# Assessment and Taxation of Rural Real Estate

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## Assessment and Taxation of Rural Real Estate

#### L. A. Parcher\*

A property tax is an annual levy by a governmental unit on the value of certain privately owned physical assets. Generally, the asset most heavily taxed is real estate. Although personal property is subject to tax in Oklahoma, much of it is never rendered to the assessor and what is rendered is assessed at but a small fraction of its value.<sup>1</sup>

The general property tax is one of the oldest sources of revenue utilized by government. It had its beginnings in the United States in the early post-Revolutionary War period. Initially, acceptance of the tax was favored by three factors: (a) tax levies ordinarily were low; (b) most of the tax revenues were used for local purposes; and (c) land ownership usually was closely correlated to an individual's wealth and his ability to pay.<sup>2</sup> In spite of increasing criticism of the tax in more recent years, it will still remain a major source of local government revenue. The criticism of the tax hinges primarily on two points:

- 1. The inequity of the tax burden among properties because of inequitable assessments; and
- 2. it does not discriminate between differences in owner's ability to pay because as family income rises, the ratio of tangible property subject to tax and total wealth tends to decline.

In addition to the primary criticism, the high mobility of the population has been given as a reason for placing less dependence on the property tax for local support of schools. The argument is that too often the local community loses the product of the tax, the student, when he reaches a productive age. Therefore, it is reasoned, his education should be paid for by society as a whole, since the local community will receive only incidental benefits.3

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 <sup>1</sup>There is currently much discussion about the possibility of removing personal property from the tax base altogether, partly because of the variation in rendition. If this should be done it would erase nearly 20 percent of the ad valorem tax base.
 <sup>20</sup> Taxation of Agriculture", Raleigh Barlowe in Property Taxation USA, Richard W. Lindholm, Editor, University of Wisconsin Press, Madison, 1969.
 <sup>30</sup> The Changing Role of the Property Tax", John D. Helmberger, Minnesota Agricultural Economist No. 539, Feb., 1971, Agri. Ext. Service, University of Minnesota. See also Holland and Tweeten, "Migration Patterns of Eastern Oklahoma High School Graduates" Current Farm Economics Vol. 44, No. 1, Okla. Agri. Exp. Station.

The ad valorem tax on real estate, however, has persisted as a source of governmental revenue, at least partly, because of the difficulty it has of escaping taxation. Real estate not only is easily found, but is immobile, and a relatively stable tax basis.

The ad valorem tax in Oklahoma is levied only for local government expenditures, that is, cities, counties, and school districts. Early in the State's history, and for many years thereafter, local government revenue was almost entirely a product of the property tax. In recent decades, however, an increasing proportion of local government revenue comes from taxes and other income collected by the State or Federal governments and allocated to local governmental units. In 1968-69, however, more than half of all local government expenditures in Oklahoma were raised by the ad valorem tax.

Table 1 shows the sources of local government revenue in 1968-69. While local government income from State and Federal sources was substantial, the ad valorem tax was the source of 53 percent of total local government revenue. Of the total amount raised from ad valorem taxation, roughly 19 percent came from personal property and 24 percent from public service property. If ad valorem taxes were entirely elimated, local government revenue would, of course, have to come from other sources. For example, a doubling of the sales tax and tripling of the income tax would just about equal the revenue currently raised by the ad valorem tax.

#### Table 1. Sources and Amounts of Income of Local Governments, Oklahoma, 1968-1969.<sup>1</sup>

Revenue Sources of	Amount of Dollars	Percent of Total
Local School Districts:		
State Dedicated or Earmarked funds	40,289,645	8.59
School Land Earnings	3,954,505	.84
Legislative Appropriation	84,735,509	18.08
Federal Aid	36,626,041	7.81
County Revenue from State Sources		
For Roads	44,137,625	9.41
City and Town Revenue from State		
Sources	9,009,999	1.92
Total Non Ad Valorem Revenue	218,753,324	46.66
Ad Valorem Tax Revenue (estimated) <sup>2</sup>	250,040,000	53.34
Total Revenue, All Sources	\$468,793,324	100.00

<sup>1</sup>Source of data: The Oklahoma Tax Commission. <sup>2</sup>Based on the net assessed value of real and personal property including public service property. The State average millage rate, as reported by the Tax Commission, of 73.81 was applied to the net assessed values to arrive at this estimate of ad valorem revenue. Other local government revenue not shown here would include city sales taxes, which are becoming a significant source of local revenue and fines, fees, and other charges.

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Any tax as important as the property tax to the continued operation of local government and one as surrounded by criticism deserves continued attention.

#### **Problems and Needs for Study**

A persistent problem in the general property tax lies in the difficulty of assigning a fair assessed value to a property so that each owner shares the tax burden in proportion to the true value of his property. All counties of the State are now in the process of reassessing all real estate with the objective of minimizing assessment inequities not only within counties, but among counties. The 1967 Session Laws of the State of Oklahoma required each County Assessor to institute on or before January 1, 1969 a comprehensive program of reevaluation of all taxable property within his county.

While the Oklahoma Tax Commission has not attempted to study the equity of assessments, it has, through the years, made periodic calculations of average sales-assessment ratios in all counties of the State. In more recent years the average ratio in the State as a whole for all real estate both urban and rural has been around 18 to 20 percent of the sales price.<sup>4</sup> In 1969, average county ratios for all real estate varied from 10.1 percent to 25.9 percent. Oklahoma statutes now limit assessments to not more than 35 percent of the fair cash value of the property. The average county assessment ratio lies well within this limit.

In recent years, the trend in the assessment ratio for farm real estate has been downward. For example, in 1961 the average ratio in the State for rural property was 18.6 percent; in 1969 the ratio was 11.9 percent. The decline in the ratio occured due to the fact that while farm real estate market prices were increasing by about 9 percent per year during the period,<sup>5</sup> net assessed values were increasing only by about 1.25 percent annually, Table 2. With an average tax rate increase of 3.2 percent per year, the levy on farm property showed an average increase of about 5.0 percent per year between 1960 and 1969.

### **Objectives**

The objective of this study is to examine in considerable detail assessment ratios and taxation of rural land in selected counties of the state.

<sup>&</sup>lt;sup>4</sup>This figure is much lower than it was, say in 1936 when the ratio was 54.4 percent or in 1940 when it was 51.6 percent. In 1940, county average ratios ranged from 38.6 percent to 66.3 percent. Ratio data are from the Annual Reports of the Oklahoma Tax Commission Ratio Study. <sup>5</sup>Data Published in Farm Real Estate Market Developments, Economic Research Service, U.S.D.A.

Year	Net Assessed Value in Million Dollars	Percent Increase from Previous Year	Ad Va'orem Tax Rate in Mills Per Do!lar	Index of Farm Real Estate Values	Percent Increases from Previous Year
1960	583.3		57.42	115	
1961	583.3	0	56.53	115	0
1962	595.9	2	53.44	124	8
1963	601.1	1	59.23	136	10
1964	604.8	1	59.27	145	7
1965	620.7	3	65.79	153	9
1966	629.7	1	68.50	169	7
1967	626.4	(—1)	69.75	182	8
1968	636.2	2	72.42	200	10
1969	657.6	3	73.81	207	4
1969 as Pct.					
1960	112.7		128.50	180	

Table 2. Trend in Net Assessed Valuation of Farmland and Improvements, the State Index of Farm Real Estate Values, and Average Tax Rates, Oklahoma, 1960-1969.

Oklahoma Tax Commission Reports and Farm Real Estate Market Reports of the U. S. Department of Agriculture. Source

#### Procedure

Eleven counties, most of which would be classed as rural in nature, were selected for extensive study.<sup>6</sup> One basis for selection was the availability of a soil survey of the county so as to enable the researcher to make a valid analysis of sales. Another basis was the distribution of the counties so as to have several areas of the State represented.

All sales of farm land of 40 acres or more occurring during the period 1966, 1967, and the first half of 1968 in the selected counties were examined and pertinent data recorded for sales deemed to be valid market transactions. The value assigned to the transaction was based on the value of the revenue stamp affixed to the deed.<sup>7</sup> The availability of a soil classification map enabled the researcher to eliminate from consideration those sales for which the price, based on the revenue stamps, seemed to be inconsistent with the price paid for similar quality land; quality being considered an amalgam of land type, location, and assessed value of improvements.

After a sale was accepted as representative of market price, the 1968 assessed value of the land and improvements was obtained from the

<sup>\*</sup>See accompanying map of state-Adair, Cotton, Greer, Harper, Kingfisher, Logan, Noble, Ottawa, Rogers, Texas and Woodward Counties. 'This method of estimating sales price is of course, open to criticism. One can never be sure that the deed is correctly stamped. However, a study made some five years ago showed that considerable reliance may be placed on stamp values if caution is exercised in the selection of sales. See L. A. Parcher, 'Federal Revenue Stamps As An Indicator of Land Prices'', Oklahoma Current Farm Economics, Vol. 39, No. 1, Oklahoma Agricultural Experiment Station.

county assessor for each tract. The applicable tax rate was also obtained so that it was possible to calculate the levy on each tract.<sup>8</sup>

#### **Presentation of Data**

In the 11 county samples, 658 sales occured during the period studied that were deemed to be valid sales, Table 3. The average sales price during the two and one-half year period for the sampled counties was \$151 per acre, with county values varying from \$79 to \$250 per acre. The average acreage in each sale varied from 91 to 243 for the various counties with an over-all average of 149 acres. Assessed values per acre varied from \$8 to \$24 with an average of \$15 per acre. Assessment-sales ratios were not greatly dissimilar ranging from 8.3 percent to 11.9 percent with an over-all average of 9.9 percent.

Small variation in the assessment ratio among counties, however, is of minor concern since each county is a separate taxing unit. What is important is the wide variation in assessment-sales ratios found within a county. This study showed extremely wide ranges in the ratio. The average deviation from the mean ratio was as much as 68 percent in one county. The county with the narrowest range of ratios among properties still showed an average deviation from the mean of 19 percent.

These figures show the relatively wide dispersion of assessment ratios among properties and in the first case mentioned above a typical owner



Figure 1. Location of sampled counties.

<sup>&</sup>lt;sup>8</sup>Homestead exemption was ignored in this step. In Oklahoma the first \$1,000 of assessed value is exempt from taxation on property occupied by the owner. Ignoring homestead exemption placed both owner-occupied and rented property on the same basis.

could assume his assessment ratio might be 68 percent above or below the county average. In this particular county one property was assessed at four times the average ratio, while another was assessed at one-ninth the average. Even more importantly, one property was assessed at a ratio to its market value nearly 40 times as much as another. Extreme cases such as this would not be difficult to find in nearly any county, and tax officials must strive to narrow the range as much as possible.

Because one can always find extreme cases, it is likely that a more meaningful measure of inequity in assessments is revealed by grouping properties on the basis of their sales-assessment ratios. This hides the extremes, but should be a better measure of assessment tendencies. Accordingly, sales were separated into quintile groups according to their ratio of assessment. The first quintile being those properties which were in the lowest range of ratios of assessed value to sales value in the county; the fifth quintile, those properties which were in the highest range of assessment ratios, Table 4. It will be noted that when properties are so arranged there is an inverse relationship between assessment values and market values. The higher priced properties are assessed at a markedly lower ratio than are the lower priced properties. Not only do we find this relationship as an average for all counties, but the relationship is rarely violated in the individual counties.

An analysis was made of the data to learn the statistical relationship between the assessment ratio and price and size. The price per acre and the size of tract were the independent variables and the assessment ratio the dependent variable. The relationship between the dependent and independent variables is shown in Figure 2. Two significant relationships are revealed by the chart. First, small sized tracts typically were assessed at a higher ratio than larger tracts; and second, regardless of size, as the price per acre increased the assessment ratio fell. As can be seen, the ratio declines fairly rapidly as the price per acre increases to about \$150 or \$175 then the rate of decline diminishes, but the ratio continues to fall as the price per acre increases.9

If the value of real estate is an acceptable measure of the owner's ability to support local government, then there apparently is a disproportionate burden on owners of small tracts and/or tracts having a low value per acre. Assessors might be well advised to re-examine their assessments keeping in mind the general tendencies revealed by this analysis.

<sup>&</sup>lt;sup>9</sup>The slopes of the curves are based on the following: Ratio = 54.5 (Price/Acre)<sup>-.20467</sup> (Sizc)<sup>-.08298</sup> i.e., as the price per acre increased by one percent the assessment ratio declined by about .26 percent and as the size of tract increased by one percent the ratio declined by about .083 percent. The regression coefficients were found to be statistically significant at the 99 percent level for price per acre and at the 95 percent level for size of tract. The work of Freddie White, Graduate Assistant in the Department of Agricultural Economics, in divising and carrying out the statistical analysis made here is gratefully acknowledged.

 Table 3.
 Sales by Counties, Price Pair Per Acre, Average Size of Tract Sold, Average Assessed Value Per Acre, and the Ratio of Assessed Value to Price Paid.
 Selected Counties in Oklahoma 1966-1968.

ltem	Adair	Ottawa	Rogers	Kingfisher	Logan	Noble	Harper	Texas	Woodward	Cotton	Greer	Total
No. Sales	35	57	78	62	82	109	38	75	47	32	43	658
Price Per A (\$)*	79	143	206	250	165	174	112	123	92	139	146	151
Av. Size, Ac.*	107	91	99	135	139	147	178	212	243	178	135	149
Av. Ass'd. Val./Ac.*	8	18	17	24	15	19	11	11	9	15	14	15
Assmt./Sales Ratio, %	9.9	11.9	8.3	9.7	9.5	10.7	9.5	9.3	3 10.0	11.0	9.6	9.9

\*Nearest dollar or acre.

 Table 4.
 Average Assessment Ratios and Sales Price Per Acre at Selected Levels of Actual Assessment Ratios.

 Selected Counties, Oklahoma, 1966-1968.

County	1st Q	1st Quintile		2nd Quintile		3rd Quintile		4th Quintile		5th Quintile		All Sales	
	Av. Ratio	Av. Sales Price Per A											
Adair	3.8	101	7.7	124	11.4	56	15.6	55	27.2	49	9.9	79	
Ottawa	6.0	184	9.7	119	11.4	173	14.3	159	26.0	116	11.9	143	
Rogers	3.4	278	6.6	218	9.0	184	11.8	206	16.3	149	8.3	206	
Kingfisher	6.4	286	8.0	290	9.4	244	11.1	213	15.0	213	9.1	250	
Logan	5.8	248	8.3	206	9.8	158	12.0	120	18.9	82	9.5	165	
Noble	7.4	229	9.2	196	10.6	180	12.7	154	19.2	104	10.7	174	
Harper	5.5	168	8.0	128	9.1	120	11.4	101	17.7	60	9.5	112	
Texas	4.3	127	8.2	149	9.9	157	11.1	127	20.1	75	9.3	123	
Woodward	5.1	131	7.6	96	9.3	152	12.4	58	17.9	88	10.0	92	
Cotton	8.1	179	9.5	121	11.8	151	12.8	128	18.3	112	11.0	139	
Greer	5.1	163	8.1	162	10.1	174	11.7	143	17.5	88	9.6	146	
All Counties	5.7	189	8.2	172	10.0	166	12.0	121	18.1	105	9.9	151	



Figure 2. The relationship of the sales-assessment ratio to the price per acre by selected tract sizes.

There also appears to be a tendency for assessment values to cluster around the average. That is, the percentage spread in assessed value per acre is substantially less than is the sales prices per acre, Table 5. For example, in Table 3 the average assessed value per acre of all sales studied was \$15, but the average assessed value of those properties selling in the highest quintile range of price per acre was only 47 percent above the average. In contrast, the market price of these same properties was 79 percent above the average market price. Conversely, those properties selling in the lowest quintile range of price per acre sold, on the average, for 52 percent below the average price for all, but were assessed at only 40 percent below the average assessed value.

For the extreme quintile ranges of price paid per acre, the average market price at the highest quintile level was 270 percent above the average price paid for those properties selling in the lowest quintile range while the average assessment of the upper group was only 144 percent above the lowest group; an assessment spread only about half as great as the price spread.

Similar relationships were found in each of the individual counties and in every case the percentage spread between the low and high quintile price groups was narrower for assessed values than for market values.

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Table 5 confirms the relationship of size and unit value shown earlier in Figure 2. It will be noted that the high priced group of sales averaged much smaller in size and were assessed at a significantly lower ratio than the low priced group of sales. With the knowledge of the inequities revealed here assessors might find it useful, in their attempt to equalize assessments, to re-examine the properties on their tax rolls. Their initial hypothesis could be that tracts of 80 acres or less are likely to be under assessed and those of 320 acres or more are likely to be over assessed relative to their market values. Careful reexamination of each tract in the above categories might indicate where changes in assessed value appear to be in order.

			Sales	Price	Assessed	Value	Assmt.	Av.
Counties	Price Group	Acres	Total Dolla	Per A Irs	Total Dolla	Total Per A Dollars		
Adair	High 1/5	433	93,000	215	8,945	21	9.6	62
	Low 1/5	1,097	33,000	30	5,550	5	16.8	157
Ottawa	High 1/5	648	175,500	271	16,984	26	9.7	59
	Low 1/5	1,385	119,500	86	15,720	11	13.2	115
Rogers	High 1/5	1,099	449,500	409	30,435	28	6.8	78
•	Low 1/5	1,533	149,779	98	16,855	11	11.3	110
Kingfisher	High 1/5	1,633	593,500	363	45,720	28	7.7	126
Ū	Low 1/5	1,560	164,000	105	22,050	14	13.4	130
Logan	High 1/5	2,560	717,500	280	50,550	20	7.0	151
•	Low 1/5	2,462	207,000	84	31,600	13	15.3	137
Noble	High 1/5	2,670	761,500	285	68,200	26	9.0	127
	Low 1/5	2,789	282,000	101	41,770	15	14.8	139
Harper	High 1/5	1,128	214,000	190	14,490	13	6.8	141
	Low 1/5	1,160	59,500	51	7,335	6	12.3	145
Texas	High 1/5	2,668	624,500	234	46,085	17	7.4	157
	Low 1/5	5,959	385,000	65	37,365	6	9.7	397
Woodward	Higs 1/5	1,539	303,500	197	26,730	17	8.8	171
	Low 1/5	5,594	298,000	53	37,345	7	12.5	622
Cotton	High 1/5	940	203,500	216	19,600	21	9.6	134
	Low 1/5	1,920	180,000	94	21,015	11	11.7	274
Greer	High 1/5	970	256,000	264	22,415	23	8.8	103
	Low 1/5	1,240	79,500	64	10,115	8	12.7	138
All	High 1/5	16,288	4,392,000	270	350,154	22	8.0	122
	Low 1/5	26,699	1,957,279	73	246,720	9	12.6	204

Table 5.Sales Prices and Assessed Values, Assessment Ratios, and<br/>Average Size of Tract Sold Grouped into the Highest and<br/>Lowest Quintiles of Prices Paid Per Acre.

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An analysis was made to see the extent to which assessed values would have changed if each property had been assessed at the average ratio for the county, Table 6. While the total taxable value in the various counties would not have changed under equal assessment ratios, equitable assessments would have redistributed the tax burden so that property owners would have more nearly borne their fair share of the tax relative to the value of their property.<sup>10</sup>

The inequity in assessments particularly affected those owners whose properties were assessed in the lowest and highest quintiles of assessment ratios. The average for the eleven counties shows that properties assessed in the lowest quintile range of ratios had a distinct tax advantage in that under equitable assessment, their assessments would have been raised about 72 percent. Those properties assessed in the highest quintile range would have had their assessments lowered by about 46 percent under equitable assessments. To put it in a different perspective, and assuming the same tax rate, one might say that one-fifth of the property owners paid 74 percent *less* in taxes and another one-fifth paid 84 percent *more* in taxes than, in equity, they should have.

The disparity between the extreme quintiles in individual counties was even higher. For example, in five of the counties some taxpayers were assessed at half or less than in equity they should have been and as a consequence their contribution to local government revenue was much below that of taxpayers who were not so favored. At the other end of the scale, some taxpayers in two of the counties paid more than twice as much in taxes than they would have under more equal assessment ratios.

#### Tax Levies

When applicable tax rates were applied against each property the data showed that the tax levy per acre averaged 75 cents in the eleven counties. The tax levy in the various counties ranged from 40 cents to \$1.13 per acre; a figure which is not really significant since the average market value in some counties is much higher than in others.

A more meaningful figure is the tax levy per \$100 of market value. This figure should, in equity, be very nearly the same among counties and among properties. The average levy for all eleven counties was 52 cents per \$100 of market value and more than half the counties had an average levy within 10 percent of this figure. Even so, considerable variation among counties does exist, Table 7. The average levy per \$100 of value ranged from 44 cents to 83 cents among the eleven counties. But again, it is not differences in the average levy among counties that is of

<sup>&</sup>lt;sup>10</sup>I am fully aware of the impossible task an assessor has in meeting the criteria of absolute equals ratios. Not only are market prices constantly changing, but trends in price differ in different areas and on different types of property.

Sales-Assmt.	Lo	west							Hig	hest		All <sup>1</sup>
Ratios	1st Quintile		2nd (	2nd Quintile		3rd Quintile		4th Quintile		5th Quintile		
Counties	Equal Assmt.	Actual	Equal Assmt.	Actual	Equal Assmt.	Actual	Equal Assmt.	Actual	Equal Assmt.	Actual	Equal Assmt.	Actual
Adair	8,100	3,060	8,250	6,320	5,550	6,800	4,540	7,160	1,880	5,160	28,320	28,500
Ottawa	16,960	8,560	21,720	17,760	25,350	24,360	16,360	19,640	10,770	20,460	91,160	90,780
Rogers	29,800	12,360	39,050	30,960	27,190	29,320	18,840	26,740	16,720	32,880	131,600	132,260
Kingfisher	39,770	26,330	46,750	38,580	46,850	45,450	34,440	39,400	33,760	52,160	201,570	201,920
Logan	50,820	31,180	49,920	43,720	30,070	31,160	29,100	36,730	16,910	33,620	176,820	176,410
Noble	85,440	58,800	68,050	58,350	57,930	57,380	52,450	63,300	34,290	61,670	298,160	299,500
Harper	15,300	8,810	19,100	16,100	11,210	10,700	19,140	22,880	7,220	13,460	71,970	71,950
Texas	59,430	27,220	31,570	27,700	29,990	31,900	39,800	47,400	22,130	47,940	182,920	182,160
Woodward	14,950	7,590	16,500	12,460	33,900	31,590	32,050	39,780	7,300	13,070	104,700	104,490
Cotton	24,480	17,820	22,720	19,630	13,970	14,980	15,780	18,440	9,740	16,170	86,690	87,040
Greer	18,140	9,560	21,220	17,880	14,880	15,610	18,720	22,780	8,740	15,910	81,700	81,740
All	363,190	211,290	344,850	289,460	296,890	299,250	281,220	344,250	169,460	312,500	1,455,610	1,456,750
Under Equal Assessments Assessed Valu	les											
Would Have	been:	72 pct. H	ligher 1	9 pct. Higl	her Ip	ct. Lower	18 pct.	Lower 4	ló pct. Low	er		

# Table 6. Assessed Values by Counties Under Equal Assessment and Actual Assessed Values Grouped According to the Sales-Assessment Ratios.

<sup>1</sup>Figures theoretically should be the same in both columns, but are not because of rounding in calculations.

Table 7.	Average Levy Per	Acre and the L	evy Per \$100 of	Sales Price for	All and for t	he Highest and L	owest
	Quartiles of Tax	Levies, Selected	Counties, Oklah	oma, 1966-1968.			

ltem	Adair	O:tawa	Rogers	Kingfisher	Logan	Noble	Harper	Texas	Woodward	Cotton	Greer	All
Average Levy												
Per Acre	.40	.74	1.02	1.13	.77	.90	.49	.64	.56	.88	.81	.75
Levy Per												
\$100 Value												
Average	.51	.52	.50	.45	.83	.52	.44	.52	.61	.63	.55	.52
Highest												
Quartile	1.30	.88	.94	.72	.98	.96	.76	.87	.79	.86	1.03	.92
Lowest												
Quartile	.20	.24	.20	.29	.31	.32	.27	.25	.28	.40	.32	.28

prime importance ,because each county 15 a separate taxing unit.<sup>11</sup> Within counties, however, even though some school districts will vote for increased expenditures, the range in the levy should be relatively narrow. Any great difference in the levy per \$100 of value likely is due largely to discrepancies in assessments.

To examine this aspect, further analysis was made. We began with the assumption that some variation in assessments is impossible to eliminate. If this is true, then perhaps any levy within 25 percent of the average for the county is tolerable. It follows, then, that the upper and lower quartiles of levies per \$100 of value are so far from the average that levies at these levels are not tolerable and constitute a gross inequity in the tax burden on some property owners.

In one county, the levy per \$100 of value for those properties having levies in the upper quartile was  $6\frac{1}{2}$  times the levy on properties in the low quartile group. No other county showed such an extreme inequity, but serious inequities existed in all counties, Table 7.

If one can, for a moment, hypothesize that these eleven counties are representative of the situation in the State as a whole, we can say that largely because of inequitable assessments one-fourth of the rural property owners are heavily favored since they are paying ad valorem taxes only a little more than half that of the average owner. Another onefourth have an ad valorem tax bill of about 77 percent above the average and far greater than, in equity, they should have.

#### Summary

The ad valorem tax on real estate, an important source of local government revenue, has been subjected to increasing criticism in recent years. In Oklahoma, the criticism does not appear to stem so much from the absolute burden of the tax as it does from the inequity of the burden among properties. This study was undertaken to see whether the findings might suggest areas of improvement in the procedure through which property taxes are levied.

The study was confined to rural properties of 40 acres or more in eleven counties of the State. This is not to imply that problems of taxation are confined to the rural areas, but the resources available better lent themselves to a study of rural properties. One cannot help but believe that problems found in the taxation of rural propertise will also be found in urban property taxation.

<sup>&</sup>lt;sup>11</sup>This is not to say difference can be ignored because State aid to schools is based partly, at least, on the inability of a school district to raise sufficient revenue to meet certain standards. Those counties with relatively low levels of taxation presumably would require more State aid than if they had placed heavier levies on local property. The voters of some counties have freely chosen to make greater expenditures for public facilities and thus, in effect, voted for higher levies.

The first thing that become apparent was that assessment values in the State have been increasing at a much slower rate than market values; a 1.5 percent annual average increase between 1960 and 1969 as compared to a 9 percent increase in market value. The slow increase in assessment values was partly nullified, however, by an annual increase of nearly 3.2 percent in the average tax rate so that tax levies in the State rose by an average of about 5.0 percent per year during the period.

The trend in the ratio of assessed value to sales value has been downward on farm real estate; declining from an average of 18.6 percent in 1961 to 11.9 percent in 1969. The sales assessment ratios in the sample counties for 1969 averaged 9.9 percent. The differences in the sample county average ratios was small with a low of 8.3 percent and a high of 11.9 percent. Within counties, however, the range in assessment ratios among properties revealed the need from remedial work in the assessment practices. For example:

- 1. The average deviation of assessment ratios from the county mean ratio ranged from 68 percent in one county to 19 percent in another. It is not unusual to find properties being assessed at three or four times the average ratio for the county or a third or a fourth of the average.
- 2. When properties were separated into quintile groups according to their sales-assessment ratios, it was found that the ratio in the lowest quintile group was less than one-third the ratio in the highest quintile group. Or, if one assumes the middle or third quintile level of assessments represents a normal or proper assessment, then those whose properties are assessed in the lowest group are assessed 43 percent too low and those whose assessments lie in the highest group are assessed 81 percent too high.
- 3. There was a significant relationship between size of tract and assessment ratio and price per acre and the ratio. The smaller the tract the higher the ratio and the lower the salesprice per acre, the higher the ratio. For example, 40 acre tracts were assessed, on the average about six percent higher than 80 acre tracts, 12 percent higher than 160 acre tracts and 25 percent higher than 640 acre tracts. In addition \$100 per acre tracts were assessed at a ratio about 34 percent greater than \$300 per acre tracts.
- 4. It was found that if all tracts had been assessed at the same ratio total tax revenue would have been virtually unchanged in the eleven counties, but tracts assessed at the lowest quintile level would have had to pay 72 percent more in taxes and those at the highest quintile level, 46 percent less.

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- 5. Tax levies per \$100 of sales price averaged 52 cents. The disparity among counties in this levy ranged from 15 percent below the average to 60 percent above. However, more than half the sample counties had an ad valorem levy within 10 percent of the average.
- 6. When properties were divided according to the tax levied into the high and low quartile of levies, a significant tax differential occurred. Those whose properties were favored by a low assessment ratio when coupled with the current tax rate had a distinct tax advantage in that they paid a tax only about one-third as much relative to value as paid by those whose properties were taxed in the upper 25 percent of levies.

### **Conclusions**

It seems that assessors must strive to more equitably assess properties in their counties. It would appear that the first place they might look to see whether adjustments in assessments should be made is in the high per acre value tracts which tends to be smaller in size, and in the low per acre value tracts which tend to be larger in size.

Assessors in Oklahoma are currently in the process of evaluation of all real estate, and it might be that when this is completed many of the inequities will be corrected. However, the value of this study might be that it will reveal where weaknesses in assessments lie, and guide assesors to those areas in assessments where adjustments seem to be most needed.