmonic Mean Ratio		86.3	102.7	Harmonic Mean Ratio		95.4	78.1
Standard Deviation		15.7	40.7	Standard Deviation		20.9	28.7
Coefficient of Variation		17.5	35.9	Coefficient of Variation		20.9	32.7
Price Related Differential (PRD)		1.04	1.09	Price Related Differential (PRD)		1.02	1.29
Bootstrap Price Related Differential		1.04	1.08	Bootstrap Price Related Differential		1.02	1.28
Lower PRD Confidence Interval		1.00	1.01	Lower PRD Confidence Interval		0.99	0.96
Upper PRD Confidence Interval		1.10	1.20	Upper PRD Confidence Interval		1.05	1.45
Average Sale Price		66,393	51,500	Average Sale Price		76,255	160,777
Average Market Value		57,122	53,553	Average Market Value		74,349	109,337

Detailed Statistics for the Commercial/Industrial & Residential Subclass

067 - NEOSHO			068 - NESS			S-4
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I	
Original Number of Sales	114	12	Original Number of Sales	34	7	
Number of Sales Trimmed	7	0	Number of Sales Trimmed	3	0	
Number of Ratios: Outliers Removed	107	12	Number of Ratios: Outliers Removed	31	7	
Minimum Ratio	49.6	40.5	Minimum Ratio	31.7	40.0	
Maximum Ratio	394.8	224.3	Maximum Ratio	287.2	191.8	
Minimum Sale Price	7,500	17,500	Minimum Sale Price	2,000	10,000	
Maximum Sale Price	191,150	900,000	Maximum Sale Price	160,000	50,000	
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS			
Median Ratio	107.3	91.0	Median Ratio	71.6	91.5	
Bootstrap Median Ratio	107.3	91.0	Bootstrap Median Ratio	71.6	91.5	
Lower Median Confidence Interval	101.6	65.3	Lower Median Confidence Interval	62.9	74.0	
Upper Median Confidence Interval	112.2	127.6	Upper Median Confidence Interval	83.2	150.0	
Broadened Median Ratio (BMED)	107.0	90.1	Broadened Median Ratio (BMED)	71.7	94.1	
Coefficient of Dispersion (COD)	19.2	40.9	Coefficient of Dispersion (COD)	21.3	37.5	
Bootstrap Coefficient of Dispersion	19.0	38.2	Bootstrap Coefficient of Dispersion	20.6	31.8	
Lower COD Confidence Interval	16.5	26.0	Lower COD Confidence Interval	16.4	20.9	
Upper COD Confidence Interval	22.7	76.9	Upper COD Confidence Interval	29.1	115.4	
Weighted Coefficient of Dispersion	15.8	47.8	Weighted Coefficient of Dispersion	17.6	32.8	
Coefficient of Concentration @ 10%	36.0	16.7	Coefficient of Concentration @ 10%	20.6	28.6	
Coefficient of Concentration @ 15%	46.5	16.7	Coefficient of Concentration @ 15%	41.2	42.9	
Coefficient of Concentration @ 20%	58.8	25.0	Coefficient of Concentration @ 20%	61.8	57.1	
Coefficient of Concentration @ 50%	88.6	66.7	Coefficient of Concentration @ 50%	82.4	57.1	
Coefficient of Concentration @ 100%	95.6	91.7	Coefficient of Concentration @ 100%	91.2	85.7	
Coefficient of Interquartile Deviation	16.0	38.7	Coefficient of Interquartile Deviation	20.0	41.6	
Median Percent Deviation	16.1	28.3	Median Percent Deviation	17.0	19.2	
Lower Quartile (25th Percentile)	90.7	65.1	Lower Quartile (25th Percentile)	61.1	74.0	
Upper Quartile (75th Percentile)	125.0	135.6	Upper Quartile (75th Percentile)	89.7	150.0	
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS			
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW	
Relative Skewness	0.16	1.10	Relative Skewness	0.25	0.59	
Relative Kurtosis	2.95	3.56	Relative Kurtosis	2.97	2.40	
Arithmetic Mean Ratio	106.5	101.9	Arithmetic Mean Ratio	72.5	105.4	
Weighted Mean Ratio	101.1	58.4	Weighted Mean Ratio	69.0	95.5	
Geometric Mean Ratio	103.2	91.5	Geometric Mean Ratio	69.9	95.1	
Harmonic Mean Ratio	99.6	82.6	Harmonic Mean Ratio	67.1	85.0	
Standard Deviation	26.0	51.9	Standard Deviation	19.1	50.3	
Coefficient of Variation	24.4	50.9	Coefficient of Variation	26.3	47.7	
Price Related Differential (PRD)	1.05	1.74	Price Related Differential (PRD)	1.05	1.10	
Bootstrap Price Related Differential	1.05	1.65	Bootstrap Price Related Differential	1.05	1.09	
Lower PRD Confidence Interval	1.03	1.16	Lower PRD Confidence Interval	1.01	1.02	
Upper PRD Confidence Interval	1.08	2.40	Upper PRD Confidence Interval	1.12	1.44	
Average Sale Price	61,395	126,392	Average Sale Price	61,508	33,143	
Average Market Value	62,063	73,838	Average Market Value	42,439	31,647	

Detailed Statistics for the Commercial/Industrial & Residential Subclass

069 - NORTON			070 - OSAGE		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	60	7	Original Number of Sales	112	6
Number of Sales Trimmed	2	0	Number of Sales Trimmed	7	0
Number of Ratios: Outliers Removed	58	7	Number of Ratios: Outliers Removed	105	6
Minimum Ratio	30.6	66.4	Minimum Ratio	50.4	53.8
Maximum Ratio	135.5	122.3	Maximum Ratio	196.2	136.8
Minimum Sale Price	2,500	16,500	Minimum Sale Price	10,500	6,000
Maximum Sale Price	197,500	575,000	Maximum Sale Price	295,000	138,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	91.5	82.8	Median Ratio	106.3	87.2
Bootstrap Median Ratio	91.5	82.8	Bootstrap Median Ratio	106.3	87.2
Lower Median Confidence Interval	82.7	73.2	Lower Median Confidence Interval	101.2	62.7
Upper Median Confidence Interval	98.4	103.0	Upper Median Confidence Interval	109.5	118.7
Broadened Median Ratio (BMED)	91.1	83.6	Broadened Median Ratio (BMED)	106.0	86.9
Coefficient of Dispersion (COD)	16.8	16.9	Coefficient of Dispersion (COD)	13.9	23.6
Bootstrap Coefficient of Dispersion	16.6	14.5	Bootstrap Coefficient of Dispersion	13.7	20.2
Lower COD Confidence Interval	13.9	10.7	Lower COD Confidence Interval	12.0	12.4
Upper COD Confidence Interval	21.2	31.4	Upper COD Confidence Interval	16.5	47.7
Weighted Coefficient of Dispersion	15.3	8.1	Weighted Coefficient of Dispersion	11.9	15.5
Coefficient of Concentration @ 10%	31.7	42.9	Coefficient of Concentration @ 10%	42.9	33.3
Coefficient of Concentration @ 15%	45.0	57.1	Coefficient of Concentration @ 15%	62.5	33.3
Coefficient of Concentration @ 20%	65.0	71.4	Coefficient of Concentration @ 20%	73.2	66.7
Coefficient of Concentration @ 50%	95.0	100.0	Coefficient of Concentration @ 50%	94.6	83.3
Coefficient of Concentration @ 100%	100.0	100.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	16.1	18.0	Coefficient of Interquartile Deviation	11.6	24.4
Median Percent Deviation	15.6	11.6	Median Percent Deviation	11.6	16.7
Lower Quartile (25th Percentile)	76.3	73.2	Lower Quartile (25th Percentile)	95.5	67.1
Upper Quartile (75th Percentile)	105.7	103.0	Upper Quartile (75th Percentile)	120.1	109.7
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	-0.24	0.75	Relative Skewness	0.29	0.53
Relative Kurtosis	2.95	2.44	Relative Kurtosis	3.25	2.49
Arithmetic Mean Ratio	90.6	87.9	Arithmetic Mean Ratio	106.8	89.5
Weighted Mean Ratio	89.4	79.8	Weighted Mean Ratio	104.5	88.5
Geometric Mean Ratio	88.4	86.3	Geometric Mean Ratio	105.1	85.9
Harmonic Mean Ratio	85.9	84.7	Harmonic Mean Ratio	103.4	82.4
Standard Deviation	19.3	19.2	Standard Deviation	18.9	28.4
Coefficient of Variation	21.2	21.9	Coefficient of Variation	17.7	31.7
Price Related Differential (PRD)	1.01	1.10	Price Related Differential (PRD)	1.02	1.01
Bootstrap Price Related Differential	1.01	1.09	Bootstrap Price Related Differential	1.02	1.02
Lower PRD Confidence Interval	0.97	1.01	Lower PRD Confidence Interval	1.00	0.87
Upper PRD Confidence Interval	1.06	1.29	Upper PRD Confidence Interval	1.04	1.25
Average Sale Price	58,262	131,214	Average Sale Price	86,221	54,864
Average Market Value	52,105	104,677	Average Market Value	90,142	48,547

Detailed Statistics for the Commercial/Industrial & Residential Subclass

071 - OSBORNE			072 - OTTAWA		
		S-4			S-8
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	36	6	Original Number of Sales	47	9
Number of Sales Trimmed	2	0	Number of Sales Trimmed	6	0
Number of Ratios: Outliers Removed	34	6	Number of Ratios: Outliers Removed	41	9
Minimum Ratio	32.0	36.1	Minimum Ratio	24.9	51.0
Maximum Ratio	646.7	174.3	Maximum Ratio	193.5	163.7
Minimum Sale Price	1,500	3,000	Minimum Sale Price	4,000	4,000
Maximum Sale Price	117,500	52,000	Maximum Sale Price	290,000	60,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	84.2	80.5	Median Ratio	97.1	100.3
Bootstrap Median Ratio	84.2	80.5	Bootstrap Median Ratio	97.1	100.3
Lower Median Confidence Interval	78.6	56.4	Lower Median Confidence Interval	94.0	58.8
Upper Median Confidence Interval	98.1	150.5	Upper Median Confidence Interval	100.5	117.8
Broadened Median Ratio (BMED)	85.6	87.5	Broadened Median Ratio (BMED)	97.2	98.0
Coefficient of Dispersion (COD)	24.5	39.2	Coefficient of Dispersion (COD)	8.4	23.0
Bootstrap Coefficient of Dispersion	23.3	30.9	Bootstrap Coefficient of Dispersion	8.2	21.6
Lower COD Confidence Interval	19.1	20.6	Lower COD Confidence Interval	6.6	11.3
Upper COD Confidence Interval	34.4	105.5	Upper COD Confidence Interval	11.2	47.6
Weighted Coefficient of Dispersion	20.7	27.9	Weighted Coefficient of Dispersion	6.2	32.4
Coefficient of Concentration @ 10%	30.6	50.0	Coefficient of Concentration @ 10%	61.7	33.3
Coefficient of Concentration @ 15%	38.9	50.0	Coefficient of Concentration @ 15%	70.2	55.6
Coefficient of Concentration @ 20%	52.8	50.0	Coefficient of Concentration @ 20%	76.6	66.7
Coefficient of Concentration @ 50%	80.6	50.0	Coefficient of Concentration @ 50%	91.5	88.9
Coefficient of Concentration @ 100%	97.2	83.3	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	20.4	44.8	Coefficient of Interquartile Deviation	7.4	19.5
Median Percent Deviation	19.2	30.0	Median Percent Deviation	6.7	14.1
Lower Quartile (25th Percentile)	69.8	66.5	Lower Quartile (25th Percentile)	90.7	72.5
Upper Quartile (75th Percentile)	104.1	138.6	Upper Quartile (75th Percentile)	105.2	111.5
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness	0.25	0.57	Relative Skewness	0.26	0.51
Relative Kurtosis	3.08	2.34	Relative Kurtosis	3.33	3.07
Arithmetic Mean Ratio	85.3	95.8	Arithmetic Mean Ratio	98.2	97.4
Weighted Mean Ratio	82.3	83.5	Weighted Mean Ratio	97.4	89.4
Geometric Mean Ratio	81.0	85.7	Geometric Mean Ratio	97.6	92.4
Harmonic Mean Ratio	76.1	75.7	Harmonic Mean Ratio	97.0	87.3
Standard Deviation	26.6	48.0	Standard Deviation	10.9	33.1
Coefficient of Variation	31.1	50.1	Coefficient of Variation	11.1	34.0
Price Related Differential (PRD)	1.04	1.15	Price Related Differential (PRD)	1.01	1.09
Bootstrap Price Related Differential	1.04	1.13	Bootstrap Price Related Differential	1.01	1.08
Lower PRD Confidence Interval	0.97	1.03	Lower PRD Confidence Interval	0.99	0.90
Upper PRD Confidence Interval	1.13	1.61	Upper PRD Confidence Interval	1.03	1.32
Average Sale Price	34,389	26,500	Average Sale Price	109,267	17,611
Average Market Value	28,301	22,115	Average Market Value	106,466	15,742

Detailed Statistics for the Commercial/Industrial & Residential Subclass

073 - PAWNEE			S-3			074 - PHILLIPS			S-5		
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS		RES	C/I				
Original Number of Sales		59	8	Original Number of Sales		38	7				
Number of Sales Trimmed		7	0	Number of Sales Trimmed		2	0				
Number of Ratios: Outliers Removed		52	8	Number of Ratios: Outliers Removed		36	7				
Minimum Ratio		65.3	31.9	Minimum Ratio		37.1	59.5				
Maximum Ratio		302.2	106.7	Maximum Ratio		166.6	102.5				
Minimum Sale Price		2,000	12,500	Minimum Sale Price		2,000	15,000				
Maximum Sale Price		305,000	1,900,000	Maximum Sale Price		146,500	100,000				
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS								
Median Ratio		98.4	100.9	Median Ratio		96.4	76.6				
Bootstrap Median Ratio		98.4	100.9	Bootstrap Median Ratio		96.4	76.6				
Lower Median Confidence Interval		94.7	49.4	Lower Median Confidence Interval		84.8	65.5				
Upper Median Confidence Interval		106.9	105.1	Upper Median Confidence Interval		99.7	97.3				
Broadened Median Ratio (BMED)		98.6	94.9	Broadened Median Ratio (BMED)		95.6	76.7				
Coefficient of Dispersion (COD)		14.3	22.0	Coefficient of Dispersion (COD)		16.7	17.8				
Bootstrap Coefficient of Dispersion		14.1	21.2	Bootstrap Coefficient of Dispersion		16.7	14.8				
Lower COD Confidence Interval		11.2	6.9	Lower COD Confidence Interval		12.3	12.8				
Upper COD Confidence Interval		18.6	54.7	Upper COD Confidence Interval		21.9	27.3				
Weighted Coefficient of Dispersion		9.9	28.4	Weighted Coefficient of Dispersion		15.5	15.1				
Coefficient of Concentration @ 10%		37.3	62.5	Coefficient of Concentration @ 10%		36.8	14.3				
Coefficient of Concentration @ 15%		54.2	62.5	Coefficient of Concentration @ 15%		47.4	57.1				
Coefficient of Concentration @ 20%		67.8	62.5	Coefficient of Concentration @ 20%		60.5	57.1				
Coefficient of Concentration @ 50%		86.4	75.0	Coefficient of Concentration @ 50%		94.7	100.0				
Coefficient of Concentration @ 100%		91.5	100.0	Coefficient of Concentration @ 100%		100.0	100.0				
Coefficient of Interquartile Deviation		16.0	26.1	Coefficient of Interquartile Deviation		13.2	20.8				
Median Percent Deviation		13.7	4.9	Median Percent Deviation		15.3	14.5				
Lower Quartile (25th Percentile)		87.8	52.3	Lower Quartile (25th Percentile)		80.8	65.5				
Upper Quartile (75th Percentile)		119.3	105.0	Upper Quartile (75th Percentile)		106.3	97.3				
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS								
Normality Test		RejectK	RejectK	Normality Test		RejectK	AcceptW				
Relative Skewness		0.88	-0.71	Relative Skewness		0.35	0.25				
Relative Kurtosis		4.50	1.79	Relative Kurtosis		2.81	1.53				
Arithmetic Mean Ratio		99.8	82.6	Arithmetic Mean Ratio		95.0	79.2				
Weighted Mean Ratio		95.8	72.6	Weighted Mean Ratio		89.2	75.3				
Geometric Mean Ratio		98.1	76.3	Geometric Mean Ratio		92.7	77.8				
Harmonic Mean Ratio		96.5	68.8	Harmonic Mean Ratio		90.4	76.3				
Standard Deviation		19.1	30.2	Standard Deviation		21.1	16.7				
Coefficient of Variation		19.2	36.6	Coefficient of Variation		22.2	21.1				
Price Related Differential (PRD)		1.04	1.14	Price Related Differential (PRD)		1.06	1.05				
Bootstrap Price Related Differential		1.04	1.12	Bootstrap Price Related Differential		1.06	1.04				
Lower PRD Confidence Interval		1.01	0.87	Lower PRD Confidence Interval		1.03	0.99				
Upper PRD Confidence Interval		1.08	1.50	Upper PRD Confidence Interval		1.11	1.17				
Average Sale Price		78,062	377,176	Average Sale Price		62,465	45,143				
Average Market Value		74,810	273,870	Average Market Value		55,741	33,981				

Detailed Statistics for the Commercial/Industrial & Residential Subclass

075 - POTTAWATOMIE			076 - PRATT		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	173	10	Original Number of Sales	92	7
Number of Sales Trimmed	24	0	Number of Sales Trimmed	5	0
Number of Ratios: Outliers Removed	149	10	Number of Ratios: Outliers Removed	87	7
Minimum Ratio	31.4	69.2	Minimum Ratio	52.5	48.1
Maximum Ratio	187.2	121.3	Maximum Ratio	232.0	154.0
Minimum Sale Price	18,750	30,000	Minimum Sale Price	3,800	20,000
Maximum Sale Price	475,000	2,099,990	Maximum Sale Price	285,000	24,466,500
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	97.9	82.5	Median Ratio	101.0	98.9
Bootstrap Median Ratio	97.9	82.5	Bootstrap Median Ratio	101.0	98.9
Lower Median Confidence Interval	96.4	77.3	Lower Median Confidence Interval	98.7	87.5
Upper Median Confidence Interval	100.0	110.0	Upper Median Confidence Interval	103.8	143.8
Broadened Median Ratio (BMED)	97.9	83.5	Broadened Median Ratio (BMED)	100.9	98.6
Coefficient of Dispersion (COD)	7.1	17.7	Coefficient of Dispersion (COD)	12.2	23.9
Bootstrap Coefficient of Dispersion	7.0	15.8	Bootstrap Coefficient of Dispersion	12.1	22.0
Lower COD Confidence Interval	6.2	11.9	Lower COD Confidence Interval	10.2	10.9
Upper COD Confidence Interval	8.1	24.9	Upper COD Confidence Interval	14.8	61.1
Weighted Coefficient of Dispersion	6.8	13.0	Weighted Coefficient of Dispersion	9.8	11.6
Coefficient of Concentration @ 10%	64.2	50.0	Coefficient of Concentration @ 10%	53.3	42.9
Coefficient of Concentration @ 15%	75.7	60.0	Coefficient of Concentration @ 15%	63.0	57.1
Coefficient of Concentration @ 20%	80.9	70.0	Coefficient of Concentration @ 20%	73.9	57.1
Coefficient of Concentration @ 50%	96.0	100.0	Coefficient of Concentration @ 50%	97.8	71.4
Coefficient of Concentration @ 100%	100.0	100.0	Coefficient of Concentration @ 100%	98.9	100.0
Coefficient of Interquartile Deviation	6.0	21.4	Coefficient of Interquartile Deviation	9.9	28.5
Median Percent Deviation	6.0	9.3	Median Percent Deviation	9.6	11.5
Lower Quartile (25th Percentile)	93.0	77.2	Lower Quartile (25th Percentile)	91.6	87.5
Upper Quartile (75th Percentile)	104.7	112.4	Upper Quartile (75th Percentile)	111.7	143.8
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	0.03	0.65	Relative Skewness	0.09	0.02
Relative Kurtosis	3.28	1.85	Relative Kurtosis	3.08	2.27
Arithmetic Mean Ratio	98.6	91.0	Arithmetic Mean Ratio	101.2	104.2
Weighted Mean Ratio	97.8	85.1	Weighted Mean Ratio	98.1	87.7
Geometric Mean Ratio	98.2	89.3	Geometric Mean Ratio	99.9	98.4
Harmonic Mean Ratio	97.8	87.8	Harmonic Mean Ratio	98.5	92.0
Standard Deviation	9.1	19.0	Standard Deviation	16.4	35.5
Coefficient of Variation	9.2	20.9	Coefficient of Variation	16.2	34.1
Price Related Differential (PRD)	1.01	1.07	Price Related Differential (PRD)	1.03	1.19
Bootstrap Price Related Differential	1.01	1.06	Bootstrap Price Related Differential	1.03	1.10
Lower PRD Confidence Interval	1.00	0.95	Lower PRD Confidence Interval	1.01	1.02
Upper PRD Confidence Interval	1.01	1.21	Upper PRD Confidence Interval	1.05	1.59
Average Sale Price	175,784	392,799	Average Sale Price	83,594	3,542,643
Average Market Value	171,974	334,096	Average Market Value	82,014	3,106,700

Detailed Statistics for the Commercial/Industrial & Residential Subclass

077 - RAWLINS		<i>S-4</i>		078 - RENO	
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS	
Original Number of Sales		22	6	Original Number of Sales	186 45
Number of Sales Trimmed		1	0	Number of Sales Trimmed	22 4
Number of Ratios: Outliers Removed		21	6	Number of Ratios: Outliers Removed	164 41
Minimum Ratio		55.7	56.5	Minimum Ratio	21.6 53.4
Maximum Ratio		199.0	112.0	Maximum Ratio	376.3 384.8
Minimum Sale Price		5,000	25,000	Minimum Sale Price	6,000 4,250
Maximum Sale Price		225,000	105,000	Maximum Sale Price	525,000 950,000
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS	
Median Ratio		92.9	86.4	Median Ratio	97.6 95.8
Bootstrap Median Ratio		92.9	86.4	Bootstrap Median Ratio	97.6 95.8
Lower Median Confidence Interval		81.3	63.5	Lower Median Confidence Interval	93.8 85.9
Upper Median Confidence Interval		100.0	100.1	Upper Median Confidence Interval	99.9 107.9
Broadened Median Ratio (BMED)		92.2	84.0	Broadened Median Ratio (BMED)	97.6 96.8
Coefficient of Dispersion (COD)		14.7	14.4	Coefficient of Dispersion (COD)	12.6 20.0
Bootstrap Coefficient of Dispersion		13.8	13.8	Bootstrap Coefficient of Dispersion	12.5 19.6
Lower COD Confidence Interval		11.0	5.2	Lower COD Confidence Interval	11.1 16.1
Upper COD Confidence Interval		22.5	27.3	Upper COD Confidence Interval	14.4 25.5
Weighted Coefficient of Dispersion		12.8	9.0	Weighted Coefficient of Dispersion	10.9 19.4
Coefficient of Concentration @ 10%		40.9	50.0	Coefficient of Concentration @ 10%	46.2 20.0
Coefficient of Concentration @ 15%		54.5	50.0	Coefficient of Concentration @ 15%	57.5 40.0
Coefficient of Concentration @ 20%		72.7	66.7	Coefficient of Concentration @ 20%	68.8 48.9
Coefficient of Concentration @ 50%		95.5	100.0	Coefficient of Concentration @ 50%	90.3 91.1
Coefficient of Concentration @ 100%		95.5	100.0	Coefficient of Concentration @ 100%	96.8 93.3
Coefficient of Interquartile Deviation		13.5	15.7	Coefficient of Interquartile Deviation	11.4 20.2
Median Percent Deviation		12.9	10.2	Median Percent Deviation	11.1 20.0
Lower Quartile (25th Percentile)		77.9	67.0	Lower Quartile (25th Percentile)	87.1 79.6
Upper Quartile (75th Percentile)		103.0	94.1	Upper Quartile (75th Percentile)	109.3 118.2
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS	
Normality Test		AcceptK	AcceptW	Normality Test	RejectK AcceptK
Relative Skewness		0.05	0.08	Relative Skewness	-0.15 -0.07
Relative Kurtosis		2.95	2.39	Relative Kurtosis	3.04 2.05
Arithmetic Mean Ratio		90.0	83.3	Arithmetic Mean Ratio	97.0 93.7
Weighted Mean Ratio		85.2	83.6	Weighted Mean Ratio	95.7 89.7
Geometric Mean Ratio		88.5	81.5	Geometric Mean Ratio	95.6 90.9
Harmonic Mean Ratio		86.9	79.7	Harmonic Mean Ratio	94.1 87.9
Standard Deviation		16.7	18.7	Standard Deviation	16.0 22.6
Coefficient of Variation		18.6	22.5	Coefficient of Variation	16.5 24.1
Price Related Differential (PRD)		1.06	1.00	Price Related Differential (PRD)	1.01 1.04
Bootstrap Price Related Differential		1.05	1.00	Bootstrap Price Related Differential	1.01 1.04
Lower PRD Confidence Interval		1.02	0.94	Lower PRD Confidence Interval	1.00 0.97
Upper PRD Confidence Interval		1.11	1.06	Upper PRD Confidence Interval	1.03 1.15
Average Sale Price		74,981	52,750	Average Sale Price	96,399 145,717
Average Market Value		63,880	44,123	Average Market Value	92,285 130,745

Detailed Statistics for the Commercial/Industrial & Residential Subclass

079 - REPUBLIC			080 - RICE		
GENERAL STATISTICS			GENERAL STATISTICS		
	RES	C/I		RES	C/I
Original Number of Sales	47	6	Original Number of Sales	102	15
Number of Sales Trimmed	3	0	Number of Sales Trimmed	7	0
Number of Ratios: Outliers Removed	44	6	Number of Ratios: Outliers Removed	95	15
Minimum Ratio	47.2	24.9	Minimum Ratio	49.8	45.1
Maximum Ratio	266.7	118.5	Maximum Ratio	250.3	197.1
Minimum Sale Price	1,500	12,500	Minimum Sale Price	1,500	8,000
Maximum Sale Price	169,900	50,000	Maximum Sale Price	190,000	250,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	103.0	89.5	Median Ratio	97.3	105.2
Bootstrap Median Ratio	103.0	89.5	Bootstrap Median Ratio	97.3	105.2
Lower Median Confidence Interval	94.8	37.7	Lower Median Confidence Interval	95.9	78.5
Upper Median Confidence Interval	112.5	112.5	Upper Median Confidence Interval	99.7	142.5
Broadened Median Ratio (BMED)	103.0	85.9	Broadened Median Ratio (BMED)	97.4	106.5
Coefficient of Dispersion (COD)	16.9	28.0	Coefficient of Dispersion (COD)	11.0	30.8
Bootstrap Coefficient of Dispersion	16.6	25.7	Bootstrap Coefficient of Dispersion	10.9	28.1
Lower COD Confidence Interval	13.4	9.1	Lower COD Confidence Interval	9.1	21.8
Upper COD Confidence Interval	22.1	88.7	Upper COD Confidence Interval	13.2	53.4
Weighted Coefficient of Dispersion	15.6	26.2	Weighted Coefficient of Dispersion	10.0	32.3
Coefficient of Concentration @ 10%	38.3	33.3	Coefficient of Concentration @ 10%	53.9	26.7
Coefficient of Concentration @ 15%	51.1	33.3	Coefficient of Concentration @ 15%	62.7	33.3
Coefficient of Concentration @ 20%	59.6	50.0	Coefficient of Concentration @ 20%	75.5	40.0
Coefficient of Concentration @ 50%	89.4	83.3	Coefficient of Concentration @ 50%	97.1	80.0
Coefficient of Concentration @ 100%	97.9	100.0	Coefficient of Concentration @ 100%	99.0	100.0
Coefficient of Interquartile Deviation	15.4	36.5	Coefficient of Interquartile Deviation	9.6	30.4
Median Percent Deviation	12.6	25.6	Median Percent Deviation	9.5	34.9
Lower Quartile (25th Percentile)	90.1	44.1	Lower Quartile (25th Percentile)	87.9	78.5
Upper Quartile (75th Percentile)	121.9	109.5	Upper Quartile (75th Percentile)	106.6	142.5
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	AcceptK	AcceptW	Normality Test	RejectA	RejectK
Relative Skewness	0.00	-0.56	Relative Skewness	0.03	0.34
Relative Kurtosis	3.28	1.93	Relative Kurtosis	3.34	2.52
Arithmetic Mean Ratio	102.1	79.9	Arithmetic Mean Ratio	97.4	111.0
Weighted Mean Ratio	95.2	72.9	Weighted Mean Ratio	97.1	94.0
Geometric Mean Ratio	99.5	70.9	Geometric Mean Ratio	96.3	103.6
Harmonic Mean Ratio	96.7	59.9	Harmonic Mean Ratio	95.1	95.8
Standard Deviation	22.4	35.4	Standard Deviation	14.6	41.2
Coefficient of Variation	22.0	44.3	Coefficient of Variation	15.0	37.1
Price Related Differential (PRD)	1.07	1.10	Price Related Differential (PRD)	1.00	1.18
Bootstrap Price Related Differential	1.07	1.09	Bootstrap Price Related Differential	1.00	1.16
Lower PRD Confidence Interval	1.02	0.99	Lower PRD Confidence Interval	0.98	0.99
Upper PRD Confidence Interval	1.14	1.39	Upper PRD Confidence Interval	1.02	1.59
Average Sale Price	40,756	35,149	Average Sale Price	64,391	67,800
Average Market Value	38,806	25,633	Average Market Value	62,530	63,753

Detailed Statistics for the Commercial/Industrial & Residential Subclass

081 - RILEY			082 - ROOKS		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	233	9	Original Number of Sales	58	6
Number of Sales Trimmed	15	1	Number of Sales Trimmed	2	0
Number of Ratios: Outliers Removed	218	8	Number of Ratios: Outliers Removed	56	6
Minimum Ratio	65.5	76.0	Minimum Ratio	42.2	43.2
Maximum Ratio	834.0	273.4	Maximum Ratio	178.0	106.4
Minimum Sale Price	5,000	10,000	Minimum Sale Price	5,000	10,000
Maximum Sale Price	1,900,000	1,075,000	Maximum Sale Price	155,000	140,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	100.6	103.5	Median Ratio	93.5	51.0
Bootstrap Median Ratio	100.6	103.5	Bootstrap Median Ratio	93.5	51.0
Lower Median Confidence Interval	100.0	76.9	Lower Median Confidence Interval	84.0	43.2
Upper Median Confidence Interval	102.6	112.2	Upper Median Confidence Interval	98.8	97.5
Broadened Median Ratio (BMED)	100.7	97.4	Broadened Median Ratio (BMED)	93.6	56.0
Coefficient of Dispersion (COD)	7.6	14.2	Coefficient of Dispersion (COD)	19.6	38.3
Bootstrap Coefficient of Dispersion	7.6	11.5	Bootstrap Coefficient of Dispersion	19.6	29.6
Lower COD Confidence Interval	6.9	10.9	Lower COD Confidence Interval	15.5	25.7
Upper COD Confidence Interval	8.6	18.8	Upper COD Confidence Interval	24.7	48.8
Weighted Coefficient of Dispersion	7.9	14.8	Weighted Coefficient of Dispersion	20.4	50.0
Coefficient of Concentration @ 10%	67.0	44.4	Coefficient of Concentration @ 10%	36.2	33.3
Coefficient of Concentration @ 15%	79.4	44.4	Coefficient of Concentration @ 15%	46.6	33.3
Coefficient of Concentration @ 20%	86.7	66.7	Coefficient of Concentration @ 20%	53.4	66.7
Coefficient of Concentration @ 50%	98.7	88.9	Coefficient of Concentration @ 50%	91.4	66.7
Coefficient of Concentration @ 100%	99.6	88.9	Coefficient of Concentration @ 100%	100.0	83.3
Coefficient of Interquartile Deviation	6.4	13.9	Coefficient of Interquartile Deviation	17.0	48.9
Median Percent Deviation	6.4	19.1	Median Percent Deviation	17.2	15.3
Lower Quartile (25th Percentile)	95.4	80.1	Lower Quartile (25th Percentile)	74.0	43.2
Upper Quartile (75th Percentile)	108.2	108.9	Upper Quartile (75th Percentile)	105.8	93.1
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectA	Normality Test	RejectK	RejectW
Relative Skewness	0.28	-0.01	Relative Skewness	0.13	0.76
Relative Kurtosis	3.04	1.27	Relative Kurtosis	2.77	1.85
Arithmetic Mean Ratio	101.5	93.3	Arithmetic Mean Ratio	90.7	63.9
Weighted Mean Ratio	99.8	98.2	Weighted Mean Ratio	81.3	72.0
Geometric Mean Ratio	101.0	92.3	Geometric Mean Ratio	87.5	59.7
Harmonic Mean Ratio	100.5	91.2	Harmonic Mean Ratio	84.1	56.4
Standard Deviation	9.9	14.7	Standard Deviation	23.5	27.0
Coefficient of Variation	9.8	15.7	Coefficient of Variation	25.9	42.2
Price Related Differential (PRD)	1.02	0.95	Price Related Differential (PRD)	1.12	0.89
Bootstrap Price Related Differential	1.02	0.96	Bootstrap Price Related Differential	1.11	0.91
Lower PRD Confidence Interval	1.01	0.90	Lower PRD Confidence Interval	1.06	0.71
Upper PRD Confidence Interval	1.04	1.01	Upper PRD Confidence Interval	1.19	1.04
Average Sale Price	180,941	443,147	Average Sale Price	49,506	64,167
Average Market Value	180,636	435,308	Average Market Value	40,267	46,170

Detailed Statistics for the Commercial/Industrial & Residential Subclass

083 - RUSH		<i>S-10</i>	
GENERAL STATISTICS		RES	C/I
Original Number of Sales		36	11
Number of Sales Trimmed		3	1
Number of Ratios: Outliers Removed		33	10
Minimum Ratio		48.6	29.5
Maximum Ratio		166.8	184.6
Minimum Sale Price		2,000	5,000
Maximum Sale Price		185,000	45,000
DISTRIBUTION-FREE STATISTICS			
Median Ratio		94.6	82.3
Bootstrap Median Ratio		94.6	82.3
Lower Median Confidence Interval		90.0	70.3
Upper Median Confidence Interval		103.5	107.8
Broadened Median Ratio (BMED)		95.0	80.9
Coefficient of Dispersion (COD)		16.0	27.4
Bootstrap Coefficient of Dispersion		15.7	24.6
Lower COD Confidence Interval		11.7	16.4
Upper COD Confidence Interval		22.4	81.0
Weighted Coefficient of Dispersion		11.3	31.4
Coefficient of Concentration @ 10%		44.4	27.3
Coefficient of Concentration @ 15%		55.6	45.5
Coefficient of Concentration @ 20%		63.9	45.5
Coefficient of Concentration @ 50%		86.1	72.7
Coefficient of Concentration @ 100%		100.0	90.9
Coefficient of Interquartile Deviation		14.1	22.8
Median Percent Deviation		12.6	30.7
Lower Quartile (25th Percentile)		84.6	70.3
Upper Quartile (75th Percentile)		111.2	107.8
PARAMETRIC STATISTICS			
Normality Test		RejectK	RejectK
Relative Skewness		0.44	-0.56
Relative Kurtosis		3.88	2.23
Arithmetic Mean Ratio		94.9	76.9
Weighted Mean Ratio		93.2	78.4
Geometric Mean Ratio		92.6	70.6
Harmonic Mean Ratio		90.2	62.8
Standard Deviation		21.0	28.7
Coefficient of Variation		22.1	37.3
Price Related Differential (PRD)		1.02	0.98
Bootstrap Price Related Differential		1.02	0.98
Lower PRD Confidence Interval		0.97	0.90
Upper PRD Confidence Interval		1.07	1.19
Average Sale Price		57,386	21,750
Average Market Value		53,506	17,051

084 - RUSSELL		<i>S-8</i>	
GENERAL STATISTICS		RES	C/I
Original Number of Sales		94	13
Number of Sales Trimmed		7	0
Number of Ratios: Outliers Removed		87	13
Minimum Ratio		30.6	46.1
Maximum Ratio		190.2	162.3
Minimum Sale Price		1,500	2,000
Maximum Sale Price		270,000	125,000
DISTRIBUTION-FREE STATISTICS			
Median Ratio		96.0	89.3
Bootstrap Median Ratio		96.0	89.3
Lower Median Confidence Interval		89.5	85.3
Upper Median Confidence Interval		99.0	126.5
Broadened Median Ratio (BMED)		95.8	96.5
Coefficient of Dispersion (COD)		16.3	30.7
Bootstrap Coefficient of Dispersion		16.3	27.1
Lower COD Confidence Interval		13.7	21.5
Upper COD Confidence Interval		19.5	56.9
Weighted Coefficient of Dispersion		13.5	30.5
Coefficient of Concentration @ 10%		37.2	38.5
Coefficient of Concentration @ 15%		51.1	38.5
Coefficient of Concentration @ 20%		58.5	38.5
Coefficient of Concentration @ 50%		91.5	76.9
Coefficient of Concentration @ 100%		100.0	100.0
Coefficient of Interquartile Deviation		15.2	32.4
Median Percent Deviation		14.9	35.3
Lower Quartile (25th Percentile)		81.7	73.7
Upper Quartile (75th Percentile)		111.0	131.5
PARAMETRIC STATISTICS			
Normality Test		RejectK	AcceptK
Relative Skewness		0.27	0.19
Relative Kurtosis		2.99	1.97
Arithmetic Mean Ratio		94.4	100.0
Weighted Mean Ratio		90.8	90.2
Geometric Mean Ratio		92.3	94.0
Harmonic Mean Ratio		90.2	87.8
Standard Deviation		19.8	35.4
Coefficient of Variation		21.0	35.4
Price Related Differential (PRD)		1.04	1.11
Bootstrap Price Related Differential		1.04	1.10
Lower PRD Confidence Interval		1.02	0.98
Upper PRD Confidence Interval		1.07	1.33
Average Sale Price		65,679	44,692
Average Market Value		59,631	40,292

Detailed Statistics for the Commercial/Industrial & Residential Subclass

085 - SALINE			086 - SCOTT		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	237	35	Original Number of Sales	73	7
Number of Sales Trimmed	20	3	Number of Sales Trimmed	4	0
Number of Ratios: Outliers Removed	217	32	Number of Ratios: Outliers Removed	69	7
Minimum Ratio	66.7	65.3	Minimum Ratio	37.4	40.3
Maximum Ratio	228.0	726.6	Maximum Ratio	249.0	90.9
Minimum Sale Price	22,000	5,000	Minimum Sale Price	6,000	10,000
Maximum Sale Price	610,000	1,446,000	Maximum Sale Price	233,000	150,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	104.7	115.0	Median Ratio	88.7	71.7
Bootstrap Median Ratio	104.7	115.0	Bootstrap Median Ratio	88.7	71.7
Lower Median Confidence Interval	102.3	100.0	Lower Median Confidence Interval	84.2	44.6
Upper Median Confidence Interval	107.6	131.5	Upper Median Confidence Interval	90.9	85.8
Broadened Median Ratio (BMED)	104.8	116.6	Broadened Median Ratio (BMED)	88.1	63.5
Coefficient of Dispersion (COD)	10.5	22.4	Coefficient of Dispersion (COD)	15.7	23.7
Bootstrap Coefficient of Dispersion	10.5	21.6	Bootstrap Coefficient of Dispersion	15.5	22.0
Lower COD Confidence Interval	9.4	17.5	Lower COD Confidence Interval	12.9	12.1
Upper COD Confidence Interval	11.8	30.1	Upper COD Confidence Interval	19.3	44.3
Weighted Coefficient of Dispersion	9.3	17.7	Weighted Coefficient of Dispersion	14.9	18.5
Coefficient of Concentration @ 10%	56.5	28.6	Coefficient of Concentration @ 10%	35.6	28.6
Coefficient of Concentration @ 15%	70.0	37.1	Coefficient of Concentration @ 15%	49.3	28.6
Coefficient of Concentration @ 20%	78.9	48.6	Coefficient of Concentration @ 20%	69.9	42.9
Coefficient of Concentration @ 50%	93.2	85.7	Coefficient of Concentration @ 50%	93.2	100.0
Coefficient of Concentration @ 100%	99.2	94.3	Coefficient of Concentration @ 100%	97.3	100.0
Coefficient of Interquartile Deviation	9.5	20.8	Coefficient of Interquartile Deviation	15.3	28.8
Median Percent Deviation	8.3	20.6	Median Percent Deviation	15.5	26.8
Lower Quartile (25th Percentile)	97.4	90.8	Lower Quartile (25th Percentile)	74.0	44.6
Upper Quartile (75th Percentile)	117.3	138.7	Upper Quartile (75th Percentile)	101.2	85.8
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK	Normality Test	RejectK	Reject4
Relative Skewness	0.74	0.43	Relative Skewness	0.13	-0.01
Relative Kurtosis	3.48	2.68	Relative Kurtosis	3.37	1.36
Arithmetic Mean Ratio	106.1	113.1	Arithmetic Mean Ratio	87.1	64.6
Weighted Mean Ratio	102.7	108.4	Weighted Mean Ratio	83.6	69.4
Geometric Mean Ratio	105.2	109.1	Geometric Mean Ratio	85.2	61.6
Harmonic Mean Ratio	104.3	105.1	Harmonic Mean Ratio	83.1	58.7
Standard Deviation	14.4	30.9	Standard Deviation	17.9	20.8
Coefficient of Variation	13.6	27.3	Coefficient of Variation	20.5	32.3
Price Related Differential (PRD)	1.03	1.04	Price Related Differential (PRD)	1.04	0.93
Bootstrap Price Related Differential	1.03	1.04	Bootstrap Price Related Differential	1.04	0.94
Lower PRD Confidence Interval	1.02	0.96	Lower PRD Confidence Interval	1.01	0.82
Upper PRD Confidence Interval	1.05	1.15	Upper PRD Confidence Interval	1.09	1.06
Average Sale Price	132,016	245,733	Average Sale Price	86,827	60,357
Average Market Value	135,560	266,454	Average Market Value	72,622	41,897

Detailed Statistics for the Commercial/Industrial & Residential Subclass

087 - SEDGWICK		
GENERAL STATISTICS	RES	C/I
Original Number of Sales	331	134
Number of Sales Trimmed	46	8
Number of Ratios: Outliers Removed	285	126
Minimum Ratio	29.4	45.0
Maximum Ratio	545.0	633.3
Minimum Sale Price	2,000	8,000
Maximum Sale Price	5,000,000	14,573,715
DISTRIBUTION-FREE STATISTICS		
Median Ratio	100.9	95.0
Bootstrap Median Ratio	100.9	95.0
Lower Median Confidence Interval	98.9	89.8
Upper Median Confidence Interval	103.2	99.9
Broadened Median Ratio (BMED)	100.8	94.6
Coefficient of Dispersion (COD)	11.7	19.8
Bootstrap Coefficient of Dispersion	11.7	19.5
Lower COD Confidence Interval	10.5	17.5
Upper COD Confidence Interval	13.1	23.2
Weighted Coefficient of Dispersion	12.2	22.9
Coefficient of Concentration @ 10%	50.5	32.1
Coefficient of Concentration @ 15%	65.6	44.0
Coefficient of Concentration @ 20%	71.0	56.7
Coefficient of Concentration @ 50%	85.8	91.0
Coefficient of Concentration @ 100%	92.7	97.0
Coefficient of Interquartile Deviation	12.0	19.0
Median Percent Deviation	10.0	17.1
Lower Quartile (25th Percentile)	92.6	80.0
Upper Quartile (75th Percentile)	116.9	116.0
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK
Relative Skewness	0.75	0.43
Relative Kurtosis	4.27	3.12
Arithmetic Mean Ratio	100.8	95.1
Weighted Mean Ratio	94.6	84.1
Geometric Mean Ratio	99.6	92.2
Harmonic Mean Ratio	98.4	89.4
Standard Deviation	15.9	23.3
Coefficient of Variation	15.8	24.5
Price Related Differential (PRD)	1.07	1.13
Bootstrap Price Related Differential	1.06	1.12
Lower PRD Confidence Interval	1.03	1.00
Upper PRD Confidence Interval	1.13	1.33
Average Sale Price	164,242	531,323
Average Market Value	155,405	446,627

088 - SEWARD		
GENERAL STATISTICS	RES	C/I
Original Number of Sales	147	8
Number of Sales Trimmed	8	0
Number of Ratios: Outliers Removed	139	8
Minimum Ratio	64.1	65.7
Maximum Ratio	167.3	98.4
Minimum Sale Price	18,000	46,000
Maximum Sale Price	323,000	445,800
DISTRIBUTION-FREE STATISTICS		
Median Ratio	99.3	78.6
Bootstrap Median Ratio	99.3	78.6
Lower Median Confidence Interval	96.7	65.8
Upper Median Confidence Interval	101.7	82.0
Broadened Median Ratio (BMED)	99.1	77.6
Coefficient of Dispersion (COD)	8.9	10.8
Bootstrap Coefficient of Dispersion	8.8	9.5
Lower COD Confidence Interval	7.8	6.6
Upper COD Confidence Interval	10.2	18.4
Weighted Coefficient of Dispersion	8.9	13.3
Coefficient of Concentration @ 10%	61.2	50.0
Coefficient of Concentration @ 15%	78.9	62.5
Coefficient of Concentration @ 20%	85.0	87.5
Coefficient of Concentration @ 50%	98.6	100.0
Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	7.9	9.8
Median Percent Deviation	7.2	8.3
Lower Quartile (25th Percentile)	92.4	66.6
Upper Quartile (75th Percentile)	108.0	82.0
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK
Relative Skewness	0.09	0.63
Relative Kurtosis	3.07	2.62
Arithmetic Mean Ratio	99.2	77.5
Weighted Mean Ratio	97.7	73.5
Geometric Mean Ratio	98.6	76.9
Harmonic Mean Ratio	98.0	76.2
Standard Deviation	11.2	11.0
Coefficient of Variation	11.2	14.2
Price Related Differential (PRD)	1.02	1.05
Bootstrap Price Related Differential	1.02	1.05
Lower PRD Confidence Interval	1.01	1.02
Upper PRD Confidence Interval	1.03	1.11
Average Sale Price	121,837	163,663
Average Market Value	119,022	120,268

Detailed Statistics for the Commercial/Industrial & Residential Subclass

089 - SHAWNEE			090 - SHERIDAN		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	RES	C/I		RES	C/I
Original Number of Sales	339	42	Original Number of Sales	25	6
Number of Sales Trimmed	52	3	Number of Sales Trimmed	0	1
Number of Ratios: Outliers Removed	287	39	Number of Ratios: Outliers Removed	25	5
Minimum Ratio	38.9	49.1	Minimum Ratio	55.5	47.0
Maximum Ratio	671.0	331.9	Maximum Ratio	128.7	362.0
Minimum Sale Price	5,000	12,500	Minimum Sale Price	10,000	7,500
Maximum Sale Price	875,000	2,425,000	Maximum Sale Price	168,000	175,000
<i>DISTRIBUTION-FREE STATISTICS</i>			<i>DISTRIBUTION-FREE STATISTICS</i>		
Median Ratio	103.6	104.7	Median Ratio	90.1	86.9
Bootstrap Median Ratio	103.6	104.7	Bootstrap Median Ratio	90.1	86.9
Lower Median Confidence Interval	102.4	97.9	Lower Median Confidence Interval	77.9	49.3
Upper Median Confidence Interval	105.6	123.2	Upper Median Confidence Interval	106.4	232.2
Broadened Median Ratio (BMED)	103.6	105.2	Broadened Median Ratio (BMED)	90.4	83.6
Coefficient of Dispersion (COD)	9.1	23.3	Coefficient of Dispersion (COD)	19.3	23.2
Bootstrap Coefficient of Dispersion	9.1	22.5	Bootstrap Coefficient of Dispersion	18.7	20.6
Lower COD Confidence Interval	8.2	18.3	Lower COD Confidence Interval	14.9	9.8
Upper COD Confidence Interval	10.1	31.4	Upper COD Confidence Interval	25.8	43.0
Weighted Coefficient of Dispersion	8.5	18.7	Weighted Coefficient of Dispersion	18.7	33.5
Coefficient of Concentration @ 10%	55.8	23.8	Coefficient of Concentration @ 10%	28.0	33.3
Coefficient of Concentration @ 15%	69.3	45.2	Coefficient of Concentration @ 15%	44.0	33.3
Coefficient of Concentration @ 20%	74.9	50.0	Coefficient of Concentration @ 20%	52.0	50.0
Coefficient of Concentration @ 50%	88.2	81.0	Coefficient of Concentration @ 50%	100.0	83.3
Coefficient of Concentration @ 100%	94.7	92.9	Coefficient of Concentration @ 100%	100.0	83.3
Coefficient of Interquartile Deviation	8.6	21.2	Coefficient of Interquartile Deviation	20.6	67.3
Median Percent Deviation	8.5	18.1	Median Percent Deviation	18.1	29.3
Lower Quartile (25th Percentile)	97.2	92.1	Lower Quartile (25th Percentile)	75.7	50.4
Upper Quartile (75th Percentile)	115.0	136.5	Upper Quartile (75th Percentile)	112.8	167.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	AcceptK	AcceptW
Relative Skewness	0.54	0.67	Relative Skewness	0.06	-0.17
Relative Kurtosis	3.77	3.47	Relative Kurtosis	1.90	1.34
Arithmetic Mean Ratio	104.0	110.2	Arithmetic Mean Ratio	91.7	75.0
Weighted Mean Ratio	102.4	106.2	Weighted Mean Ratio	83.1	58.0
Geometric Mean Ratio	103.2	105.8	Geometric Mean Ratio	89.2	71.5
Harmonic Mean Ratio	102.5	101.4	Harmonic Mean Ratio	86.8	68.0
Standard Deviation	12.5	31.8	Standard Deviation	21.2	24.6
Coefficient of Variation	12.1	28.8	Coefficient of Variation	23.1	32.8
Price Related Differential (PRD)	1.02	1.04	Price Related Differential (PRD)	1.10	1.29
Bootstrap Price Related Differential	1.02	1.04	Bootstrap Price Related Differential	1.10	1.24
Lower PRD Confidence Interval	1.00	0.96	Lower PRD Confidence Interval	1.06	1.14
Upper PRD Confidence Interval	1.03	1.13	Upper PRD Confidence Interval	1.16	1.66
Average Sale Price	130,733	242,409	Average Sale Price	68,960	82,000
Average Market Value	133,831	257,340	Average Market Value	57,289	47,576

Detailed Statistics for the Commercial/Industrial & Residential Subclass

091 - SHERMAN			092 - SMITH		
			S-3		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	103	7	Original Number of Sales	41	7
Number of Sales Trimmed	8	0	Number of Sales Trimmed	3	0
Number of Ratios: Outliers Removed	95	7	Number of Ratios: Outliers Removed	38	7
Minimum Ratio	43.7	75.0	Minimum Ratio	43.1	29.8
Maximum Ratio	227.0	131.0	Maximum Ratio	436.1	152.1
Minimum Sale Price	3,000	10,000	Minimum Sale Price	2,200	9,000
Maximum Sale Price	295,000	475,000	Maximum Sale Price	145,000	67,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	95.9	100.0	Median Ratio	100.0	69.0
Bootstrap Median Ratio	95.9	100.0	Bootstrap Median Ratio	100.0	69.0
Lower Median Confidence Interval	90.7	75.5	Lower Median Confidence Interval	89.4	46.1
Upper Median Confidence Interval	100.0	117.9	Upper Median Confidence Interval	114.5	150.9
Broadened Median Ratio (BMED)	95.4	99.5	Broadened Median Ratio (BMED)	99.8	69.9
Coefficient of Dispersion (COD)	12.8	14.3	Coefficient of Dispersion (COD)	24.0	50.0
Bootstrap Coefficient of Dispersion	12.6	13.3	Bootstrap Coefficient of Dispersion	23.2	43.4
Lower COD Confidence Interval	11.0	6.6	Lower COD Confidence Interval	19.3	23.4
Upper COD Confidence Interval	15.3	25.6	Upper COD Confidence Interval	31.5	112.9
Weighted Coefficient of Dispersion	11.5	7.9	Weighted Coefficient of Dispersion	18.1	44.6
Coefficient of Concentration @ 10%	44.7	42.9	Coefficient of Concentration @ 10%	22.0	28.6
Coefficient of Concentration @ 15%	61.2	42.9	Coefficient of Concentration @ 15%	41.5	42.9
Coefficient of Concentration @ 20%	70.9	57.1	Coefficient of Concentration @ 20%	46.3	42.9
Coefficient of Concentration @ 50%	94.2	100.0	Coefficient of Concentration @ 50%	82.9	57.1
Coefficient of Concentration @ 100%	97.1	100.0	Coefficient of Concentration @ 100%	92.7	71.4
Coefficient of Interquartile Deviation	10.8	21.2	Coefficient of Interquartile Deviation	23.0	76.0
Median Percent Deviation	10.8	17.9	Median Percent Deviation	20.7	33.1
Lower Quartile (25th Percentile)	86.0	75.5	Lower Quartile (25th Percentile)	84.6	46.1
Upper Quartile (75th Percentile)	106.7	117.9	Upper Quartile (75th Percentile)	130.6	150.9
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	0.34	0.15	Relative Skewness	0.33	0.60
Relative Kurtosis	3.09	1.98	Relative Kurtosis	2.78	1.82
Arithmetic Mean Ratio	95.1	99.7	Arithmetic Mean Ratio	101.8	84.1
Weighted Mean Ratio	92.1	98.6	Weighted Mean Ratio	95.1	69.0
Geometric Mean Ratio	93.8	97.9	Geometric Mean Ratio	97.5	72.6
Harmonic Mean Ratio	92.6	96.1	Harmonic Mean Ratio	93.1	62.7
Standard Deviation	15.4	20.5	Standard Deviation	29.3	48.6
Coefficient of Variation	16.2	20.5	Coefficient of Variation	28.8	57.8
Price Related Differential (PRD)	1.03	1.01	Price Related Differential (PRD)	1.07	1.22
Bootstrap Price Related Differential	1.03	1.01	Bootstrap Price Related Differential	1.07	1.18
Lower PRD Confidence Interval	1.01	0.93	Lower PRD Confidence Interval	1.02	1.05
Upper PRD Confidence Interval	1.06	1.17	Upper PRD Confidence Interval	1.14	1.63
Average Sale Price	82,882	127,714	Average Sale Price	47,468	31,714
Average Market Value	76,361	125,891	Average Market Value	45,136	21,871

Detailed Statistics for the Commercial/Industrial & Residential Subclass

093 - STAFFORD			S-5			094 - STANTON			S-7		
GENERAL STATISTICS			RES	C/I	GENERAL STATISTICS			RES	C/I		
Original Number of Sales			37	9	Original Number of Sales			9	7		
Number of Sales Trimmed			1	1	Number of Sales Trimmed			1	1		
Number of Ratios: Outliers Removed			36	8	Number of Ratios: Outliers Removed			8	6		
Minimum Ratio			39.1	39.2	Minimum Ratio			43.0	60.3		
Maximum Ratio			176.9	393.0	Maximum Ratio			275.0	534.5		
Minimum Sale Price			3,200	1,000	Minimum Sale Price			4,000	2,000		
Maximum Sale Price			175,000	277,500	Maximum Sale Price			89,500	75,000		
DISTRIBUTION-FREE STATISTICS					DISTRIBUTION-FREE STATISTICS						
Median Ratio			93.1	81.3	Median Ratio			97.7	104.4		
Bootstrap Median Ratio			93.1	81.3	Bootstrap Median Ratio			97.7	104.4		
Lower Median Confidence Interval			79.0	40.6	Lower Median Confidence Interval			53.8	92.4		
Upper Median Confidence Interval			101.5	114.8	Upper Median Confidence Interval			162.8	151.5		
Broadened Median Ratio (BMED)			93.1	85.2	Broadened Median Ratio (BMED)			99.4	109.0		
Coefficient of Dispersion (COD)			24.7	23.5	Coefficient of Dispersion (COD)			34.5	22.4		
Bootstrap Coefficient of Dispersion			24.3	21.6	Bootstrap Coefficient of Dispersion			30.2	18.7		
Lower COD Confidence Interval			18.6	11.7	Lower COD Confidence Interval			21.5	12.4		
Upper COD Confidence Interval			33.5	54.0	Upper COD Confidence Interval			67.9	46.8		
Weighted Coefficient of Dispersion			24.2	20.9	Weighted Coefficient of Dispersion			31.4	25.9		
Coefficient of Concentration @ 10%			24.3	33.3	Coefficient of Concentration @ 10%			11.1	28.6		
Coefficient of Concentration @ 15%			37.8	44.4	Coefficient of Concentration @ 15%			22.2	42.9		
Coefficient of Concentration @ 20%			48.6	44.4	Coefficient of Concentration @ 20%			33.3	42.9		
Coefficient of Concentration @ 50%			86.5	66.7	Coefficient of Concentration @ 50%			66.7	85.7		
Coefficient of Concentration @ 100%			100.0	88.9	Coefficient of Concentration @ 100%			88.9	85.7		
Coefficient of Interquartile Deviation			20.6	30.2	Coefficient of Interquartile Deviation			42.8	28.3		
Median Percent Deviation			20.2	22.7	Median Percent Deviation			36.2	21.7		
Lower Quartile (25th Percentile)			71.7	58.2	Lower Quartile (25th Percentile)			64.3	92.4		
Upper Quartile (75th Percentile)			110.0	107.3	Upper Quartile (75th Percentile)			147.9	151.5		
PARAMETRIC STATISTICS					PARAMETRIC STATISTICS						
Normality Test			RejectK	AcceptK	Normality Test			AcceptK	AcceptW		
Relative Skewness			0.37	-0.41	Relative Skewness			0.31	0.11		
Relative Kurtosis			2.86	2.05	Relative Kurtosis			2.06	2.24		
Arithmetic Mean Ratio			91.2	78.2	Arithmetic Mean Ratio			95.7	105.2		
Weighted Mean Ratio			83.1	75.8	Weighted Mean Ratio			87.6	100.4		
Geometric Mean Ratio			86.5	73.5	Geometric Mean Ratio			88.0	101.2		
Harmonic Mean Ratio			81.7	68.1	Harmonic Mean Ratio			80.4	96.9		
Standard Deviation			29.0	26.7	Standard Deviation			40.3	31.3		
Coefficient of Variation			31.8	34.1	Coefficient of Variation			42.1	29.7		
Price Related Differential (PRD)			1.10	1.03	Price Related Differential (PRD)			1.09	1.05		
Bootstrap Price Related Differential			1.09	1.03	Bootstrap Price Related Differential			1.08	1.05		
Lower PRD Confidence Interval			1.01	0.90	Lower PRD Confidence Interval			1.01	0.97		
Upper PRD Confidence Interval			1.25	1.26	Upper PRD Confidence Interval			1.24	1.17		
Average Sale Price			33,558	95,556	Average Sale Price			46,313	43,667		
Average Market Value			27,878	72,455	Average Market Value			40,570	43,830		

Detailed Statistics for the Commercial/Industrial & Residential Subclass

095 - STEVENS		<i>S-4</i>		096 - SUMNER	
GENERAL STATISTICS		RES	C/I	GENERAL STATISTICS	
		RES	C/I	RES	C/I
Original Number of Sales		28	6	171	16
Number of Sales Trimmed		2	0	21	0
Number of Ratios: Outliers Removed		26	6	150	16
Minimum Ratio		50.7	44.8	43.7	41.7
Maximum Ratio		140.7	133.0	460.7	184.2
Minimum Sale Price		23,000	20,000	3,300	5,000
Maximum Sale Price		198,000	82,500	230,000	92,500
DISTRIBUTION-FREE STATISTICS				DISTRIBUTION-FREE STATISTICS	
Median Ratio		96.5	82.4	104.3	78.1
Bootstrap Median Ratio		96.5	82.4	104.3	78.1
Lower Median Confidence Interval		88.9	58.5	100.4	56.5
Upper Median Confidence Interval		99.7	122.7	109.6	135.0
Broadened Median Ratio (BMED)		96.0	85.7	104.8	79.5
Coefficient of Dispersion (COD)		11.0	27.4	18.8	47.2
Bootstrap Coefficient of Dispersion		10.7	23.3	18.6	42.9
Lower COD Confidence Interval		7.7	15.8	16.2	33.6
Upper COD Confidence Interval		15.7	58.1	22.0	72.0
Weighted Coefficient of Dispersion		9.8	27.7	15.0	32.8
Coefficient of Concentration @ 10%		57.1	33.3	33.9	18.8
Coefficient of Concentration @ 15%		64.3	50.0	45.0	31.3
Coefficient of Concentration @ 20%		75.0	50.0	56.7	31.3
Coefficient of Concentration @ 50%		100.0	83.3	81.9	68.8
Coefficient of Concentration @ 100%		100.0	100.0	91.8	87.5
Coefficient of Interquartile Deviation		8.9	31.7	18.1	51.9
Median Percent Deviation		8.4	24.4	16.4	30.2
Lower Quartile (25th Percentile)		85.6	65.3	90.3	56.4
Upper Quartile (75th Percentile)		102.8	117.6	128.0	137.6
PARAMETRIC STATISTICS				PARAMETRIC STATISTICS	
Normality Test		AcceptK	AcceptW	RejectK	RejectK
Relative Skewness		-0.05	0.16	0.90	0.76
Relative Kurtosis		3.10	2.07	4.16	2.26
Arithmetic Mean Ratio		94.6	87.9	105.9	94.9
Weighted Mean Ratio		93.2	80.3	102.3	85.5
Geometric Mean Ratio		93.5	83.0	102.9	84.9
Harmonic Mean Ratio		92.4	78.0	99.9	76.6
Standard Deviation		14.5	31.1	26.2	47.5
Coefficient of Variation		15.3	35.4	24.8	50.0
Price Related Differential (PRD)		1.02	1.09	1.04	1.11
Bootstrap Price Related Differential		1.01	1.08	1.04	1.11
Lower PRD Confidence Interval		0.99	1.02	1.01	0.99
Upper PRD Confidence Interval		1.05	1.25	1.06	1.25
Average Sale Price		109,375	52,311	81,808	31,544
Average Market Value		101,910	42,012	83,668	26,968

Detailed Statistics for the Commercial/Industrial & Residential Subclass

097 - THOMAS			098 - TREGO		
			S-6		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	112	9	Original Number of Sales	40	7
Number of Sales Trimmed	9	0	Number of Sales Trimmed	3	1
Number of Ratios: Outliers Removed	103	9	Number of Ratios: Outliers Removed	37	6
Minimum Ratio	52.9	70.8	Minimum Ratio	58.4	26.7
Maximum Ratio	170.8	126.9	Maximum Ratio	220.6	305.0
Minimum Sale Price	1,500	18,000	Minimum Sale Price	3,500	10,000
Maximum Sale Price	365,000	575,000	Maximum Sale Price	260,000	135,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	96.1	99.1	Median Ratio	91.8	68.7
Bootstrap Median Ratio	96.1	99.1	Bootstrap Median Ratio	91.8	68.7
Lower Median Confidence Interval	94.0	72.3	Lower Median Confidence Interval	86.6	37.4
Upper Median Confidence Interval	98.4	123.4	Upper Median Confidence Interval	95.9	126.4
Broadened Median Ratio (BMED)	96.0	96.4	Broadened Median Ratio (BMED)	91.3	71.3
Coefficient of Dispersion (COD)	9.6	17.9	Coefficient of Dispersion (COD)	14.7	54.3
Bootstrap Coefficient of Dispersion	9.5	16.4	Bootstrap Coefficient of Dispersion	14.3	42.5
Lower COD Confidence Interval	8.1	11.8	Lower COD Confidence Interval	11.4	30.1
Upper COD Confidence Interval	11.2	28.4	Upper COD Confidence Interval	19.9	108.1
Weighted Coefficient of Dispersion	8.8	21.9	Weighted Coefficient of Dispersion	11.3	46.3
Coefficient of Concentration @ 10%	54.5	22.2	Coefficient of Concentration @ 10%	45.0	14.3
Coefficient of Concentration @ 15%	68.8	44.4	Coefficient of Concentration @ 15%	52.5	14.3
Coefficient of Concentration @ 20%	83.0	44.4	Coefficient of Concentration @ 20%	65.0	14.3
Coefficient of Concentration @ 50%	98.2	100.0	Coefficient of Concentration @ 50%	92.5	57.1
Coefficient of Concentration @ 100%	100.0	100.0	Coefficient of Concentration @ 100%	97.5	85.7
Coefficient of Interquartile Deviation	8.8	22.0	Coefficient of Interquartile Deviation	12.8	64.7
Median Percent Deviation	8.7	22.6	Median Percent Deviation	13.7	45.5
Lower Quartile (25th Percentile)	86.4	74.4	Lower Quartile (25th Percentile)	77.3	37.4
Upper Quartile (75th Percentile)	103.3	118.1	Upper Quartile (75th Percentile)	100.9	126.4
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	Reject4	Normality Test	RejectK	AcceptW
Relative Skewness	0.10	0.11	Relative Skewness	0.42	0.50
Relative Kurtosis	3.11	1.57	Relative Kurtosis	3.17	1.77
Arithmetic Mean Ratio	94.7	96.9	Arithmetic Mean Ratio	89.2	67.4
Weighted Mean Ratio	92.8	90.5	Weighted Mean Ratio	91.0	46.9
Geometric Mean Ratio	93.9	94.7	Geometric Mean Ratio	87.5	58.3
Harmonic Mean Ratio	93.2	92.6	Harmonic Mean Ratio	85.9	50.5
Standard Deviation	11.8	21.5	Standard Deviation	17.4	39.0
Coefficient of Variation	12.5	22.2	Coefficient of Variation	19.5	57.8
Price Related Differential (PRD)	1.02	1.07	Price Related Differential (PRD)	0.98	1.44
Bootstrap Price Related Differential	1.02	1.06	Bootstrap Price Related Differential	0.98	1.35
Lower PRD Confidence Interval	1.00	0.95	Lower PRD Confidence Interval	0.94	1.05
Upper PRD Confidence Interval	1.04	1.26	Upper PRD Confidence Interval	1.02	2.08
Average Sale Price	88,509	175,822	Average Sale Price	63,769	44,417
Average Market Value	82,127	159,127	Average Market Value	58,009	20,830

Detailed Statistics for the Commercial/Industrial & Residential Subclass

85% Conf Level

099 - WABAUNSEE			100 - WALLACE		
S-3			S-4		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	62	6	Original Number of Sales	16	4
Number of Sales Trimmed	1	0	Number of Sales Trimmed	0	0
Number of Ratios: Outliers Removed	61	6	Number of Ratios: Outliers Removed	16	4
Minimum Ratio	56.5	61.0	Minimum Ratio	74.7	64.2
Maximum Ratio	181.1	147.8	Maximum Ratio	141.0	107.0
Minimum Sale Price	12,000	7,000	Minimum Sale Price	11,000	7,000
Maximum Sale Price	290,000	25,000	Maximum Sale Price	126,900	34,600
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	97.0	108.4	Median Ratio	98.6	105.2
Bootstrap Median Ratio	97.0	108.4	Bootstrap Median Ratio	98.6	105.2
Lower Median Confidence Interval	90.4	69.6	Lower Median Confidence Interval	90.5	66.1
Upper Median Confidence Interval	101.5	135.9	Upper Median Confidence Interval	105.7	107.0
Broadened Median Ratio (BMED)	97.0	106.0	Broadened Median Ratio (BMED)	98.3	98.6
Coefficient of Dispersion (COD)	17.2	22.7	Coefficient of Dispersion (COD)	13.9	10.9
Bootstrap Coefficient of Dispersion	17.0	19.7	Bootstrap Coefficient of Dispersion	13.6	10.2
Lower COD Confidence Interval	14.0	11.4	Lower COD Confidence Interval	8.2	0.9
Upper COD Confidence Interval	21.6	43.1	Upper COD Confidence Interval	21.0	25.1
Weighted Coefficient of Dispersion	14.6	20.6	Weighted Coefficient of Dispersion	11.8	10.2
Coefficient of Concentration @ 10%	35.5	33.3	Coefficient of Concentration @ 10%	50.0	75.0
Coefficient of Concentration @ 15%	54.8	50.0	Coefficient of Concentration @ 15%	62.5	75.0
Coefficient of Concentration @ 20%	64.5	50.0	Coefficient of Concentration @ 20%	75.0	75.0
Coefficient of Concentration @ 50%	96.8	100.0	Coefficient of Concentration @ 50%	100.0	100.0
Coefficient of Concentration @ 100%	100.0	100.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	15.7	25.8	Coefficient of Interquartile Deviation	11.6	15.6
Median Percent Deviation	13.1	21.0	Median Percent Deviation	10.3	1.6
Lower Quartile (25th Percentile)	77.6	74.0	Lower Quartile (25th Percentile)	87.3	74.0
Upper Quartile (75th Percentile)	108.1	129.9	Upper Quartile (75th Percentile)	110.2	106.9
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectW
Relative Skewness	0.25	-0.09	Relative Skewness	0.72	-1.14
Relative Kurtosis	2.88	1.87	Relative Kurtosis	2.68	2.32
Arithmetic Mean Ratio	93.9	104.6	Arithmetic Mean Ratio	101.7	95.4
Weighted Mean Ratio	95.4	108.2	Weighted Mean Ratio	96.1	95.8
Geometric Mean Ratio	91.5	100.4	Geometric Mean Ratio	100.1	93.3
Harmonic Mean Ratio	89.1	95.9	Harmonic Mean Ratio	98.5	91.0
Standard Deviation	21.2	31.6	Standard Deviation	19.6	20.9
Coefficient of Variation	22.6	30.2	Coefficient of Variation	19.3	21.9
Price Related Differential (PRD)	0.98	0.97	Price Related Differential (PRD)	1.06	1.00
Bootstrap Price Related Differential	0.99	0.97	Bootstrap Price Related Differential	1.05	1.00
Lower PRD Confidence Interval	0.95	0.90	Lower PRD Confidence Interval	1.01	0.94
Upper PRD Confidence Interval	1.02	1.01	Upper PRD Confidence Interval	1.15	1.01
Average Sale Price	119,425	19,650	Average Sale Price	46,728	21,650
Average Market Value	113,929	21,258	Average Market Value	44,891	20,735

Detailed Statistics for the Commercial/Industrial & Residential Subclass

101 - WASHINGTON			102 - WICHITA		
GENERAL STATISTICS			GENERAL STATISTICS		
	RES	C/I		RES	C/I
Original Number of Sales	55	7	Original Number of Sales	10	6
Number of Sales Trimmed	6	0	Number of Sales Trimmed	1	0
Number of Ratios: Outliers Removed	49	7	Number of Ratios: Outliers Removed	9	6
Minimum Ratio	59.3	24.4	Minimum Ratio	76.9	57.1
Maximum Ratio	1644.0	123.1	Maximum Ratio	154.5	127.1
Minimum Sale Price	2,000	10,000	Minimum Sale Price	8,500	6,000
Maximum Sale Price	255,000	350,000	Maximum Sale Price	120,000	96,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	108.0	74.1	Median Ratio	103.5	90.6
Bootstrap Median Ratio	108.0	74.1	Bootstrap Median Ratio	103.5	90.6
Lower Median Confidence Interval	101.8	38.2	Lower Median Confidence Interval	94.1	66.5
Upper Median Confidence Interval	115.1	91.4	Upper Median Confidence Interval	116.7	112.6
Broadened Median Ratio (BMED)	107.9	74.1	Broadened Median Ratio (BMED)	103.1	89.4
Coefficient of Dispersion (COD)	17.3	29.6	Coefficient of Dispersion (COD)	9.0	18.0
Bootstrap Coefficient of Dispersion	17.1	27.6	Bootstrap Coefficient of Dispersion	8.4	16.1
Lower COD Confidence Interval	13.6	12.9	Lower COD Confidence Interval	4.7	8.4
Upper COD Confidence Interval	22.2	93.7	Upper COD Confidence Interval	16.8	39.0
Weighted Coefficient of Dispersion	17.0	20.0	Weighted Coefficient of Dispersion	9.4	21.0
Coefficient of Concentration @ 10%	34.5	42.9	Coefficient of Concentration @ 10%	60.0	50.0
Coefficient of Concentration @ 15%	41.8	42.9	Coefficient of Concentration @ 15%	70.0	50.0
Coefficient of Concentration @ 20%	61.8	42.9	Coefficient of Concentration @ 20%	70.0	66.7
Coefficient of Concentration @ 50%	85.5	71.4	Coefficient of Concentration @ 50%	100.0	100.0
Coefficient of Concentration @ 100%	92.7	100.0	Coefficient of Concentration @ 100%	100.0	100.0
Coefficient of Interquartile Deviation	16.5	35.9	Coefficient of Interquartile Deviation	8.6	18.8
Median Percent Deviation	16.2	23.3	Median Percent Deviation	6.1	12.2
Lower Quartile (25th Percentile)	91.7	38.2	Lower Quartile (25th Percentile)	95.1	71.2
Upper Quartile (75th Percentile)	127.3	91.4	Upper Quartile (75th Percentile)	113.0	105.3
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	AcceptK	AcceptW
Relative Skewness	0.43	0.04	Relative Skewness	0.09	0.24
Relative Kurtosis	3.40	2.29	Relative Kurtosis	3.23	2.49
Arithmetic Mean Ratio	106.4	71.3	Arithmetic Mean Ratio	101.2	89.9
Weighted Mean Ratio	100.8	82.2	Weighted Mean Ratio	97.0	82.0
Geometric Mean Ratio	103.6	63.7	Geometric Mean Ratio	100.3	87.3
Harmonic Mean Ratio	100.8	55.2	Harmonic Mean Ratio	99.5	84.7
Standard Deviation	24.5	32.7	Standard Deviation	13.6	23.4
Coefficient of Variation	23.0	45.8	Coefficient of Variation	13.5	26.0
Price Related Differential (PRD)	1.06	0.87	Price Related Differential (PRD)	1.04	1.10
Bootstrap Price Related Differential	1.05	0.91	Bootstrap Price Related Differential	1.04	1.08
Lower PRD Confidence Interval	1.00	0.64	Lower PRD Confidence Interval	1.00	1.05
Upper PRD Confidence Interval	1.15	1.11	Upper PRD Confidence Interval	1.15	1.22
Average Sale Price	50,199	82,000	Average Sale Price	56,222	40,167
Average Market Value	50,595	67,394	Average Market Value	54,511	32,957

Detailed Statistics for the Commercial/Industrial & Residential Subclass

103 - WILSON			104 - WOODSON		
GENERAL STATISTICS	RES	C/I	GENERAL STATISTICS	RES	C/I
Original Number of Sales	75	8	Original Number of Sales	34	8
Number of Sales Trimmed	9	1	Number of Sales Trimmed	4	1
Number of Ratios: Outliers Removed	66	7	Number of Ratios: Outliers Removed	30	7
Minimum Ratio	65.2	70.5	Minimum Ratio	42.6	48.7
Maximum Ratio	507.5	252.0	Maximum Ratio	228.3	130.4
Minimum Sale Price	2,500	5,000	Minimum Sale Price	3,000	1,010
Maximum Sale Price	180,000	100,000	Maximum Sale Price	199,000	50,000
DISTRIBUTION-FREE STATISTICS			DISTRIBUTION-FREE STATISTICS		
Median Ratio	102.0	119.3	Median Ratio	97.4	95.0
Bootstrap Median Ratio	102.0	119.3	Bootstrap Median Ratio	97.4	95.0
Lower Median Confidence Interval	96.0	98.0	Lower Median Confidence Interval	88.5	88.9
Upper Median Confidence Interval	112.2	140.2	Upper Median Confidence Interval	114.5	108.7
Broadened Median Ratio (BMED)	102.7	117.3	Broadened Median Ratio (BMED)	97.6	96.2
Coefficient of Dispersion (COD)	17.4	14.4	Coefficient of Dispersion (COD)	25.6	10.4
Bootstrap Coefficient of Dispersion	17.0	12.9	Bootstrap Coefficient of Dispersion	25.0	9.0
Lower COD Confidence Interval	14.9	7.7	Lower COD Confidence Interval	18.6	5.9
Upper COD Confidence Interval	21.1	31.8	Upper COD Confidence Interval	37.4	19.4
Weighted Coefficient of Dispersion	16.6	16.2	Weighted Coefficient of Dispersion	18.3	8.9
Coefficient of Concentration @ 10%	28.0	37.5	Coefficient of Concentration @ 10%	29.4	50.0
Coefficient of Concentration @ 15%	44.0	37.5	Coefficient of Concentration @ 15%	38.2	75.0
Coefficient of Concentration @ 20%	58.7	75.0	Coefficient of Concentration @ 20%	44.1	75.0
Coefficient of Concentration @ 50%	86.7	87.5	Coefficient of Concentration @ 50%	70.6	100.0
Coefficient of Concentration @ 100%	90.7	87.5	Coefficient of Concentration @ 100%	88.2	100.0
Coefficient of Interquartile Deviation	17.3	16.0	Coefficient of Interquartile Deviation	26.8	9.6
Median Percent Deviation	17.2	16.7	Median Percent Deviation	24.9	8.5
Lower Quartile (25th Percentile)	85.9	98.6	Lower Quartile (25th Percentile)	73.7	89.6
Upper Quartile (75th Percentile)	121.3	136.8	Upper Quartile (75th Percentile)	126.0	107.8
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	Reject3
Relative Skewness	0.41	-0.54	Relative Skewness	0.82	1.09
Relative Kurtosis	2.68	2.44	Relative Kurtosis	3.93	3.09
Arithmetic Mean Ratio	100.1	110.6	Arithmetic Mean Ratio	96.9	102.1
Weighted Mean Ratio	95.8	105.9	Weighted Mean Ratio	92.1	96.8
Geometric Mean Ratio	98.0	108.3	Geometric Mean Ratio	91.4	101.3
Harmonic Mean Ratio	95.9	105.8	Harmonic Mean Ratio	85.9	100.6
Standard Deviation	20.8	22.9	Standard Deviation	33.6	14.5
Coefficient of Variation	20.8	20.7	Coefficient of Variation	34.7	14.2
Price Related Differential (PRD)	1.04	1.04	Price Related Differential (PRD)	1.05	1.05
Bootstrap Price Related Differential	1.04	1.04	Bootstrap Price Related Differential	1.05	1.05
Lower PRD Confidence Interval	1.02	1.02	Lower PRD Confidence Interval	0.99	0.99
Upper PRD Confidence Interval	1.09	1.16	Upper PRD Confidence Interval	1.15	1.16
Average Sale Price	59,371	22,429	Average Sale Price	41,259	15,098
Average Market Value	56,879	23,751	Average Market Value	37,979	14,621

Detailed Statistics for the Commercial/Industrial & Residential Subclass

105 - WYANDOTTE		
GENERAL STATISTICS	RES	C/I
Original Number of Sales	225	52
Number of Sales Trimmed	33	3
Number of Ratios: Outliers Removed	192	49
Minimum Ratio	23.2	28.0
Maximum Ratio	678.0	506.8
Minimum Sale Price	3,000	6,000
Maximum Sale Price	383,900	8,135,000
DISTRIBUTION-FREE STATISTICS		
Median Ratio	107.0	93.8
Bootstrap Median Ratio	107.0	93.8
Lower Median Confidence Interval	104.3	79.7
Upper Median Confidence Interval	112.5	101.3
Broadened Median Ratio (BMED)	107.1	93.1
Coefficient of Dispersion (COD)	19.1	34.9
Bootstrap Coefficient of Dispersion	19.1	33.9
Lower COD Confidence Interval	16.7	27.8
Upper COD Confidence Interval	21.9	48.7
Weighted Coefficient of Dispersion	15.6	36.5
Coefficient of Concentration @ 10%	30.2	25.0
Coefficient of Concentration @ 15%	47.1	30.8
Coefficient of Concentration @ 20%	59.1	36.5
Coefficient of Concentration @ 50%	77.3	71.2
Coefficient of Concentration @ 100%	87.1	92.3
Coefficient of Interquartile Deviation	19.8	32.9
Median Percent Deviation	16.4	32.6
Lower Quartile (25th Percentile)	92.5	63.1
Upper Quartile (75th Percentile)	134.8	124.8
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK
Relative Skewness	0.53	0.55
Relative Kurtosis	3.93	2.78
Arithmetic Mean Ratio	106.9	91.5
Weighted Mean Ratio	101.3	90.1
Geometric Mean Ratio	103.3	83.1
Harmonic Mean Ratio	99.3	74.7
Standard Deviation	27.3	39.1
Coefficient of Variation	25.5	42.8
Price Related Differential (PRD)	1.05	1.02
Bootstrap Price Related Differential	1.05	1.01
Lower PRD Confidence Interval	1.03	0.84
Upper PRD Confidence Interval	1.08	1.25
Average Sale Price	92,485	683,638
Average Market Value	93,721	616,081

INSTRUCTIONS FOR COMPLETING THE SALES VALIDATION QUESTIONNAIRE

- ITEM 1** Please check all boxes which pertain.
- ITEM 2** Check the box which describes the current or most recent use of the property at the time of sale. Check all boxes which are applicable if the property has multiple uses.
- ITEM 3** Check yes; if the buyer assumed any long term lease(s) (more than 3 years remaining) at the time of sale.
- ITEM 4** Check yes; if the purchase price included an operating business, franchise, trade license, patent, trademark, stock, bonds, technology, and/or goodwill.
- ITEM 5** Check yes; if any tangible and portable items of property were included in the sale price. If possible, provide a brief description and your estimate of the total value of all personal property included in the sale price.
- ITEM 6** Check yes; if the property characteristics have been changed since January 1. Indicate what type of change(s) took place by marking the appropriate box. Indicate the date the change(s) took place.
- ITEM 7** Check yes; if any delinquent taxes were assumed by the purchaser and included as part of the sale price. Do not consider any prorated taxes for the year in which the property was sold that are part of normal escrow closings.
- ITEM 8** Check the predominate method of financing used to acquire the property. Check "Not Applicable" if no money exchanged hands or refinancing of an existing loan.
- ITEM 9** Check yes; if the property was either advertised on the open market, displayed a for sale sign, listed with a real estate agent or offered by word of mouth.
- ITEM 10** Check yes; if the buyer owns or controls the property adjoining or adjacent to the property being purchased.
- ITEM 11** Provide an explanation if you believe the buyer or seller did not act prudently, was not fully informed about the property or knowledgeable of the local market, poorly advised, did not use good judgement in the negotiations, was acting under duress, or compelled out of necessity. Use an additional sheet of paper if necessary.
- ITEM 12** Provide the total sale price and date of sale. The date should be the date that either the deed or the contract for deed was signed, not the date the deed was recorded.
- ITEM 13** Please sign the questionnaire and list your phone number. The county appraiser may need to make a follow up phone call to clarify unusual terms or conditions.

K.S.A. 79-1437g. Same; penalty for violations. Any person who shall falsify the value of real estate transferred shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not more than \$500. (L. 1991, ch. 162, sec. 7; L. 1992, ch. 159, sec. 3; April 30.)

TRANSFERS OF TITLE THAT DO NOT REQUIRE A SALES VALIDATION QUESTIONNAIRE ARE AS FOLLOWS:

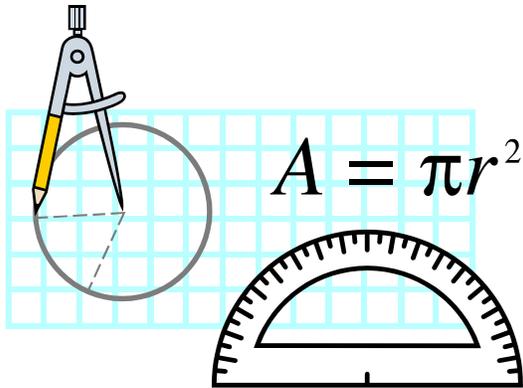
- (1) Recorded prior to the effective date of this act, i.e., July 1, 1991;
 - (2) made solely for the purpose of securing or releasing security for a debt or other obligation;
 - (3) made for the purpose of confirming, correcting, modifying or supplementing a deed previously recorded, and without additional consideration;
 - (4) by way of gift, donation or contribution stated in the deed or other instruments;
 - (5) to cemetery lots;
 - (6) by leases and transfers of severed mineral interests;
 - (7) to or from a trust, and without consideration;
 - (8) resulting from a divorce settlement where one party transfers interest in property to the other;
 - (9) made solely for the purpose of creating a joint tenancy or tenancy in common;
 - (10) by way of a sheriff's deed;
 - (11) by way of a deed which has been in escrow for longer than five years;
 - (12) by way of a quit claim deed filed for the purpose of clearing title encumbrances;
 - (13) when title is transferred to convey right-of-way or pursuant to eminent domain;
 - (14) made by a guardian, executor, administrator, conservator or trustee of an estate pursuant to judicial order;
 - (15) when title is transferred due to repossession; or
 - (16) made for the purpose of releasing an equitable lien on a previously recorded affidavit of equitable interest, and without additional consideration.
- (b) **When a real estate sales validation questionnaire is not required due to one or more of the exemptions provided in 1-16 above, the exemption shall be clearly stated on the document being filed.**

Section III

Ratio Study Validation

&

Statistical Procedures



Sales Ratio Study

The sales ratio study is an important performance evaluation tool in the mass appraisal process. It can be used to measure the county's overall appraisal accuracy by indicating the general level of appraisal and the degree of uniformity. The study can also be used to monitor the need for a general reappraisal or identify neighborhoods that may require a review. Information from the study can also be used to develop market trends affecting various types of properties. By identifying problem areas or selected groups of properties in need of attention, resources can be efficiently allocated.

The ratio study makes a comparison of recently sold properties to the county appraiser's estimate of market value. Recent sales of property can often serve as representatives of true market value if the buyer and seller are well informed, the market is open and competitive and neither party is acting with undue compulsion. The appraiser will also consider other factors that may influence the price paid for a property. In some cases, an adjustment to the sale price must be made before it can be used as a good indicator of market value.

The principal information source used to confirm the sale price and determine validity of a real estate transfer is the Kansas Real Estate Sales Validation Questionnaire. Kansas statutes requires that a questionnaire be completed and filed with the register of deeds before a deed, affidavit of equitable interest or other recording instrument is accepted for recording (with some exceptions per K.S.A. 79-1437e).

Information provided by the Kansas Real Estate Sales Validation Questionnaire is not always sufficient to make a validation decision and a follow-up verification may be required. The buyer, seller or agent may have to be interviewed in order to make a final decision on the validity or obtain additional information for needed adjustments. The determination to classify a sale as valid or invalid is based upon industry standards promulgated by the International Association of Assessing Officers (IAAO). Various factors will be considered during the screening process before invalidating a sale. Any sale that is affected by the following conditions will be considered invalid for ratio study purposes:

- Property not exposed for sale on the open market

- Physical characteristics or highest and best use of the property changed after January 1, 2011, and before the sale occurred
- Sale involved a governmental agency liquidating repossessed property
- Transfer was determined to be a satisfaction of a contract for deed signed prior to the study year
- Transaction was a forced sale
- Sale included an excessive amount of tangible or intangible personal property
- Sale date not within the current study timeframe
- Split parcel
- Uninformed buyer and/or seller

The study concept is a simple one. The degree to which an appraisal made for tax purposes reflects market value can be indicated by the sale price of that property. If a sufficient number of recent sales are available, statistical measures can often provide reliable estimates of performance. Because property in Kansas is grouped into several subclasses, such as residential and commercial/industrial, a ratio study is conducted on each group to provide more detailed information.

The ratio for each property is calculated by dividing the appraised value by the sale price. The resulting ratios indicate how closely the appraiser achieved the goal of fair market value with a ratio of 100 percent being the most desirable. For the Kansas Real Estate Ratio Study, ratios are expressed as a percentage.

For example, consider the following five residential properties that have recently sold.

<i>Sale</i>	<i>Appraised Value</i>	<i>Sale Price</i>	<i>Ratio</i>	<i>Ratio as a Percentage</i>
1	\$25,000	\$20,000	1.25	125.0
2	\$45,000	\$50,000	0.90	90.0
3	\$12,000	\$15,000	0.80	80.0
4	\$30,000	\$30,000	1.00	100.0
5	\$19,200	\$16,000	1.20	120.0

Distribution-Free Statistics

Distribution-free statistics do not require assumptions about the shape of the population distribution from which the ratio study sample was drawn. Distribution-free statistics are nonparametric estimates that include the median and median absolute deviation.

Median Ratio

The median ratio is one of the most common statistical measures used in mass appraisal performance. It is considered a robust measure of the overall level of assessment (central tendency) because of its insensitivity to low or high ratios in the sample.

The ratios must first be sorted in ascending or descending order (*arrayed*). If the number of sample ratios is odd, the median is the value halfway through the arrayed data set with an equal number of ratios above and below the median.

<i>Sale</i>	<i>Ratio</i>
1	80.0
2	90.0
3	100.0
4	120.0
5	125.0

Median Ratio

If the number of sample ratios is even, the median value is determined by adding the two middle values that fall in the center of the array and dividing by 2.

<i>Sale</i>	<i>Ratio</i>
1	80.0
2	90.0
3	100.0
4	120.0
5	125.0
6	130.0

Median Ratio

The ratios 100.0 and 120.0 (*sample no. 3 & 4*) are in the middle of the array and should be added together and divided by 2.

$$\frac{100.0 + 120.0}{2} = \mathbf{110.0} \text{ Median Ratio}$$

Broadened Median Ratio (BMED)

The broadened median is a useful measure because it preserves the resistance of the median to outliers while achieving insensitivity to rounding and grouping of the middle observations. It is computed by averaging the median and up to six of the ratios around the median. The exact number depends on the sample size. Data sets with an odd number of ratios for sample sizes between five and eleven use the average of the three central ratios. For sample sizes greater than eleven the five central ratios are averaged. For data sets with an even number of ratios in sample sizes less than fourteen, the broadened median uses the four central ratios with weights $1/6$, $1/3$, $1/3$ and $1/6$. For data sets larger than fourteen, the broadened median uses the six central ratios with an assigned weight of $1/5$ to each of the middle four ratios and $1/10$ to the ratios at each end.

Broadened Median Ratio Computation

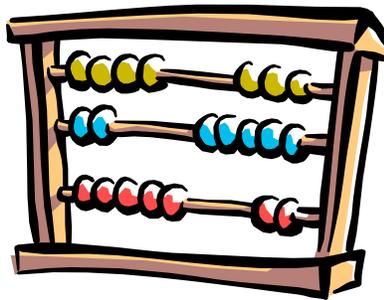
Example of odd numbered data set: 80.0 90.0 100.0 120.0 135.0

1. Sum of the three central values ($90.0 + 100.0 + 120.0 = 310.0$)
2. Divide by 3 ($310.0 / 3 = 103.3$) **Broadened Median Ratio**

Example of even number data set: 75.0 80.0 90.0 100.0 120.0 135.0

$$(80.0 * 1/6) + (90.0 * 1/3) + (100.0 * 1/3) + (120.0 * 1/3)$$

$$13.3 + 30.0 + 33.3 + 20.0 = 96.7 \text{ **Broadened Median Ratio**}$$



Coefficient of Dispersion (COD)

The coefficient of dispersion (*COD*) is the most common measure of uniformity in the mass appraisal industry. It measures the average amount of dispersion from the median and expresses it as a percentage of the median ratio. The statistic indicates how close the ratios are clustered around the median ratio.

COD Computation

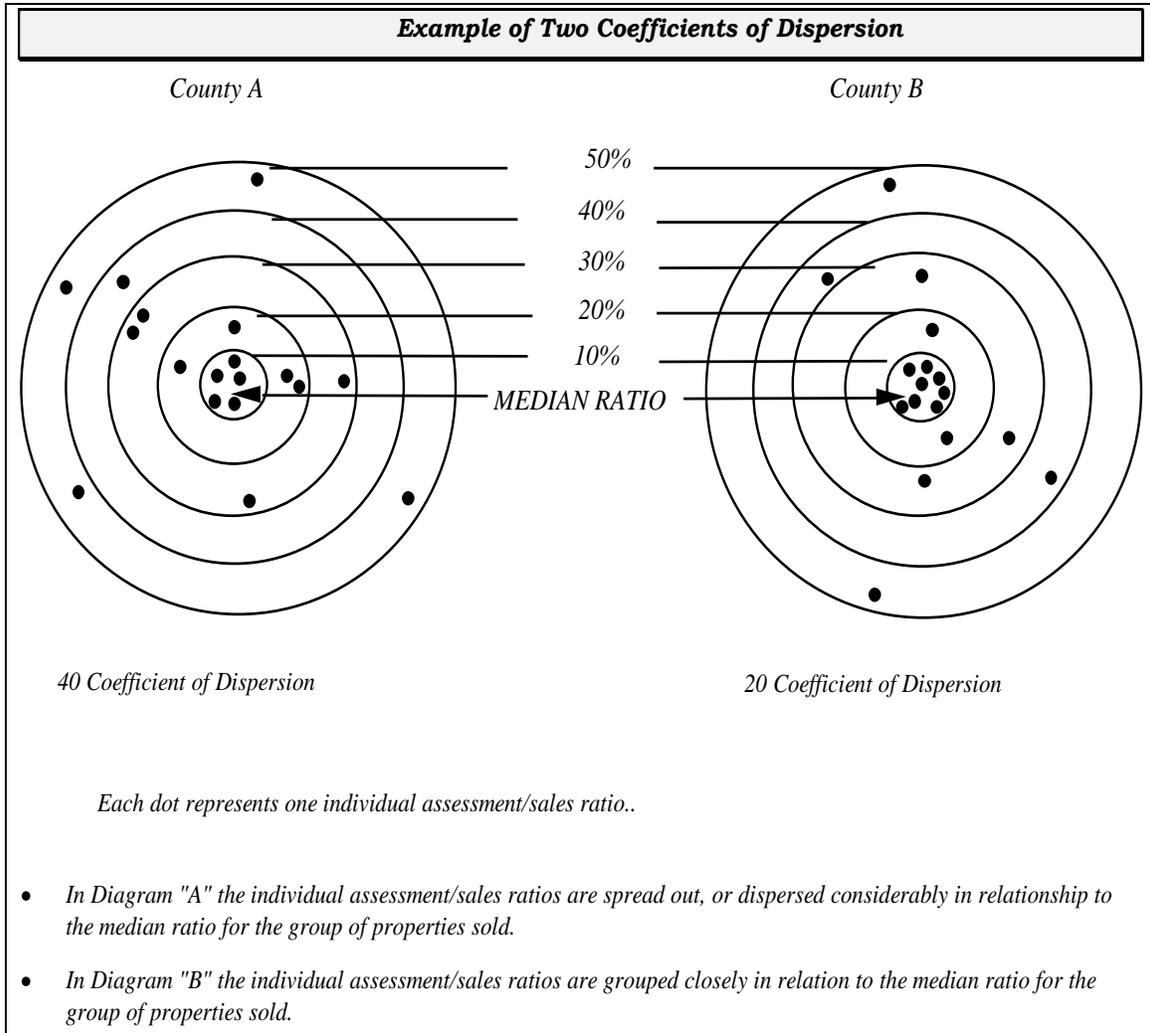
1. Subtract the median ratio from each ratio to find the absolute deviation (ignore plus or minus signs)
2. Sum the absolute deviations and divide by the sample size to find the average absolute deviation
3. Divide the average absolute deviation by the median ratio and multiply by 100 to obtain the percentage measure known as the *COD*

<i>Sale</i>	<i>Ratio</i>	<i>Median Ratio</i>	<i>Absolute Deviation From Median</i>
1	80.0	100.0	20.0
2	90.0	100.0	10.0
3	100.0	100.0	00.0
4	120.0	100.0	20.0
5	125.0	100.0	25.0
<i>Sum of Deviations</i>			75.0

$$\frac{20.0 + 10.0 + 00.0 + 20.0 + 25.0}{5} = \frac{75.0}{5} = 15.0 \text{ Average Absolute Deviation from Median}$$

$$\frac{15.0}{100.0} = 0.15 * 100 = \mathbf{15.0} \text{ Coefficient of Dispersion (COD)}$$

The lower the coefficient of deviation, the more uniform the assessments. A high COD suggest a lack of uniformity. The ideal value is **0**; however, this cannot be considered a realistic goal in an imperfect real estate market.



The two counties in the illustration above both have a median ratio of 100 percent. However, one of the counties has a COD of 20 while the other county has a COD of 40. This difference suggests that appraisals in the county with a COD of 20 came twice as close to the median level of appraisal as the county with a COD of 40.



Weighted Coefficient of Dispersion

To calculate a value weighted COD, the contribution of each sale is factored into the deviation of each ratio about the median. If the weighted COD is greater than the COD, relatively high-value properties have been appraised with greater variability than low-value properties. If the weighted COD is less than the COD, high-value properties have been appraised with less variability than low-value properties.

- Weighted COD Computation**
1. Calculate the mean sale price
 2. Divide each sale price by the mean sale price to find the weight
 3. Subtract each ratio from the median and take the absolute value (ignore plus or minus signs)
 4. Multiply each weight times the absolute deviation from the median
 5. Sum the weighted absolute deviations from the median
 6. Divide by the number of ratios (61.9 / 5 = 12.4)
 7. Divide by the median and multiply 12.4 / 1.00 * 100 = 12.4

Sale	Appraised Value	Sale Price	Mean Sale Price	Weight	Ratio	Median Ratio	Absolute Deviation From Median	Weight x Absolute Deviation From Median
1	\$25,000	\$20,000	\$26,200	0.7634	125.0	100.0	25.0	19.1
2	\$45,000	\$50,000	\$26,200	1.9084	90.0	100.0	10.0	19.1
3	\$12,000	\$15,000	\$26,200	0.5725	80.0	100.0	20.0	11.5
4	\$30,000	\$30,000	\$26,200	1.1450	100.0	100.0	00.0	00.0
5	\$19,200	\$16,000	\$26,200	0.6107	120.0	100.0	20.0	12.2
Total	\$131,200	\$131,000						61.9

$$\text{Mean sale price} = \frac{\$131,000}{5} = \$26,200$$

$$\left(\frac{61.9}{5} \right) / 100.0 * 100 = \mathbf{12.4} \text{ Weighted Coefficient of Dispersion}$$



Coefficient of Concentration (COC)

The coefficient of concentration (COC) is another measure of appraisal uniformity. It is found by determining the portion of ratios falling within a specified percentage of the median. The higher the coefficient of concentration is the better the measure of uniformity. Coefficients are calculated for 10 percent, 15 percent, 20 percent, 50 percent and 100 percent.

COC @ 15%

Sale	Ratio
1	70.0
2	75.0
3	81.0
4	82.0
5	85.0
6	90.0
7	90.0
8	95.0
9	100.0
10	105.0
11	107.0
12	108.0
13	120.0
14	130.0
15	135.0

Median Ratio

$95.0 - 14.3 = 80.7$

$95.0 + 14.3 = 109.3$

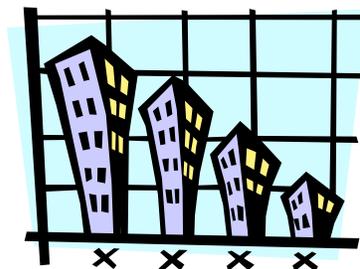
If the range selected is 15%, to select the proportion that falls within the range:

$95.0 * 15.0 = 14.3$

$95.0 - 14.3 = 80.7$

$95.0 + 14.3 = 109.3$

$10 / 15 = 0.667 * 100 = 66.7$ **Coefficient of Concentration**



Coefficient of Interquartile Deviation

This measure was the original coefficient of dispersion recommended for use in ratio studies by the National Association of Tax Administrators. It is the interquartile range of ratios divided by 2, divided by the median ratio and multiplied by 100. The statistic is less sensitive to outliers than the COD currently defined by the IAAO.



<i>Sale</i>	<i>Ratio</i>
1	60.0
2	80.8
3	88.1
4	96.0
5	115.2
6	120.4
7	145.7

Median Ratio 96.0

1st Quartile = (Sale 2) 80.8
3rd Quartile = (Sale 6) 120.4

Interquartile range 120.4 - 80.8 = 39.6

*39.6 / 2 / 96.0 * 100 = 20.625 round to **20.6** Coefficient Interquartile Deviation*

Median Percent Deviation

The median percent deviation is the *median* of the absolute deviations about the median, divided by the median ratio. It is an alternative to the COD and is highly resistant to the influence of outlier ratios.

Median Percent Deviation Computation

1. Subtract the median ratio from each ratio and find the absolute value of the deviation
2. Array the absolute deviations and find the median value deviation in the array
3. Divide the median absolute deviation by the median ratio and multiply by 100

<i>Sale</i>	<i>Ratio</i>	<i>Median Ratio</i>	<i>Absolute Deviation From Median</i>
1	80.0	100.0	20.0
2	90.0	100.0	10.0
3	100.0	100.0	00.0
4	120.0	100.0	20.0
5	125.0	100.0	25.0

Arrayed Deviations: 0 10.0 20.0 20.0 25.0 - Median Absolute Deviation (MAD) = 20.0

MAD = 20.0, Median = 100.0

$$\frac{20.0}{100.0} = 0.2000 * 100 = \mathbf{20.0} \text{ Median Percent Deviation}$$

Percentiles and Quartiles

Percentiles are dividing points for specific percentages of the data. The dividing points are the 25th percentile (*1st quartile*), the 50th percentile (*median or 2nd quartile*) and the 75th (*3rd quartile*) percentile. The interquartile range is the difference between the 25th and the 75th percentiles.

25th Percentile (1st Quartile)

The 25th percentile is the first percentile and exceeds one-quarter of the ratios. The formula for finding the lower 25th percentile is $k = 0.25 * n + 0.25$. The rank of the 25th percentile in an array of 99 ratios is $0.25 * 99 + 0.25 = 0.25$.

75th Percentile (3rd Quartile)

The 75th percentile is the third percentile and exceeds three quarters of the ratios. The formula for finding the rank of the 75th percentile is $k = 0.75 * n + 0.75$. Usually, the rank of the percentile will not be a whole number, which means one must interpolate between ratios. In a sample that has 100 ratios, the 75th percentile is $0.75 * 100 + 0.75 = 75.75$. If the 75th and 76th highest ratios are 0.98 and 1.00 respectively, the 75th percentile is $0.98 + (0.75) * (1.00 - 0.98) = 0.995$.

Normality Test

A normality test of the sample data can be used to determine if the shape of the population conforms to a normal or bell-shaped curve (*Gaussian shape*). If the sample data can be usefully characterized by a bell-shaped curve, the population is assumed to be normally distributed. Although ratio data seldom conforms to a normal distribution, an effort has been made to examine and test the sample data. Parametric statistics generally depend upon assumptions of normality. Numerous statistical tests can be employed to detect departures from a normal distribution. The ratio study program employs newer and more powerful procedures based on the empirical distribution function or standardized moments of skewness and kurtosis. These also include the D'Agostino-Pearson K^2 , Shapiro-Wilk W (Shapiro-Francis W') and Anderson-Darling A^2 tests. Several tests are used on each ratio study sample. The primary test is identified by a letter code.

M: 3rd and 4th standardized moment's critical values
 3: 3rd standardized moment critical value
 4: 4th standardized moment critical value
 A: Anderson-Darling A^2
 K: D'Agostino-Pearson K^2
 W: Shapiro-Wilk W (*Shapiro-Francia W' for $n > 50$ to 99*)

H_0 : The study sample was drawn from a population with a normal distribution of ratios.

No statistical procedure is expected to be perfectly accurate under all circumstances. There is a small probability that an individual sample drawn from a population with a standard normal distribution of ratios may not pass a mathematical test. Thus, the null hypothesis will

sometimes be rejected, when in fact it should not be (this is a type *I* error). The testing methods used by PVD are designed to limit the probability of rejection to less than 10%. Thus, the *p*-value is set to $< .10$. Any *p*-value at or above $.10$ is in the critical region of rejection and the null hypothesis (H_0) is rejected.

Skewness

Skewness is a descriptive measure of symmetry about the ratio distribution. Most ratio study frequency distributions tend to have longer tails that stretch to the right of the mean. This indication of positive skewness can often be attributed to high ratio outliers. Several approaches are available to calculate measures of skewness. The degree of skewness in this analysis is measured by the moment coefficient of skewness (based on the third moment about the mean). It is also called a measure of relative skewness. The normal distribution has no skewness and the value of this measure should be close to zero. Highly skewed sample distributions will have a measure greater than $+3$ or lower than -3 .

Kurtosis

Kurtosis is a measure that is used to describe the concentration of ratio data in a frequency distribution. A flat distribution with short tails is sometimes referred to as platykurtic. A peaked distribution with thinner tails is referred to as leptokurtic, or centralized. The degree of kurtosis in this analysis is measured by the moment coefficient of kurtosis (based on the fourth moment about the mean). It is also called a measure of relative kurtosis. A normal distribution is bell shaped and referred to as mesokurtic, or neutral. It will have a value close to 3. Ratio study samples tend to have high peaks. Values above 6 tend to be associated with samples drawn from populations that would not be considered normal.

Parametric Statistics

Parametric statistics make certain assumptions about the distribution of the population ratios or samples drawn from these populations. When these assumptions are met, parametric statistics make more efficient use of the data than distribution-free statistics.

Arithmetic Mean Ratio

The arithmetic mean ratio is the average of the sample ratios.

Arithmetic Mean Ratio Computation

1. Sum the sample ratios
2. Divide by the sample number

In a normal distribution, the mean will equal the median. If the distribution is skewed to the right, the mean will be greater than the median, which is typical of ratio study data. If the distribution is skewed to the left, the mean will be less than the median.

<i>Sale</i>	<i>Ratio</i>
1	80.0
2	90.0
3	100.0
4	120.0
5	125.0

Note: The median sales ratio for this example is 100.0.

$$\frac{80.0 + 90.0 + 100.0 + 120.0 + 125.0}{5} = \mathbf{103.0} \text{ Arithmetic Mean Ratio}$$



Weighted Mean Ratio

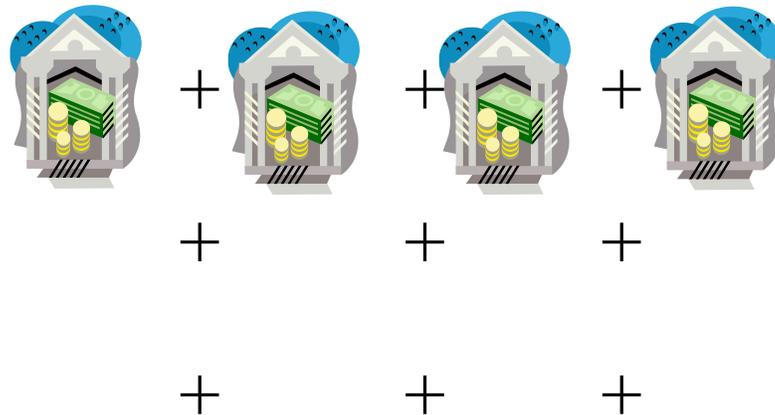
The value weighted mean ratio is the average of a sample of ratios where proportional weights have been assigned to the sales prices. The weighted mean ratio gives weight to each dollar of value in the sample whereas the median and mean give equal weight to each ratio. The weighted mean ratio is often referred to as the aggregate ratio and is used in computing the price-related differential (*PRD*).

Weighted Mean Ratio Computation

1. Sum the appraised values
2. Sum the sales prices
3. Divide the sum of the total appraised value by the sum of the total sale price
4. Multiply by 100

Sale	Appraised Value	Sale Price
1	\$55,000	\$50,000
2	\$125,000	\$128,800
3	\$75,000	\$75,000
4	\$40,000	\$32,000
5	\$15,000	\$59,900
Total	\$310,000	\$345,700

$$\frac{310,000}{345,700} = 0.8967 * 100 = \mathbf{89.7} \text{ Weighted Mean Ratio}$$



Geometric Mean Ratio

The geometric mean offers a measure of appraisal level that, like the median, is not as susceptible to the influence of outliers as the mean and weighted mean. Large differences between the geometric mean and the arithmetic mean indicate the presence of significant outlier ratios.

- Geometric Mean Ratio Computation**
1. Multiply the ratios in the sample together and finding the n^{th} root of the result, where n equals the number of ratios in the sample
 2. Find the n^{th} root of the product, where n equals the number of ratios in the sample

Sale	Ratio
1	80.0
2	90.0
3	100.0
4	120.0
5	125.0

$$80.0 * 90.0 * 100.0 * 120.0 * 125.0^{1/5} = \mathbf{101.6 \text{ Geometric Mean Ratio}}$$

Harmonic Mean Ratio

The harmonic mean is used to calculate average rates. The rate usually indicates the relationship between two different types of measuring units that can be expressed reciprocally. The harmonic mean is less affected by extreme ratios than the geometric mean and the arithmetic mean.

- Harmonic Mean Ratio Computation**
1. Find the reciprocal of each ratio value (1divided by the ratio)
 2. Sum the reciprocals
 3. Divide the number of ratios in the sample by the sum of the reciprocals

Sale	Appraised Value	Sale Price	Ratio	Reciprocal Values
1	\$25,000	\$20,000	125.0	0.00800
2	\$45,000	\$50,000	90.0	0.01111
3	\$12,000	\$15,000	80.0	0.01250
4	\$30,000	\$30,000	100.0	0.01000
5	\$19,200	\$16,000	120.0	0.00833
Total				0.04994

$$\frac{5}{0.04994} = \mathbf{100.1 \text{ Harmonic Mean Ratio}}$$

Standard Deviation

The standard deviation is the most common measure of dispersion and may be a useful measure of appraisal uniformity if the underlying distribution of ratios in the population conforms to a normal distribution.

The formula for the standard deviation is $s = \sqrt{\frac{\sum (A_i/S_i - \bar{A}/\bar{S})^2}{n-1}}$

s	= standard deviation
\sum	= algebraic symbol for sum
A_i	= each Appraised Value
S_i	= each Sale Price
\bar{A}/\bar{S}	= Mean of the Ratio
2	= square or take to the 2 nd Power
$\sqrt{\quad}$	= the square root symbol

- Standard Deviation Computation**
1. Subtract the mean from each ratio (ignore plus or minus signs)
 2. Square the difference
 3. Sum the squared differences
 4. Divide by the number of ratios less one to obtain the **variance**
 5. Take the square root of the variance to arrive at the standard deviation

<i>Sale</i>	<i>Appraised Value</i>	<i>Sale Price</i>	<i>Ratio</i>	<i>Ratio Minus Mean</i>	<i>Square the Difference</i>
1	\$25,000	\$20,000	125.0	22.0	484.0
2	\$45,000	\$50,000	90.0	-13.0	169.0
3	\$12,000	\$15,000	80.0	-23.0	529.0
4	\$30,000	\$30,000	100.0	-3.0	9.0
5	\$19,200	\$16,000	120.0	17.0	289.0
<i>Total</i>					1480.0
<i>Mean</i>	103.0				

$$\sqrt{\frac{1480.0}{5-1}} = \sqrt{\frac{1480.0}{4}} = \sqrt{370.0} \text{ Variance}$$

$$\sqrt{370.0} = \mathbf{19.2 \text{ Standard Deviation}}$$

Coefficient of Variation (COV)

The coefficient of variation (COV) is a relative measure of appraisal uniformity that is based on the standard deviation.

Coefficient of Variation (COV) Computation

1. Compute the standard deviation
2. Divide the standard deviation by the arithmetic mean ratio

Using the standard deviation of 19.2 and the arithmetic mean ratio of 103.0, the calculation would be as follows.

$$\frac{19.2}{103.0} * 100 = 18.6 \text{ Coefficient of Variation (COV)}$$



Price-Related Differential (PRD)

The price-related differential (PRD) is a statistic for measuring assessment regressivity or progressivity. Appraisals are considered regressive if high-value properties are under appraised relative to low-value properties and progressive if high-value properties are relatively over appraised.

A PRD of 1.00 is the most desirable state and indicates that no assessment bias exists between the low and high value properties. A PRD greater than 1.00 suggests that high-value property may be under appraised relative to lower valued property. If the PRD is less than 1.00, high-value property may be over appraised relative to low-valued property.

Price-Related Differential (PRD) Computation

1. Divide the arithmetic mean ratio by the weighted mean ratio

Sale	Appraised Value	Sale Price	Ratio
1	\$25,000	\$20,000	125.0
2	\$45,000	\$50,000	90.0
3	\$12,000	\$15,000	80.0
4	\$30,000	\$30,000	100.0
5	\$19,200	\$16,000	120.0
<i>Total</i>	\$131,200	\$131,000	515.0

$$\frac{515.0}{5} = 103.0 \text{ Arithmetic Mean}$$

$$\frac{131,200}{131,000} * 100 = 100.2 \text{ Weighted Mean Ratio}$$

$$\frac{103.0}{100.2} = \mathbf{1.03 \text{ Price-Related Differential (PRD)}}$$

The arithmetic mean ratio is 103.0 and the weighted mean ratio is 100.2 (1.002 * 100). The PRD is found by dividing the mean ratio by the weighted mean ratio.

The example above suggests assessment regressivity. The International Association of Assessing Officers *Standard on Ratio Studies* recommends the price-related differential (PRD) should range between 0.98 and 1.03.

Average Sale Price**Average Sale Price Computation**

1. Sum the sale prices
2. Divide by the number of sale prices in the sample

<i>Sale</i>	<i>Sale Price</i>
1	\$20,000
2	\$50,000
3	\$15,000
4	\$30,000
5	\$16,000
<i>Total</i>	<i>\$131,000</i>

$$\frac{\$131,000}{5} = \mathbf{\$26,200} \text{ Average Sale Price}$$

Average Market (Appraised) Value Estimate**Average Market Value Computation**

5. Sum the appraised values
6. Divide by the number of observations in the sample

<i>Sale</i>	<i>Appraised Value</i>
1	\$25,000
2	\$45,000
3	\$12,000
4	\$30,000
5	\$19,200
<i>Total</i>	<i>\$131,200</i>

$$\frac{\$131,200}{5} = \mathbf{\$26,240} \text{ Average Market Value}$$

Trimming Outlier Ratios

Outliers are extreme ratios that are considered highly unusual when compared to the sample as a whole. These aberrant ratios can distort some statistical measures. The potential for damage is greater when the sample sizes are small. One anomalous ratio can exert a controlling influence over a ratio study outcome and produce misleading information. Although extra steps have been taken in the sale verification and screening process to identify suspect sales; some suspect ratios may slip through. Uniform trimming procedures have been used to remove the influence of outlier ratios prior to calculating the following statistics and performance measures.

Trimmed Statistical Measures		
Coefficient of Dispersion (<i>COD</i>)	Weighted Mean	PRD Confidence Interval
<i>COD</i> Confidence Intervals	Geometric Mean	Average Sale Price
Weighted Coefficient of Dispersion	Standard Deviation	Average Market Value
Harmonic Mean	Coefficient of Variation	
Arithmetic Mean	Price-Related Differential (<i>PRD</i>)	

<i>Trimming Procedures for Removing Outlier Ratios</i>
<ol style="list-style-type: none"> 1. <i>The interquartile range of the sample is calculated by locating the first and third quartile points. The first quartile point is identified by the formula $(n * .25) + .25$ (n is the sample size). The third quartile is identified by the formula $(n * .75) + .75$.</i> 2. <i>The interquartile range (third quartile – first quartile) is multiplied by a factor of 1.5 to establish a base width for general outlier trimming. A factor of 3 is used to remove extreme outliers only.</i> 3. <i>The base width is added to the third quartile and subtracted from the first quartile to set the outlier trim points.</i>

An additional screen has been built into the trimming algorithm to restrict the maximum percentage of trimmed ratios to 20 percent.

Note: Most personal computer spreadsheets contain functions to locate the first (Q1) and third (Q3) quartile, but they do not all use the same formula to calculate quartiles. PVD uses the same formula as Minitab, SPSS and NCSS. Excel uses $(n \times .25) + .75$ for Q1 and $(n \times .75) + .25$ for Q3. The difference in formulas CAN cause trim points to be different.

Determining Minimum Sample Size from Tolerance Limits

In order for ratio study inferences to be reliable, it is necessary to know if the sample size is sufficient. For this Kansas ratio study, nonparametric tolerance limits have been employed to develop minimum sample size guidelines. A tolerance limit provides an interval wherein prescribed proportions of ratio populations are expected to lie, with a given level of statistical probability. For ratio study samples in the Residential or Commercial/Industrial subclass, a threshold has been selected to coincide with an 85 percent probability that at least 50 percent of the population ratios will be represented by the distribution of ratios found in the sample.

The table below provides information that can be used to evaluate sample size adequacy. For the Residential and Commercial/Industrial subclasses, a minimum of five ratios are required to achieve the minimum sample size threshold and provide a sufficient number of observations to develop confidence interval estimates. In most counties the Residential subclass sample will exceed 13 sales and achieve an 85 percent probability that 75 percent of the population ratios will be represented by the sample. Small counties will require supplemental sales (over the past 4 years) if less than five recent sales are available to develop a ratio sample for the Commercial/Industrial subclass. Large counties that qualify for representative residential sampling are held to higher standards. The sample size goal is expected to meet a 90 percent probability that 98 percent of the population ratios will be represented by the sample distribution. To meet this threshold, a county must have more than 194 valid residential sales during the study year.

<i>Sample Sizes for Nonparametric Tolerance Limits</i>								
<i>Proportion of Ratios</i>	50%	70%	75%	80%	85%	90%	95%	98%
<i>85% Probability</i>	6	10	13	16	22	33	67	168
<i>90% Probability</i>	7	12	15	18	25	38	77	194
<i>95% Probability</i>	8	14	18	22	30	46	93	236

References:

Conover, W.J., 1980. *Practical nonparametric statistics*. New York: John Wiley & Sons Wilks, S.S., 1962. *Mathematical statistics*. New York: John Wiley & Sons

Bootstrap Confidence Intervals for the Compliance Ratio Study

Traditional statistical methods have not been very successful in assessing the accuracy of inferences when the underlying data deviates from a Gaussian (*normal or bell-shaped*) distribution. Ratio study data typically falls into this category. Statistical procedures developed over the last twenty years have improved the accuracy of reliability measures, such as confidence intervals, in many scientific and industrial applications. The *bootstrap* is one such method that employs computer simulation and re-sampling techniques to provide a more powerful way to comprehend the uncertainty associated with ratio study performance measures. This process can provide estimates for statistical measures that do not easily lend themselves to formulas by reducing the dependency on mathematical and model assumptions.

The name bootstrap is derived from the old saying, “*pulling yourself up by your bootstraps* (Efron, 1999),” that reflects the fact that one available sample gives rise to many others.

Bootstrapping produces a confidence interval in a different but natural way. Bootstrap samples are generated using a Monte Carlo simulation routine to prepare numerous re-samples of the same size as the original sample. After these samples are generated, the statistics of interest are computed (*Coefficient of Dispersion, Median Ratio and Price-Related Differential*). A bootstrap confidence interval for each statistic can be obtained from the distribution of the sample.

References:

- Efron, Bradley and Robert J. Tibshirani. 1993. *An introduction to the bootstrap*. New York: Chapman & Hall.
- Diaconis, Persi and Bradley Efron. 1983. Computer-intensive methods in statistics. *Scientific American*. 148:116-130.
- Gunter, Bert. 1991. Bootstrapping: How to make something from almost nothing and get statistically valid answers. *Quality Progress*. 24(12)97-103.
- Hall, Peter. 1992. *Bootstrap and the edgeworth expansion*. New York: Springer-Verlag.

Residential Sampling Counties

A sample of sales ratios from a county may not accurately represent the population from which they have been drawn. Ratio study performance measures can be distorted or skewed by a disproportionate influence of new construction, highly active neighborhoods or unique properties. Depressed areas, older neighborhoods and properties with low turnover rates are often underrepresented in a sample of sales. A large sample does not mitigate these problems. Research conducted by PVD has shown that in the largest counties, a smaller representative sample can improve statistical accuracy and permit considerable savings of staff time and resources in conducting the validation process.

Legislative changes in 1994 granted the Director of Property Valuation discretion to select a *random sample* from the pool of valid sales in the residential subclass of property. This option can be used in counties with more than 15,000 parcels.

The Ratio Study Technical Advisory Committee has determined that an eligible county should have a sufficient number of transfers to construct a representative sample with at least 200 valid residential sales for the study year. The 14 counties listed below meet the aforementioned criteria for the 2011 study.

<i>Residential Sampling Counties</i>					
<i>County</i>	<i>Sample Size</i>	<i>County</i>	<i>Sample Size</i>	<i>County</i>	<i>Sample Size</i>
<i>Butler</i>	<i>400</i>	<i>McPherson</i>	<i>300</i>	<i>Shawnee</i>	<i>400</i>
<i>Douglas</i>	<i>350</i>	<i>Montgomery</i>	<i>300</i>	<i>Wyandotte</i>	<i>350</i>
<i>Ford</i>	<i>250</i>	<i>Reno</i>	<i>300</i>		
<i>Harvey</i>	<i>300</i>	<i>Riley</i>	<i>300</i>		
<i>Johnson</i>	<i>400</i>	<i>Saline</i>	<i>350</i>		
<i>Leavenworth</i>	<i>300</i>	<i>Sedgwick</i>	<i>400</i>		

To perform residential sampling the following procedures have been implemented:

- Changes in population property characteristics are analyzed each year before sampling goals are established for a county.
- A computer assisted sampling program is employed to track the sampling process and ensure that sales will be selected on a random basis.
- A process has been employed to develop a more representative sample based on salient property characteristics of the population, such as, year built, size and construction quality.
- Sales validation and appeal procedures are uniform between residential sampling counties and non-sampling counties.
- Residential sampling plans and results are submitted each year to the Ratio Study Technical Advisory Committee for review and evaluation.

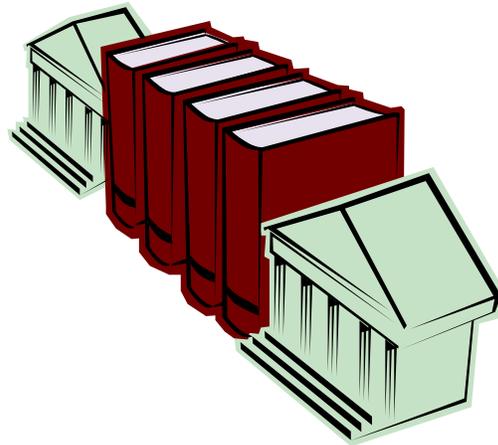
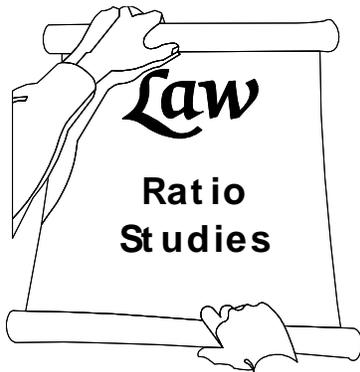
Supplemental Sales

If less than six valid sales occurred in a county with the commercial/industrial subclass of property during the study cycle, a review of sales from the previous four-year timeframe was made (*January 1, 2007 through December 31, 2010*) pursuant to K.S.A. 79-1488. Fifty Kansas counties required supplemental sales for the commercial/industrial subclass for the year 2011. Approximately 270 supplemental commercial sales have been included in the statistical analysis for the year 2011 ratio studies. For the year 2010 ratio study fifty-four counties were supplemented with approximately 300 commercial sales.

The appraised value for supplemental sales reflects the appraised value for the year in which the property sold.

Section IV

Kansas Statutes Pertaining to the *“2011 Appraisal Sales Ratio Study”*



Kansas Statutes

79-503a. Fair market value defined; allowable variance; factors to be considered in determining fair market value; generally accepted appraisal procedures to be utilized.

“Fair market value” means the amount in terms of money that a well informed buyer is justified in paying and a well informed seller is justified in accepting for property in an open and competitive market, assuming that the parties are acting without undue compulsion. In the determination of fair market value of any real property which is subject to any special assessment, such value shall not be determined by adding the present value of the special assessment to the sales price. For the purposes of this definition it will be assumed that consummation of a sale occurs as of January 1.

Sales in and of themselves shall not be the sole criteria of fair market value but shall be used in connection with cost, income and factors including but not by way of exclusion:

- (a) The proper classification of land and improvements;
- (b) the size thereof;
- (c) the effect of location on value;
- (d) depreciation, including physical deterioration or functional, economic or social obsolescence;
- (e) cost of reproduction of improvements;
- (f) productivity; taking into account all restrictions imposed by the state or federal government and local governing bodies, including, but not limited to, restrictions on property rented or leased to low income individuals and families as authorized by section 42 of the federal internal revenue code of 1986, as amended;
- (g) earning capacity as indicated by lease price or by capitalization of net income, or by absorption or sell-out period;
- (h) rental or reasonable rental values or rental values restricted by the state or federal government or local governing bodies, including, but not limited to, restrictions on property rented or leased to low income individuals and families, as authorized by section 42 of the federal internal revenue code of 1986, as amended
- (i) sale value on open market with due allowance to abnormal inflationary factors influencing such values;
- (j) restrictions or requirements imposed upon the use of real estate by the state or federal government or local governing bodies, including zoning and planning boards or commissions, and including, but not limited to, restrictions or requirements imposed upon the use of real estate rented or leased to low income individuals and families, as authorized by section 42 of the federal internal revenue code of 1986, as amended; and
- (k) comparison with values of other property of known or recognized value. The assessment-sales ratio study shall not be used as an appraisal for appraisal purposes.

The appraisal process utilized in the valuation of all real and tangible personal property for ad valorem tax purposes shall conform to generally accepted appraisal procedures which are adaptable to mass appraisal and consistent with the definition of fair market value unless otherwise specified by law.

History: L. 1982, ch. 391, § 2; L. 1990, ch. 346, § 3; L. 1995, ch. 254, § 5; L. 1997, ch. 126, § 42; L. 2003, ch. 156, § 4; L. 2009, ch.97, § 3; July 1.

79-1437c. Real estate sales validation questionnaires; required to accompany transfers of title; retention time; use of information.

No deed or instrument providing for the transfer of title to real estate or affidavit of equitable interest in real estate shall be recorded in the office of the register of deeds unless such deed, instrument or affidavit shall be accompanied by a completed real estate sales validation questionnaire completed by the grantor or grantee or the agent of such grantor or grantee concerning the property transferred. Such questionnaire shall not be filed of record by the register of deeds but shall be retained for a

period of five years at which time they shall be destroyed. The register of deeds shall in conjunction with the county clerk use the information derived from such questionnaires in cooperating with and assisting the director of property valuation in developing the information as provided for in K.S.A. 79-1487, and amendments thereto.

History: L. 1991, ch. 162, § 3; L. 1992, ch. 159, § 1; L. 1992, ch. 282, § 18; L. 1995, ch. 252, § 25; Jan. 1, 1996.

79-1437d. Same; devised by director of property valuation; approval by legislature; information to be contained therein.

The real estate sales questionnaire shall be devised by the director of property valuation, and the director shall furnish copies thereof to the register of deeds. Upon proposing modifications or changes to the real estate sales validation questionnaire devised and used prior to 1992 or any validation questionnaire approved by the legislature in 1992 or thereafter, the director of property valuation shall submit such proposal to the legislature. Upon the failure of the legislature to enact legislation modifying the director's proposal within 60 days of submission thereof, such proposal shall be deemed to be approved, and the director's modified questionnaire may be utilized at anytime thereafter. The questionnaire shall be devised to obtain information regarding the identification and location of the property, name and address of the purchaser, sales price, date of sale, the classification and subclassification to which such property belongs, nature and circumstances peculiar to the sale, whether any personal property was included in the sales price, whether the purchaser assumed any mortgage or liens, loans, leases or taxes, the method of financing, whether any special assessments are levied against the property and such other information as the director of property valuation shall require. No information shall be requested in such questionnaire which would require the disclosure of the interest rate paid by the purchaser or the specific term of any mortgage.

History: L. 1991, ch. 162, § 4; July 1.

79-1437e. Same; inapplicability to certain transfers of title.

- (a) The real estate sales validation questionnaire required by this act shall not apply to transfers of title:
- (1) Recorded prior to the effective date of this act;
 - (2) made solely for the purpose of securing or releasing security for a debt or other obligation;
 - (3) made for the purpose of confirming, correcting, modifying or supplementing a deed previously recorded, and without additional consideration;
 - (4) by way of gift, donation or contribution stated in the deed or other instrument;
 - (5) to cemetery lots;
 - (6) by leases and transfers of severed mineral interests;
 - (7) to or from a trust, and without consideration;
 - (8) resulting from a divorce settlement where one party transfers interest in property to the other;
 - (9) made solely for the purpose of creating a joint tenancy or tenancy in common;
 - (10) by way of a sheriff's deed;
 - (11) by way of a deed which has been in escrow for longer than five years;

- (12) by way of a quit claim deed filed for the purpose of clearing title encumbrances;
 - (13) when title is transferred to convey right-of-way or pursuant to eminent domain;
 - (14) made by a guardian, executor, administrator, conservator or trustee of an estate pursuant to judicial order;
 - (15) when title is transferred due to repossession; or
 - (16) made for the purpose of releasing an equitable lien on a previously recorded affidavit of equitable interest, and without additional consideration.
- (b) When a real estate sales validation questionnaire is not required due to one or more of the exemptions provided in subsection (a), the exemption shall be clearly stated on the document being filed.

History: L. 1991, ch. 162, § 5; L. 1992, ch. 159, § 2; L. 1994, ch. 275, § 12; L. 2002, ch.22, §1; July 1.

79-1437f. Same; disposition and use of contents thereof, to and by whom. Except as otherwise provided by K.S.A. 79-1460, and amendments thereto, contents of the real estate sales validation questionnaire shall be made available only to the following people for the purposes listed hereafter:

- (a) County officials for cooperating with and assisting the director of property valuation in developing the information as provided for in K.S.A. 79-1487, and amendments thereto;
- (b) any property owner, or the owner's representative, for prosecuting an appeal of the valuation of such owner's property or for determining whether to make such an appeal, but access shall be limited to the contents of those questionnaires concerning the same constitutionally prescribed subclass of property as that of such owner's property;
- (c) the county appraiser and appraisers employed by the county for the appraisal of property located within the county;
- (d) appraisers licensed or certified pursuant to K.S.A. 58-4101 *et seq.*, and amendments thereto, for appraisal of property and preparation of appraisal reports;
- (e) financial institutions for conducting appraisals as required by federal and state regulators;
- (f) the county appraiser or the appraiser's designee, hearing officers or panels appointed pursuant to K.S.A. 79-1602 or 79-1611, and amendments thereto, and the state court of tax appeals for conducting valuation appeal proceedings;
- (g) the board of county commissioners for conducting any of the boards statutorily prescribed duties;
- (h) the director of property valuation for conducting any of the director's statutorily prescribed duties; and
- (i) a person licensed pursuant to the real estate brokers' and salespersons' act for purposes of fulfilling such person's statutory duties and providing information on market value of property to clients and customers.

History: L. 1991, ch. 162, § 6; L. 1992, ch. 282 § 19; L. 1999, ch. 123, § 2; L. 2002, ch. 23 § 1; L. 2006, ch 151, § 3; L 2007, ch. 63, § 1; 2008, ch. 109, §87; July 1.

79-1437g. Same; penalty for violations.

Any person who shall falsify the value of real estate transferred shall be deemed guilty of a misdemeanor and upon conviction thereof shall be fined not more than \$500.

History: L. 1991, ch. 162, § 7; L. 1992, ch. 159, § 3; April 30.

79-1444 Same; technical advisory committee; membership; qualifications, compensation and allowance; duties; additional advisory committee, appointment.

There is hereby established a technical advisory committee on the assessment-sales ratio study. The committee shall consist of three (3) members, appointed by and serving at the pleasure of the secretary of revenue. Members of the committee shall have such education and training as may be necessary to advise the director in the methodology of conducting studies of the type required under the provisions of this act. Members of the advisory committee on assessment-sales ratio study attending meetings of such committee, or attending a subcommittee meeting thereof authorized by such committee, shall be paid amounts provided in subsection (e) of K.S.A. 75-3223 and amendments thereto. The same shall be paid from appropriations to the secretary of revenue upon warrants of the director of accounts and reports issued pursuant to vouchers approved by the secretary of revenue or a person or persons designated by him or her.

It shall be the duty of the committee to advise and consult with and assist the director in the review and evaluation of the procedures used by the director of property valuation in making the assessment-sales ratio study and to make recommendations for any changes deemed necessary. It shall be the duty of the board of regents and the administration of each of the state institutions thereunder to authorize any staff members so selected to participate as members in the activities of such committee. The secretary of revenue may appoint an additional advisory committee of not to exceed seven (7) members to serve at his or her pleasure.

History: L. 1965, ch. 516, § 6; L. 1968, ch. 208, § 14; L. 1972, ch. 362, § 7; L. 1974, ch. 348, § 99; L. 1974, ch. 428, § 7; L. 1975, ch. 416, § 27; July 1.

79-1485 Kansas real estate ratio study act: purposes.

- (a) This act shall be known and may be cited as the Kansas real estate ratio study act.
- (b) The purpose of this act is to provide statistical information regarding the relationship of the appraised value to the selling price of real estate which has sold during the study year and the relative level of uniformity of appraisal within and among counties and to report such information in convenient form to the legislature and other interested parties. The statistical information determined pursuant to this act may be used by the director in carrying out such director's duties, including, but not limited to, assisting such director in the determination of substantial compliance under K.S.A. 79-1445, and amendments thereto.

History: L. 1992, ch. 131, § 1; L. 1994, ch. 275, § 8; July 1.

79-1486 Same; definitions. As used in this act:

- (a) "Sale" or "sales" shall include all transfers of real estate for which a real estate sales validation questionnaire is required by K.S.A. 79-1437c, and amendments thereto; however, all sales for which a real estate sales validation questionnaire is required by K.S.A. 79-1437c, and amendments thereto, need not be included in the final ratios determined;
- (b) "valid sale" is a sale that is an indicator of fair market value as defined in K.S.A. 79-503a, and amendments thereto;

- (c) “invalid sale” is a sale that is not an indicator of fair market value as defined in K.S.A. 79-503a, and amendments thereto;
- (d) “unvalidated sale” is a residential subclass sale that was not selected through a random sampling process and has not been determined to be either a valid sale or an invalid sale;
- (e) “real estate” shall include land, improvements and structures which are appraised as real property;
- (f) “director” shall mean the director of property valuation;
- (g) “classification” shall mean those classifications which apply to real property contained in K.S.A. 79-1439, and amendments thereto, or any stratification which may be prescribed by the director;
- (h) “average” shall mean that measure or measures of central tendency which the director shall determine best describes a group of individual ratios;
- (i) “ratio” shall mean the numerical relationship between the appraised or assessed value and the selling price; and
- (j) “study year” shall mean that twelve-month period beginning annually on January 1.

History: L. 1992, ch. 131, § 2; L. 1994, ch. 275, § 9; July 1.

79-1487 Same: duties of local officials; access of records by director.

It shall be the duty of all county officials to cooperate with and assist the director in the development of the information required by this act. Such county officials shall exchange such information as may be necessary to carry out the intent and purposes of this act. The director or the director’s agents shall have access to all county records for the purpose of carrying out the intent and purposes of this act.

History: L. 1992, ch. 131, § 3; July 1.

79-1488 Same; authorities and duties of director.

It shall be the duty of the director to obtain all information relating to each sale of real estate as the director shall deem necessary to carry out the intent and purposes of this act. The director shall prescribe the form in which the data is obtained. The director shall assign agents who shall verify and categorize each sale as valid, invalid or unvalidated. The director shall determine the median ratio in relation to the county’s certified value, the price-related differential, and the coefficient of dispersion for each classification of property in each county. If, in the director’s opinion, sales from the study year are insufficient to determine reliable ratios for any classification of property in any county, sales from the four-year period preceding the study year may be used to supplement study year sales or the director may obtain or conduct appraisals for the purpose of supplementing, verifying or correcting ratios for the study year. The director may select random samples of residential subclass sales from counties having a total parcel count in excess of 15,000 to determine reliable residential subclass ratios for any such county. The random sample shall be selected prior to any validation process. Data from deeds, other instruments of conveyance and real estate sales validation questionnaires recorded or filed with the register of deeds on or after the first day of February following the study year shall not be used in determining the ratios for any county.

History: L. 1992, ch. 131, § 4; L. 1994, ch. 275, § 10; July 1.

79-1489 Same; notification of ratios to county by the director; appeals, procedure.

The director shall determine the mid-year ratios for each county and notify the board of county commissioners thereof. When the final ratios are determined, the director shall notify the board of county commissioners of each county of the ratios determined for such county. If the board of county commissioners disagrees with the ratios determined for the county, such board, within 15 days after receipt of such notice, may appeal such determination to the state court of tax appeals. Written notice of appeal shall be served on the state court of tax appeals and the director by certified mail. The notice of appeal shall clearly and specifically state the facts upon which the appeal is based. The state court of tax appeals shall conduct a summary proceeding in accordance with the provisions of the Kansas administrative procedure act within 30 days of receipt of the written notice of appeal and shall issue findings and a final order within 30 days after the conclusion of such summary proceeding. If the state court of tax appeals finds that corrections in the ratios are necessary, it shall order the director to make necessary corrections consistent with such findings prior to the publication of the study.

History: L. 1992, ch. 131, § 5; L. 1994, ch. 275, § 11; L. 2008, ch. 109, § 94; July 1.

79-1490 Same; publishing of study, when.

The director shall publish the ratio study after the procedures prescribed in K.S.A. 79-1489 have been concluded. If it is determined that the ratio study cannot be published by April 1, the director shall provide a preliminary ratio study to the governor, the speaker of the house and the president of the senate and their respective tax committees on or before March 15.

History: L. 1992, ch. 131, § 6; July 1.

79-1491 Same; rules and regulations.

The secretary of revenue shall adopt rules and regulations providing for the administration of this act.

History: L. 1992, ch. 131, § 7; July 1.

79-1492 Same; application of act.

The provisions of K.S.A. 79-1437e, 79-1485, 79-1486, 79-1488 and 79-1489 shall apply to all taxable years commencing after December 31, 1993.

History: L. 1992, ch. 131, § 8; L. 1994, ch. 275, § 13; July 1.

79-1493 Same; authority to compile and publish other statistics not affected.

Nothing in this act shall preclude the director from gathering, compiling or publishing any information or statistics in addition to those required by this act.

History: L. 1992, ch. 131, § 9; July 1.



STATE OF KANSAS
Bill Graves, Governor

DEPARTMENT OF REVENUE
John D. LaFaver, Secretary

Mark S. Beck, Director
Kansas Department of Revenue
915 SW Harrison St.
Topeka, KS 66612-1585



(913) 296-2365
FAX (913) 296-2320
Hearing Impaired TTY (913) 296-2366

Division of Property Valuation
DIRECTIVE #92-002 (Rev)

TO: County Appraisers
SUBJECT: Substantial Compliance

This directive is adopted pursuant to the provisions of K.S.A. 1994 Supp. 79-506, and shall be in force and effect from and after the Director's approval date.

The following criteria and standards shall be used for 1995 and subsequent years to determine whether a county is in substantial compliance with the statutory requirement to uniformly appraise real and personal property at its fair market value, as defined by K.S.A. 79-503a, and amendments thereto. In order to establish compliance or lack of compliance in each county, the Division of Property Valuation (PVD) shall conduct a ratio study as required by K.S.A. 79-1485 *et. seq.* PVD shall conduct a procedural audit in each county covering items deemed essential to establishing fair market value. PVD shall determine whether specific Kansas statutes pertaining to property taxation have been followed. Whenever sufficient valid sales within a single property subclass cannot be obtained for the ratio study, or whenever the confidence level for the subclass suggests the median ratio or coefficient of dispersion measure is unreliable, compliance shall be determined according to the procedural and statutory review.

CRITERIA AND STANDARDS

Any county achieving 75 to 100 points (as explained on page 3-6) shall be found in substantial compliance. Any county achieving 74 or fewer points shall be found in noncompliance and required to submit a detailed plan to correct areas of noncompliance.

A county in noncompliance may be audited on all property tax functions and responsibilities depending on the reason the county is found to be in noncompliance. An audit may be initiated if the county does not implement its approved plan and correct the area or areas in noncompliance. If a county is found to be in noncompliance in the same subclass in the next compliance period, a full audit shall be conducted. When a county is in noncompliance in the same subclass for two consecutive years the Director may pursue all legal options, including, but not limited to, proceedings before the State Board of Tax Appeals and/or the removal of the county appraiser.

An Administrative Review designation shall be assigned to any county in which a subclass, as a whole, indicates compliance, but in which one or more stratifications (age or price by neighborhood) indicates a failure to meet the basic statistical standards for Ratio or Coefficient of Dispersion (COD). Counties subject to Administrative Review shall be required to submit a plan to correct the area or areas not meeting the basic statistical standards. Counties are reminded that administrative appeals to the Director and State Board of Tax Appeals are available.

Examples of points used for the measuring of compliance and the weighting of those points are found on the next four pages.

MEASURE OF COMPLIANCE:

	<u>Measure</u>	<u>Points</u>
1.	Statistical Measures Total Weight	50
	a. Appraisal Level	25
	b. Appraisal Uniformity	25
	The total of (a.) and (b.) shall be multiplied by the subclass weight for Commercial/Industrial and Residential.	
2.	Procedures	36
	a. Reappraisal plan	4
	b. Cost index	4
	c. Sale files	4
	d. Depreciation documentation	4
	e. Income approach	4
	f. Comparable sales approach	4
	g. 25% maintenance reinsertion	4
	h. Land valuation model calibration	4
	i. Final review process	4
3.	Agricultural Use Valuation	2
4.	Cadastral Mapping	2
5.	Constitutional and Statutory Compliance Checklist	10
	a. CVN's mailed and trend study published timely	2
	b. Hearings conducted within statutory time frame	2
	c. Certification to clerk timely	2
	d. Personal property listed correctly	2
	e. Retention of records	2
	TOTAL	100

SUBCLASS WEIGHTING

The statistical compliance of "residential" and "commercial/industrial" subclasses shall be determined separately. Each subclass shall be weighted by its percentage of the combined appraised value of the two subclasses, as derived from the statistical abstract, to demonstrate the county's statistical compliance. These calculated weights shall vary from county to county and from year to year. If a 95% confidence interval can not be achieved with respect to the median ratio or coefficient of dispersion, the points assigned to the statistical measures for that subclass shall be omitted thereby establishing a new base of total possible points. The total points assigned to a county shall be divided by the adjusted base, total possible, and multiplied by 100 to arrive at the total points used to determine substantial compliance. This method adds more emphasis to the procedural review. The following is an example of the weighting procedure:

<u>SUBCLASS</u>	<u>APPRAISED VALUE</u>	<u>% OF APPRAISED</u>
RESIDENTIAL	\$250,000,000	84.7%
COMMERCIAL/INDUSTRIAL	\$45,000,000	15.3%
TOTAL APPRAISED VALUE	\$295,000,000	100.0%

<u>SUBCLASS</u>	<u>% OF APPRAISED</u>	<u>COMPLIANCE POINTS</u>	<u>WEIGHTED POINTS</u>
RESIDENTIAL	84.7%	50	42.4
COMMERCIAL/ INDUSTRIAL	15.3%	25 (Ratio 88)	3.8
STATISTICAL COMPLIANCE POINTS			46.2
PROCEDURES			23.0
AGRICULTURAL USE VALUATION			0.0
CADASTRAL MAPPING			2.0
CONSTITUTIONAL / STATUTORY			10.0
NON STATISTICAL COMPLIANCE POINT			35.0
TOTAL COMPLIANCE POINTS			81.2

COMPLIANCE REVIEW: SAMPLE 1				
SUBCLASS WEIGHTING:				
SUBCLASS	APPRAISED VALUE	% OF TOTAL		
RESIDENTIAL	250,000,000	84.7		
COMM./IND.	45,000,000	15.3		
TOTAL	295,000,000	100		
MEASURE	POINTS ALLOCATED	SUBCLASS WEIGHT	POINTS POSSIBLE	POINTS RECEIVED
1. STATISTICAL MEASURES				
a. RESIDENTIAL				
APPRAISAL LEVEL	25.0	0.847	21.2	21.2
APPRAISAL UNIFORMITY	25.0	0.847	21.2	21.2
b. COMMERCIAL/INDUSTRIAL				
APPRAISAL LEVEL	25.0	0.153	3.8	3.8
APPRAISAL UNIFORMITY	25.0	0.153	3.8	0.0
TOTAL			50.0	46.2
2. PROCEDURES				
a. APPRAISAL PLAN	4		4.0	4.0
b. COST INDEX	4		4.0	4.0
c. SALES FILE	4		4.0	0.0
d. DEPRECIATION DOCUMENTATION	4		4.0	4.0
e. INCOME APPROACH	4		4.0	0.0
f. COMPARABLE SALES APPROACH	4		4.0	4.0
g. 25% MAINTENANCE INSPECTION	4		4.0	4.0
h. LAND VALUATION MODEL CALIBRATION	4		4.0	4.0
i. FINAL REVIEW PROCESS	4		4.0	4.0
TOTAL	36		36.0	28.0
3. AGRICULTURAL USE VALUATION	2		2.0	0.0
4. CADASTRAL MAPPING	2		2.0	2.0
5. STATUTORY COMPLIANCE				
a. CVN'S MAILED BEFORE STATUTORY DEADLINE	2		2.0	2.0
b. HEARINGS WITHIN STATUTORY TIMEFRAME	2		2.0	0.0
c. CERTIFICATION TO CLERK ON TIME	2		2.0	0.0
d. PERSONAL PROPERTY LISTED CORRECTLY	2		2.0	2.0
e. RECORDS PROPERLY KEPT	2		2.0	2.0
TOTAL	10		10.0	6.0
I. TOTAL POSSIBLE			100.0	
II. TOTAL RECEIVED				82.2
OVERALL SCORE (II/I) * 100		82.2		
1. b. COD outside acceptable range 2. c. Sales file not maintained in an acceptable manner 2. e. Income approach not properly developed 3. Agricultural use not properly delineated 5. b. Hearings not completed in statutory timeframe 5. c. Values not certified to clerk by statutory deadline				

COMPLIANCE REVIEW: SAMPLE 2					
SUBCLASS WEIGHTING:					
	SUBCLASS	APPRAISED VALUE	% OF TOTAL		
	RESIDENTIAL	250,000,000	84.7		
	COMM./IND.	45,000,000	15.3		
	TOTAL	295,000,000	100		
MEASURE		POINTS ALLOCATED	SUBCLASS WEIGHT	POINTS POSSIBLE	POINTS RECEIVED
1. STATISTICAL MEASURES					
a. RESIDENTIAL					
	APPRAISAL LEVEL	25.0	0.847	21.2	21.2
	APPRAISAL UNIFORMITY	25.0	0.847	21.2	21.2
b. COMMERCIAL/INDUSTRIAL					
	APPRAISAL LEVEL	0.0	0.153	0.0	0.0
	APPRAISAL UNIFORMITY	0.0	0.153	0.0	0.0
	TOTAL			42.4	42.4
2. PROCEDURES					
	a. APPRAISAL PLAN	4		4.0	4.0
	b. COST INDEX	4		4.0	4.0
	c. SALES FILE	4		4.0	0.0
	d. DEPRECIATION DOCUMENTATION	4		4.0	4.0
	e. INCOME APPROACH	4		4.0	0.0
	f. COMPARABLE SALES APPROACH	4		4.0	4.0
	g. 25% MAINTENANCE INSPECTION	4		4.0	4.0
	h. LAND VALUATION MODEL CALIBRATION	4		4.0	4.0
	i. FINAL REVIEW PROCESS	4		4.0	4.0
	TOTAL	36		36.0	28.0
3. AGRICULTURAL USE VALUATION					
		2		2.0	0.0
4. CADASTRAL MAPPING					
		2		2.0	2.0
5. STATUTORY COMPLIANCE					
	a. CVN'S MAILED BEFORE STATUTORY DEADLINE	2		2.0	2.0
	b. HEARINGS WITHIN STATUTORY TIMEFRAME	2		2.0	0.0
	c. CERTIFICATION TO CLERK ON TIME	2		2.0	0.0
	d. PERSONAL PROPERTY LISTED CORRECTLY	2		2.0	2.0
	e. RECORDS PROPERLY KEPT	2		2.0	2.0
	TOTAL	10		10.0	6.0
I. TOTAL POSSIBLE				92.4	
II. TOTAL RECEIVED					78.4
OVERALL SCORE (II/I) * 100			84.8		
Reason for "0" points by measures					
1. b. Median and COD outside acceptable range--Confidence intervals overlap acceptable range					
2. c. Improper handling of COV's					
e. No income and expense file					
3. Cost tables not updated with current use values					
5. b. Hearings scheduled past deadline					
c. Certification made past deadline					

I. STATISTICAL COMPLIANCE REVIEW

The following statistical review shall be used to establish whether the county's appraisal performance is in substantial compliance pursuant to Property Valuation Division statistical measures and Kansas statutes.

A. APPRAISAL LEVEL:

The median ratio measure of central tendency must suggest the level of appraised value for a subclass of property falls between 90 and 110 percent.

If the median ratio does not suggest a ratio within the prescribed range, a confidence interval test shall be made to provide an indication of reliability. If, at the 95% confidence level, the subclass falls within the prescribed range, the appraisal level shall not be out of compliance.

B. APPRAISAL UNIFORMITY:

The average deviation of ratios about the median appraisal level shall be measured by the coefficient of dispersion (COD). The COD measure must suggest a deviation of 20% or less for the *residential* subclass and the *commercial/industrial* subclass. If a subclass fails to meet these measures, a confidence interval test shall be performed on the COD. If the suggested range includes the maximum acceptable COD prescribed for the subclass at the 95% confidence level, appraisal uniformity shall not be out of compliance.

For example:

COD = 18% Confidence interval = 13-21%

This example would be considered in compliance because the COD is less than 20%. The confidence interval does suggest, however, there is a possibility the COD could actually be out of compliance due to imprecision in the statistical measure.

COD = 30% Confidence interval = 22-38%

This example is out of compliance because the COD is 30% and there is a high degree of confidence that the true COD measure does not fall below the 20% maximum specified for this subclass.

COD = 22% Confidence interval = 17-27%

This example is not out of compliance although the COD is 22%. Due to the imprecision in the statistical measure it is possible that the COD is actually within the range of 17 to 20%; therefore, the county would be found in compliance.

C. SAMPLE SIZE:

If less than 10 valid sales are collected for each subclass during the study period, all valid sales from the previous study period for that subclass shall be included in the statistical analysis. Sales used from the previous study period shall be trended to account for any changes in the market conditions since the date of sale.

II. PROCEDURAL COMPLIANCE REVIEW

The following procedural review is designed to establish whether the county's appraisal performance, as it pertains to appraisal guidelines and directives, is in substantial compliance. It is very important that the county has the ability to perform the appraisal functions required by manuals, guidelines and directives.

- A. **REAPPRAISAL MAINTENANCE PLAN:**
PVD shall confirm that the county has prepared and submitted to the Director of Property Valuation a feasible appraisal maintenance plan for the current year. The plan must contain objectives, personnel requirements, a budget and be approved by the Director.
- B. **COST INDEX ANALYSIS:**
PVD shall review and confirm that the county has a current cost index study and the cost tables are updated to reflect that study. The county must document that they have developed a new construction cost file, trend analysis, cost index analysis and statistical analysis proving the index.
- C. **SALES FILE:**
PVD shall verify that the county has a sales file that documents validity of sales, field inspection of data and sales price adjustments. Both physical and computer files must be maintained and updated on a regular basis.
- D. **DEPRECIATION DOCUMENTATION:**
PVD shall confirm that the county has a depreciation analysis that utilizes all available valid sales and includes neighborhood CDU analyses. The county must include appropriate statistical and graphics reports and statistical analyses to test percent good assignments. The county must update percent good tables, if appropriate, with the results of the yearly analysis.
- E. **INCOME APPROACH:**
PVD shall verify that the county has attempted or developed an income approach to value for appropriate properties. The county appraiser must document: neighborhood analysis, rental survey documentation, income and expense analysis, vacancy study, effective tax rate study, capitalization rate development documentation, expense summary used for public disclosure (general summary of income and expense data as opposed to specific income and expense statements). Updated income and expense models must be completed.
- F. **COMPARABLE SALES APPROACH:**
PVD shall verify that the county has developed a market approach to value. The county must use logical variables, coefficients, selection criteria and neighborhood grouping.
- G. **25% MAINTENANCE REINSPECTION:**
PVD shall confirm that the county has performed the data collection reinspection. Documentation on field documents as well as on the KSCAMA system showing data collection, quality control, grading and CDU application activities must be maintained.
- H. **LAND VALUATION MODEL CALIBRATION:**
PVD shall verify that the county has developed and calibrated land valuation models. Neighborhood analysis forms, updated sales maps and data summary and analysis documentation must be complete to be considered in compliance. PVD shall also confirm that land pricing tables have been updated. Records shall be reviewed to determine lot sizing and model assignment uniformity in order to assist in determining conformity.
- I. **FINAL REVIEW PROCESS:**

PVD shall verify that the county has performed the final review of values. The county must document the date, person/persons performing the final review, qualifications of person/persons performing the final review, time frame and resource allocation for performing a careful and critical examination of values.

III. AGRICULTURAL USE VALUATION

PVD shall confirm that the county has performed a review/inspection for current agricultural use and influence factors. The county must identify current use of agricultural land, including crop land, grassland, irrigated land, waterways, non-productive land, farm homesites and adverse influences, and update land pricing tables with current PVD values.

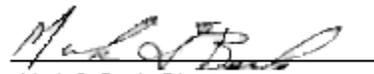
IV. CADASTRAL MAPPING

PVD shall confirm that accurate property ownership maps are being maintained. Updated field maps (showing new plats, splits and combinations), an updated assessment administration file and adherence to the parcel definition must be maintained.

V. CONSTITUTIONAL AND STATUTORY COMPLIANCE

The following review areas are to establish whether the county is following Kansas statutes not previously covered.

- A. Change of value notices mailed before statutory deadline. (K.S.A. 1994 Supp. 79-1460)
- B. Informal hearings held within statutory time frame or an extension has been granted pursuant to K.S.A. 1994 Supp. 79-1404, *Seventeenth*. (K.S.A. 1994 Supp. 79-1448.)
- C. Values certified to county clerk by statutory deadline, provided an extension has not been granted pursuant to K.S.A. 1994 Supp. 79-1404, *Seventeenth*. (K.S.A. 79-1466 and 79-1467)
- D. Real estate value trend study published at least five business days prior to the mailing of the CVN's. (K.S.A. 1994 Supp. 79-1460)
- E. Personal property listed as required and penalties applied where applicable. (K.S.A. 1994 Supp. 79-306 and 79-1422; K.S.A. 1994 Supp. 79-332a)
- F. The preservation and protection of all property tax records. (K.S.A. 45-403)



Mark S. Beck, Director
Division of Property Valuation

Approved: November 3, 1995



K A N S A S

DEPARTMENT OF REVENUE DIVISION OF PROPERTY VALUATION

DIRECTIVE 03-041

TO: REGISTER OF DEEDS

FROM: Mark S. Beck, Director

SUBJECT: Real Estate Sales Validation Questionnaires; Filing Requirements
(To replace Directive #92-016 and 94-028)

This directive is adopted pursuant to the provisions of K.S.A. 79-505, and shall be in force and effect from and after the Director's approval date.

Register of Deeds shall comply with the following procedures in handling and processing real estate sales validation questionnaires.

1. The only exceptions to the requirement to file a real estate sales validation questionnaire are statutory.

K.S.A. 79-1437e(a), as amended by L. 2002, ch. 22, provides:

The real estate sales validation questionnaire required shall not apply to transfers of title:

- (1) recorded prior to the effective date of this act;
- (2) made solely for the purpose of securing or releasing security for a debt or other obligation;
- (3) made for the purpose of confirming, correcting, modifying or supplementing a deed previously recorded, and without additional consideration;
- (4) by way of gift, donation or contribution stated in the deed or other instrument;
- (5) to cemetery lots;
- (6) by leases and transfers of severed mineral interests;

- (7) to or from a trust, and without consideration;
- (8) resulting from a divorce settlement where one party transfers interest in property to the other;
- (9) made solely for the purpose of creating a joint tenancy or tenancy in common;
- (10) by way of a sheriff's deed;
- (11) by way of a deed which has been in escrow for longer than five years;
- (12) by way of a quit claim deed filed for the purpose of clearing title encumbrances;
- (13) when title is transferred to convey right-of-way or pursuant to eminent domain;
- (14) made by a guardian, executor, administrator, conservator or trustee of an estate pursuant to judicial order;
- (15) when title is transferred due to repossession; or
- (16) made for the purpose of releasing an equitable lien on a previously recorded affidavit of equitable interest, and without additional consideration.

When a real estate questionnaire is not required due to one of the exemptions listed above, the exemption number or reason for an exemption must be clearly stated on the deed. The register of deeds should not make changes to the face of the deed by adding the exemption number or exemption description. (*Also see Att'y Gen. Op. No. 92-122*)

2. The Division of Property Valuation supplies a three-part real estate sales validation questionnaire (form number PV-RE-21) which is required when an affidavit of equitable interest, deed in real estate, or any other instrument used to transfer real property is recorded in the office of the register of deeds. Only counties having prior written approval from the director may use a special one-part version of the form (PV-RE-21-OP). The one-part form can be used in conjunction with image document management systems. Photocopies are not acceptable; however, filers may submit a computer-printed form. The digital version of the form (PV-RE-21-OP-CG) can be obtained from the Department of Revenue website. Instructions for completing the questionnaire must be printed on the reverse side or attached on a separate page. Counties accepting one-part forms are required to provide the original document(s) to the Division of Property Valuation.
3. The "total sale price" must be entered on the real estate sales validation questionnaire. If one dollar (\$1.00), ten dollars (\$10.00) or any nominal sale price is entered on the real estate sales validation questionnaire, the register of deeds shall question the accuracy of the sale price as entered. If the grantor, grantee, or agent affirms that the sale price as entered is correct, the deed should be recorded.
4. A real estate sales validation questionnaire is not required on a deed that states "without consideration" or that has one dollar (\$1.00), ten dollars (\$10.00) or some other nominal value entered thereon. "Without consideration" as used in K.S.A. 79-1437(e)(7), as amended by L. 1992, ch. a59, § 2, means "gift." Therefore, an entered consideration of one dollar (\$1), ten dollars (\$10) or "love and affection" on a deed shall be construed as a "gift," and the deed accepted without a real estate sales validation questionnaire. However, if the phrase "one dollar (\$1.00) and other valuable

consideration" has been entered on the deed, a real estate sales validation questionnaire is required to record the deed.

5. The buyer, seller or agent thereof may complete and sign the real estate validation questionnaire.
6. If a government entity, such as a county, conveys real property, the real estate sales validation questionnaire must be signed by the government official(s) who signed the deed or an agent.
7. Multiple deeds conveying partial interests and filed simultaneously, do not require multiple real estate sales validation questionnaires, provided the real estate sales validation questionnaire filed is annotated to state that the consideration entered thereon is the total consideration for the transfer of the entire interest. The register of deeds shall indicate in the upper left-hand corner of the real estate sales validation questionnaire the deed book and page number range assigned to the corresponding deeds.
8. A real estate sales validation questionnaire with the phrase "other valuable consideration" entered as the sales price shall not be accepted. It shall be returned for the sale price to be entered before the deed, instrument or affidavit may be recorded.
9. The Register of Deeds has a legal obligation to see that the real estate sales validation questionnaire is completed. At a minimum, this requires that each real estate sales validation questionnaire be scrutinized for completion of the identification and location information and all questions thereon.
10. A real estate sales validation questionnaire without every question answered, including the sale price, the signature and phone numbers entered is not "completed". Incomplete real estate sales validation questionnaires accompanied by the deed, other instrument transferring title to real estate or affidavit of equitable interest must be returned to the filer with notice that such deed, instrument or affidavit has not been recorded.
11. Phone numbers for both the buyer and the seller are required when the agent completes a real estate sales validation questionnaire.
12. The phrase "made for the purpose of confirming, correcting, modifying or supplementing a deed previously recorded, and without additional consideration," (K.S.A. 79-1437e) is explained as follows:

Confirm means "to support or establish the certainty or validity of; verify." The American Heritage Dictionary of the English Language, 386 (4th Edition, 2000).

Correct means "to remove errors from." Webster's II New Riverside University Dictionary, 314 (1984).

Modify means "To change in form or character; alter." The American Heritage Dictionary of the English Language, 1130 (4th Edition, 2000).

Supplement means "something added to offset a deficiency, or strengthen the whole; a section added to a document to provide additional data, or to correct errors." Webster's II New Riverside Dictionary, 1163 (1984).

The recurrent theme of these definitions is an incidental change, not a change in substance. In the case of a deed previously recorded, this would mean that the change does not change the grantor or

the grantee (although, e.g., a change may be made in the spelling of the grantor or grantee's name). Whatever the change, the intent to convey the real property to a named person or entity is not changed. Also, there can be no additional consideration.

13. It is a misdemeanor to falsify the sale price of real estate transferred on a real estate sales validation questionnaire (K.S.A. 79-1437g). Any Register of Deeds or other county official who has information or suspects that a real estate sales validation questionnaire has been falsified shall notify the County Attorney or County Counselor for possible legal action.
14. Individuals may obtain photocopies of real estate sales validation questionnaires if they have statutory access to them (K.S.A. 79-1437f). K.S.A. 45-219(a) provides that any person may make abstracts or copies of any public record to which such person has access under the Open Records Act. Public officials may require advance payment of the actual cost of furnishing copies, including the cost of staff time, to make the information available. K.S.A. 45-218(f); K.S.A. 45-219(c)(1). (*Also see Att'y Gen. Op. No. 92-38*)

Financial institutions can also obtain copies of real estate sales validation questionnaires for conducting appraisals or evaluations that are being conducted pursuant to state and federal regulations.

The Internal Revenue Service (IRS) also has access to real estate sales validation questionnaires (*United States v. Martin*, 542 F. Supp. 22 (1982)).

15. Transfer on Death Deeds do not require the completion of the *Kansas Real Estate Sales Validation Questionnaire* because it does not actually transfer property at the time of filing.
16. Only those deeds to and from a trust and *without consideration* do not require a questionnaire be completed.
17. The Register of Deeds shall also comply with the Permanent Administrative Regulations promulgated by the Department of Revenue, Division of Property Valuation. Article 4 (Real Estate Ratio Study), 93-4-2 and 93-4-3 reference the duties of the Register of Deeds.

Approved: February 5, 2003
Date



Mark S. Beck
Director of Property Valuation.

REAL PROPERTY SUBCLASSES & ASSESSMENT RATES

**CONSTITUTION OF THE STATE OF KANSAS
Article II.-§ 1. Nov. 3, 1992**

System of taxation; classification: exemption.

- (a) The provisions of this subsection shall govern the assessment and taxation of property on and after January 1, 1993, and each year thereafter...

Class 1 shall consist of real property. Real property shall be further classified into seven subclasses. Such property shall be defined by law for the purpose of subclassification and assessed uniformly as to subclass at the following percentages of value:

- (1) Real Property used for residential purposes including multi-family residential real property and real property necessary to accommodate a residential community of mobile or manufactured homes including the real property upon which same homes are located **11.5%**

(KSCAMA Suffix Codes RR, RU, FR, FU)

- (2) Land devoted to agricultural use that shall be valued upon the basis of its agricultural income or agricultural productivity pursuant to section 12 of article 11 of the constitution **30.0%**

(KSCAMA Suffix Codes AU, AR)

- (3) Vacant Lots **12.0%**

(KSCAMA Suffix Codes VU, VR)

- (4) Real property which is owned and operated by a not-for-profit organization not subject to federal income taxation pursuant to section 501 of the federal internal revenue code, and which is included in this subclass by law **12.0%**

(KSCAMA Suffix Codes NR, NU)

- (5) Public utility real property, except railroad real property that shall be assessed at the average rate that all other commercial and industrial property **33.0%**

(KSCAMA Suffix Codes UL, UU)

- (6) Real property used for commercial and industrial purposes and buildings and other improvements located upon land devoted to agricultural use **25.0%**

(KSCAMA Suffix Codes CU, CR, AU & AR with agricultural improvements)

- (7) All other urban and rural real property not otherwise specifically sub-classed **30.0%**

(KSCAMA Suffix Codes OU, OR)

----- Kansas Register -----

State of Kansas

Department of Revenue
Division of Property Valuation

Permanent Administrative Regulations

Article 3.—CERTIFICATES OF VALUE

93-3-1 to 93-3-4. (Authorized by K.S.A. 1973 Supp. 79-1435, 79-1436, 79-1437, 79-1441, 79-1442 as amended; K.S.A. 1973 Supp. 58-2223a, 58-2223b, 58-2223c, 58-2223d, 58-2223e; effective E-74-48, Sept. 1, 1974; effective May 1, 1975; revoked June 26, 1998.)

Article 4.—REAL ESTATE RATIO STUDY

93-4-1. (Authorized by K.S.A. 79-1441; implementing K.S.A. 79-1437; effective T-85-13, May 3, 1984; effective May 1, 1985, revoked June 26, 1998.)

93-4-2. Annotation and disposition of real estate sales validation questionnaires; duties of county officials. (a) Not later than three business days after the receipt of a real estate sales validation questionnaire, the register of deeds shall annotate each copy with the following information:

- (1) the volume and page entry from the general index, indicating where the deed, instrument, or affidavit of equitable interest that accompanies it is recorded;
- (2) the county official validation number; and
- (3) the recording date.

The register of deeds shall then forward the county appraiser's copy and the director of property valuation's copy to the county appraiser. The register of deeds shall retain the original copy, but an electronic copy may be retained instead when the register of deeds has been authorized by the director of property valuation to process real estate sales validation questionnaires by electronic imaging.

- (b) Not later than three business days after the receipt of the county appraiser's and the director's copies, the county appraiser shall enter the parcel identification number on both copies. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487; effective June 26, 1998.)

93-4-3. Split real estate parcel sales; duties of county officials. Not later than 10 business days after the receipt of a real estate sales validation questionnaire concerning a split real estate parcel sale, the county appraiser shall perform one of the following:

- (a) enter the sales information on the parent parcel record in the county's computer-assisted mass appraisal system; or
- (b) enter the sales information on the split parcel record in the county's computer-assisted mass appraisal system after the transmission of the real property appraisals has been completed pursuant to K.S.A. 79-1466, and amendments thereto. (Authorized by the K.S.A. 79-1491; implementing K.S.A. 79-1487; effective June 26, 1998.)

93-4-4. Assemblage and entering of sales data; accounting for real estate sales validation questionnaires; duties of county officials. Not later than the 10th day of each month, the county appraiser shall assemble and enter into the county's computer-assisted mass appraisal system the sales data pertaining to sales that occurred on or before the last day of the preceding month, as obtained from the real estate sales validation questionnaires received from the register of deeds.

The county appraiser shall account for all real estate sales validation questionnaires by entering sales information from all questionnaires into the data base fields in the county's computer-assisted mass appraisal system. The county appraiser shall maintain in a void file those questionnaires that cannot be matched with a parcel of real estate, those that contain information that cannot be entered in the county's computer-assisted mass appraisal system, and those that were not required by K.S.A. 79-1437e, and amendments thereto. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487; effective June 26, 1998.)

93-4-5. Access to county records by the director of property valuation; duties of county officials. (a)

The county shall make its computer-assisted mass appraisal system available to the director of property valuation and the director's agents, to generate and print reports and to prepare data files to enable the electronic extraction of sale information on a monthly basis.

(b) Upon written request by the director of property valuation, the county appraiser shall prepare and transmit the electronic assessment administration file to the director not later than 10 business days after the receipt of the request.

(c) The county appraiser shall maintain extracted sales files in the county's computer file library for at least 15 business days before being deleted or erased. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487; effective June 26, 1998.)

93-4-6. Standards. The "standard on ratio studies," adopted by the executive board of the international association of assessing officers in July 1999, shall constitute the minimum standard for the design, preparation, and use of the ratio study. The performance standards, summarized in table 7 of the "standard on ratio studies," shall be used to evaluate the appraisal of residential and commercial and industrial real estate, except that the coefficient of dispersion shall be 20 or less, with a confidence interval of 95 percent. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1485, 79-1486, 79-1487, 79-1488, 79-1489, 79-1490, 79-1492, 79-1493; effective June 26, 1998; amended April 20, 2001.)

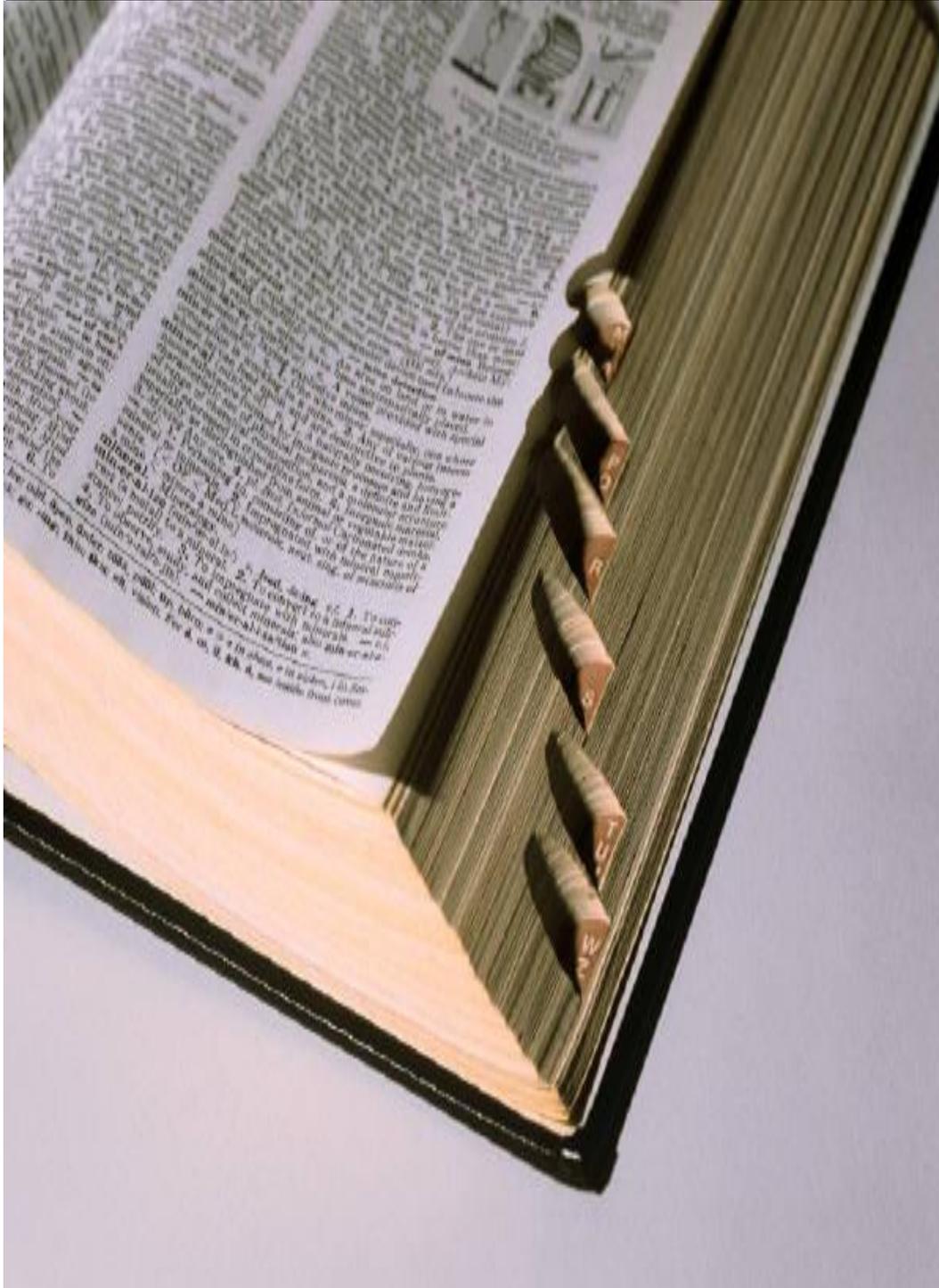
Doc. No. 026392

Kansas Secretary of State, 2001

Vol. 17, No. 24, April 5, 2001

Section V

Glossary of Terminology



Glossary*

Adjusted Sale Price	The sale price that results from adjustments made to the stated sales price to account for the effects of time, personal property, financing or the like.
Aggregate Mean Ratio	See weighted mean ratio.
Alternative Hypothesis	The negation of the null hypothesis and usually consists of a statement saying “H ₀ is not true” or “Fail to accept H ₀ .” It is denoted by H ₁ . A statement indicates the opposite of the null hypothesis.
Appraisal-Sales Price Ratio	The ratio of the appraised value to the sale price (<i>or adjusted sale price</i>) of a property. The appraised value divided by the sale price.
Array	An ordered arrangement of data such as a listing of sales ratios in order to magnitude from high to low or low to high.
Assessment Progressivity (<i>Regressivity</i>)	An appraisal bias such that high-value properties are appraised higher (<i>lower</i>) than low-value properties. (<i>See also Price-Related Differential.</i>)
Assessment Ratio	The ratio of the assessed value to an indicator of market value.
Average Absolute Deviation	The sum of the absolute (<i>sign ignored</i>) differences between the individual observations and the average of all the observations, divided by the number of observations.
Average Market Value	Sum of the market values divided by the number of values added together.
Average Sale Price	Mean sale price. The sum of all sales divided by the number of samples.
Bootstrap	A computer intensive statistical procedure designed to provide numerous random samples from the original data set, which are in turn used to generate the statistics of interest, such as point estimates and confidence intervals. This procedure is particularly helpful when the original data set is small, in order to give more accurate statistics.
Broadened Median	A special type of median that reduces insensitivity to rounding and grouping of observations around the middle ratio.
Coefficient of Concentration (<i>COC</i>)	The percentage of ratios falling within a specified percentage range (\pm) of the median ratio.
Coefficient of Dispersion (<i>COD</i>)	The average of the absolute deviation of a sample of ratios from the median ratio, expressed as a percentage of the median. The most common measure of uniformity in sales ratio studies. Low COD's tend to be associated with good appraisal uniformity.
Coefficient of Quartile Deviation	The interquartile ranges of a sample of ratios divided by 2 and expressed as a percentage of the median ratio. This measure of

uniformity was referred to as the coefficient of dispersion when it was first adopted for use in assessment performance in 1954. Like the median, it is very resistant to the influence of outlier ratios.

Coefficient of Variation (COV)	The standard deviation expressed as a percentage of the mean ratio.
Confidence Interval	For a given confidence level, the range within which one can conclude that a population parameter (<i>such as the median ratio</i>) lies. The reliability of confidence intervals depends on the extent to which required statistical assumptions are met. A range of numbers within that we expect the true value of the population parameter to be contained. The high and low endpoints of the interval are computed based on sample information.
Confidence Level	The degree of precision selected for a confidence interval and other statistical tests. Ratio study confidence intervals are based on 95 percent confidence levels.
Consideration	The amount of money and other valuable goods or services upon which a buyer and a seller agree to consummate a sale.
Critical Values	Hypothesis testing uses a decision rule that specifies for every possible value of a statistic whether the null hypothesis should be accepted or rejected. The test procedure divides the sample space (<i>a set of possible values of a sample statistic</i>) into mutually exclusive parts called the acceptance region and the rejection (<i>or critical</i>) region. The critical region calls for rejecting the null hypothesis. The values that lie exactly on the boundary of the region of rejection are the critical values.
Descriptive Statistics	Statistics used to describe or summarize information about a sample. These measures include point estimates.
Dispersion	The degree to which data are distributed either tightly or loosely around a measure of central tendency. Measures of dispersion include the range, average deviation, median absolute deviation, standard deviation, coefficient of dispersion, median percent deviation and coefficient of variation.
Geometric Mean Ratio	A measure of central tendency computed by multiplying the values of all of the observations by one another and then taking the result to an exponent equal to one divided by the number of observations. The geometric mean is less sensitive to extreme ratios than the arithmetic mean.
Harmonic Mean Ratio	A specially calculated mean that is based upon the reciprocal of the arithmetic mean of the reciprocals of each value in the data set. (<i>Reciprocal: the inverse of a number, i.e., the reciprocal of 0.40 is 2.50.</i>) It is less affected of extreme values in the data set than the arithmetic mean or the geometric mean.
Histogram	A bar chart or graph of a frequency distribution in which the frequencies of the various classes are indicated by horizontal or vertical bars whose lengths are proportional to the number or percentage of observations in each class.

Hypothesis	An unproved proposition that tentatively explains certain facts; a proposition that is empirically testable; a probable answer to a question.
Inferential Statistics	Statistics used to make judgments about a population based on information obtained from a sample.
Interquartile Range (<i>Interquartile Deviation</i>)	The result obtained by subtracting the first quartile from the third quartile. The interquartile range contains the middle 50 percent of the observations.
Market	The “place” in which buyers and sellers interact. The collective body of buyers and sellers for a particular product.
Market Price	The price a particular buyer and seller agree to in a particular transaction that occurs in an open and competitive market.
Market Value	Pursuant to K.S.A. 79-503a, “... <i>The amount in terms of money that a well informed buyer is justified in paying and a well informed seller is justified in accepting for property in an open and competitive market, assuming that the parties are acting without undue compulsion...</i> ”
Maximum Ratio	Largest sales ratio in the sample.
Mean Ratio	Result of adding all the ratios and dividing by the number of ratios. For example, the arithmetic mean of 3, 5 and 10 is 18 divided by 3, is 6. (<i>Also called the arithmetic mean.</i>)
Median	The midpoint or middle value when a set of values is ranked in order of magnitude; if the number of values is even, the midpoint or average of the two middle values. It is the second quartile.
Median Absolute Deviation (<i>MAD</i>)	The median of the absolute deviations from the median. In a symmetrical distribution, the measure approximates one-half of the interquartile range.
Median Percent Deviation	A relative measure of uniformity that is found by the median absolute deviation (<i>MAD</i>) by the median ratio.
Median Ratio	Middle ratio in a sorted array of ratios. If the number of ratios is even, it is the average of the middle two ratios.
Minimum Ratio	Lowest sales ratio in the sample.
Mode	A value most often assumed by a variable. By extension for grouped data, the class in which a plurality of the observations falls.
Nonparametric	A statistic whose interpretation or reliability does not depend on the distribution of the underlying data.
Normal Distribution	A theoretical frequency distribution often approximated in real world situations. It is a symmetrical and bell-shaped distribution where 68 percent of the observations occur within one standard deviation of the mean and 96 percent within two standard deviations of the mean.

Normality Test	A test to determine if the data is considered to be normally distributed or conforms to a bell-shaped curve (<i>Gaussian shape</i>). The D'Agostino-Pearson K ² normality test is used in the ratio study.
Null Hypothesis	A hypothesis that one chooses to accept in the absence of sufficient evidence to the contrary. (<i>Also known as the research hypothesis.</i>)
Observation	An observation is one recording or occurrence of the value of a variable. One ratio out of a sample of ratios is an example.
Open Market	A freely competitive market in which any buyer or seller may trade and in which prices are determined by competition.
Outliers	Observations that have unusual values differing markedly from a measure of central tendency. Some outliers occur naturally. Others are due to data errors.
Parameter	Numerical descriptive measures of the population, for example, the arithmetic mean or the standard deviation. Parameters are generally unknown and estimated from statistics calculated from a sample of the population.
Parametric Statistic	A statistic whose interpretation or reliability depends on the distribution of the underlying data.
Percentile	Values that divide a set of data into specified percentages when the data are arrayed in ascending order. The tenth percentile is the value of the observation below which the lowest 10 percent of the values fall, the twentieth percentile is the value below which the lowest 20 percent of the values fall, and so forth.
Population	All the items of interest, for example, all the properties in a subclass, jurisdiction or neighborhood.
Price-Related Differential (PRD)	A simple statistic used to measure appraisal regressivity or progressivity sometimes referred to as vertical inequity. It is calculated by taking the mean ratio and dividing it by the weighted mean ratio.
Quartiles	The values that divide a set of data into four equal parts when the data are arrayed in ascending order.
Random Sample	A sample in which each item of the population has an equal chance of being included and by extension, each possible combination of <i>n</i> items has an equal chance of occurrence.
Range	(1) The maximum value of a sample minus the minimum value. (2) The difference between the maximum and minimum values that a variable may assume.
Ratio Study	A study of the relationship between appraised or assessed values and the market values of property. Indicators of market values may be either sales (<i>sales ratio study</i>) or independent "expert" appraisals (<i>appraisal ratio study</i>). Of common interest in ratio studies is the level and uniformity of the appraisals or assessments.

Representative Sample	A sample of observations from a larger population of observations, such that statistics calculated from the sample can be expected to represent the characteristics of the population being studied.
Sales Price	Price a parcel of real property sold for. In some cases, this value must be adjusted to remove non-real estate components or trended back to January 1 (<i>the appraisal date</i>).
Sales Ratio	A ratio of the county appraiser's estimate of value to the sale price of a property (<i>appraised value ÷ sale price</i>).
Sales Data	Information about the nature of the transaction and the sale price and property characteristics as of the date of sale.
Sample	A set of observations selected from a population. If the sample was randomly selected, basic concepts of probability may be applied. (<i>See random sample and representative sample.</i>)
Skewed	Quality of a frequency distribution that makes it asymmetrical. Distributions with longer tails on the right than on the left are said to be skewed to the right or to be positively skewed. Distributions with longer tails to the left are said to be skewed to the left or to be negatively skewed.
Standard Deviation	The statistic calculated from a set of numbers by subtracting the mean from each value and squaring the remainders, adding together these squares, dividing by the size of the sample less one, and taking the square root of the result. When the data are normally distributed, one can calculate the percentage of observations within any number of standard deviations of the mean from normal probability tables. When the data are not normally distributed, the standard deviation is less meaningful and should be used with caution.
Statistics	<p>(1) Numerical point estimates calculated from a sample (<i>for example, the mean, median or coefficient of dispersion</i>). Statistics are used to estimate corresponding measures, termed parameters for the population.</p> <p>(2) The science of studying numerical data systematically and presenting useful results. Two main branches of statistics exist: <i>descriptive and inferential</i>.</p>
Stratify	To divide, for purposes of analysis, a sample of observations into two or more subsets according to some criterion or set of characteristics.
Stratum, Strata (Pls.)	A class or subset as a result of stratification.
Subclass	<p>A group of properties with related use characteristics. In Kansas, the following subclasses of real property are used in the ratio study:</p> <ol style="list-style-type: none"> (1) residential, including multi-family residential mobile homes and condominiums; (2) land devoted to agricultural use; (3) vacant lots; (4) property owned and operated by not-for-profit organizations; (5) public utility property;

- (6) commercial and industrial property and buildings and other improvements located upon land devoted to agricultural use;
- (7) all other urban and rural real property not otherwise specifically subclassed.

Tolerance Limits	Interval measure that provides a specified degree of confidence that a prescribed proportion of the population values is thought to be contained within.
Trending	Adjustment to the sale price to account for inflation or deflation that has occurred in the local market between January 1 (<i>the appraisal date</i>) and the date of sale.
Weighted Coefficient of Dispersion	The coefficient of dispersion when absolute differences between individual assessment ratios and the measure of central tendency are weighted on the basis of sale price.
Weighted Mean	In ratio studies, the value weighted mean is calculated by weighting the ratios based on their sale prices. A shortcut method is to sum the appraisals (<i>or assessments</i>), sum the sale prices and divide the first result by the second.
Weighted Mean Ratio	Sum of the appraised values divided by the sum of the sales price, which weights each ratio in proportion to its sale price. Also known as the sum of the aggregates.

* * * * *

*References

American Institute of Real Estate Appraisers. 1989. *The dictionary of real estate appraisal*. Illinois: National Assoc. of Realtors.

Hamburg, Morris. 1974. *Basic statistics*. New York: Harcourt Brace Javanovich, Inc.

Hoaglin, David C., Fredrick Mosteller and John W. Tukey. 1983. *Understanding robust and exploratory data analysis*. New York: John Wiley.

Moore, David S. and George P. McCabe. 1989. *Introduction to the practice of statistics*. New York: W.H. Freeman and Company.

Shao, Stephen P. 1972. *Statistics for business and economics*. Ohio: Merrill.

Sincich, Terry. 1986. *Business statistics by example*. California: Dellen.

Zikmund, William G. 1999. *Exploring marketing research*. Fort Worth, TX: The Dryden Press.