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2013 Commission Summary for Logan County

Residential Real Property - Current

Number of Sales	11	Median	91.72
Total Sales Price	\$735,500	Mean	92.15
Total Adj. Sales Price	\$735,500	Wgt. Mean	91.31
Total Assessed Value	\$671,558	Average Assessed Value of the Base	\$46,936
Avg. Adj. Sales Price	\$66,864	Avg. Assessed Value	\$61,051

Confidence Interval - Current

95% Median C.I	71.00 to 104.79
95% Wgt. Mean C.I	82.10 to 100.51
95% Mean C.I	80.23 to 104.07
% of Value of the Class of all Real Property Value in the	7.12
% of Records Sold in the Study Period	3.97
% of Value Sold in the Study Period	5.17

Residential Real Property - History

Year	Number of Sales	LOV	Median
2012	7		97.65
2011	16	97	97
2010	16	97	97
2009	12	93	93

2013 Commission Summary for Logan County

Commercial Real Property - Current

Number of Sales	2	Median	191.06
Total Sales Price	\$51,500	Mean	191.06
Total Adj. Sales Price	\$51,500	Wgt. Mean	195.95
Total Assessed Value	\$100,916	Average Assessed Value of the Base	\$42,418
Avg. Adj. Sales Price	\$25,750	Avg. Assessed Value	\$50,458

Confidence Interval - Current

95% Median C.I	N/A
95% Wgt. Mean C.I	N/A
95% Mean C.I	-724.73 to 1106.85
% of Value of the Class of all Real Property Value in the County	1.02
% of Records Sold in the Study Period	4.55
% of Value Sold in the Study Period	5.41

Commercial Real Property - History

Year	Number of Sales	LOV	Median
2012	1		118.98
2011	0	0	0
2010	3	100	103
2009	4	100	99

2013 Opinions of the Property Tax Administrator for Logan County

My opinions and recommendations are stated as a conclusion based on all of the factors known to me regarding the assessment practices and statistical analysis for this county. See, Neb. Rev. Stat. § 77-5027 (2011). While the median assessment sales ratio from the Qualified Statistical Reports for each class of real property is considered, my opinion of the level of value for a class of real property may be determined from other evidence contained within these Reports and Opinions of the Property Tax Administrator. My opinion of quality of assessment for a class of real property may be influenced by the assessment practices of the county assessor.

Class	Level of Value	Quality of Assessment	Non-binding recommendation
Residential Real Property	92	Meets generally accepted mass appraisal practices.	No recommendation.
Commercial Real Property	*NEI	Meets generally accepted mass appraisal practices.	No recommendation.
Agricultural Land	75	Meets generally accepted mass appraisal practices.	No recommendation.

***A level of value displayed as NEI (not enough information) represents a class of property with insufficient information to determine a level of value.*

Dated this 5th day of April, 2013.



Ruth A. Sorensen

Ruth A. Sorensen
Property Tax Administrator

2013 Residential Assessment Actions for Logan County

The intent was to update the Marshall Swift cost indexes for 2013 however; the residential market appeared to be holding so no significant valuation changes were made. As part of the six-year physical inspection and review cycle the residential properties within Stapleton and Gandy were reviewed and new pictures were taken and downloaded into TerraScan. If updates were discovered they were noted on the property record cards.

The sales verification process is primarily conducted in person with the buyer, seller or a third party to the transaction.

2013 Residential Assessment Survey for Logan County

1.	Valuation data collection done by:	
	Assessor and deputy.	
2.	List the valuation groupings recognized by the County and describe the unique characteristics of each:	
	<u>Valuation Grouping</u>	<u>Description of unique characteristics</u>
	1	Consists of Stapleton, Gandy, and rural residential. The only school in the county is in Stapleton and the primary services are located here as well.
3.	List and describe the approach(es) used to estimate the market value of residential properties.	
	Sales were used to establish depreciation as it pertains to the cost approach. However, there are not enough residential sales to adequately utilize the sales comparison or income approaches.	
4.	What is the costing year of the cost approach being used for each valuation grouping?	
	June 2008	
5.	If the cost approach is used, does the County develop the depreciation study(ies) based on local market information or does the county use the tables provided by the CAMA vendor?	
	County develops the depreciation study based on local market information.	
6.	Are individual depreciation tables developed for each valuation grouping?	
	Not applicable.	
7.	When were the depreciation tables last updated for each valuation grouping?	
	2008	
8.	When was the last lot value study completed for each valuation grouping?	
	2008	
9.	Describe the methodology used to determine the residential lot values?	
	Market and a square foot cost are applied.	

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RESIDENTIAL

PAD 2013 R&O Statistics (Using 2013 Values)

Qualified

Date Range: 10/1/2010 To 9/30/2012 Posted on: 1/23/2013

Number of Sales : 11
Total Sales Price : 735,500
Total Adj. Sales Price : 735,500
Total Assessed Value : 671,558
Avg. Adj. Sales Price : 66,864
Avg. Assessed Value : 61,051

MEDIAN : 92
WGT. MEAN : 91
MEAN : 92
COD : 13.94
PRD : 100.92

COV : 19.25
STD : 17.74
Avg. Abs. Dev : 12.79
MAX Sales Ratio : 128.44
MIN Sales Ratio : 69.04

95% Median C.I. : 71.00 to 104.79
95% Wgt. Mean C.I. : 82.10 to 100.51
95% Mean C.I. : 80.23 to 104.07

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DATE OF SALE *										Avg. Adj.	Avg.
RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Sale Price	Assd. Val
<u>Qtrrs</u>											
01-OCT-10 To 31-DEC-10											
01-JAN-11 To 31-MAR-11											
01-APR-11 To 30-JUN-11	1	71.00	71.00	71.00	00.00	100.00	71.00	71.00	N/A	40,000	28,398
01-JUL-11 To 30-SEP-11	3	102.59	92.14	91.67	11.62	100.51	69.04	104.79	N/A	82,000	75,168
01-OCT-11 To 31-DEC-11	1	92.18	92.18	92.18	00.00	100.00	92.18	92.18	N/A	99,500	91,718
01-JAN-12 To 31-MAR-12	1	128.44	128.44	128.44	00.00	100.00	128.44	128.44	N/A	33,000	42,385
01-APR-12 To 30-JUN-12	3	90.56	88.33	89.04	11.84	99.20	71.13	103.30	N/A	25,833	23,003
01-JUL-12 To 30-SEP-12	2	90.29	90.29	89.58	01.58	100.79	88.86	91.72	N/A	119,750	107,272
<u>Study Yrs</u>											
01-OCT-10 To 30-SEP-11	4	86.80	86.86	88.78	19.40	97.84	69.04	104.79	N/A	71,500	63,476
01-OCT-11 To 30-SEP-12	7	91.72	95.17	92.92	11.43	102.42	71.13	128.44	71.13 to 128.44	64,214	59,665
<u>Calendar Yrs</u>											
01-JAN-11 To 31-DEC-11	5	92.18	87.92	89.65	14.61	98.07	69.04	104.79	N/A	77,100	69,124
<u>ALL</u>	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051

VALUATION GROUPING										Avg. Adj.	Avg.
RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Sale Price	Assd. Val
01	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051
<u>ALL</u>	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051

PROPERTY TYPE *										Avg. Adj.	Avg.
RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Sale Price	Assd. Val
01	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051
06											
07											
<u>ALL</u>	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051

57 Logan
RESIDENTIAL

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95% Wgt. Mean C.I. : 82.10 to 100.51
95% Mean C.I. : 80.23 to 104.07

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SALE PRICE *											
RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
<u>Low \$ Ranges</u>											
Less Than 5,000											
Less Than 15,000											
Less Than 30,000	2	80.85	80.85	78.19	12.02	103.40	71.13	90.56	N/A	22,000	17,202
<u>Ranges Excl. Low \$</u>											
Greater Than 4,999	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051
Greater Than 14,999	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051
Greater Than 29,999	9	92.18	94.66	92.14	14.29	102.73	69.04	128.44	71.00 to 104.79	76,833	70,795
<u>Incremental Ranges</u>											
0 TO 4,999											
5,000 TO 14,999											
15,000 TO 29,999	2	80.85	80.85	78.19	12.02	103.40	71.13	90.56	N/A	22,000	17,202
30,000 TO 59,999	3	103.30	100.91	98.96	18.54	101.97	71.00	128.44	N/A	35,500	35,129
60,000 TO 99,999	5	92.18	92.06	91.80	10.11	100.28	69.04	104.79	N/A	81,100	74,451
100,000 TO 149,999											
150,000 TO 249,999	1	88.86	88.86	88.86	00.00	100.00	88.86	88.86	N/A	179,500	159,511
250,000 TO 499,999											
500,000 TO 999,999											
1,000,000 +											
<u>ALL</u>	11	91.72	92.15	91.31	13.94	100.92	69.04	128.44	71.00 to 104.79	66,864	61,051

2013 Correlation Section for Logan County

A. Residential Real Property

Logan County is primarily an agricultural based county with approximately 760 residents. There are two towns Stapleton (pop. 305), is the county seat, and Gandy (pop. 32). Stapleton provides a K-12 school and some commercial businesses. Its proximity to North Platte, 35 miles to the south, adds some desirability to the residential market for those wanting to reside in a small town atmosphere and have the ability to seek employment on a much larger scale and the accessibility of a larger selection of services and retail businesses.

The statistical sampling of 11 residential sales will be considered an adequate and reliable sample for the measurement of the residential class of real property in Logan County since the residential market seems to be somewhat stable and acknowledges the influences of the larger retail trade center to the south. A review of the non-qualified sales was done; all arm's length sales are being used. Overall the three measures of central tendency will somewhat correlate and the qualitative measures are within the prescribed parameters of the International Association of Assessing Officers (IAAO) standards.

For assessment year 2013 all properties within the towns of Stapleton and Gandy were reviewed, new photos were taken of the improvements and downloaded into the TerraScan system. Comments were recorded on the property record cards of any updates that were discovered during the review process. The pickup work was completed in a timely manner.

The Department of Revenue, Property Assessment Division has implemented a cyclical analysis of one-third of the counties within the state per year to systematically review assessment practices. Logan County was one of those selected for review in 2012 and it has been confirmed that the assessment actions are reliable and are being applied consistently. Therefore, it is believed there is uniform and proportionate treatment within the residential class.

Based on all available information, the level of value of the residential property in Logan County is 92%.

**2013 Correlation Section
for Logan County**

B. Analysis of Sales Verification

Neb. Rev. Stat. § 77-1327(2) (2011) provides that all sales are deemed to be arms length transactions unless determined to be otherwise under professionally accepted mass appraisal techniques. The county assessor is responsible for the qualification of the sales included in the state sales file.

The Standard on Ratio Studies, International Association of Assessing Officials (2010), indicates that excessive trimming (the arbitrary exclusion or adjustment of arms length transactions) may indicate an attempt to inappropriately exclude arms length transactions to create the appearance of a higher level of value and quality of assessment. The sales file, in a case of excess trimming, will fail to properly represent the level of value and quality of assessment of the population of real property.

The Nebraska Department of Revenue, Property Assessment Division (Division) frequently reviews the procedures used by the county assessor to qualify sales to ensure bias does not exist in judgments made. Arms length transactions should only be excluded when they compromise the reliability of the resulting statistics. In cases where a county assessor has disqualified sales without substantiation, the Division may include such sales in the ratio study.

2013 Correlation Section for Logan County

C. Measures of Central Tendency

There are three measures of central tendency calculated by the Division: median ratio, weighted mean ratio, and mean ratio. Since each measure of central tendency has strengths and weaknesses, the use of any statistic for equalization should be reconciled with the other two, as in an appraisal, based on the appropriateness of the use of the statistic for a defined purpose, the quantity of the information from which it was drawn, and the reliability of the data that was used in its calculation. An examination of the three measures can serve to illustrate important trends in the data if the measures do not closely correlate to each other.

The International Association of Assessing Officers (IAAO) considers the median ratio the most appropriate statistical measure for use in determining level of value for direct equalization; the process of adjusting the values of classes or subclasses of property in response to the determination of level of value at a point above or below a particular range. Since the median ratio is considered neutral in relationship to either assessed value or selling price, its use in adjusting the class or subclass of properties will not change the relationships between assessed value and level of value already present within the class or subclass of properties, thus rendering an adjustment neutral in its impact on the relative tax burden to an individual property. Additionally, the median ratio is less influenced by the presence of extreme ratios, commonly called outliers. One outlier in a small sample size of sales can have controlling influence over the other measures of central tendency. The median ratio limits the distortion potential of an outlier.

The weighted mean ratio is viewed by the IAAO as the most appropriate statistical measure for indirect equalization. The weighted mean, because it is a value weighted ratio, best reflects a comparison of the assessed and market value of property in the political subdivision. If the distribution of aid to political subdivisions must relate to the market value available for assessment in the political subdivision, the measurement of central tendency used to analyze level of value should reflect the dollars of value available to be assessed. The weighted mean ratio does that more than either of the other measures of central tendency.

If the weighted mean ratio, because of its dollar-weighting feature, is significantly different from the median ratio, it may be an indication of other problems with assessment proportionality. When this occurs, an evaluation of the county's assessment practices and procedures is appropriate to discover remedies to the situation.

The mean ratio is used as a basis for other statistical calculations, such as the price related differential and coefficient of variation. However, the mean ratio has limited application in the analysis of level of value because it assumes a normal distribution of the data set around the mean ratio with each ratio having the same impact on the calculation regardless of the assessed value or the selling price.

2013 Correlation Section for Logan County

D. Analysis of Quality of Assessment

In analyzing the statistical data of assessment quality, there are two measures upon which assessment officials will primarily rely: the Coefficient of Dispersion (COD), and the Price Related Differential (PRD). Whether such statistics can be relied upon as meaningful for the population depends on whether the sample is representative.

The COD is commonly referred to as the index of assessment inequality. It is used to measure how closely the individual ratios are clustered around the median ratio and suggests the degree of uniformity or inaccuracy resulting in the assessments. The COD is computed by dividing the average deviation by the median ratio. For example, a COD of 20 means half of the ratios are 20 percent above or below the median. The closer the ratios are grouped around the median, the more equitable the assessment of property tends to be. Conversely, if the dispersion is quite large, there is a large spread in the ratios typically indicating a large spread around the median in the assessment of property, which results in an inequity in assessment and taxes. There is no range of acceptability stated in the Nebraska statutes for the COD measure. The IAAO recommended ratio study performance standards are as follows:

Single-family residences: a COD of 15 percent or less.

For newer and fairly homogeneous areas: a COD of 10 or less.

Income-producing property: a COD of 20 or less, or in larger urban jurisdictions, 15 or less.

Vacant land and other unimproved property, such as agricultural land: a COD of 20 or less.

Rural residential and seasonal properties: a COD of 20 or less.

Mass Appraisal of Real Property, International Association of Assessing Officers, (1999), p. 246.

In unusually homogeneous types of property low CODs can be anticipated; however, in all other cases CODs less than 5 percent may be indicative of non-representative samples or the selective reappraisal of sold parcels.

Note that as market activity changes or as the complexity of properties increases, the measures of variability usually increase, even though appraisal procedures may be equally valid. Standard on Ratio Studies—2010, International Association of Assessing Officers, (2010), p. 13.

The PRD, also known as the index of regression, is a measurement of the relationship between the ratios of high-value and low-value properties to determine if the value of property has any influence on the assessment ratio. It is calculated by dividing the arithmetic mean ratio by the weighted mean ratio. The PRD provides an indicator of the degree to which high-value properties are over-assessed or under-assessed in relation to low-value properties. A PRD of 100 indicates there is no bias in the assessment of high-value properties in comparison to low-value properties. A PRD greater than 100 indicates the assessments are regressive, which means low-value properties tend to have a higher assessment ratio than high-value properties. The result is the owner of a low-value property pays a greater amount of tax in relation to value than the owner of a high-value property. Conversely, a PRD less than 100 indicates that

**2013 Correlation Section
for Logan County**

high-value properties are over assessed in relation to low-value properties.

There is no range of acceptability stated in the Nebraska statutes for the PRD measure. The Standard on Ratio Studies, adopted by the International Association of Assessing Officers, January, 2010, recommends that the PRD should lie between 98 and 103. This range is centered slightly above 100 to allow for a slightly upward measurement bias inherent in the PRD.

The PRD is calculated based on the selling price/assessed value in the sales file. This measure can be misleading if the dollar value of the records in the sales file is not proportionate to the dollar value of records in the population.

Mass Appraisal of Real Property, International Association of Assessing Officers, (1999), p. 239.

2013 Commercial Assessment Actions for Logan County

Within the commercial class of real property there were no sales in Logan County to analyze for 2013 therefore; no major valuation changes were made. As part of the six-year physical inspection and review cycle new pictures of the commercial properties in Stapleton and Gandy were taken and put into the property record file.

2013 Commercial Assessment Survey for Logan County

1.	Valuation data collection done by:	
	Assessor and deputy.	
2.	List the valuation groupings recognized in the County and describe the unique characteristics of each:	
	<u>Valuation Grouping</u>	<u>Description of unique characteristics</u>
	1	Consists of Stapleton, Gandy, and rural residential. The only school in the county is in Stapleton and the primary services are located here as well.
3.	List and describe the approach(es) used to estimate the market value of commercial properties.	
	The cost approach, supported by comparable sales using the sales price per square foot. There is not enough data or commercial sales to utilize the income approach.	
3a.	Describe the process used to determine the value of unique commercial properties.	
	A contracted appraiser will be hired to value unique commercial properties.	
4.	What is the costing year of the cost approach being used for each valuation grouping?	
	2008	
5.	If the cost approach is used, does the County develop the depreciation study(ies) based on local market information or does the county use the tables provided by the CAMA vendor?	
	Yes, the market.	
6.	Are individual depreciation tables developed for each valuation grouping?	
	No	
7.	When were the depreciation tables last updated for each valuation grouping?	
	Last time new costing was applied. If costing is updated depreciated is revisited at that time.	
8.	When was the last lot value study completed for each valuation grouping?	
	2009	
9.	Describe the methodology used to determine the commercial lot values.	
	Market and a square foot cost are applied.	

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COMMERCIAL

PAD 2013 R&O Statistics (Using 2013 Values)

Qualified

Date Range: 10/1/2009 To 9/30/2012 Posted on: 1/23/2013

Number of Sales : 2
 Total Sales Price : 51,500
 Total Adj. Sales Price : 51,500
 Total Assessed Value : 100,916
 Avg. Adj. Sales Price : 25,750
 Avg. Assessed Value : 50,458

MEDIAN : 191
 WGT. MEAN : 196
 MEAN : 191
 COD : 37.73
 PRD : 97.50

COV : 53.35
 STD : 101.93
 Avg. Abs. Dev : 72.08
 MAX Sales Ratio : 263.13
 MIN Sales Ratio : 118.98

95% Median C.I. : N/A
 95% Wgt. Mean C.I. : N/A
 95% Mean C.I. : -724.73 to 1,106.85

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DATE OF SALE *

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
<u>Qtrts</u>											
01-OCT-09 To 31-DEC-09											
01-JAN-10 To 31-MAR-10											
01-APR-10 To 30-JUN-10											
01-JUL-10 To 30-SEP-10											
01-OCT-10 To 31-DEC-10											
01-JAN-11 To 31-MAR-11											
01-APR-11 To 30-JUN-11	1	118.98	118.98	118.98	00.00	100.00	118.98	118.98	N/A	24,000	28,554
01-JUL-11 To 30-SEP-11											
01-OCT-11 To 31-DEC-11											
01-JAN-12 To 31-MAR-12											
01-APR-12 To 30-JUN-12											
01-JUL-12 To 30-SEP-12	1	263.13	263.13	263.13	00.00	100.00	263.13	263.13	N/A	27,500	72,362
<u>Study Yrs</u>											
01-OCT-09 To 30-SEP-10											
01-OCT-10 To 30-SEP-11	1	118.98	118.98	118.98	00.00	100.00	118.98	118.98	N/A	24,000	28,554
01-OCT-11 To 30-SEP-12	1	263.13	263.13	263.13	00.00	100.00	263.13	263.13	N/A	27,500	72,362
<u>Calendar Yrs</u>											
01-JAN-10 To 31-DEC-10											
01-JAN-11 To 31-DEC-11	1	118.98	118.98	118.98	00.00	100.00	118.98	118.98	N/A	24,000	28,554
<u>ALL</u>	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458

VALUATION GROUPING

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
01	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458
<u>ALL</u>	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458

PROPERTY TYPE *

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
02											
03	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458
04											
<u>ALL</u>	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458

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 MAX Sales Ratio : 263.13
 MIN Sales Ratio : 118.98

95% Median C.I. : N/A
 95% Wgt. Mean C.I. : N/A
 95% Mean C.I. : -724.73 to 1,106.85

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SALE PRICE *											Avg. Adj.	Avg.
RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Sale Price	Assd. Val	
<u>Low \$ Ranges</u>												
Less Than 5,000												
Less Than 15,000												
Less Than 30,000	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	
<u>Ranges Excl. Low \$</u>												
Greater Than 4,999	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	
Greater Than 14,999	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	
Greater Than 29,999												
<u>Incremental Ranges</u>												
0 TO 4,999												
5,000 TO 14,999												
15,000 TO 29,999	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	
30,000 TO 59,999												
60,000 TO 99,999												
100,000 TO 149,999												
150,000 TO 249,999												
250,000 TO 499,999												
500,000 TO 999,999												
1,000,000 +												
<u>ALL</u>	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	

OCCUPANCY CODE											Avg. Adj.	Avg.
RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Sale Price	Assd. Val	
353	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	
<u>ALL</u>	2	191.06	191.06	195.95	37.73	97.50	118.98	263.13	N/A	25,750	50,458	

**2013 Correlation Section
for Logan County**

A. Commercial Real Property

Logan County is primarily an agricultural based county that provides only a few basic retail functions to the community and surrounding area. Stapleton is the county seat and one other village (Gandy) exists, a viable commercial market does not exist. Primary commercial businesses and job opportunities will be found in North Platte.

The calculated median from the statistical sampling of 2 commercial sales will not be relied upon in determining the level of value for Logan County, nor will the qualitative measures be used in determining assessment uniformity and proportionality. The sample is not representative of the population as a whole. A review of the non-qualified sales was done; all arm's length sales are being used.

For assessment year 2013 all properties within the towns of Stapleton and Gandy were reviewed, new photos were taken of the improvements and downloaded into the TerraScan system. Comments were recorded on the property record cards of any updates that were discovered during the review process. The pickup work was completed in a timely manner.

The Department of Revenue, Property Assessment Division has implemented a cyclical analysis of one-third of the counties within the state per year to systematically review assessment practices. Logan County was one of those selected for review in 2012 and it has been confirmed that the assessment actions are reliable and are being applied consistently. Therefore, it is believed there is uniform and proportionate treatment within the commercial class.

Based on the consideration of all available information, the level of value cannot be determined for the commercial class of real property.

**2013 Correlation Section
for Logan County**

B. Analysis of Sales Verification

Neb. Rev. Stat. § 77-1327(2) (2011) provides that all sales are deemed to be arms length transactions unless determined to be otherwise under professionally accepted mass appraisal techniques. The county assessor is responsible for the qualification of the sales included in the state sales file.

The Standard on Ratio Studies, International Association of Assessing Officials (2010), indicates that excessive trimming (the arbitrary exclusion or adjustment of arms length transactions) may indicate an attempt to inappropriately exclude arms length transactions to create the appearance of a higher level of value and quality of assessment. The sales file, in a case of excess trimming, will fail to properly represent the level of value and quality of assessment of the population of real property.

The Nebraska Department of Revenue, Property Assessment Division (Division) frequently reviews the procedures used by the county assessor to qualify sales to ensure bias does not exist in judgments made. Arms length transactions should only be excluded when they compromise the reliability of the resulting statistics. In cases where a county assessor has disqualified sales without substantiation, the Division may include such sales in the ratio study.

2013 Correlation Section for Logan County

C. Measures of Central Tendency

There are three measures of central tendency calculated by the Division: median ratio, weighted mean ratio, and mean ratio. Since each measure of central tendency has strengths and weaknesses, the use of any statistic for equalization should be reconciled with the other two, as in an appraisal, based on the appropriateness of the use of the statistic for a defined purpose, the quantity of the information from which it was drawn, and the reliability of the data that was used in its calculation. An examination of the three measures can serve to illustrate important trends in the data if the measures do not closely correlate to each other.

The International Association of Assessing Officers (IAAO) considers the median ratio the most appropriate statistical measure for use in determining level of value for direct equalization; the process of adjusting the values of classes or subclasses of property in response to the determination of level of value at a point above or below a particular range. Since the median ratio is considered neutral in relationship to either assessed value or selling price, its use in adjusting the class or subclass of properties will not change the relationships between assessed value and level of value already present within the class or subclass of properties, thus rendering an adjustment neutral in its impact on the relative tax burden to an individual property. Additionally, the median ratio is less influenced by the presence of extreme ratios, commonly called outliers. One outlier in a small sample size of sales can have controlling influence over the other measures of central tendency. The median ratio limits the distortion potential of an outlier.

The weighted mean ratio is viewed by the IAAO as the most appropriate statistical measure for indirect equalization. The weighted mean, because it is a value weighted ratio, best reflects a comparison of the assessed and market value of property in the political subdivision. If the distribution of aid to political subdivisions must relate to the market value available for assessment in the political subdivision, the measurement of central tendency used to analyze level of value should reflect the dollars of value available to be assessed. The weighted mean ratio does that more than either of the other measures of central tendency.

If the weighted mean ratio, because of its dollar-weighting feature, is significantly different from the median ratio, it may be an indication of other problems with assessment proportionality. When this occurs, an evaluation of the county's assessment practices and procedures is appropriate to discover remedies to the situation.

The mean ratio is used as a basis for other statistical calculations, such as the price related differential and coefficient of variation. However, the mean ratio has limited application in the analysis of level of value because it assumes a normal distribution of the data set around the mean ratio with each ratio having the same impact on the calculation regardless of the assessed value or the selling price.

2013 Correlation Section for Logan County

D. Analysis of Quality of Assessment

In analyzing the statistical data of assessment quality, there are two measures upon which assessment officials will primarily rely: the Coefficient of Dispersion (COD), and the Price Related Differential (PRD). Whether such statistics can be relied upon as meaningful for the population depends on whether the sample is representative.

The COD is commonly referred to as the index of assessment inequality. It is used to measure how closely the individual ratios are clustered around the median ratio and suggests the degree of uniformity or inaccuracy resulting in the assessments. The COD is computed by dividing the average deviation by the median ratio. For example, a COD of 20 means half of the ratios are 20 percent above or below the median. The closer the ratios are grouped around the median, the more equitable the assessment of property tends to be. Conversely, if the dispersion is quite large, there is a large spread in the ratios typically indicating a large spread around the median in the assessment of property, which results in an inequity in assessment and taxes. There is no range of acceptability stated in the Nebraska statutes for the COD measure. The IAAO recommended ratio study performance standards are as follows:

Single-family residences: a COD of 15 percent or less.

For newer and fairly homogeneous areas: a COD of 10 or less.

Income-producing property: a COD of 20 or less, or in larger urban jurisdictions, 15 or less.

Vacant land and other unimproved property, such as agricultural land: a COD of 20 or less.

Rural residential and seasonal properties: a COD of 20 or less.

Mass Appraisal of Real Property, International Association of Assessing Officers, (1999), p. 246.

In unusually homogeneous types of property low CODs can be anticipated; however, in all other cases CODs less than 5 percent may be indicative of non-representative samples or the selective reappraisal of sold parcels.

Note that as market activity changes or as the complexity of properties increases, the measures of variability usually increase, even though appraisal procedures may be equally valid. Standard on Ratio Studies—2010, International Association of Assessing Officers, (2010), p. 13.

The PRD, also known as the index of regression, is a measurement of the relationship between the ratios of high-value and low-value properties to determine if the value of property has any influence on the assessment ratio. It is calculated by dividing the arithmetic mean ratio by the weighted mean ratio. The PRD provides an indicator of the degree to which high-value properties are over-assessed or under-assessed in relation to low-value properties. A PRD of 100 indicates there is no bias in the assessment of high-value properties in comparison to low-value properties. A PRD greater than 100 indicates the assessments are regressive, which means low-value properties tend to have a higher assessment ratio than high-value properties. The result is the owner of a low-value property pays a greater amount of tax in relation to value than the owner of a high-value property. Conversely, a PRD less than 100 indicates that

**2013 Correlation Section
for Logan County**

high-value properties are over assessed in relation to low-value properties.

There is no range of acceptability stated in the Nebraska statutes for the PRD measure. The Standard on Ratio Studies, adopted by the International Association of Assessing Officers, January, 2010, recommends that the PRD should lie between 98 and 103. This range is centered slightly above 100 to allow for a slightly upward measurement bias inherent in the PRD.

The PRD is calculated based on the selling price/assessed value in the sales file. This measure can be misleading if the dollar value of the records in the sales file is not proportionate to the dollar value of records in the population.

Mass Appraisal of Real Property, International Association of Assessing Officers, (1999), p. 239.

2013 Agricultural Assessment Actions for Logan County

Within the agricultural class of real property the regular pickup work was completed and pictures were taken of the new improvements on farmsites. As part of the six-year physical inspection and review cycle thirty-three percent of the northeastern part of the county was reviewed and new pictures were taken of all improvements and downloaded into TerraScan. Also, GIS was updated to the 2012 FSA maps.

An analysis of the agricultural land market was done and a search for comparable properties to include and strengthen the analysis was made utilizing sales from the adjoining counties of Thomas, Blaine, Custer, Lincoln and McPherson. From the analysis the decision was made to increase the irrigated and dry land values.

2013 Agricultural Assessment Survey for Logan County

1.	Valuation data collection done by:	
	Assessor and deputy.	
2.	List each market area, and describe the location and the specific characteristics that make each unique.	
	Market Area	Description of unique characteristics
	0	Logan County is very homogeneous in geographic and soil characteristics; the county is approximately eighty-seven percent grassland, seven percent irrigated, and five percent dry. Most of the cropland is in the southern portion of the county.
3.	Describe the process used to determine and monitor market areas.	
	Not applicable.	
4.	Describe the process used to identify rural residential land and recreational land in the county apart from agricultural land.	
	The county follows the zoning manual in identifying rural residential land as no more than 20 acres. There is no recreational at this time.	
5.	Do farm home sites carry the same value as rural residential home sites? If not, what are the market differences?	
	Rural home sites are valued at \$5000 for the first acre and the building site is \$500. Values for 4500 (rural residential) parcels are the first acre \$5000, \$2395 up to ten acres and \$2395 up to twenty acres. These values are used for the whole county.	
6.	Describe the process used to identify and monitor the influence of non-agricultural characteristics.	
	A market analysis does not identify non-agricultural characteristics.	
7.	Have special valuation applications been filed in the county? If a value difference is recognized describe the process used to develop the uninfluenced value.	
	No	
8.	If applicable, describe the process used to develop assessed values for parcels enrolled in the Wetland Reserve Program.	
	Limited amount of acres, just use grassland values.	

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AGRICULTURAL LAND

PAD 2013 R&O Statistics (Using 2013 Values)

Qualified

Date Range: 10/1/2009 To 9/30/2012 Posted on: 1/23/2013

Number of Sales : 27
Total Sales Price : 8,320,715
Total Adj. Sales Price : 8,174,715
Total Assessed Value : 5,445,658
Avg. Adj. Sales Price : 302,767
Avg. Assessed Value : 201,691

MEDIAN : 67
WGT. MEAN : 67
MEAN : 71
COD : 30.69
PRD : 107.18

COV : 38.05
STD : 27.17
Avg. Abs. Dev : 20.67
MAX Sales Ratio : 127.27
MIN Sales Ratio : 13.57

95% Median C.I. : 55.58 to 80.87
95% Wgt. Mean C.I. : 58.79 to 74.44
95% Mean C.I. : 60.65 to 82.15

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DATE OF SALE *

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
<u>Qtrts</u>											
01-OCT-09 To 31-DEC-09	2	78.16	78.16	84.32	15.15	92.69	66.32	90.00	N/A	316,816	267,134
01-JAN-10 To 31-MAR-10	3	105.00	105.00	105.00	00.00	100.00	105.00	105.00	N/A	128,000	134,400
01-APR-10 To 30-JUN-10	1	48.65	48.65	48.65	00.00	100.00	48.65	48.65	N/A	461,000	224,268
01-JUL-10 To 30-SEP-10	2	98.44	98.44	97.48	20.76	100.98	78.00	118.87	N/A	305,750	298,050
01-OCT-10 To 31-DEC-10	2	65.05	65.05	66.01	02.38	98.55	63.50	66.60	N/A	248,500	164,037
01-JAN-11 To 31-MAR-11	5	49.16	62.47	56.25	41.70	111.06	37.06	127.27	N/A	275,200	154,804
01-APR-11 To 30-JUN-11	3	67.36	59.95	57.63	13.51	104.03	42.59	69.89	N/A	270,911	156,125
01-JUL-11 To 30-SEP-11	1	67.45	67.45	67.45	00.00	100.00	67.45	67.45	N/A	165,000	111,299
01-OCT-11 To 31-DEC-11	3	60.97	67.07	70.84	10.37	94.68	60.64	79.60	N/A	422,533	299,322
01-JAN-12 To 31-MAR-12	2	28.40	28.40	28.84	52.22	98.47	13.57	43.22	N/A	446,500	128,776
01-APR-12 To 30-JUN-12	3	80.87	87.74	79.25	13.43	110.71	74.89	107.47	N/A	357,750	283,512
01-JUL-12 To 30-SEP-12											
<u>Study Yrs</u>											
01-OCT-09 To 30-SEP-10	8	97.50	89.61	84.10	19.34	106.55	48.65	118.87	48.65 to 118.87	261,267	219,730
01-OCT-10 To 30-SEP-11	11	63.50	62.71	58.99	24.46	106.31	37.06	127.27	42.59 to 69.89	259,158	152,888
01-OCT-11 To 30-SEP-12	8	67.93	65.15	62.03	30.25	105.03	13.57	107.47	13.57 to 107.47	404,231	250,757
<u>Calendar Yrs</u>											
01-JAN-10 To 31-DEC-10	8	91.50	86.33	79.43	24.20	108.69	48.65	118.87	48.65 to 118.87	244,188	193,955
01-JAN-11 To 31-DEC-11	12	60.81	63.41	62.18	25.24	101.98	37.06	127.27	43.30 to 69.89	301,778	187,638
<u>ALL</u>	27	67.36	71.40	66.62	30.69	107.18	13.57	127.27	55.58 to 80.87	302,767	201,691

AREA (MARKET)

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
Blank	27	67.36	71.40	66.62	30.69	107.18	13.57	127.27	55.58 to 80.87	302,767	201,691
<u>ALL</u>	27	67.36	71.40	66.62	30.69	107.18	13.57	127.27	55.58 to 80.87	302,767	201,691

95%MLU By Market Area

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
<u>Dry</u>											
County	1	13.57	13.57	13.57	00.00	100.00	13.57	13.57	N/A	433,000	58,749
Blank	1	13.57	13.57	13.57	00.00	100.00	13.57	13.57	N/A	433,000	58,749
<u>Grass</u>											
County	21	74.89	79.46	75.97	25.46	104.59	42.59	127.27	63.50 to 105.00	287,034	218,064
Blank	21	74.89	79.46	75.97	25.46	104.59	42.59	127.27	63.50 to 105.00	287,034	218,064
<u>ALL</u>	27	67.36	71.40	66.62	30.69	107.18	13.57	127.27	55.58 to 80.87	302,767	201,691

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AGRICULTURAL LAND

PAD 2013 R&O Statistics (Using 2013 Values)

Qualified

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 Avg. Assessed Value : 201,691

MEDIAN : 67
 WGT. MEAN : 67
 MEAN : 71
 COD : 30.69
 PRD : 107.18

COV : 38.05
 STD : 27.17
 Avg. Abs. Dev : 20.67
 MAX Sales Ratio : 127.27
 MIN Sales Ratio : 13.57

95% Median C.I. : 55.58 to 80.87
 95% Wgt. Mean C.I. : 58.79 to 74.44
 95% Mean C.I. : 60.65 to 82.15

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80%MLU By Market Area

RANGE	COUNT	MEDIAN	MEAN	WGT.MEAN	COD	PRD	MIN	MAX	95%_Median_C.I.	Avg. Adj. Sale Price	Avg. Assd. Val
_____Irrigated_____											
County	1	43.30	43.30	43.30	00.00	100.00	43.30	43.30	N/A	354,500	153,515
Blank	1	43.30	43.30	43.30	00.00	100.00	43.30	43.30	N/A	354,500	153,515
_____Dry_____											
County	1	13.57	13.57	13.57	00.00	100.00	13.57	13.57	N/A	433,000	58,749
Blank	1	13.57	13.57	13.57	00.00	100.00	13.57	13.57	N/A	433,000	58,749
_____Grass_____											
County	21	74.89	79.46	75.97	25.46	104.59	42.59	127.27	63.50 to 105.00	287,034	218,064
Blank	21	74.89	79.46	75.97	25.46	104.59	42.59	127.27	63.50 to 105.00	287,034	218,064
_____ALL_____	27	67.36	71.40	66.62	30.69	107.18	13.57	127.27	55.58 to 80.87	302,767	201,691

Logan County 2013 Average Acre Value Comparison

County	Mkt Area	1A1	1A	2A1	2A	3A1	3A	4A1	4A	AVG IRR
Logan	1	N/A	1,950	1,790	1,790	1,365	1,365	1,260	1,260	1,558
Thomas	1	N/A	N/A	1,000	1,000	N/A	1,000	1,000	1,000	1,000
Blaine	1	N/A	1,000	N/A	1,000	1,000	1,000	1,000	1,000	1,000
Custer	2	N/A	977	896	918	N/A	963	987	988	978
Custer	1	N/A	3,199	2,823	2,682	2,521	2,309	2,294	2,290	2,765
Custer	5	N/A	2,341	2,151	1,787	1,640	1,530	1,511	1,416	1,980
Lincoln	2	1,350	1,350	1,335	1,350	1,350	1,330	1,345	1,344	1,344
McPherson	1	N/A	N/A	1,000	1,000	N/A	1,000	1,000	1,000	1,000

County	Mkt Area	1D1	1D	2D1	2D	3D1	3D	4D1	4D	AVG DRY
Logan	1	N/A	770	730	730	670	540	525	525	643
Thomas	1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Blaine	1	N/A	290	N/A	N/A	290	290	290	290	290
Custer	2	N/A	450	440	400	335	330	325	320	364
Custer	1	N/A	1,365	1,275	1,265	1,185	925	915	910	1,140
Custer	5	N/A	925	877	867	805	664	631	632	800
Lincoln	2	480	480	480	480	480	480	480	480	480
McPherson	1	N/A	N/A	N/A	375	N/A	375	375	375	375

County	Mkt Area	1G1	1G	2G1	2G	3G1	3G	4G1	4G	AVG GRASS
Logan	1	N/A	315	315	315	315	315	315	315	315
Thomas	1	N/A	N/A	260	260	N/A	260	260	260	260
Blaine	1	N/A	290	N/A	290	290	290	290	290	290
Custer	2	N/A	315	315	315	315	318	315	315	315
Custer	1	N/A	561	555	556	550	550	528	534	536
Custer	5	N/A	503	495	498	492	491	484	476	479
Lincoln	2	320	320	320	320	320	290	290	290	290
McPherson	1	N/A	N/A	250	250	N/A	250	250	250	250

Source: 2013 Abstract of Assessment, Form 45, Schedule IX

2013 Correlation Section for Logan County

A. Agricultural Land

Logan County is part of the Nebraska Sand Hills. The counties in this region have similar soil characteristics, the most commonly referenced soils are the Valentine series, Ipage series, Els series, Dunday series and the Elsmere series. However, an obvious difference between the counties would be the lack of meadows and rougher terrain with longer rooted grasses since the distance to ground water is greater, which is typical of Hooker, Logan, McPherson and Thomas counties. Most of the area comprises the native grasses. However, the South Loup River flows into the southern part of the county and it is here that the cropland is most prevalent. Most of the uplands in this area are covered with thick deposits of loess; extensive terraces are in the valleys along the Loup. Most recognized soils in the crop land would be the Coly series, Hobbs series, Hord, and Uly series, and Holdrege series.

Logan County is included in the Upper Loup Natural Resource District, there is a small area that has moratoriums and restrictions, but part of the district has a 2500 acre annual new well maximum.

The primary roads through Logan County are highway 83 running north to south and highway 92 running east to west. Good roads and proximity to the sale barns are an attribute that affects the local grass markets.

The number of agricultural sales in this county is limited. The sample is not proportionate throughout the study years. Sales need to be brought into the analysis to make it a beneficial tool in the measurement of the agricultural property class. Comparable sales were looked for in the surrounding counties of Thomas, Blaine, Custer (market areas 1, 2 & 5), Lincoln (market area 2), and McPherson counties. The expanded sample was then considered adequate and proportionate and there was not a difference of more than 10 percentage points between each study year.

The analysis, based on a sample of 27 sales, demonstrated the overall median to be 67.36% with a coefficient of dispersion (COD) of 30.69; the COD is being affected by the mix of sales and not the quality of work done. Within the subclass Majority Land Use (MLU) greater than 95% strata grass the median is shown to be 74.89% (75% rounded) utilizing 21 sales. The median for the subclass MLU greater than 95% strata grass will be given the most consideration in determining the level of value for Logan County since the makeup of the county is 88% grass, 7% irrigated and 4% dry. This determination factor is consistent with other sand hills counties where the makeup of the county is primarily grass and the measurement is not affected by the occasional dry or irrigated sale(s).

Since the number of sales across the sand hills depends on the supply of land, most of the sand hills appear to be subject to the same motivational factors driving the market in this region. Many of the sales are shared between the counties to develop reliability in their data and make well informed decisions that will create uniform and proportionate assessments. Grass values were not changed for 2013 but remain uniform and proportionate with adjoining counties. Based on an analysis of more current sales and the intensified market for irrigated and dry land the values were changed for these agricultural classes to recognize the movement in the

**2013 Correlation Section
for Logan County**

market. The irrigated values increased by an average of 38%, the dry land values increased by an average of 68%.

Other work included updating GIS maps to the 2012 FSA maps and reviewing approximately thirty-three percent of Logan County in the northeast section. New pictures were taken of the improvements and entered into the TerraScan system. All pickup work was completed and if there were new improvements out on the farm sites new pictures were taken them and downloaded into TerraScan.

Based on the consideration of all available information, the level of value is determined to be 75% of market value for the agricultural land class of property.

There are no non-binding recommendations for adjustment made for the agricultural class of property in Logan County.

**2013 Correlation Section
for Logan County**

B. Analysis of Sales Verification

Neb. Rev. Stat. § 77-1327(2) (2011) provides that all sales are deemed to be arms length transactions unless determined to be otherwise under professionally accepted mass appraisal techniques. The county assessor is responsible for the qualification of the sales included in the state sales file.

The Standard on Ratio Studies, International Association of Assessing Officials (2010), indicates that excessive trimming (the arbitrary exclusion or adjustment of arms length transactions) may indicate an attempt to inappropriately exclude arms length transactions to create the appearance of a higher level of value and quality of assessment. The sales file, in a case of excess trimming, will fail to properly represent the level of value and quality of assessment of the population of real property.

The Nebraska Department of Revenue, Property Assessment Division (Division) frequently reviews the procedures used by the county assessor to qualify sales to ensure bias does not exist in judgments made. Arms length transactions should only be excluded when they compromise the reliability of the resulting statistics. In cases where a county assessor has disqualified sales without substantiation, the Division may include such sales in the ratio study.

2013 Correlation Section for Logan County

C. Measures of Central Tendency

There are three measures of central tendency calculated by the Division: median ratio, weighted mean ratio, and mean ratio. Since each measure of central tendency has strengths and weaknesses, the use of any statistic for equalization should be reconciled with the other two, as in an appraisal, based on the appropriateness of the use of the statistic for a defined purpose, the quantity of the information from which it was drawn, and the reliability of the data that was used in its calculation. An examination of the three measures can serve to illustrate important trends in the data if the measures do not closely correlate to each other.

The International Association of Assessing Officers (IAAO) considers the median ratio the most appropriate statistical measure for use in determining level of value for direct equalization; the process of adjusting the values of classes or subclasses of property in response to the determination of level of value at a point above or below a particular range. Since the median ratio is considered neutral in relationship to either assessed value or selling price, its use in adjusting the class or subclass of properties will not change the relationships between assessed value and level of value already present within the class or subclass of properties, thus rendering an adjustment neutral in its impact on the relative tax burden to an individual property. Additionally, the median ratio is less influenced by the presence of extreme ratios, commonly called outliers. One outlier in a small sample size of sales can have controlling influence over the other measures of central tendency. The median ratio limits the distortion potential of an outlier.

The weighted mean ratio is viewed by the IAAO as the most appropriate statistical measure for indirect equalization. The weighted mean, because it is a value weighted ratio, best reflects a comparison of the assessed and market value of property in the political subdivision. If the distribution of aid to political subdivisions must relate to the market value available for assessment in the political subdivision, the measurement of central tendency used to analyze level of value should reflect the dollars of value available to be assessed. The weighted mean ratio does that more than either of the other measures of central tendency.

If the weighted mean ratio, because of its dollar-weighting feature, is significantly different from the median ratio, it may be an indication of other problems with assessment proportionality. When this occurs, an evaluation of the county's assessment practices and procedures is appropriate to discover remedies to the situation.

The mean ratio is used as a basis for other statistical calculations, such as the price related differential and coefficient of variation. However, the mean ratio has limited application in the analysis of level of value because it assumes a normal distribution of the data set around the mean ratio with each ratio having the same impact on the calculation regardless of the assessed value or the selling price.

2013 Correlation Section for Logan County

D. Analysis of Quality of Assessment

In analyzing the statistical data of assessment quality, there are two measures upon which assessment officials will primarily rely: the Coefficient of Dispersion (COD), and the Price Related Differential (PRD). Whether such statistics can be relied upon as meaningful for the population depends on whether the sample is representative.

The COD is commonly referred to as the index of assessment inequality. It is used to measure how closely the individual ratios are clustered around the median ratio and suggests the degree of uniformity or inaccuracy resulting in the assessments. The COD is computed by dividing the average deviation by the median ratio. For example, a COD of 20 means half of the ratios are 20 percent above or below the median. The closer the ratios are grouped around the median, the more equitable the assessment of property tends to be. Conversely, if the dispersion is quite large, there is a large spread in the ratios typically indicating a large spread around the median in the assessment of property, which results in an inequity in assessment and taxes. There is no range of acceptability stated in the Nebraska statutes for the COD measure. The IAAO recommended ratio study performance standards are as follows:

Single-family residences: a COD of 15 percent or less.

For newer and fairly homogeneous areas: a COD of 10 or less.

Income-producing property: a COD of 20 or less, or in larger urban jurisdictions, 15 or less.

Vacant land and other unimproved property, such as agricultural land: a COD of 20 or less.

Rural residential and seasonal properties: a COD of 20 or less.

Mass Appraisal of Real Property, International Association of Assessing Officers, (1999), p. 246.

In unusually homogeneous types of property low CODs can be anticipated; however, in all other cases CODs less than 5 percent may be indicative of non-representative samples or the selective reappraisal of sold parcels.

Note that as market activity changes or as the complexity of properties increases, the measures of variability usually increase, even though appraisal procedures may be equally valid. Standard on Ratio Studies—2010, International Association of Assessing Officers, (2010), p. 13.

The PRD, also known as the index of regression, is a measurement of the relationship between the ratios of high-value and low-value properties to determine if the value of property has any influence on the assessment ratio. It is calculated by dividing the arithmetic mean ratio by the weighted mean ratio. The PRD provides an indicator of the degree to which high-value properties are over-assessed or under-assessed in relation to low-value properties. A PRD of 100 indicates there is no bias in the assessment of high-value properties in comparison to low-value properties. A PRD greater than 100 indicates the assessments are regressive, which means low-value properties tend to have a higher assessment ratio than high-value properties. The result is the owner of a low-value property pays a greater amount of tax in relation to value than the owner of a high-value property. Conversely, a PRD less than 100 indicates that

**2013 Correlation Section
for Logan County**

high-value properties are over assessed in relation to low-value properties.

There is no range of acceptability stated in the Nebraska statutes for the PRD measure. The Standard on Ratio Studies, adopted by the International Association of Assessing Officers, January, 2010, recommends that the PRD should lie between 98 and 103. This range is centered slightly above 100 to allow for a slightly upward measurement bias inherent in the PRD.

The PRD is calculated based on the selling price/assessed value in the sales file. This measure can be misleading if the dollar value of the records in the sales file is not proportionate to the dollar value of records in the population.

Mass Appraisal of Real Property, International Association of Assessing Officers, (1999), p. 239.

Total Real Property Sum Lines 17, 25, & 30	Records : 1,474	Value : 182,600,438	Growth 486,167	Sum Lines 17, 25, & 41
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Schedule I : Non-Agricultural Records

	Urban		SubUrban		Rural		Total		Growth
	Records	Value	Records	Value	Records	Value	Records	Value	
01. Res UnImp Land	69	163,414	0	0	6	1,425	75	164,839	
02. Res Improve Land	165	822,652	0	0	36	675,449	201	1,498,101	
03. Res Improvements	166	7,665,452	0	0	36	3,672,935	202	11,338,387	
04. Res Total	235	8,651,518	0	0	42	4,349,809	277	13,001,327	234,970
% of Res Total	84.84	66.54	0.00	0.00	15.16	33.46	18.79	7.12	48.33
05. Com UnImp Land	8	58,681	0	0	0	0	8	58,681	
06. Com Improve Land	34	132,995	0	0	2	52,184	36	185,179	
07. Com Improvements	34	1,129,676	0	0	2	492,849	36	1,622,525	
08. Com Total	42	1,321,352	0	0	2	545,033	44	1,866,385	0
% of Com Total	95.45	70.80	0.00	0.00	4.55	29.20	2.99	1.02	0.00
09. Ind UnImp Land	0	0	0	0	0	0	0	0	
10. Ind Improve Land	0	0	0	0	0	0	0	0	
11. Ind Improvements	0	0	0	0	0	0	0	0	
12. Ind Total	0	0	0	0	0	0	0	0	0
% of Ind Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13. Rec UnImp Land	0	0	0	0	0	0	0	0	
14. Rec Improve Land	0	0	0	0	0	0	0	0	
15. Rec Improvements	0	0	0	0	0	0	0	0	
16. Rec Total	0	0	0	0	0	0	0	0	0
% of Rec Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Res & Rec Total	235	8,651,518	0	0	42	4,349,809	277	13,001,327	234,970
% of Res & Rec Total	84.84	66.54	0.00	0.00	15.16	33.46	18.79	7.12	48.33
Com & Ind Total	42	1,321,352	0	0	2	545,033	44	1,866,385	0
% of Com & Ind Total	95.45	70.80	0.00	0.00	4.55	29.20	2.99	1.02	0.00
17. Taxable Total	277	9,972,870	0	0	44	4,894,842	321	14,867,712	234,970
% of Taxable Total	86.29	67.08	0.00	0.00	13.71	32.92	21.78	8.14	48.33

Schedule II : Tax Increment Financing (TIF)

	Urban			SubUrban		
	Records	Value Base	Value Excess	Records	Value Base	Value Excess
18. Residential	0	0	0	0	0	0
19. Commercial	0	0	0	0	0	0
20. Industrial	0	0	0	0	0	0
21. Other	0	0	0	0	0	0
	Rural			Total		
	Records	Value Base	Value Excess	Records	Value Base	Value Excess
18. Residential	0	0	0	0	0	0
19. Commercial	0	0	0	0	0	0
20. Industrial	0	0	0	0	0	0
21. Other	0	0	0	0	0	0
22. Total Sch II				0	0	0

Schedule III : Mineral Interest Records

Mineral Interest	Urban		SubUrban		Rural		Total		Growth
	Records	Value	Records	Value	Records	Value	Records	Value	
23. Producing	0	0	0	0	0	0	0	0	0
24. Non-Producing	0	0	0	0	14	860	14	860	0
25. Total	0	0	0	0	14	860	14	860	0

Schedule IV : Exempt Records : Non-Agricultural

	Urban Records	SubUrban Records	Rural Records	Total Records
26. Exempt	22	0	7	29

Schedule V : Agricultural Records

	Urban		SubUrban		Rural		Total	
	Records	Value	Records	Value	Records	Value	Records	Value
27. Ag-Vacant Land	0	0	0	0	944	124,398,203	944	124,398,203
28. Ag-Improved Land	0	0	0	0	183	29,924,764	183	29,924,764
29. Ag Improvements	0	0	0	0	195	13,408,899	195	13,408,899
30. Ag Total							1,139	167,731,866

Schedule VI : Agricultural Records :Non-Agricultural Detail

	Urban			SubUrban			Growth
	Records	Acres	Value	Records	Acres	Value	
31. HomeSite UnImp Land	0	0.00	0	0	0.00	0	
32. HomeSite Improv Land	0	0.00	0	0	0.00	0	
33. HomeSite Improvements	0	0.00	0	0	0.00	0	
34. HomeSite Total							
35. FarmSite UnImp Land	0	0.00	0	0	0.00	0	
36. FarmSite Improv Land	0	0.00	0	0	0.00	0	
37. FarmSite Improvements	0	0.00	0	0	0.00	0	
38. FarmSite Total							
39. Road & Ditches	0	0.00	0	0	0.00	0	
40. Other- Non Ag Use	0	0.00	0	0	0.00	0	
	Rural			Total			
	Records	Acres	Value	Records	Acres	Value	
31. HomeSite UnImp Land	3	4.00	20,000	3	4.00	20,000	
32. HomeSite Improv Land	147	162.10	810,500	147	162.10	810,500	
33. HomeSite Improvements	150	157.10	10,353,416	150	157.10	10,353,416	251,197
34. HomeSite Total				153	166.10	11,183,916	
35. FarmSite UnImp Land	3	3.00	1,500	3	3.00	1,500	
36. FarmSite Improv Land	165	177.00	107,261	165	177.00	107,261	
37. FarmSite Improvements	182	0.00	3,055,483	182	0.00	3,055,483	0
38. FarmSite Total				185	180.00	3,164,244	
39. Road & Ditches	0	1,598.35	0	0	1,598.35	0	
40. Other- Non Ag Use	0	0.00	0	0	0.00	0	
41. Total Section VI				338	1,944.45	14,348,160	251,197

Schedule VII : Agricultural Records :Ag Land Detail - Game & Parks

	Urban			SubUrban		
	Records	Acres	Value	Records	Acres	Value
42. Game & Parks	0	0.00	0	0	0.00	0
	Rural			Total		
	Records	Acres	Value	Records	Acres	Value
42. Game & Parks	0	0.00	0	0	0.00	0

Schedule VIII : Agricultural Records : Special Value

	Urban			SubUrban		
	Records	Acres	Value	Records	Acres	Value
43. Special Value	0	0.00	0	0	0.00	0
44. Recapture Value N/A	0	0.00	0	0	0.00	0
	Rural			Total		
	Records	Acres	Value	Records	Acres	Value
43. Special Value	0	0.00	0	0	0.00	0
44. Market Value	0	0	0	0	0	0

* LB 968 (2006) for tax year 2009 and forward there will be no Recapture value.

Schedule IX : Agricultural Records : Ag Land Market Area Detail

Market Area 1

Irrigated	Acres	% of Acres*	Value	% of Value*	Average Assessed Value*
45. 1A1	0.00	0.00%	0	0.00%	0.00
46. 1A	5,463.52	19.28%	10,653,900	24.12%	1,950.01
47. 2A1	3,814.46	13.46%	6,827,897	15.46%	1,790.00
48. 2A	3,994.67	14.09%	7,150,471	16.19%	1,790.00
49. 3A1	2,499.00	8.82%	3,411,142	7.72%	1,365.00
50. 3A	2,691.53	9.50%	3,673,944	8.32%	1,365.00
51. 4A1	5,599.74	19.76%	7,055,667	15.97%	1,260.00
52. 4A	4,281.10	15.10%	5,394,189	12.21%	1,260.00
53. Total	28,344.02	100.00%	44,167,210	100.00%	1,558.25
Dry					
54. 1D1	0.00	0.00%	0	0.00%	0.00
55. 1D	3,313.21	22.57%	2,551,184	27.03%	770.00
56. 2D1	1,152.91	7.85%	841,631	8.92%	730.01
57. 2D	1,747.30	11.90%	1,275,550	13.51%	730.01
58. 3D1	2,131.56	14.52%	1,428,155	15.13%	670.00
59. 3D	1,076.81	7.34%	581,480	6.16%	540.00
60. 4D1	3,465.00	23.60%	1,819,173	19.27%	525.01
61. 4D	1,793.29	12.22%	941,507	9.97%	525.02
62. Total	14,680.08	100.00%	9,438,680	100.00%	642.96
Grass					
63. 1G1	0.00	0.00%	0	0.00%	0.00
64. 1G	1,234.11	0.39%	388,750	0.39%	315.00
65. 2G1	2,158.85	0.68%	680,043	0.68%	315.00
66. 2G	4,512.51	1.43%	1,421,460	1.43%	315.00
67. 3G1	871.91	0.28%	274,654	0.28%	315.00
68. 3G	10,515.22	3.32%	3,312,299	3.32%	315.00
69. 4G1	28,290.14	8.93%	8,911,410	8.93%	315.00
70. 4G	269,071.09	84.97%	84,757,456	84.97%	315.00
71. Total	316,653.83	100.00%	99,746,072	100.00%	315.00
Irrigated Total					
	28,344.02	7.83%	44,167,210	28.80%	1,558.25
Dry Total					
	14,680.08	4.06%	9,438,680	6.15%	642.96
Grass Total					
	316,653.83	87.52%	99,746,072	65.03%	315.00
72. Waste	2,103.54	0.58%	31,556	0.02%	15.00
73. Other	37.51	0.01%	188	0.00%	5.01
74. Exempt	0.00	0.00%	0	0.00%	0.00
75. Market Area Total	361,818.98	100.00%	153,383,706	100.00%	423.92

Schedule X : Agricultural Records :Ag Land Total

	Urban		SubUrban		Rural		Total	
	Acres	Value	Acres	Value	Acres	Value	Acres	Value
76. Irrigated	0.00	0	0.00	0	28,344.02	44,167,210	28,344.02	44,167,210
77. Dry Land	0.00	0	0.00	0	14,680.08	9,438,680	14,680.08	9,438,680
78. Grass	0.00	0	0.00	0	316,653.83	99,746,072	316,653.83	99,746,072
79. Waste	0.00	0	0.00	0	2,103.54	31,556	2,103.54	31,556
80. Other	0.00	0	0.00	0	37.51	188	37.51	188
81. Exempt	0.00	0	0.00	0	0.00	0	0.00	0
82. Total	0.00	0	0.00	0	361,818.98	153,383,706	361,818.98	153,383,706

	Acres	% of Acres*	Value	% of Value*	Average Assessed Value*
Irrigated	28,344.02	7.83%	44,167,210	28.80%	1,558.25
Dry Land	14,680.08	4.06%	9,438,680	6.15%	642.96
Grass	316,653.83	87.52%	99,746,072	65.03%	315.00
Waste	2,103.54	0.58%	31,556	0.02%	15.00
Other	37.51	0.01%	188	0.00%	5.01
Exempt	0.00	0.00%	0	0.00%	0.00
Total	361,818.98	100.00%	153,383,706	100.00%	423.92

2013 County Abstract of Assessment for Real Property, Form 45 Compared with the 2012 Certificate of Taxes Levied (CTL)

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	2012 CTL County Total	2013 Form 45 County Total	Value Difference (2013 form 45 - 2012 CTL)	Percent Change	2013 Growth (New Construction Value)	Percent Change excl. Growth
01. Residential	12,648,149	13,001,327	353,178	2.79%	234,970	0.93%
02. Recreational	0	0	0		0	
03. Ag-Homesite Land, Ag-Res Dwelling	11,219,511	11,183,916	-35,595	-0.32%	251,197	-2.56%
04. Total Residential (sum lines 1-3)	23,867,660	24,185,243	317,583	1.33%	486,167	-0.71%
05. Commercial	1,868,258	1,866,385	-1,873	-0.10%	0	-0.10%
06. Industrial	0	0	0		0	
07. Ag-Farmsite Land, Outbuildings	3,000,013	3,164,244	164,231	5.47%	0	5.47%
08. Minerals	860	860	0	0.00	0	0.00
09. Total Commercial (sum lines 5-8)	4,869,131	5,031,489	162,358	3.33%	0	3.33%
10. Total Non-Agland Real Property	28,736,791	29,216,732	479,941	1.67%	486,167	-0.02%
11. Irrigated	29,811,201	44,167,210	14,356,009	48.16%		
12. Dryland	6,338,738	9,438,680	3,099,942	48.90%		
13. Grassland	99,929,208	99,746,072	-183,136	-0.18%		
14. Wasteland	31,838	31,556	-282	-0.89%		
15. Other Agland	188	188	0	0.00%		
16. Total Agricultural Land	136,111,173	153,383,706	17,272,533	12.69%		
17. Total Value of all Real Property (Locally Assessed)	164,847,964	182,600,438	17,752,474	10.77%	486,167	10.47%

LOGAN COUNTY 3-YEAR PLAN OF ASSESSMENT

June 12, 2012

Logan County has 276 residential properties, 43 Commercial Properties and 1138 agricultural properties. There are an estimated 165 personal property filings each year and estimated 25 homestead exemptions.

Logan County has an official and one deputy that deal with listing of properties, determining values and filing personal property schedules. The county also hires a part-time appraiser to help with determining values and depreciation. The deputy handles most of the computer work such as data entry, sketching, record changes, and running necessary reports. The official has final responsibility of setting values for all classes of property.

The County assessor maintains the cadastral mapping system at the time of the recording of a deed. The records have current ownership and land depreciation.

Aerials were taken 2001-2002. Actions that were completed for 2012 are as follows: GIS acres were implemented for 2012 and studied ag- land use. Ag-land sales were studied and no change was needed according to sales study period. We reviewed Gandy Village and took pictures of all improvements and inserted them into the TerraScan system. No change for Gandy Village lots for 2012. Gandy Commercial lot values for 2012 weren't changed from 2007. We reviewed Stapleton Village and took pictures of all improvements and inserted them into the TerraScan system. No change for Stapleton Village Lots for 2012. We reviewed the Commercial property for Stapleton and Gandy and took pictures of all improvements and inserted into TerraScan System. Stapleton Commercial land values were not changed in 2012. Rural Commercial land remained the same as 2007. 2009 Depreciation schedule was used for residential property rural, Stapleton Village and Gandy Village. 2008 Marshall Swift Pricing for Rural, Gandy Village and Stapleton was used for 2012. 2008 Marshall Swift pricing, with 2009 depreciation for rural outbuildings, for improvements that are not included on Marshall Swift Pricing. 2006 depreciation schedule for Mobile Homes located in rural and villages was used for 2012 may need to look at the depreciation for 2013, small number of mobile homes located in Logan County. Ag sites for 4000 were not changed. Rural Ag sites 4500 for 2009 were redefined and revalued same value that was used in 2009 for 2012.

We start our pickup work as time allows. We list all pickup work in a notebook. This work is completed timely according to statute. In 2012-2014 we plan to drive the County and review all property. Work on the assessor's record files. Study Ag-land and take pictures of rural improvements to insert in TerraScan system. Review quality and condition classifications for improved residential property. Plan to update Marshall Swift Pricing to 2011 for Rural, Gandy Village and Stapleton Village and work with depreciation schedules for Rural, Gandy Village and Stapleton Village.

Assessor completes 521 data as soon as possible.

Reports of the Logan County Assessor are filed on time.

Homestead Exemption applications are filed on or before June 30. State Statute.

State Statutes, rules and regulations are followed in filing personal property schedules and abstracts are filed on time.

Pat Harvey
Logan County Assessor

2013 Assessment Survey for Logan County

A. Staffing and Funding Information

1.	Deputy(ies) on staff:
	1
2.	Appraiser(s) on staff:
	0
3.	Other full-time employees:
	0
4.	Other part-time employees:
	0
5.	Number of shared employees:
	0
6.	Assessor's requested budget for current fiscal year:
	\$ 58,062.30
7.	Adopted budget, or granted budget <i>if different from above</i>:
	Same
8.	Amount of the total assessor's budget set aside for appraisal work:
	\$ 14,550.00
9.	If appraisal/reappraisal budget is a separate levied fund, what is that amount:
	Not applicable.
10.	Part of the assessor's budget that is dedicated to the computer system:
	0
11.	Amount of the assessor's budget set aside for education/workshops:
	\$ 4,000
12.	Other miscellaneous funds:
	\$ 39,512.30 (includes computer expenses)
13.	Amount of last year's assessor's budget not used:
	\$ 12,978.59

B. Computer, Automation Information and GIS

1.	Administrative software: TerraScan (owned by Thomson Reuters)
2.	CAMA software: TerraScan (owned by Thomson Reuters)
3.	Are cadastral maps currently being used? Yes
4.	If so, who maintains the Cadastral Maps? Assessor
5.	Does the county have GIS software? Yes
6.	Is GIS available to the public? If so, what is the web address? Not at this time.
7.	Who maintains the GIS software and maps? GIS Western Resources, Inc.
8.	Personal Property software: TerraScan (owned by Thomson Reuters)

C. Zoning Information

1.	Does the county have zoning? Yes
2.	If so, is the zoning countywide? No – only the rural area is zoned.
3.	What municipalities in the county are zoned? None
4.	When was zoning implemented? 2003

D. Contracted Services

1.	Appraisal Services: A contract appraiser will be hired when needed.
2.	GIS Services: GIS Western Resources, Inc.
3.	Other services: TerraScan (owned by Thomson Reuters)

E. Appraisal /Listing Services

1.	Does the county employ outside help for appraisal or listing services? Not at this time.
2.	If so, is the appraisal or listing service performed under contract? Not applicable.
3.	What appraisal certifications or qualifications does the County require? Not applicable.
4.	Have the existing contracts been approved by the PTA? Not applicable.
5.	Does the appraisal or listing service providers establish assessed values for the county? Not applicable.

2013 Certification for Logan County

This is to certify that the 2013 Reports and Opinions of the Property Tax Administrator have been sent to the following:

One copy by electronic transmission to the Tax Equalization and Review Commission.

One copy by electronic transmission to the Logan County Assessor.

Dated this 5th day of April, 2013.



A handwritten signature in black ink that reads "Ruth A. Sorensen".

Ruth A. Sorensen
Property Tax Administrator

