



**Division of Property Valuation**

**2019**

**Kansas Real Estate Ratio Study**

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**ABBREVIATIONS**

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



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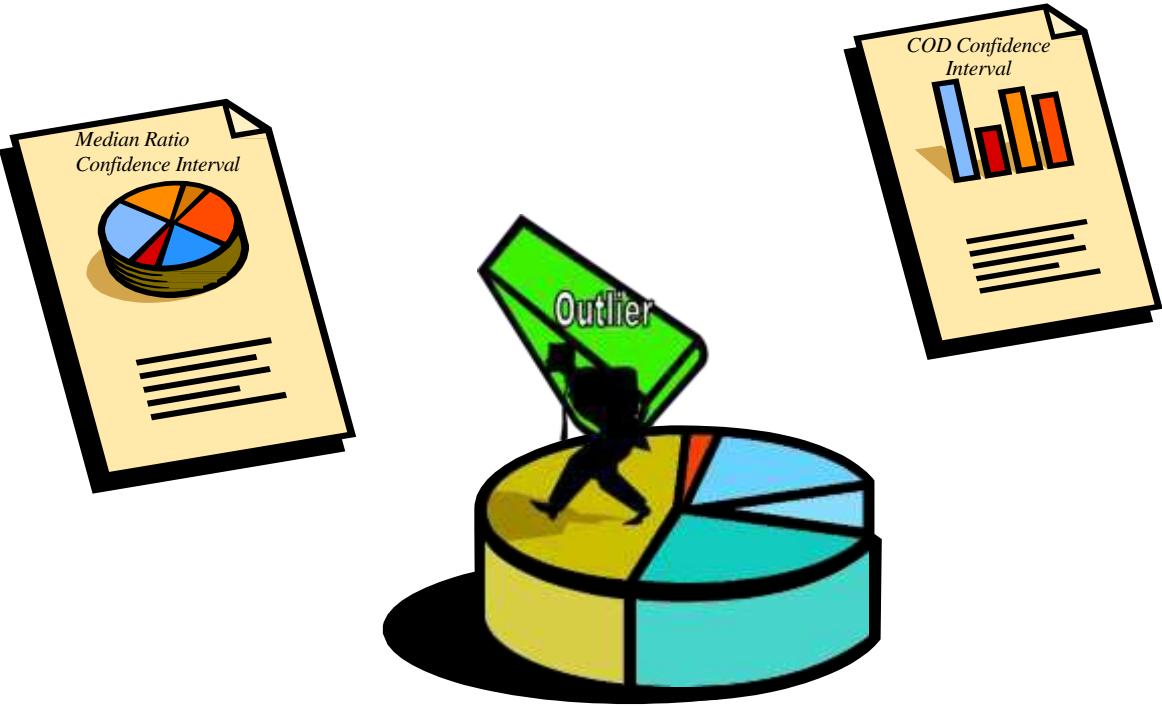
## INTRODUCTION

This publication contains the Official 2019 Kansas Appraisal/Sales Ratio Study that is based upon real estate transfers occurring from January 1, 2019, through December 31, 2019. This study is conducted annually by the Kansas Department of Revenue, Division of Property Valuation for all 105 Kansas Counties.



<https://www.ksrevenue.org/pvdratiostats.htm>

**Section 1**  
**Year 2019**  
**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 2019 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 #14-046 pursuant to the provisions of K.S.A 79-505. A copy of this Directive is located in Section IV of this publication.

The study includes sales that are considered to be *valid* arm's-length transactions. These real property transfers have been qualified independently by PVD research analyst and appraisal staff and can serve as a useful indicator of market value. Supplemental valid sales from the four prior years have been included for the commercial/industrial subclass if less than five valid commercial sales were available in the year 2019. In addition, the sample of 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 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 2019 ratio study has used a representative sampling for those counties meeting the statutory 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, 2019, the date of appraisal, where inflation or deflationary market trends were identifiable and documented by the county appraiser. No counties requested a trend adjustment in 2019.

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 total statistical measures can be misleading because the ratios for agricultural land are included with the ratios of all other real property 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 in this annual task. 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.

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001 : ALLEN COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval				Interval				Interval				
Residential	101.7	98.6	to	107.8	13.3	11.2	to	16.1	1.04	1.02	to	1.06	107	18
Commercial/Ind.	104.7	86.0	to	123.5	26.3	16.1	to	45.1	1.04	0.93	to	1.19	13	1
Vacant Lot	75.3	-	N/A	-	73.9	-	N/A	-	2.63	-	N/A	-	4	0
Farm & Home	12.0	-	N/A	-	236.2	-	N/A	-	1.49	-	N/A	-	3	0
Ag. Land Only	8.2	-	N/A	-	40.5	-	N/A	-	0.90	-	N/A	-	8	0
Ag. (Impr.+ Land)	7.5	-	N/A	-	41.8	-	N/A	-	0.96	-	N/A	-	9	0
Other/Ex/Ut/NP/M	113.2	-	N/A	-	6.6	-	N/A	-	1.03	-	N/A	-	2	0
Total w/Ag.&F&H	100.1	-	N/A	-	17.3	-	N/A	-	1.05	-	N/A	-	138	26
Total Market	102.0	-	N/A	-	15.5	-	N/A	-	1.05	-	N/A	-	126	19

002 : ANDERSON COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval				Interval				Interval				
Residential	93.6	87.7	to	97.6	15.9	12.8	to	19.7	1.02	0.99	to	1.05	79	12
Commercial/Ind.	79.2	21.9	to	133.2	43.1	13.5	to	106.4	1.33	1.00	to	1.51	5	0
Vacant Lot	66.2	-	N/A	-	81.3	-	N/A	-	2.42	-	N/A	-	6	0
Farm & Home	41.9	-	N/A	-	42.3	-	N/A	-	1.15	-	N/A	-	15	0
Ag. Land Only	8.7	-	N/A	-	43.9	-	N/A	-	1.29	-	N/A	-	18	3
Ag. (Impr.+ Land)	8.7	-	N/A	-	44.4	-	N/A	-	1.25	-	N/A	-	20	3
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	85.9	-	N/A	-	40.5	-	N/A	-	1.47	-	N/A	-	125	3
Total Market	93.0	-	N/A	-	19.6	-	N/A	-	1.04	-	N/A	-	90	12

003 : ATCHISON COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval				Interval				Interval				
Residential	92.9	90.0	to	94.9	10.8	9.3	to	12.7	1.02	1.00	to	1.03	150	24
Commercial/Ind. <i>S-7</i>	99.0	86.3	to	122.1	11.9	7.4	to	18.4	1.04	1.00	to	1.10	9	0
Vacant Lot	154.0	-	N/A	-	140.1	-	N/A	-	2.71	-	N/A	-	4	0
Farm & Home	77.7	-	N/A	-	9.6	-	N/A	-	1.02	-	N/A	-	4	0
Ag. Land Only	16.6	-	N/A	-	25.4	-	N/A	-	0.84	-	N/A	-	3	0
Ag. (Impr.+ Land)	4.3	-	N/A	-	111.4	-	N/A	-	0.62	-	N/A	-	6	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	92.4	-	N/A	-	12.1	-	N/A	-	1.03	-	N/A	-	173	28
Total Market	93.6	-	N/A	-	10.9	-	N/A	-	1.02	-	N/A	-	163	27

004 : BARBER COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.9	89.1	to	110.3	18.7	14.8	to	23.9	1.03	0.99	to	1.07	49	4
Commercial/Ind.	96.4	56.9	to	142.5	31.5	15.2	to	66.2	1.06	0.86	to	1.36	6	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	15.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	1.7	-	N/A	-	277.0	-	N/A	-	1.50	-	N/A	-	5	0
Ag. (Impr.+ Land)	1.7	-	N/A	-	277.0	-	N/A	-	1.50	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	92.2	-	N/A	-	24.2	-	N/A	-	1.22	-	N/A	-	61	7
Total Market	99.9	-	N/A	-	19.5	-	N/A	-	1.02	-	N/A	-	55	5

005 : BARTON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	101.3	98.0	to	102.9	16.3	14.8	to	18.0	1.02	1.00	to	1.03	323	28
Commercial/Ind.	90.8	72.4	to	108.3	27.2	22.1	to	40.4	0.96	0.85	to	1.12	29	2
Vacant Lot	89.1	-	N/A	-	39.3	-	N/A	-	1.08	-	N/A	-	7	0
Farm & Home	83.9	-	N/A	-	26.9	-	N/A	-	1.16	-	N/A	-	6	0
Ag. Land Only	12.7	-	N/A	-	71.2	-	N/A	-	0.86	-	N/A	-	13	1
Ag. (Impr.+ Land)	12.6	-	N/A	-	65.9	-	N/A	-	0.83	-	N/A	-	16	1
Other/Ex/Ut/NP/M	132.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	99.0	-	N/A	-	18.3	-	N/A	-	1.01	-	N/A	-	382	39
Total Market	100.4	-	N/A	-	17.1	-	N/A	-	1.02	-	N/A	-	360	31

006 : BOURBON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	91.0	87.1	to	93.0	14.8	13.0	to	17.3	1.03	1.01	to	1.05	160	16
Commercial/Ind.	83.6	75.9	to	102.3	14.7	7.1	to	31.1	0.96	0.93	to	1.04	7	1
Vacant Lot	100.0	-	N/A	-	58.2	-	N/A	-	1.18	-	N/A	-	9	1
Farm & Home	56.3	-	N/A	-	31.8	-	N/A	-	0.95	-	N/A	-	12	0
Ag. Land Only	3.7	-	N/A	-	76.0	-	N/A	-	0.99	-	N/A	-	15	0
Ag. (Impr.+ Land)	4.4	-	N/A	-	63.3	-	N/A	-	0.99	-	N/A	-	22	0
Other/Ex/Ut/NP/M	169.1	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	86.5	-	N/A	-	21.3	-	N/A	-	1.09	-	N/A	-	211	30
Total Market	91.3	-	N/A	-	15.6	-	N/A	-	1.02	-	N/A	-	177	19

007 : BROWN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.5	91.2	to	104.2	22.5	18.3	to	27.8	1.08	1.04	to	1.14	85	7
Commercial/Ind. <i>S-2</i>	74.9	22.0	to	136.7	48.0	15.3	to	103.9	1.58	0.95	to	2.00	5	0
Vacant Lot	32.8	-	N/A	-	356.8	-	N/A	-	25.27	-	N/A	-	4	0
Farm & Home	68.5	-	N/A	-	12.7	-	N/A	-	0.94	-	N/A	-	10	1
Ag. Land Only	17.5	-	N/A	-	33.7	-	N/A	-	0.90	-	N/A	-	12	0
Ag. (Impr.+ Land)	16.2	-	N/A	-	25.2	-	N/A	-	0.94	-	N/A	-	15	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	88.6	-	N/A	-	36.0	-	N/A	-	1.54	-	N/A	-	119	8
Total Market	94.8	-	N/A	-	25.5	-	N/A	-	1.08	-	N/A	-	94	8

008 : BUTLER COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.6	94.8	to	98.5	9.0	7.9	to	10.2	1.01	0.99	to	1.02	237	38
Commercial/Ind.	90.9	80.0	to	118.0	17.0	9.9	to	27.2	0.94	0.86	to	1.04	16	2
Vacant Lot	81.6	-	N/A	-	43.0	-	N/A	-	1.15	-	N/A	-	57	3
Farm & Home	75.4	-	N/A	-	22.8	-	N/A	-	1.07	-	N/A	-	53	2
Ag. Land Only	2.5	-	N/A	-	122.3	-	N/A	-	0.73	-	N/A	-	37	0
Ag. (Impr.+ Land)	1.9	-	N/A	-	149.7	-	N/A	-	0.71	-	N/A	-	41	0
Other/Ex/Ut/NP/M	99.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	91.8	-	N/A	-	16.1	-	N/A	-	1.03	-	N/A	-	405	81
Total Market	95.6	-	N/A	-	11.5	-	N/A	-	0.99	-	N/A	-	311	53

009 : CHASE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	108.1	97.7	to	122.3	18.8	13.6	to	28.8	1.03	0.98	to	1.10	31	6
Commercial/Ind. <i>S-5</i>	95.4	70.8	to	136.4	21.9	13.3	to	36.1	1.10	1.00	to	1.27	8	0
Vacant Lot	10.4	-	N/A	-	39.6	-	N/A	-	1.17	-	N/A	-	2	0
Farm & Home	76.4	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	5.0	-	N/A	-	5.1	-	N/A	-	0.97	-	N/A	-	2	0
Ag. (Impr.+ Land)	5.0	-	N/A	-	5.1	-	N/A	-	0.97	-	N/A	-	2	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	100.1	-	N/A	-	24.0	-	N/A	-	1.00	-	N/A	-	44	8
Total Market	103.6	-	N/A	-	21.9	-	N/A	-	1.01	-	N/A	-	41	7

010 : CHAUTAUQUA COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	119.4	88.3	to	150.8	33.5	23.3	to	47.7	1.12	1.00	to	1.31	26	3
Commercial/Ind. <i>S-5</i>	112.7	63.5	to	128.4	21.2	7.3	to	46.3	1.14	0.98	to	1.37	6	0
Vacant Lot	62.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	66.5	-	N/A	-	46.7	-	N/A	-	1.15	-	N/A	-	8	1
Ag. Land Only	3.5	-	N/A	-	9.3	-	N/A	-	0.98	-	N/A	-	4	0
Ag. (Impr.+ Land)	3.7	-	N/A	-	14.3	-	N/A	-	0.96	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	93.0	-	N/A	-	53.0	-	N/A	-	1.84	-	N/A	-	46	4
Total Market	118.4	-	N/A	-	32.7	-	N/A	-	1.11	-	N/A	-	33	3

011 : CHEROKEE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	91.6	88.8	to	96.3	18.8	16.4	to	21.7	1.05	1.02	to	1.12	186	20
Commercial/Ind.	97.2	74.7	to	111.6	18.1	11.0	to	34.4	1.01	0.87	to	1.18	10	1
Vacant Lot	110.6	-	N/A	-	38.5	-	N/A	-	1.22	-	N/A	-	22	3
Farm & Home	67.0	-	N/A	-	41.8	-	N/A	-	1.17	-	N/A	-	14	2
Ag. Land Only	4.3	-	N/A	-	66.8	-	N/A	-	0.58	-	N/A	-	7	0
Ag. (Impr.+ Land)	8.4	-	N/A	-	59.0	-	N/A	-	0.82	-	N/A	-	11	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.7	-	N/A	-	21.5	-	N/A	-	1.07	-	N/A	-	243	37
Total Market	93.1	-	N/A	-	21.4	-	N/A	-	1.06	-	N/A	-	218	21

012 : CHEYENNE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.3	90.7	to	100.5	15.7	12.0	to	20.4	1.04	1.01	to	1.08	51	3
Commercial/Ind. <i>S-1</i>	68.2	51.3	to	111.3	29.9	8.2	to	37.6	1.11	0.92	to	1.26	5	0
Vacant Lot	54.0	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	54.6	-	N/A	-	46.9	-	N/A	-	1.32	-	N/A	-	5	0
Ag. Land Only	10.5	-	N/A	-	9.5	-	N/A	-	0.94	-	N/A	-	11	2
Ag. (Impr.+ Land)	10.6	-	N/A	-	13.8	-	N/A	-	0.97	-	N/A	-	15	3
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	89.1	-	N/A	-	38.2	-	N/A	-	1.35	-	N/A	-	77	0
Total Market	95.7	-	N/A	-	18.3	-	N/A	-	1.06	-	N/A	-	57	2

013 : CLARK COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.5	77.1	to	117.2	21.9	16.1	to	34.0	1.09	1.03	to	1.18	18	1
Commercial/Ind. <i>S-4</i>	44.2	16.7	to	115.4	74.6	17.7	to	111.8	0.91	0.67	to	1.14	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	56.2	-	N/A	-	12.4	-	N/A	-	0.96	-	N/A	-	2	0
Ag. Land Only	7.2	-	N/A	-	27.4	-	N/A	-	0.91	-	N/A	-	5	0
Ag. (Impr.+ Land)	7.2	-	N/A	-	27.4	-	N/A	-	0.91	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	74.8	-	N/A	-	48.2	-	N/A	-	1.17	-	N/A	-	30	1
Total Market	94.8	-	N/A	-	27.3	-	N/A	-	1.04	-	N/A	-	23	1

014 : CLAY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.8	91.9	to	100.0	12.4	10.3	to	14.9	1.03	1.02	to	1.05	102	11
Commercial/Ind.	114.3	99.7	to	274.5	53.8	33.8	to	97.3	1.48	1.12	to	1.99	7	0
Vacant Lot	59.2	-	N/A	-	83.0	-	N/A	-	1.58	-	N/A	-	4	0
Farm & Home	62.4	-	N/A	-	23.6	-	N/A	-	0.98	-	N/A	-	6	0
Ag. Land Only	15.4	-	N/A	-	35.3	-	N/A	-	1.02	-	N/A	-	11	1
Ag. (Impr.+ Land)	16.0	-	N/A	-	32.8	-	N/A	-	1.06	-	N/A	-	12	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	94.3	-	N/A	-	16.5	-	N/A	-	1.03	-	N/A	-	131	21
Total Market	98.0	-	N/A	-	13.7	-	N/A	-	1.02	-	N/A	-	113	13

015 : CLOUD COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	93.3	88.6	to	95.9	12.9	10.8	to	15.7	1.01	0.98	to	1.04	90	8
Commercial/Ind.	101.5	65.4	to	138.0	21.4	12.2	to	35.0	0.92	0.85	to	1.01	9	1
Vacant Lot	42.2	-	N/A	-	57.7	-	N/A	-	1.53	-	N/A	-	4	0
Farm & Home	77.7	-	N/A	-	13.0	-	N/A	-	0.97	-	N/A	-	3	0
Ag. Land Only	12.1	-	N/A	-	77.0	-	N/A	-	1.66	-	N/A	-	7	0
Ag. (Impr.+ Land)	11.8	-	N/A	-	64.0	-	N/A	-	1.58	-	N/A	-	9	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	89.6	-	N/A	-	15.9	-	N/A	-	1.00	-	N/A	-	115	16
Total Market	92.8	-	N/A	-	15.0	-	N/A	-	1.00	-	N/A	-	103	9



016 : COFFEY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.1	93.5	to	100.0	12.6	10.5	to	15.2	1.02	1.00	to	1.06	96	8
Commercial/Ind. <i>S-6</i>	107.8	52.5	to	248.0	79.3	41.5	to	167.0	1.34	1.05	to	1.80	10	0
Vacant Lot	98.5	-	N/A	-	55.3	-	N/A	-	2.22	-	N/A	-	12	1
Farm & Home	52.6	-	N/A	-	38.0	-	N/A	-	1.01	-	N/A	-	4	0
Ag. Land Only	10.0	-	N/A	-	43.6	-	N/A	-	0.99	-	N/A	-	27	0
Ag. (Impr.+ Land)	9.8	-	N/A	-	48.6	-	N/A	-	0.92	-	N/A	-	30	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.2	-	N/A	-	36.1	-	N/A	-	1.22	-	N/A	-	152	11
Total Market	96.1	-	N/A	-	14.3	-	N/A	-	1.02	-	N/A	-	118	19

017 : COMANCHE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	90.8	47.5	to	125.1	29.3	17.2	to	62.0	1.06	0.95	to	1.19	9	0
Commercial/Ind. <i>S-4</i>	69.5	27.6	to	84.0	23.6	6.0	to	51.0	1.31	0.97	to	1.61	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	48.1	-	N/A	-	27.4	-	N/A	-	1.07	-	N/A	-	2	0
Ag. Land Only	3.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. (Impr.+ Land)	3.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	69.5	-	N/A	-	39.6	-	N/A	-	1.26	-	N/A	-	17	0
Total Market	76.2	-	N/A	-	32.7	-	N/A	-	1.08	-	N/A	-	14	0

018 : COWLEY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.9	98.2	to	102.6	15.9	14.3	to	17.6	1.02	1.01	to	1.04	317	35
Commercial/Ind.	94.0	74.2	to	117.8	13.8	5.3	to	31.2	0.96	0.86	to	1.06	8	1
Vacant Lot	120.3	-	N/A	-	40.1	-	N/A	-	1.18	-	N/A	-	17	3
Farm & Home	58.2	-	N/A	-	14.3	-	N/A	-	1.04	-	N/A	-	10	0
Ag. Land Only	4.7	-	N/A	-	58.5	-	N/A	-	0.88	-	N/A	-	13	0
Ag. (Impr.+ Land)	4.7	-	N/A	-	51.5	-	N/A	-	0.90	-	N/A	-	15	0
Other/Ex/Ut/NP/M	155.9	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	98.6	-	N/A	-	18.0	-	N/A	-	1.04	-	N/A	-	368	54
Total Market	99.9	-	N/A	-	17.2	-	N/A	-	1.02	-	N/A	-	343	38

019 : CRAWFORD COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	90.1	87.8	to	93.4	17.9	15.7	to	20.4	1.03	1.01	to	1.06	201	18
Commercial/Ind.	97.3	65.0	to	110.7	37.0	25.8	to	58.8	1.23	1.01	to	1.71	28	1
Vacant Lot	66.9	-	N/A	-	46.3	-	N/A	-	2.33	-	N/A	-	20	1
Farm & Home	45.2	-	N/A	-	49.5	-	N/A	-	1.04	-	N/A	-	11	0
Ag. Land Only	5.1	-	N/A	-	67.9	-	N/A	-	0.94	-	N/A	-	16	0
Ag. (Impr.+ Land)	5.2	-	N/A	-	52.0	-	N/A	-	0.95	-	N/A	-	22	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	86.3	-	N/A	-	23.1	-	N/A	-	1.07	-	N/A	-	282	44
Total Market	89.4	-	N/A	-	20.2	-	N/A	-	1.02	-	N/A	-	249	28

020 : DECATUR COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.1	83.5	to	105.8	19.6	14.6	to	27.5	1.07	1.03	to	1.15	33	3
Commercial/Ind.	83.7	73.9	to	161.0	28.7	4.5	to	45.5	1.11	1.00	to	1.16	5	0
Vacant Lot	102.0	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	311.2	-	N/A	-	74.2	-	N/A	-	2.69	-	N/A	-	2	0
Ag. Land Only	15.8	-	N/A	-	20.9	-	N/A	-	1.01	-	N/A	-	6	0
Ag. (Impr.+ Land)	14.8	-	N/A	-	23.9	-	N/A	-	1.02	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	87.4	-	N/A	-	25.9	-	N/A	-	1.21	-	N/A	-	48	8
Total Market	99.1	-	N/A	-	19.0	-	N/A	-	1.07	-	N/A	-	39	4

021 : DICKINSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.1	92.1	to	98.3	14.9	13.1	to	17.3	1.03	1.01	to	1.05	202	30
Commercial/Ind.	106.7	66.7	to	126.7	21.4	10.0	to	44.8	0.95	0.88	to	1.01	9	0
Vacant Lot	200.0	-	N/A	-	82.1	-	N/A	-	1.37	-	N/A	-	7	1
Farm & Home	76.1	-	N/A	-	24.4	-	N/A	-	1.04	-	N/A	-	26	1
Ag. Land Only	13.0	-	N/A	-	39.7	-	N/A	-	0.92	-	N/A	-	13	0
Ag. (Impr.+ Land)	11.9	-	N/A	-	45.8	-	N/A	-	0.88	-	N/A	-	14	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	93.0	-	N/A	-	17.1	-	N/A	-	1.04	-	N/A	-	258	49
Total Market	96.0	-	N/A	-	17.0	-	N/A	-	1.04	-	N/A	-	218	30

022 : DONIPHAN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	86.7	72.4	to	95.3	21.2	16.6	to	27.9	1.03	0.99	to	1.08	47	4
Commercial/Ind. <i>S-7</i>	87.1	44.6	to	94.9	20.5	8.5	to	42.7	1.41	1.02	to	1.67	8	0
Vacant Lot	9.3	-	N/A	-	112.4	-	N/A	-	1.47	-	N/A	-	3	0
Farm & Home	70.1	-	N/A	-	28.9	-	N/A	-	1.25	-	N/A	-	3	0
Ag. Land Only	263.5	-	N/A	-	92.7	-	N/A	-	5.41	-	N/A	-	2	0
Ag. (Impr.+ Land)	27.8	-	N/A	-	456.0	-	N/A	-	4.58	-	N/A	-	4	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	83.9	-	N/A	-	28.3	-	N/A	-	1.28	-	N/A	-	65	5
Total Market	85.1	-	N/A	-	20.9	-	N/A	-	1.08	-	N/A	-	58	7

023 : DOUGLAS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	94.2	92.7	to	95.7	7.3	6.6	to	8.1	1.06	1.00	to	1.11	286	25
Commercial/Ind.	85.8	76.7	to	95.6	19.1	14.2	to	26.4	1.03	0.95	to	1.15	32	2
Vacant Lot	94.3	-	N/A	-	21.2	-	N/A	-	1.12	-	N/A	-	84	2
Farm & Home	62.2	-	N/A	-	29.4	-	N/A	-	1.03	-	N/A	-	20	1
Ag. Land Only	3.1	-	N/A	-	83.5	-	N/A	-	0.99	-	N/A	-	25	1
Ag. (Impr.+ Land)	3.1	-	N/A	-	89.9	-	N/A	-	1.06	-	N/A	-	27	1
Other/Ex/Ut/NP/M	141.7	-	N/A	-	22.9	-	N/A	-	1.00	-	N/A	-	4	0
Total w/Ag.&F&H	92.6	-	N/A	-	10.8	-	N/A	-	1.07	-	N/A	-	453	69
Total Market	94.0	-	N/A	-	9.3	-	N/A	-	1.05	-	N/A	-	406	47

024 : EDWARDS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.4	73.2	to	103.8	21.5	13.9	to	33.0	1.08	1.00	to	1.19	25	3
Commercial/Ind. <i>S-4</i>	70.4	36.2	to	115.8	46.3	25.2	to	134.5	1.14	0.93	to	1.60	7	0
Vacant Lot	59.3	-	N/A	-	9.0	-	N/A	-	1.02	-	N/A	-	2	0
Farm & Home	29.8	-	N/A	-	35.2	-	N/A	-	1.13	-	N/A	-	3	0
Ag. Land Only	10.4	-	N/A	-	49.3	-	N/A	-	0.87	-	N/A	-	10	1
Ag. (Impr.+ Land)	10.8	-	N/A	-	49.8	-	N/A	-	0.85	-	N/A	-	13	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	62.2	-	N/A	-	62.2	-	N/A	-	2.30	-	N/A	-	50	1
Total Market	91.8	-	N/A	-	28.8	-	N/A	-	1.05	-	N/A	-	34	2

025 : ELK COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	110.8	95.0	to	137.2	25.6	18.7	to	35.3	1.09	1.01	to	1.19	28	3
Commercial/Ind. <i>S-3</i>	96.6	44.2	to	3082.4	719.8	8.4	to	1428.7	8.88	0.99	to	14.97	5	0
Vacant Lot	129.5	-	N/A	-	62.3	-	N/A	-	1.42	-	N/A	-	3	0
Farm & Home	24.8	-	N/A	-	57.2	-	N/A	-	1.13	-	N/A	-	10	1
Ag. Land Only	3.3	-	N/A	-	14.4	-	N/A	-	0.98	-	N/A	-	3	0
Ag. (Impr.+ Land)	4.4	-	N/A	-	42.7	-	N/A	-	1.07	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	93.3	-	N/A	-	51.7	-	N/A	-	2.57	-	N/A	-	51	4
Total Market	108.8	-	N/A	-	26.7	-	N/A	-	1.09	-	N/A	-	36	5

026 : ELLIS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	100.0	98.1	to	101.6	10.7	9.9	to	11.8	1.02	1.02	to	1.04	358	23
Commercial/Ind.	91.9	68.9	to	127.2	20.6	14.0	to	34.1	1.05	0.97	to	1.13	9	0
Vacant Lot	100.1	-	N/A	-	23.6	-	N/A	-	1.07	-	N/A	-	22	3
Farm & Home	72.9	-	N/A	-	0.8	-	N/A	-	1.00	-	N/A	-	2	0
Ag. Land Only	4.7	-	N/A	-	75.4	-	N/A	-	0.75	-	N/A	-	11	0
Ag. (Impr.+ Land)	6.7	-	N/A	-	61.3	-	N/A	-	0.82	-	N/A	-	16	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	98.9	-	N/A	-	11.4	-	N/A	-	1.03	-	N/A	-	407	43
Total Market	100.0	-	N/A	-	11.1	-	N/A	-	1.02	-	N/A	-	389	29

027 : ELLSWORTH COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	101.3	98.9	to	107.8	13.7	11.3	to	16.8	1.02	0.98	to	1.07	77	8
Commercial/Ind.	94.6	76.8	to	163.1	35.2	23.5	to	42.1	1.15	0.98	to	1.26	6	0
Vacant Lot	103.3	-	N/A	-	38.5	-	N/A	-	1.90	-	N/A	-	3	0
Farm & Home	72.7	-	N/A	-	17.3	-	N/A	-	1.01	-	N/A	-	3	0
Ag. Land Only	12.0	-	N/A	-	25.1	-	N/A	-	1.09	-	N/A	-	8	1
Ag. (Impr.+ Land)	11.6	-	N/A	-	30.3	-	N/A	-	1.08	-	N/A	-	9	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	99.5	-	N/A	-	17.7	-	N/A	-	1.04	-	N/A	-	98	15
Total Market	101.4	-	N/A	-	15.4	-	N/A	-	1.04	-	N/A	-	86	9

028 : FINNEY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	93.9	92.8	to	95.1	9.5	8.7	to	10.4	1.00	0.99	to	1.00	364	28
Commercial/Ind.	97.4	89.9	to	104.3	17.0	10.7	to	29.2	1.12	0.97	to	1.34	20	2
Vacant Lot	99.5	-	N/A	-	23.1	-	N/A	-	1.55	-	N/A	-	43	1
Farm & Home	104.7	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	12.2	-	N/A	-	26.6	-	N/A	-	1.03	-	N/A	-	18	2
Ag. (Impr.+ Land)	12.1	-	N/A	-	30.7	-	N/A	-	1.03	-	N/A	-	21	2
Other/Ex/Ut/NP/M	318.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	93.9	-	N/A	-	10.4	-	N/A	-	1.00	-	N/A	-	450	58
Total Market	94.6	-	N/A	-	9.9	-	N/A	-	1.00	-	N/A	-	428	44

029 : FORD COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	87.8	85.9	to	90.5	13.7	12.5	to	15.1	0.99	0.98	to	1.00	324	24
Commercial/Ind.	71.8	64.4	to	82.0	11.6	6.8	to	20.9	1.05	0.99	to	1.12	15	3
Vacant Lot	85.9	-	N/A	-	46.5	-	N/A	-	2.80	-	N/A	-	15	1
Farm & Home	68.6	-	N/A	-	37.2	-	N/A	-	1.35	-	N/A	-	14	0
Ag. Land Only	10.1	-	N/A	-	46.0	-	N/A	-	0.90	-	N/A	-	18	2
Ag. (Impr.+ Land)	9.6	-	N/A	-	49.3	-	N/A	-	0.88	-	N/A	-	19	2
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	86.0	-	N/A	-	15.1	-	N/A	-	1.01	-	N/A	-	387	48
Total Market	87.3	-	N/A	-	14.3	-	N/A	-	1.01	-	N/A	-	354	30

030 : FRANKLIN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	92.6	90.8	to	94.8	14.0	12.7	to	15.6	1.01	1.00	to	1.02	329	46
Commercial/Ind.	86.5	70.6	to	114.6	30.6	20.4	to	47.4	1.16	1.00	to	1.59	17	0
Vacant Lot	115.1	-	N/A	-	35.3	-	N/A	-	1.23	-	N/A	-	44	4
Farm & Home	64.6	-	N/A	-	21.8	-	N/A	-	1.00	-	N/A	-	27	1
Ag. Land Only	5.0	-	N/A	-	55.1	-	N/A	-	0.86	-	N/A	-	26	0
Ag. (Impr.+ Land)	5.0	-	N/A	-	57.2	-	N/A	-	0.98	-	N/A	-	32	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.0	-	N/A	-	19.9	-	N/A	-	1.06	-	N/A	-	449	73
Total Market	92.9	-	N/A	-	16.2	-	N/A	-	1.03	-	N/A	-	390	56

031 : GEARY COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval		Interval		Interval								
Residential	100.0	98.2	to	101.8	11.2	10.1	to	12.4	1.02	1.01	to	1.03	322	35
Commercial/Ind.	111.6	57.2	to	149.0	32.9	19.4	to	70.2	1.38	1.03	to	1.81	10	0
Vacant Lot	141.7	-	N/A	-	25.6	-	N/A	-	1.22	-	N/A	-	4	0
Farm & Home	97.3	-	N/A	-	32.7	-	N/A	-	1.25	-	N/A	-	4	0
Ag. Land Only	5.5	-	N/A	-	45.8	-	N/A	-	0.87	-	N/A	-	4	0
Ag. (Impr.+ Land)	5.5	-	N/A	-	45.8	-	N/A	-	0.87	-	N/A	-	4	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	100.0	-	N/A	-	12.2	-	N/A	-	1.03	-	N/A	-	344	41
Total Market	100.2	-	N/A	-	12.0	-	N/A	-	1.03	-	N/A	-	336	37

032 : GOVE COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval		Interval		Interval								
Residential	88.4	75.1	to	101.3	22.9	17.0	to	33.3	1.04	0.99	to	1.11	25	1
Commercial/Ind.	94.3	68.2	to	141.7	29.1	18.0	to	48.9	1.26	1.07	to	1.56	6	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	31.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	13.4	-	N/A	-	27.7	-	N/A	-	0.89	-	N/A	-	7	0
Ag. (Impr.+ Land)	13.4	-	N/A	-	27.8	-	N/A	-	0.91	-	N/A	-	11	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	75.1	-	N/A	-	47.8	-	N/A	-	1.44	-	N/A	-	43	0
Total Market	88.4	-	N/A	-	24.6	-	N/A	-	1.07	-	N/A	-	31	1

033 : GRAHAM COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval		Interval		Interval								
Residential	102.3	93.8	to	105.7	7.7	5.1	to	12.5	1.01	0.98	to	1.04	19	3
Commercial/Ind.	110.4	82.9	to	466.9	82.3	5.6	to	153.4	1.60	0.95	to	2.15	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	45.6	-	N/A	-	42.2	-	N/A	-	1.12	-	N/A	-	2	0
Ag. Land Only	17.1	-	N/A	-	15.2	-	N/A	-	0.94	-	N/A	-	7	1
Ag. (Impr.+ Land)	17.8	-	N/A	-	16.3	-	N/A	-	1.07	-	N/A	-	8	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	96.5	-	N/A	-	37.0	-	N/A	-	1.64	-	N/A	-	34	2
Total Market	103.5	-	N/A	-	8.7	-	N/A	-	1.00	-	N/A	-	24	4

034 : GRANT COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.2	95.3	to	102.8	8.2	6.7	to	10.3	1.00	0.99	to	1.01	59	7
Commercial/Ind. <i>S-4</i>	83.5	52.4	to	111.2	25.3	15.4	to	46.8	1.41	1.08	to	1.80	8	0
Vacant Lot	105.6	-	N/A	-	18.9	-	N/A	-	0.98	-	N/A	-	5	0
Farm & Home	57.5	-	N/A	-	83.7	-	N/A	-	0.88	-	N/A	-	2	0
Ag. Land Only	5.0	-	N/A	-	100.1	-	N/A	-	0.82	-	N/A	-	10	1
Ag. (Impr.+ Land)	5.0	-	N/A	-	100.1	-	N/A	-	0.82	-	N/A	-	10	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	96.2	-	N/A	-	12.7	-	N/A	-	1.08	-	N/A	-	84	15
Total Market	98.7	-	N/A	-	10.1	-	N/A	-	1.00	-	N/A	-	72	9

035 : GRAY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	87.0	80.6	to	91.4	13.0	10.5	to	16.1	1.00	0.98	to	1.03	66	6
Commercial/Ind.	63.7	43.9	to	78.8	16.5	5.3	to	23.6	1.03	0.97	to	1.08	5	0
Vacant Lot	95.9	-	N/A	-	3.8	-	N/A	-	1.00	-	N/A	-	3	0
Farm & Home	65.7	-	N/A	-	14.5	-	N/A	-	1.03	-	N/A	-	7	1
Ag. Land Only	13.8	-	N/A	-	35.3	-	N/A	-	1.04	-	N/A	-	12	1
Ag. (Impr.+ Land)	13.8	-	N/A	-	35.3	-	N/A	-	1.04	-	N/A	-	12	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	82.1	-	N/A	-	16.6	-	N/A	-	1.03	-	N/A	-	93	15
Total Market	86.6	-	N/A	-	14.0	-	N/A	-	1.01	-	N/A	-	74	6

036 : GREELEY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	102.8	82.0	to	111.6	18.6	9.8	to	35.9	1.05	1.00	to	1.17	12	0
Commercial/Ind. <i>S-5</i>	89.5	40.2	to	139.4	38.5	18.1	to	98.9	0.77	0.61	to	1.84	6	0
Vacant Lot	47.9	-	N/A	-	41.5	-	N/A	-	0.74	-	N/A	-	2	0
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	8.7	-	N/A	-	8.3	-	N/A	-	0.97	-	N/A	-	9	1
Ag. (Impr.+ Land)	8.7	-	N/A	-	9.2	-	N/A	-	0.97	-	N/A	-	11	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	51.8	-	N/A	-	82.2	-	N/A	-	0.94	-	N/A	-	31	0
Total Market	92.5	-	N/A	-	29.4	-	N/A	-	0.84	-	N/A	-	20	0

037 : GREENWOOD COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.3	89.7	to	101.6	15.3	11.9	to	20.4	1.01	0.97	to	1.04	52	8
Commercial/Ind. <i>S-2</i>	91.0	70.6	to	245.3	70.7	43.0	to	123.4	1.43	0.86	to	2.58	6	0
Vacant Lot	186.2	-	N/A	-	75.4	-	N/A	-	1.21	-	N/A	-	8	1
Farm & Home	34.7	-	N/A	-	58.8	-	N/A	-	1.21	-	N/A	-	11	0
Ag. Land Only	4.5	-	N/A	-	10.6	-	N/A	-	0.97	-	N/A	-	10	2
Ag. (Impr.+ Land)	4.5	-	N/A	-	17.4	-	N/A	-	1.06	-	N/A	-	14	2
Other/Ex/Ut/NP/M	94.2	-	N/A	-	28.0	-	N/A	-	1.16	-	N/A	-	2	0
Total w/Ag.&F&H	89.1	-	N/A	-	43.8	-	N/A	-	1.91	-	N/A	-	93	6
Total Market	99.7	-	N/A	-	20.8	-	N/A	-	1.07	-	N/A	-	68	9

038 : HAMILTON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	91.0	69.5	to	109.7	37.8	23.9	to	69.3	1.05	0.92	to	1.20	16	1
Commercial/Ind. <i>S-8</i>	96.9	75.9	to	203.0	30.0	11.6	to	67.9	1.07	0.94	to	1.22	8	1
Vacant Lot	39.6	-	N/A	-	2.1	-	N/A	-	1.01	-	N/A	-	2	0
Farm & Home	129.0	-	N/A	-	73.7	-	N/A	-	1.05	-	N/A	-	2	0
Ag. Land Only	7.0	-	N/A	-	54.4	-	N/A	-	0.73	-	N/A	-	7	0
Ag. (Impr.+ Land)	7.9	-	N/A	-	39.9	-	N/A	-	0.76	-	N/A	-	9	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	73.3	-	N/A	-	64.7	-	N/A	-	1.29	-	N/A	-	37	2
Total Market	89.5	-	N/A	-	34.1	-	N/A	-	0.98	-	N/A	-	26	3

039 : HARPER COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.9	93.9	to	102.5	14.3	11.2	to	18.2	1.03	1.00	to	1.07	54	3
Commercial/Ind. <i>S-6</i>	101.9	50.4	to	159.2	32.9	19.1	to	77.0	1.03	0.85	to	1.37	9	1
Vacant Lot	6,300	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	102.9	-	N/A	-	28.5	-	N/A	-	1.82	-	N/A	-	3	0
Ag. Land Only	7.9	-	N/A	-	69.1	-	N/A	-	1.45	-	N/A	-	17	0
Ag. (Impr.+ Land)	8.5	-	N/A	-	61.5	-	N/A	-	1.38	-	N/A	-	20	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	92.5	-	N/A	-	37.2	-	N/A	-	1.29	-	N/A	-	87	4
Total Market	98.2	-	N/A	-	15.1	-	N/A	-	1.02	-	N/A	-	64	7



040 : HARVEY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	94.9	93.0	to	97.1	13.4	11.9	to	15.2	1.02	1.01	to	1.04	189	16
Commercial/Ind.	110.5	59.0	to	138.7	31.7	15.7	to	70.4	1.10	1.00	to	1.29	7	0
Vacant Lot	96.1	-	N/A	-	42.9	-	N/A	-	1.56	-	N/A	-	6	0
Farm & Home	66.7	-	N/A	-	27.8	-	N/A	-	0.93	-	N/A	-	9	1
Ag. Land Only	6.0	-	N/A	-	83.5	-	N/A	-	0.85	-	N/A	-	12	0
Ag. (Impr.+ Land)	8.0	-	N/A	-	78.0	-	N/A	-	0.88	-	N/A	-	15	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	93.8	-	N/A	-	14.7	-	N/A	-	1.03	-	N/A	-	226	35
Total Market	94.9	-	N/A	-	14.2	-	N/A	-	1.03	-	N/A	-	202	20

041 : HASKELL COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	76.2	68.7	to	87.0	18.6	14.0	to	26.4	1.00	0.97	to	1.04	29	2
Commercial/Ind. <i>S-5</i>	84.2	55.2	to	145.5	36.7	9.2	to	45.7	1.16	0.99	to	1.29	5	0
Vacant Lot	59.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	87.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	10.1	-	N/A	-	81.7	-	N/A	-	0.89	-	N/A	-	3	0
Ag. (Impr.+ Land)	10.1	-	N/A	-	81.7	-	N/A	-	0.89	-	N/A	-	3	0
Other/Ex/Ut/NP/M	88.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	76.5	-	N/A	-	19.7	-	N/A	-	0.99	-	N/A	-	40	6
Total Market	78.2	-	N/A	-	18.3	-	N/A	-	1.00	-	N/A	-	36	4

042 : HODGEMAN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	91.4	83.3	to	101.6	8.2	6.0	to	13.0	1.01	0.98	to	1.05	8	0
Commercial/Ind. <i>S-6</i>	72.3	52.1	to	83.2	15.5	7.5	to	26.5	1.13	0.99	to	1.20	6	0
Vacant Lot	35.0	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	36.3	-	N/A	-	25.6	-	N/A	-	0.98	-	N/A	-	2	0
Ag. Land Only	17.6	-	N/A	-	15.6	-	N/A	-	1.02	-	N/A	-	8	1
Ag. (Impr.+ Land)	17.6	-	N/A	-	15.6	-	N/A	-	1.02	-	N/A	-	8	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	54.3	-	N/A	-	55.8	-	N/A	-	1.17	-	N/A	-	25	0
Total Market	83.3	-	N/A	-	17.6	-	N/A	-	0.92	-	N/A	-	15	0

043 : JACKSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	92.1	87.6	to	96.3	16.9	14.2	to	20.3	1.03	1.01	to	1.05	117	13
Commercial/Ind.	90.1	68.7	to	113.6	20.8	14.8	to	32.3	1.11	1.05	to	1.26	8	0
Vacant Lot	100.0	-	N/A	-	37.8	-	N/A	-	0.88	-	N/A	-	4	0
Farm & Home	76.0	-	N/A	-	24.6	-	N/A	-	1.08	-	N/A	-	36	1
Ag. Land Only	4.6	-	N/A	-	137.1	-	N/A	-	0.85	-	N/A	-	17	1
Ag. (Impr.+ Land)	4.4	-	N/A	-	139.7	-	N/A	-	0.94	-	N/A	-	21	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	86.6	-	N/A	-	22.7	-	N/A	-	1.11	-	N/A	-	186	26
Total Market	92.1	-	N/A	-	16.9	-	N/A	-	1.03	-	N/A	-	129	14

044 : JEFFERSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	89.6	87.8	to	92.0	11.7	10.2	to	13.5	1.01	1.00	to	1.03	163	21
Commercial/Ind.	108.1	27.9	to	182.2	35.7	6.3	to	213.8	2.21	1.01	to	3.23	5	0
Vacant Lot	160.4	-	N/A	-	42.7	-	N/A	-	1.57	-	N/A	-	17	2
Farm & Home	65.8	-	N/A	-	27.1	-	N/A	-	1.07	-	N/A	-	54	1
Ag. Land Only	2.7	-	N/A	-	114.2	-	N/A	-	0.88	-	N/A	-	21	1
Ag. (Impr.+ Land)	3.2	-	N/A	-	88.2	-	N/A	-	0.89	-	N/A	-	29	3
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	85.3	-	N/A	-	20.4	-	N/A	-	1.08	-	N/A	-	268	46
Total Market	91.3	-	N/A	-	13.6	-	N/A	-	1.03	-	N/A	-	185	27

045 : JEWELL COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.0	88.0	to	99.6	13.8	9.7	to	20.7	1.01	0.96	to	1.08	28	3
Commercial/Ind. <i>S-6</i>	107.4	66.1	to	122.1	34.4	15.5	to	74.1	1.04	0.89	to	1.22	7	0
Vacant Lot	243.5	-	N/A	-	25.7	-	N/A	-	1.09	-	N/A	-	2	0
Farm & Home	31.9	-	N/A	-	72.2	-	N/A	-	2.05	-	N/A	-	4	0
Ag. Land Only	16.2	-	N/A	-	18.6	-	N/A	-	1.04	-	N/A	-	4	0
Ag. (Impr.+ Land)	16.2	-	N/A	-	18.6	-	N/A	-	1.04	-	N/A	-	4	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.7	-	N/A	-	32.2	-	N/A	-	1.73	-	N/A	-	45	3
Total Market	96.3	-	N/A	-	20.4	-	N/A	-	1.05	-	N/A	-	37	3

046 : JOHNSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.3	94.2	to	96.9	7.9	7.2	to	8.6	1.00	0.99	to	1.00	352	31
Commercial/Ind.	76.1	72.2	to	78.8	17.6	15.1	to	20.2	1.05	0.98	to	1.19	130	8
Vacant Lot	64.7	-	N/A	-	24.5	-	N/A	-	1.08	-	N/A	-	478	19
Farm & Home	71.1	-	N/A	-	22.9	-	N/A	-	1.01	-	N/A	-	17	0
Ag. Land Only	0.6	-	N/A	-	75.5	-	N/A	-	0.96	-	N/A	-	26	5
Ag. (Impr.+ Land)	0.9	-	N/A	-	109.6	-	N/A	-	1.37	-	N/A	-	31	3
Other/Ex/Ut/NP/M	86.3	-	N/A	-	30.5	-	N/A	-	1.38	-	N/A	-	4	0
Total w/Ag.&F&H	77.3	-	N/A	-	24.9	-	N/A	-	1.03	-	N/A	-	1012	51
Total Market	78.5	-	N/A	-	24.6	-	N/A	-	1.02	-	N/A	-	964	24

047 : KEARNY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	86.3	79.0	to	95.2	16.4	12.9	to	22.0	1.05	1.02	to	1.09	39	2
Commercial/Ind. S-5	78.9	56.4	to	104.6	23.5	13.2	to	37.4	1.04	0.99	to	1.12	6	0
Vacant Lot	89.8	-	N/A	-	26.2	-	N/A	-	0.95	-	N/A	-	2	0
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	13.2	-	N/A	-	30.2	-	N/A	-	1.04	-	N/A	-	9	1
Ag. (Impr.+ Land)	13.1	-	N/A	-	36.6	-	N/A	-	0.96	-	N/A	-	10	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	79.7	-	N/A	-	20.7	-	N/A	-	1.06	-	N/A	-	57	9
Total Market	85.2	-	N/A	-	17.1	-	N/A	-	1.05	-	N/A	-	47	2

048 : KINGMAN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.6	93.1	to	110.7	24.1	19.0	to	30.1	1.10	1.06	to	1.17	57	3
Commercial/Ind. S-2	101.4	73.0	to	117.2	11.1	2.2	to	19.5	1.02	0.99	to	1.06	5	0
Vacant Lot	201.9	-	N/A	-	91.2	-	N/A	-	7.23	-	N/A	-	2	0
Farm & Home	24.9	-	N/A	-	26.8	-	N/A	-	0.90	-	N/A	-	3	0
Ag. Land Only	7.2	-	N/A	-	21.7	-	N/A	-	0.85	-	N/A	-	4	0
Ag. (Impr.+ Land)	7.6	-	N/A	-	16.5	-	N/A	-	0.88	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	97.8	-	N/A	-	25.7	-	N/A	-	1.10	-	N/A	-	72	10
Total Market	99.9	-	N/A	-	22.8	-	N/A	-	1.09	-	N/A	-	64	5

049 : KIOWA COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.7	82.3	to	103.6	16.6	9.8	to	26.4	0.99	0.96	to	1.02	14	0
Commercial/Ind. <i>S-3</i>	78.5	43.9	to	90.7	21.9	5.7	to	35.1	1.07	0.94	to	1.20	4	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	946.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	11.7	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. (Impr.+ Land)	11.7	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.0	-	N/A	-	22.8	-	N/A	-	1.24	-	N/A	-	20	1
Total Market	90.0	-	N/A	-	19.1	-	N/A	-	1.14	-	N/A	-	18	0

050 : LABETTE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	102.6	99.4	to	107.3	21.7	18.9	to	25.1	1.09	1.05	to	1.13	165	20
Commercial/Ind.	87.3	34.4	to	118.3	33.0	15.9	to	98.3	1.40	1.05	to	2.92	9	0
Vacant Lot	46.1	-	N/A	-	70.5	-	N/A	-	1.41	-	N/A	-	4	0
Farm & Home	40.1	-	N/A	-	46.2	-	N/A	-	1.06	-	N/A	-	7	0
Ag. Land Only	10.3	-	N/A	-	36.9	-	N/A	-	1.19	-	N/A	-	9	0
Ag. (Impr.+ Land)	5.8	-	N/A	-	65.9	-	N/A	-	1.20	-	N/A	-	15	0
Other/Ex/Ut/NP/M	78.6	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	97.0	-	N/A	-	32.2	-	N/A	-	1.32	-	N/A	-	201	17
Total Market	100.7	-	N/A	-	23.3	-	N/A	-	1.09	-	N/A	-	179	20

051 : LANE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.5	91.3	to	122.8	21.0	16.0	to	29.5	1.06	1.01	to	1.13	26	2
Commercial/Ind.	88.8	79.3	to	109.4	13.7	2.8	to	15.9	1.08	1.00	to	1.15	4	0
Vacant Lot	103.5	-	N/A	-	1.4	-	N/A	-	1.00	-	N/A	-	2	0
Farm & Home	53.3	-	N/A	-	4.5	-	N/A	-	0.99	-	N/A	-	2	0
Ag. Land Only	10.7	-	N/A	-	22.0	-	N/A	-	0.95	-	N/A	-	4	0
Ag. (Impr.+ Land)	10.8	-	N/A	-	88.1	-	N/A	-	1.61	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	92.3	-	N/A	-	23.5	-	N/A	-	1.17	-	N/A	-	40	6
Total Market	97.0	-	N/A	-	18.9	-	N/A	-	1.05	-	N/A	-	33	3

052 : LEAVENWORTH COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.8	94.1	to	97.5	8.7	7.8	to	9.8	1.00	0.99	to	1.00	245	27
Commercial/Ind.	100.9	87.2	to	113.1	19.9	12.9	to	33.1	0.98	0.88	to	1.20	16	0
Vacant Lot	92.7	-	N/A	-	18.1	-	N/A	-	1.04	-	N/A	-	66	13
Farm & Home	69.2	-	N/A	-	25.0	-	N/A	-	1.04	-	N/A	-	56	0
Ag. Land Only	3.3	-	N/A	-	105.5	-	N/A	-	0.93	-	N/A	-	24	1
Ag. (Impr.+ Land)	3.7	-	N/A	-	95.9	-	N/A	-	0.92	-	N/A	-	27	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	92.3	-	N/A	-	13.5	-	N/A	-	1.01	-	N/A	-	410	66
Total Market	95.7	-	N/A	-	9.7	-	N/A	-	0.98	-	N/A	-	327	49

053 : LINCOLN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.7	86.2	to	105.5	14.9	10.9	to	21.1	1.04	0.98	to	1.13	34	0
Commercial/Ind. S-2	74.5	51.1	to	98.3	30.8	0.6	to	31.1	1.05	0.98	to	1.16	4	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	19.1	-	N/A	-	30.9	-	N/A	-	0.98	-	N/A	-	2	0
Ag. Land Only	9.1	-	N/A	-	41.8	-	N/A	-	1.06	-	N/A	-	7	0
Ag. (Impr.+ Land)	9.1	-	N/A	-	41.8	-	N/A	-	1.06	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	87.6	-	N/A	-	32.9	-	N/A	-	1.38	-	N/A	-	47	0
Total Market	98.8	-	N/A	-	16.1	-	N/A	-	1.04	-	N/A	-	38	0

054 : LINN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	86.3	82.1	to	93.2	21.2	17.9	to	25.0	1.09	1.05	to	1.13	100	9
Commercial/Ind.	83.0	61.3	to	203.5	40.4	2.8	to	72.0	1.09	0.77	to	1.26	5	0
Vacant Lot	67.0	-	N/A	-	59.2	-	N/A	-	2.12	-	N/A	-	164	13
Farm & Home	38.8	-	N/A	-	45.5	-	N/A	-	1.02	-	N/A	-	22	1
Ag. Land Only	4.1	-	N/A	-	53.0	-	N/A	-	1.08	-	N/A	-	25	1
Ag. (Impr.+ Land)	4.1	-	N/A	-	65.2	-	N/A	-	1.01	-	N/A	-	35	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	71.2	-	N/A	-	53.4	-	N/A	-	1.29	-	N/A	-	326	22
Total Market	81.3	-	N/A	-	39.3	-	N/A	-	1.02	-	N/A	-	269	22

055 : LOGAN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	101.9	93.9	to	107.4	12.9	9.2	to	19.7	0.99	0.96	to	1.03	26	3
Commercial/Ind.	88.1	57.6	to	115.8	25.9	13.6	to	63.3	1.03	0.95	to	1.25	6	0
Vacant Lot	159.1	-	N/A	-	18.6	-	N/A	-	1.13	-	N/A	-	2	0
Farm & Home	46.0	-	N/A	-	38.2	-	N/A	-	1.85	-	N/A	-	3	0
Ag. Land Only	19.3	-	N/A	-	49.2	-	N/A	-	1.22	-	N/A	-	7	1
Ag. (Impr.+ Land)	16.2	-	N/A	-	52.5	-	N/A	-	1.22	-	N/A	-	8	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	96.3	-	N/A	-	31.2	-	N/A	-	1.32	-	N/A	-	45	4
Total Market	101.0	-	N/A	-	14.1	-	N/A	-	1.01	-	N/A	-	34	5

056 : LYON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.3	93.3	to	99.5	14.8	13.1	to	16.6	1.02	1.00	to	1.04	191	11
Commercial/Ind.	88.0	62.4	to	103.8	29.2	19.2	to	47.5	1.09	0.96	to	1.32	17	0
Vacant Lot	119.4	-	N/A	-	21.6	-	N/A	-	1.14	-	N/A	-	19	3
Farm & Home	77.9	-	N/A	-	21.0	-	N/A	-	1.09	-	N/A	-	19	1
Ag. Land Only	5.0	-	N/A	-	18.1	-	N/A	-	0.88	-	N/A	-	13	2
Ag. (Impr.+ Land)	5.1	-	N/A	-	48.0	-	N/A	-	0.94	-	N/A	-	16	1
Other/Ex/Ut/NP/M	410.3	-	N/A	-	84.5	-	N/A	-	2.29	-	N/A	-	2	0
Total w/Ag.&F&H	94.2	-	N/A	-	18.0	-	N/A	-	1.06	-	N/A	-	264	29
Total Market	96.3	-	N/A	-	16.5	-	N/A	-	1.04	-	N/A	-	229	16

057 : MARION COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	98.2	94.1	to	100.9	18.7	15.7	to	22.8	1.06	1.03	to	1.10	138	19
Commercial/Ind.	89.6	60.0	to	105.4	15.4	3.3	to	25.8	1.05	0.96	to	1.18	4	0
Vacant Lot	123.9	-	N/A	-	99.4	-	N/A	-	2.20	-	N/A	-	8	1
Farm & Home	48.3	-	N/A	-	41.6	-	N/A	-	1.22	-	N/A	-	16	1
Ag. Land Only	12.7	-	N/A	-	45.5	-	N/A	-	1.10	-	N/A	-	9	1
Ag. (Impr.+ Land)	12.7	-	N/A	-	45.5	-	N/A	-	1.10	-	N/A	-	9	1
Other/Ex/Ut/NP/M	142.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	94.1	-	N/A	-	23.1	-	N/A	-	1.15	-	N/A	-	176	32
Total Market	98.1	-	N/A	-	21.0	-	N/A	-	1.06	-	N/A	-	151	21

058 : MARSHALL COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.8	96.6	to	105.1	15.9	13.2	to	19.3	1.04	1.01	to	1.07	89	8
Commercial/Ind.	88.9	79.1	to	100.4	7.6	2.5	to	10.2	1.02	0.97	to	1.06	5	0
Vacant Lot	107.6	-	N/A	-	95.1	-	N/A	-	2.52	-	N/A	-	4	0
Farm & Home	65.6	-	N/A	-	25.2	-	N/A	-	1.01	-	N/A	-	4	0
Ag. Land Only	11.7	-	N/A	-	17.3	-	N/A	-	1.00	-	N/A	-	15	2
Ag. (Impr.+ Land)	11.4	-	N/A	-	26.9	-	N/A	-	0.90	-	N/A	-	17	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	95.7	-	N/A	-	27.5	-	N/A	-	1.21	-	N/A	-	119	12
Total Market	99.7	-	N/A	-	16.3	-	N/A	-	1.04	-	N/A	-	98	11

059 : MCPHERSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.7	96.7	to	98.9	7.6	6.9	to	8.3	1.01	1.00	to	1.02	332	39
Commercial/Ind.	89.7	74.6	to	107.0	15.5	8.0	to	27.9	1.01	0.96	to	1.08	8	0
Vacant Lot	110.9	-	N/A	-	22.0	-	N/A	-	1.13	-	N/A	-	4	0
Farm & Home	78.9	-	N/A	-	19.1	-	N/A	-	1.03	-	N/A	-	18	0
Ag. Land Only	8.0	-	N/A	-	54.0	-	N/A	-	0.82	-	N/A	-	14	0
Ag. (Impr.+ Land)	8.0	-	N/A	-	60.4	-	N/A	-	0.80	-	N/A	-	16	1
Other/Ex/Ut/NP/M	100.1	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	97.0	-	N/A	-	8.6	-	N/A	-	1.01	-	N/A	-	379	55
Total Market	97.6	-	N/A	-	7.7	-	N/A	-	1.01	-	N/A	-	345	42

060 : MEADE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	101.0	92.7	to	109.7	24.0	17.9	to	33.7	1.09	1.03	to	1.17	44	4
Commercial/Ind. <i>S-6</i>	72.3	65.2	to	95.3	18.4	9.5	to	43.7	0.81	0.77	to	1.22	7	1
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	69.9	-	N/A	-	9.5	-	N/A	-	1.04	-	N/A	-	4	0
Ag. Land Only	14.3	-	N/A	-	34.4	-	N/A	-	0.77	-	N/A	-	7	0
Ag. (Impr.+ Land)	14.3	-	N/A	-	34.4	-	N/A	-	0.77	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	92.6	-	N/A	-	33.7	-	N/A	-	1.39	-	N/A	-	62	5
Total Market	96.8	-	N/A	-	25.8	-	N/A	-	1.08	-	N/A	-	51	4

061 : MIAMI COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	94.8	92.4	to	97.1	9.6	8.5	to	11.0	1.01	1.00	to	1.02	191	23
Commercial/Ind.	97.5	74.2	to	110.0	21.3	12.7	to	36.4	1.14	1.06	to	1.28	13	0
Vacant Lot	83.5	-	N/A	-	39.8	-	N/A	-	1.15	-	N/A	-	42	6
Farm & Home	64.9	-	N/A	-	26.2	-	N/A	-	1.08	-	N/A	-	41	3
Ag. Land Only	1.8	-	N/A	-	51.1	-	N/A	-	0.70	-	N/A	-	18	2
Ag. (Impr.+ Land)	2.1	-	N/A	-	101.7	-	N/A	-	0.74	-	N/A	-	23	1
Other/Ex/Ut/NP/M	141.0	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	90.3	-	N/A	-	17.6	-	N/A	-	1.06	-	N/A	-	311	49
Total Market	94.8	-	N/A	-	12.6	-	N/A	-	1.02	-	N/A	-	247	35

062 : MITCHELL COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	107.3	101.8	to	123.8	19.4	15.8	to	24.2	1.06	1.02	to	1.11	63	6
Commercial/Ind.	42.1	34.5	to	226.9	128.2	7.2	to	199.9	1.44	0.92	to	1.94	5	0
Vacant Lot	75.6	-	N/A	-	-	-	N/A	-	-	-	N/A	-	2	0
Farm & Home	89.9	-	N/A	-	16.1	-	N/A	-	1.05	-	N/A	-	4	0
Ag. Land Only	14.8	-	N/A	-	48.7	-	N/A	-	1.04	-	N/A	-	8	0
Ag. (Impr.+ Land)	14.8	-	N/A	-	73.9	-	N/A	-	1.29	-	N/A	-	9	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	101.8	-	N/A	-	26.8	-	N/A	-	1.10	-	N/A	-	83	11
Total Market	105.2	-	N/A	-	23.1	-	N/A	-	1.06	-	N/A	-	70	7

063 : MONTGOMERY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	100.1	97.8	to	103.5	18.6	16.8	to	20.6	1.05	1.04	to	1.07	386	50
Commercial/Ind.	124.6	88.0	to	166.7	28.1	16.3	to	75.8	1.18	1.01	to	1.46	10	1
Vacant Lot	780.0	-	N/A	-	110.9	-	N/A	-	52.69	-	N/A	-	10	0
Farm & Home	60.8	-	N/A	-	53.3	-	N/A	-	1.09	-	N/A	-	18	0
Ag. Land Only	5.1	-	N/A	-	19.0	-	N/A	-	0.92	-	N/A	-	17	3
Ag. (Impr.+ Land)	5.4	-	N/A	-	52.3	-	N/A	-	0.96	-	N/A	-	23	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	98.8	-	N/A	-	20.8	-	N/A	-	1.08	-	N/A	-	447	78
Total Market	101.0	-	N/A	-	19.6	-	N/A	-	1.06	-	N/A	-	406	56



064 : MORRIS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.3	92.2	to	102.1	18.1	14.4	to	23.5	1.09	1.04	to	1.16	64	6
Commercial/Ind. <i>S-4</i>	100.0	95.5	to	161.6	22.1	9.7	to	27.6	1.13	0.98	to	1.37	6	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	51.6	-	N/A	-	33.1	-	N/A	-	1.02	-	N/A	-	7	0
Ag. Land Only	7.2	-	N/A	-	38.0	-	N/A	-	1.14	-	N/A	-	6	0
Ag. (Impr.+ Land)	7.7	-	N/A	-	30.3	-	N/A	-	1.13	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	94.8	-	N/A	-	20.6	-	N/A	-	1.11	-	N/A	-	84	14
Total Market	98.2	-	N/A	-	17.6	-	N/A	-	1.09	-	N/A	-	70	7

065 : MORTON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	102.2	96.2	to	109.6	8.6	6.3	to	12.8	0.98	0.97	to	1.00	25	4
Commercial/Ind. <i>S-4</i>	83.9	67.2	to	126.7	20.4	6.2	to	28.0	1.22	0.99	to	1.35	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	45.8	-	N/A	-	66.6	-	N/A	-	1.33	-	N/A	-	3	0
Ag. Land Only	5.6	-	N/A	-	45.2	-	N/A	-	0.92	-	N/A	-	7	0
Ag. (Impr.+ Land)	4.8	-	N/A	-	48.5	-	N/A	-	0.92	-	N/A	-	9	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	95.1	-	N/A	-	37.7	-	N/A	-	0.92	-	N/A	-	42	0
Total Market	101.5	-	N/A	-	11.1	-	N/A	-	1.02	-	N/A	-	30	4

066 : NEMAHA COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.5	92.8	to	98.4	11.8	10.0	to	14.2	1.00	0.98	to	1.02	99	9
Commercial/Ind.	87.9	71.5	to	97.6	10.9	6.3	to	18.1	1.00	0.98	to	1.04	6	0
Vacant Lot	75.1	-	N/A	-	145.0	-	N/A	-	1.93	-	N/A	-	7	0
Farm & Home	69.2	-	N/A	-	90.0	-	N/A	-	2.02	-	N/A	-	9	1
Ag. Land Only	5.4	-	N/A	-	101.8	-	N/A	-	0.67	-	N/A	-	12	0
Ag. (Impr.+ Land)	10.1	-	N/A	-	51.1	-	N/A	-	0.73	-	N/A	-	15	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	91.8	-	N/A	-	18.0	-	N/A	-	1.11	-	N/A	-	136	24
Total Market	95.2	-	N/A	-	12.4	-	N/A	-	0.99	-	N/A	-	112	14

067 : NEOSHO COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.2	91.6	to	101.6	19.3	16.7	to	22.5	1.05	1.03	to	1.08	132	11
Commercial/Ind.	117.5	71.7	to	144.5	31.5	15.6	to	102.7	1.08	0.97	to	1.47	10	1
Vacant Lot	20.1	-	N/A	-	32.4	-	N/A	-	0.90	-	N/A	-	3	1
Farm & Home	55.7	-	N/A	-	46.8	-	N/A	-	1.02	-	N/A	-	5	0
Ag. Land Only	4.5	-	N/A	-	38.8	-	N/A	-	1.07	-	N/A	-	9	0
Ag. (Impr.+ Land)	5.0	-	N/A	-	41.3	-	N/A	-	1.02	-	N/A	-	13	0
Other/Ex/Ut/NP/M	152.1	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	93.8	-	N/A	-	21.9	-	N/A	-	1.06	-	N/A	-	164	28
Total Market	97.8	-	N/A	-	20.7	-	N/A	-	1.04	-	N/A	-	146	15

068 : NESS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.1	84.3	to	111.3	22.9	13.8	to	37.1	1.02	0.97	to	1.08	18	2
Commercial/Ind. <i>S-4</i>	66.5	58.2	to	81.2	16.9	9.7	to	26.4	1.12	0.95	to	1.35	7	1
Vacant Lot	166.8	-	N/A	-	29.6	-	N/A	-	0.86	-	N/A	-	2	0
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	15.5	-	N/A	-	26.0	-	N/A	-	1.00	-	N/A	-	7	0
Ag. (Impr.+ Land)	15.5	-	N/A	-	26.0	-	N/A	-	1.00	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	82.7	-	N/A	-	47.6	-	N/A	-	1.28	-	N/A	-	34	3
Total Market	97.6	-	N/A	-	28.6	-	N/A	-	1.18	-	N/A	-	27	3

069 : NORTON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	89.6	82.5	to	94.3	15.9	12.5	to	20.3	1.01	0.98	to	1.05	66	12
Commercial/Ind. <i>S-2</i>	75.5	52.2	to	138.6	34.5	9.8	to	49.0	1.25	0.95	to	1.55	5	0
Vacant Lot	50.5	-	N/A	-	43.6	-	N/A	-	1.39	-	N/A	-	2	0
Farm & Home	35.4	-	N/A	-	75.4	-	N/A	-	0.65	-	N/A	-	2	0
Ag. Land Only	13.2	-	N/A	-	26.2	-	N/A	-	1.04	-	N/A	-	12	0
Ag. (Impr.+ Land)	13.4	-	N/A	-	23.4	-	N/A	-	1.03	-	N/A	-	15	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	80.6	-	N/A	-	41.5	-	N/A	-	1.26	-	N/A	-	90	3
Total Market	88.8	-	N/A	-	16.7	-	N/A	-	1.01	-	N/A	-	73	14

070 : OSAGE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.1	90.1	to	99.4	24.9	21.7	to	29.1	1.09	1.06	to	1.13	168	14
Commercial/Ind.	88.2	65.9	to	111.5	27.0	16.0	to	47.0	0.97	0.88	to	1.06	8	0
Vacant Lot	125.2	-	N/A	-	58.5	-	N/A	-	1.49	-	N/A	-	14	0
Farm & Home	71.1	-	N/A	-	34.9	-	N/A	-	1.06	-	N/A	-	31	2
Ag. Land Only	7.2	-	N/A	-	48.7	-	N/A	-	1.03	-	N/A	-	25	0
Ag. (Impr.+ Land)	7.2	-	N/A	-	48.5	-	N/A	-	1.02	-	N/A	-	33	1
Other/Ex/Ut/NP/M	874.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	88.0	-	N/A	-	39.1	-	N/A	-	1.22	-	N/A	-	255	21
Total Market	95.8	-	N/A	-	26.7	-	N/A	-	1.09	-	N/A	-	191	18

071 : OSBORNE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	97.1	86.2	to	116.0	24.3	16.1	to	35.4	1.12	1.03	to	1.25	27	2
Commercial/Ind. S-3	163.8	50.9	to	206.8	30.9	7.6	to	66.8	1.00	0.83	to	1.14	5	0
Vacant Lot	23.1	-	N/A	-	190.6	-	N/A	-	1.37	-	N/A	-	3	0
Farm & Home	13.5	-	N/A	-	34.0	-	N/A	-	1.06	-	N/A	-	2	0
Ag. Land Only	31.7	-	N/A	-	78.0	-	N/A	-	1.41	-	N/A	-	4	0
Ag. (Impr.+ Land)	11.5	-	N/A	-	183.5	-	N/A	-	1.25	-	N/A	-	5	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	94.5	-	N/A	-	43.8	-	N/A	-	1.25	-	N/A	-	42	2
Total Market	97.4	-	N/A	-	35.0	-	N/A	-	1.11	-	N/A	-	35	2

072 : OTTAWA COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.9	91.0	to	100.9	10.1	7.9	to	13.2	1.01	0.98	to	1.04	46	3
Commercial/Ind. S-5	78.6	51.1	to	97.0	30.1	17.5	to	63.3	1.28	1.11	to	1.79	9	0
Vacant Lot	76.8	-	N/A	-	32.3	-	N/A	-	1.08	-	N/A	-	4	0
Farm & Home	57.0	-	N/A	-	52.9	-	N/A	-	0.99	-	N/A	-	6	0
Ag. Land Only	17.7	-	N/A	-	34.4	-	N/A	-	0.97	-	N/A	-	9	0
Ag. (Impr.+ Land)	15.6	-	N/A	-	38.6	-	N/A	-	1.01	-	N/A	-	10	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.2	-	N/A	-	27.5	-	N/A	-	1.07	-	N/A	-	75	1
Total Market	93.4	-	N/A	-	13.6	-	N/A	-	1.03	-	N/A	-	59	3

073 : PAWNEE COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval		Interval		Interval								
Residential	97.2	95.1	to	105.6	17.7	14.7	to	21.6	1.04	1.01	to	1.08	78	5
Commercial/Ind.	59.0	42.1	to	113.4	43.6	24.0	to	94.6	1.34	1.06	to	1.97	6	0
Vacant Lot	107.5	-	N/A	-	28.1	-	N/A	-	1.06	-	N/A	-	3	0
Farm & Home	69.2	-	N/A	-	32.4	-	N/A	-	1.10	-	N/A	-	4	0
Ag. Land Only	14.2	-	N/A	-	30.9	-	N/A	-	1.23	-	N/A	-	9	0
Ag. (Impr.+ Land)	14.8	-	N/A	-	27.5	-	N/A	-	1.19	-	N/A	-	10	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	95.6	-	N/A	-	27.0	-	N/A	-	1.30	-	N/A	-	101	5
Total Market	97.1	-	N/A	-	18.6	-	N/A	-	1.12	-	N/A	-	87	7

074 : PHILLIPS COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval		Interval		Interval								
Residential	90.3	83.3	to	95.2	20.0	15.8	to	25.9	1.06	1.00	to	1.13	50	2
Commercial/Ind.	40.1	30.5	to	76.8	29.0	4.6	to	48.2	1.08	0.87	to	1.28	5	0
Vacant Lot	51.6	-	N/A	-	.	-	N/A	-	1.00	-	N/A	-	2	0
Farm & Home	32.1	-	N/A	-	21.5	-	N/A	-	0.95	-	N/A	-	2	0
Ag. Land Only	13.2	-	N/A	-	35.5	-	N/A	-	1.11	-	N/A	-	7	0
Ag. (Impr.+ Land)	13.2	-	N/A	-	35.5	-	N/A	-	1.11	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	82.0	-	N/A	-	34.3	-	N/A	-	1.41	-	N/A	-	66	1
Total Market	86.3	-	N/A	-	23.9	-	N/A	-	1.10	-	N/A	-	57	2

075 : POTTAWATOMIE COUNTY														
PROPERTY CLASS	Median	Confidence			COD	Confidence			PRD	Confidence			Valid Sales	Trim Sales
	Ratio	Interval		Interval		Interval								
Residential	97.6	96.4	to	98.9	8.3	7.5	to	9.1	1.00	1.00	to	1.01	352	35
Commercial/Ind.	97.9	79.0	to	106.6	13.1	7.3	to	22.2	1.11	0.95	to	1.25	13	1
Vacant Lot	79.1	-	N/A	-	40.8	-	N/A	-	1.29	-	N/A	-	47	1
Farm & Home	54.7	-	N/A	-	30.8	-	N/A	-	1.12	-	N/A	-	17	0
Ag. Land Only	4.0	-	N/A	-	94.8	-	N/A	-	0.89	-	N/A	-	18	3
Ag. (Impr.+ Land)	4.0	-	N/A	-	108.9	-	N/A	-	0.90	-	N/A	-	20	3
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	95.7	-	N/A	-	10.1	-	N/A	-	1.01	-	N/A	-	449	72
Total Market	96.8	-	N/A	-	9.2	-	N/A	-	1.00	-	N/A	-	412	49

076 : PRATT COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	100.0	96.2	to	104.0	13.6	11.4	to	16.1	1.02	1.00	to	1.05	103	10
Commercial/Ind. <i>S-7</i>	104.9	89.1	to	173.9	34.4	20.1	to	57.0	0.94	0.77	to	1.18	10	0
Vacant Lot	22.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	75.3	-	N/A	-	24.9	-	N/A	-	0.91	-	N/A	-	6	0
Ag. Land Only	9.6	-	N/A	-	39.4	-	N/A	-	1.08	-	N/A	-	10	0
Ag. (Impr.+ Land)	10.7	-	N/A	-	34.5	-	N/A	-	1.08	-	N/A	-	11	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	97.2	-	N/A	-	14.5	-	N/A	-	1.01	-	N/A	-	131	26
Total Market	101.1	-	N/A	-	13.6	-	N/A	-	1.01	-	N/A	-	114	14

077 : RAWLINS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	92.5	88.7	to	101.0	11.4	7.7	to	17.3	1.06	1.00	to	1.14	18	1
Commercial/Ind. <i>S-5</i>	66.3	59.7	to	117.5	30.5	3.4	to	35.3	1.14	0.97	to	1.26	5	0
Vacant Lot	208.4	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	50.0	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	11.6	-	N/A	-	12.5	-	N/A	-	1.04	-	N/A	-	6	0
Ag. (Impr.+ Land)	11.6	-	N/A	-	12.5	-	N/A	-	1.04	-	N/A	-	6	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	89.2	-	N/A	-	32.3	-	N/A	-	1.50	-	N/A	-	31	1
Total Market	92.5	-	N/A	-	16.3	-	N/A	-	1.07	-	N/A	-	24	1

078 : RENO COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.3	94.3	to	98.8	13.2	11.7	to	14.9	1.04	1.02	to	1.06	242	32
Commercial/Ind.	98.3	85.0	to	121.6	23.4	17.7	to	36.1	1.04	0.98	to	1.15	18	1
Vacant Lot	64.6	-	N/A	-	109.8	-	N/A	-	1.55	-	N/A	-	31	2
Farm & Home	56.8	-	N/A	-	15.0	-	N/A	-	0.99	-	N/A	-	20	2
Ag. Land Only	8.6	-	N/A	-	66.5	-	N/A	-	0.90	-	N/A	-	33	0
Ag. (Impr.+ Land)	8.5	-	N/A	-	69.5	-	N/A	-	0.91	-	N/A	-	37	0
Other/Ex/Ut/NP/M	185.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	91.8	-	N/A	-	24.2	-	N/A	-	1.09	-	N/A	-	349	55
Total Market	95.6	-	N/A	-	16.6	-	N/A	-	1.02	-	N/A	-	292	44

079 : REPUBLIC COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.5	95.1	to	103.5	13.8	11.1	to	17.1	1.04	1.02	to	1.07	62	4
Commercial/Ind. <i>S-2</i>	81.2	70.8	to	110.7	15.6	3.0	to	18.8	1.10	1.00	to	1.22	4	0
Vacant Lot	113.3	-	N/A	-	55.9	-	N/A	-	2.51	-	N/A	-	3	0
Farm & Home	22.2	-	N/A	-	106.4	-	N/A	-	1.31	-	N/A	-	3	0
Ag. Land Only	15.8	-	N/A	-	9.7	-	N/A	-	1.07	-	N/A	-	7	0
Ag. (Impr.+ Land)	15.7	-	N/A	-	11.2	-	N/A	-	1.08	-	N/A	-	8	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	95.9	-	N/A	-	14.8	-	N/A	-	1.03	-	N/A	-	80	15
Total Market	99.0	-	N/A	-	14.7	-	N/A	-	1.03	-	N/A	-	69	5

080 : RICE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.0	89.3	to	100.0	17.2	14.3	to	21.2	1.05	1.02	to	1.08	100	13
Commercial/Ind. <i>S-6</i>	101.8	89.8	to	135.5	15.5	8.9	to	25.0	1.05	1.01	to	1.10	10	1
Vacant Lot	130.0	-	N/A	-	36.4	-	N/A	-	1.57	-	N/A	-	3	0
Farm & Home	94.4	-	N/A	-	21.8	-	N/A	-	1.07	-	N/A	-	10	0
Ag. Land Only	18.6	-	N/A	-	38.6	-	N/A	-	1.21	-	N/A	-	16	0
Ag. (Impr.+ Land)	18.6	-	N/A	-	39.0	-	N/A	-	1.19	-	N/A	-	18	1
Other/Ex/Ut/NP/M	184.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	94.0	-	N/A	-	20.9	-	N/A	-	1.04	-	N/A	-	142	26
Total Market	97.8	-	N/A	-	17.5	-	N/A	-	1.07	-	N/A	-	114	15

081 : RILEY COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	98.5	97.6	to	99.9	7.9	7.0	to	8.9	1.01	1.00	to	1.01	242	27
Commercial/Ind.	87.3	72.2	to	105.5	17.2	11.6	to	25.3	0.86	0.81	to	1.06	7	1
Vacant Lot	29.2	-	N/A	-	77.5	-	N/A	-	1.28	-	N/A	-	30	0
Farm & Home	45.4	-	N/A	-	53.9	-	N/A	-	1.06	-	N/A	-	6	0
Ag. Land Only	13.4	-	N/A	-	39.0	-	N/A	-	1.02	-	N/A	-	6	0
Ag. (Impr.+ Land)	13.4	-	N/A	-	39.0	-	N/A	-	1.02	-	N/A	-	6	0
Other/Ex/Ut/NP/M	97.6	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	97.3	-	N/A	-	9.3	-	N/A	-	1.01	-	N/A	-	292	54
Total Market	97.7	-	N/A	-	9.1	-	N/A	-	1.00	-	N/A	-	280	45

082 : ROOKS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.5	89.8	to	99.2	21.0	16.4	to	26.1	1.06	1.01	to	1.12	55	3
Commercial/Ind.	100.1	87.4	to	559.5	157.3	4.2	to	167.0	2.03	1.37	to	2.44	6	0
Vacant Lot	204.5	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	25.2	-	N/A	-	99.6	-	N/A	-	0.96	-	N/A	-	3	0
Ag. Land Only	21.8	-	N/A	-	14.1	-	N/A	-	1.02	-	N/A	-	12	1
Ag. (Impr.+ Land)	22.1	-	N/A	-	19.1	-	N/A	-	1.02	-	N/A	-	13	0
Other/Ex/Ut/NP/M	161.8	-	N/A	-	81.9	-	N/A	-	2.35	-	N/A	-	2	0
Total w/Ag.&F&H	91.0	-	N/A	-	34.1	-	N/A	-	1.21	-	N/A	-	80	7
Total Market	96.1	-	N/A	-	22.2	-	N/A	-	1.06	-	N/A	-	64	6

083 : RUSH COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.9	95.7	to	106.3	11.8	8.4	to	16.5	1.01	0.97	to	1.05	38	7
Commercial/Ind. <i>S-4</i>	95.6	54.1	to	130.0	28.1	12.2	to	57.9	1.41	1.14	to	2.22	6	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	24.8	-	N/A	-	41.3	-	N/A	-	1.03	-	N/A	-	3	0
Ag. Land Only	19.5	-	N/A	-	24.0	-	N/A	-	0.99	-	N/A	-	4	0
Ag. (Impr.+ Land)	17.5	-	N/A	-	25.7	-	N/A	-	1.03	-	N/A	-	6	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	97.2	-	N/A	-	27.4	-	N/A	-	1.21	-	N/A	-	53	6
Total Market	99.7	-	N/A	-	13.2	-	N/A	-	1.02	-	N/A	-	44	8

084 : RUSSELL COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	90.3	87.1	to	94.1	15.9	13.3	to	19.2	1.04	1.02	to	1.08	80	2
Commercial/Ind.	79.2	63.4	to	110.5	27.6	15.9	to	82.7	1.23	1.06	to	1.75	8	0
Vacant Lot	103.7	-	N/A	-	38.0	-	N/A	-	0.91	-	N/A	-	8	0
Farm & Home	29.2	-	N/A	-	31.2	-	N/A	-	1.03	-	N/A	-	5	0
Ag. Land Only	16.2	-	N/A	-	41.1	-	N/A	-	0.98	-	N/A	-	9	0
Ag. (Impr.+ Land)	15.3	-	N/A	-	39.7	-	N/A	-	0.95	-	N/A	-	11	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	87.3	-	N/A	-	26.6	-	N/A	-	1.10	-	N/A	-	112	4
Total Market	90.3	-	N/A	-	18.2	-	N/A	-	1.04	-	N/A	-	96	3

085 : SALINE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	99.5	96.1	to	100.6	13.5	12.1	to	15.2	1.04	1.02	to	1.06	251	19
Commercial/Ind.	97.0	85.1	to	126.8	30.9	19.3	to	44.7	1.17	0.97	to	1.47	18	0
Vacant Lot	93.4	-	N/A	-	139.2	-	N/A	-	2.07	-	N/A	-	9	1
Farm & Home	88.2	-	N/A	-	13.0	-	N/A	-	1.03	-	N/A	-	7	0
Ag. Land Only	3.1	-	N/A	-	185.9	-	N/A	-	0.60	-	N/A	-	30	0
Ag. (Impr.+ Land)	2.0	-	N/A	-	281.0	-	N/A	-	0.57	-	N/A	-	36	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	95.6	-	N/A	-	14.5	-	N/A	-	1.06	-	N/A	-	321	63
Total Market	99.4	-	N/A	-	14.4	-	N/A	-	1.06	-	N/A	-	278	27

086 : SCOTT COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	87.8	79.7	to	93.2	16.4	13.9	to	20.1	1.01	0.98	to	1.05	71	4
Commercial/Ind. S-5	89.5	59.7	to	101.9	17.2	10.0	to	29.8	0.97	0.90	to	1.05	9	0
Vacant Lot	137.1	-	N/A	-	57.6	-	N/A	-	1.34	-	N/A	-	2	0
Farm & Home	85.1	-	N/A	-	46.8	-	N/A	-	2.32	-	N/A	-	3	0
Ag. Land Only	13.5	-	N/A	-	10.3	-	N/A	-	0.99	-	N/A	-	11	1
Ag. (Impr.+ Land)	13.8	-	N/A	-	10.0	-	N/A	-	0.99	-	N/A	-	13	2
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	81.6	-	N/A	-	28.6	-	N/A	-	1.16	-	N/A	-	98	3
Total Market	88.3	-	N/A	-	17.4	-	N/A	-	1.01	-	N/A	-	82	4

087 : SEDGWICK COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	89.9	88.9	to	91.5	10.7	9.8	to	11.8	1.00	0.99	to	1.02	324	28
Commercial/Ind.	85.7	79.9	to	90.7	21.0	18.4	to	24.4	1.11	1.04	to	1.21	150	9
Vacant Lot	67.8	-	N/A	-	51.7	-	N/A	-	1.35	-	N/A	-	317	12
Farm & Home	66.8	-	N/A	-	24.4	-	N/A	-	1.05	-	N/A	-	40	3
Ag. Land Only	0.3	-	N/A	-	190.5	-	N/A	-	0.90	-	N/A	-	110	21
Ag. (Impr.+ Land)	0.3	-	N/A	-	210.2	-	N/A	-	1.04	-	N/A	-	116	23
Other/Ex/Ut/NP/M	139.4	-	N/A	-	20.6	-	N/A	-	1.39	-	N/A	-	3	0
Total w/Ag.&F&H	80.0	-	N/A	-	38.4	-	N/A	-	1.01	-	N/A	-	950	21
Total Market	85.4	-	N/A	-	24.8	-	N/A	-	1.03	-	N/A	-	794	60



088 : SEWARD COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	101.2	96.9	to	104.0	15.8	13.6	to	18.4	1.11	1.02	to	1.22	168	22
Commercial/Ind.	97.0	55.8	to	110.9	19.2	9.2	to	55.1	1.30	1.09	to	1.55	9	0
Vacant Lot	85.6	-	N/A	-	134.1	-	N/A	-	5.39	-	N/A	-	7	0
Farm & Home	28.6	-	N/A	-	28.8	-	N/A	-	0.80	-	N/A	-	3	0
Ag. Land Only	14.3	-	N/A	-	37.4	-	N/A	-	0.70	-	N/A	-	5	0
Ag. (Impr.+ Land)	14.3	-	N/A	-	37.4	-	N/A	-	0.70	-	N/A	-	5	0
Other/Ex/Ut/NP/M	99.0	-	N/A	-	3.3	-	N/A	-	0.97	-	N/A	-	2	0
Total w/Ag.&F&H	99.6	-	N/A	-	16.3	-	N/A	-	1.13	-	N/A	-	194	33
Total Market	101.0	-	N/A	-	15.7	-	N/A	-	1.12	-	N/A	-	186	27

089 : SHAWNEE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	92.6	91.3	to	93.7	8.4	7.5	to	9.5	1.01	1.00	to	1.02	242	26
Commercial/Ind.	92.0	78.9	to	99.8	22.0	17.9	to	27.5	1.11	1.02	to	1.24	65	2
Vacant Lot	83.3	-	N/A	-	35.4	-	N/A	-	1.42	-	N/A	-	93	8
Farm & Home	69.1	-	N/A	-	20.8	-	N/A	-	1.05	-	N/A	-	18	0
Ag. Land Only	3.0	-	N/A	-	169.7	-	N/A	-	0.83	-	N/A	-	29	2
Ag. (Impr.+ Land)	3.3	-	N/A	-	146.3	-	N/A	-	0.82	-	N/A	-	30	2
Other/Ex/Ut/NP/M	316.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Total w/Ag.&F&H	90.1	-	N/A	-	14.1	-	N/A	-	1.07	-	N/A	-	449	85
Total Market	91.6	-	N/A	-	12.5	-	N/A	-	1.09	-	N/A	-	401	64

090 : SHERIDAN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	90.9	82.6	to	102.4	10.7	7.5	to	16.0	1.01	0.99	to	1.03	18	3
Commercial/Ind. S-3	96.7	77.5	to	136.2	21.7	7.1	to	21.7	1.07	0.93	to	1.14	3	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	45.1	-	N/A	-	1.7	-	N/A	-	1.00	-	N/A	-	2	0
Ag. Land Only	12.6	-	N/A	-	46.5	-	N/A	-	1.12	-	N/A	-	16	0
Ag. (Impr.+ Land)	12.6	-	N/A	-	46.5	-	N/A	-	1.12	-	N/A	-	16	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	68.6	-	N/A	-	67.9	-	N/A	-	1.32	-	N/A	-	39	1
Total Market	91.4	-	N/A	-	13.1	-	N/A	-	1.00	-	N/A	-	21	3

091 : SHERMAN COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	86.6	80.0	to	91.0	13.9	11.8	to	16.9	1.01	0.99	to	1.04	80	5
Commercial/Ind. <i>S-3</i>	88.8	66.7	to	199.1	48.4	9.9	to	64.3	1.34	0.84	to	1.77	5	0
Vacant Lot	194.2	-	N/A	-	104.5	-	N/A	-	1.68	-	N/A	-	3	0
Farm & Home	103.9	-	N/A	-	23.9	-	N/A	-	0.96	-	N/A	-	3	0
Ag. Land Only	13.0	-	N/A	-	26.9	-	N/A	-	0.97	-	N/A	-	8	0
Ag. (Impr.+ Land)	11.4	-	N/A	-	17.2	-	N/A	-	0.99	-	N/A	-	12	2
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	84.6	-	N/A	-	15.9	-	N/A	-	1.04	-	N/A	-	103	20
Total Market	87.8	-	N/A	-	14.0	-	N/A	-	1.04	-	N/A	-	88	10

092 : SMITH COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	87.7	76.7	to	96.3	21.5	16.9	to	30.5	1.03	0.99	to	1.09	37	3
Commercial/Ind. <i>S-4</i>	76.5	39.1	to	199.9	64.5	19.2	to	124.4	0.88	0.71	to	1.17	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	43.2	-	N/A	-	21.1	-	N/A	-	1.07	-	N/A	-	3	0
Ag. Land Only	13.1	-	N/A	-	13.4	-	N/A	-	1.00	-	N/A	-	10	0
Ag. (Impr.+ Land)	13.1	-	N/A	-	13.4	-	N/A	-	1.00	-	N/A	-	10	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	76.5	-	N/A	-	39.3	-	N/A	-	1.67	-	N/A	-	55	4
Total Market	85.3	-	N/A	-	23.4	-	N/A	-	1.02	-	N/A	-	42	4

093 : STAFFORD COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	91.5	86.0	to	103.0	13.8	11.2	to	17.7	1.06	1.03	to	1.11	41	5
Commercial/Ind. <i>S-5</i>	101.4	100.3	to	159.4	13.7	0.4	to	26.2	1.08	0.98	to	1.18	5	0
Vacant Lot	59.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	74.6	-	N/A	-	2.2	-	N/A	-	1.00	-	N/A	-	2	0
Ag. Land Only	15.5	-	N/A	-	46.0	-	N/A	-	1.24	-	N/A	-	4	0
Ag. (Impr.+ Land)	15.5	-	N/A	-	78.4	-	N/A	-	1.03	-	N/A	-	6	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	89.7	-	N/A	-	17.2	-	N/A	-	1.13	-	N/A	-	55	10
Total Market	96.9	-	N/A	-	14.1	-	N/A	-	1.06	-	N/A	-	47	6

094 : STANTON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	93.4	83.1	to	107.5	15.3	9.9	to	25.6	0.99	0.94	to	1.05	14	1
Commercial/Ind. <i>S-4</i>	93.7	69.9	to	110.3	14.1	4.3	to	19.5	1.07	0.96	to	1.15	5	0
Vacant Lot	52.3	-	N/A	-	98.3	-	N/A	-	1.43	-	N/A	-	2	0
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	9.8	-	N/A	-	16.0	-	N/A	-	0.96	-	N/A	-	3	0
Ag. (Impr.+ Land)	9.8	-	N/A	-	16.0	-	N/A	-	0.96	-	N/A	-	3	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	89.9	-	N/A	-	21.9	-	N/A	-	1.12	-	N/A	-	24	3
Total Market	93.7	-	N/A	-	14.7	-	N/A	-	1.06	-	N/A	-	21	2

095 : STEVENS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	100.9	94.3	to	106.0	12.0	9.0	to	16.5	1.13	0.99	to	1.32	42	7
Commercial/Ind.	67.0	18.1	to	81.0	25.3	4.2	to	177.9	0.91	0.73	to	1.06	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	78.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Ag. Land Only	8.5	-	N/A	-	62.4	-	N/A	-	0.97	-	N/A	-	11	0
Ag. (Impr.+ Land)	8.5	-	N/A	-	62.4	-	N/A	-	0.97	-	N/A	-	11	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.4	-	N/A	-	35.0	-	N/A	-	1.08	-	N/A	-	59	4
Total Market	99.6	-	N/A	-	13.9	-	N/A	-	1.11	-	N/A	-	47	8

096 : SUMNER COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.5	92.4	to	97.6	17.9	15.9	to	20.1	1.05	1.03	to	1.07	259	29
Commercial/Ind.	74.6	46.5	to	159.4	57.0	12.5	to	73.0	1.07	0.87	to	1.31	6	0
Vacant Lot	300.0	-	N/A	-	97.8	-	N/A	-	3.35	-	N/A	-	9	0
Farm & Home	67.9	-	N/A	-	24.5	-	N/A	-	1.02	-	N/A	-	15	1
Ag. Land Only	9.8	-	N/A	-	44.7	-	N/A	-	1.06	-	N/A	-	28	1
Ag. (Impr.+ Land)	9.8	-	N/A	-	37.9	-	N/A	-	1.01	-	N/A	-	31	2
Other/Ex/Ut/NP/M	75.7	-	N/A	-	41.7	-	N/A	-	1.32	-	N/A	-	2	0
Total w/Ag.&F&H	91.1	-	N/A	-	27.1	-	N/A	-	1.12	-	N/A	-	322	37
Total Market	95.5	-	N/A	-	19.9	-	N/A	-	1.05	-	N/A	-	276	31

097 : THOMAS COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	95.2	92.5	to	98.8	9.3	7.9	to	11.2	1.02	1.00	to	1.03	92	9
Commercial/Ind.	79.4	50.9	to	99.3	18.1	9.4	to	33.9	1.08	0.95	to	1.48	8	0
Vacant Lot	89.1	-	N/A	-	16.3	-	N/A	-	1.01	-	N/A	-	3	0
Farm & Home	53.2	-	N/A	-	35.6	-	N/A	-	1.07	-	N/A	-	4	0
Ag. Land Only	9.3	-	N/A	-	19.5	-	N/A	-	0.94	-	N/A	-	12	0
Ag. (Impr.+ Land)	9.5	-	N/A	-	19.9	-	N/A	-	0.95	-	N/A	-	15	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	90.9	-	N/A	-	12.0	-	N/A	-	1.09	-	N/A	-	122	23
Total Market	95.0	-	N/A	-	10.2	-	N/A	-	1.03	-	N/A	-	103	10

098 : TREGO COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	98.7	83.4	to	105.7	16.0	11.7	to	23.1	1.00	0.96	to	1.05	28	0
Commercial/Ind. S-6	92.2	61.3	to	123.9	22.3	10.3	to	42.5	1.04	0.86	to	1.34	7	1
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	54.7	-	N/A	-	13.3	-	N/A	-	1.00	-	N/A	-	4	0
Ag. Land Only	12.2	-	N/A	-	30.6	-	N/A	-	1.42	-	N/A	-	9	0
Ag. (Impr.+ Land)	12.6	-	N/A	-	30.1	-	N/A	-	1.34	-	N/A	-	12	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	80.0	-	N/A	-	41.1	-	N/A	-	1.38	-	N/A	-	51	1
Total Market	96.6	-	N/A	-	17.4	-	N/A	-	1.04	-	N/A	-	35	1

099 : WABAUNSEE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	93.1	87.7	to	98.2	19.3	15.5	to	24.1	1.07	1.00	to	1.13	64	3
Commercial/Ind.	93.3	58.8	to	127.8	19.7	5.1	to	32.5	0.96	0.90	to	1.02	5	0
Vacant Lot	99.2	-	N/A	-	-	-	N/A	-	-	-	N/A	-	1	0
Farm & Home	68.1	-	N/A	-	26.1	-	N/A	-	1.29	-	N/A	-	8	0
Ag. Land Only	8.1	-	N/A	-	39.2	-	N/A	-	1.13	-	N/A	-	9	0
Ag. (Impr.+ Land)	6.4	-	N/A	-	50.1	-	N/A	-	1.13	-	N/A	-	10	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	88.0	-	N/A	-	20.0	-	N/A	-	1.07	-	N/A	-	88	15
Total Market	93.2	-	N/A	-	17.7	-	N/A	-	1.05	-	N/A	-	70	5

100 : WALLACE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	73.6	66.2	to	102.7	18.1	5.5	to	33.6	1.02	0.98	to	1.10	6	0
Commercial/Ind. <i>S-3</i>	71.3	53.3	to	91.3	16.4	4.9	to	22.9	0.89	0.79	to	0.98	4	0
Vacant Lot	8.3	-	N/A	-	-	-	N/A	-	-	-	N/A	-	2	0
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	11.6	-	N/A	-	17.4	-	N/A	-	0.87	-	N/A	-	4	0
Ag. (Impr.+ Land)	11.6	-	N/A	-	19.2	-	N/A	-	0.84	-	N/A	-	6	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	68.9	-	N/A	-	46.4	-	N/A	-	2.21	-	N/A	-	18	2
Total Market	72.6	-	N/A	-	17.4	-	N/A	-	0.97	-	N/A	-	12	2

101 : WASHINGTON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	103.7	99.1	to	114.1	19.7	14.6	to	27.4	1.08	1.03	to	1.16	44	4
Commercial/Ind. <i>S-1</i>	83.2	75.6	to	87.6	5.1	1.6	to	6.0	1.00	0.96	to	1.03	5	0
Vacant Lot	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	11.8	-	N/A	-	22.9	-	N/A	-	1.00	-	N/A	-	9	0
Ag. (Impr.+ Land)	11.8	-	N/A	-	24.8	-	N/A	-	0.98	-	N/A	-	11	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	98.4	-	N/A	-	25.4	-	N/A	-	1.45	-	N/A	-	60	11
Total Market	102.0	-	N/A	-	20.0	-	N/A	-	1.07	-	N/A	-	49	4

102 : WICHITA COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	89.6	83.5	to	98.8	13.6	9.0	to	20.4	1.02	0.98	to	1.08	20	1
Commercial/Ind. <i>S-4</i>	93.7	37.2	to	133.3	26.7	6.2	to	71.2	1.23	1.02	to	1.57	5	0
Vacant Lot	100.0	-	N/A	-	24.8	-	N/A	-	1.15	-	N/A	-	3	0
Farm & Home	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Ag. Land Only	11.0	-	N/A	-	8.4	-	N/A	-	0.99	-	N/A	-	5	0
Ag. (Impr.+ Land)	11.0	-	N/A	-	6.6	-	N/A	-	0.99	-	N/A	-	7	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	89.2	-	N/A	-	31.8	-	N/A	-	1.36	-	N/A	-	35	2
Total Market	91.4	-	N/A	-	14.1	-	N/A	-	1.06	-	N/A	-	28	3

103 : WILSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	96.7	90.3	to	106.1	28.6	22.7	to	36.5	1.10	1.04	to	1.19	61	5
Commercial/Ind.	129.7	86.1	to	536.5	39.4	7.6	to	53.5	0.80	0.75	to	1.08	6	1
Vacant Lot	80.2	-	N/A	-	31.7	-	N/A	-	0.96	-	N/A	-	10	1
Farm & Home	56.4	-	N/A	-	53.4	-	N/A	-	1.08	-	N/A	-	7	1
Ag. Land Only	9.0	-	N/A	-	60.0	-	N/A	-	0.97	-	N/A	-	7	1
Ag. (Impr.+ Land)	12.0	-	N/A	-	41.7	-	N/A	-	1.01	-	N/A	-	9	1
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	91.5	-	N/A	-	42.7	-	N/A	-	1.40	-	N/A	-	93	6
Total Market	96.7	-	N/A	-	32.0	-	N/A	-	1.13	-	N/A	-	77	5

104 : WOODSON COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	98.4	86.5	to	110.4	22.4	16.9	to	32.1	1.05	0.95	to	1.18	32	3
Commercial/Ind. <i>S-3</i>	91.7	67.8	to	265.2	55.9	8.2	to	94.6	1.71	0.91	to	2.20	5	0
Vacant Lot	194.5	-	N/A	-	54.0	-	N/A	-	1.30	-	N/A	-	4	0
Farm & Home	43.0	-	N/A	-	46.4	-	N/A	-	1.41	-	N/A	-	5	0
Ag. Land Only	5.3	-	N/A	-	31.1	-	N/A	-	0.99	-	N/A	-	13	0
Ag. (Impr.+ Land)	5.7	-	N/A	-	27.7	-	N/A	-	0.99	-	N/A	-	14	0
Other/Ex/Ut/NP/M	-	-	-	-	-	-	-	-	-	-	-	-	0	-
Total w/Ag.&F&H	81.3	-	N/A	-	55.1	-	N/A	-	2.08	-	N/A	-	60	3
Total Market	101.2	-	N/A	-	23.8	-	N/A	-	1.15	-	N/A	-	41	5

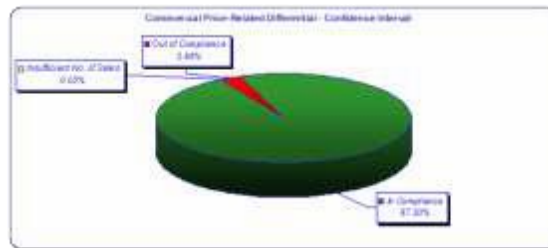
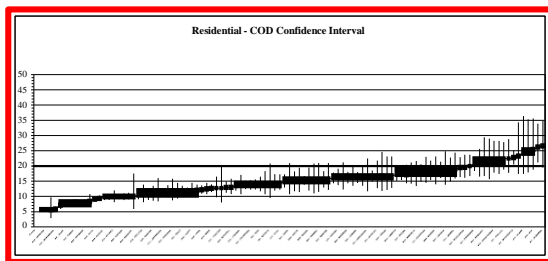
105 : WYANDOTTE COUNTY														
PROPERTY CLASS	Median Ratio	Confidence Interval			COD	Confidence Interval			PRD	Confidence Interval			Valid Sales	Trim Sales
Residential	91.3	88.4	to	94.5	16.6	14.9	to	18.6	0.99	0.97	to	1.01	277	42
Commercial/Ind.	94.2	77.4	to	99.4	25.9	19.7	to	34.3	1.31	1.20	to	1.46	42	1
Vacant Lot	62.2	-	N/A	-	46.0	-	N/A	-	1.00	-	N/A	-	60	6
Farm & Home	58.1	-	N/A	-	19.5	-	N/A	-	1.09	-	N/A	-	10	1
Ag. Land Only	2.7	-	N/A	-	97.7	-	N/A	-	0.81	-	N/A	-	8	0
Ag. (Impr.+ Land)	1.6	-	N/A	-	158.5	-	N/A	-	0.80	-	N/A	-	9	0
Other/Ex/Ut/NP/M	135.0	-	N/A	-	33.6	-	N/A	-	0.78	-	N/A	-	3	0
Total w/Ag.&F&H	88.0	-	N/A	-	25.1	-	N/A	-	1.09	-	N/A	-	401	48
Total Market	89.2	-	N/A	-	23.4	-	N/A	-	1.08	-	N/A	-	382	45

106 : STATEWIDE TOTALS														
PROPERTY CLASS	Median	Confidence		COD	Confidence		PRD	Confidence		Valid Sales	Trim Sales			
	Ratio	Interval	Interval		Interval	Interval								
Residential <sup>1</sup>	94.3	-	N/A	-	11.9	-	N/A	-	1.03	-	N/A	-	12,277	1,256
Commercial/Ind. <sup>2 S-176</sup>	89.7	-	N/A	-	24.8	-	N/A	-	1.11	-	N/A	-	1,214	49
Vacant Lot	73.8	-	N/A	-	42.8	-	N/A	-	1.23	-	N/A	-	1,958	160
Farm & Home	64.1	-	N/A	-	34.0	-	N/A	-	1.07	-	N/A	-	936	26
Ag. Land Only	7.5	-	N/A	-	76.7	-	N/A	-	0.93	-	N/A	-	1,289	47
Ag. (Impr.+ Land)	7.6	-	N/A	-	74.0	-	N/A	-	0.92	-	N/A	-	1,520	69
Other/Ex/Ut/NP/M	122.8	-	N/A	-	33.0	-	N/A	-	1.26	-	N/A	-	42	5
Total w/Ag.&F&H	91.5	-	N/A	-	20.6	-	N/A	-	1.07	-	N/A	-	17,947	2629
Total Market	94.5	-	N/A	-	16.0	-	N/A	-	1.05	-	N/A	-	15,491	1,941

1 Statewide Residential performance measures are weighted by county parcel counts within the subclass.

2 Statewide Commercial/Industrial. performance measures are weighted by county parcel counts within the subclass.

# Charts & Graphs





## Charts

### **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 95% confidence intervals. This study also uses supplemental sales where needed to increase the sample size of the commercial/industrial subclass. Additional sales validation documentation has been reviewed and outliers have been trimmed for the uniformity measurements (*COD and PRD*).

The information provided by this 2019 Final Ratio Study, *pages 15-49*, indicates that a large portion statewide property value estimates in the residential and commercial/industrial subclasses of property meet the state mandated mass appraisal performance standards.

### **GRAPHICS:**

The following pie charts depict an overall appraisal performance for residential and commercial properties based on state standards. Value weighting calculations are based on the 2019 certified assessed values. These numbers are proportional to county abstract assessed valuation.

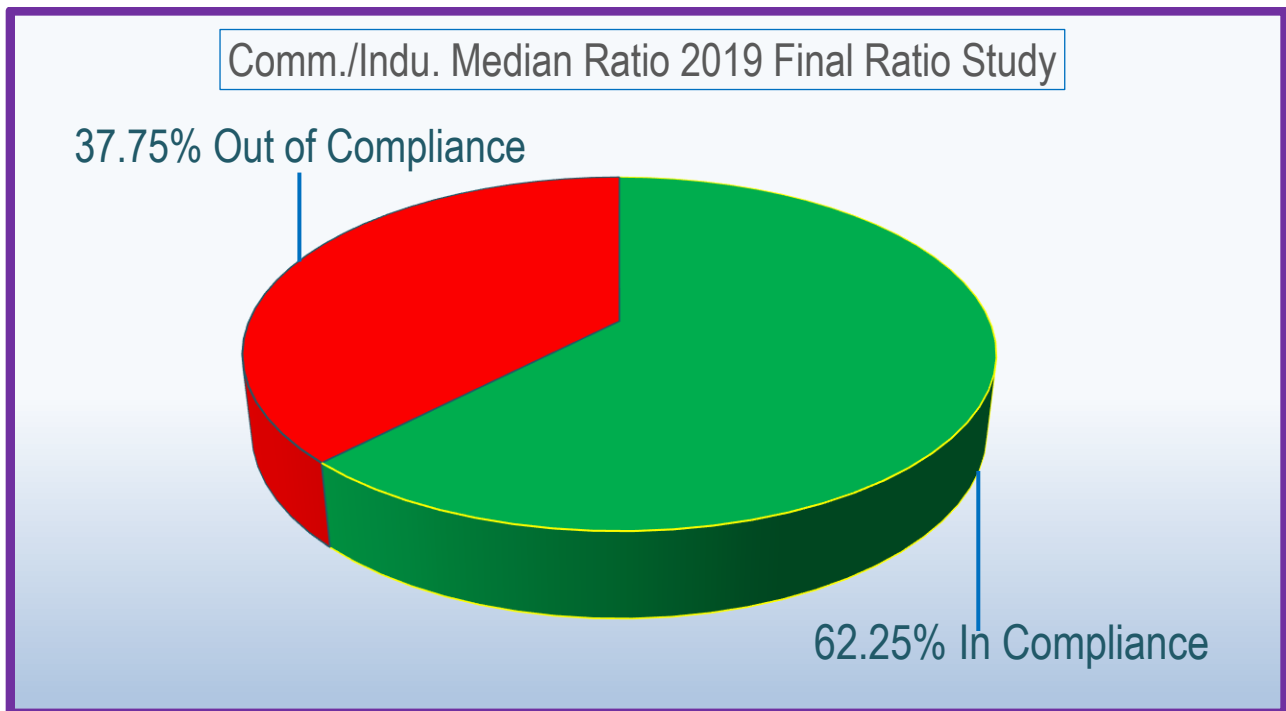
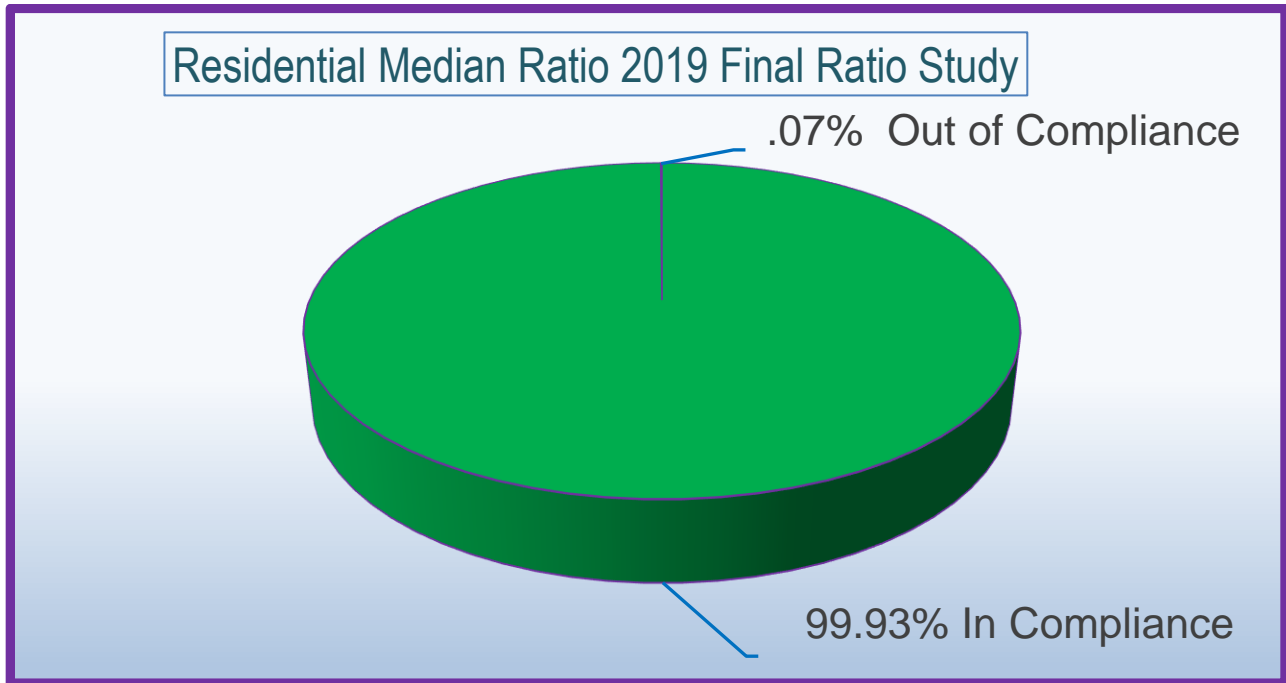
1. ***Exhibit I*** depicts the residential and commercial *median ratios*. The residential and commercial charts indicate that almost 100 percent of the residential value statewide falls within a range of 90.0 percent to 110.0 percent which is the recognized standard according to IAAO (*International Association of Assessing Officers*). Over 62% of the commercial/industrial property values are found in counties that meet the standard
2. ***Exhibit II*** presents the residential and commercial *coefficient of dispersion (COD)*. The acceptable standard for horizontal appraisal bias in Kansas is a COD range of 0 to 20.0. This pie chart indicates that more than 99 percent of the residential property value and about 97 percent of the commercial/industrial property values are found in counties that meet the state performance standard COD of 20.0 or less.

3. **Exhibit III** is a display of residential and commercial appraisal bias. The *price-related differential* provides only a general indication, not proof, of vertical appraisal bias. When sample sizes are small, a price-related differential outside the acceptable range may occur simply because of random sampling error<sup>1</sup>. The acceptable range for the PRD is between .98 and 1.03. This chart indicates that almost 98 percent of the residential property value and greater than 73 percent of the commercial/industrial property values statewide fall within the acceptable range for the PRD.
  
4. **Bar Charts** have been prepared to show the residential and commercial/industrial sample point estimates and 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 (95% is the level of confidence adopted for ratio study measures). A county with many sales in the study will tend to have a more compressed confidence interval range. A county with fewer sales and greater dispersion in the real estate market will tend to have wider confidence intervals.

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

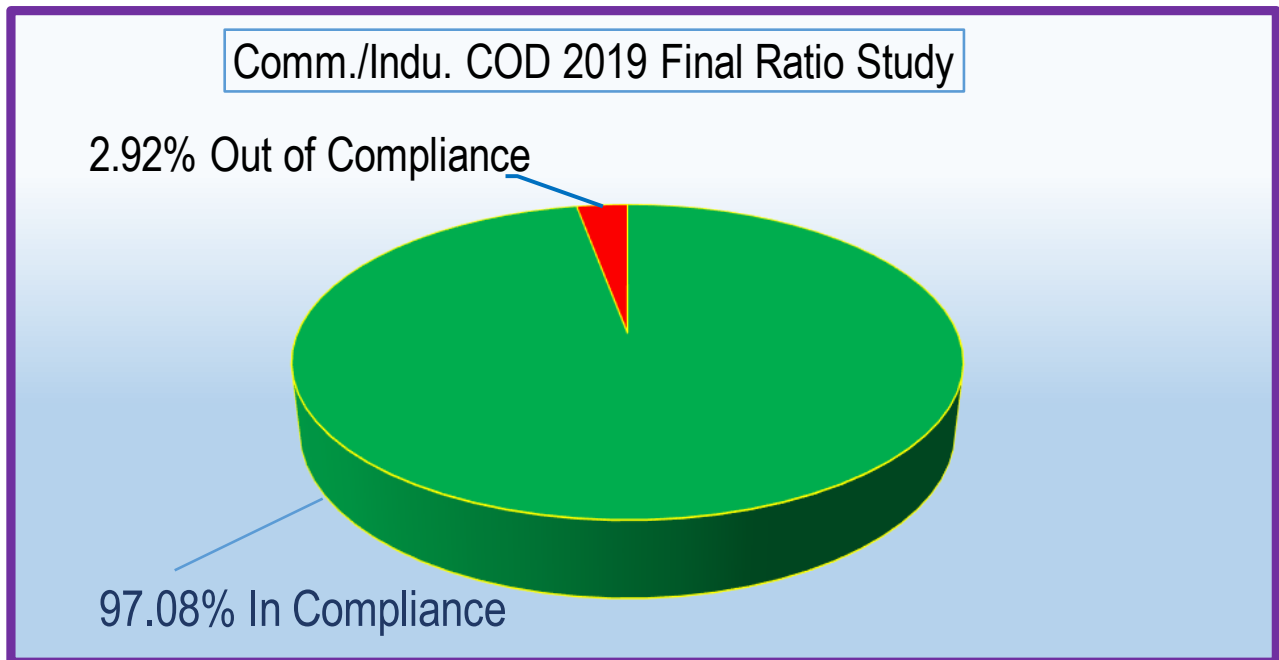
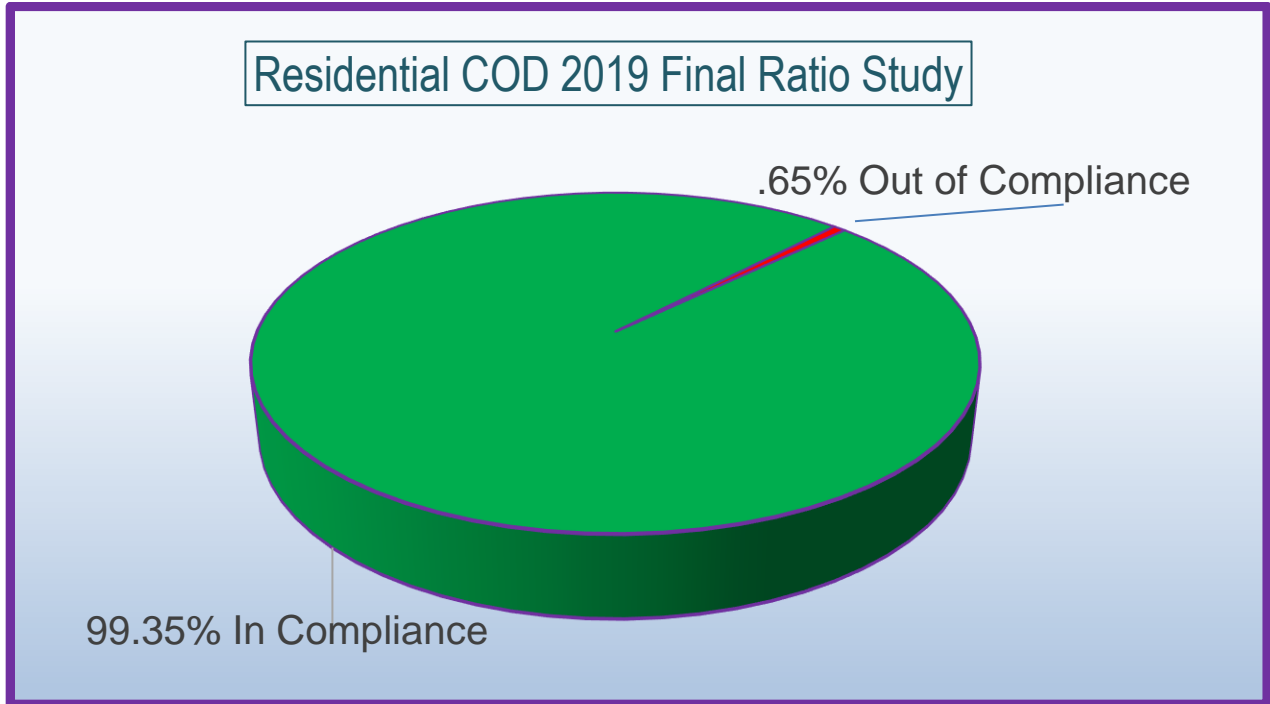
Pie Charts Based Upon Statewide Proportion of Appraised Value

*Exhibit 1*



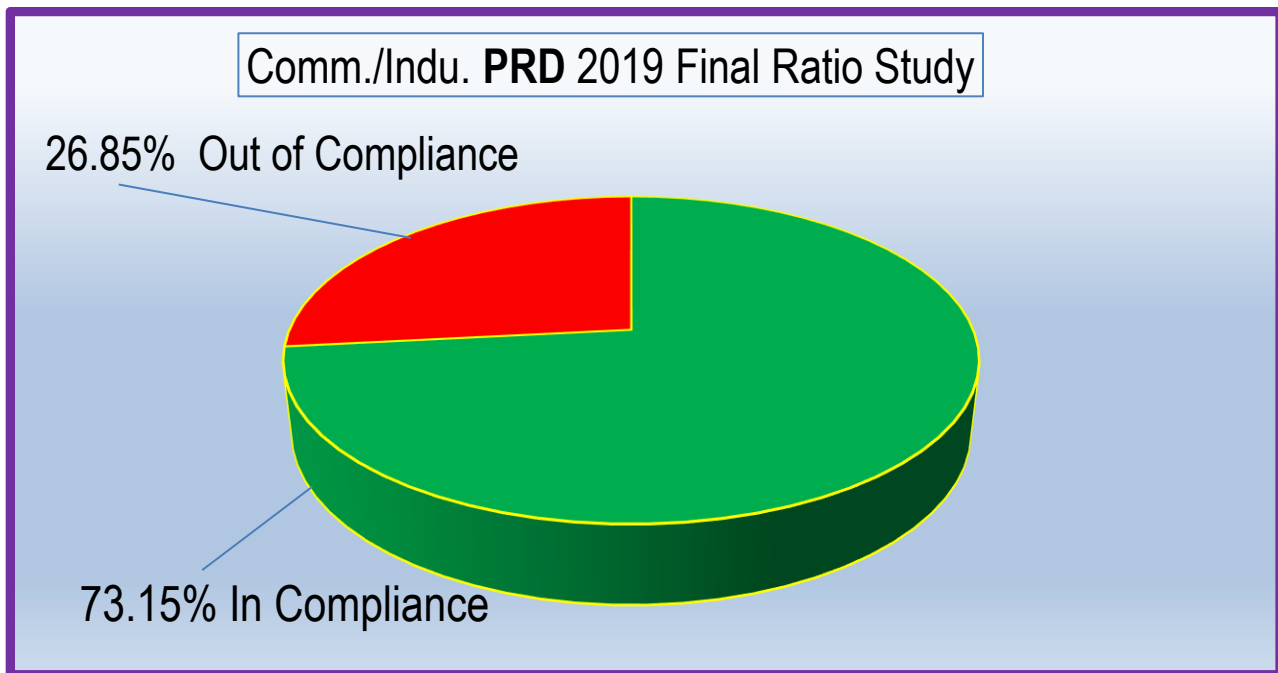
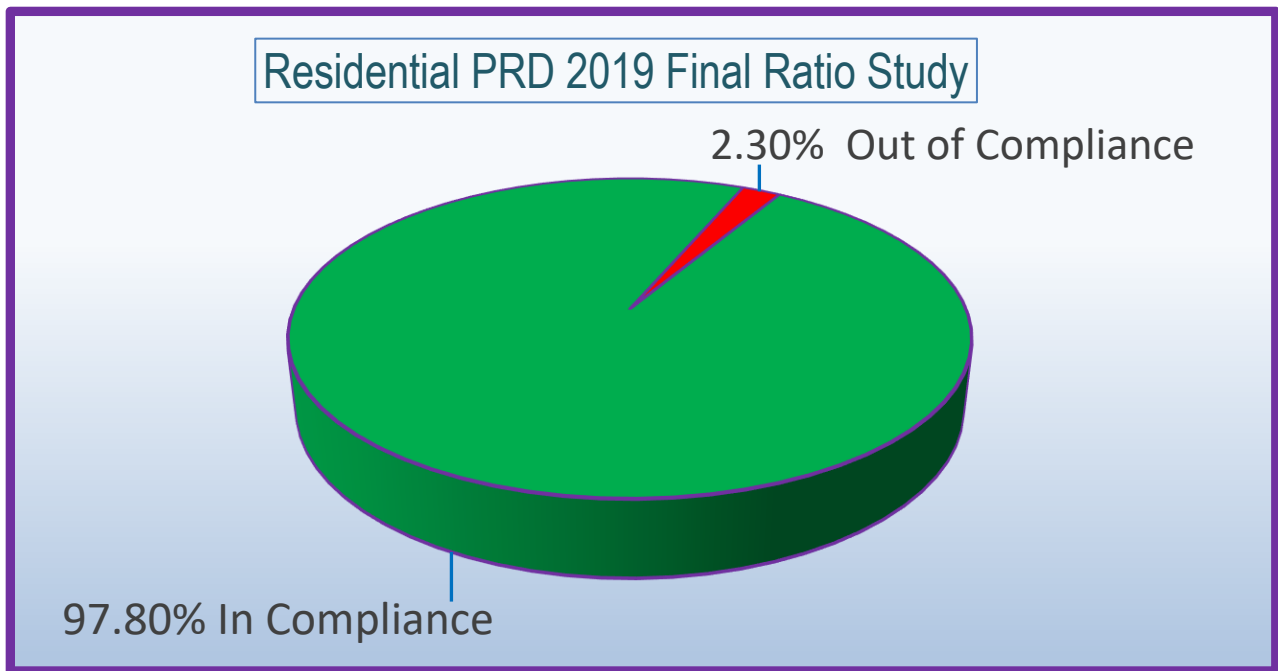
# Pie Charts Based Upon Statewide Proportion of Appraised Value

*Exhibit 2*

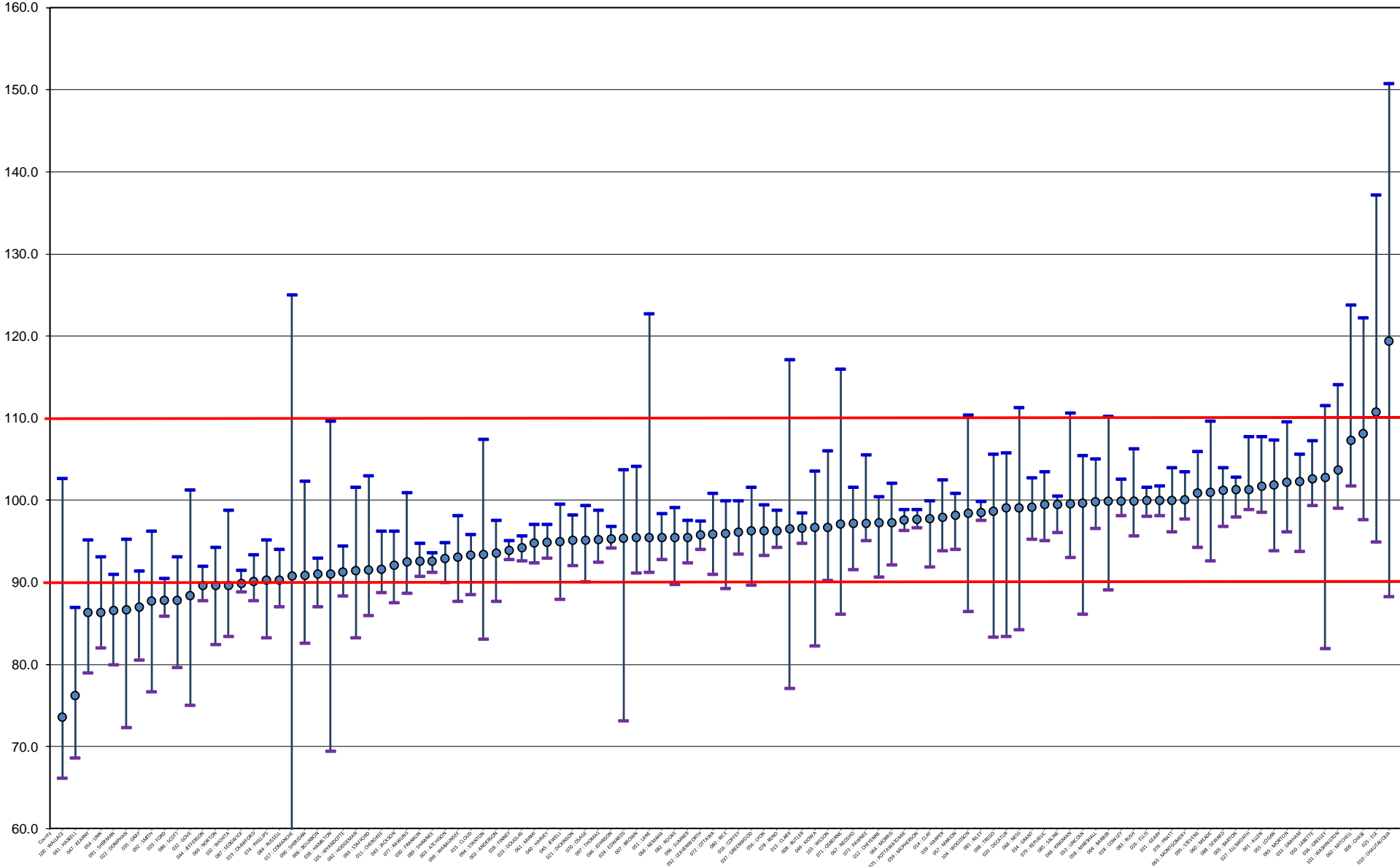


Pie Charts Based Upon Statewide Proportion of Appraised Value

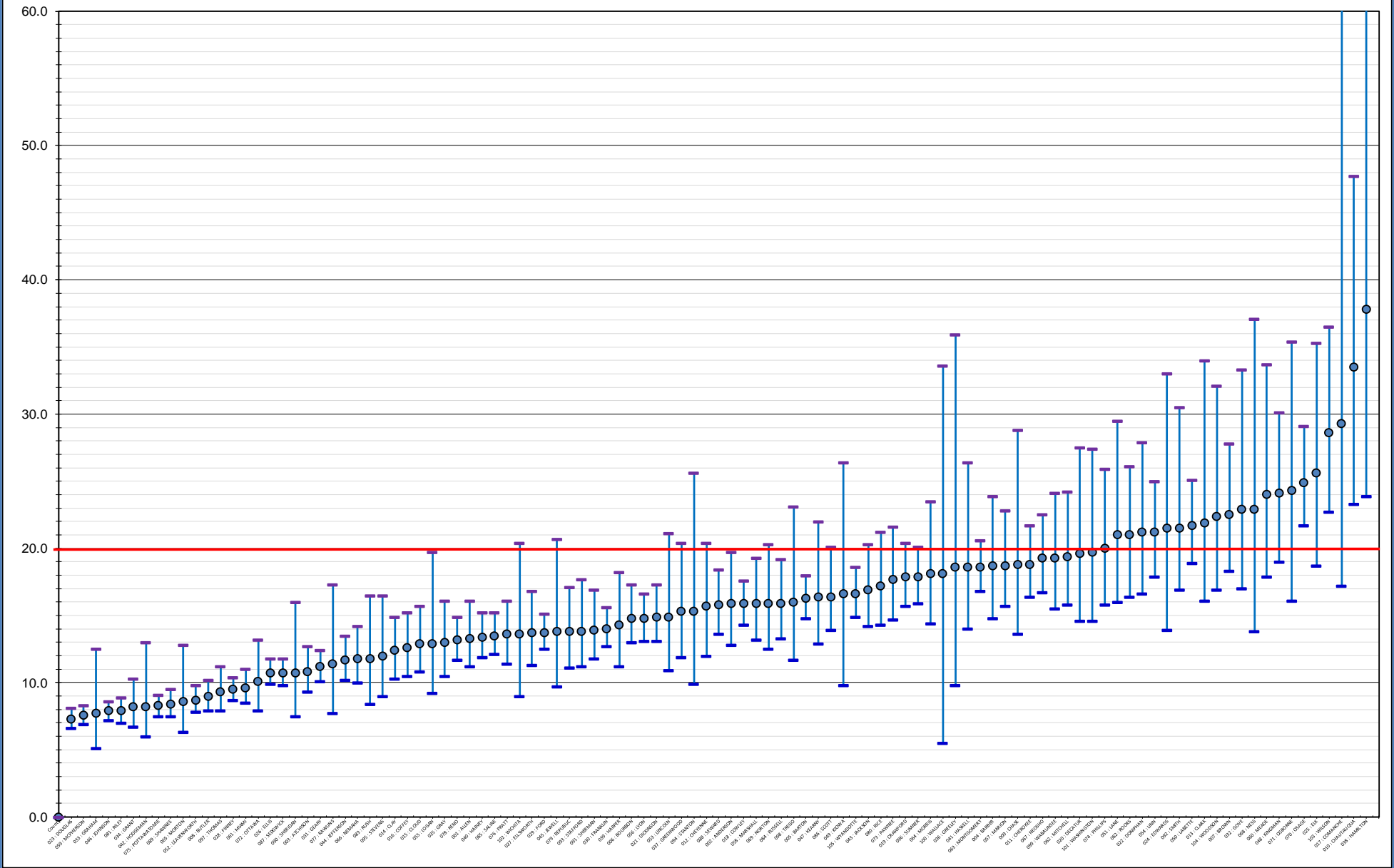
*Exhibit 3*



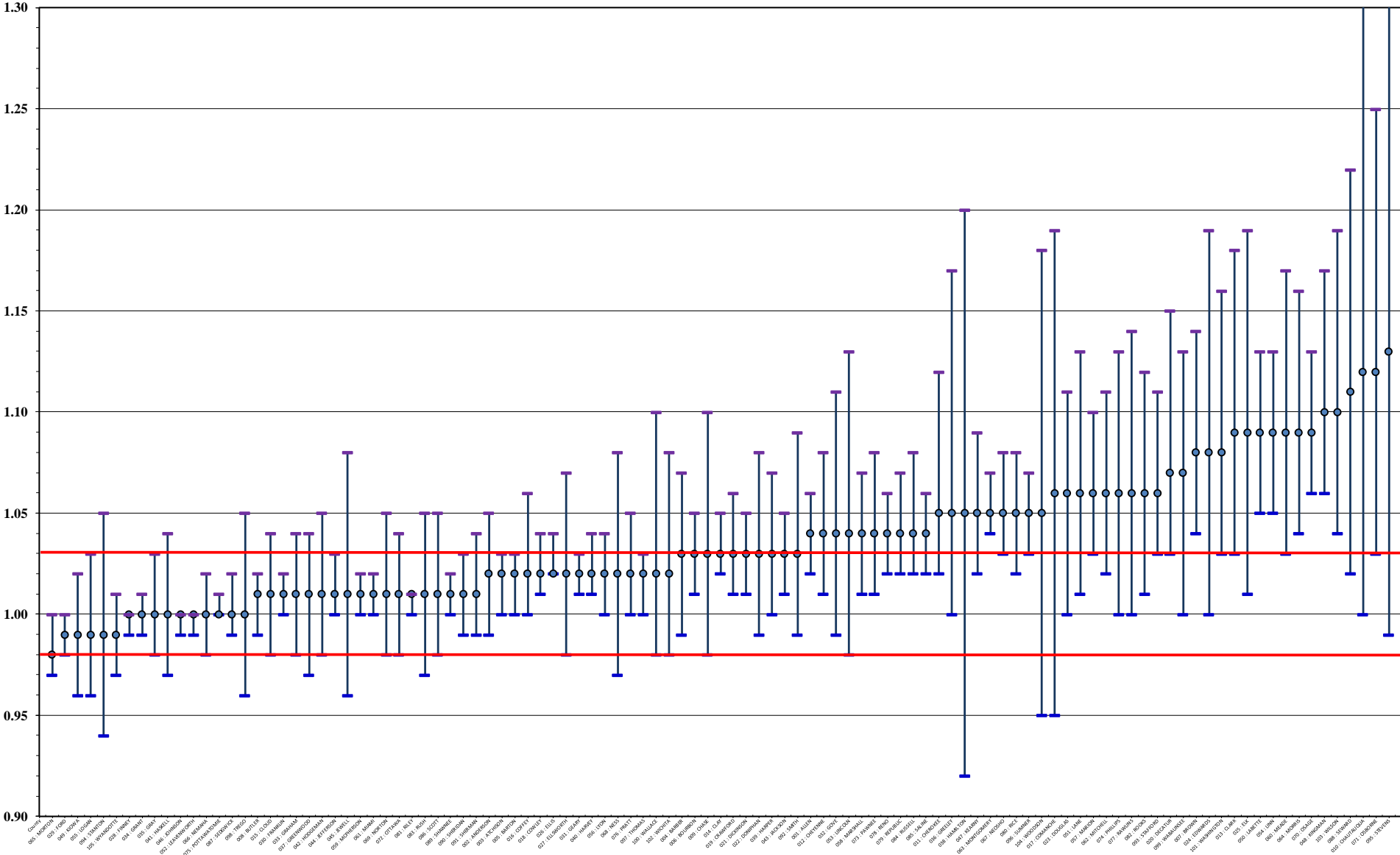
### Residential - Median Ratio Confidence Interval



### Residential - COD Confidence Interval

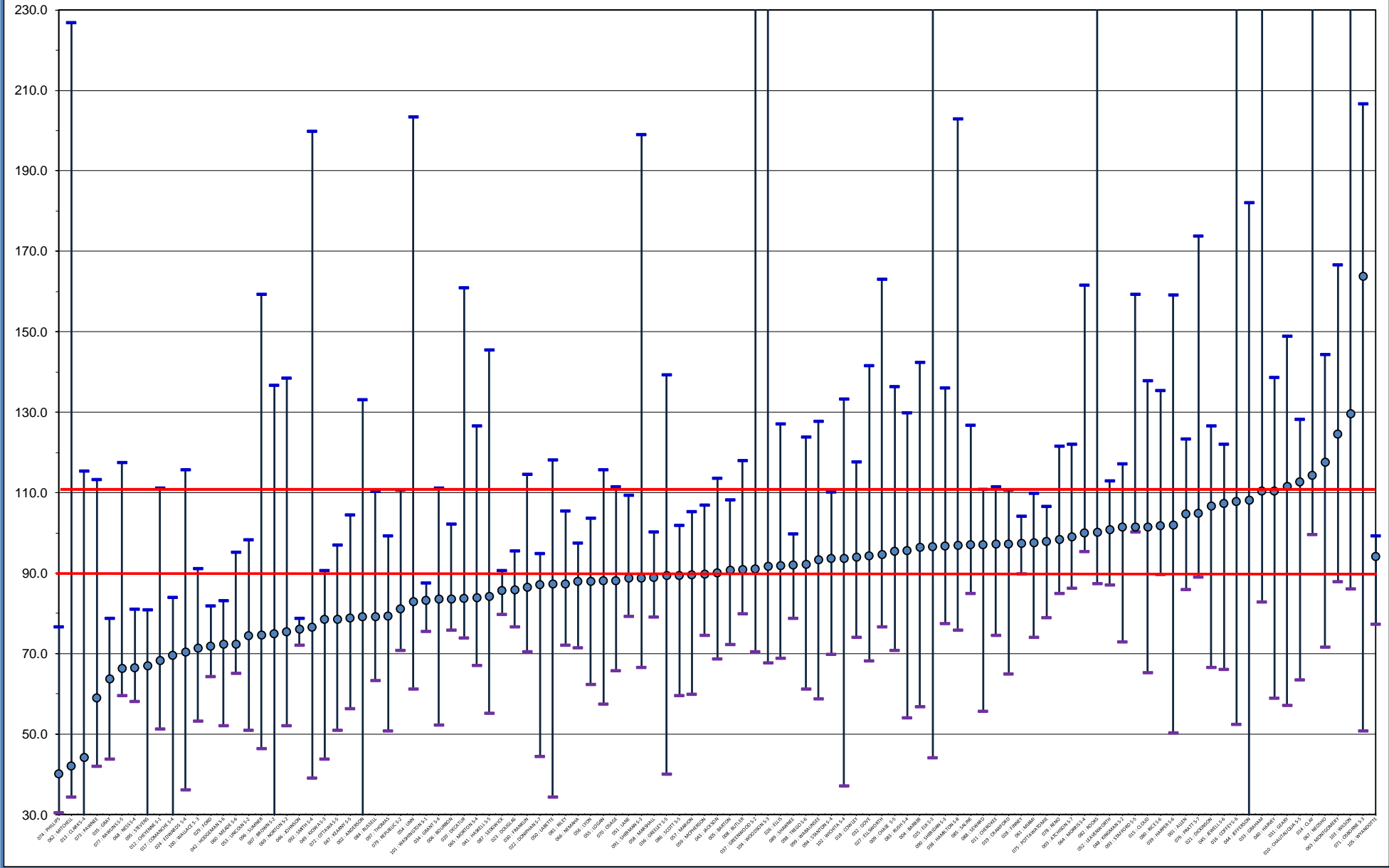


### Residential - PRD Confidence Interval

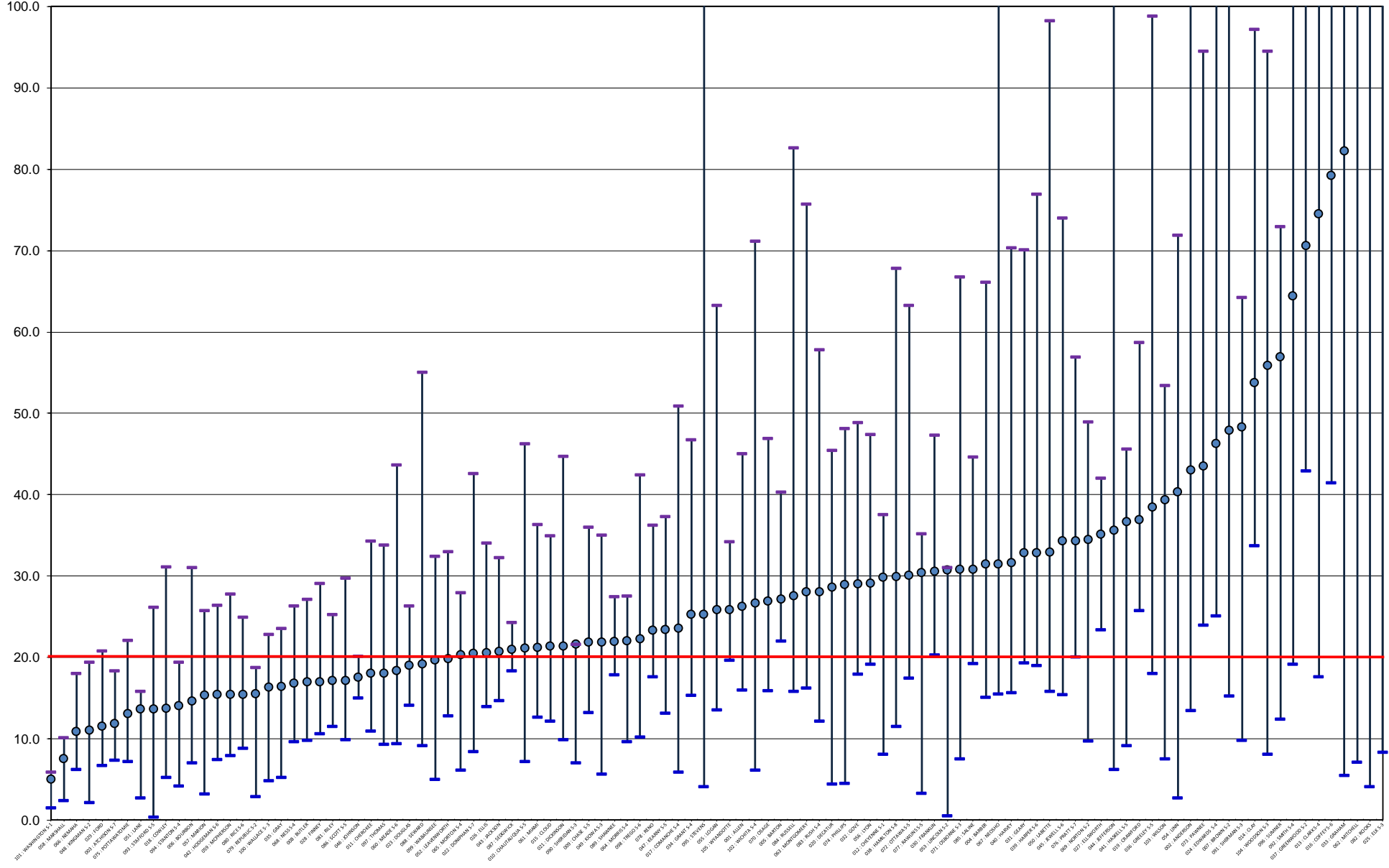




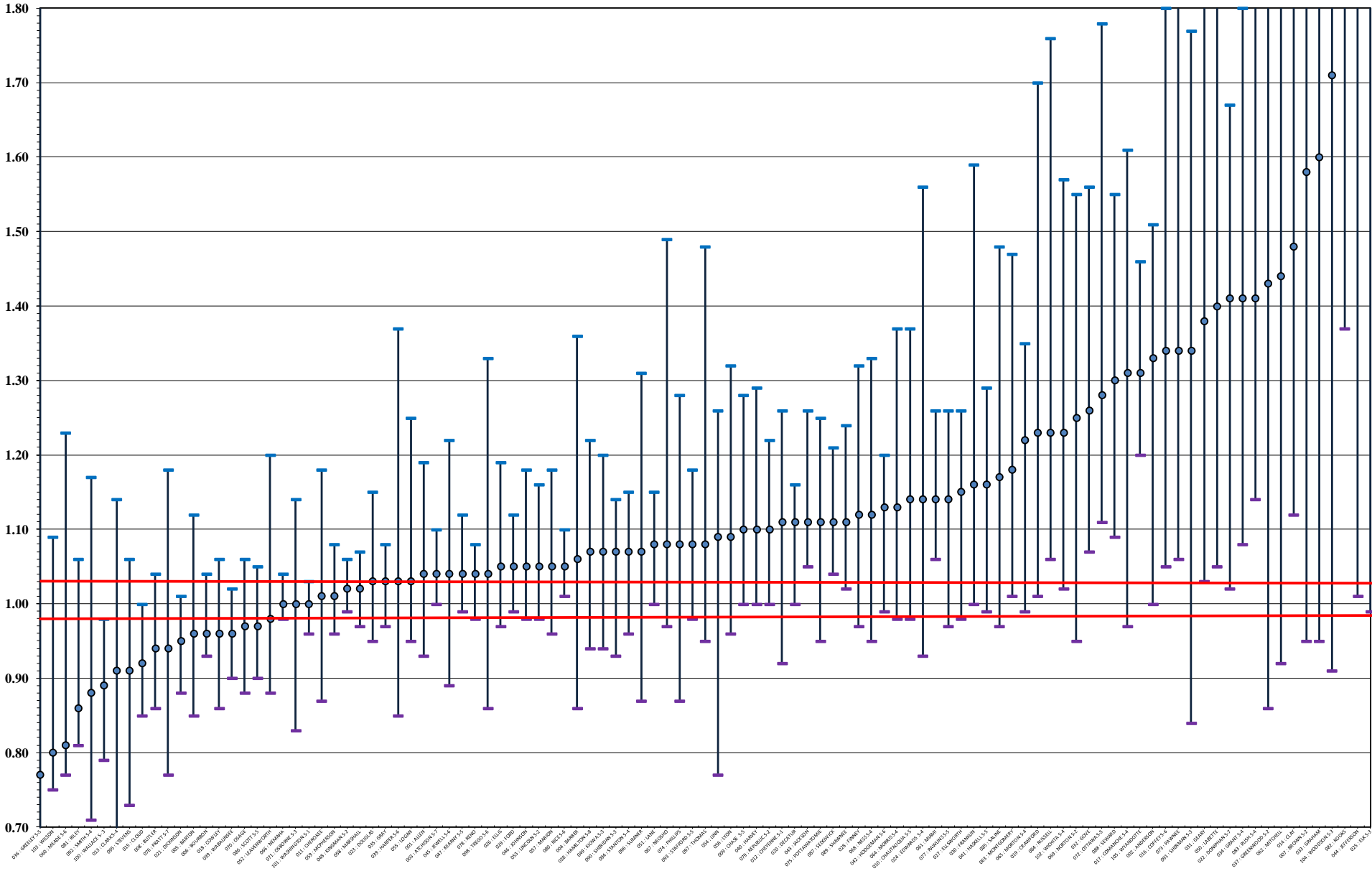
### Commercial/Industrial - Median Ratio Confidence Interval



### Commercial/Industrial - COD Confidence Interval



### Commercial/Industrial - PRD Confidence Interval



# Detailed Statistics

## Residential and Commercial/Industrial

### Subclass



<b>001 : ALLEN</b>			<b>002 : ANDERSON</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	107	13	Original Number of Sales	79	5
Trimmed Outliers	18	1	Trimmed Outliers	12	0
Number of Ratios: Outliers Removed	89	12	Number of Ratios: Outliers Removed	67	5
Minimum Ratio	36.6	68.4	Minimum Ratio	25.6	17.9
Maximum Ratio	1185.0	282.2	Maximum Ratio	241.4	137.4
Minimum Sale Price	200	5,000	Minimum Sale Price	1,000	30,000
Maximum Sale Price	234,367	475,000	Maximum Sale Price	277,000	350,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	101.7	104.7	Median Ratio	93.6	79.2
Lower Median Confidence Interval	98.6	86.0	Lower Median Confidence Interval	87.7	21.9
Upper Median Confidence Interval	107.8	123.5	Upper Median Confidence Interval	97.6	133.2
Broadened Median Ratio	101.6	106.1	Broadened Median Ratio	93.7	78.0
Coefficient of Dispersion (COD)	13.3	26.3	Coefficient of Dispersion (COD)	15.9	43.1
Lower COD Confidence Interval	11.2	16.1	Lower COD Confidence Interval	12.8	13.5
Upper COD Confidence Interval	16.1	45.1	Upper COD Confidence Interval	19.7	106.4
Value Weighted COD	12.7	21.7	Value Weighted COD	14.2	39.1
Coefficient of Concentration @10%	43.0	23.1	Coefficient of Concentration @10%	41.8	20.0
Coefficient of Concentration @15%	56.1	38.5	Coefficient of Concentration @15%	53.2	20.0
Coefficient of Concentration @20%	62.6	53.8	Coefficient of Concentration @20%	57.0	20.0
Coefficient of Concentration @50%	83.2	76.9	Coefficient of Concentration @50%	84.8	60.0
Coefficient of Concentration @100%	91.6	92.3	Coefficient of Concentration @100%	97.5	100.0
Coefficient of Interquartile Deviation	12.3	32.8	Coefficient of Interquartile Deviation	13.2	53.9
Median Percent Deviation	11.9	18.0	Median Percent Deviation	13.0	34.7
Lower Quartile (25 <sup>th</sup> Percentile)	90.6	78.1	Lower Quartile (25 <sup>th</sup> Percentile)	82.3	34.8
Upper Quartile (75 <sup>th</sup> Percentile)	115.6	146.7	Upper Quartile (75 <sup>th</sup> Percentile)	106.9	120.2
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	-0.16	0.89	Relative Skewness	0.39	-0.02
Relative Kurtosis	3.21	2.87	Relative Kurtosis	3.26	1.84
Arithmetic Mean Ratio	99.5	108.6	Arithmetic Mean Ratio	92.3	77.8
Weighted Mean Ratio	95.5	104.2	Weighted Mean Ratio	90.5	58.4
Geometric Mean Ratio	97.8	103.2	Geometric Mean Ratio	90.2	63.5
Harmonic Mean Ratio	96.0	98.5	Harmonic Mean Ratio	88.1	47.7
Standard Deviation	17.7	37.8	Standard Deviation	19.8	46.0
Coefficient of Variation (COV)	17.8	34.8	Coefficient of Variation (COV)	21.4	59.1
Price-Related Differential (PRD)	1.04	1.04	Price-Related Differential (PRD)	1.02	1.33
Lower PRD Confidence Interval	1.02	0.93	Lower PRD Confidence Interval	0.99	1.00
Upper PRD Confidence interval	1.06	1.19	Upper PRD Confidence interval	1.05	1.51
Coef. of Price-Related Bias (PRB)	-0.59	-0.17	Coef. of Price-Related Bias (PRB)	-0.04	-0.15
Lower PRB Confidence Interval	-0.74	-0.40	Lower PRB Confidence Interval	-0.12	-0.97
Upper PRB Confidence Interval	-0.44	0.08	Upper PRB Confidence Interval	0.04	0.68
Average Sale Price	72,650	101,585	Average Sale Price	92,773	106,300
Average Appraised Value	69,392	105,811	Average Appraised Value	83,999	62,052

<b>003 : ATCHISON</b>			<b>004 : BARBER</b>		
<i>S-7</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	150	9	Original Number of Sales	49	6
Trimmed Outliers	24	0	Trimmed Outliers	4	0
Number of Ratios: Outliers Removed	126	9	Number of Ratios: Outliers Removed	45	6
Minimum Ratio	37.2	81.1	Minimum Ratio	46.3	55.7
Maximum Ratio	427.3	126.8	Maximum Ratio	454.3	172.3
Minimum Sale Price	4,800	15,000	Minimum Sale Price	4,000	3,500
Maximum Sale Price	352,000	242,000	Maximum Sale Price	257,000	175,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	92.9	99.0	Median Ratio	99.9	96.4
Lower Median Confidence Interval	90.0	86.3	Lower Median Confidence Interval	89.1	56.9
Upper Median Confidence Interval	94.9	122.1	Upper Median Confidence Interval	110.3	142.5
Broadened Median Ratio	92.9	98.3	Broadened Median Ratio	99.4	92.8
Coefficient of Dispersion (COD)	10.8	11.9	Coefficient of Dispersion (COD)	18.7	31.5
Lower COD Confidence Interval	9.3	7.4	Lower COD Confidence Interval	14.8	15.2
Upper COD Confidence Interval	12.7	18.4	Upper COD Confidence Interval	23.9	66.2
Value Weighted COD	10.0	6.9	Value Weighted COD	16.6	15.8
Coefficient of Concentration @10%	52.7	44.4	Coefficient of Concentration @10%	24.5	33.3
Coefficient of Concentration @15%	60.7	55.6	Coefficient of Concentration @15%	42.9	33.3
Coefficient of Concentration @20%	67.3	77.8	Coefficient of Concentration @20%	61.2	50.0
Coefficient of Concentration @50%	88.7	100.0	Coefficient of Concentration @50%	87.8	83.3
Coefficient of Concentration @100%	95.3	100.0	Coefficient of Concentration @100%	95.9	100.0
Coefficient of Interquartile Deviation	9.5	14.3	Coefficient of Interquartile Deviation	16.8	36.4
Median Percent Deviation	8.6	12.9	Median Percent Deviation	16.8	28.4
Lower Quartile (25 <sup>th</sup> Percentile)	82.5	90.6	Lower Quartile (25 <sup>th</sup> Percentile)	83.1	57.5
Upper Quartile (75 <sup>th</sup> Percentile)	100.2	118.8	Upper Quartile (75 <sup>th</sup> Percentile)	116.6	127.7
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	AcceptW
Relative Skewness	-0.06	0.33	Relative Skewness	0.14	0.71
Relative Kurtosis	3.17	1.86	Relative Kurtosis	2.81	2.53
Arithmetic Mean Ratio	90.1	102.4	Arithmetic Mean Ratio	96.0	98.6
Weighted Mean Ratio	88.4	98.1	Weighted Mean Ratio	93.4	93.4
Geometric Mean Ratio	89.1	101.4	Geometric Mean Ratio	93.3	91.4
Harmonic Mean Ratio	88.1	100.3	Harmonic Mean Ratio	90.5	84.9
Standard Deviation	12.9	15.8	Standard Deviation	22.6	42.8
Coefficient of Variation (COV)	14.3	15.4	Coefficient of Variation (COV)	23.5	43.4
Price-Related Differential (PRD)	1.02	1.04	Price-Related Differential (PRD)	1.03	1.06
Lower PRD Confidence Interval	1.00	1.00	Lower PRD Confidence Interval	0.99	0.86
Upper PRD Confidence interval	1.03	1.10	Upper PRD Confidence interval	1.07	1.36
Coef. of Price-Related Bias (PRB)	-0.20	-0.07	Coef. of Price-Related Bias (PRB)	-0.10	0.03
Lower PRB Confidence Interval	-0.27	-0.18	Lower PRB Confidence Interval	-0.30	-0.27
Upper PRB Confidence Interval	-0.13	0.04	Upper PRB Confidence Interval	0.10	0.33
Average Sale Price	122,337	80,319	Average Sale Price	65,311	65,620
Average Appraised Value	108,171	78,764	Average Appraised Value	61,026	61,542

<b>005 : BARTON</b>			<b>006 : BOURBON</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	323	29	Original Number of Sales	160	7
Trimmed Outliers	28	2	Trimmed Outliers	16	1
Number of Ratios: Outliers Removed	295	27	Number of Ratios: Outliers Removed	144	6
Minimum Ratio	36.7	21.3	Minimum Ratio	25.6	53.4
Maximum Ratio	650.0	299.3	Maximum Ratio	957.6	145.5
Minimum Sale Price	1,800	5,000	Minimum Sale Price	500	35,000
Maximum Sale Price	405,000	530,000	Maximum Sale Price	370,000	520,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	101.3	90.8	Median Ratio	91.0	83.6
Lower Median Confidence Interval	98.0	72.4	Lower Median Confidence Interval	87.1	75.9
Upper Median Confidence Interval	102.9	108.3	Upper Median Confidence Interval	93.0	102.3
Broadened Median Ratio	101.0	87.3	Broadened Median Ratio	90.9	86.5
Coefficient of Dispersion (COD)	16.3	27.2	Coefficient of Dispersion (COD)	14.8	14.7
Lower COD Confidence Interval	14.8	22.1	Lower COD Confidence Interval	13.0	7.1
Upper COD Confidence Interval	18.0	40.4	Upper COD Confidence Interval	17.3	31.1
Value Weighted COD	14.3	29.3	Value Weighted COD	14.2	17.8
Coefficient of Concentration @10%	35.3	13.8	Coefficient of Concentration @10%	42.5	42.9
Coefficient of Concentration @15%	54.5	31.0	Coefficient of Concentration @15%	53.8	57.1
Coefficient of Concentration @20%	63.8	34.5	Coefficient of Concentration @20%	62.5	57.1
Coefficient of Concentration @50%	90.4	89.7	Coefficient of Concentration @50%	89.4	85.7
Coefficient of Concentration @100%	97.2	93.1	Coefficient of Concentration @100%	95.0	100.0
Coefficient of Interquartile Deviation	13.5	26.2	Coefficient of Interquartile Deviation	13.3	15.8
Median Percent Deviation	13.5	25.4	Median Percent Deviation	12.6	14.6
Lower Quartile (25 <sup>th</sup> Percentile)	87.5	68.9	Lower Quartile (25 <sup>th</sup> Percentile)	78.1	75.9
Upper Quartile (75 <sup>th</sup> Percentile)	114.9	116.5	Upper Quartile (75 <sup>th</sup> Percentile)	102.3	102.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	0.22	-0.17	Relative Skewness	-0.33	-0.52
Relative Kurtosis	3.14	2.63	Relative Kurtosis	2.90	2.43
Arithmetic Mean Ratio	100.2	87.6	Arithmetic Mean Ratio	87.8	81.8
Weighted Mean Ratio	98.6	91.1	Weighted Mean Ratio	85.6	84.8
Geometric Mean Ratio	98.0	82.6	Geometric Mean Ratio	86.0	80.2
Harmonic Mean Ratio	95.6	75.8	Harmonic Mean Ratio	84.0	78.4
Standard Deviation	21.0	27.0	Standard Deviation	17.0	17.1
Coefficient of Variation (COV)	20.9	30.9	Coefficient of Variation (COV)	19.4	20.9
Price-Related Differential (PRD)	1.02	0.96	Price-Related Differential (PRD)	1.03	0.96
Lower PRD Confidence Interval	1.00	0.85	Lower PRD Confidence Interval	1.01	0.93
Upper PRD Confidence interval	1.03	1.12	Upper PRD Confidence interval	1.05	1.04
Coef. of Price-Related Bias (PRB)	-0.11	-0.01	Coef. of Price-Related Bias (PRB)	-0.25	-0.05
Lower PRB Confidence Interval	-0.15	-0.16	Lower PRB Confidence Interval	-0.38	-0.34
Upper PRB Confidence Interval	-0.07	0.14	Upper PRB Confidence Interval	-0.12	0.24
Average Sale Price	106,968	126,943	Average Sale Price	92,980	216,429
Average Appraised Value	105,504	115,834	Average Appraised Value	79,605	187,889

<b>007 : BROWN</b>			<b>008 : BUTLER</b>		
<i>S-2</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	85	5	Original Number of Sales	237	16
Trimmed Outliers	7	0	Trimmed Outliers	38	2
Number of Ratios: Outliers Removed	78	5	Number of Ratios: Outliers Removed	199	14
Minimum Ratio	19.6	17.8	Minimum Ratio	13.0	65.9
Maximum Ratio	1581.3	140.3	Maximum Ratio	315.6	219.5
Minimum Sale Price	800	25,000	Minimum Sale Price	6,500	10,000
Maximum Sale Price	204,000	200,000	Maximum Sale Price	875,000	1,708,346
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	95.5	74.9	Median Ratio	96.6	90.9
Lower Median Confidence Interval	91.2	22.0	Lower Median Confidence Interval	94.8	80.0
Upper Median Confidence Interval	104.2	136.7	Upper Median Confidence Interval	98.5	118.0
Broadened Median Ratio	95.5	79.4	Broadened Median Ratio	96.6	91.8
Coefficient of Dispersion (COD)	22.5	48.0	Coefficient of Dispersion (COD)	9.0	17.0
Lower COD Confidence Interval	18.3	15.3	Lower COD Confidence Interval	7.9	9.9
Upper COD Confidence Interval	27.8	103.9	Upper COD Confidence Interval	10.2	27.2
Value Weighted COD	20.4	60.7	Value Weighted COD	9.1	16.1
Coefficient of Concentration @10%	34.1	20.0	Coefficient of Concentration @10%	55.7	43.8
Coefficient of Concentration @15%	48.2	20.0	Coefficient of Concentration @15%	67.1	43.8
Coefficient of Concentration @20%	56.5	20.0	Coefficient of Concentration @20%	74.3	43.8
Coefficient of Concentration @50%	80.0	60.0	Coefficient of Concentration @50%	90.3	81.3
Coefficient of Concentration @100%	94.1	100.0	Coefficient of Concentration @100%	96.2	87.5
Coefficient of Interquartile Deviation	20.7	60.0	Coefficient of Interquartile Deviation	8.5	24.6
Median Percent Deviation	15.6	47.1	Median Percent Deviation	7.9	23.9
Lower Quartile (25 <sup>th</sup> Percentile)	84.8	35.4	Lower Quartile (25 <sup>th</sup> Percentile)	89.5	73.7
Upper Quartile (75 <sup>th</sup> Percentile)	124.3	125.2	Upper Quartile (75 <sup>th</sup> Percentile)	105.9	118.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness	0.64	0.02	Relative Skewness	0.18	0.79
Relative Kurtosis	3.66	1.76	Relative Kurtosis	3.70	3.03
Arithmetic Mean Ratio	99.8	79.2	Arithmetic Mean Ratio	95.9	92.1
Weighted Mean Ratio	92.2	50.2	Weighted Mean Ratio	94.9	98.1
Geometric Mean Ratio	95.5	64.2	Geometric Mean Ratio	95.2	89.9
Harmonic Mean Ratio	91.0	47.8	Harmonic Mean Ratio	94.5	87.7
Standard Deviation	29.3	47.9	Standard Deviation	11.5	22.0
Coefficient of Variation (COV)	29.4	60.4	Coefficient of Variation (COV)	12.0	23.9
Price-Related Differential (PRD)	1.08	1.58	Price-Related Differential (PRD)	1.01	0.94
Lower PRD Confidence Interval	1.04	0.95	Lower PRD Confidence Interval	0.99	0.86
Upper PRD Confidence interval	1.14	2.00	Upper PRD Confidence interval	1.02	1.04
Coef. of Price-Related Bias (PRB)	-0.88	-0.20	Coef. of Price-Related Bias (PRB)	-0.10	-0.05
Lower PRB Confidence Interval	-1.24	-1.38	Lower PRB Confidence Interval	-0.14	-0.19
Upper PRB Confidence Interval	-0.51	0.97	Upper PRB Confidence Interval	-0.06	0.09
Average Sale Price	79,010	68,200	Average Sale Price	171,250	367,522
Average Appraised Value	72,884	34,210	Average Appraised Value	162,432	371,295



<b>009 : CHASE</b>			<b>010 : CHAUTAUQUA</b>		
<i>S-5</i>			<i>S-5</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	31	8	Original Number of Sales	26	6
Trimmed Outliers	6	0	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	25	8	Number of Ratios: Outliers Removed	23	6
Minimum Ratio	21.5	65.9	Minimum Ratio	48.6	51.9
Maximum Ratio	436.2	139.4	Maximum Ratio	456.0	128.8
Minimum Sale Price	4,000	1,000	Minimum Sale Price	1,250	8,000
Maximum Sale Price	177,000	125,000	Maximum Sale Price	179,900	70,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	108.1	95.4	Median Ratio	119.4	112.7
Lower Median Confidence Interval	97.7	70.8	Lower Median Confidence Interval	88.3	63.5
Upper Median Confidence Interval	122.3	136.4	Upper Median Confidence Interval	150.8	128.4
Broadened Median Ratio	108.7	95.4	Broadened Median Ratio	119.1	109.0
Coefficient of Dispersion (COD)	18.8	21.9	Coefficient of Dispersion (COD)	33.5	21.2
Lower COD Confidence Interval	13.6	13.3	Lower COD Confidence Interval	23.3	7.3
Upper COD Confidence Interval	28.8	36.1	Upper COD Confidence Interval	47.7	46.3
Value Weighted COD	17.8	16.5	Value Weighted COD	23.3	30.8
Coefficient of Concentration @10%	29.0	25.0	Coefficient of Concentration @10%	19.2	33.3
Coefficient of Concentration @15%	41.9	50.0	Coefficient of Concentration @15%	19.2	66.7
Coefficient of Concentration @20%	51.6	50.0	Coefficient of Concentration @20%	34.6	66.7
Coefficient of Concentration @50%	74.2	100.0	Coefficient of Concentration @50%	65.4	83.3
Coefficient of Concentration @100%	83.9	100.0	Coefficient of Concentration @100%	88.5	100.0
Coefficient of Interquartile Deviation	19.1	29.1	Coefficient of Interquartile Deviation	45.8	26.1
Median Percent Deviation	17.4	19.5	Median Percent Deviation	36.2	13.9
Lower Quartile (25 <sup>th</sup> Percentile)	89.4	73.8	Lower Quartile (25 <sup>th</sup> Percentile)	80.9	69.4
Upper Quartile (75 <sup>th</sup> Percentile)	130.6	129.3	Upper Quartile (75 <sup>th</sup> Percentile)	190.3	128.2
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	AcceptW
Relative Skewness	1.05	0.38	Relative Skewness	0.51	-0.68
Relative Kurtosis	4.71	1.85	Relative Kurtosis	2.20	1.89
Arithmetic Mean Ratio	107.4	99.2	Arithmetic Mean Ratio	116.3	101.5
Weighted Mean Ratio	104.5	90.1	Weighted Mean Ratio	103.5	88.7
Geometric Mean Ratio	104.3	96.0	Geometric Mean Ratio	107.1	96.6
Harmonic Mean Ratio	101.4	92.9	Harmonic Mean Ratio	98.4	91.0
Standard Deviation	27.3	27.5	Standard Deviation	47.8	31.5
Coefficient of Variation (COV)	25.4	27.7	Coefficient of Variation (COV)	41.1	31.0
Price-Related Differential (PRD)	1.03	1.10	Price-Related Differential (PRD)	1.12	1.14
Lower PRD Confidence Interval	0.98	1.00	Lower PRD Confidence Interval	1.00	0.98
Upper PRD Confidence interval	1.10	1.27	Upper PRD Confidence interval	1.31	1.37
Coef. of Price-Related Bias (PRB)	-0.20	-0.02	Coef. of Price-Related Bias (PRB)	-0.21	-0.11
Lower PRB Confidence Interval	-0.40	-0.17	Lower PRB Confidence Interval	-0.44	-0.48
Upper PRB Confidence Interval	0.01	0.13	Upper PRB Confidence Interval	0.02	0.27
Average Sale Price	66,147	39,180	Average Sale Price	37,293	35,460
Average Appraised Value	69,139	35,054	Average Appraised Value	38,593	31,186

<b>011 : CHEROKEE</b>			<b>012 : CHEYENNE</b>		
			<i>S-1</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	186	10	Original Number of Sales	51	5
Trimmed Outliers	20	1	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	166	9	Number of Ratios: Outliers Removed	48	5
Minimum Ratio	28.1	55.4	Minimum Ratio	0.5	50.3
Maximum Ratio	1081.0	242.4	Maximum Ratio	137.8	113.2
Minimum Sale Price	1,000	12,500	Minimum Sale Price	12,000	34,500
Maximum Sale Price	832,500	575,000	Maximum Sale Price	197,000	975,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	91.6	97.2	Median Ratio	97.3	68.2
Lower Median Confidence Interval	88.8	74.7	Lower Median Confidence Interval	90.7	51.3
Upper Median Confidence Interval	96.3	111.6	Upper Median Confidence Interval	100.5	111.3
Broadened Median Ratio	91.6	96.7	Broadened Median Ratio	96.6	74.7
Coefficient of Dispersion (COD)	18.8	18.1	Coefficient of Dispersion (COD)	15.7	29.9
Lower COD Confidence Interval	16.4	11.0	Lower COD Confidence Interval	12.0	8.2
Upper COD Confidence Interval	21.7	34.4	Upper COD Confidence Interval	20.4	37.6
Value Weighted COD	17.7	18.4	Value Weighted COD	14.2	5.7
Coefficient of Concentration @10%	36.6	30.0	Coefficient of Concentration @10%	47.1	20.0
Coefficient of Concentration @15%	47.8	50.0	Coefficient of Concentration @15%	54.9	40.0
Coefficient of Concentration @20%	58.1	50.0	Coefficient of Concentration @20%	62.7	40.0
Coefficient of Concentration @50%	81.7	90.0	Coefficient of Concentration @50%	94.1	80.0
Coefficient of Concentration @100%	92.5	90.0	Coefficient of Concentration @100%	100.0	100.0
Coefficient of Interquartile Deviation	16.3	20.2	Coefficient of Interquartile Deviation	12.7	37.4
Median Percent Deviation	15.9	17.7	Median Percent Deviation	11.4	26.2
Lower Quartile (25 <sup>th</sup> Percentile)	78.5	73.8	Lower Quartile (25 <sup>th</sup> Percentile)	80.9	54.3
Upper Quartile (75 <sup>th</sup> Percentile)	108.4	113.1	Upper Quartile (75 <sup>th</sup> Percentile)	105.6	105.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	AcceptW
Relative Skewness	0.41	-0.37	Relative Skewness	-0.29	0.37
Relative Kurtosis	3.62	1.89	Relative Kurtosis	2.90	1.50
Arithmetic Mean Ratio	91.3	90.1	Arithmetic Mean Ratio	96.4	77.5
Weighted Mean Ratio	86.7	88.9	Weighted Mean Ratio	92.9	69.6
Geometric Mean Ratio	88.4	87.6	Geometric Mean Ratio	93.9	73.9
Harmonic Mean Ratio	85.3	85.0	Harmonic Mean Ratio	91.2	70.6
Standard Deviation	22.7	21.4	Standard Deviation	20.8	26.7
Coefficient of Variation (COV)	24.8	23.8	Coefficient of Variation (COV)	21.6	34.5
Price-Related Differential (PRD)	1.05	1.01	Price-Related Differential (PRD)	1.04	1.11
Lower PRD Confidence Interval	1.02	0.87	Lower PRD Confidence Interval	1.01	0.92
Upper PRD Confidence interval	1.12	1.18	Upper PRD Confidence interval	1.08	1.26
Coef. of Price-Related Bias (PRB)	-0.50	-0.02	Coef. of Price-Related Bias (PRB)	0.01	-0.03
Lower PRB Confidence Interval	-0.68	-0.27	Lower PRB Confidence Interval	-0.08	-0.39
Upper PRB Confidence Interval	-0.32	0.23	Upper PRB Confidence Interval	0.10	0.34
Average Sale Price	86,728	154,083	Average Sale Price	87,450	235,900
Average Appraised Value	75,196	136,964	Average Appraised Value	81,260	164,258

<b>013 : CLARK</b>			<b>014 : CLAY</b>		
<i>S-4</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	18	5	Original Number of Sales	102	7
Trimmed Outliers	1	0	Trimmed Outliers	11	0
Number of Ratios: Outliers Removed	17	5	Number of Ratios: Outliers Removed	91	7
Minimum Ratio	62.1	14.4	Minimum Ratio	38.2	92.9
Maximum Ratio	258.6	118.2	Maximum Ratio	431.4	303.8
Minimum Sale Price	700	10,000	Minimum Sale Price	3,500	8,800
Maximum Sale Price	200,000	72,500	Maximum Sale Price	370,000	1,000,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	96.5	44.2	Median Ratio	97.8	114.3
Lower Median Confidence Interval	77.1	16.7	Lower Median Confidence Interval	91.9	99.7
Upper Median Confidence Interval	117.2	115.4	Upper Median Confidence Interval	100.0	274.5
Broadened Median Ratio	99.4	57.6	Broadened Median Ratio	97.8	125.1
Coefficient of Dispersion (COD)	21.9	74.6	Coefficient of Dispersion (COD)	12.4	53.8
Lower COD Confidence Interval	16.1	17.7	Lower COD Confidence Interval	10.3	33.8
Upper COD Confidence Interval	34.0	111.8	Upper COD Confidence Interval	14.9	97.3
Value Weighted COD	17.0	65.5	Value Weighted COD	12.1	12.1
Coefficient of Concentration @10%	22.2	20.0	Coefficient of Concentration @10%	46.1	28.6
Coefficient of Concentration @15%	27.8	20.0	Coefficient of Concentration @15%	56.9	42.9
Coefficient of Concentration @20%	38.9	20.0	Coefficient of Concentration @20%	68.6	57.1
Coefficient of Concentration @50%	94.4	40.0	Coefficient of Concentration @50%	94.1	71.4
Coefficient of Concentration @100%	94.4	60.0	Coefficient of Concentration @100%	96.1	71.4
Coefficient of Interquartile Deviation	25.6	93.3	Coefficient of Interquartile Deviation	11.4	76.5
Median Percent Deviation	24.8	67.4	Median Percent Deviation	11.6	18.7
Lower Quartile (25 <sup>th</sup> Percentile)	71.1	24.0	Lower Quartile (25 <sup>th</sup> Percentile)	82.8	99.7
Upper Quartile (75 <sup>th</sup> Percentile)	120.5	106.5	Upper Quartile (75 <sup>th</sup> Percentile)	105.0	274.5
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	AcceptK	AcceptW	Normality Test	RejectK	RejectW
Relative Skewness	0.15	0.33	Relative Skewness	0.15	0.84
Relative Kurtosis	1.87	1.49	Relative Kurtosis	2.97	1.91
Arithmetic Mean Ratio	96.4	61.1	Arithmetic Mean Ratio	93.4	163.7
Weighted Mean Ratio	88.2	67.2	Weighted Mean Ratio	90.5	110.3
Geometric Mean Ratio	93.2	47.4	Geometric Mean Ratio	92.2	146.6
Harmonic Mean Ratio	90.1	35.5	Harmonic Mean Ratio	90.9	133.9
Standard Deviation	25.2	43.6	Standard Deviation	15.1	88.2
Coefficient of Variation (COV)	26.2	71.5	Coefficient of Variation (COV)	16.2	53.9
Price-Related Differential (PRD)	1.09	0.91	Price-Related Differential (PRD)	1.03	1.48
Lower PRD Confidence Interval	1.03	0.67	Lower PRD Confidence Interval	1.02	1.12
Upper PRD Confidence interval	1.18	1.14	Upper PRD Confidence interval	1.05	1.99
Coef. of Price-Related Bias (PRB)	-0.22	0.42	Coef. of Price-Related Bias (PRB)	-0.22	-0.18
Lower PRB Confidence Interval	-0.30	-0.44	Lower PRB Confidence Interval	-0.29	-0.52
Upper PRB Confidence Interval	-0.13	1.28	Upper PRB Confidence Interval	-0.14	0.16
Average Sale Price	76,459	41,500	Average Sale Price	124,602	250,000
Average Appraised Value	67,452	27,904	Average Appraised Value	112,774	275,097

<b>015 : CLOUD</b>			<b>016 : COFFEY</b>		
			<i>S-6</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	90	9	Original Number of Sales	96	10
Trimmed Outliers	8	1	Trimmed Outliers	8	0
Number of Ratios: Outliers Removed	82	8	Number of Ratios: Outliers Removed	88	10
Minimum Ratio	49.4	65.0	Minimum Ratio	46.6	44.7
Maximum Ratio	1006.3	293.8	Maximum Ratio	373.3	351.7
Minimum Sale Price	3,000	8,000	Minimum Sale Price	3,000	15,250
Maximum Sale Price	280,000	127,500	Maximum Sale Price	425,500	130,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	93.3	101.5	Median Ratio	96.1	107.8
Lower Median Confidence Interval	88.6	65.4	Lower Median Confidence Interval	93.5	52.5
Upper Median Confidence Interval	95.9	138.0	Upper Median Confidence Interval	100.0	248.0
Broadened Median Ratio	93.2	102.9	Broadened Median Ratio	96.2	106.3
Coefficient of Dispersion (COD)	12.9	21.4	Coefficient of Dispersion (COD)	12.6	79.3
Lower COD Confidence Interval	10.8	12.2	Lower COD Confidence Interval	10.5	41.5
Upper COD Confidence Interval	15.7	35.0	Upper COD Confidence Interval	15.2	167.0
Value Weighted COD	12.3	17.8	Value Weighted COD	11.5	56.1
Coefficient of Concentration @10%	44.4	33.3	Coefficient of Concentration @10%	50.0	0.0
Coefficient of Concentration @15%	63.3	33.3	Coefficient of Concentration @15%	62.5	0.0
Coefficient of Concentration @20%	72.2	33.3	Coefficient of Concentration @20%	67.7	20.0
Coefficient of Concentration @50%	93.3	88.9	Coefficient of Concentration @50%	92.7	40.0
Coefficient of Concentration @100%	98.9	88.9	Coefficient of Concentration @100%	94.8	70.0
Coefficient of Interquartile Deviation	11.6	29.6	Coefficient of Interquartile Deviation	9.9	94.3
Median Percent Deviation	11.2	26.5	Median Percent Deviation	9.8	52.7
Lower Quartile (25 <sup>th</sup> Percentile)	82.9	70.0	Lower Quartile (25 <sup>th</sup> Percentile)	86.6	51.8
Upper Quartile (75 <sup>th</sup> Percentile)	104.5	130.1	Upper Quartile (75 <sup>th</sup> Percentile)	105.6	255.1
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	RejectK
Relative Skewness	0.12	0.13	Relative Skewness	0.32	0.77
Relative Kurtosis	3.27	1.76	Relative Kurtosis	3.04	2.15
Arithmetic Mean Ratio	91.8	96.7	Arithmetic Mean Ratio	95.5	144.5
Weighted Mean Ratio	90.7	104.9	Weighted Mean Ratio	93.3	107.5
Geometric Mean Ratio	90.5	93.4	Geometric Mean Ratio	94.2	110.5
Harmonic Mean Ratio	89.1	90.2	Harmonic Mean Ratio	92.8	86.7
Standard Deviation	15.6	26.8	Standard Deviation	16.2	110.2
Coefficient of Variation (COV)	17.0	27.7	Coefficient of Variation (COV)	16.9	76.3
Price-Related Differential (PRD)	1.01	0.92	Price-Related Differential (PRD)	1.02	1.34
Lower PRD Confidence Interval	0.98	0.85	Lower PRD Confidence Interval	1.00	1.05
Upper PRD Confidence interval	1.04	1.01	Upper PRD Confidence interval	1.06	1.80
Coef. of Price-Related Bias (PRB)	-0.23	-0.15	Coef. of Price-Related Bias (PRB)	-0.11	-0.22
Lower PRB Confidence Interval	-0.43	-0.68	Lower PRB Confidence Interval	-0.18	-1.17
Upper PRB Confidence Interval	-0.03	0.38	Upper PRB Confidence Interval	-0.03	0.72
Average Sale Price	79,004	61,875	Average Sale Price	111,860	55,275
Average Appraised Value	71,665	64,895	Average Appraised Value	104,350	59,438

<b>017 : COMANCHE</b>			<b>018 : COWLEY</b>		
<i>S-4</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	9	5	Original Number of Sales	317	8
Trimmed Outliers	0	0	Trimmed Outliers	35	1
Number of Ratios: Outliers Removed	9	5	Number of Ratios: Outliers Removed	282	7
Minimum Ratio	40.3	24.0	Minimum Ratio	21.7	55.5
Maximum Ratio	135.2	85.3	Maximum Ratio	905.0	167.0
Minimum Sale Price	13,000	10,000	Minimum Sale Price	850	23,290
Maximum Sale Price	92,500	90,000	Maximum Sale Price	349,900	405,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	90.8	69.5	Median Ratio	99.9	94.0
Lower Median Confidence Interval	47.5	27.6	Lower Median Confidence Interval	98.2	74.2
Upper Median Confidence Interval	125.1	84.0	Upper Median Confidence Interval	102.6	117.8
Broadened Median Ratio	89.0	65.9	Broadened Median Ratio	99.9	93.7
Coefficient of Dispersion (COD)	29.3	23.6	Coefficient of Dispersion (COD)	15.9	13.8
Lower COD Confidence Interval	17.2	6.0	Lower COD Confidence Interval	14.3	5.3
Upper COD Confidence Interval	62.0	51.0	Upper COD Confidence Interval	17.6	31.2
Value Weighted COD	22.9	37.5	Value Weighted COD	13.2	6.7
Coefficient of Concentration @10%	22.2	40.0	Coefficient of Concentration @10%	39.7	50.0
Coefficient of Concentration @15%	33.3	40.0	Coefficient of Concentration @15%	52.7	50.0
Coefficient of Concentration @20%	44.4	40.0	Coefficient of Concentration @20%	62.5	50.0
Coefficient of Concentration @50%	88.9	80.0	Coefficient of Concentration @50%	85.5	87.5
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	94.6	100.0
Coefficient of Interquartile Deviation	34.1	29.5	Coefficient of Interquartile Deviation	14.4	18.2
Median Percent Deviation	32.5	22.6	Median Percent Deviation	14.1	12.6
Lower Quartile (25 <sup>th</sup> Percentile)	54.4	38.9	Lower Quartile (25 <sup>th</sup> Percentile)	86.2	78.2
Upper Quartile (75 <sup>th</sup> Percentile)	116.3	79.9	Upper Quartile (75 <sup>th</sup> Percentile)	115.0	112.4
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	AcceptK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	-0.02	-0.76	Relative Skewness	0.05	-0.37
Relative Kurtosis	1.77	2.26	Relative Kurtosis	3.43	2.69
Arithmetic Mean Ratio	87.1	61.4	Arithmetic Mean Ratio	98.1	88.8
Weighted Mean Ratio	81.9	46.8	Weighted Mean Ratio	95.8	92.8
Geometric Mean Ratio	80.9	56.4	Geometric Mean Ratio	95.7	86.8
Harmonic Mean Ratio	74.5	50.1	Harmonic Mean Ratio	93.1	84.6
Standard Deviation	33.2	23.8	Standard Deviation	20.9	19.5
Coefficient of Variation (COV)	38.1	38.7	Coefficient of Variation (COV)	21.3	21.9
Price-Related Differential (PRD)	1.06	1.31	Price-Related Differential (PRD)	1.02	0.96
Lower PRD Confidence Interval	0.95	0.97	Lower PRD Confidence Interval	1.01	0.86
Upper PRD Confidence interval	1.19	1.61	Upper PRD Confidence interval	1.04	1.06
Coef. of Price-Related Bias (PRB)	-0.08	-0.14	Coef. of Price-Related Bias (PRB)	-0.25	0.12
Lower PRB Confidence Interval	-0.41	-0.59	Lower PRB Confidence Interval	-0.32	-0.03
Upper PRB Confidence Interval	0.26	0.32	Upper PRB Confidence Interval	-0.19	0.28
Average Sale Price	50,833	34,900	Average Sale Price	96,881	135,411
Average Appraised Value	41,652	16,346	Average Appraised Value	92,798	158,153

<b>019 : CRAWFORD</b>			<b>020 : DECATUR</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	201	28	Original Number of Sales	33	5
Trimmed Outliers	18	1	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	183	27	Number of Ratios: Outliers Removed	30	5
Minimum Ratio	34.7	24.5	Minimum Ratio	45.9	73.7
Maximum Ratio	331.5	404.8	Maximum Ratio	567.8	169.5
Minimum Sale Price	1,000	3,500	Minimum Sale Price	2,500	15,000
Maximum Sale Price	355,000	810,000	Maximum Sale Price	195,000	45,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	90.1	97.3	Median Ratio	99.1	83.7
Lower Median Confidence Interval	87.8	65.0	Lower Median Confidence Interval	83.5	73.9
Upper Median Confidence Interval	93.4	110.7	Upper Median Confidence Interval	105.8	161.0
Broadened Median Ratio	89.8	96.0	Broadened Median Ratio	97.1	85.9
Coefficient of Dispersion (COD)	17.9	37.0	Coefficient of Dispersion (COD)	19.6	28.7
Lower COD Confidence Interval	15.7	25.8	Lower COD Confidence Interval	14.6	4.5
Upper COD Confidence Interval	20.4	58.8	Upper COD Confidence Interval	27.5	45.5
Value Weighted COD	15.0	39.1	Value Weighted COD	17.4	19.8
Coefficient of Concentration @10%	37.3	25.0	Coefficient of Concentration @10%	33.3	20.0
Coefficient of Concentration @15%	49.3	28.6	Coefficient of Concentration @15%	39.4	60.0
Coefficient of Concentration @20%	59.2	35.7	Coefficient of Concentration @20%	51.5	80.0
Coefficient of Concentration @50%	85.1	71.4	Coefficient of Concentration @50%	84.8	80.0
Coefficient of Concentration @100%	93.5	92.9	Coefficient of Concentration @100%	93.9	80.0
Coefficient of Interquartile Deviation	16.9	37.9	Coefficient of Interquartile Deviation	16.6	35.8
Median Percent Deviation	15.3	37.2	Median Percent Deviation	16.2	11.9
Lower Quartile (25 <sup>th</sup> Percentile)	79.2	54.6	Lower Quartile (25 <sup>th</sup> Percentile)	77.6	74.4
Upper Quartile (75 <sup>th</sup> Percentile)	109.5	128.5	Upper Quartile (75 <sup>th</sup> Percentile)	110.4	134.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	AcceptK	RejectW
Relative Skewness	0.36	0.51	Relative Skewness	0.01	1.28
Relative Kurtosis	3.59	3.00	Relative Kurtosis	2.99	2.92
Arithmetic Mean Ratio	90.6	92.6	Arithmetic Mean Ratio	92.6	100.2
Weighted Mean Ratio	87.5	75.3	Weighted Mean Ratio	86.2	90.4
Geometric Mean Ratio	88.0	80.8	Geometric Mean Ratio	89.5	95.1
Harmonic Mean Ratio	85.1	68.2	Harmonic Mean Ratio	86.0	91.2
Standard Deviation	21.5	45.5	Standard Deviation	23.4	40.0
Coefficient of Variation (COV)	23.7	49.1	Coefficient of Variation (COV)	25.2	39.9
Price-Related Differential (PRD)	1.03	1.23	Price-Related Differential (PRD)	1.07	1.11
Lower PRD Confidence Interval	1.01	1.01	Lower PRD Confidence Interval	1.03	1.00
Upper PRD Confidence interval	1.06	1.71	Upper PRD Confidence interval	1.15	1.16
Coef. of Price-Related Bias (PRB)	-0.13	0.02	Coef. of Price-Related Bias (PRB)	-0.26	-0.35
Lower PRB Confidence Interval	-0.18	-0.17	Lower PRB Confidence Interval	-0.49	-1.93
Upper PRB Confidence Interval	-0.08	0.21	Upper PRB Confidence Interval	-0.04	1.24
Average Sale Price	96,041	146,840	Average Sale Price	65,023	26,000
Average Appraised Value	84,057	110,646	Average Appraised Value	56,063	23,516

<b>021 : DICKINSON</b>			<b>022 : DONIPHAN</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind		Residential	Comm./Ind
Original Number of Sales	202	9	Original Number of Sales	47	8
Trimmed Outliers	30	0	Trimmed Outliers	4	0
Number of Ratios: Outliers Removed	172	9	Number of Ratios: Outliers Removed	43	8
Minimum Ratio	41.2	44.9	Minimum Ratio	49.0	42.4
Maximum Ratio	6540.0	156.0	Maximum Ratio	274.7	104.6
Minimum Sale Price	100	6,500	Minimum Sale Price	5,000	12,500
Maximum Sale Price	375,000	160,000	Maximum Sale Price	202,500	822,420
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	95.1	106.7	Median Ratio	86.7	87.1
Lower Median Confidence Interval	92.1	66.7	Lower Median Confidence Interval	72.4	44.6
Upper Median Confidence Interval	98.3	126.7	Upper Median Confidence Interval	95.3	94.9
Broadened Median Ratio	95.1	106.5	Broadened Median Ratio	86.1	84.1
Coefficient of Dispersion (COD)	14.9	21.4	Coefficient of Dispersion (COD)	21.2	20.5
Lower COD Confidence Interval	13.1	10.0	Lower COD Confidence Interval	16.6	8.5
Upper COD Confidence Interval	17.3	44.8	Upper COD Confidence Interval	27.9	42.7
Value Weighted COD	12.5	16.0	Value Weighted COD	18.4	40.6
Coefficient of Concentration @10%	42.6	44.4	Coefficient of Concentration @10%	27.7	50.0
Coefficient of Concentration @15%	52.5	44.4	Coefficient of Concentration @15%	36.2	50.0
Coefficient of Concentration @20%	63.4	55.6	Coefficient of Concentration @20%	51.1	50.0
Coefficient of Concentration @50%	82.2	88.9	Coefficient of Concentration @50%	89.4	87.5
Coefficient of Concentration @100%	89.1	100.0	Coefficient of Concentration @100%	91.5	100.0
Coefficient of Interquartile Deviation	15.3	21.8	Coefficient of Interquartile Deviation	19.0	25.3
Median Percent Deviation	13.5	18.8	Median Percent Deviation	19.6	14.6
Lower Quartile (25 <sup>th</sup> Percentile)	86.2	73.4	Lower Quartile (25 <sup>th</sup> Percentile)	67.3	49.8
Upper Quartile (75 <sup>th</sup> Percentile)	115.4	119.9	Upper Quartile (75 <sup>th</sup> Percentile)	100.2	93.9
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	RejectK
Relative Skewness	0.72	-0.13	Relative Skewness	0.46	-0.55
Relative Kurtosis	3.95	2.51	Relative Kurtosis	2.88	1.78
Arithmetic Mean Ratio	95.1	100.8	Arithmetic Mean Ratio	83.2	77.2
Weighted Mean Ratio	92.7	106.6	Weighted Mean Ratio	80.8	54.7
Geometric Mean Ratio	93.3	95.3	Geometric Mean Ratio	80.2	73.5
Harmonic Mean Ratio	91.5	89.1	Harmonic Mean Ratio	77.3	69.3
Standard Deviation	18.8	32.9	Standard Deviation	22.5	23.5
Coefficient of Variation (COV)	19.8	32.7	Coefficient of Variation (COV)	27.1	30.5
Price-Related Differential (PRD)	1.03	0.95	Price-Related Differential (PRD)	1.03	1.41
Lower PRD Confidence Interval	1.01	0.88	Lower PRD Confidence Interval	0.99	1.02
Upper PRD Confidence interval	1.05	1.01	Upper PRD Confidence interval	1.08	1.67
Coef. of Price-Related Bias (PRB)	-2.32	0.11	Coef. of Price-Related Bias (PRB)	-0.24	-0.09
Lower PRB Confidence Interval	-2.92	-0.07	Lower PRB Confidence Interval	-0.38	-0.22
Upper PRB Confidence Interval	-1.72	0.29	Upper PRB Confidence Interval	-0.10	0.05
Average Sale Price	124,828	65,525	Average Sale Price	91,442	156,365
Average Appraised Value	115,714	70,078	Average Appraised Value	73,850	85,583

<b>023 : DOUGLAS</b>			<b>024 : EDWARDS</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind	Residential	Comm./Ind	
Original Number of Sales	286	32	25	7	
Trimmed Outliers	25	2	3	0	
Number of Ratios: Outliers Removed	261	30	22	7	
Minimum Ratio	39.2	40.9	44.8	22.1	
Maximum Ratio	1286.0	259.4	366.0	131.6	
Minimum Sale Price	10,000	100,000	1,500	5,000	
Maximum Sale Price	31,000,000	5,356,250	190,000	85,000	
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	94.2	85.8	95.4	70.4	
Lower Median Confidence Interval	92.7	76.7	73.2	36.2	
Upper Median Confidence Interval	95.7	95.6	103.8	115.8	
Broadened Median Ratio	94.2	86.0	95.1	71.2	
Coefficient of Dispersion (COD)	7.3	19.1	21.5	46.3	
Lower COD Confidence Interval	6.6	14.2	13.9	25.2	
Upper COD Confidence Interval	8.1	26.4	33.0	134.5	
Value Weighted COD	10.5	22.3	18.5	31.5	
Coefficient of Concentration @10%	67.1	28.1	44.0	14.3	
Coefficient of Concentration @15%	80.1	46.9	48.0	14.3	
Coefficient of Concentration @20%	88.1	56.3	48.0	14.3	
Coefficient of Concentration @50%	96.9	87.5	76.0	57.1	
Coefficient of Concentration @100%	99.0	96.9	96.0	100.0	
Coefficient of Interquartile Deviation	6.3	16.2	18.3	56.5	
Median Percent Deviation	6.4	16.2	23.3	48.5	
Lower Quartile (25 <sup>th</sup> Percentile)	87.1	74.3	69.7	36.2	
Upper Quartile (75 <sup>th</sup> Percentile)	98.9	102.0	104.6	115.8	
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	RejectK	AcceptW	
Relative Skewness	-0.19	0.39	0.28	0.16	
Relative Kurtosis	2.99	3.41	3.00	1.66	
Arithmetic Mean Ratio	92.9	85.3	87.1	74.2	
Weighted Mean Ratio	87.8	82.6	80.7	65.3	
Geometric Mean Ratio	92.4	82.6	83.2	63.3	
Harmonic Mean Ratio	92.0	79.8	79.1	52.5	
Standard Deviation	8.7	21.6	26.2	40.8	
Coefficient of Variation (COV)	9.3	25.3	30.1	55.0	
Price-Related Differential (PRD)	1.06	1.03	1.08	1.14	
Lower PRD Confidence Interval	1.00	0.95	1.00	0.93	
Upper PRD Confidence interval	1.11	1.15	1.19	1.60	
Coef. of Price-Related Bias (PRB)	-0.16	-0.06	-0.17	-0.16	
Lower PRB Confidence Interval	-0.28	-0.18	-0.38	-0.71	
Upper PRB Confidence Interval	-0.04	0.06	0.03	0.39	
Average Sale Price	351,854	1,231,463	55,257	45,625	
Average Appraised Value	308,798	1,019,911	44,606	29,243	



<b>025 : ELK</b>			<b>026 : ELLIS</b>		
<i>S-3</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	28	5	Original Number of Sales	358	9
Trimmed Outliers	3	0	Trimmed Outliers	23	0
Number of Ratios: Outliers Removed	25	5	Number of Ratios: Outliers Removed	335	9
Minimum Ratio	51.6	39.1	Minimum Ratio	40.8	68.8
Maximum Ratio	325.0	3488.0	Maximum Ratio	1166.6	135.4
Minimum Sale Price	3,600	500	Minimum Sale Price	5,000	15,000
Maximum Sale Price	82,147	45,000	Maximum Sale Price	750,000	212,500
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	110.8	96.6	Median Ratio	100.0	91.9
Lower Median Confidence Interval	95.0	44.2	Lower Median Confidence Interval	98.1	68.9
Upper Median Confidence Interval	137.2	3082.4	Upper Median Confidence Interval	101.6	127.2
Broadened Median Ratio	111.4	95.7	Broadened Median Ratio	100.0	92.6
Coefficient of Dispersion (COD)	25.6	719.8	Coefficient of Dispersion (COD)	10.7	20.6
Lower COD Confidence Interval	18.7	8.4	Lower COD Confidence Interval	9.9	14.0
Upper COD Confidence Interval	35.3	1428.7	Upper COD Confidence Interval	11.8	34.1
Value Weighted COD	24.4	56.8	Value Weighted COD	9.8	20.5
Coefficient of Concentration @10%	25.0	20.0	Coefficient of Concentration @10%	54.2	22.2
Coefficient of Concentration @15%	28.6	60.0	Coefficient of Concentration @15%	71.2	44.4
Coefficient of Concentration @20%	32.1	60.0	Coefficient of Concentration @20%	79.3	55.6
Coefficient of Concentration @50%	78.6	60.0	Coefficient of Concentration @50%	95.3	100.0
Coefficient of Concentration @100%	89.3	80.0	Coefficient of Concentration @100%	97.8	100.0
Coefficient of Interquartile Deviation	26.9	899.7	Coefficient of Interquartile Deviation	9.6	23.4
Median Percent Deviation	24.1	14.9	Median Percent Deviation	8.9	16.8
Lower Quartile (25 <sup>th</sup> Percentile)	85.9	60.6	Lower Quartile (25 <sup>th</sup> Percentile)	92.2	72.7
Upper Quartile (75 <sup>th</sup> Percentile)	145.4	1798.2	Upper Quartile (75 <sup>th</sup> Percentile)	111.3	115.7
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	Normality Test	RejectK	RejectK
Relative Skewness	0.24	1.50	Relative Skewness	0.62	0.48
Relative Kurtosis	2.30	3.25	Relative Kurtosis	3.11	1.97
Arithmetic Mean Ratio	109.5	762.8	Arithmetic Mean Ratio	101.3	95.4
Weighted Mean Ratio	100.7	85.9	Weighted Mean Ratio	98.9	91.0
Geometric Mean Ratio	103.9	163.6	Geometric Mean Ratio	100.4	92.8
Harmonic Mean Ratio	98.1	86.7	Harmonic Mean Ratio	99.5	90.4
Standard Deviation	35.2	1523.7	Standard Deviation	13.8	24.1
Coefficient of Variation (COV)	32.1	199.7	Coefficient of Variation (COV)	13.7	25.2
Price-Related Differential (PRD)	1.09	8.88	Price-Related Differential (PRD)	1.02	1.05
Lower PRD Confidence Interval	1.01	0.99	Lower PRD Confidence Interval	1.02	0.97
Upper PRD Confidence interval	1.19	14.97	Upper PRD Confidence interval	1.04	1.13
Coef. of Price-Related Bias (PRB)	-0.12	-5.52	Coef. of Price-Related Bias (PRB)	-0.22	0.01
Lower PRB Confidence Interval	-0.34	-35.70	Lower PRB Confidence Interval	-0.29	-0.16
Upper PRB Confidence Interval	0.09	24.67	Upper PRB Confidence Interval	-0.14	0.18
Average Sale Price	26,964	24,833	Average Sale Price	172,770	109,089
Average Appraised Value	27,157	15,747	Average Appraised Value	170,814	99,306

<b>027 : ELLSWORTH</b>			<b>028 : FINNEY</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	77	6	Original Number of Sales	364	20
Trimmed Outliers	8	0	Trimmed Outliers	28	2
Number of Ratios: Outliers Removed	69	6	Number of Ratios: Outliers Removed	336	18
Minimum Ratio		73.9	Minimum Ratio	8.7	46.4
Maximum Ratio	315.6	168.0	Maximum Ratio	251.7	318.2
Minimum Sale Price	2,000	26,000	Minimum Sale Price	4,000	40,000
Maximum Sale Price	400,000	130,000	Maximum Sale Price	656,000	2,415,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	101.3	94.6	Median Ratio	93.9	97.4
Lower Median Confidence Interval	98.9	76.8	Lower Median Confidence Interval	92.8	89.9
Upper Median Confidence Interval	107.8	163.1	Upper Median Confidence Interval	95.1	104.3
Broadened Median Ratio	101.2	102.7	Broadened Median Ratio	93.9	96.8
Coefficient of Dispersion (COD)	13.7	35.2	Coefficient of Dispersion (COD)	9.5	17.0
Lower COD Confidence Interval	11.3	23.5	Lower COD Confidence Interval	8.7	10.7
Upper COD Confidence Interval	16.8	42.1	Upper COD Confidence Interval	10.4	29.2
Value Weighted COD	14.2	23.2	Value Weighted COD	9.1	23.0
Coefficient of Concentration @10%	42.9	0.0	Coefficient of Concentration @10%	56.0	50.0
Coefficient of Concentration @15%	55.8	33.3	Coefficient of Concentration @15%	71.4	60.0
Coefficient of Concentration @20%	64.9	50.0	Coefficient of Concentration @20%	80.5	65.0
Coefficient of Concentration @50%	89.6	66.7	Coefficient of Concentration @50%	97.5	80.0
Coefficient of Concentration @100%	96.1	100.0	Coefficient of Concentration @100%	98.6	90.0
Coefficient of Interquartile Deviation	12.7	43.5	Coefficient of Interquartile Deviation	8.1	13.1
Median Percent Deviation	11.1	18.8	Median Percent Deviation	8.0	11.0
Lower Quartile (25 <sup>th</sup> Percentile)	92.6	78.3	Lower Quartile (25 <sup>th</sup> Percentile)	86.1	83.2
Upper Quartile (75 <sup>th</sup> Percentile)	118.4	160.6	Upper Quartile (75 <sup>th</sup> Percentile)	101.3	108.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	Normality Test	RejectK	RejectK
Relative Skewness	0.34	0.50	Relative Skewness	0.05	-0.74
Relative Kurtosis	3.09	1.48	Relative Kurtosis	3.06	2.81
Arithmetic Mean Ratio	102.4	111.5	Arithmetic Mean Ratio	93.8	89.9
Weighted Mean Ratio	100.0	97.3	Weighted Mean Ratio	94.0	79.9
Geometric Mean Ratio	100.9	105.4	Geometric Mean Ratio	93.1	86.7
Harmonic Mean Ratio	99.3	100.1	Harmonic Mean Ratio	92.3	83.0
Standard Deviation	18.1	41.8	Standard Deviation	11.6	22.2
Coefficient of Variation (COV)	17.7	37.5	Coefficient of Variation (COV)	12.3	24.7
Price-Related Differential (PRD)	1.02	1.15	Price-Related Differential (PRD)	1.00	1.12
Lower PRD Confidence Interval	0.98	0.98	Lower PRD Confidence Interval	0.99	0.97
Upper PRD Confidence interval	1.07	1.26	Upper PRD Confidence interval	1.00	1.34
Coef. of Price-Related Bias (PRB)	-0.10	-0.38	Coef. of Price-Related Bias (PRB)	0.02	0.01
Lower PRB Confidence Interval	-0.16	-0.94	Lower PRB Confidence Interval	-0.01	-0.20
Upper PRB Confidence Interval	-0.04	0.18	Upper PRB Confidence Interval	0.05	0.21
Average Sale Price	93,915	72,583	Average Sale Price	187,749	448,944
Average Appraised Value	93,877	70,610	Average Appraised Value	176,459	358,796

<b>029 : FORD</b>			<b>030 : FRANKLIN</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	324	15	Original Number of Sales	329	17
Trimmed Outliers	24	3	Trimmed Outliers	46	0
Number of Ratios: Outliers Removed	300	12	Number of Ratios: Outliers Removed	283	17
Minimum Ratio	0.5	21.5	Minimum Ratio	7.2	31.9
Maximum Ratio	464.0	128.5	Maximum Ratio	1255.0	175.3
Minimum Sale Price	1,500	5,000	Minimum Sale Price	2,000	25,000
Maximum Sale Price	340,000	1,490,000	Maximum Sale Price	520,000	2,150,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	87.8	71.8	Median Ratio	92.6	86.5
Lower Median Confidence Interval	85.9	64.4	Lower Median Confidence Interval	90.8	70.6
Upper Median Confidence Interval	90.5	82.0	Upper Median Confidence Interval	94.8	114.6
Broadened Median Ratio	87.8	71.0	Broadened Median Ratio	92.6	85.0
Coefficient of Dispersion (COD)	13.7	11.6	Coefficient of Dispersion (COD)	14.0	30.6
Lower COD Confidence Interval	12.5	6.8	Lower COD Confidence Interval	12.7	20.4
Upper COD Confidence Interval	15.1	20.9	Upper COD Confidence Interval	15.6	47.4
Value Weighted COD	13.1	11.1	Value Weighted COD	12.5	20.9
Coefficient of Concentration @10%	41.0	40.0	Coefficient of Concentration @10%	41.6	23.5
Coefficient of Concentration @15%	58.3	66.7	Coefficient of Concentration @15%	56.8	41.2
Coefficient of Concentration @20%	70.1	66.7	Coefficient of Concentration @20%	62.9	47.1
Coefficient of Concentration @50%	93.5	80.0	Coefficient of Concentration @50%	85.7	82.4
Coefficient of Concentration @100%	99.1	100.0	Coefficient of Concentration @100%	93.9	94.1
Coefficient of Interquartile Deviation	11.9	12.3	Coefficient of Interquartile Deviation	12.6	29.0
Median Percent Deviation	12.0	12.5	Median Percent Deviation	12.5	25.3
Lower Quartile (25 <sup>th</sup> Percentile)	77.0	64.4	Lower Quartile (25 <sup>th</sup> Percentile)	81.2	67.6
Upper Quartile (75 <sup>th</sup> Percentile)	97.9	82.0	Upper Quartile (75 <sup>th</sup> Percentile)	104.4	117.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	RejectK
Relative Skewness	-0.16	1.31	Relative Skewness	0.06	0.66
Relative Kurtosis	3.03	4.14	Relative Kurtosis	3.30	3.12
Arithmetic Mean Ratio	86.7	75.4	Arithmetic Mean Ratio	90.3	91.7
Weighted Mean Ratio	87.4	72.0	Weighted Mean Ratio	89.4	79.2
Geometric Mean Ratio	85.3	74.6	Geometric Mean Ratio	88.7	85.1
Harmonic Mean Ratio	83.7	73.8	Harmonic Mean Ratio	86.9	78.3
Standard Deviation	15.2	12.4	Standard Deviation	16.8	35.8
Coefficient of Variation (COV)	17.5	16.4	Coefficient of Variation (COV)	18.6	39.0
Price-Related Differential (PRD)	0.99	1.05	Price-Related Differential (PRD)	1.01	1.16
Lower PRD Confidence Interval	0.98	0.99	Lower PRD Confidence Interval	1.00	1.00
Upper PRD Confidence interval	1.00	1.12	Upper PRD Confidence interval	1.02	1.59
Coef. of Price-Related Bias (PRB)	-0.05	-0.07	Coef. of Price-Related Bias (PRB)	-0.35	-0.03
Lower PRB Confidence Interval	-0.09	-0.17	Lower PRB Confidence Interval	-0.45	-0.17
Upper PRB Confidence Interval	-0.01	0.03	Upper PRB Confidence Interval	-0.26	0.10
Average Sale Price	139,482	463,220	Average Sale Price	153,289	278,912
Average Appraised Value	121,970	264,096	Average Appraised Value	137,058	220,792

<b>031 : GEARY</b>			<b>032 : GOVE</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	322	10	Original Number of Sales	25	6
Trimmed Outliers	35	0	Trimmed Outliers	1	0
Number of Ratios: Outliers Removed	287	10	Number of Ratios: Outliers Removed	24	6
Minimum Ratio	48.9	46.4	Minimum Ratio	12.8	61.4
Maximum Ratio	742.7	177.7	Maximum Ratio	154.4	154.6
Minimum Sale Price	5,000	21,400	Minimum Sale Price	5,000	10,000
Maximum Sale Price	335,000	865,000	Maximum Sale Price	240,000	103,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	100.0	111.6	Median Ratio	88.4	94.3
Lower Median Confidence Interval	98.2	57.2	Lower Median Confidence Interval	75.1	68.2
Upper Median Confidence Interval	101.8	149.0	Upper Median Confidence Interval	101.3	141.7
Broadened Median Ratio	100.0	111.2	Broadened Median Ratio	87.7	96.9
Coefficient of Dispersion (COD)	11.2	32.9	Coefficient of Dispersion (COD)	22.9	29.1
Lower COD Confidence Interval	10.1	19.4	Lower COD Confidence Interval	17.0	18.0
Upper COD Confidence Interval	12.4	70.2	Upper COD Confidence Interval	33.3	48.9
Value Weighted COD	10.2	43.4	Value Weighted COD	20.8	27.2
Coefficient of Concentration @10%	52.5	20.0	Coefficient of Concentration @10%	28.0	33.3
Coefficient of Concentration @15%	65.2	40.0	Coefficient of Concentration @15%	40.0	33.3
Coefficient of Concentration @20%	74.2	40.0	Coefficient of Concentration @20%	52.0	33.3
Coefficient of Concentration @50%	92.9	70.0	Coefficient of Concentration @50%	88.0	83.3
Coefficient of Concentration @100%	97.2	100.0	Coefficient of Concentration @100%	100.0	100.0
Coefficient of Interquartile Deviation	9.9	43.2	Coefficient of Interquartile Deviation	20.4	33.7
Median Percent Deviation	9.7	38.1	Median Percent Deviation	17.7	27.6
Lower Quartile (25 <sup>th</sup> Percentile)	91.9	55.1	Lower Quartile (25 <sup>th</sup> Percentile)	70.1	71.7
Upper Quartile (75 <sup>th</sup> Percentile)	111.7	151.5	Upper Quartile (75 <sup>th</sup> Percentile)	106.1	135.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	Reject4	Normality Test	RejectK	AcceptW
Relative Skewness	0.27	-0.05	Relative Skewness	0.52	0.43
Relative Kurtosis	3.46	1.75	Relative Kurtosis	2.96	1.86
Arithmetic Mean Ratio	100.1	108.2	Arithmetic Mean Ratio	91.6	101.4
Weighted Mean Ratio	98.1	78.2	Weighted Mean Ratio	88.0	80.7
Geometric Mean Ratio	99.0	98.0	Geometric Mean Ratio	88.0	96.5
Harmonic Mean Ratio	97.9	87.3	Harmonic Mean Ratio	84.3	92.0
Standard Deviation	14.7	46.5	Standard Deviation	26.7	35.0
Coefficient of Variation (COV)	14.7	43.0	Coefficient of Variation (COV)	29.1	34.5
Price-Related Differential (PRD)	1.02	1.38	Price-Related Differential (PRD)	1.04	1.26
Lower PRD Confidence Interval	1.01	1.03	Lower PRD Confidence Interval	0.99	1.07
Upper PRD Confidence interval	1.03	1.81	Upper PRD Confidence interval	1.11	1.56
Coef. of Price-Related Bias (PRB)	-0.24	-0.13	Coef. of Price-Related Bias (PRB)	0.13	-0.24
Lower PRB Confidence Interval	-0.31	-0.38	Lower PRB Confidence Interval	0.02	-0.59
Upper PRB Confidence Interval	-0.16	0.12	Upper PRB Confidence Interval	0.24	0.10
Average Sale Price	162,297	178,240	Average Sale Price	82,438	35,475
Average Appraised Value	159,269	139,424	Average Appraised Value	72,541	28,628

<b>033 : GRAHAM</b>			<b>034 : GRANT</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind	Residential	Comm./Ind	<i>S-4</i>
Original Number of Sales	19	5	59	8	
Trimmed Outliers	3	0	7	0	
Number of Ratios: Outliers Removed	16	5	52	8	
Minimum Ratio	74.8	80.5		51.7	
Maximum Ratio	251.8	514.0	268.8	131.0	
Minimum Sale Price	5,000	5,000	11,000	37,000	
Maximum Sale Price	132,000	75,000	310,000	2,100,000	
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	102.3	110.4	99.2	83.5	
Lower Median Confidence Interval	93.8	82.9	95.3	52.4	
Upper Median Confidence Interval	105.7	466.9	102.8	111.2	
Broadened Median Ratio	102.5	110.9	99.2	82.7	
Coefficient of Dispersion (COD)	7.7	82.3	8.2	25.3	
Lower COD Confidence Interval	5.1	5.6	6.7	15.4	
Upper COD Confidence Interval	12.5	153.4	10.3	46.8	
Value Weighted COD	7.0	16.9	7.6	32.6	
Coefficient of Concentration @10%	52.6	40.0	55.9	37.5	
Coefficient of Concentration @15%	73.7	60.0	74.6	50.0	
Coefficient of Concentration @20%	78.9	60.0	81.4	50.0	
Coefficient of Concentration @50%	84.2	80.0	93.2	87.5	
Coefficient of Concentration @100%	94.7	80.0	96.6	100.0	
Coefficient of Interquartile Deviation	7.2	102.9	7.3	29.1	
Median Percent Deviation	8.3	10.2	7.2	23.4	
Lower Quartile (25 <sup>th</sup> Percentile)	91.6	90.6	91.4	57.3	
Upper Quartile (75 <sup>th</sup> Percentile)	106.2	317.9	105.8	106.0	
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	RejectK	AcceptK	
Relative Skewness	-0.32	1.47	-0.19	0.37	
Relative Kurtosis	3.37	3.22	2.95	2.16	
Arithmetic Mean Ratio	98.4	185.5	99.2	84.5	
Weighted Mean Ratio	97.5	116.1	99.4	59.8	
Geometric Mean Ratio	97.9	141.1	98.6	80.6	
Harmonic Mean Ratio	97.3	120.3	98.1	76.9	
Standard Deviation	10.4	184.3	10.5	27.4	
Coefficient of Variation (COV)	10.6	99.4	10.5	32.4	
Price-Related Differential (PRD)	1.01	1.60	1.00	1.41	
Lower PRD Confidence Interval	0.98	0.95	0.99	1.08	
Upper PRD Confidence interval	1.04	2.15	1.01	1.80	
Coef. of Price-Related Bias (PRB)	-0.14	-1.11	-0.09	-0.12	
Lower PRB Confidence Interval	-0.29	-3.38	-0.19	-0.28	
Upper PRB Confidence Interval	0.01	1.16	0.01	0.04	
Average Sale Price	53,813	48,375	138,120	348,063	
Average Appraised Value	52,463	51,183	137,244	208,145	

<b>035 : GRAY</b>			<b>036 : GREELEY</b>		
			<i>S-5</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	66	5	Original Number of Sales	12	6
Trimmed Outliers	6	0	Trimmed Outliers	0	0
Number of Ratios: Outliers Removed	60	5	Number of Ratios: Outliers Removed	12	6
Minimum Ratio	39.2	41.8	Minimum Ratio	43.9	28.6
Maximum Ratio	153.9	79.5	Maximum Ratio	134.5	145.6
Minimum Sale Price	10,000	35,000	Minimum Sale Price	11,000	7,500
Maximum Sale Price	475,000	150,000	Maximum Sale Price	175,000	1,185,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	87.0	63.7	Median Ratio	102.8	89.5
Lower Median Confidence Interval	80.6	43.9	Lower Median Confidence Interval	82.0	40.2
Upper Median Confidence Interval	91.4	78.8	Upper Median Confidence Interval	111.6	139.4
Broadened Median Ratio	87.1	65.7	Broadened Median Ratio	101.1	90.5
Coefficient of Dispersion (COD)	13.0	16.5	Coefficient of Dispersion (COD)	18.6	38.5
Lower COD Confidence Interval	10.5	5.3	Lower COD Confidence Interval	9.8	18.1
Upper COD Confidence Interval	16.1	23.6	Upper COD Confidence Interval	35.9	98.9
Value Weighted COD	12.6	13.0	Value Weighted COD	20.8	48.5
Coefficient of Concentration @10%	43.9	40.0	Coefficient of Concentration @10%	33.3	33.3
Coefficient of Concentration @15%	59.1	40.0	Coefficient of Concentration @15%	58.3	33.3
Coefficient of Concentration @20%	69.7	60.0	Coefficient of Concentration @20%	66.7	33.3
Coefficient of Concentration @50%	92.4	100.0	Coefficient of Concentration @50%	83.3	66.7
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	100.0	100.0
Coefficient of Interquartile Deviation	12.4	20.6	Coefficient of Interquartile Deviation	16.0	50.5
Median Percent Deviation	10.9	16.4	Median Percent Deviation	12.2	45.5
Lower Quartile (25 <sup>th</sup> Percentile)	73.3	50.6	Lower Quartile (25 <sup>th</sup> Percentile)	80.1	46.0
Upper Quartile (75 <sup>th</sup> Percentile)	94.8	76.8	Upper Quartile (75 <sup>th</sup> Percentile)	113.0	136.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	-0.13	-0.49	Relative Skewness	-0.67	-0.06
Relative Kurtosis	2.83	2.07	Relative Kurtosis	2.67	1.68
Arithmetic Mean Ratio	83.9	63.7	Arithmetic Mean Ratio	94.4	89.7
Weighted Mean Ratio	83.5	62.0	Weighted Mean Ratio	89.8	116.7
Geometric Mean Ratio	82.7	62.2	Geometric Mean Ratio	90.1	78.2
Harmonic Mean Ratio	81.4	60.6	Harmonic Mean Ratio	85.0	65.9
Standard Deviation	13.9	14.6	Standard Deviation	26.6	45.2
Coefficient of Variation (COV)	16.6	22.9	Coefficient of Variation (COV)	28.2	50.4
Price-Related Differential (PRD)	1.00	1.03	Price-Related Differential (PRD)	1.05	0.77
Lower PRD Confidence Interval	0.98	0.97	Lower PRD Confidence Interval	1.00	0.61
Upper PRD Confidence interval	1.03	1.08	Upper PRD Confidence interval	1.17	1.84
Coef. of Price-Related Bias (PRB)	-0.05	-0.07	Coef. of Price-Related Bias (PRB)	-0.05	0.01
Lower PRB Confidence Interval	-0.10	-0.67	Lower PRB Confidence Interval	-0.23	-0.25
Upper PRB Confidence Interval	0.00	0.52	Upper PRB Confidence Interval	0.12	0.26
Average Sale Price	139,665	84,400	Average Sale Price	95,208	367,000
Average Appraised Value	116,632	52,310	Average Appraised Value	85,476	428,163

<b>037 : GREENWOOD</b>			<b>038 : HAMILTON</b>		
<i>S-2</i>			<i>S-8</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	52	6	Original Number of Sales	16	8
Trimmed Outliers	8	0	Trimmed Outliers	1	1
Number of Ratios: Outliers Removed	44	6	Number of Ratios: Outliers Removed	15	7
Minimum Ratio	17.5	68.7	Minimum Ratio	10.1	58.8
Maximum Ratio	226.0	323.0	Maximum Ratio	254.1	443.6
Minimum Sale Price	1,000	1,000	Minimum Sale Price	18,000	4,500
Maximum Sale Price	319,000	324,100	Maximum Sale Price	165,000	275,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	96.3	91.0	Median Ratio	91.0	96.9
Lower Median Confidence Interval	89.7	70.6	Lower Median Confidence Interval	69.5	75.9
Upper Median Confidence Interval	101.6	245.3	Upper Median Confidence Interval	109.7	203.0
Broadened Median Ratio	96.0	100.7	Broadened Median Ratio	88.6	98.0
Coefficient of Dispersion (COD)	15.3	70.7	Coefficient of Dispersion (COD)	37.8	30.0
Lower COD Confidence Interval	11.9	43.0	Lower COD Confidence Interval	23.9	11.6
Upper COD Confidence Interval	20.4	123.4	Upper COD Confidence Interval	69.3	67.9
Value Weighted COD	11.7	22.1	Value Weighted COD	27.1	20.3
Coefficient of Concentration @10%	32.7	0.0	Coefficient of Concentration @10%	18.8	25.0
Coefficient of Concentration @15%	53.8	0.0	Coefficient of Concentration @15%	25.0	37.5
Coefficient of Concentration @20%	65.4	0.0	Coefficient of Concentration @20%	43.8	37.5
Coefficient of Concentration @50%	82.7	66.7	Coefficient of Concentration @50%	75.0	75.0
Coefficient of Concentration @100%	96.2	83.3	Coefficient of Concentration @100%	87.5	75.0
Coefficient of Interquartile Deviation	14.1	74.2	Coefficient of Interquartile Deviation	27.4	53.5
Median Percent Deviation	13.1	22.4	Median Percent Deviation	25.1	21.2
Lower Quartile (25 <sup>th</sup> Percentile)	81.5	71.5	Lower Quartile (25 <sup>th</sup> Percentile)	67.4	77.9
Upper Quartile (75 <sup>th</sup> Percentile)	108.6	206.5	Upper Quartile (75 <sup>th</sup> Percentile)	117.2	181.5
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	Normality Test	RejectK	RejectW
Relative Skewness	0.30	1.30	Relative Skewness	0.38	1.42
Relative Kurtosis	3.45	3.18	Relative Kurtosis	3.64	3.91
Arithmetic Mean Ratio	98.1	135.6	Arithmetic Mean Ratio	87.4	104.6
Weighted Mean Ratio	97.5	95.0	Weighted Mean Ratio	83.4	97.8
Geometric Mean Ratio	96.0	113.5	Geometric Mean Ratio	72.8	97.4
Harmonic Mean Ratio	93.8	99.4	Harmonic Mean Ratio	50.9	91.8
Standard Deviation	20.2	99.3	Standard Deviation	43.8	47.1
Coefficient of Variation (COV)	20.6	73.2	Coefficient of Variation (COV)	50.1	45.0
Price-Related Differential (PRD)	1.01	1.43	Price-Related Differential (PRD)	1.05	1.07
Lower PRD Confidence Interval	0.97	0.86	Lower PRD Confidence Interval	0.92	0.94
Upper PRD Confidence interval	1.04	2.58	Upper PRD Confidence interval	1.20	1.22
Coef. of Price-Related Bias (PRB)	-0.06	-0.28	Coef. of Price-Related Bias (PRB)	0.07	-0.53
Lower PRB Confidence Interval	-0.14	-0.65	Lower PRB Confidence Interval	-0.32	-1.39
Upper PRB Confidence Interval	0.01	0.10	Upper PRB Confidence Interval	0.46	0.32
Average Sale Price	47,968	131,500	Average Sale Price	74,100	78,143
Average Appraised Value	46,793	123,870	Average Appraised Value	61,815	76,459

<b>039 : HARPER</b>			<b>040 : HARVEY</b>		
<i>S-6</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	54	9	Original Number of Sales	189	7
Trimmed Outliers	3	1	Trimmed Outliers	16	0
Number of Ratios: Outliers Removed	51	8	Number of Ratios: Outliers Removed	173	7
Minimum Ratio	57.0	35.6	Minimum Ratio	27.5	43.2
Maximum Ratio	453.8	325.5	Maximum Ratio	199.3	150.7
Minimum Sale Price	800	12,500	Minimum Sale Price	18,000	35,000
Maximum Sale Price	175,000	244,295	Maximum Sale Price	301,000	120,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	97.9	101.9	Median Ratio	94.9	110.5
Lower Median Confidence Interval	93.9	50.4	Lower Median Confidence Interval	93.0	59.0
Upper Median Confidence Interval	102.5	159.2	Upper Median Confidence Interval	97.1	138.7
Broadened Median Ratio	98.0	105.3	Broadened Median Ratio	94.9	98.7
Coefficient of Dispersion (COD)	14.3	32.9	Coefficient of Dispersion (COD)	13.4	31.7
Lower COD Confidence Interval	11.2	19.1	Lower COD Confidence Interval	11.9	15.7
Upper COD Confidence Interval	18.2	77.0	Upper COD Confidence Interval	15.2	70.4
Value Weighted COD	11.1	23.3	Value Weighted COD	11.5	38.5
Coefficient of Concentration @10%	42.6	22.2	Coefficient of Concentration @10%	43.9	14.3
Coefficient of Concentration @15%	57.4	22.2	Coefficient of Concentration @15%	59.8	28.6
Coefficient of Concentration @20%	64.8	44.4	Coefficient of Concentration @20%	68.3	28.6
Coefficient of Concentration @50%	94.4	55.6	Coefficient of Concentration @50%	92.1	85.7
Coefficient of Concentration @100%	96.3	88.9	Coefficient of Concentration @100%	98.9	100.0
Coefficient of Interquartile Deviation	12.6	39.6	Coefficient of Interquartile Deviation	12.7	36.1
Median Percent Deviation	12.7	34.2	Median Percent Deviation	11.7	36.4
Lower Quartile (25 <sup>th</sup> Percentile)	86.3	67.2	Lower Quartile (25 <sup>th</sup> Percentile)	84.5	59.0
Upper Quartile (75 <sup>th</sup> Percentile)	110.9	148.0	Upper Quartile (75 <sup>th</sup> Percentile)	108.6	138.7
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	Reject4
Relative Skewness	0.28	-0.09	Relative Skewness	0.32	-0.10
Relative Kurtosis	3.17	1.99	Relative Kurtosis	3.14	1.40
Arithmetic Mean Ratio	97.5	97.8	Arithmetic Mean Ratio	95.3	98.2
Weighted Mean Ratio	94.8	95.0	Weighted Mean Ratio	93.1	89.7
Geometric Mean Ratio	95.7	88.5	Geometric Mean Ratio	93.9	89.4
Harmonic Mean Ratio	93.9	78.2	Harmonic Mean Ratio	92.4	80.5
Standard Deviation	18.7	41.7	Standard Deviation	16.6	42.6
Coefficient of Variation (COV)	19.2	42.7	Coefficient of Variation (COV)	17.4	43.3
Price-Related Differential (PRD)	1.03	1.03	Price-Related Differential (PRD)	1.02	1.10
Lower PRD Confidence Interval	1.00	0.85	Lower PRD Confidence Interval	1.01	1.00
Upper PRD Confidence interval	1.07	1.37	Upper PRD Confidence interval	1.04	1.29
Coef. of Price-Related Bias (PRB)	-0.23	-0.04	Coef. of Price-Related Bias (PRB)	-0.09	-0.05
Lower PRB Confidence Interval	-0.33	-0.57	Lower PRB Confidence Interval	-0.13	-0.78
Upper PRB Confidence Interval	-0.14	0.49	Upper PRB Confidence Interval	-0.04	0.67
Average Sale Price	69,809	82,977	Average Sale Price	127,367	74,286
Average Appraised Value	66,168	86,504	Average Appraised Value	118,594	66,619



<b>041 : HASKELL</b>			<b>042 : HODGEMAN</b>		
<i>S-5</i>			<i>S-6</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	29	5	Original Number of Sales	8	6
Trimmed Outliers	2	0	Trimmed Outliers	0	0
Number of Ratios: Outliers Removed	27	5	Number of Ratios: Outliers Removed	8	6
Minimum Ratio	36.0	51.8	Minimum Ratio	77.7	49.9
Maximum Ratio	208.0	146.3	Maximum Ratio	102.9	87.4
Minimum Sale Price	12,000	18,500	Minimum Sale Price	68,400	8,000
Maximum Sale Price	250,000	100,000	Maximum Sale Price	230,000	88,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	76.2	84.2	Median Ratio	91.4	72.3
Lower Median Confidence Interval	68.7	55.2	Lower Median Confidence Interval	83.3	52.1
Upper Median Confidence Interval	87.0	145.5	Upper Median Confidence Interval	101.6	83.2
Broadened Median Ratio	76.8	101.1	Broadened Median Ratio	91.9	70.4
Coefficient of Dispersion (COD)	18.6	36.7	Coefficient of Dispersion (COD)	8.2	15.5
Lower COD Confidence Interval	14.0	9.2	Lower COD Confidence Interval	6.0	7.5
Upper COD Confidence Interval	26.4	45.7	Upper COD Confidence Interval	13.0	26.5
Value Weighted COD	16.6	34.2	Value Weighted COD	10.0	23.0
Coefficient of Concentration @10%	27.6	40.0	Coefficient of Concentration @10%	62.5	50.0
Coefficient of Concentration @15%	48.3	40.0	Coefficient of Concentration @15%	100.0	50.0
Coefficient of Concentration @20%	62.1	40.0	Coefficient of Concentration @20%	100.0	50.0
Coefficient of Concentration @50%	86.2	60.0	Coefficient of Concentration @50%	100.0	100.0
Coefficient of Concentration @100%	96.6	100.0	Coefficient of Concentration @100%	100.0	100.0
Coefficient of Interquartile Deviation	17.1	45.8	Coefficient of Interquartile Deviation	9.0	19.3
Median Percent Deviation	16.2	38.4	Median Percent Deviation	8.3	15.1
Lower Quartile (25 <sup>th</sup> Percentile)	64.3	65.8	Lower Quartile (25 <sup>th</sup> Percentile)	84.3	53.2
Upper Quartile (75 <sup>th</sup> Percentile)	90.4	142.9	Upper Quartile (75 <sup>th</sup> Percentile)	100.8	81.1
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	AcceptK	AcceptW
Relative Skewness	0.38	0.13	Relative Skewness	-0.18	-0.24
Relative Kurtosis	3.32	1.41	Relative Kurtosis	1.76	1.67
Arithmetic Mean Ratio	77.7	100.3	Arithmetic Mean Ratio	91.8	69.2
Weighted Mean Ratio	77.5	86.2	Weighted Mean Ratio	90.9	61.0
Geometric Mean Ratio	75.5	93.4	Geometric Mean Ratio	91.4	67.9
Harmonic Mean Ratio	73.1	86.6	Harmonic Mean Ratio	91.0	66.5
Standard Deviation	18.6	40.9	Standard Deviation	9.0	14.5
Coefficient of Variation (COV)	24.0	40.8	Coefficient of Variation (COV)	9.8	21.0
Price-Related Differential (PRD)	1.00	1.16	Price-Related Differential (PRD)	1.01	1.13
Lower PRD Confidence Interval	0.97	0.99	Lower PRD Confidence Interval	0.98	0.99
Upper PRD Confidence interval	1.04	1.29	Upper PRD Confidence interval	1.05	1.20
Coef. of Price-Related Bias (PRB)	-0.02	-0.32	Coef. of Price-Related Bias (PRB)	0.01	-0.10
Lower PRB Confidence Interval	-0.19	-1.48	Lower PRB Confidence Interval	-0.14	-0.32
Upper PRB Confidence Interval	0.16	0.83	Upper PRB Confidence Interval	0.16	0.13
Average Sale Price	137,950	50,700	Average Sale Price	108,425	33,200
Average Appraised Value	106,927	43,718	Average Appraised Value	98,553	20,126

<b>043 : JACKSON</b>			<b>044 : JEFFERSON</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	117	8	Original Number of Sales	163	5
Trimmed Outliers	13	0	Trimmed Outliers	21	0
Number of Ratios: Outliers Removed	104	8	Number of Ratios: Outliers Removed	142	5
Minimum Ratio	41.4	62.8	Minimum Ratio	19.9	17.0
Maximum Ratio	1407.6	122.7	Maximum Ratio	975.5	189.7
Minimum Sale Price	2,500	22,000	Minimum Sale Price	4,000	17,000
Maximum Sale Price	318,000	300,000	Maximum Sale Price	412,000	400,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	92.1	90.1	Median Ratio	89.6	108.1
Lower Median Confidence Interval	87.6	68.7	Lower Median Confidence Interval	87.8	27.9
Upper Median Confidence Interval	96.3	113.6	Upper Median Confidence Interval	92.0	182.2
Broadened Median Ratio	92.0	92.0	Broadened Median Ratio	89.6	114.5
Coefficient of Dispersion (COD)	16.9	20.8	Coefficient of Dispersion (COD)	11.7	35.7
Lower COD Confidence Interval	14.2	14.8	Lower COD Confidence Interval	10.2	6.3
Upper COD Confidence Interval	20.3	32.3	Upper COD Confidence Interval	13.5	213.8
Value Weighted COD	14.0	19.4	Value Weighted COD	11.1	61.0
Coefficient of Concentration @10%	37.6	37.5	Coefficient of Concentration @10%	47.2	40.0
Coefficient of Concentration @15%	49.6	37.5	Coefficient of Concentration @15%	62.6	40.0
Coefficient of Concentration @20%	62.4	37.5	Coefficient of Concentration @20%	71.2	60.0
Coefficient of Concentration @50%	83.8	100.0	Coefficient of Concentration @50%	89.6	60.0
Coefficient of Concentration @100%	94.0	100.0	Coefficient of Concentration @100%	94.5	100.0
Coefficient of Interquartile Deviation	14.8	22.7	Coefficient of Interquartile Deviation	11.2	44.6
Median Percent Deviation	15.4	23.1	Median Percent Deviation	11.0	18.2
Lower Quartile (25 <sup>th</sup> Percentile)	81.5	71.9	Lower Quartile (25 <sup>th</sup> Percentile)	79.7	62.4
Upper Quartile (75 <sup>th</sup> Percentile)	108.7	112.8	Upper Quartile (75 <sup>th</sup> Percentile)	99.7	158.7
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	Reject4	Normality Test	AcceptK	AcceptW
Relative Skewness	0.48	0.01	Relative Skewness	0.01	-0.35
Relative Kurtosis	3.78	1.58	Relative Kurtosis	3.24	2.46
Arithmetic Mean Ratio	90.9	92.5	Arithmetic Mean Ratio	87.9	110.0
Weighted Mean Ratio	88.4	83.0	Weighted Mean Ratio	86.8	49.9
Geometric Mean Ratio	88.5	90.1	Geometric Mean Ratio	86.8	86.3
Harmonic Mean Ratio	86.0	87.8	Harmonic Mean Ratio	85.7	55.2
Standard Deviation	20.7	22.0	Standard Deviation	13.6	61.9
Coefficient of Variation (COV)	22.8	23.8	Coefficient of Variation (COV)	15.5	56.2
Price-Related Differential (PRD)	1.03	1.11	Price-Related Differential (PRD)	1.01	2.21
Lower PRD Confidence Interval	1.01	1.05	Lower PRD Confidence Interval	1.00	1.01
Upper PRD Confidence interval	1.05	1.26	Upper PRD Confidence interval	1.03	3.23
Coef. of Price-Related Bias (PRB)	-0.48	-0.13	Coef. of Price-Related Bias (PRB)	-0.67	-0.35
Lower PRB Confidence Interval	-0.74	-0.29	Lower PRB Confidence Interval	-0.86	-0.75
Upper PRB Confidence Interval	-0.22	0.04	Upper PRB Confidence Interval	-0.48	0.06
Average Sale Price	120,150	125,875	Average Sale Price	172,359	117,400
Average Appraised Value	106,234	104,415	Average Appraised Value	149,600	58,526

<b>045 : JEWELL</b>			<b>046 : JOHNSON</b>		
<i>S-6</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	28	7	Original Number of Sales	352	130
Trimmed Outliers	3	0	Trimmed Outliers	31	8
Number of Ratios: Outliers Removed	25	7	Number of Ratios: Outliers Removed	321	122
Minimum Ratio	49.4	50.5	Minimum Ratio	0.1	18.2
Maximum Ratio	157.9	201.8	Maximum Ratio	926.4	230.2
Minimum Sale Price	4,000	5,000	Minimum Sale Price	31,400	92,000
Maximum Sale Price	135,000	35,000	Maximum Sale Price	2,300,000	36,848,058
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	95.0	107.4	Median Ratio	95.3	76.1
Lower Median Confidence Interval	88.0	66.1	Lower Median Confidence Interval	94.2	72.2
Upper Median Confidence Interval	99.6	122.1	Upper Median Confidence Interval	96.9	78.8
Broadened Median Ratio	94.6	99.1	Broadened Median Ratio	95.3	76.1
Coefficient of Dispersion (COD)	13.8	34.4	Coefficient of Dispersion (COD)	7.9	17.6
Lower COD Confidence Interval	9.7	15.5	Lower COD Confidence Interval	7.2	15.1
Upper COD Confidence Interval	20.7	74.1	Upper COD Confidence Interval	8.6	20.2
Value Weighted COD	11.0	21.5	Value Weighted COD	7.8	17.9
Coefficient of Concentration @10%	46.4	14.3	Coefficient of Concentration @10%	60.8	33.8
Coefficient of Concentration @15%	60.7	42.9	Coefficient of Concentration @15%	79.0	50.8
Coefficient of Concentration @20%	64.3	42.9	Coefficient of Concentration @20%	87.8	59.2
Coefficient of Concentration @50%	89.3	71.4	Coefficient of Concentration @50%	95.5	90.0
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	98.9	98.5
Coefficient of Interquartile Deviation	12.6	26.0	Coefficient of Interquartile Deviation	6.9	15.2
Median Percent Deviation	11.8	35.5	Median Percent Deviation	7.0	14.9
Lower Quartile (25 <sup>th</sup> Percentile)	81.9	66.1	Lower Quartile (25 <sup>th</sup> Percentile)	88.3	64.2
Upper Quartile (75 <sup>th</sup> Percentile)	105.8	122.1	Upper Quartile (75 <sup>th</sup> Percentile)	101.5	87.2
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness	-0.47	0.85	Relative Skewness	-0.08	0.20
Relative Kurtosis	3.20	2.84	Relative Kurtosis	2.89	3.00
Arithmetic Mean Ratio	89.9	105.4	Arithmetic Mean Ratio	94.9	75.5
Weighted Mean Ratio	88.8	101.0	Weighted Mean Ratio	95.1	72.1
Geometric Mean Ratio	88.1	95.8	Geometric Mean Ratio	94.4	73.5
Harmonic Mean Ratio	86.1	87.4	Harmonic Mean Ratio	93.9	71.5
Standard Deviation	17.3	51.1	Standard Deviation	9.5	17.0
Coefficient of Variation (COV)	19.2	48.5	Coefficient of Variation (COV)	10.0	22.5
Price-Related Differential (PRD)	1.01	1.04	Price-Related Differential (PRD)	1.00	1.05
Lower PRD Confidence Interval	0.96	0.89	Lower PRD Confidence Interval	0.99	0.98
Upper PRD Confidence interval	1.08	1.22	Upper PRD Confidence interval	1.00	1.19
Coef. of Price-Related Bias (PRB)	-0.04	0.03	Coef. of Price-Related Bias (PRB)	0.01	0.02
Lower PRB Confidence Interval	-0.10	-0.59	Lower PRB Confidence Interval	-0.10	-0.02
Upper PRB Confidence Interval	0.03	0.65	Upper PRB Confidence Interval	0.11	0.05
Average Sale Price	58,776	18,500	Average Sale Price	324,958	2,166,840
Average Appraised Value	52,204	17,923	Average Appraised Value	309,125	1,568,546

<b>047 : KEARNY</b>			<b>048 : KINGMAN</b>		
<i>S-5</i>			<i>S-2</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	39	6	Original Number of Sales	57	5
Trimmed Outliers	2	0	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	37	6	Number of Ratios: Outliers Removed	54	5
Minimum Ratio	44.3	56.2	Minimum Ratio	51.9	69.3
Maximum Ratio	182.8	119.8	Maximum Ratio	763.4	118.6
Minimum Sale Price	35,000	55,000	Minimum Sale Price	3,500	77,335
Maximum Sale Price	275,000	185,000	Maximum Sale Price	319,000	220,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	86.3	78.9	Median Ratio	99.6	101.4
Lower Median Confidence Interval	79.0	56.4	Lower Median Confidence Interval	93.1	73.0
Upper Median Confidence Interval	95.2	104.6	Upper Median Confidence Interval	110.7	117.2
Broadened Median Ratio	86.1	76.9	Broadened Median Ratio	99.2	102.7
Coefficient of Dispersion (COD)	16.4	23.5	Coefficient of Dispersion (COD)	24.1	11.1
Lower COD Confidence Interval	12.9	13.2	Lower COD Confidence Interval	19.0	2.2
Upper COD Confidence Interval	22.0	37.4	Upper COD Confidence Interval	30.1	19.5
Value Weighted COD	13.9	24.7	Value Weighted COD	19.2	13.5
Coefficient of Concentration @10%	33.3	33.3	Coefficient of Concentration @10%	28.1	60.0
Coefficient of Concentration @15%	56.4	50.0	Coefficient of Concentration @15%	40.4	60.0
Coefficient of Concentration @20%	69.2	50.0	Coefficient of Concentration @20%	50.9	80.0
Coefficient of Concentration @50%	92.3	83.3	Coefficient of Concentration @50%	82.5	100.0
Coefficient of Concentration @100%	97.4	100.0	Coefficient of Concentration @100%	94.7	100.0
Coefficient of Interquartile Deviation	14.7	25.6	Coefficient of Interquartile Deviation	24.3	13.8
Median Percent Deviation	13.4	20.7	Median Percent Deviation	19.2	5.3
Lower Quartile (25 <sup>th</sup> Percentile)	76.8	56.5	Lower Quartile (25 <sup>th</sup> Percentile)	82.6	84.6
Upper Quartile (75 <sup>th</sup> Percentile)	102.2	97.0	Upper Quartile (75 <sup>th</sup> Percentile)	131.0	112.7
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	0.47	0.59	Relative Skewness	0.68	-0.87
Relative Kurtosis	3.52	2.26	Relative Kurtosis	2.70	2.65
Arithmetic Mean Ratio	87.9	80.0	Arithmetic Mean Ratio	104.6	99.2
Weighted Mean Ratio	83.7	76.6	Weighted Mean Ratio	94.7	97.7
Geometric Mean Ratio	86.1	77.1	Geometric Mean Ratio	100.1	97.7
Harmonic Mean Ratio	84.2	74.5	Harmonic Mean Ratio	96.0	96.0
Standard Deviation	18.1	24.1	Standard Deviation	31.5	18.2
Coefficient of Variation (COV)	20.6	30.1	Coefficient of Variation (COV)	30.1	18.4
Price-Related Differential (PRD)	1.05	1.04	Price-Related Differential (PRD)	1.10	1.02
Lower PRD Confidence Interval	1.02	0.99	Lower PRD Confidence Interval	1.06	0.99
Upper PRD Confidence interval	1.09	1.12	Upper PRD Confidence interval	1.17	1.06
Coef. of Price-Related Bias (PRB)	-0.22	-0.02	Coef. of Price-Related Bias (PRB)	-0.41	-0.02
Lower PRB Confidence Interval	-0.34	-0.70	Lower PRB Confidence Interval	-0.62	-0.56
Upper PRB Confidence Interval	-0.10	0.66	Upper PRB Confidence Interval	-0.19	0.52
Average Sale Price	123,132	120,833	Average Sale Price	101,614	168,707
Average Appraised Value	103,020	92,530	Average Appraised Value	96,218	164,792

<b>049 : KIOWA</b>			<b>050 : LABETTE</b>		
<i>S-3</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	14	4	Original Number of Sales	165	9
Trimmed Outliers	0	0	Trimmed Outliers	20	0
Number of Ratios: Outliers Removed	14	4	Number of Ratios: Outliers Removed	145	9
Minimum Ratio	58.3	42.6	Minimum Ratio	20.7	8.0
Maximum Ratio	129.0	90.8	Maximum Ratio	1626.0	133.8
Minimum Sale Price	40,000	50,000	Minimum Sale Price	500	13,000
Maximum Sale Price	162,000	2,100,000	Maximum Sale Price	384,000	299,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	96.7	78.5	Median Ratio	102.6	87.3
Lower Median Confidence Interval	82.3	43.9	Lower Median Confidence Interval	99.4	34.4
Upper Median Confidence Interval	103.6	90.7	Upper Median Confidence Interval	107.3	118.3
Broadened Median Ratio	94.4	74.6	Broadened Median Ratio	102.5	82.4
Coefficient of Dispersion (COD)	16.6	21.9	Coefficient of Dispersion (COD)	21.7	33.0
Lower COD Confidence Interval	9.8	5.7	Lower COD Confidence Interval	18.9	15.9
Upper COD Confidence Interval	26.4	35.1	Upper COD Confidence Interval	25.1	98.3
Value Weighted COD	16.6	15.9	Value Weighted COD	19.5	41.8
Coefficient of Concentration @10%	42.9	0.0	Coefficient of Concentration @10%	29.7	33.3
Coefficient of Concentration @15%	64.3	50.0	Coefficient of Concentration @15%	39.4	33.3
Coefficient of Concentration @20%	64.3	75.0	Coefficient of Concentration @20%	53.3	44.4
Coefficient of Concentration @50%	100.0	100.0	Coefficient of Concentration @50%	79.4	66.7
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	91.5	100.0
Coefficient of Interquartile Deviation	14.4	26.3	Coefficient of Interquartile Deviation	19.4	33.4
Median Percent Deviation	13.7	14.3	Median Percent Deviation	18.2	29.6
Lower Quartile (25 <sup>th</sup> Percentile)	77.6	49.0	Lower Quartile (25 <sup>th</sup> Percentile)	86.1	47.9
Upper Quartile (75 <sup>th</sup> Percentile)	105.4	90.3	Upper Quartile (75 <sup>th</sup> Percentile)	125.9	106.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	AcceptK	AcceptW	Normality Test	RejectK	AcceptK
Relative Skewness	-0.16	-0.58	Relative Skewness	0.03	-0.37
Relative Kurtosis	2.27	1.74	Relative Kurtosis	2.85	2.36
Arithmetic Mean Ratio	92.2	72.6	Arithmetic Mean Ratio	99.3	77.5
Weighted Mean Ratio	93.6	67.6	Weighted Mean Ratio	91.2	
Geometric Mean Ratio	89.7	69.6	Geometric Mean Ratio	94.9	62.2
Harmonic Mean Ratio	87.1	66.2	Harmonic Mean Ratio	89.8	38.6
Standard Deviation	21.5	22.4	Standard Deviation	28.3	39.2
Coefficient of Variation (COV)	23.3	30.9	Coefficient of Variation (COV)	28.5	50.6
Price-Related Differential (PRD)	0.99	1.07	Price-Related Differential (PRD)	1.09	1.40
Lower PRD Confidence Interval	0.96	0.94	Lower PRD Confidence Interval	1.05	1.05
Upper PRD Confidence interval	1.02	1.20	Upper PRD Confidence interval	1.13	2.92
Coef. of Price-Related Bias (PRB)	0.10		Coef. of Price-Related Bias (PRB)	-0.40	-0.09
Lower PRB Confidence Interval	-0.09		Lower PRB Confidence Interval	-0.57	-0.33
Upper PRB Confidence Interval	0.29		Upper PRB Confidence Interval	-0.23	0.14
Average Sale Price	96,893	621,250	Average Sale Price	73,667	117,111
Average Appraised Value	90,657	419,843	Average Appraised Value	67,194	64,783

<b>051 : LANE</b>			<b>052 : LEAVENWORTH</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	26	4	Original Number of Sales	245	16
Trimmed Outliers	2	0	Trimmed Outliers	27	0
Number of Ratios: Outliers Removed	24	4	Number of Ratios: Outliers Removed	218	16
Minimum Ratio	70.4	79.3	Minimum Ratio	43.4	40.8
Maximum Ratio	336.0	110.0	Maximum Ratio	502.0	156.9
Minimum Sale Price	5,000	4,000	Minimum Sale Price	8,000	54,000
Maximum Sale Price	150,000	55,000	Maximum Sale Price	550,000	1,882,500
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	95.5	88.8	Median Ratio	95.8	100.9
Lower Median Confidence Interval	91.3	79.3	Lower Median Confidence Interval	94.1	87.2
Upper Median Confidence Interval	122.8	109.4	Upper Median Confidence Interval	97.5	113.1
Broadened Median Ratio	98.2	90.7	Broadened Median Ratio	95.7	100.7
Coefficient of Dispersion (COD)	21.0	13.7	Coefficient of Dispersion (COD)	8.7	19.9
Lower COD Confidence Interval	16.0	2.8	Lower COD Confidence Interval	7.8	12.9
Upper COD Confidence Interval	29.5	15.9	Upper COD Confidence Interval	9.8	33.1
Value Weighted COD	17.4	11.0	Value Weighted COD	8.4	22.7
Coefficient of Concentration @10%	30.8	25.0	Coefficient of Concentration @10%	57.6	37.5
Coefficient of Concentration @15%	46.2	75.0	Coefficient of Concentration @15%	74.3	50.0
Coefficient of Concentration @20%	53.8	75.0	Coefficient of Concentration @20%	82.4	50.0
Coefficient of Concentration @50%	80.8	100.0	Coefficient of Concentration @50%	95.1	87.5
Coefficient of Concentration @100%	92.3	100.0	Coefficient of Concentration @100%	96.7	100.0
Coefficient of Interquartile Deviation	25.0	15.5	Coefficient of Interquartile Deviation	8.5	21.2
Median Percent Deviation	17.6	10.4	Median Percent Deviation	8.1	17.6
Lower Quartile (25 <sup>th</sup> Percentile)	85.1	79.4	Lower Quartile (25 <sup>th</sup> Percentile)	86.6	78.3
Upper Quartile (75 <sup>th</sup> Percentile)	132.8	106.9	Upper Quartile (75 <sup>th</sup> Percentile)	102.9	121.1
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptK
Relative Skewness	0.82	0.32	Relative Skewness	-0.38	-0.07
Relative Kurtosis	2.77	1.42	Relative Kurtosis	3.28	3.18
Arithmetic Mean Ratio	104.7	91.7	Arithmetic Mean Ratio	94.3	99.8
Weighted Mean Ratio	98.8	84.7	Weighted Mean Ratio	94.8	102.2
Geometric Mean Ratio	101.9	90.8	Geometric Mean Ratio	93.7	95.8
Harmonic Mean Ratio	99.4	90.0	Harmonic Mean Ratio	93.0	90.9
Standard Deviation	25.8	14.9	Standard Deviation	10.7	27.6
Coefficient of Variation (COV)	24.7	16.2	Coefficient of Variation (COV)	11.4	27.6
Price-Related Differential (PRD)	1.06	1.08	Price-Related Differential (PRD)	1.00	0.98
Lower PRD Confidence Interval	1.01	1.00	Lower PRD Confidence Interval	0.99	0.88
Upper PRD Confidence interval	1.13	1.15	Upper PRD Confidence interval	1.00	1.20
Coef. of Price-Related Bias (PRB)	-0.09		Coef. of Price-Related Bias (PRB)	-0.14	0.00
Lower PRB Confidence Interval	-0.30		Lower PRB Confidence Interval	-0.19	-0.10
Upper PRB Confidence Interval	0.11		Upper PRB Confidence Interval	-0.09	0.10
Average Sale Price	53,813	22,963	Average Sale Price	212,698	361,563
Average Appraised Value	53,150	19,450	Average Appraised Value	201,584	369,641

<b>053 : LINCOLN</b>			<b>054 : LINN</b>		
<i>S-2</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	34	4	Original Number of Sales	100	5
Trimmed Outliers	0	0	Trimmed Outliers	9	0
Number of Ratios: Outliers Removed	34	4	Number of Ratios: Outliers Removed	91	5
Minimum Ratio	44.2	51.0	Minimum Ratio	1.4	58.6
Maximum Ratio	130.4	98.4	Maximum Ratio	425.3	219.2
Minimum Sale Price	6,000	35,000	Minimum Sale Price	1,175	23,000
Maximum Sale Price	470,000	100,000	Maximum Sale Price	410,000	450,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	99.7	74.5	Median Ratio	86.3	83.0
Lower Median Confidence Interval	86.2	51.1	Lower Median Confidence Interval	82.1	61.3
Upper Median Confidence Interval	105.5	98.3	Upper Median Confidence Interval	93.2	203.5
Broadened Median Ratio	99.6	74.5	Broadened Median Ratio	87.1	84.2
Coefficient of Dispersion (COD)	14.9	30.8	Coefficient of Dispersion (COD)	21.2	40.4
Lower COD Confidence Interval	10.9	0.6	Lower COD Confidence Interval	17.9	2.8
Upper COD Confidence Interval	21.1	31.1	Upper COD Confidence Interval	25.0	72.0
Value Weighted COD	16.2	30.6	Value Weighted COD	18.6	49.3
Coefficient of Concentration @10%	44.1	0.0	Coefficient of Concentration @10%	33.0	60.0
Coefficient of Concentration @15%	64.7	0.0	Coefficient of Concentration @15%	39.0	60.0
Coefficient of Concentration @20%	76.5	0.0	Coefficient of Concentration @20%	53.0	60.0
Coefficient of Concentration @50%	97.1	100.0	Coefficient of Concentration @50%	85.0	80.0
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	95.0	80.0
Coefficient of Interquartile Deviation	13.3	31.3	Coefficient of Interquartile Deviation	18.8	50.5
Median Percent Deviation	11.5	30.7	Median Percent Deviation	19.0	6.6
Lower Quartile (25 <sup>th</sup> Percentile)	80.5	51.3	Lower Quartile (25 <sup>th</sup> Percentile)	71.1	70.0
Upper Quartile (75 <sup>th</sup> Percentile)	107.0	98.0	Upper Quartile (75 <sup>th</sup> Percentile)	103.5	153.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	Normality Test	RejectK	RejectW
Relative Skewness	-0.61	0.00	Relative Skewness	0.31	1.38
Relative Kurtosis	2.92	1.00	Relative Kurtosis	2.75	3.11
Arithmetic Mean Ratio	94.0	74.6	Arithmetic Mean Ratio	86.0	106.1
Weighted Mean Ratio	90.0	71.2	Weighted Mean Ratio	79.2	97.1
Geometric Mean Ratio	91.9	70.9	Geometric Mean Ratio	83.0	94.8
Harmonic Mean Ratio	89.4	67.5	Harmonic Mean Ratio	79.8	87.3
Standard Deviation	19.0	26.5	Standard Deviation	23.0	64.3
Coefficient of Variation (COV)	20.2	35.6	Coefficient of Variation (COV)	26.7	60.6
Price-Related Differential (PRD)	1.04	1.05	Price-Related Differential (PRD)	1.09	1.09
Lower PRD Confidence Interval	0.98	0.98	Lower PRD Confidence Interval	1.05	0.77
Upper PRD Confidence interval	1.13	1.16	Upper PRD Confidence interval	1.13	1.26
Coef. of Price-Related Bias (PRB)	-0.01		Coef. of Price-Related Bias (PRB)	-0.20	0.15
Lower PRB Confidence Interval	-0.06		Lower PRB Confidence Interval	-0.29	-0.61
Upper PRB Confidence Interval	0.04		Upper PRB Confidence Interval	-0.12	0.91
Average Sale Price	94,784	78,500	Average Sale Price	117,494	164,300
Average Appraised Value	85,327	55,880	Average Appraised Value	93,099	159,504

055 : LOGAN			056 : LYON		
GENERAL STATISTICS	Residential	Comm./Ind	GENERAL STATISTICS	Residential	Comm./Ind
Original Number of Sales	26	6	Original Number of Sales	191	17
Trimmed Outliers	3	0	Trimmed Outliers	11	0
Number of Ratios: Outliers Removed	23	6	Number of Ratios: Outliers Removed	180	17
Minimum Ratio	59.3	39.6	Minimum Ratio	36.8	25.8
Maximum Ratio	703.1	131.0	Maximum Ratio	239.7	158.4
Minimum Sale Price	7,000	32,500	Minimum Sale Price	3,000	15,000
Maximum Sale Price	235,000	160,000	Maximum Sale Price	369,000	775,000
DISTRIBUTION FREE STATISTICS			DISTRIBUTION FREE STATISTICS		
Median Ratio	101.9	88.1	Median Ratio	96.3	88.0
Lower Median Confidence Interval	93.9	57.6	Lower Median Confidence Interval	93.3	62.4
Upper Median Confidence Interval	107.4	115.8	Upper Median Confidence Interval	99.5	103.8
Broadened Median Ratio	101.2	88.1	Broadened Median Ratio	96.2	85.7
Coefficient of Dispersion (COD)	12.9	25.9	Coefficient of Dispersion (COD)	14.8	29.2
Lower COD Confidence Interval	9.2	13.6	Lower COD Confidence Interval	13.1	19.2
Upper COD Confidence Interval	19.7	63.3	Upper COD Confidence Interval	16.6	47.5
Value Weighted COD	12.4	22.8	Value Weighted COD	13.6	24.7
Coefficient of Concentration @10%	50.0	0.0	Coefficient of Concentration @10%	40.8	11.8
Coefficient of Concentration @15%	61.5	66.7	Coefficient of Concentration @15%	56.0	35.3
Coefficient of Concentration @20%	69.2	66.7	Coefficient of Concentration @20%	67.0	41.2
Coefficient of Concentration @50%	88.5	83.3	Coefficient of Concentration @50%	94.2	88.2
Coefficient of Concentration @100%	92.3	100.0	Coefficient of Concentration @100%	98.4	100.0
Coefficient of Interquartile Deviation	11.5	23.6	Coefficient of Interquartile Deviation	12.7	27.2
Median Percent Deviation	10.1	14.2	Median Percent Deviation	12.5	27.7
Lower Quartile (25 <sup>th</sup> Percentile)	91.8	66.6	Lower Quartile (25 <sup>th</sup> Percentile)	86.0	59.8
Upper Quartile (75 <sup>th</sup> Percentile)	115.3	108.2	Upper Quartile (75 <sup>th</sup> Percentile)	110.5	107.7
PARAMETRIC STATISTICS			PARAMETRIC STATISTICS		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness	-0.48	-0.17	Relative Skewness	0.09	0.31
Relative Kurtosis	3.30	2.40	Relative Kurtosis	2.98	2.82
Arithmetic Mean Ratio	97.7	87.2	Arithmetic Mean Ratio	96.9	85.7
Weighted Mean Ratio	98.3	85.0	Weighted Mean Ratio	95.1	78.7
Geometric Mean Ratio	96.1	81.9	Geometric Mean Ratio	95.1	79.2
Harmonic Mean Ratio	94.3	75.9	Harmonic Mean Ratio	93.3	71.7
Standard Deviation	17.3	30.7	Standard Deviation	18.2	32.8
Coefficient of Variation (COV)	17.7	35.2	Coefficient of Variation (COV)	18.8	38.3
Price-Related Differential (PRD)	0.99	1.03	Price-Related Differential (PRD)	1.02	1.09
Lower PRD Confidence Interval	0.96	0.95	Lower PRD Confidence Interval	1.00	0.96
Upper PRD Confidence interval	1.03	1.25	Upper PRD Confidence interval	1.04	1.32
Coef. of Price-Related Bias (PRB)	-0.49	-0.03	Coef. of Price-Related Bias (PRB)	-0.04	0.02
Lower PRB Confidence Interval	-0.98	-0.63	Lower PRB Confidence Interval	-0.07	-0.14
Upper PRB Confidence Interval	0.00	0.57	Upper PRB Confidence Interval	0.00	0.18
Average Sale Price	103,196	95,167	Average Sale Price	118,190	152,753
Average Appraised Value	101,394	80,847	Average Appraised Value	112,393	120,212



<b>057 : MARION</b>			<b>058 : MARSHALL</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	138	4	Original Number of Sales	89	5
Trimmed Outliers	19	0	Trimmed Outliers	8	0
Number of Ratios: Outliers Removed	119	4	Number of Ratios: Outliers Removed	81	5
Minimum Ratio	32.0	58.7	Minimum Ratio	28.2	79.1
Maximum Ratio	2233.3	106.1	Maximum Ratio	1121.0	101.8
Minimum Sale Price	300	11,200	Minimum Sale Price	1,000	20,000
Maximum Sale Price	560,000	200,000	Maximum Sale Price	325,000	160,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	98.2	89.6	Median Ratio	99.8	88.9
Lower Median Confidence Interval	94.1	60.0	Lower Median Confidence Interval	96.6	79.1
Upper Median Confidence Interval	100.9	105.4	Upper Median Confidence Interval	105.1	100.4
Broadened Median Ratio	98.0	87.2	Broadened Median Ratio	99.9	86.2
Coefficient of Dispersion (COD)	18.7	15.4	Coefficient of Dispersion (COD)	15.9	7.6
Lower COD Confidence Interval	15.7	3.3	Lower COD Confidence Interval	13.2	2.5
Upper COD Confidence Interval	22.8	25.8	Upper COD Confidence Interval	19.3	10.2
Value Weighted COD	15.2	10.5	Value Weighted COD	14.5	7.4
Coefficient of Concentration @10%	38.4	50.0	Coefficient of Concentration @10%	39.3	40.0
Coefficient of Concentration @15%	49.3	50.0	Coefficient of Concentration @15%	49.4	100.0
Coefficient of Concentration @20%	59.4	75.0	Coefficient of Concentration @20%	60.7	100.0
Coefficient of Concentration @50%	80.4	100.0	Coefficient of Concentration @50%	88.8	100.0
Coefficient of Concentration @100%	86.2	100.0	Coefficient of Concentration @100%	94.4	100.0
Coefficient of Interquartile Deviation	22.5	20.9	Coefficient of Interquartile Deviation	14.4	9.5
Median Percent Deviation	15.8	11.4	Median Percent Deviation	15.4	10.7
Lower Quartile (25 <sup>th</sup> Percentile)	85.3	65.4	Lower Quartile (25 <sup>th</sup> Percentile)	88.5	79.2
Upper Quartile (75 <sup>th</sup> Percentile)	129.4	102.9	Upper Quartile (75 <sup>th</sup> Percentile)	117.3	96.1
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	0.87	-0.57	Relative Skewness	0.20	0.47
Relative Kurtosis	4.75	1.98	Relative Kurtosis	3.20	1.97
Arithmetic Mean Ratio	97.4	86.0	Arithmetic Mean Ratio	99.9	87.9
Weighted Mean Ratio	92.0	82.0	Weighted Mean Ratio	96.1	86.0
Geometric Mean Ratio	94.1	84.0	Geometric Mean Ratio	97.7	87.5
Harmonic Mean Ratio	90.7	81.9	Harmonic Mean Ratio	95.3	87.1
Standard Deviation	25.5	20.1	Standard Deviation	21.0	9.4
Coefficient of Variation (COV)	26.2	23.3	Coefficient of Variation (COV)	21.0	10.6
Price-Related Differential (PRD)	1.06	1.05	Price-Related Differential (PRD)	1.04	1.02
Lower PRD Confidence Interval	1.03	0.96	Lower PRD Confidence Interval	1.01	0.97
Upper PRD Confidence interval	1.10	1.18	Upper PRD Confidence interval	1.07	1.06
Coef. of Price-Related Bias (PRB)	-0.95		Coef. of Price-Related Bias (PRB)	-0.40	-0.01
Lower PRB Confidence Interval	-1.20		Lower PRB Confidence Interval	-0.59	-0.16
Upper PRB Confidence Interval	-0.71		Upper PRB Confidence Interval	-0.21	0.15
Average Sale Price	94,753	70,300	Average Sale Price	101,186	73,300
Average Appraised Value	87,128	57,635	Average Appraised Value	97,227	63,054

<b>059 : MCPHERSON</b>			<b>060 : MEADE</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind		Residential	Comm./Ind
Original Number of Sales	332	8	Original Number of Sales	44	7
Trimmed Outliers	39	0	Trimmed Outliers	4	1
Number of Ratios: Outliers Removed	293	8	Number of Ratios: Outliers Removed	40	6
Minimum Ratio	21.0	67.0	Minimum Ratio	21.2	39.5
Maximum Ratio	5705.0	131.2	Maximum Ratio	268.0	151.4
Minimum Sale Price	1,000	52,000	Minimum Sale Price	2,000	18,000
Maximum Sale Price	478,150	285,000	Maximum Sale Price	237,500	675,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	97.7	89.7	Median Ratio	101.0	72.3
Lower Median Confidence Interval	96.7	74.6	Lower Median Confidence Interval	92.7	65.2
Upper Median Confidence Interval	98.9	107.0	Upper Median Confidence Interval	109.7	95.3
Broadened Median Ratio	97.7	88.3	Broadened Median Ratio	100.8	72.0
Coefficient of Dispersion (COD)	7.6	15.5	Coefficient of Dispersion (COD)	24.0	18.4
Lower COD Confidence Interval	6.9	8.0	Lower COD Confidence Interval	17.9	9.5
Upper COD Confidence Interval	8.3	27.9	Upper COD Confidence Interval	33.7	43.7
Value Weighted COD	7.1	11.3	Value Weighted COD	17.3	34.9
Coefficient of Concentration @10%	63.6	37.5	Coefficient of Concentration @10%	36.4	57.1
Coefficient of Concentration @15%	76.2	50.0	Coefficient of Concentration @15%	47.7	57.1
Coefficient of Concentration @20%	82.5	75.0	Coefficient of Concentration @20%	54.5	57.1
Coefficient of Concentration @50%	95.8	100.0	Coefficient of Concentration @50%	81.8	85.7
Coefficient of Concentration @100%	97.6	100.0	Coefficient of Concentration @100%	90.9	85.7
Coefficient of Interquartile Deviation	7.0	15.4	Coefficient of Interquartile Deviation	22.1	20.8
Median Percent Deviation	6.9	14.4	Median Percent Deviation	17.9	9.9
Lower Quartile (25 <sup>th</sup> Percentile)	90.6	75.7	Lower Quartile (25 <sup>th</sup> Percentile)	87.9	65.2
Upper Quartile (75 <sup>th</sup> Percentile)	104.3	103.3	Upper Quartile (75 <sup>th</sup> Percentile)	132.5	95.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptW
Relative Skewness	-0.15	0.86	Relative Skewness	0.22	-0.29
Relative Kurtosis	3.39	2.96	Relative Kurtosis	4.08	2.64
Arithmetic Mean Ratio	97.1	91.3	Arithmetic Mean Ratio	101.2	69.3
Weighted Mean Ratio	96.1	90.3	Weighted Mean Ratio	92.5	85.2
Geometric Mean Ratio	96.6	89.5	Geometric Mean Ratio	94.5	67.0
Harmonic Mean Ratio	96.1	87.8	Harmonic Mean Ratio	84.9	64.5
Standard Deviation	9.7	20.2	Standard Deviation	33.4	18.4
Coefficient of Variation (COV)	9.9	22.2	Coefficient of Variation (COV)	33.0	26.5
Price-Related Differential (PRD)	1.01	1.01	Price-Related Differential (PRD)	1.09	0.81
Lower PRD Confidence Interval	1.00	0.96	Lower PRD Confidence Interval	1.03	0.77
Upper PRD Confidence interval	1.02	1.08	Upper PRD Confidence interval	1.17	1.22
Coef. of Price-Related Bias (PRB)	-0.63	-0.01	Coef. of Price-Related Bias (PRB)	-0.22	0.01
Lower PRB Confidence Interval	-1.03	-0.34	Lower PRB Confidence Interval	-0.31	-0.28
Upper PRB Confidence Interval	-0.23	0.31	Upper PRB Confidence Interval	-0.13	0.30
Average Sale Price	154,911	124,813	Average Sale Price	77,037	133,857
Average Appraised Value	148,929	112,713	Average Appraised Value	71,283	115,731

<b>061 : MIAMI</b>			<b>062 : MITCHELL</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	191	13	Original Number of Sales	63	5
Trimmed Outliers	23	0	Trimmed Outliers	6	0
Number of Ratios: Outliers Removed	168	13	Number of Ratios: Outliers Removed	57	5
Minimum Ratio	41.5	55.7	Minimum Ratio	60.4	34.5
Maximum Ratio	375.2	159.2	Maximum Ratio	410.0	245.0
Minimum Sale Price	15,000	40,000	Minimum Sale Price	6,500	15,000
Maximum Sale Price	890,000	605,000	Maximum Sale Price	342,000	100,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	94.8	97.5	Median Ratio	107.3	42.1
Lower Median Confidence Interval	92.4	74.2	Lower Median Confidence Interval	101.8	34.5
Upper Median Confidence Interval	97.1	110.0	Upper Median Confidence Interval	123.8	226.9
Broadened Median Ratio	94.7	93.3	Broadened Median Ratio	106.6	56.9
Coefficient of Dispersion (COD)	9.6	21.3	Coefficient of Dispersion (COD)	19.4	128.2
Lower COD Confidence Interval	8.5	12.7	Lower COD Confidence Interval	15.8	7.2
Upper COD Confidence Interval	11.0	36.4	Upper COD Confidence Interval	24.2	199.9
Value Weighted COD	8.5	22.3	Value Weighted COD	13.9	70.1
Coefficient of Concentration @10%	56.5	30.8	Coefficient of Concentration @10%	34.9	20.0
Coefficient of Concentration @15%	66.5	46.2	Coefficient of Concentration @15%	42.9	20.0
Coefficient of Concentration @20%	75.9	46.2	Coefficient of Concentration @20%	54.0	60.0
Coefficient of Concentration @50%	91.6	92.3	Coefficient of Concentration @50%	85.7	60.0
Coefficient of Concentration @100%	96.3	100.0	Coefficient of Concentration @100%	92.1	60.0
Coefficient of Interquartile Deviation	8.3	20.0	Coefficient of Interquartile Deviation	20.6	160.2
Median Percent Deviation	7.9	23.7	Median Percent Deviation	17.3	18.1
Lower Quartile (25 <sup>th</sup> Percentile)	86.0	72.0	Lower Quartile (25 <sup>th</sup> Percentile)	96.8	34.6
Upper Quartile (75 <sup>th</sup> Percentile)	101.8	111.0	Upper Quartile (75 <sup>th</sup> Percentile)	141.0	169.5
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	RejectW
Relative Skewness	0.04	0.68	Relative Skewness	0.62	1.25
Relative Kurtosis	3.39	3.05	Relative Kurtosis	2.98	2.85
Arithmetic Mean Ratio	93.0	95.6	Arithmetic Mean Ratio	111.7	90.0
Weighted Mean Ratio	92.1	84.0	Weighted Mean Ratio	105.4	62.7
Geometric Mean Ratio	92.2	91.9	Geometric Mean Ratio	108.7	65.0
Harmonic Mean Ratio	91.4	88.4	Harmonic Mean Ratio	105.8	51.9
Standard Deviation	11.8	28.3	Standard Deviation	26.5	90.1
Coefficient of Variation (COV)	12.7	29.6	Coefficient of Variation (COV)	23.7	100.1
Price-Related Differential (PRD)	1.01	1.14	Price-Related Differential (PRD)	1.06	1.44
Lower PRD Confidence Interval	1.00	1.06	Lower PRD Confidence Interval	1.02	0.92
Upper PRD Confidence interval	1.02	1.28	Upper PRD Confidence interval	1.11	1.94
Coef. of Price-Related Bias (PRB)	-0.21	-0.12	Coef. of Price-Related Bias (PRB)	-0.17	-0.04
Lower PRB Confidence Interval	-0.27	-0.28	Lower PRB Confidence Interval	-0.28	-3.66
Upper PRB Confidence Interval	-0.15	0.04	Upper PRB Confidence Interval	-0.06	3.57
Average Sale Price	231,543	223,385	Average Sale Price	93,066	62,400
Average Appraised Value	213,171	187,645	Average Appraised Value	98,111	39,100

<b>063 : MONTGOMERY</b>			<b>064 : MORRIS</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind	Residential	Comm./Ind	
Original Number of Sales	386	10	64	6	
Trimmed Outliers	50	1	6	0	
Number of Ratios: Outliers Removed	336	9	58	6	
Minimum Ratio	26.7	52.5	8.6	92.5	
Maximum Ratio	902.0	633.7	381.8	168.3	
Minimum Sale Price	495	1,750	2,000	2,000	
Maximum Sale Price	375,000	189,900	775,000	238,000	
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	100.1	124.6	97.3	100.0	
Lower Median Confidence Interval	97.8	88.0	92.2	95.5	
Upper Median Confidence Interval	103.5	166.7	102.1	161.6	
Broadened Median Ratio	100.1	126.4	97.0	108.9	
Coefficient of Dispersion (COD)	18.6	28.1	18.1	22.1	
Lower COD Confidence Interval	16.8	16.3	14.4	9.7	
Upper COD Confidence Interval	20.6	75.8	23.5	27.6	
Value Weighted COD	14.5	33.8	18.1	6.9	
Coefficient of Concentration @10%	36.0	30.0	35.9	66.7	
Coefficient of Concentration @15%	48.4	40.0	46.9	66.7	
Coefficient of Concentration @20%	56.2	40.0	57.8	66.7	
Coefficient of Concentration @50%	80.1	60.0	84.4	66.7	
Coefficient of Concentration @100%	89.9	90.0	95.3	100.0	
Coefficient of Interquartile Deviation	18.6	34.2	16.0	30.6	
Median Percent Deviation	15.9	28.1	16.1	4.4	
Lower Quartile (25 <sup>th</sup> Percentile)	88.9	87.0	79.4	97.1	
Upper Quartile (75 <sup>th</sup> Percentile)	126.1	172.2	110.5	158.3	
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	AcceptK	RejectW	
Relative Skewness	0.38	-0.11	0.00	0.73	
Relative Kurtosis	3.79	2.09	3.56	1.64	
Arithmetic Mean Ratio	100.7	119.0	94.4	119.1	
Weighted Mean Ratio	95.5	101.0	86.7	105.7	
Geometric Mean Ratio	97.5	110.2	91.3	115.5	
Harmonic Mean Ratio	94.0	100.5	87.6	112.5	
Standard Deviation	24.9	45.3	23.3	33.4	
Coefficient of Variation (COV)	24.7	38.0	24.7	28.0	
Price-Related Differential (PRD)	1.05	1.18	1.09	1.13	
Lower PRD Confidence Interval	1.04	1.01	1.04	0.98	
Upper PRD Confidence interval	1.07	1.46	1.16	1.37	
Coef. of Price-Related Bias (PRB)	-0.37	-0.88	-0.06	0.00	
Lower PRB Confidence Interval	-0.43	-1.33	-0.15	-0.18	
Upper PRB Confidence Interval	-0.30	-0.42	0.04	0.18	
Average Sale Price	77,675	69,001	107,646	105,400	
Average Appraised Value	74,154	69,686	93,309	111,460	

<b>065 : MORTON</b>			<b>066 : NEMAHA</b>		
<i>S-4</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	25	5	Original Number of Sales	99	6
Trimmed Outliers	4	0	Trimmed Outliers	9	0
Number of Ratios: Outliers Removed	21	5	Number of Ratios: Outliers Removed	90	6
Minimum Ratio	28.3	65.8	Minimum Ratio	2.4	67.8
Maximum Ratio	146.5	130.5	Maximum Ratio	450.0	97.9
Minimum Sale Price	10,000	20,000	Minimum Sale Price	4,000	38,000
Maximum Sale Price	218,000	340,500	Maximum Sale Price	495,000	80,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	102.2	83.9	Median Ratio	95.5	87.9
Lower Median Confidence Interval	96.2	67.2	Lower Median Confidence Interval	92.8	71.5
Upper Median Confidence Interval	109.6	126.7	Upper Median Confidence Interval	98.4	97.6
Broadened Median Ratio	103.0	86.9	Broadened Median Ratio	95.6	87.4
Coefficient of Dispersion (COD)	8.6	20.4	Coefficient of Dispersion (COD)	11.8	10.9
Lower COD Confidence Interval	6.3	6.2	Lower COD Confidence Interval	10.0	6.3
Upper COD Confidence Interval	12.8	28.0	Upper COD Confidence Interval	14.2	18.1
Value Weighted COD	8.6	19.3	Value Weighted COD	10.0	11.2
Coefficient of Concentration @10%	56.0	40.0	Coefficient of Concentration @10%	44.4	33.3
Coefficient of Concentration @15%	68.0	40.0	Coefficient of Concentration @15%	63.6	83.3
Coefficient of Concentration @20%	76.0	60.0	Coefficient of Concentration @20%	74.7	83.3
Coefficient of Concentration @50%	92.0	80.0	Coefficient of Concentration @50%	91.9	100.0
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	96.0	100.0
Coefficient of Interquartile Deviation	9.2	25.5	Coefficient of Interquartile Deviation	10.8	13.8
Median Percent Deviation	8.1	17.8	Median Percent Deviation	11.8	11.0
Lower Quartile (25 <sup>th</sup> Percentile)	93.2	71.8	Lower Quartile (25 <sup>th</sup> Percentile)	82.8	73.3
Upper Quartile (75 <sup>th</sup> Percentile)	112.1	114.7	Upper Quartile (75 <sup>th</sup> Percentile)	103.5	97.5
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptW
Relative Skewness	-0.65	0.74	Relative Skewness	-0.30	-0.41
Relative Kurtosis	2.97	2.29	Relative Kurtosis	2.81	1.71
Arithmetic Mean Ratio	102.0	91.4	Arithmetic Mean Ratio	93.2	85.7
Weighted Mean Ratio	103.6	75.1	Weighted Mean Ratio	93.3	85.8
Geometric Mean Ratio	101.4	88.9	Geometric Mean Ratio	92.0	84.9
Harmonic Mean Ratio	100.7	86.6	Harmonic Mean Ratio	90.7	84.1
Standard Deviation	11.4	24.9	Standard Deviation	14.5	12.2
Coefficient of Variation (COV)	11.2	27.2	Coefficient of Variation (COV)	15.6	14.2
Price-Related Differential (PRD)	0.98	1.22	Price-Related Differential (PRD)	1.00	1.00
Lower PRD Confidence Interval	0.97	0.99	Lower PRD Confidence Interval	0.98	0.98
Upper PRD Confidence interval	1.00	1.35	Upper PRD Confidence interval	1.02	1.04
Coef. of Price-Related Bias (PRB)	0.05	-0.15	Coef. of Price-Related Bias (PRB)	-0.10	0.07
Lower PRB Confidence Interval	-0.05	-0.44	Lower PRB Confidence Interval	-0.17	-0.33
Upper PRB Confidence Interval	0.14	0.13	Upper PRB Confidence Interval	-0.02	0.47
Average Sale Price	109,938	102,847	Average Sale Price	122,396	57,500
Average Appraised Value	113,922	77,268	Average Appraised Value	114,136	49,327

<b>067 : NEOSHO</b>			<b>068 : NESS</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind	Residential	Comm./Ind	<i>S-4</i>
Original Number of Sales	132	10	18	7	
Trimmed Outliers	11	1	2	1	
Number of Ratios: Outliers Removed	121	9	16	6	
Minimum Ratio	29.0	8.5	42.5	19.0	
Maximum Ratio	692.6	325.4	454.4	100.6	
Minimum Sale Price	2,000	5,000	4,500	16,000	
Maximum Sale Price	349,900	200,000	128,000	1,078,009	
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	97.2	117.5	99.1	66.5	
Lower Median Confidence Interval	91.6	71.7	84.3	58.2	
Upper Median Confidence Interval	101.6	144.5	111.3	81.2	
Broadened Median Ratio	97.4	116.1	99.1	66.1	
Coefficient of Dispersion (COD)	19.3	31.5	22.9	16.9	
Lower COD Confidence Interval	16.7	15.6	13.8	9.7	
Upper COD Confidence Interval	22.5	102.7	37.1	26.4	
Value Weighted COD	16.2	31.5	18.5	16.7	
Coefficient of Concentration @10%	31.8	20.0	33.3	28.6	
Coefficient of Concentration @15%	51.5	30.0	44.4	57.1	
Coefficient of Concentration @20%	59.1	40.0	55.6	57.1	
Coefficient of Concentration @50%	87.1	70.0	77.8	71.4	
Coefficient of Concentration @100%	93.2	90.0	88.9	100.0	
Coefficient of Interquartile Deviation	17.9	33.3	21.0	17.3	
Median Percent Deviation	14.6	27.1	15.5	12.5	
Lower Quartile (25 <sup>th</sup> Percentile)	84.1	68.7	81.2	58.2	
Upper Quartile (75 <sup>th</sup> Percentile)	118.9	146.9	122.9	81.2	
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	RejectK	AcceptW	
Relative Skewness	0.46	-0.71	0.55	0.80	
Relative Kurtosis	3.24	2.43	3.28	2.43	
Arithmetic Mean Ratio	98.2	99.1	95.7	73.1	
Weighted Mean Ratio	93.5	92.2	93.8	65.4	
Geometric Mean Ratio	95.3	78.9	90.8	71.7	
Harmonic Mean Ratio	92.3	45.0	85.8	70.5	
Standard Deviation	24.0	47.7	31.4	16.0	
Coefficient of Variation (COV)	24.4	48.1	32.8	21.9	
Price-Related Differential (PRD)	1.05	1.08	1.02	1.12	
Lower PRD Confidence Interval	1.03	0.97	0.97	0.95	
Upper PRD Confidence interval	1.08	1.47	1.08	1.35	
Coef. of Price-Related Bias (PRB)	-0.20	-0.22	-0.45	0.03	
Lower PRB Confidence Interval	-0.33	-0.61	-0.90	-0.17	
Upper PRB Confidence Interval	-0.07	0.17	0.00	0.23	
Average Sale Price	79,058	75,313	58,313	240,296	
Average Appraised Value	73,924	69,119	54,714	152,599	

<b>069 : NORTON</b>			<b>070 : OSAGE</b>		
<i>S-2</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	66	5	Original Number of Sales	168	8
Trimmed Outliers	12	0	Trimmed Outliers	14	0
Number of Ratios: Outliers Removed	54	5	Number of Ratios: Outliers Removed	154	8
Minimum Ratio		51.9	Minimum Ratio	12.7	60.3
Maximum Ratio	269.5	145.1	Maximum Ratio	503.3	157.7
Minimum Sale Price	2,000	8,000	Minimum Sale Price	5,000	22,000
Maximum Sale Price	275,000	170,000	Maximum Sale Price	360,000	200,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	89.6	75.5	Median Ratio	95.1	88.2
Lower Median Confidence Interval	82.5	52.2	Lower Median Confidence Interval	90.1	65.9
Upper Median Confidence Interval	94.3	138.6	Upper Median Confidence Interval	99.4	111.5
Broadened Median Ratio	89.5	73.5	Broadened Median Ratio	95.3	88.1
Coefficient of Dispersion (COD)	15.9	34.5	Coefficient of Dispersion (COD)	24.9	27.0
Lower COD Confidence Interval	12.5	9.8	Lower COD Confidence Interval	21.7	16.0
Upper COD Confidence Interval	20.3	49.0	Upper COD Confidence Interval	29.1	47.0
Value Weighted COD	14.6	25.5	Value Weighted COD	20.2	22.6
Coefficient of Concentration @10%	37.9	20.0	Coefficient of Concentration @10%	30.4	0.0
Coefficient of Concentration @15%	48.5	20.0	Coefficient of Concentration @15%	40.5	25.0
Coefficient of Concentration @20%	57.6	20.0	Coefficient of Concentration @20%	48.8	50.0
Coefficient of Concentration @50%	78.8	80.0	Coefficient of Concentration @50%	79.2	87.5
Coefficient of Concentration @100%	95.5	100.0	Coefficient of Concentration @100%	91.7	100.0
Coefficient of Interquartile Deviation	15.2	43.1	Coefficient of Interquartile Deviation	23.8	23.6
Median Percent Deviation	15.5	28.4	Median Percent Deviation	20.8	21.0
Lower Quartile (25 <sup>th</sup> Percentile)	72.3	53.0	Lower Quartile (25 <sup>th</sup> Percentile)	77.3	67.7
Upper Quartile (75 <sup>th</sup> Percentile)	99.6	118.1	Upper Quartile (75 <sup>th</sup> Percentile)	122.6	109.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness	0.48	0.90	Relative Skewness	0.60	0.97
Relative Kurtosis	3.25	2.42	Relative Kurtosis	3.78	3.10
Arithmetic Mean Ratio	89.0	83.5	Arithmetic Mean Ratio	96.8	93.5
Weighted Mean Ratio	87.7	67.0	Weighted Mean Ratio	88.7	96.0
Geometric Mean Ratio	87.0	77.5	Geometric Mean Ratio	91.2	89.3
Harmonic Mean Ratio	85.0	72.6	Harmonic Mean Ratio	83.4	85.7
Standard Deviation	19.3	38.0	Standard Deviation	31.4	31.7
Coefficient of Variation (COV)	21.6	45.5	Coefficient of Variation (COV)	32.5	33.9
Price-Related Differential (PRD)	1.01	1.25	Price-Related Differential (PRD)	1.09	0.97
Lower PRD Confidence Interval	0.98	0.95	Lower PRD Confidence Interval	1.06	0.88
Upper PRD Confidence interval	1.05	1.55	Upper PRD Confidence interval	1.13	1.06
Coef. of Price-Related Bias (PRB)	-0.01	-0.23	Coef. of Price-Related Bias (PRB)	-0.38	0.10
Lower PRB Confidence Interval	-0.11	-0.72	Lower PRB Confidence Interval	-0.48	-0.24
Upper PRB Confidence Interval	0.08	0.26	Upper PRB Confidence Interval	-0.28	0.44
Average Sale Price	92,203	81,750	Average Sale Price	112,508	55,563
Average Appraised Value	80,908	53,188	Average Appraised Value	99,819	53,331

<b>071 : OSBORNE</b>			<b>072 : OTTAWA</b>		
<i>S-3</i>			<i>S-5</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	27	5	Original Number of Sales	46	9
Trimmed Outliers	2	0	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	25	5	Number of Ratios: Outliers Removed	43	9
Minimum Ratio	33.6	43.9	Minimum Ratio	50.3	29.8
Maximum Ratio	458.0	209.1	Maximum Ratio	296.3	129.3
Minimum Sale Price	3,900	10,000	Minimum Sale Price	3,500	1,500
Maximum Sale Price	240,000	40,000	Maximum Sale Price	355,000	325,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	97.1	163.8	Median Ratio	95.9	78.6
Lower Median Confidence Interval	86.2	50.9	Lower Median Confidence Interval	91.0	51.1
Upper Median Confidence Interval	116.0	206.8	Upper Median Confidence Interval	100.9	97.0
Broadened Median Ratio	96.7	152.3	Broadened Median Ratio	95.6	78.9
Coefficient of Dispersion (COD)	24.3	30.9	Coefficient of Dispersion (COD)	10.1	30.1
Lower COD Confidence Interval	16.1	7.6	Lower COD Confidence Interval	7.9	17.5
Upper COD Confidence Interval	35.4	66.8	Upper COD Confidence Interval	13.2	63.3
Value Weighted COD	16.3	24.7	Value Weighted COD	8.5	31.8
Coefficient of Concentration @10%	33.3	20.0	Coefficient of Concentration @10%	56.5	11.1
Coefficient of Concentration @15%	44.4	20.0	Coefficient of Concentration @15%	73.9	11.1
Coefficient of Concentration @20%	59.3	40.0	Coefficient of Concentration @20%	82.6	33.3
Coefficient of Concentration @50%	74.1	80.0	Coefficient of Concentration @50%	97.8	77.8
Coefficient of Concentration @100%	92.6	100.0	Coefficient of Concentration @100%	97.8	100.0
Coefficient of Interquartile Deviation	24.7	38.6	Coefficient of Interquartile Deviation	10.0	28.2
Median Percent Deviation	18.3	27.6	Median Percent Deviation	7.7	23.5
Lower Quartile (25 <sup>th</sup> Percentile)	82.6	73.2	Lower Quartile (25 <sup>th</sup> Percentile)	84.0	51.8
Upper Quartile (75 <sup>th</sup> Percentile)	130.6	199.8	Upper Quartile (75 <sup>th</sup> Percentile)	103.2	96.0
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectA	AcceptW	Normality Test	AcceptK	AcceptK
Relative Skewness	0.14	-0.51	Relative Skewness	0.05	0.12
Relative Kurtosis	3.15	1.77	Relative Kurtosis	3.27	2.31
Arithmetic Mean Ratio	98.1	142.0	Arithmetic Mean Ratio	95.1	76.8
Weighted Mean Ratio	87.6	141.8	Weighted Mean Ratio	94.1	60.0
Geometric Mean Ratio	91.7	124.0	Geometric Mean Ratio	94.2	71.0
Harmonic Mean Ratio	84.1	102.7	Harmonic Mean Ratio	93.3	64.6
Standard Deviation	33.4	68.0	Standard Deviation	12.7	30.2
Coefficient of Variation (COV)	34.1	47.9	Coefficient of Variation (COV)	13.4	39.3
Price-Related Differential (PRD)	1.12	1.00	Price-Related Differential (PRD)	1.01	1.28
Lower PRD Confidence Interval	1.03	0.83	Lower PRD Confidence Interval	0.98	1.11
Upper PRD Confidence interval	1.25	1.14	Upper PRD Confidence interval	1.04	1.79
Coef. of Price-Related Bias (PRB)	-0.15	0.18	Coef. of Price-Related Bias (PRB)	-0.04	-0.10
Lower PRB Confidence Interval	-0.36	-0.50	Lower PRB Confidence Interval	-0.11	-0.22
Upper PRB Confidence Interval	0.06	0.85	Upper PRB Confidence Interval	0.03	0.02
Average Sale Price	64,341	23,400	Average Sale Price	126,030	108,874
Average Appraised Value	56,391	33,184	Average Appraised Value	118,602	65,124



<b>073 : PAWNEE</b>			<b>074 : PHILLIPS</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	78	6	Original Number of Sales	50	5
Trimmed Outliers	5	0	Trimmed Outliers	2	0
Number of Ratios: Outliers Removed	73	6	Number of Ratios: Outliers Removed	48	5
Minimum Ratio	55.0	36.1	Minimum Ratio	35.5	29.7
Maximum Ratio	560.0	138.4	Maximum Ratio	307.9	81.5
Minimum Sale Price	400	14,500	Minimum Sale Price	4,500	22,500
Maximum Sale Price	232,500	925,600	Maximum Sale Price	335,000	700,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	97.2	59.0	Median Ratio	90.3	40.1
Lower Median Confidence Interval	95.1	42.1	Lower Median Confidence Interval	83.3	30.5
Upper Median Confidence Interval	105.6	113.4	Upper Median Confidence Interval	95.2	76.8
Broadened Median Ratio	97.5	62.1	Broadened Median Ratio	90.3	39.8
Coefficient of Dispersion (COD)	17.7	43.6	Coefficient of Dispersion (COD)	20.0	29.0
Lower COD Confidence Interval	14.7	24.0	Lower COD Confidence Interval	15.8	4.6
Upper COD Confidence Interval	21.6	94.6	Upper COD Confidence Interval	25.9	48.2
Value Weighted COD	13.6	20.8	Value Weighted COD	20.0	10.1
Coefficient of Concentration @10%	41.0	33.3	Coefficient of Concentration @10%	38.0	60.0
Coefficient of Concentration @15%	47.4	33.3	Coefficient of Concentration @15%	44.0	60.0
Coefficient of Concentration @20%	61.5	50.0	Coefficient of Concentration @20%	52.0	60.0
Coefficient of Concentration @50%	89.7	83.3	Coefficient of Concentration @50%	90.0	80.0
Coefficient of Concentration @100%	98.7	83.3	Coefficient of Concentration @100%	98.0	80.0
Coefficient of Interquartile Deviation	14.3	47.3	Coefficient of Interquartile Deviation	18.9	36.2
Median Percent Deviation	15.9	28.7	Median Percent Deviation	18.0	9.0
Lower Quartile (25 <sup>th</sup> Percentile)	88.3	45.1	Lower Quartile (25 <sup>th</sup> Percentile)	73.2	33.1
Upper Quartile (75 <sup>th</sup> Percentile)	116.1	100.9	Upper Quartile (75 <sup>th</sup> Percentile)	107.3	62.2
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectW
Relative Skewness	0.39	1.02	Relative Skewness	-0.18	1.28
Relative Kurtosis	2.91	2.75	Relative Kurtosis	2.57	2.99
Arithmetic Mean Ratio	100.4	71.5	Arithmetic Mean Ratio	87.3	46.1
Weighted Mean Ratio	96.2	53.2	Weighted Mean Ratio	82.6	42.6
Geometric Mean Ratio	97.8	64.7	Geometric Mean Ratio	84.0	43.3
Harmonic Mean Ratio	95.3	59.2	Harmonic Mean Ratio	80.3	41.1
Standard Deviation	22.6	37.3	Standard Deviation	22.8	20.4
Coefficient of Variation (COV)	22.5	52.1	Coefficient of Variation (COV)	26.1	44.1
Price-Related Differential (PRD)	1.04	1.34	Price-Related Differential (PRD)	1.06	1.08
Lower PRD Confidence Interval	1.01	1.06	Lower PRD Confidence Interval	1.00	0.87
Upper PRD Confidence interval	1.08	1.97	Upper PRD Confidence interval	1.13	1.28
Coef. of Price-Related Bias (PRB)	-0.20	-0.04	Coef. of Price-Related Bias (PRB)	-0.08	-0.05
Lower PRB Confidence Interval	-0.28	-0.44	Lower PRB Confidence Interval	-0.18	-0.53
Upper PRB Confidence Interval	-0.11	0.36	Upper PRB Confidence Interval	0.01	0.44
Average Sale Price	77,223	210,600	Average Sale Price	75,001	175,900
Average Appraised Value	74,273	112,080	Average Appraised Value	61,958	74,852

<b>075 : POTTAWATOMIE</b>			<b>076 : PRATT</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind		Residential	Comm./Ind
Original Number of Sales	352	13	Original Number of Sales	103	10
Trimmed Outliers	35	1	Trimmed Outliers	10	0
Number of Ratios: Outliers Removed	317	12	Number of Ratios: Outliers Removed	93	10
Minimum Ratio		60.8	Minimum Ratio	57.1	59.9
Maximum Ratio	243.4	151.4	Maximum Ratio	477.7	216.8
Minimum Sale Price	20,000	17,000	Minimum Sale Price	5,000	23,000
Maximum Sale Price	615,000	1,417,918	Maximum Sale Price	360,000	350,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	97.6	97.9	Median Ratio	100.0	104.9
Lower Median Confidence Interval	96.4	79.0	Lower Median Confidence Interval	96.2	89.1
Upper Median Confidence Interval	98.9	106.6	Upper Median Confidence Interval	104.0	173.9
Broadened Median Ratio	97.6	96.9	Broadened Median Ratio	100.5	105.4
Coefficient of Dispersion (COD)	8.3	13.1	Coefficient of Dispersion (COD)	13.6	34.4
Lower COD Confidence Interval	7.5	7.3	Lower COD Confidence Interval	11.4	20.1
Upper COD Confidence Interval	9.1	22.2	Upper COD Confidence Interval	16.1	57.0
Value Weighted COD	7.9	19.9	Value Weighted COD	12.3	30.1
Coefficient of Concentration @10%	61.6	53.8	Coefficient of Concentration @10%	44.7	40.0
Coefficient of Concentration @15%	75.3	53.8	Coefficient of Concentration @15%	57.3	40.0
Coefficient of Concentration @20%	83.5	69.2	Coefficient of Concentration @20%	68.0	50.0
Coefficient of Concentration @50%	94.6	92.3	Coefficient of Concentration @50%	89.3	70.0
Coefficient of Concentration @100%	99.4	100.0	Coefficient of Concentration @100%	93.2	90.0
Coefficient of Interquartile Deviation	7.4	14.7	Coefficient of Interquartile Deviation	13.6	42.5
Median Percent Deviation	7.0	9.9	Median Percent Deviation	11.9	19.6
Lower Quartile (25 <sup>th</sup> Percentile)	89.7	78.3	Lower Quartile (25 <sup>th</sup> Percentile)	88.8	86.7
Upper Quartile (75 <sup>th</sup> Percentile)	104.1	107.1	Upper Quartile (75 <sup>th</sup> Percentile)	116.0	175.9
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	RejectK
Relative Skewness	-0.26	-0.57	Relative Skewness	0.52	0.73
Relative Kurtosis	3.26	2.15	Relative Kurtosis	3.52	2.23
Arithmetic Mean Ratio	96.8	91.3	Arithmetic Mean Ratio	99.5	122.3
Weighted Mean Ratio	96.3	82.1	Weighted Mean Ratio	97.3	130.2
Geometric Mean Ratio	96.2	89.8	Geometric Mean Ratio	98.0	113.7
Harmonic Mean Ratio	95.6	88.1	Harmonic Mean Ratio	96.6	106.0
Standard Deviation	10.5	16.8	Standard Deviation	17.5	50.7
Coefficient of Variation (COV)	10.9	18.4	Coefficient of Variation (COV)	17.6	41.5
Price-Related Differential (PRD)	1.00	1.11	Price-Related Differential (PRD)	1.02	0.94
Lower PRD Confidence Interval	1.00	0.95	Lower PRD Confidence Interval	1.00	0.77
Upper PRD Confidence interval	1.01	1.25	Upper PRD Confidence interval	1.05	1.18
Coef. of Price-Related Bias (PRB)	-0.05	-0.03	Coef. of Price-Related Bias (PRB)	-0.23	0.06
Lower PRB Confidence Interval	-0.09	-0.12	Lower PRB Confidence Interval	-0.32	-0.19
Upper PRB Confidence Interval	-0.02	0.06	Upper PRB Confidence Interval	-0.13	0.31
Average Sale Price	223,620	231,455	Average Sale Price	115,907	119,800
Average Appraised Value	215,369	191,282	Average Appraised Value	112,833	155,980

<b>077 : RAWLIN</b>			<b>078 : RENO</b>		
<i>S-5</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	18	5	Original Number of Sales	242	18
Trimmed Outliers	1	0	Trimmed Outliers	32	1
Number of Ratios: Outliers Removed	17	5	Number of Ratios: Outliers Removed	210	17
Minimum Ratio	66.5	59.4	Minimum Ratio	21.3	52.3
Maximum Ratio	131.8	119.4	Maximum Ratio	490.0	225.8
Minimum Sale Price	7,000	11,000	Minimum Sale Price	1,000	12,000
Maximum Sale Price	260,000	205,000	Maximum Sale Price	606,000	473,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	92.5	66.3	Median Ratio	96.3	98.3
Lower Median Confidence Interval	88.7	59.7	Lower Median Confidence Interval	94.3	85.0
Upper Median Confidence Interval	101.0	117.5	Upper Median Confidence Interval	98.8	121.6
Broadened Median Ratio	94.0	77.5	Broadened Median Ratio	96.3	99.6
Coefficient of Dispersion (COD)	11.4	30.5	Coefficient of Dispersion (COD)	13.2	23.4
Lower COD Confidence Interval	7.7	3.4	Lower COD Confidence Interval	11.7	17.7
Upper COD Confidence Interval	17.3	35.3	Upper COD Confidence Interval	14.9	36.3
Value Weighted COD	12.9	21.7	Value Weighted COD	12.1	17.9
Coefficient of Concentration @10%	50.0	40.0	Coefficient of Concentration @10%	42.6	27.8
Coefficient of Concentration @15%	61.1	60.0	Coefficient of Concentration @15%	56.6	38.9
Coefficient of Concentration @20%	66.7	60.0	Coefficient of Concentration @20%	69.8	55.6
Coefficient of Concentration @50%	100.0	60.0	Coefficient of Concentration @50%	86.0	88.9
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	95.5	94.4
Coefficient of Interquartile Deviation	9.1	38.1	Coefficient of Interquartile Deviation	12.6	23.1
Median Percent Deviation	9.2	10.5	Median Percent Deviation	12.1	18.2
Lower Quartile (25 <sup>th</sup> Percentile)	85.4	60.9	Lower Quartile (25 <sup>th</sup> Percentile)	86.1	83.6
Upper Quartile (75 <sup>th</sup> Percentile)	102.2	111.5	Upper Quartile (75 <sup>th</sup> Percentile)	110.3	129.0
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	AcceptK	AcceptW	Normality Test	RejectK	RejectK
Relative Skewness	-0.21	0.51	Relative Skewness	0.32	0.29
Relative Kurtosis	2.41	1.44	Relative Kurtosis	3.76	2.39
Arithmetic Mean Ratio	92.1	82.3	Arithmetic Mean Ratio	95.1	101.1
Weighted Mean Ratio	87.3	72.2	Weighted Mean Ratio	91.5	97.0
Geometric Mean Ratio	91.0	78.8	Geometric Mean Ratio	93.6	97.3
Harmonic Mean Ratio	89.9	75.8	Harmonic Mean Ratio	92.1	93.4
Standard Deviation	14.2	27.4	Standard Deviation	16.6	28.4
Coefficient of Variation (COV)	15.4	33.3	Coefficient of Variation (COV)	17.5	28.1
Price-Related Differential (PRD)	1.06	1.14	Price-Related Differential (PRD)	1.04	1.04
Lower PRD Confidence Interval	1.00	0.97	Lower PRD Confidence Interval	1.02	0.98
Upper PRD Confidence interval	1.14	1.26	Upper PRD Confidence interval	1.06	1.15
Coef. of Price-Related Bias (PRB)	-0.03	-0.10	Coef. of Price-Related Bias (PRB)	-0.21	0.01
Lower PRB Confidence Interval	-0.11	-0.61	Lower PRB Confidence Interval	-0.26	-0.17
Upper PRB Confidence Interval	0.04	0.42	Upper PRB Confidence Interval	-0.16	0.19
Average Sale Price	83,948	76,100	Average Sale Price	123,996	138,417
Average Appraised Value	73,250	54,956	Average Appraised Value	113,401	142,523

<b>079 : REPUBLIC</b>			<b>080 : RICE</b>		
<i>S-2</i>			<i>S-6</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	62	4	Original Number of Sales	100	10
Trimmed Outliers	4	0	Trimmed Outliers	13	1
Number of Ratios: Outliers Removed	58	4	Number of Ratios: Outliers Removed	87	9
Minimum Ratio	69.4	70.5	Minimum Ratio	22.9	74.1
Maximum Ratio	1098.0	112.0	Maximum Ratio	2910.0	300.8
Minimum Sale Price	500	2,500	Minimum Sale Price	100	500
Maximum Sale Price	156,000	40,000	Maximum Sale Price	230,000	55,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	99.5	81.2	Median Ratio	96.0	101.8
Lower Median Confidence Interval	95.1	70.8	Lower Median Confidence Interval	89.3	89.8
Upper Median Confidence Interval	103.5	110.7	Upper Median Confidence Interval	100.0	135.5
Broadened Median Ratio	99.5	84.6	Broadened Median Ratio	96.0	103.2
Coefficient of Dispersion (COD)	13.8	15.6	Coefficient of Dispersion (COD)	17.2	15.5
Lower COD Confidence Interval	11.1	3.0	Lower COD Confidence Interval	14.3	8.9
Upper COD Confidence Interval	17.1	18.8	Upper COD Confidence Interval	21.2	25.0
Value Weighted COD	10.3	8.8	Value Weighted COD	13.9	16.7
Coefficient of Concentration @10%	48.4	50.0	Coefficient of Concentration @10%	36.0	40.0
Coefficient of Concentration @15%	58.1	75.0	Coefficient of Concentration @15%	48.0	50.0
Coefficient of Concentration @20%	62.9	75.0	Coefficient of Concentration @20%	63.0	60.0
Coefficient of Concentration @50%	93.5	100.0	Coefficient of Concentration @50%	80.0	90.0
Coefficient of Concentration @100%	93.5	100.0	Coefficient of Concentration @100%	94.0	90.0
Coefficient of Interquartile Deviation	12.4	20.6	Coefficient of Interquartile Deviation	16.3	21.8
Median Percent Deviation	10.9	9.4	Median Percent Deviation	15.3	15.8
Lower Quartile (25 <sup>th</sup> Percentile)	91.0	72.0	Lower Quartile (25 <sup>th</sup> Percentile)	81.7	91.8
Upper Quartile (75 <sup>th</sup> Percentile)	115.7	105.5	Upper Quartile (75 <sup>th</sup> Percentile)	113.0	136.2
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	AcceptK
Relative Skewness	0.36	0.77	Relative Skewness	0.26	0.38
Relative Kurtosis	2.77	2.02	Relative Kurtosis	3.89	2.10
Arithmetic Mean Ratio	99.8	86.2	Arithmetic Mean Ratio	95.3	104.5
Weighted Mean Ratio	95.9	78.2	Weighted Mean Ratio	90.8	99.8
Geometric Mean Ratio	98.2	84.9	Geometric Mean Ratio	92.6	102.6
Harmonic Mean Ratio	96.7	83.6	Harmonic Mean Ratio	89.7	100.6
Standard Deviation	17.7	18.3	Standard Deviation	21.9	21.7
Coefficient of Variation (COV)	17.8	21.2	Coefficient of Variation (COV)	23.0	20.8
Price-Related Differential (PRD)	1.04	1.10	Price-Related Differential (PRD)	1.05	1.05
Lower PRD Confidence Interval	1.02	1.00	Lower PRD Confidence Interval	1.02	1.01
Upper PRD Confidence interval	1.07	1.22	Upper PRD Confidence interval	1.08	1.10
Coef. of Price-Related Bias (PRB)	-0.43		Coef. of Price-Related Bias (PRB)	-0.79	0.07
Lower PRB Confidence Interval	-0.67		Lower PRB Confidence Interval	-1.11	-0.18
Upper PRB Confidence Interval	-0.19		Upper PRB Confidence Interval	-0.46	0.32
Average Sale Price	54,630	37,433	Average Sale Price	88,327	34,651
Average Appraised Value	52,363	29,007	Average Appraised Value	80,245	34,574

<b>081 : RILEY</b>			<b>082 : ROOKS</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	242	7	Original Number of Sales	55	6
Trimmed Outliers	27	1	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	215	6	Number of Ratios: Outliers Removed	52	6
Minimum Ratio	3.7	62.4	Minimum Ratio	54.4	75.9
Maximum Ratio	406.9	244.2	Maximum Ratio	1350.0	573.8
Minimum Sale Price	15,000	12,500	Minimum Sale Price	1,000	5,000
Maximum Sale Price	1,750,000	3,682,000	Maximum Sale Price	425,000	55,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	98.5	87.3	Median Ratio	95.5	100.1
Lower Median Confidence Interval	97.6	72.2	Lower Median Confidence Interval	89.8	87.4
Upper Median Confidence Interval	99.9	105.5	Upper Median Confidence Interval	99.2	559.5
Broadened Median Ratio	98.5	85.7	Broadened Median Ratio	95.1	174.1
Coefficient of Dispersion (COD)	7.9	17.2	Coefficient of Dispersion (COD)	21.0	157.3
Lower COD Confidence Interval	7.0	11.6	Lower COD Confidence Interval	16.4	4.2
Upper COD Confidence Interval	8.9	25.3	Upper COD Confidence Interval	26.1	167.0
Value Weighted COD	7.6	26.7	Value Weighted COD	16.0	35.0
Coefficient of Concentration @10%	63.6	14.3	Coefficient of Concentration @10%	36.4	50.0
Coefficient of Concentration @15%	74.0	28.6	Coefficient of Concentration @15%	45.5	50.0
Coefficient of Concentration @20%	81.4	57.1	Coefficient of Concentration @20%	50.9	50.0
Coefficient of Concentration @50%	93.8	85.7	Coefficient of Concentration @50%	89.1	66.7
Coefficient of Concentration @100%	97.9	85.7	Coefficient of Concentration @100%	94.5	66.7
Coefficient of Interquartile Deviation	7.3	19.1	Coefficient of Interquartile Deviation	18.1	229.5
Median Percent Deviation	7.0	17.3	Median Percent Deviation	17.5	12.7
Lower Quartile (25 <sup>th</sup> Percentile)	93.2	72.2	Lower Quartile (25 <sup>th</sup> Percentile)	81.9	93.1
Upper Quartile (75 <sup>th</sup> Percentile)	107.6	105.5	Upper Quartile (75 <sup>th</sup> Percentile)	116.4	552.4
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectW
Relative Skewness	0.48	0.18	Relative Skewness	0.46	0.71
Relative Kurtosis	3.50	1.60	Relative Kurtosis	2.49	1.51
Arithmetic Mean Ratio	99.5	82.9	Arithmetic Mean Ratio	96.1	249.0
Weighted Mean Ratio	98.7	96.3	Weighted Mean Ratio	90.7	122.4
Geometric Mean Ratio	98.9	81.5	Geometric Mean Ratio	92.7	169.2
Harmonic Mean Ratio	98.4	80.1	Harmonic Mean Ratio	89.4	128.0
Standard Deviation	10.5	16.6	Standard Deviation	26.0	240.9
Coefficient of Variation (COV)	10.5	20.0	Coefficient of Variation (COV)	27.1	96.7
Price-Related Differential (PRD)	1.01	0.86	Price-Related Differential (PRD)	1.06	2.03
Lower PRD Confidence Interval	1.00	0.81	Lower PRD Confidence Interval	1.01	1.37
Upper PRD Confidence interval	1.01	1.06	Upper PRD Confidence interval	1.12	2.44
Coef. of Price-Related Bias (PRB)	-0.16	-0.21	Coef. of Price-Related Bias (PRB)	-0.36	-2.60
Lower PRB Confidence Interval	-0.22	-0.51	Lower PRB Confidence Interval	-0.68	-5.63
Upper PRB Confidence Interval	-0.10	0.09	Upper PRB Confidence Interval	-0.05	0.43
Average Sale Price	227,713	877,333	Average Sale Price	83,604	37,585
Average Appraised Value	224,841	844,563	Average Appraised Value	75,854	35,088

<b>083 : RUSH</b>			<b>084 : RUSSELL</b>		
<i>S-4</i>					
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	38	6	Original Number of Sales	80	8
Trimmed Outliers	7	0	Trimmed Outliers	2	0
Number of Ratios: Outliers Removed	31	6	Number of Ratios: Outliers Removed	78	8
Minimum Ratio	46.7	45.1	Minimum Ratio	21.7	24.0
Maximum Ratio	325.0	152.9	Maximum Ratio	144.4	120.5
Minimum Sale Price	500	700	Minimum Sale Price	2,000	13,937
Maximum Sale Price	167,000	75,000	Maximum Sale Price	337,500	892,500
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	99.9	95.6	Median Ratio	90.3	79.2
Lower Median Confidence Interval	95.7	54.1	Lower Median Confidence Interval	87.1	63.4
Upper Median Confidence Interval	106.3	130.0	Upper Median Confidence Interval	94.1	110.5
Broadened Median Ratio	100.3	92.1	Broadened Median Ratio	90.3	80.0
Coefficient of Dispersion (COD)	11.8	28.1	Coefficient of Dispersion (COD)	15.9	27.6
Lower COD Confidence Interval	8.4	12.2	Lower COD Confidence Interval	13.3	15.9
Upper COD Confidence Interval	16.5	57.9	Upper COD Confidence Interval	19.2	82.7
Value Weighted COD	11.0	32.9	Value Weighted COD	15.6	21.9
Coefficient of Concentration @10%	50.0	33.3	Coefficient of Concentration @10%	43.8	25.0
Coefficient of Concentration @15%	52.6	50.0	Coefficient of Concentration @15%	52.5	37.5
Coefficient of Concentration @20%	65.8	50.0	Coefficient of Concentration @20%	61.3	50.0
Coefficient of Concentration @50%	81.6	66.7	Coefficient of Concentration @50%	97.5	75.0
Coefficient of Concentration @100%	92.1	100.0	Coefficient of Concentration @100%	100.0	100.0
Coefficient of Interquartile Deviation	13.7	31.4	Coefficient of Interquartile Deviation	14.5	26.6
Median Percent Deviation	9.6	23.0	Median Percent Deviation	14.3	20.1
Lower Quartile (25 <sup>th</sup> Percentile)	91.8	58.6	Lower Quartile (25 <sup>th</sup> Percentile)	77.3	64.5
Upper Quartile (75 <sup>th</sup> Percentile)	119.1	118.6	Upper Quartile (75 <sup>th</sup> Percentile)	103.4	106.7
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	AcceptK	RejectK
Relative Skewness	0.28	0.32	Relative Skewness	0.03	-0.46
Relative Kurtosis	3.41	2.29	Relative Kurtosis	2.67	2.67
Arithmetic Mean Ratio	98.2	93.2	Arithmetic Mean Ratio	90.7	80.0
Weighted Mean Ratio	97.5	66.2	Weighted Mean Ratio	86.9	65.3
Geometric Mean Ratio	96.9	86.7	Geometric Mean Ratio	88.8	73.2
Harmonic Mean Ratio	95.6	80.1	Harmonic Mean Ratio	86.7	63.9
Standard Deviation	16.3	37.5	Standard Deviation	18.7	30.2
Coefficient of Variation (COV)	16.6	40.2	Coefficient of Variation (COV)	20.6	37.7
Price-Related Differential (PRD)	1.01	1.41	Price-Related Differential (PRD)	1.04	1.23
Lower PRD Confidence Interval	0.97	1.14	Lower PRD Confidence Interval	1.02	1.06
Upper PRD Confidence interval	1.05	2.22	Upper PRD Confidence interval	1.08	1.75
Coef. of Price-Related Bias (PRB)	-0.25	-0.17	Coef. of Price-Related Bias (PRB)	-0.01	-0.15
Lower PRB Confidence Interval	-0.36	-0.25	Lower PRB Confidence Interval	-0.05	-0.33
Upper PRB Confidence Interval	-0.13	-0.09	Upper PRB Confidence Interval	0.04	0.03
Average Sale Price	77,545	44,706	Average Sale Price	101,843	187,917
Average Appraised Value	75,583	28,715	Average Appraised Value	88,503	122,688

<b>085 : SALINE</b>			<b>086 : SCOTT</b>		
			<i>S-5</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	251	18	Original Number of Sales	71	9
Trimmed Outliers	19	0	Trimmed Outliers	4	0
Number of Ratios: Outliers Removed	232	18	Number of Ratios: Outliers Removed	67	9
Minimum Ratio	51.1	51.1	Minimum Ratio	36.6	58.9
Maximum Ratio	501.7	205.1	Maximum Ratio	179.3	110.9
Minimum Sale Price	3,000	35,000	Minimum Sale Price	10,000	15,000
Maximum Sale Price	925,000	1,510,000	Maximum Sale Price	572,000	135,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	99.5	97.0	Median Ratio	87.8	89.5
Lower Median Confidence Interval	96.1	85.1	Lower Median Confidence Interval	79.7	59.7
Upper Median Confidence Interval	100.6	126.8	Upper Median Confidence Interval	93.2	101.9
Broadened Median Ratio	99.5	96.6	Broadened Median Ratio	87.4	87.9
Coefficient of Dispersion (COD)	13.5	30.9	Coefficient of Dispersion (COD)	16.4	17.2
Lower COD Confidence Interval	12.1	19.3	Lower COD Confidence Interval	13.9	10.0
Upper COD Confidence Interval	15.2	44.7	Upper COD Confidence Interval	20.1	29.8
Value Weighted COD	11.9	33.8	Value Weighted COD	17.0	15.7
Coefficient of Concentration @10%	48.2	33.3	Coefficient of Concentration @10%	29.6	33.3
Coefficient of Concentration @15%	60.2	44.4	Coefficient of Concentration @15%	56.3	55.6
Coefficient of Concentration @20%	70.1	55.6	Coefficient of Concentration @20%	69.0	55.6
Coefficient of Concentration @50%	93.2	77.8	Coefficient of Concentration @50%	93.0	100.0
Coefficient of Concentration @100%	96.4	94.4	Coefficient of Concentration @100%	98.6	100.0
Coefficient of Interquartile Deviation	11.9	33.9	Coefficient of Interquartile Deviation	14.1	20.1
Median Percent Deviation	10.7	15.7	Median Percent Deviation	13.9	13.9
Lower Quartile (25 <sup>th</sup> Percentile)	90.3	82.0	Lower Quartile (25 <sup>th</sup> Percentile)	75.2	62.6
Upper Quartile (75 <sup>th</sup> Percentile)	114.0	147.7	Upper Quartile (75 <sup>th</sup> Percentile)	100.0	98.6
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	AcceptK
Relative Skewness	0.58	0.85	Relative Skewness	0.11	-0.17
Relative Kurtosis	3.38	2.79	Relative Kurtosis	2.75	1.64
Arithmetic Mean Ratio	100.1	109.0	Arithmetic Mean Ratio	86.3	84.0
Weighted Mean Ratio	96.4	92.9	Weighted Mean Ratio	85.2	86.7
Geometric Mean Ratio	98.6	102.2	Geometric Mean Ratio	84.5	82.0
Harmonic Mean Ratio	97.1	96.1	Harmonic Mean Ratio	82.8	79.9
Standard Deviation	17.8	41.5	Standard Deviation	17.1	19.0
Coefficient of Variation (COV)	17.8	38.1	Coefficient of Variation (COV)	19.8	22.6
Price-Related Differential (PRD)	1.04	1.17	Price-Related Differential (PRD)	1.01	0.97
Lower PRD Confidence Interval	1.02	0.97	Lower PRD Confidence Interval	0.98	0.90
Upper PRD Confidence interval	1.06	1.47	Upper PRD Confidence interval	1.05	1.05
Coef. of Price-Related Bias (PRB)	-0.22	0.00	Coef. of Price-Related Bias (PRB)	-0.02	0.08
Lower PRB Confidence Interval	-0.27	-0.20	Lower PRB Confidence Interval	-0.08	-0.06
Upper PRB Confidence Interval	-0.17	0.21	Upper PRB Confidence Interval	0.04	0.23
Average Sale Price	144,600	271,389	Average Sale Price	142,608	73,056
Average Appraised Value	139,327	252,016	Average Appraised Value	121,455	63,334

<b>087 : SEDGWICK</b>			<b>088 : SEWARD</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	324	150	Original Number of Sales	168	9
Trimmed Outliers	28	9	Trimmed Outliers	22	0
Number of Ratios: Outliers Removed	296	141	Number of Ratios: Outliers Removed	146	9
Minimum Ratio	8.8	38.5	Minimum Ratio	2.5	36.9
Maximum Ratio	450.0	437.3	Maximum Ratio	1965.0	114.4
Minimum Sale Price	1,000	7,500	Minimum Sale Price	2,000	40,000
Maximum Sale Price	1,050,000	14,650,000	Maximum Sale Price	2,925,000	1,300,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	89.9	85.7	Median Ratio	101.2	97.0
Lower Median Confidence Interval	88.9	79.9	Lower Median Confidence Interval	96.9	55.8
Upper Median Confidence Interval	91.5	90.7	Upper Median Confidence Interval	104.0	110.9
Broadened Median Ratio	89.9	85.7	Broadened Median Ratio	101.3	97.7
Coefficient of Dispersion (COD)	10.7	21.0	Coefficient of Dispersion (COD)	15.8	19.2
Lower COD Confidence Interval	9.8	18.4	Lower COD Confidence Interval	13.6	9.2
Upper COD Confidence Interval	11.8	24.4	Upper COD Confidence Interval	18.4	55.1
Value Weighted COD	10.1	19.7	Value Weighted COD	18.2	31.1
Coefficient of Concentration @10%	51.9	30.0	Coefficient of Concentration @10%	41.1	33.3
Coefficient of Concentration @15%	68.2	40.0	Coefficient of Concentration @15%	52.4	66.7
Coefficient of Concentration @20%	78.7	54.7	Coefficient of Concentration @20%	62.5	77.8
Coefficient of Concentration @50%	94.1	89.3	Coefficient of Concentration @50%	84.5	88.9
Coefficient of Concentration @100%	98.5	98.0	Coefficient of Concentration @100%	93.5	100.0
Coefficient of Interquartile Deviation	9.5	17.8	Coefficient of Interquartile Deviation	14.5	20.7
Median Percent Deviation	9.6	18.1	Median Percent Deviation	13.6	13.5
Lower Quartile (25 <sup>th</sup> Percentile)	81.0	69.2	Lower Quartile (25 <sup>th</sup> Percentile)	90.6	69.8
Upper Quartile (75 <sup>th</sup> Percentile)	98.1	99.7	Upper Quartile (75 <sup>th</sup> Percentile)	119.9	109.9
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	Normality Test	RejectK	RejectK
Relative Skewness	0.08	0.23	Relative Skewness	0.51	-1.03
Relative Kurtosis	3.33	2.91	Relative Kurtosis	3.68	2.72
Arithmetic Mean Ratio	89.4	83.4	Arithmetic Mean Ratio	101.9	89.3
Weighted Mean Ratio	89.3	74.9	Weighted Mean Ratio	91.5	68.8
Geometric Mean Ratio	88.5	80.3	Geometric Mean Ratio	99.6	84.6
Harmonic Mean Ratio	87.6	77.1	Harmonic Mean Ratio	97.3	78.5
Standard Deviation	12.4	22.2	Standard Deviation	21.6	26.6
Coefficient of Variation (COV)	13.9	26.6	Coefficient of Variation (COV)	21.2	29.7
Price-Related Differential (PRD)	1.00	1.11	Price-Related Differential (PRD)	1.11	1.30
Lower PRD Confidence Interval	0.99	1.04	Lower PRD Confidence Interval	1.02	1.09
Upper PRD Confidence interval	1.02	1.21	Upper PRD Confidence interval	1.22	1.55
Coef. of Price-Related Bias (PRB)	-0.10	-0.08	Coef. of Price-Related Bias (PRB)	-0.41	-0.13
Lower PRB Confidence Interval	-0.13	-0.12	Lower PRB Confidence Interval	-0.62	-0.25
Upper PRB Confidence Interval	-0.06	-0.03	Upper PRB Confidence Interval	-0.19	-0.02
Average Sale Price	172,802	603,858	Average Sale Price	160,208	289,778
Average Appraised Value	154,251	461,589	Average Appraised Value	146,652	199,311



<b>089 : SHAWNEE</b>			<b>090 : SHERIDAN</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind	Residential	Comm./Ind	S-3
Original Number of Sales	242	65	18	3	
Trimmed Outliers	26	2	3	0	
Number of Ratios: Outliers Removed	216	63	15	3	
Minimum Ratio	22.7	47.2	29.4	76.2	
Maximum Ratio	306.2	230.4	359.0	139.1	
Minimum Sale Price	8,000	20,000	12,500	20,000	
Maximum Sale Price	680,500	15,600,000	160,000	871,815	
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	92.6	92.0	90.9	96.7	
Lower Median Confidence Interval	91.3	78.9	82.6	77.5	
Upper Median Confidence Interval	93.7	99.8	102.4	136.2	
Broadened Median Ratio	92.7	91.7	91.8	104.0	
Coefficient of Dispersion (COD)	8.4	22.0	10.7	21.7	
Lower COD Confidence Interval	7.5	17.9	7.5	7.1	
Upper COD Confidence Interval	9.5	27.5	16.0	21.7	
Value Weighted COD	7.6	19.8	10.1	1.5	
Coefficient of Concentration @10%	58.3	24.6	44.4	33.3	
Coefficient of Concentration @15%	72.3	44.6	55.6	33.3	
Coefficient of Concentration @20%	82.6	49.2	72.2	33.3	
Coefficient of Concentration @50%	91.7	93.8	83.3	100.0	
Coefficient of Concentration @100%	97.1	98.5	94.4	100.0	
Coefficient of Interquartile Deviation	8.2	19.3	14.0	32.5	
Median Percent Deviation	7.1	20.7	11.3	21.2	
Lower Quartile (25 <sup>th</sup> Percentile)	86.6	68.3	80.7	76.2	
Upper Quartile (75 <sup>th</sup> Percentile)	101.8	103.8	106.1	139.1	
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectK	AcceptK	AcceptW	
Relative Skewness	0.39	0.28	-0.25	0.40	
Relative Kurtosis	3.39	2.37	2.24	1.50	
Arithmetic Mean Ratio	92.8	88.6	90.4	104.0	
Weighted Mean Ratio	91.9	79.7	89.9	97.1	
Geometric Mean Ratio	92.2	85.4	89.6	100.8	
Harmonic Mean Ratio	91.7	82.2	88.7	97.8	
Standard Deviation	10.3	23.9	12.4	32.1	
Coefficient of Variation (COV)	11.1	27.0	13.8	30.8	
Price-Related Differential (PRD)	1.01	1.11	1.01	1.07	
Lower PRD Confidence Interval	1.00	1.02	0.99	0.93	
Upper PRD Confidence interval	1.02	1.24	1.03	1.14	
Coef. of Price-Related Bias (PRB)	-0.14	-0.04	-0.59		
Lower PRB Confidence Interval	-0.18	-0.08	-1.05		
Upper PRB Confidence Interval	-0.10	0.01	-0.12		
Average Sale Price	150,845	990,615	99,567	304,605	
Average Appraised Value	138,641	791,361	89,483	295,840	

<b>091 : SHERMAN</b>			<b>092 : SMITH</b>		
<i>S-3</i>			<i>S-4</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	80	5	Original Number of Sales	37	5
Trimmed Outliers	5	0	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	75	5	Number of Ratios: Outliers Removed	34	5
Minimum Ratio	26.1	66.6	Minimum Ratio	28.3	39.0
Maximum Ratio	1186.7	207.0	Maximum Ratio	1215.0	211.6
Minimum Sale Price	600	30,000	Minimum Sale Price	800	1,765
Maximum Sale Price	360,000	1,750,000	Maximum Sale Price	135,000	45,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	86.6	88.8	Median Ratio	87.7	76.5
Lower Median Confidence Interval	80.0	66.7	Lower Median Confidence Interval	76.7	39.1
Upper Median Confidence Interval	91.0	199.1	Upper Median Confidence Interval	96.3	199.9
Broadened Median Ratio	86.7	99.2	Broadened Median Ratio	86.4	76.8
Coefficient of Dispersion (COD)	13.9	48.4	Coefficient of Dispersion (COD)	21.5	64.5
Lower COD Confidence Interval	11.8	9.9	Lower COD Confidence Interval	16.9	19.2
Upper COD Confidence Interval	16.9	64.3	Upper COD Confidence Interval	30.5	124.4
Value Weighted COD	13.0	32.3	Value Weighted COD	20.6	85.0
Coefficient of Concentration @10%	33.8	20.0	Coefficient of Concentration @10%	32.4	20.0
Coefficient of Concentration @15%	61.3	20.0	Coefficient of Concentration @15%	45.9	20.0
Coefficient of Concentration @20%	73.8	20.0	Coefficient of Concentration @20%	51.4	20.0
Coefficient of Concentration @50%	93.8	60.0	Coefficient of Concentration @50%	83.8	80.0
Coefficient of Concentration @100%	96.3	80.0	Coefficient of Concentration @100%	91.9	80.0
Coefficient of Interquartile Deviation	12.3	60.5	Coefficient of Interquartile Deviation	18.1	80.7
Median Percent Deviation	12.4	25.0	Median Percent Deviation	16.8	49.0
Lower Quartile (25 <sup>th</sup> Percentile)	75.5	66.8	Lower Quartile (25 <sup>th</sup> Percentile)	69.1	39.4
Upper Quartile (75 <sup>th</sup> Percentile)	96.7	174.3	Upper Quartile (75 <sup>th</sup> Percentile)	100.9	162.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	AcceptK	AcceptW
Relative Skewness	0.15	0.76	Relative Skewness	-0.11	0.89
Relative Kurtosis	3.25	2.03	Relative Kurtosis	3.11	2.37
Arithmetic Mean Ratio	86.2	114.2	Arithmetic Mean Ratio	83.3	96.2
Weighted Mean Ratio	85.0	85.3	Weighted Mean Ratio	80.6	109.5
Geometric Mean Ratio	84.9	103.1	Geometric Mean Ratio	79.8	77.9
Harmonic Mean Ratio	83.5	94.2	Harmonic Mean Ratio	75.5	64.7
Standard Deviation	14.9	60.2	Standard Deviation	22.9	71.5
Coefficient of Variation (COV)	17.3	52.7	Coefficient of Variation (COV)	27.5	74.4
Price-Related Differential (PRD)	1.01	1.34	Price-Related Differential (PRD)	1.03	0.88
Lower PRD Confidence Interval	0.99	0.84	Lower PRD Confidence Interval	0.99	0.71
Upper PRD Confidence interval	1.04	1.77	Upper PRD Confidence interval	1.09	1.17
Coef. of Price-Related Bias (PRB)	-0.68	-0.09	Coef. of Price-Related Bias (PRB)	-0.69	0.22
Lower PRB Confidence Interval	-0.93	-0.62	Lower PRB Confidence Interval	-1.23	-0.47
Upper PRB Confidence Interval	-0.42	0.44	Upper PRB Confidence Interval	-0.15	0.91
Average Sale Price	126,613	493,000	Average Sale Price	56,706	34,125
Average Appraised Value	107,636	420,716	Average Appraised Value	45,693	37,505

<b>093 : STAFFORD</b>			<b>094 : STANTON</b>		
<i>S-5</i>			<i>S-4</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	41	5	Original Number of Sales	14	5
Trimmed Outliers	5	0	Trimmed Outliers	1	0
Number of Ratios: Outliers Removed	36	5	Number of Ratios: Outliers Removed	13	5
Minimum Ratio	65.0	100.3	Minimum Ratio	57.7	67.9
Maximum Ratio	310.0	166.9	Maximum Ratio	237.5	110.6
Minimum Sale Price	4,500	4,000	Minimum Sale Price	7,500	70,000
Maximum Sale Price	350,000	60,000	Maximum Sale Price	120,000	1,900,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	91.5	101.4	Median Ratio	93.4	93.7
Lower Median Confidence Interval	86.0	100.3	Lower Median Confidence Interval	83.1	69.9
Upper Median Confidence Interval	103.0	159.4	Upper Median Confidence Interval	107.5	110.3
Broadened Median Ratio	92.3	102.1	Broadened Median Ratio	93.6	95.5
Coefficient of Dispersion (COD)	13.8	13.7	Coefficient of Dispersion (COD)	15.3	14.1
Lower COD Confidence Interval	11.2	0.4	Lower COD Confidence Interval	9.9	4.3
Upper COD Confidence Interval	17.7	26.2	Upper COD Confidence Interval	25.6	19.5
Value Weighted COD	13.1	5.1	Value Weighted COD	10.9	10.5
Coefficient of Concentration @10%	34.1	80.0	Coefficient of Concentration @10%	42.9	40.0
Coefficient of Concentration @15%	58.5	80.0	Coefficient of Concentration @15%	50.0	40.0
Coefficient of Concentration @20%	68.3	80.0	Coefficient of Concentration @20%	64.3	80.0
Coefficient of Concentration @50%	87.8	80.0	Coefficient of Concentration @50%	92.9	100.0
Coefficient of Concentration @100%	90.2	100.0	Coefficient of Concentration @100%	92.9	100.0
Coefficient of Interquartile Deviation	15.1	17.2	Coefficient of Interquartile Deviation	15.3	17.6
Median Percent Deviation	13.1	1.1	Median Percent Deviation	13.3	15.3
Lower Quartile (25 <sup>th</sup> Percentile)	81.4	100.6	Lower Quartile (25 <sup>th</sup> Percentile)	82.0	76.4
Upper Quartile (75 <sup>th</sup> Percentile)	109.0	135.4	Upper Quartile (75 <sup>th</sup> Percentile)	110.5	109.3
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	Normality Test	RejectK	AcceptW
Relative Skewness	0.47	1.49	Relative Skewness	0.32	-0.39
Relative Kurtosis	2.50	3.24	Relative Kurtosis	3.19	1.81
Arithmetic Mean Ratio	92.0	114.7	Arithmetic Mean Ratio	93.4	93.0
Weighted Mean Ratio	86.5	106.1	Weighted Mean Ratio	94.2	86.8
Geometric Mean Ratio	90.8	112.2	Geometric Mean Ratio	91.5	91.6
Harmonic Mean Ratio	89.6	110.2	Harmonic Mean Ratio	89.6	90.1
Standard Deviation	15.2	29.2	Standard Deviation	19.4	17.6
Coefficient of Variation (COV)	16.6	25.5	Coefficient of Variation (COV)	20.7	18.9
Price-Related Differential (PRD)	1.06	1.08	Price-Related Differential (PRD)	0.99	1.07
Lower PRD Confidence Interval	1.03	0.98	Lower PRD Confidence Interval	0.94	0.96
Upper PRD Confidence interval	1.11	1.18	Upper PRD Confidence interval	1.05	1.15
Coef. of Price-Related Bias (PRB)	-0.30	-0.03	Coef. of Price-Related Bias (PRB)	0.02	-0.01
Lower PRB Confidence Interval	-0.45	-0.34	Lower PRB Confidence Interval	-0.23	-0.19
Upper PRB Confidence Interval	-0.16	0.28	Upper PRB Confidence Interval	0.26	0.16
Average Sale Price	80,919	40,167	Average Sale Price	66,231	455,840
Average Appraised Value	70,026	41,060	Average Appraised Value	62,412	395,632

<b>095 : STEVENS</b>			<b>096 : SUMNER</b>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	42	5	Original Number of Sales	259	6
Trimmed Outliers	7	0	Trimmed Outliers	29	0
Number of Ratios: Outliers Removed	35	5	Number of Ratios: Outliers Removed	230	6
Minimum Ratio	36.1	11.8	Minimum Ratio	28.2	37.0
Maximum Ratio	671.0	81.2	Maximum Ratio	728.1	163.6
Minimum Sale Price	5,000	18,000	Minimum Sale Price	2,000	22,500
Maximum Sale Price	1,675,000	165,000	Maximum Sale Price	1,350,000	144,607
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	100.9	67.0	Median Ratio	95.5	74.6
Lower Median Confidence Interval	94.3	18.1	Lower Median Confidence Interval	92.4	46.5
Upper Median Confidence Interval	106.0	81.0	Upper Median Confidence Interval	97.6	159.4
Broadened Median Ratio	101.0	70.2	Broadened Median Ratio	95.4	85.0
Coefficient of Dispersion (COD)	12.0	25.3	Coefficient of Dispersion (COD)	17.9	57.0
Lower COD Confidence Interval	9.0	4.2	Lower COD Confidence Interval	15.9	12.5
Upper COD Confidence Interval	16.5	177.9	Upper COD Confidence Interval	20.1	73.0
Value Weighted COD	20.3	12.7	Value Weighted COD	14.7	60.4
Coefficient of Concentration @10%	45.2	40.0	Coefficient of Concentration @10%	37.1	0.0
Coefficient of Concentration @15%	59.5	40.0	Coefficient of Concentration @15%	47.9	0.0
Coefficient of Concentration @20%	66.7	60.0	Coefficient of Concentration @20%	56.8	33.3
Coefficient of Concentration @50%	83.3	80.0	Coefficient of Concentration @50%	83.4	50.0
Coefficient of Concentration @100%	90.5	100.0	Coefficient of Concentration @100%	92.3	66.7
Coefficient of Interquartile Deviation	11.8	31.6	Coefficient of Interquartile Deviation	16.5	71.1
Median Percent Deviation	11.1	18.6	Median Percent Deviation	16.1	37.7
Lower Quartile (25 <sup>th</sup> Percentile)	89.1	38.0	Lower Quartile (25 <sup>th</sup> Percentile)	81.5	51.2
Upper Quartile (75 <sup>th</sup> Percentile)	113.0	80.3	Upper Quartile (75 <sup>th</sup> Percentile)	113.0	157.4
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	RejectW	Normality Test	RejectK	AcceptW
Relative Skewness	-0.27	-1.25	Relative Skewness	0.30	0.43
Relative Kurtosis	3.43	2.92	Relative Kurtosis	3.28	1.49
Arithmetic Mean Ratio	97.5	60.7	Arithmetic Mean Ratio	94.4	93.5
Weighted Mean Ratio	86.1	66.4	Weighted Mean Ratio	90.0	87.4
Geometric Mean Ratio	96.1	50.4	Geometric Mean Ratio	91.6	81.0
Harmonic Mean Ratio	94.6	35.6	Harmonic Mean Ratio	88.6	70.3
Standard Deviation	16.1	28.3	Standard Deviation	22.5	53.8
Coefficient of Variation (COV)	16.5	46.7	Coefficient of Variation (COV)	23.8	57.5
Price-Related Differential (PRD)	1.13	0.91	Price-Related Differential (PRD)	1.05	1.07
Lower PRD Confidence Interval	0.99	0.73	Lower PRD Confidence Interval	1.03	0.87
Upper PRD Confidence interval	1.32	1.06	Upper PRD Confidence interval	1.07	1.31
Coef. of Price-Related Bias (PRB)	-0.40	0.21	Coef. of Price-Related Bias (PRB)	-0.23	0.27
Lower PRB Confidence Interval	-0.64	-0.18	Lower PRB Confidence Interval	-0.30	-0.64
Upper PRB Confidence Interval	-0.17	0.60	Upper PRB Confidence Interval	-0.16	1.19
Average Sale Price	165,471	64,200	Average Sale Price	114,201	78,851
Average Appraised Value	142,433	42,604	Average Appraised Value	102,789	68,912

<b>097 : THOMAS</b>			<b>098 : TREGO</b>		
			<i>S-6</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	92	8	Original Number of Sales	28	7
Trimmed Outliers	9	0	Trimmed Outliers	0	1
Number of Ratios: Outliers Removed	83	8	Number of Ratios: Outliers Removed	28	6
Minimum Ratio	49.6	50.2	Minimum Ratio	53.9	51.6
Maximum Ratio	183.6	103.2	Maximum Ratio	135.5	502.0
Minimum Sale Price	27,000	50,000	Minimum Sale Price	19,000	500
Maximum Sale Price	468,000	3,432,705	Maximum Sale Price	290,000	1,300,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	95.2	79.4	Median Ratio	98.7	92.2
Lower Median Confidence Interval	92.5	50.9	Lower Median Confidence Interval	83.4	61.3
Upper Median Confidence Interval	98.8	99.3	Upper Median Confidence Interval	105.7	123.9
Broadened Median Ratio	95.4	79.0	Broadened Median Ratio	98.6	91.2
Coefficient of Dispersion (COD)	9.3	18.1	Coefficient of Dispersion (COD)	16.0	22.3
Lower COD Confidence Interval	7.9	9.4	Lower COD Confidence Interval	11.7	10.3
Upper COD Confidence Interval	11.2	33.9	Upper COD Confidence Interval	23.1	42.5
Value Weighted COD	8.6	17.2	Value Weighted COD	13.6	9.6
Coefficient of Concentration @10%	54.3	50.0	Coefficient of Concentration @10%	42.9	42.9
Coefficient of Concentration @15%	73.9	50.0	Coefficient of Concentration @15%	53.6	42.9
Coefficient of Concentration @20%	82.6	50.0	Coefficient of Concentration @20%	67.9	42.9
Coefficient of Concentration @50%	94.6	100.0	Coefficient of Concentration @50%	100.0	85.7
Coefficient of Concentration @100%	100.0	100.0	Coefficient of Concentration @100%	100.0	85.7
Coefficient of Interquartile Deviation	8.9	24.7	Coefficient of Interquartile Deviation	14.6	34.0
Median Percent Deviation	8.8	16.9	Median Percent Deviation	14.6	33.6
Lower Quartile (25 <sup>th</sup> Percentile)	86.6	56.3	Lower Quartile (25 <sup>th</sup> Percentile)	78.6	61.3
Upper Quartile (75 <sup>th</sup> Percentile)	103.6	95.5	Upper Quartile (75 <sup>th</sup> Percentile)	107.4	123.9
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptK	Normality Test	RejectK	AcceptW
Relative Skewness	0.34	-0.22	Relative Skewness	-0.33	0.12
Relative Kurtosis	3.40	1.93	Relative Kurtosis	2.59	2.00
Arithmetic Mean Ratio	94.7	77.3	Arithmetic Mean Ratio	94.8	85.1
Weighted Mean Ratio	93.2	71.9	Weighted Mean Ratio	94.5	81.4
Geometric Mean Ratio	94.1	75.0	Geometric Mean Ratio	92.6	81.6
Harmonic Mean Ratio	93.4	72.6	Harmonic Mean Ratio	90.1	78.1
Standard Deviation	11.4	19.5	Standard Deviation	20.0	26.1
Coefficient of Variation (COV)	12.0	25.3	Coefficient of Variation (COV)	21.0	30.7
Price-Related Differential (PRD)	1.02	1.08	Price-Related Differential (PRD)	1.00	1.04
Lower PRD Confidence Interval	1.00	0.95	Lower PRD Confidence Interval	0.96	0.86
Upper PRD Confidence interval	1.03	1.48	Upper PRD Confidence interval	1.05	1.34
Coef. of Price-Related Bias (PRB)	-0.07	-0.05	Coef. of Price-Related Bias (PRB)	0.00	-0.32
Lower PRB Confidence Interval	-0.13	-0.15	Lower PRB Confidence Interval	-0.08	-0.84
Upper PRB Confidence Interval	-0.01	0.04	Upper PRB Confidence Interval	0.08	0.20
Average Sale Price	131,575	742,963	Average Sale Price	95,530	376,250
Average Appraised Value	122,576	534,113	Average Appraised Value	90,290	306,505

<b>099 : WABAUNSEE</b>			<b>100 : WALLACE</b>		
			<i>S-3</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	64	5	Original Number of Sales	6	4
Trimmed Outliers	3	0	Trimmed Outliers	0	0
Number of Ratios: Outliers Removed	61	5	Number of Ratios: Outliers Removed	6	4
Minimum Ratio	21.3	54.6	Minimum Ratio	62.5	52.5
Maximum Ratio	726.0	131.0	Maximum Ratio	125.4	92.2
Minimum Sale Price	2,000	25,000	Minimum Sale Price	7,250	2,000
Maximum Sale Price	600,000	90,000	Maximum Sale Price	119,000	85,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	93.1	93.3	Median Ratio	73.6	71.3
Lower Median Confidence Interval	87.7	58.8	Lower Median Confidence Interval	66.2	53.3
Upper Median Confidence Interval	98.2	127.8	Upper Median Confidence Interval	102.7	91.3
Broadened Median Ratio	93.4	95.7	Broadened Median Ratio	74.1	71.7
Coefficient of Dispersion (COD)	19.3	19.7	Coefficient of Dispersion (COD)	18.1	16.4
Lower COD Confidence Interval	15.5	5.1	Lower COD Confidence Interval	5.5	4.9
Upper COD Confidence Interval	24.1	32.5	Upper COD Confidence Interval	33.6	22.9
Value Weighted COD	16.9	16.9	Value Weighted COD	16.7	15.0
Coefficient of Concentration @10%	39.1	40.0	Coefficient of Concentration @10%	66.7	50.0
Coefficient of Concentration @15%	46.9	60.0	Coefficient of Concentration @15%	66.7	50.0
Coefficient of Concentration @20%	56.3	60.0	Coefficient of Concentration @20%	83.3	50.0
Coefficient of Concentration @50%	89.1	100.0	Coefficient of Concentration @50%	83.3	100.0
Coefficient of Concentration @100%	98.4	100.0	Coefficient of Concentration @100%	100.0	100.0
Coefficient of Interquartile Deviation	16.7	24.6	Coefficient of Interquartile Deviation	15.9	22.1
Median Percent Deviation	17.0	12.2	Median Percent Deviation	6.9	15.7
Lower Quartile (25 <sup>th</sup> Percentile)	77.2	71.9	Lower Quartile (25 <sup>th</sup> Percentile)	68.0	56.3
Upper Quartile (75 <sup>th</sup> Percentile)	108.2	117.8	Upper Quartile (75 <sup>th</sup> Percentile)	91.4	87.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectW	AcceptW
Relative Skewness	0.62	-0.19	Relative Skewness	1.50	0.10
Relative Kurtosis	3.11	2.32	Relative Kurtosis	3.71	1.88
Arithmetic Mean Ratio	94.8	94.5	Arithmetic Mean Ratio	80.9	71.8
Weighted Mean Ratio	89.0	98.3	Weighted Mean Ratio	79.2	81.0
Geometric Mean Ratio	91.9	91.0	Geometric Mean Ratio	78.7	70.4
Harmonic Mean Ratio	89.1	87.1	Harmonic Mean Ratio	76.9	69.0
Standard Deviation	24.0	27.6	Standard Deviation	22.7	16.5
Coefficient of Variation (COV)	25.3	29.2	Coefficient of Variation (COV)	28.1	22.9
Price-Related Differential (PRD)	1.07	0.96	Price-Related Differential (PRD)	1.02	0.89
Lower PRD Confidence Interval	1.00	0.90	Lower PRD Confidence Interval	0.98	0.79
Upper PRD Confidence interval	1.13	1.02	Upper PRD Confidence interval	1.10	0.98
Coef. of Price-Related Bias (PRB)	-0.22	0.18	Coef. of Price-Related Bias (PRB)	0.03	
Lower PRB Confidence Interval	-0.38	-0.36	Lower PRB Confidence Interval	-0.28	
Upper PRB Confidence Interval	-0.07	0.73	Upper PRB Confidence Interval	0.34	
Average Sale Price	123,161	41,400	Average Sale Price	58,392	56,833
Average Appraised Value	109,622	40,702	Average Appraised Value	46,223	46,217

<b>101 : WASHINGTON</b>			<b>102 : WICHITA</b>		
<i>S-1</i>			<i>S-4</i>		
<i>GENERAL STATISTICS</i>	Residential	Comm./Ind	<i>GENERAL STATISTICS</i>	Residential	Comm./Ind
Original Number of Sales	44	5	Original Number of Sales	20	5
Trimmed Outliers	4	0	Trimmed Outliers	1	0
Number of Ratios: Outliers Removed	40	5	Number of Ratios: Outliers Removed	19	5
Minimum Ratio	46.6	75.3	Minimum Ratio	54.0	30.0
Maximum Ratio	717.0	87.8	Maximum Ratio	267.6	136.6
Minimum Sale Price	3,000	4,000	Minimum Sale Price	4,000	10,000
Maximum Sale Price	160,000	105,000	Maximum Sale Price	270,000	87,000
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	103.7	83.2	Median Ratio	89.6	93.7
Lower Median Confidence Interval	99.1	75.6	Lower Median Confidence Interval	83.5	37.2
Upper Median Confidence Interval	114.1	87.6	Upper Median Confidence Interval	98.8	133.3
Broadened Median Ratio	103.7	82.8	Broadened Median Ratio	89.5	97.8
Coefficient of Dispersion (COD)	19.7	5.1	Coefficient of Dispersion (COD)	13.6	26.7
Lower COD Confidence Interval	14.6	1.6	Lower COD Confidence Interval	9.0	6.2
Upper COD Confidence Interval	27.4	6.0	Upper COD Confidence Interval	20.4	71.2
Value Weighted COD	16.9	2.6	Value Weighted COD	13.5	28.2
Coefficient of Concentration @10%	36.4	100.0	Coefficient of Concentration @10%	45.0	40.0
Coefficient of Concentration @15%	50.0	100.0	Coefficient of Concentration @15%	60.0	40.0
Coefficient of Concentration @20%	54.5	100.0	Coefficient of Concentration @20%	70.0	60.0
Coefficient of Concentration @50%	81.8	100.0	Coefficient of Concentration @50%	95.0	80.0
Coefficient of Concentration @100%	95.5	100.0	Coefficient of Concentration @100%	95.0	100.0
Coefficient of Interquartile Deviation	19.7	6.3	Coefficient of Interquartile Deviation	11.3	33.4
Median Percent Deviation	15.4	5.5	Median Percent Deviation	11.0	16.3
Lower Quartile (25 <sup>th</sup> Percentile)	91.9	76.8	Lower Quartile (25 <sup>th</sup> Percentile)	79.3	60.2
Upper Quartile (75 <sup>th</sup> Percentile)	132.8	87.3	Upper Quartile (75 <sup>th</sup> Percentile)	99.5	122.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	AcceptK	AcceptW
Relative Skewness	0.96	-0.26	Relative Skewness	0.15	-0.67
Relative Kurtosis	4.53	1.47	Relative Kurtosis	3.19	2.50
Arithmetic Mean Ratio	107.5	82.3	Arithmetic Mean Ratio	89.5	92.0
Weighted Mean Ratio	99.3	82.6	Weighted Mean Ratio	87.6	74.8
Geometric Mean Ratio	104.0	82.1	Geometric Mean Ratio	88.0	82.3
Harmonic Mean Ratio	100.4	82.0	Harmonic Mean Ratio	86.3	69.8
Standard Deviation	28.8	5.4	Standard Deviation	16.9	39.2
Coefficient of Variation (COV)	26.8	6.6	Coefficient of Variation (COV)	18.9	42.6
Price-Related Differential (PRD)	1.08	1.00	Price-Related Differential (PRD)	1.02	1.23
Lower PRD Confidence Interval	1.03	0.96	Lower PRD Confidence Interval	0.98	1.02
Upper PRD Confidence interval	1.16	1.03	Upper PRD Confidence interval	1.08	1.57
Coef. of Price-Related Bias (PRB)	-0.32	0.00	Coef. of Price-Related Bias (PRB)	-0.02	-0.27
Lower PRB Confidence Interval	-0.63	-0.05	Lower PRB Confidence Interval	-0.16	-0.82
Upper PRB Confidence Interval	-0.01	0.06	Upper PRB Confidence Interval	0.12	0.29
Average Sale Price	67,513	65,000	Average Sale Price	114,895	47,400
Average Appraised Value	67,020	53,740	Average Appraised Value	100,670	35,438

<b>103 : WILSON</b>			<b>104 : WOODSON</b>		
<i>GENERAL STATISTICS</i>			<i>GENERAL STATISTICS</i>		
	Residential	Comm./Ind		Residential	Comm./Ind
Original Number of Sales	61	6	Original Number of Sales	32	5
Trimmed Outliers	5	1	Trimmed Outliers	3	0
Number of Ratios: Outliers Removed	56	5	Number of Ratios: Outliers Removed	29	5
Minimum Ratio	44.2	81.5	Minimum Ratio	35.0	67.2
Maximum Ratio	2218.0	844.8	Maximum Ratio	215.7	286.5
Minimum Sale Price	1,000	10,000	Minimum Sale Price	1,500	825
Maximum Sale Price	320,000	65,000	Maximum Sale Price	350,000	678,857
<i>DISTRIBUTION FREE STATISTICS</i>			<i>DISTRIBUTION FREE STATISTICS</i>		
Median Ratio	96.7	129.7	Median Ratio	98.4	91.7
Lower Median Confidence Interval	90.3	86.1	Lower Median Confidence Interval	86.5	67.8
Upper Median Confidence Interval	106.1	536.5	Upper Median Confidence Interval	110.4	265.2
Broadened Median Ratio	97.1	139.6	Broadened Median Ratio	98.1	91.1
Coefficient of Dispersion (COD)	28.6	39.4	Coefficient of Dispersion (COD)	22.4	55.9
Lower COD Confidence Interval	22.7	7.6	Lower COD Confidence Interval	16.9	8.2
Upper COD Confidence Interval	36.5	53.5	Upper COD Confidence Interval	32.1	94.6
Value Weighted COD	22.8	66.1	Value Weighted COD	20.1	28.7
Coefficient of Concentration @10%	26.2	0.0	Coefficient of Concentration @10%	31.3	20.0
Coefficient of Concentration @15%	32.8	0.0	Coefficient of Concentration @15%	34.4	20.0
Coefficient of Concentration @20%	42.6	33.3	Coefficient of Concentration @20%	53.1	40.0
Coefficient of Concentration @50%	78.7	66.7	Coefficient of Concentration @50%	81.3	80.0
Coefficient of Concentration @100%	91.8	83.3	Coefficient of Concentration @100%	90.6	80.0
Coefficient of Interquartile Deviation	24.1	113.3	Coefficient of Interquartile Deviation	19.0	69.8
Median Percent Deviation	24.1	33.6	Median Percent Deviation	18.2	21.0
Lower Quartile (25 <sup>th</sup> Percentile)	71.3	88.4	Lower Quartile (25 <sup>th</sup> Percentile)	77.9	69.8
Upper Quartile (75 <sup>th</sup> Percentile)	117.9	382.3	Upper Quartile (75 <sup>th</sup> Percentile)	115.3	197.8
<i>PARAMETRIC STATISTICS</i>			<i>PARAMETRIC STATISTICS</i>		
Normality Test	RejectK	AcceptW	Normality Test	RejectK	RejectW
Relative Skewness	0.83	0.87	Relative Skewness	0.37	1.38
Relative Kurtosis	3.11	2.24	Relative Kurtosis	3.09	3.09
Arithmetic Mean Ratio	97.3	131.9	Arithmetic Mean Ratio	96.9	125.4
Weighted Mean Ratio	88.3	164.1	Weighted Mean Ratio	92.4	73.2
Geometric Mean Ratio	91.4	122.4	Geometric Mean Ratio	92.8	106.9
Harmonic Mean Ratio	85.9	114.6	Harmonic Mean Ratio	88.3	95.7
Standard Deviation	35.7	60.4	Standard Deviation	27.8	91.6
Coefficient of Variation (COV)	36.6	45.8	Coefficient of Variation (COV)	28.7	73.1
Price-Related Differential (PRD)	1.10	0.80	Price-Related Differential (PRD)	1.05	1.71
Lower PRD Confidence Interval	1.04	0.75	Lower PRD Confidence Interval	0.95	0.91
Upper PRD Confidence interval	1.19	1.08	Upper PRD Confidence interval	1.18	2.20
Coef. of Price-Related Bias (PRB)	-0.51	1.07	Coef. of Price-Related Bias (PRB)	-0.12	-0.03
Lower PRB Confidence Interval	-1.01	0.14	Lower PRB Confidence Interval	-0.23	-0.57
Upper PRB Confidence Interval	0.00	2.00	Upper PRB Confidence Interval	-0.01	0.51
Average Sale Price	75,153	31,417	Average Sale Price	58,281	188,464
Average Appraised Value	66,371	116,800	Average Appraised Value	53,849	137,808



105 : WYANDOTTE		
GENERAL STATISTICS	Residential	Comm./Ind
Original Number of Sales	277	42
Trimmed Outliers	42	1
Number of Ratios: Outliers Removed	235	41
Minimum Ratio	20.9	37.9
Maximum Ratio	431.7	269.4
Minimum Sale Price	4,578	26,000
Maximum Sale Price	1,649,000	3,575,000
DISTRIBUTION FREE STATISTICS		
Median Ratio	91.3	94.2
Lower Median Confidence Interval	88.4	77.4
Upper Median Confidence Interval	94.5	99.4
Broadened Median Ratio	91.3	93.4
Coefficient of Dispersion (COD)	16.6	25.9
Lower COD Confidence Interval	14.9	19.7
Upper COD Confidence Interval	18.6	34.3
Value Weighted COD	13.7	32.6
Coefficient of Concentration @10%	37.5	31.0
Coefficient of Concentration @15%	50.9	38.1
Coefficient of Concentration @20%	58.5	40.5
Coefficient of Concentration @50%	82.7	83.3
Coefficient of Concentration @100%	94.2	97.6
Coefficient of Interquartile Deviation	14.9	23.2
Median Percent Deviation	14.5	23.6
Lower Quartile (25 <sup>th</sup> Percentile)	76.5	66.1
Upper Quartile (75 <sup>th</sup> Percentile)	103.7	109.8
PARAMETRIC STATISTICS		
Normality Test	RejectK	RejectK
Relative Skewness	0.23	0.36
Relative Kurtosis	3.32	2.50
Arithmetic Mean Ratio	87.9	90.9
Weighted Mean Ratio	88.4	69.4
Geometric Mean Ratio	85.8	85.7
Harmonic Mean Ratio	83.5	80.4
Standard Deviation	18.9	30.6
Coefficient of Variation (COV)	21.6	33.7
Price-Related Differential (PRD)	0.99	1.31
Lower PRD Confidence Interval	0.97	1.20
Upper PRD Confidence interval	1.01	1.46
Coef. of Price-Related Bias (PRB)	-0.13	-0.09
Lower PRB Confidence Interval	-0.19	-0.17
Upper PRB Confidence Interval	-0.07	-0.02
Average Sale Price	143,981	574,724
Average Appraised Value	127,336	398,899

## **Section II**

### **Kansas Real Estate**

### **Sales Validation Questionnaire**

**ONLY FOR USE IN COUNTIES APPROVED TO ACCEPT ONE-PART FORMS (See website information below)**  
**KANSAS REAL ESTATE SALES VALIDATION QUESTIONNAIRE**

<b>FOR COUNTY USE ONLY:</b>		COV #	CO. NO.	MAP	SEC	SHEET	QTR.	BLOCK	PARCEL	OWN
DEED BOOK _____	PAGE _____									
RECORDING DATE _____/_____/_____	TYPE OF INSTRUMENT CR _____ RA _____ DE _____	SPLIT <input type="checkbox"/>		MULTI <input type="checkbox"/>		MO _____	YR _____	TY _____	AMOUNT \$ _____	V _____

SELLER (Grantor) NAME _____	BUYER (Grantee) NAME _____
MAILING _____	MAILING _____
CITY/ST/ZIP _____	CITY/ST/ZIP _____
PHONE NO. (_____) _____	PHONE NO. (_____) _____
email (optional) _____	email (optional) _____

**IF AN AGENT SIGNS THIS FORM, BOTH BUYER AND SELLER TELEPHONE NUMBERS MUST BE ENTERED.**

BRIEF LEGAL DESCRIPTION _____ _____ _____ _____	Property / Situs Address: _____ Name and Mailing Address for Tax Statements _____ _____ _____
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1. Check any special factors that apply: <input type="checkbox"/> Sale between immediate family members: Specify the relationship _____ <input type="checkbox"/> Sale involved corporate affiliates or related entities <input type="checkbox"/> Auction sale (absolute auction <input type="checkbox"/> Yes <input type="checkbox"/> No) <input type="checkbox"/> Short sale (amount of lien(s) exceeds sale proceeds) <input type="checkbox"/> Transfer in lieu of foreclosure or repossession <input type="checkbox"/> Sale involved a build-to-suit or leaseback arrangement <input type="checkbox"/> Sale by judicial order (by a guardian, executor, conservator, administrator, or trustee of an estate) <input type="checkbox"/> Sale involved a government agency or public utility <input type="checkbox"/> Buyer (new owner) is a religious, charitable, or benevolent organization, school or educational association <input type="checkbox"/> Buyer (new owner) is a financial institution, insurance company, pension fund, or mortgage corporation <input type="checkbox"/> Sale of only a partial interest in the real estate <input type="checkbox"/> Sale involved a trade or exchange of properties <input type="checkbox"/> None of the above	6. Were any changes made to the property since January 1 <sup>st</sup> ? <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Demolition <input type="checkbox"/> New construction <input type="checkbox"/> Remodeling <input type="checkbox"/> Additions Date completed _____ Amount \$ _____ 7. Were any delinquent property taxes paid by the buyer? Amt. \$ _____ <input type="checkbox"/> Yes AND the amount was included in the total sale price <input type="checkbox"/> Yes but the amount was not included in the total sale price <input type="checkbox"/> No delinquent property taxes were included in the sale 8. Method of financing (check all that apply): <input type="checkbox"/> New loan(s) from a financial institution <input type="checkbox"/> IRS 1031 Exchange <input type="checkbox"/> Seller financing <input type="checkbox"/> Assumption of an existing loan(s) <input type="checkbox"/> All cash <input type="checkbox"/> Trade of property <input type="checkbox"/> Not applicable 9. Was the property offered to other potential buyers? <input type="checkbox"/> Yes: Advertised (listed, Internet, yard sign, word-of-mouth, etc.) <input type="checkbox"/> No: Private purchase (not offered on the open market) 10. Does the buyer hold title to any adjoining property? <input type="checkbox"/> Yes <input type="checkbox"/> No 11. Are there any additional facts that would cause this sale to be a distressed, forced, or non-arm's length exchange? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please describe _____ _____ 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.
2. Check use of property at the time of sale: <input type="checkbox"/> Single family residence <input type="checkbox"/> Agricultural land <input type="checkbox"/> Farm/Ranch with residence <input type="checkbox"/> Mineral rights included? <input type="checkbox"/> Condominium unit <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Vacant land <input type="checkbox"/> Apartment building <input type="checkbox"/> Other: (Specify) _____ <input type="checkbox"/> Commercial/Industrial bldg. _____	12. TOTAL SALE PRICE \$ _____ DEED DATE _____/_____/_____
3. Was the property rented or leased at the time of sale? <input type="checkbox"/> Yes (number of years remaining on lease _____) <input type="checkbox"/> Tenant is buyer <input type="checkbox"/> No	13. I have read the instructions for completing this form and certify that the above information is true and accurate.  Print name _____  Signature _____  <input type="checkbox"/> Grantor (Seller) <input type="checkbox"/> Grantee (Buyer) <input type="checkbox"/> Agent Daytime phone number (_____) _____
4. Did the sale price include an operating business? <input type="checkbox"/> Yes (estimated value \$ _____) <input type="checkbox"/> No	
5. Was any personal property included in the sale price (such as furniture, equipment, inventory, machinery, crops, etc.)? <input type="checkbox"/> Yes <input type="checkbox"/> No If yes, please describe _____  _____ Estimated value of all personal property items included in the sale price \$ _____  If Mobile Home: Year _____ Model _____	

PV-RE-22-OP (Rev. 08/12)

KANSAS REAL ESTATE SALES VALIDATION ONE-PART QUESTIONNAIRE WEBSITE ADDRESS:  
<http://www.ksrevenue.org/pvdratiostats.html>

**INSTRUCTIONS FOR COMPLETING THE SALES VALIDATION QUESTIONNAIRE**  
**One Part Form**

- ITEM 1** Please check all boxes which pertain to the sale.
- 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. Enter the years remaining if known. Check the box if a tenant (renter or lessee) purchased the property.
- ITEM 4** Check yes if the purchase price included an operating business that may include intangible personal property such as a franchise, trade license, patent, trademark, stocks, bonds, and/or goodwill. Estimate the value of the intangibles if this was part of the purchase agreement and included in the total sale price.
- ITEM 5** Check yes if any tangible items of property were included in the sale price. If possible, provide a brief description and your estimate of all personal property included in the total sale price.
- ITEM 6** Check yes if the property characteristics changed after January 1<sup>st</sup> of the sale year. Indicate what type of major change(s) (such as demolition, new construction, remodeling, rehabilitation) took place by marking the appropriate box. Indicate the approximate date the changes took place and the approximate cost.
- ITEM 7** Check yes if any delinquent property taxes were paid by the buyer and included as part of the sale price. Do not include the estimated real estate taxes prorated for the year the property sold included as part of the typical escrow closing cost.
- ITEM 8** Check the predominate method of financing used to acquire the property. Check "Not Applicable" if money did not exchange hands.
- ITEM 9** Check yes if the property was advertised on the open market, listed with a real estate agent or broker, displayed a for sale sign, advertised in a newspaper or other publication, listed on the internet, and/or offered by word of mouth. A private sale is an exchange that was not made available to the general public or the property was not exposed on the open market.
- ITEM 10** Check yes if the buyer owns or controls the property adjoining or adjacent to the property being purchased.
- ITEM 11** Provide a brief explanation if either the buyer or seller did not act prudently, was not fully informed about the property, did not have knowledge of the local market, was poorly advised, did not use good judgment in the negotiations, was acting under duress, or was compelled to sell or buy the property out of necessity.
- 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 a daytime phone number. The county appraiser may need to make a follow up phone call to clarify unusual terms or conditions.

When a real estate sales validation questionnaire is not required due to one or more of the exemptions provided in 1-16 below, the exemption must be clearly stated on the document being filed. The Register of Deeds cannot add this information to the deed at filing.

**TRANSFERS OF TITLE THAT DO NOT REQUIRE A SALES VALIDATION QUESTIONNAIRE:**

- (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.

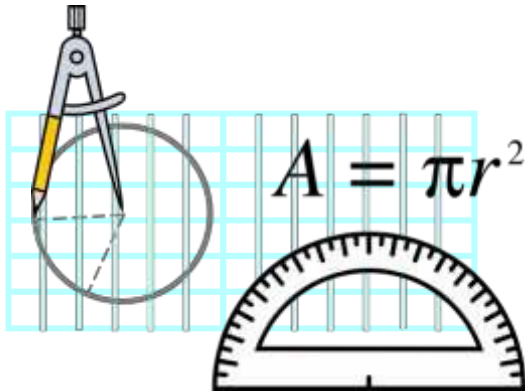
If you have any questions or need assistance completing this form, please call the county appraiser's office.

# Section III

## Statistical Methods

### &

## Procedures



## Introduction

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 of the property changed after January 1, of the study year and before the sale occurred

- Highest and best use of the property changed after January 1, of the study year the sale occurred
- Sale involved a governmental agency liquidating repossessed property
- Transfer was 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/transfer date not within the current study timeframe
- The parcel sold was a split from parent parcel appraised on January 1
- Uninformed buyer and/or seller discovered through validation research.

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

### 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	<b>100.0</b>
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**

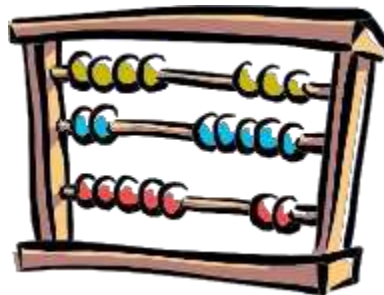
*Example of odd numbered data set: 70.0 80.0, 90.0, 100.0, 120.0, 135.0, 143.0*

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

*Example of even numbered data set: 62.0, 75.0, 80.0, 90.0, 100.0, 120.0, 135.0, 143.0*

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

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



**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** 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	95.0	15.0
2	90.0	95.0	5.0
3	<b>95.0</b>	95.0	0.0
4	100.0	95.0	5.0
5	105.0	95.0	10.0
<i>Sum of Deviations</i>			<b>35.0</b>

$$\frac{15.0 + 5.0 + 0.0 + 5.0 + 10.0}{5} = \frac{35.0}{5} = 7.0 \quad \text{average deviation from median}$$

$$\frac{7.0}{95.0} = 7.4 \quad \text{Coefficient of Dispersion (COD)}$$

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. Confidence intervals are used to evaluate this performance measure.



**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 by 100  $12.4 / 100.0 * 100.0 = 12.4$

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
<b>Total</b>	<b>\$131,200</b>	<b>\$131,000</b>						<b>61.9</b>

$$\frac{61.9}{5} = 12.4 \text{ (Value) Weighted Coefficient of Dispersion}$$



### 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.

Example: **COC @ 15%**

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

**Median Ratio**

$95.0 - 14.3 = 80.7$

$95.0 + 14.3 = 109.3$

*15%: find the proportion of ratios that falls within the range:*

$$95.0 \times 15.0 = 14.3$$

$$95.0 - 14.3 = 80.7$$

$$95.0 + 14.3 = 109.3$$

*10 ratios in the sample fall within the range of 80.7 to 109.3*

$$10 \div 15 = 0.667 \times 100 = \mathbf{66.7 \text{ Coefficient of Concentration @ 15\%}}$$



### 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
<b>4</b>	<b>96.0</b>
5	115.2
6	120.4
7	145.7

*Median Ratio 96.0*

*1<sup>st</sup> Quartile = (Sale 2) Ratio = 80.8*

*3<sup>rd</sup> Quartile = (Sale 6) Ratio = 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	0.0
4	105.0	100.0	5.0
5	115.0	100.0	15.0

*Arrayed Deviations: 0.0, 5.0, 10.0, 15.0, 22.0, - Median Absolute Deviation (MAD) = 10.0*

$$\frac{10.0}{100.0} = 0.1 \times 100 = \mathbf{10.0 \text{ Median Percent Deviation}}$$

## **Percentiles and Quartiles**

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

### 25th Percentile (1<sup>st</sup> Quartile)

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

### 75th Percentile (3<sup>rd</sup> Quartile)

The 75<sup>th</sup> percentile is the third percentile and exceeds three quarters of the ratios. The formula for finding the rank of the 75<sup>th</sup> 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 the sorted array. In a sample that has 100 ratios, the 75<sup>th</sup> percentile is  $0.75 * 100 + 0.75 = 75.75$ . If the 75<sup>th</sup> and 76<sup>th</sup> highest ratios are 0.98 and 1.00 respectively, the 75<sup>th</sup> percentile is  $0.98 + ((0.75) * (1.00 - 0.98)) = 0.995$ .

## **Normality Testing**

A normality test of the sample data can be used to evaluate if the spread of ratios in the sample and make inferences about the population. A normal population conforms to a standard normal distribution or bell-shaped curve (*Gaussian shape*). Although ratio data seldom conforms to a normal distribution, an effort has been made to examine and test the residential and commercial/industrial sample data. Parametric statistics generally depend upon an underlying assumption 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  $W$  (or Shapiro-Francia  $W'$ ) and Anderson-Darling  $A^2$  tests. Several tests are used to evaluate each ratio study sample. The primary normality test selected for an individual ratio sample can be identified by a letter code below.



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

Null hypothesis ( $H_0$ ) used for these tests: The study sample was drawn from a population with a normal distribution of ratios.

No statistical procedure is expected to perform perfectly 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 10% or less.

**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 normal distribution is bell shaped and referred to as mesokurtic, or neutral. It will have a value close to 3 (closer to 2 in small samples). Ratio study samples tend to have heavy tails to the right of the median (mean) ratio.

## 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

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



### 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*

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

$$\frac{310,000}{345,700} = .897 \times 100 = \mathbf{89.7 \text{ (Value) Weighted Mean Ratio}}$$



### **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  $n^{\text{th}}$  root of the result, where  $n$  equals the number of ratios in the sample*
2. *Find the  $n^{\text{th}}$  root of the product*

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

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

### **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 (1 divided by the ratio)*
2. *Sum the reciprocals*
3. *Divide the number of ratios in the sample by the sum of the reciprocals*

<i>Sale</i>	<i>Appraised Value</i>	<i>Sale Price</i>	<i>Ratio</i>	<i>Reciprocal Values</i>
1	\$25,000	\$20,000	125.0	0.0080
2	\$45,000	\$50,000	90.0	0.0111
3	\$12,000	\$15,000	80.0	0.0125
4	\$30,000	\$30,000	100.0	0.0100
5	\$19,200	\$16,000	120.0	0.0083
<b>Total</b>				<b>0.0499</b>

$$\frac{5}{0.0499} = \mathbf{100.2 \text{ Harmonic Mean Ratio}}$$

## 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

$\bar{A}/\bar{S}$  = Sample Mean Ratio

<sup>2</sup> = square or take to the 2<sup>nd</sup> Power

$\sqrt{\quad}$  = the square root symbol

### *Standard Deviation Computation*

1. Subtract the mean from each ratio
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 of Differences</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
				<b>Total</b>	<b>1480.0</b>
<b>Mean</b>	<b>103.0</b>				

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

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

**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 from the previous example —and the arithmetic mean ratio of 103.0, the calculation would be as follows.

$$\frac{19.2}{103.0} \times 100.0 = \mathbf{18.6} \text{ Coefficient of Variation (COV)}$$



**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

<i>Sale</i>	<i>Appraised Value</i>	<i>Sale Price</i>	<i>Ratio</i>
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
<b>Total</b>	<b>\$131,200</b>	<b>\$131,000</b>	<b>515.0</b>

$$\frac{515.0}{5.0} = 103.00 \text{ Arithmetic Mean}$$

$$\frac{131,200}{131,000} \times 100 = 100.15 \text{ Value Weighted Mean Ratio}$$

$$\frac{103.00}{100.15} = 1.03 \text{ Price-Related Differential (PRD)}$$

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 may indicate some 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. Confidence intervals are used to evaluate this performance measure.



### **Coefficient of Price-Related Bias (PRB)**

Price-related bias (*PRB*) is a coefficient that provides an index of appraisal/sale ratio change to market value change (vertical equity) obtained by regressing the ratio deviations from the median ratio (percentage changes) on a proxy of market value. The market value proxy is obtained by giving equal weight to appraised values and sales prices. The regression summary output coefficient,  $\beta_1$  (X Variable 1 if developed in Microsoft Excel), or slope of the regression line represents the corresponding percentage change in ratios.

#### ***Price-Related Bias (PRB) Computation***

1. Calculate the ratio for each sale and find the median ratio of the sample.
2. Compute the proxy of market value. This term is composed of 50 percent of sale price + 50 percent of appraised value. To ensure that appraised values and sales prices receive equal weight, appraised values are divided by the median ratio (trended) before summing:

$$\text{Proxy}_{MV} = 0.5$$

Where:

*AV* = Appraised Value

*SP* = Sale Price

3. Take the natural logarithm of the value proxy and divide by the natural log of 2 (.693):  

$$\text{Ln}_{\text{Proxy MV}} = \text{LN}(\text{Proxy MV})/\text{LN}(2)$$

Taking logarithms converts the market value proxy to a percentage basis, which substantially minimizes the impact of atypically high values (outliers) in the analysis. Dividing by the natural log of 2 allows each increment of 1 to be interpreted as a change of 100%. (For example:  $\text{LN}(100,000)/\text{LN}(2) = 16.613$  and  $\text{LN}(200,000)/\text{LN}(2) = 17.613$ ).
4. Compute percentage differences of each sale ratio in the sample when compared to the sample median ratio:  

$$\text{Pct}_{\text{Diff}} = (\text{Sale ratio} - \text{Median ratio})/\text{Median ratio}$$

Where:  

$$\text{PCT}_{\text{Diff}} = \text{Percentage Difference}$$

$$\text{Sale ratio} = \text{Appraised value} / \text{sale price}$$
5. Set up a simple linear regression where the independent variable is the log of the market value proxy (3) and the dependent variable is the associated sale ratio percentage difference (4):  $\text{Pct}_{\text{Diff}} = \beta_0 + \beta_1 \times \text{Ln}_{\text{ProxyMV}}$
6. Evaluate the p-Value for significance. It must be  $\leq .05$  to be significant
7. Examine the upper and lower 95% confidence intervals:

The *PRB* coefficient (slope) should fall between  $-0.05$  and  $0.05$ . If the 95 percent confidence interval does not overlap this range, one can reasonably conclude that appraisal levels change by more than 5 percent when market values are halved or doubled. *PRBs* for which 95 percent confidence intervals fall outside the range of  $-0.10$  to  $0.10$  indicate unacceptable vertical inequities.

In the following example ratios decline by 34.0 percent when market values double (and increase by 34.0 percent when market values are halved). The 95 percent confidence interval is  $-0.381$  to  $-0.300$ .

<i>AV</i>	<i>SP</i>	<i>Ratio</i>	<i>AV/Med</i>	<i>MV proxy</i>	<i>X Ind Var LN(MV Proxy)</i>	<i>Y Dep Var Pct Diff</i>
67,500	125,000	0.54	78,488	101,744	16.635	-0.372
51,000	85,000	0.60	59,302	72,151	16.139	-0.302
55,800	90,000	0.62	64,884	77,442	16.241	-0.279
50,400	70,000	0.72	58,605	64,302	15.973	-0.163
40,500	54,000	0.75	47,093	50,547	15.625	-0.128
48,360	62,000	0.78	56,233	59,116	15.851	-0.093
53,300	65,000	0.82	61,977	63,488	15.954	-0.047
44,720	52,000	0.86	52,000	52,000	15.666	0.000
36,400	40,000	0.91	42,326	41,163	15.329	0.058
37,830	39,000	0.97	43,988	41,494	15.341	0.128
30,000	30,000	1.00	34,884	32,442	14.986	0.163
33,600	32,000	1.05	39,070	35,535	15.117	0.221
33,000	30,000	1.10	38,372	34,186	15.061	0.279
9,000	6,000	1.50	10,465	8,233	13.007	0.744
8,500	5,000	1.70	9,884	7,442	12.861	0.977
	<b>Median</b>	<b>0.86</b>				

SUMMARY OUTPUT						
	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	5.292	0.2881	18.370	1.108E-10	4.670	5.915
X Variable 1 (PRB)	-0.340	0.0188	-18.137	1.300E-10	-0.381	-0.300

Note: The summary output in the example above was computed in Microsoft Excel (Data\ Data Analysis\ Regression). **No** outlier trimming was employed for this performance measure. In order to fully assess the usefulness of the statistic, extreme, influential, and leverage ratios must be identified through routine regression diagnostic test and reasonable cutoff (trimming) procedures applied. Confidence intervals are used to evaluate this performance measure. No formal IAAO performance standard has been established at this time. However, the general area of compliance for the PRB is expected to fall between -.050 and +0.050.

**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
<b>Total</b>	<b>\$131,000</b>

$$\frac{20,000 + 50,000 + 15,000 + 30,000 + 16,000}{5} = \mathbf{131,000} \quad \text{Average Sale Price}$$

**Average Market 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
<b>Total</b>	<b>\$131,200</b>

$$\frac{25,000 + 45,000 + 12,000 + 30,000 + 19,000}{5} = \mathbf{131,200} \quad \text{Average Market Value Estimate}$$

### Trimming Outlier Ratios

Outliers are extreme ratios that are considered highly unusual when compared to the typical observations found in the sample. 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 (COD)	Weighted Mean	PRD Confidence Intervals
COD Confidence Intervals	Geometric Mean	Average Sale Price
Weighted COD	Standard Deviation	Average Market Value
Harmonic Mean	Coefficient of Variation	Normality testing
Arithmetic Mean	Price-Related Differential (PRD)	

Trimming Procedures for Removing Outlier Ratios
<ol style="list-style-type: none"> <li>1. 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 <math>(n * .25) + .25</math> (<math>n</math> is the sample size). The third quartile is identified by the formula <math>(n * .75) + .75</math>.</li> <li>2. 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.</li> <li>3. The base width is added to the third quartile and subtracted from the first quartile to set the outlier trim points.</li> </ol>

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  $(n * .25) + .75$  for Q1 and  $(n * .75) + .25$  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 ten sales and achieve an 85 percent probability that 70 percent of the population ratio range will be represented by the sample. Small counties will often 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 200 valid residential sales during the study year.

<i>Sample Sizes for Nonparametric Tolerance Limits</i>								
<i>Proportion of Ratios</i>	<i>50%</i>	<i>70%</i>	<i>75%</i>	<i>80%</i>	<i>85%</i>	<i>90%</i>	<i>95%</i>	<i>98%</i>
<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 fourteen counties listed below meet the criteria for the 2013 study.

<i>Residential Sampling Counties 2019</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>250</i>	<i>Lyon</i>	<i>200</i>	<i>Shawnee</i>	<i>300</i>
<i>Crawford</i>	<i>200</i>	<i>Miami</i>	<i>200</i>	<i>Wyandotte</i>	<i>300</i>
<i>Douglas</i>	<i>200</i>	<i>Reno</i>	<i>200</i>		
<i>Harvey</i>	<i>200</i>	<i>Riley</i>	<i>250</i>		
<i>Johnson</i>	<i>350</i>	<i>Saline</i>	<i>250</i>		
<i>Leavenworth</i>	<i>200</i>	<i>Sedgwick</i>	<i>350</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 Commercial/Industrial Sales**

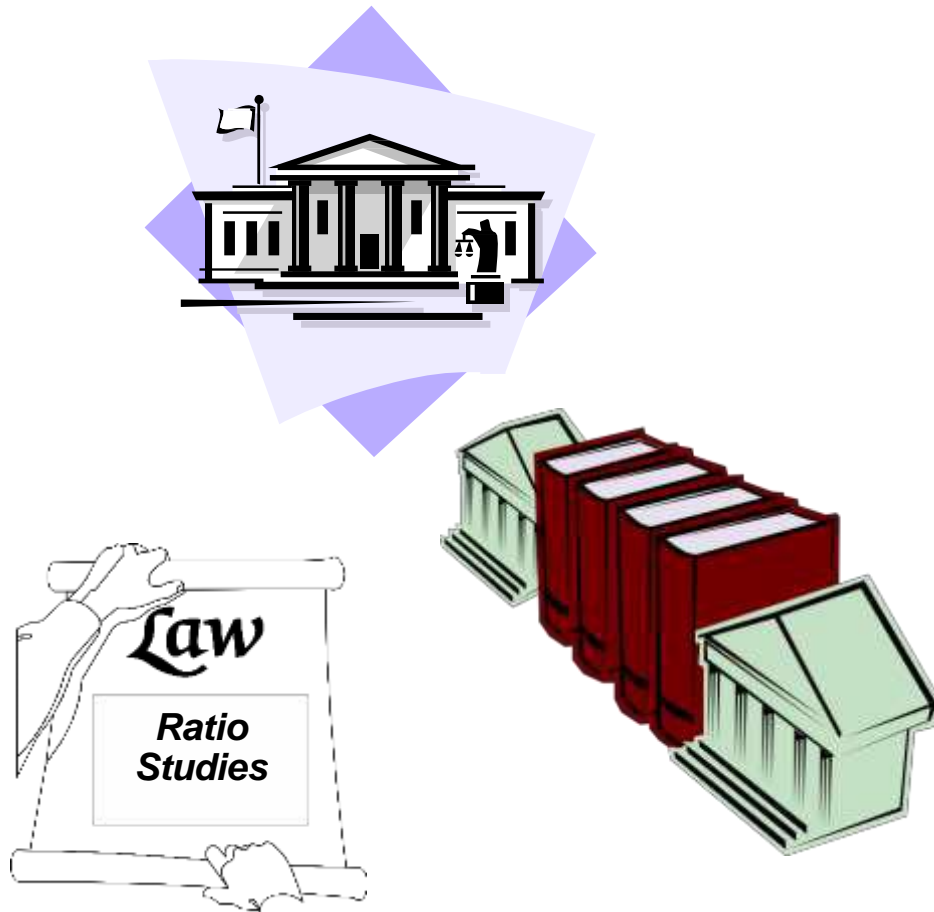
If less than six valid sales occurred in a county with the commercial/industrial subclass of property during the study cycle, a review of sales from the previous four-year timeframe was made (*January 1, 2015 through December 31, 2018*) pursuant to K.S.A. 79-1488. Forty-six Kansas counties required supplemental sales for the commercial/industrial subclass for the year 2019. A total of 176 supplemental commercial sales have been included in the statistical analysis for the year 2019 ratio studies.

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



# Section IV

## Statutes, Directives and Administrative Regulations Pertaining to the 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.**

79-503a. Fair market value defined; allowable variance; factors to be considered in determining fair market value; generally accepted appraisal procedures and standards 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 other factors including but not by way of exclusion:

- (a) The proper classification of lands 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, 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 and standards which are 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; L. 2016, ch. 112, § 9; 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 and evaluations 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 board of tax appeals for conducting valuation appeal proceedings;
- (g) the board of county commissioners for conducting any of the board's 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; L. 2008, ch. 109, § 87; L. 2014, ch. 141, § 96; 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

board of tax appeals. Written notice of appeal shall be served on the state board 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 board 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 board 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; L. 2014, ch. 141, § 102; 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.

**79-1495 Computer-assisted mass-appraisal system; verification of accuracy requirements**

In any county which fails to meet the minimum appraisal standards for commercial real property established by the official Kansas appraisal/sales ratio study conducted for the preceding year by the division of property valuation of the department of revenue, the director of property valuation shall be required to perform, or to contract with an independent third party to perform, a market-based appraisal of no less than 1% of the commercial properties appraised by the computer-assisted mass-appraisal system within the county as a verification of the accuracy of such system. The properties shall be selected so to represent a sample of the commercial property types which failed to meet statistical compliance in the county. The property owner shall be allowed the opportunity to meet with the appraiser in order to offer pertinent data and insight on the issues that would affect the value of the property. This appraisal will not be an official appraisal of the property and will be used for the purposes of quality assurance of the mass-appraisal system. If the independent appraisal reveals a statistical deviation greater than 5% on more than 25% of the audited properties, then the director will perform additional audits in those counties and require corrective action necessary to ensure a fair and accurate appraisal.

**History:** L. 2016, ch. 112, § 22; July 1.





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#### **DIRECTIVE #14-046**

**TO: County Appraisers**  
**SUBJECT: Scope of Work and Substantial Compliance**

*This Directive Supersedes Directive #92-002 and #92-003*

This directive is adopted pursuant to the provisions of K.S.A. 79-505 and shall take effect and be in full force from and after its publication in the Kansas Register.

The following criteria and standards shall be used for appraisals developed in the 2014 valuation cycle (in preparation for January 1, 2015 valuation date) 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 to develop statistical performance measures 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. In accordance with K.S.A. 79-1445, PVD will publish annually a list of the substantial compliance results for each county.

#### Criteria and Standards

The annual substantial compliance process uses an objective scoring system that PVD has developed to evaluate completion of key mass appraisal steps, accomplishment of assessment administration functions, and achievement of accuracy standards in each county. Points are awarded when a county meets minimum statistical performance measures, documentation is verified to confirm that mass appraisal procedures have been followed, and statutory requirements have been met. A maximum score of 100 is possible. A county must achieve a minimum score of 75 to attain substantial compliance. Any county achieving a score less than 75 shall be found in noncompliance and may be required to submit a detailed plan to correct areas of noncompliance.

Substantial compliance is based upon ratio study performance measures, an audit of procedural steps required to develop a credible mass appraisal, and verification that important statutory mandates have been met. The ratio study conducted by PVD is used to

verify that overall value conclusions meet minimum standards of reasonableness, consistency and accuracy. Refusal by county officials to cooperate in the ratio study may result in a noncompliance order. The procedural steps are tied to Kansas statutes and regulations, the International Association of Assessing Officers (IAAO) Standard on Mass Appraisal and the Uniform Standards of Professional Appraisal Practice (USPAP). Refusal by a county or district appraiser to perform any procedural step may result in a noncompliance order. Kansas statutes require critical functions to be performed and annual processing deadlines to be met by the county or district appraiser. Refusal to comply with any statutory requirement may result in a noncompliance order.

If a county is determined to be in noncompliance, the director may pursue all legal options, including, but not limited to, proceedings before the Kansas Court of Tax Appeals and/or the removal of the county or district appraiser from office. PVD may require the county to submit a detailed plan to correct areas of noncompliance. A PVD audit of all property tax functions and responsibilities may be initiated if the county does not implement its approved plan or the plan is ineffective in bringing the county back into compliance.

The director may include an administrative note on the final report if a county fails to achieve industry standard ratio study performance measures. Counties receiving an administrative note may be required to submit a plan to correct the area or areas not meeting the basic statistical standards.

The Compliance Scorecard along with the points possible follows:

**Compliance Scorecard - Example of total points possible**

Subclass	Appraised Value	Percent of Total Appraised Value
Residential		
Commercial/Industrial		
Total Appraised Value		

Subclass	Percent of Appraised Value (weighted)	Compliance Points Possible	Weighted Points	Points Received
<b>1. Statistical Measures</b>				
<b>Residential</b>				
Appraisal Level		25		
Appraisal Uniformity		25		
<b>Commercial/Industrial</b>				
Appraisal Level		25		
Appraisal Uniformity		25		
<b>Statistical Compliance Points</b>		<b>50</b>		

	Compliance Points Possible	Points Received
<b>2. Procedures</b>		
a. Scope of Work Appraisal Plan	4	
b. Sales File	4	
c. Parcel Maintenance Inspection	4	
d. Land Valuation Model Calibration	4	
e. Construction Cost Multiplier Analysis	4	
f. Depreciation Analysis	4	
g. Income Approach	4	
h. Comparable Sales Approach	4	
i. Final Review Process	4	
<b>Total</b>	<b>36</b>	
<b>3. Agricultural Use Valuation</b>	<b>2</b>	
<b>4. Cadastral Mapping</b>	<b>2</b>	
<b>5. Statutory Compliance</b>		
a. Trend Study and CVN Mailing	2	
b. Informal Hearings	2	
c. Appraised Value Certification	2	
d. Personal Property	2	
e. Preservation and Protection of Property Tax Records	2	
<b>Total</b>	<b>10</b>	
<b>I. Total Points Possible</b>	<b>100</b>	
<b>II. Total Points Received</b>		
<b>III. Overall Score (II/I) * 100</b>		

1. STATISTICAL MEASURES COMPLIANCE REVIEW (50 points)

Statistical compliance for the *residential* and *commercial/industrial* subclasses shall be determined separately. A maximum of 50 ratio study compliance points are possible for a county that achieves the median ratio (25 points) and COD (25 points) performance goals through statistical point estimates in both subclasses. Subclass points shall be weighted by the percentage of appraised value within the combined subclasses, as derived from the most recent statistical abstract. The percentage of appraised value, divided between the residential and commercial/industrial subclass will be shown at the top of the form. These percentages will be used to develop the point weighting for each statistical measure in the two subclasses. Subclass weights are expected to vary from county to county and from year to year.

The following is an example of the weighting procedure:

Subclass	Appraised Value	Percent of Total Appraised Value
Residential	\$250,000,000	84.7
Commercial/Industrial	\$45,000,000	15.3
Total Appraised Value	\$295,000,000	100.0

Subclass	Percent of Appraised Value (weighted)	Compliance Points Possible	Weighted Points	Points Received
<b>1. Statistical Measures</b>				
<b>Residential</b>				
Appraisal Level	84.7	25	21.2	
Appraisal Uniformity	84.7	25	21.2	
<b>Commercial/Industrial</b>				
Appraisal Level	15.3	25	3.8	
Appraisal Uniformity	15.3	25	3.8	
<b>Statistical Compliance Points</b>			50.0	

1. Sum the residential and commercial/industrial appraised value  
 (\$250,000,000 + \$45,000,000 = \$295,000,000)

2. Divide each subclass appraised value by the total appraised value.  
 \$250,000,000/\$295,000,000 = 84.7 percent (Residential)  
 \$45,000,000/\$295,000,000 = 15.3 percent (Commercial-Industrial)

3. Multiply the percent of appraised value (weighted) by the compliance points possible in each subclass for both the median ratio and COD.

$$.847 \text{ times } 25 = 21.2$$

$$.847 \text{ times } 25 = 21.2$$

$$.153 \text{ times } 25 = 3.8$$

$$.153 \text{ times } 25 = 3.8$$

Median ratio: 115.2 95% Confidence interval: 110.1 to 120.0 would not be considered in statistical compliance because the lower end (110.1) does not reach the acceptable range of 90.0 to 110.0 percent.

#### 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 20.0 or less for the *residential* subclass and the *commercial/industrial* subclass to achieve statistical compliance. If a subclass fails to meet this goal, confidence interval estimates shall be developed about the COD. If the range estimate for the subclass includes a COD of 20.0 or less at the 95% level of confidence, appraisal uniformity shall not be found out of statistical compliance.

For example:

COD: 18.0 95% Confidence interval: 13.0 to 22.0

This example is not considered out of compliance because the COD point estimate is less than 20.0. The confidence interval does suggest, however, there is a small probability the true COD could actually be greater than 20.0, due to sampling error.

COD: 30.0 95% Confidence interval: 22.0 to 38.0

This example is considered out of compliance because the COD point estimate is 30.0 and the lower range of the 95% confidence interval does not fall below 20.0 (the maximum limit for compliance).

COD: 22.0 95% Confidence interval: 17.0 to 26.0

This example is not considered out of compliance although the COD point estimate is 22.0. Due to sampling error, it is probable that the true COD is somewhere within the range of 17.0 to 26.0 at the 95% level of confidence. The county would not fail the compliance test because of insufficient statistical confirmation. The lower end of the confidence interval does fall below 20.0 (the maximum limit for compliance).

#### c. Sample Size

If less than six valid sales are collected for a subclass during the study period, valid sales within the same subclass from the four previous study periods may be included to develop a larger and more reliable sample for analysis.

If less than five valid sales are available in a subclass sample, ratio study performance measures will not be used to determine statistical compliance. The points allocated to the statistical measures for that subclass shall be subtracted from the total compliance points, thereby establishing a new base of total possible points.

All reinspection activity must have an inspection history record entered into the CAMA system showing the reviewer name, inspection date, and process code to adequately indicate the purpose of the review.

d. Land Valuation Model Calibration (4 points)

PVD shall verify that the county has developed and calibrated land valuation models in accordance with the Revaluation Maintenance Specifications. Neighborhood analysis forms, analysis documentation, and data summary must be complete to be considered in compliance. PVD shall also confirm land pricing tables have been updated. A market analysis for agricultural land must also be documented. Deviations from model assignments must be documented.

e. Construction Cost Multiplier Analysis (4 points)

If the county deviates from the current cost valuation system, PVD shall verify the county has a current residential and/or commercial/agricultural construction cost multiplier analysis in accordance with the Revaluation Maintenance Specifications. If the county recognizes a deviation from the current cost valuation system, cost tables must be updated to reflect the study. Deviation from the current cost valuation system without documentation will result in the loss of two points for the applicable property type. Two points for residential and two for commercial/agricultural are possible and are evaluated independently.

Sales of newly constructed properties may be used in the analysis for actual construction cost when appropriate.

f. Depreciation Analysis (4 points)

PVD shall verify the county has developed a depreciation analysis in accordance with the Revaluation Maintenance Specifications and PVD sales validation guidelines that utilizes all available valid sales. The county must include appropriate statistics, graphics reports and statistical analyses to test percent good calibration assignments. All forms of depreciation must be documented. The county must update percent good tables, if appropriate, with the results of the yearly analysis. Deviations from model assignments must be documented. Two points for residential and two for commercial/agricultural are possible and are evaluated independently.

g. Income Approach (4 points)

PVD shall verify that the county has developed or attempted to develop an income approach to value appropriate properties. The appraiser must document all income approach analysis and conclusions in accordance with the Revaluation Maintenance Specifications. Updated income and expense model calibration must be completed. Deviations from model assignments must be documented.

h. Comparable Sales Approach (4 points)

PVD shall verify the county has developed a sales comparison approach to value by analyzing the relationship between the sales prices and the real property characteristics. The county must document all sales approach analysis, model specification, model calibration and conclusions in accordance with the Revaluation Maintenance Specifications. Deviations from model assignments must be documented.

i. Final Review Process (4 points)

PVD shall verify that the county has performed the final review of values in accordance with the Revaluation Maintenance Specifications. The county must document the date and person performing the final review.

3. AGRICULTURAL USE VALUATION (2 points)

PVD shall verify that the county has met the review/inspection requirements for current agricultural use and influence factors in accordance with the Revaluation Maintenance Specifications. The county must identify current use of agricultural land, which includes cropland, grassland, irrigated land, waterways, non-productive land, and farm home sites. Agricultural use values issued annually by PVD must be updated into the CAMA system (see Appendix A. Scoring Example).

4. CADASTRAL MAPPING (2 points)

PVD shall verify that accurate property ownership maps are being maintained in accordance with the Revaluation Maintenance Specifications. Updated field maps (showing new plats, splits, and combinations), an updated assessment administration file and adherence to the parcel definition must be maintained (see Appendix A. Scoring Example).

5. STATUTORY COMPLIANCE (10 points)

The following review areas are to establish whether the county is following Kansas statutes not previously covered (see Appendix A. Scoring Example).

- a. A real estate value trend study is published at least five business days prior to the mailing of the CVN's (K.S.A. 79-1460A). Change of value notices are mailed on or before the statutory deadline, provided an extension has not been granted pursuant to K.S.A. 79-1404, *Seventeenth*, or an alternate form of notification approved pursuant to K.S.A. 79-1460 (K.S.A. 79-1460).
- b. Informal hearings are held within statutory timeframe, provided an extension has not been granted pursuant to K.S.A. 79-1404, *Seventeenth* (K.S.A. 79-1448).
- c. Values are certified to county clerk by statutory deadline, provided an extension has not been granted pursuant to K.S.A. 79-1404, *Seventeenth* (K.S.A. 79-1466 and 79-1467).

- d. Personal property is listed as required and penalties applied where applicable (K.S.A. 79-306 and 79-1422, K.S.A. 79-332a).
- e. The preservation and protection of all property tax records (K.S.A. 45-403).

Approved: June 3, 2014



David N. Harper  
Director of Property Valuation



### APPENDIX A. Scoring Example

The scorecard on the following page demonstrates the scoring process based on the following information.

- The residential subclass failed to meet the required level of appraisal statistical standards and did not receive the 21.2 points possible.
- The commercial subclass had less than six sales; therefore, there were zero points possible for the commercial/industrial subclass. The total weighted points possible for statistical analysis changed to 42.4.
- A total of 50 points were possible for procedures, agricultural use valuation, cadastral mapping and statutory compliance.
- Compliance points possible total 92.4.
- The county deviated from the default residential construction cost multiplier and did not do a residential construction cost analysis. The county used the default commercial cost multiplier. Therefore 2 of the 4 possible points for the construction cost multiplier were deducted for failure to provide documentation to support deviation from the use of the residential default construction cost multiplier.
- The total points received for procedures totals 34 out of a possible 36.
- The county failed to mail their change of value notices before the statutory deadline and lost two points. Eight of a possible 10 points were earned for procedural compliance.
  - Total compliance points possible 92.4
  - Total points received 67.2

Total points received (67.2) divided by the total points possible (92.4) = final substantial compliance score (72.7 percent).

The county failed substantial compliance because the county did not reach the passing score of 75.0 percent.

### Compliance Scorecard

*Example*

Subclass	Appraised Value	Percent of Total Appraised Value
Residential	\$250,000,000	84.7
Commercial/Industrial	45,000,000	15.3
Total Appraised Value	\$295,000,000	100.0

Subclass	Percent of Appraised Value (weighted)	Compliance Points Possible	Weighted Points	Points Received
<b>1. Statistical Measures</b>				
<b>Residential</b>				
Appraisal Level	84.7	25	21.2	0
Appraisal Uniformity	84.7	25	21.2	21.2
<b>Commercial/Industrial</b>				
Appraisal Level	15.3	25		
Appraisal Uniformity	15.3	25		
<b>Statistical Compliance Points</b>		50	42.4	21.2

2. Procedures	Compliance Points Possible	Points Received
a. Scope of Work Appraisal Plan	4	4
b. Sales File	4	4
c. Parcel Maintenance Inspection	4	4
d. Land Valuation Model Calibration	4	4
e. Construction Cost Multiplier Analysis	4	2
f. Depreciation Analysis	4	4
g. Income Approach	4	4
h. Comparable Sales Approach	4	4
i. Final Review Process	4	4
<b>Total</b>	<b>36</b>	<b>34</b>
<b>3. Agricultural Use Valuation</b>	<b>2</b>	<b>2</b>
<b>4. Cadastral Mapping</b>	<b>2</b>	<b>2</b>
<b>5. Statutory Compliance</b>		
a. Trend Study and CVN Mailing	2	0
b. Informal Hearings	2	2
c. Appraised Value Certification	2	2
d. Personal Property	2	2
e. Preservation and Protection of Property Tax Records	2	2
<b>Total</b>	<b>10</b>	<b>8</b>
<b>I. Total Points Possible</b>	<b>92.4</b>	
<b>II. Total Points Received</b>		<b>67.2</b>
<b>III. Overall Score (II/I)*100</b>		<b>72.7</b>

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### DIRECTIVE #19-041

TO: **Register of Deeds**  
 SUBJECT: **Real Estate Sales Valuation Questionnaires; Submission Requirements.**  
***This Directive Supersedes Directive #03-041***

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) provides as follows:

The real estate sales validation questionnaire 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.

Except where an exception pursuant to K.S.A. 79-1437e is applicable, 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 register of deeds unless such deed is accompanied by a real estate sales validation questionnaire in compliance with the provisions of K.S.A. 79-1437c. The specific requirements of K.S.A. 79-1437c supersede the general requirements of K.S.A. 58-2221(d) to record any deed to real estate immediately.

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. *(See Att'y Gen. Op. No. 92-122).*

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. *(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-23) 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-22- OP). The one-part form is intended be used in conjunction with image document management systems. Photocopies to of the questionnaire are not acceptable; however, filers may submit a computer-printed form. The digital version of the form (PV-RE-22-OP-CG) can be obtained from the department of revenue website. Counties accepting one-part forms are required to provide the original document(s) to the division of property valuation unless the register of deeds office has prior written approval from the director to submit document image files of the real estate sales validation questionnaires. Document image files shall be transmitted in monthly sessions to the Department of Revenue File Transfer Protocol (FTP) server.
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 the real estate validation questionnaire. The party completing the real estate validation questionnaire must print their name and sign section 13 to affirm the instructions have been read and the information provided is true and accurate. An agent signing the real estate validation questionnaire must also provide a daytime phone number.

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 fully completed. At a minimum, this requires that each real estate sales validation questionnaire be scrutinized for completion of the identification, contact and parcel 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 of the seller and buyer 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. Telephone numbers for both the buyer and the seller are required at the top of the form, even if the agent completes and signs section 13 of the 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). (*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 K.A.R. 93-4-2.

**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 three-part 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;
  - (3) the type of instrument; and
  - (4) the recording date.

The register of deeds shall retain the original copy and forward the county appraiser’s copy and the director of property valuation’s copy to the county appraiser. 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 paper copies of each real estate sales validation questionnaire received from the register of deeds.

- (b) The register of deeds may accept a one-part real estate sales validation questionnaire when authorized by the director of property valuation to process real estate sales validation questionnaires by electronic imaging. An electronic copy may be accepted by the register of deeds if questionnaires are received by means of digital media transmission and retained in an electronic document management system. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487 and 79-1488; effective June 26, 1998; amended Oct. 3, 2014.)

18. The Kansas Real Estate Sales Validation Questionnaire provides crucial information to fulfill requirements of the Kansas Real Estate Ratio Study Act (K.S.A. 79-1486). All county officials share in the duty to cooperate and assist the Director of Property Valuation in the development of information required by this act (K.S.A. 79-1487). Participation by the Register of Deeds is not optional.
19. Permanent Administrative Regulations and Directives promulgated by the Division of Property Valuation carry the force of law and must be given the same deference by the Register of Deeds as Kansas statutes.



Approved: August 27, 2019

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David N. Harper  
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 | <b>11.5%</b> |
| <i>(KSCAMA Suffix Codes R, F)</i>   |              |
| (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   | <b>30.0%</b> |
| <i>(KSCAMA Suffix Codes A)</i>  |              |
| (3) Vacant Lots   | <b>12.0%</b> |
| <i>(KSCAMA Suffix Codes V)</i>  |              |
| (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                                 | <b>12.0%</b> |
| <i>(KSCAMA Suffix Codes N)</i>  |              |
| (5) Public utility real property, except railroad real property that shall be assessed at the average rate that all other commercial and industrial property  | <b>33.0%</b> |
| <i>(KSCAMA Suffix Codes U)</i>  |              |
| (6) Real property used for commercial and industrial purposes and buildings and other improvements located upon land devoted to agricultural use  | <b>25.0%</b> |
| <i>(KSCAMA Suffix Codes C &amp; A with agricultural improvements)</i>   |              |
| (7) All other urban and rural real property not otherwise specifically sub-classed  | <b>30.0%</b> |
| <i>(KSCAMA Suffix Codes O)</i>  |              |

**State of Kansas****Department of Revenue  
Division of Property Valuation****Article 4. REAL ESTATE RATIO STUDY****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 three-part 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;
  - (3) the type of instrument; and
  - (4) the recording date.

The register of deeds shall retain the original copy and forward the county appraiser's copy and the director of property valuation's copy to the county appraiser. 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 paper copies of each real estate sales validation questionnaire received from the register of deeds.

- (b) The register of deeds may accept a one-part real estate sales validation questionnaire when authorized by the director of property valuation to process real estate sales validation questionnaires by electronic imaging. An electronic copy may be accepted by the register of deeds if questionnaires are received by means of digital media transmission and retained in an electronic document management system. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487 and 79-1488; effective June 26, 1998; amended Oct. 3, 2014.)

**93-4-3. Split and combined 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 the sale of a split parcel or a parcel to be combined with one or more parcels, the county appraiser shall perform one of the following:

- (a) On or after January 1 of the current appraisal year and before the creation of working files for the next appraisal year, enter the sales information on the parent parcel record in the county's computer-assisted mass appraisal system; or



(b) on or after the creation of working files for the next appraisal year and before January 1 of the next appraisal year, enter the sales information on the split or combined parcel record in the county's computer-assisted mass appraisal system. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487; effective June 26, 1998; amended Oct. 3, 2014.)

**93-4-4. Assemblage and entering of sales data; accounting for real estate sales validation questionnaires; duties of county officials.**

- (a) 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 property transfers that were recorded 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.
- (b) The county appraiser shall meet the following requirements:
- (1) Account for all real estate sales validation questionnaires by entering sales information from all questionnaires into the database fields in the county's computer-assisted mass appraisal system;
  - (2) 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;
  - (3) electronically upload the recorded monthly sales data from the county's computer-assisted mass appraisal system to the current year's ratio study database at the division of property valuation, not later than the 15th day of the following month; and
  - (4) perform one of the following, not later than the 15th day of the following month:
    - (A) Submit the complete set of sales validation questionnaire documents recorded in the previous month to the director of property valuation or the director's agents; or
    - (B) electronically upload the complete set of recorded monthly sales as digital image files that meet specified file-naming conventions, resolution, and format standards to the sales validation questionnaire database at the division of property valuation. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487 and 79-1488; effective June 26, 1998; amended Oct. 3, 2014.)

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

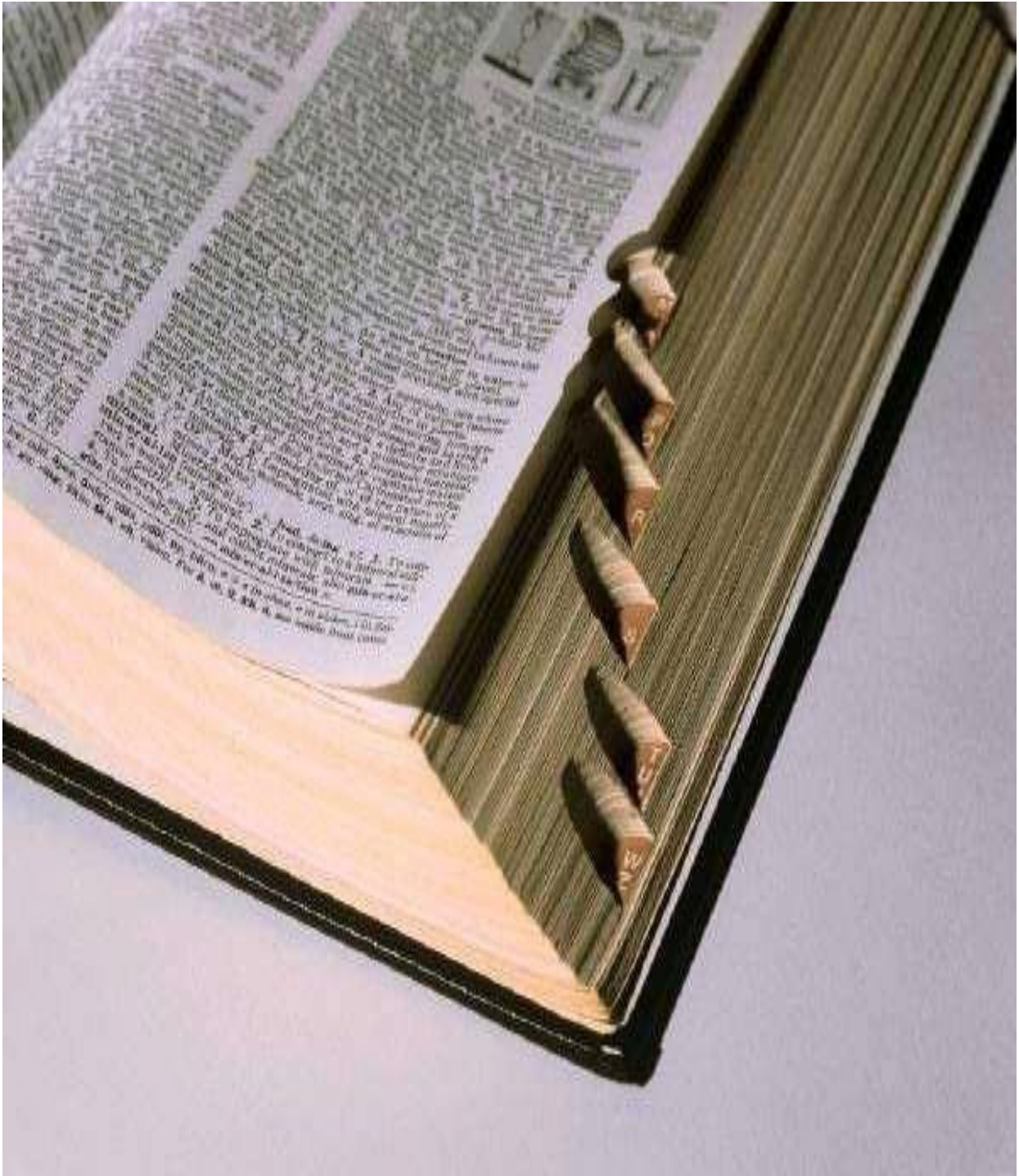
- (a) The county shall make its computer-assisted mass appraisal system available to the director of property valuation and the director's agents, to generate and print reports and to prepare data files to enable the electronic extraction of sale information on a monthly basis.
  
- (b) The county appraiser shall prepare and transmit the electronic assessment administration file of all appraised values to the director not later than three business days after the mailing of the annual valuation notices pursuant to K.S.A. 79-1460, and amendments thereto. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1487; effective June 26, 1998; amended Oct. 3, 2014.)

**93-4-6. Performance standards.**

Table 2-3 of the "standard on ratio studies," adopted by the executive board of the international association of assessing officers in April 2013, is hereby adopted by reference and shall constitute the performance standards used to evaluate the appraisal of residential and commercial and industrial real estate. However, the coefficient of dispersion shall have a range of 5.0 to 20.0, with a level of confidence of 95 percent. (Authorized by K.S.A. 79-1491; implementing K.S.A. 79-1485, 79-1486, 79-1487, and 79-1488, K.S.A. 2013 Supp. 79-1489, K.S.A. 79-1490, 79-1492, and 79-1493; effective June 26, 1998; amended April 20, 2001; amended Oct. 3, 2014.)

# Section V

## Glossary of Terms



<b>Glossary*</b>
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<b>Adjusted Sale Price</b>	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.
<b>Aggregate Mean Ratio</b>	See weighted mean ratio.
<b>Alternative Hypothesis</b>	The negation of the null hypothesis and usually consists of a statement saying “H <sub>0</sub> is not true” or “Fail to accept H <sub>0</sub> .” It is denoted by H <sub>1</sub> . A statement indicates the opposite of the null hypothesis.
<b>Appraisal-Sales Price Ratio</b>	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.
<b>Array</b>	An ordered arrangement of data such as a listing of sales ratios in order to magnitude from high to low or low to high.
<b>Assessment Progressivity (<i>Regressivity</i>)</b>	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> )
<b>Assessment Ratio</b>	The ratio of the assessed value to an indicator of market value.
<b>Average Absolute Deviation</b>	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.
<b>Average Market Value</b>	Sum of the market values divided by the number of values added together.
<b>Average Sale Price</b>	Mean sale price. The sum of all sales divided by the number of samples.
<b>Bootstrap</b>	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.
<b>Broadened Median</b>	A special type of median that reduces insensitivity to rounding and grouping of observations around the middle ratio.
<b>Coefficient of Concentration (<i>COC</i>)</b>	The percentage of ratios falling within a specified percentage range ( $\pm$ ) of the median ratio.
<b>Coefficient of Dispersion (<i>COD</i>)</b>	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.
<b>Coefficient of Quartile Deviation</b>	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.

<b>Coefficient of Variation (COV)</b>	The standard deviation expressed as a percentage of the mean ratio.
<b>Confidence Interval</b>	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.
<b>Confidence Level</b>	The degree of precision selected for a confidence interval and other statistical tests. Ratio study confidence intervals are based on 95 percent confidence levels.
<b>Consideration</b>	The amount of money and other valuable goods or services upon which a buyer and a seller agree to consummate a sale.
<b>Critical Values</b>	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.
<b>Descriptive Statistics</b>	Statistics used to describe or summarize information about a sample. These measures include point estimates.
<b>Dispersion</b>	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.
<b>Geometric Mean Ratio</b>	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.
<b>Harmonic Mean Ratio</b>	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.
<b>Histogram</b>	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.
<b>Hypothesis</b>	An unproved proposition that tentatively explains certain facts; a proposition that is empirically testable; a probable answer to a question.
<b>Inferential Statistics</b>	Statistics used to make judgments about a population based on information obtained from a sample.

<b>Interquartile Range</b> ( <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.
<b>Market</b>	The “place” in which buyers and sellers interact. The collective body of buyers and sellers for a particular product.
<b>Market Price</b>	The price a particular buyer and seller agree to in a particular transaction that occurs in an open and competitive market.
<b>Market Value</b>	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> ”
<b>Maximum Ratio</b>	Largest sales ratio in the sample.
<b>Mean Ratio</b>	Result of adding all the ratios and dividing by the number of ratios. ( <i>Also called the arithmetic mean or average.</i> )
<b>Median</b>	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.
<b>Median Absolute Deviation</b> ( <i>MAD</i> )	The median of the absolute deviation from the median. In a symmetrical distribution, the measure approximates one-half of the interquartile range.
<b>Median Percent Deviation</b>	A relative measure of uniformity that is found by the median absolute deviation ( <i>MAD</i> ) by the median ratio.
<b>Median Ratio</b>	Middle ratio in a sorted array of ratios. If the number of ratios is even, it is the average of the middle two ratios.
<b>Minimum Ratio</b>	Lowest sales ratio in the sample.
<b>Mode</b>	A value most often assumed by a variable. By extension for grouped data, the class in which a plurality of the observations falls.
<b>Nonparametric</b>	A statistic whose interpretation or reliability does not depend on the distribution of the underlying data.
<b>Normal Distribution</b>	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.
<b>Normality Test</b>	A mathematical test to determine if the data is considered to be normally distributed or conforms to a bell-shaped curve ( <i>Gaussian shape</i> ).
<b>Null Hypothesis</b>	A hypothesis that one chooses to accept in the absence of sufficient evidence to the contrary.
<b>Observation</b>	An observation is one recording or occurrence of the value of a variable. One ratio from a sample of ratios is an example.

<b>Open Market</b>	A freely competitive market in which any buyer or seller may trade and in which prices are determined by competition.
<b>Outliers</b>	Observations that have unusual values differing markedly from a measure of central tendency. Some outliers occur naturally. Others may be due to data errors.
<b>Parameter</b>	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.
<b>Parametric Statistic</b>	A statistic whose interpretation or reliability depends on the distribution of the underlying data.
<b>Percentile</b>	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.
<b>Population</b>	All the items of interest, for example, all the properties in a subclass, jurisdiction or neighborhood.
<b>Price-Related Differential (PRD)</b>	A performance statistic used to measure appraisal regressivity or progressivity. It may also be referred to as vertical inequity. It is calculated by taking the mean ratio and dividing it by the weighted mean ratio.
<b>Price-Related Bias (PRB)</b>	A coefficient that provides an index of price-related bias (vertical equity) obtained by regressing the ratio deviations from the median ratio (percentage changes) on the proxy of market value. The PRB is the slope of the regression line. This statistical measure can supplement information provided by the price-related differential.
<b>Quartiles</b>	The values that divide a set of data into four equal parts when the data are arrayed in ascending order.
<b>Random Sample</b>	A sample in which each item in the population has an equal chance of being included and by extension, each possible combination of $n$ items has an equal chance of occurrence.
<b>Range</b>	(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.
<b>Ratio Study</b>	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.
<b>Representative Sample</b>	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.

<b>Sales Price</b>	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> ).
<b>Sales Ratio</b>	A ratio of the county appraiser's estimate of value to the sale price of a property ( <i>appraised value ÷ sale price</i> ).
<b>Sales Data</b>	Information about the nature of the transaction and the sale price and property characteristics as of the date of sale.
<b>Sample</b>	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> )
<b>Skewed</b>	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.
<b>Standard Deviation</b>	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.
<b>Statistics</b>	<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>
<b>Stratify</b>	To divide, for purposes of analysis, a sample of observations into two or more subsets according to some criterion or set of characteristics.
<b>Stratum, Strata (Pls.)</b>	A class or subset as a result of stratification.
<b>Subclass</b>	<p>A group of properties with related use characteristics. In Kansas, the following subclasses of real property, defined in the Constitution, are used in the ratio study:</p> <ol style="list-style-type: none"> <li>(1) residential, including multi-family residential mobile homes and condominiums;</li> <li>(2) land devoted to agricultural use;</li> <li>(3) vacant lots;</li> <li>(4) property owned and operated by not-for-profit organizations;</li> <li>(5) public utility property;</li> <li>(6) commercial and industrial property and buildings and other improvements located upon land devoted to agricultural use;</li> <li>(7) all other urban and rural real property not otherwise specifically subclassed.</li> </ol>



<b>Tolerance Limits</b>	Interval measure that provides a specified degree of confidence that a prescribed proportion of the population values is thought to be contained within.
<b>Trending</b>	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.
<b>Weighted Coefficient of Dispersion</b>	The coefficient of dispersion when absolute differences between individual assessment ratios and the median ratio are weighted on the basis of sale price.
<b>Weighted Mean</b>	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.
<b>Weighted Mean Ratio</b>	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.

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