

Trends of Tax Levies in Oregon with Empha- sis upon Rural and City Real Properties



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SUMMARY

1. The primary purpose of this study is to show the trends in rural and urban tax levies on the assessed value, equalized value, full cash value, and sale value bases of taxable property in Oregon.

2. The weighted average levies on rural taxable property in the state have increased from 14.16 mills in 1910 to 35.93 mills in 1928 on the equalized value basis. On the full cash value basis the corresponding increase was from 10.02 mills to 21.23 mills, and on the sale value basis from 8.91 mills in 1911 to 15.46 mills in 1928. The latter levies applying only to real property values represent an increase of 73.51 percent during the period under consideration.

On the basis of selling value the taxes rose from \$8.91 on a \$1000 parcel of rural real property in 1911 to \$15.46 in 1928. On the full cash value basis the rise was from \$10.02 to \$21.23.

3. Total rural taxes have increased from \$6,390,829.00 in 1910 to \$20,334,636.28 in 1928, an increase of 218 percent. Approximately 74 percent of all rural taxes fall on rural real property, including tillable land, non-tillable land, and timber land.

4. The weighted average urban levies in the state have increased from 22.97 mills in 1910 to 51.43 mills in 1928 on the equalized value basis. On the full cash value basis the corresponding increase was from 16.26 mills to 30.40 mills, and on sale value basis from 14.71 mills in 1911 to 28.82 mills in 1928. The latter levies represent an increase of 95.92 percent and apply to urban real property only. On the basis of selling value the taxes rose on the average from \$14.71 on a \$1000 parcel of urban real property in 1911 to \$28.82 in 1928. On the full cash value basis the corresponding increase in taxes was from \$16.26 to \$30.40.

5. Total urban taxes rose from \$9,040,724.00 in 1910 to \$28,618,546.06 in 1928, an increase of 217 percent. For the state as a whole approximately 66 percent of all urban taxes fall on urban real property exclusive of public utility property.

6. Two sets of factors or influences are consistently affecting land values: the depreciating influences of rising tax levies and the appreciating influences of publicly provided services and utilities, such as better schools, better roads, better sanitation, greater protection to life and property, together with the many other services provided by the modern state.

The latter influences, although no less real, are less tangible and therefore attract less attention, whereas the former are tangible and measurable and are therefore more generally observed.

On the average from 13.70 to 16.60 percent of the market value of rural land and from 23.83 to 21.35 percent of the market value of urban land, assuming a five-percent investment basis, is absorbed by the present tax levy increases over the prewar average levies.

For the rural land values of the different counties as calculated upon the full cash value basis these percentages vary from 4.76 percent for Jefferson county to 39.93 percent for Lincoln county. For urban land values for the different counties, as calculated upon the same basis, these percentages vary from 9.94 percent for Benton county to 50.03 percent for Clatsop county.

SUMMARY (Continued)

To what degree the appreciating effects of publicly provided services and utilities offset or exceed the effects of taxes upon land values lies at the very core of the tax problem, but in the absence of the most searching investigation cannot be statistically measured. In the opinion of those best informed on land values the effects are generally underestimated.

7. The rural tax burden cannot be statistically measured in the absence of more data. The farmer's dollar has been below par as compared with the city dollar. It reached its lowest point in 1921, when it stood at 75 percent of the city dollar. This was the year when the rural taxes reached their highest peak.

8. One of the basic causes of the increase in public expenditures and consequently tax levies is the decrease in the purchasing power of the dollar since prewar days. In the case of total taxes, both rural and city, approximately 50 percent of the increases from 1910 to 1928 are due to the decrease in the value of our monetary unit.

It is impossible, in the absence of more adequate information on the effect of price changes upon real property values, to determine with any degree of finality the increase in tax levies due to a depreciating dollar.

Trends of Tax Levies in Oregon with Emphasis upon Rural and City Real Properties

By

W. H. DREESEN

I. INTRODUCTION

Purpose of this study. The purpose of this study is threefold: first, to make a complete segregation of rural and city taxes within the different counties in the State of Oregon from 1910 to 1928*; second, to show the trends of tax levies upon rural and city property on the bases of assessed, equalized, and actual values during the period indicated above†; and third, to measure these trends in terms of the prewar purchasing power of the dollar.

This study deals primarily with trends in tax levies. Total taxes are given only incidentally. Trends in levies rather than total taxes are given on the assumption that they are more useful in throwing light upon relative tax burdens both as between different taxing precincts for any given year and as between different years within the same taxing district.

Rural irrigation taxes have been excluded from all data in this study because of their close similarity to special improvement taxes.

All tax levies are given in mills on the taxable property.

Sources of information. The principal sources of information utilized in this study are found in the annual summaries of the assessment and tax rolls of the different counties as compiled by the county assessors and filed with the State Tax Commission. In a number of counties information was obtained directly from the county assessors' and sheriffs' offices and in a few cases data were obtained by correspondence. A questionnaire was not used.

Sales data for the years 1921 through 1928 were obtained from the State Tax Commissioner's office. Earlier sales-data were provided by the Portland offices of the tax departments of the Southern Pacific and Union Pacific railroads.

The author wishes to acknowledge his indebtedness to the various offices that kindly and generously assisted by furnishing information. Special acknowledgment is due Earl L. Fisher, State Tax Commissioner of the State of Oregon; C. C. Chapman, Editor of the "Oregon Voter"; L. W. Hobbs, tax agent of the Union Pacific System; Jas. A. Lathrop,

*The term city as used in this study includes only incorporated towns and cities. Lots and improvements on lots outside of incorporated cities are included under rural property.

†The tax levies given in this study apply equally to real and personal property as assessed in the various taxing precincts, but owing to the fact that there are no available means of determining the ratios of assessed or equalized values of personal property to their actual values the given levies have no significance as indicating tax burdens or trends on personal property.

Lease Agent of Southern Pacific Lines; and T. R. Maguigan of the "Land" division of the Multnomah County Assessor's office.

Method of procedure. The typical summary of the county assessment and tax rolls as filed with the State Tax Commission of this state contains the following data:

General Taxes Levied for State and County Purposes

Character of the tax	Assessed valuation	Tax-levy in mills	Amount of tax
State
County
School
Library
Market Road
General Road
Bond Redemption
Interest on Bonds
H. S. Tuition
Miscellaneous

Special Taxes Levied in Cities and Towns

Name of city	Assessed valuation	Tax-levy in mills	Amount of tax
.....
.....
.....

Special Taxes Levied in Road Districts

Number of district	Assessed valuation	Tax-levy in mills	Amount of tax
.....
.....
.....

Special Taxes Levied in School Districts

Number of district	Assessed valuation	Tax-levy in mills	Amount of tax
.....
.....
.....

Special Taxes Levied in Other Taxing Districts

(Under this are included irrigation and drainage district levies, port district taxes, special road district taxes, and others.)

The first step taken in the segregation of city and rural taxes was the computation of the levies in mills for general State and County purposes upon the total assessed valuation of the incorporated cities and towns of the respective counties. In many counties various difficulties were encountered. High school tuition levies are generally rural levies only but in some instances cover the assessed valuations of incorporated places which do not maintain independent or union high schools.

The difficulties in the way of exact segregations of city and rural taxes were further increased by the fact that the conditions in the various counties have not remained constant throughout the period under investigation.

In order to segregate the city district school taxes from the rural district school taxes the levy in mills upon the city's district was computed upon the assessed value of the city under consideration. This was necessary for the reason that many so-called city school districts are in reality joint city and rural districts.

A similar course of procedure was necessary in the segregation of port, diking, special road, and other taxes.

The total equalized values of taxable property of each county for each of the nineteen years included under this study were distributed among city and rural valuations in the same ratios that the city and rural assessed valuations of the respective counties bear to each other for the respective years. The total full cash values of taxable property of each county were similarly treated.

All sales data were subjected to a three-year moving average before using such data in the calculation of levies upon sales values.

Owing to the difficulties indicated above absolute accuracy in the segregation of city and rural levies is not claimed. The levies, however, concerning which there was doubt constitute such a small fraction of the total levies that the final results are not appreciably affected thereby. This is particularly true when it is remembered that this study deals primarily with trends.

II. BASES OF TAX LEVIES

Data on tax levies throw little light upon relative tax burdens in the different taxing precincts or changes in tax burdens from year to year within any given precinct unless it is clear what is meant by the basis upon which the levies are made. If this basis does not represent corresponding values from year to year within a given taxing precinct the annual data are not comparable. Again if the basis in one taxing jurisdiction represents something different from the basis as used in another jurisdiction the data on levies are not comparable.

The tax levies in this study are calculated upon each of four different bases: first, upon the taxable property as assessed by the local assessors and equalized by the county boards of equalization including that public utility property apportioned by the State Tax Commission; second, upon the full cash value of taxable property as estimated by the State Tax Commission including that property equalized and apportioned by that Commission; third, upon the taxable value of all property in the state as equalized among the several counties according to their respective ratios; and fourth, upon the actual or sale values of real property.

The first basis given above represents the value of taxable property as assessed and equalized by the county authorities together with that apportioned by the State Tax Commission. It represents the so-called assessed value of the property in the county and constitutes the basis upon which the property holders' taxes are levied. This basis usually, although not always, bears a fairly constant ratio to full cash value within the same county over considerable periods of time and hence data on annual levies on this basis are valuable for comparative purposes within the given county. As between counties, however, the data serve no such purpose owing

to the fact that the ratios of assessed values to full cash values in the different counties vary so extremely.*

The purpose of calculating the levies upon this basis was to provide the taxpayer with a standard of comparison within his own county. It is the basis with which he is most familiar. The average levy as calculated upon this basis for either city or rural property for any given year within any county will serve as a standard with which the taxpayer within that county may compare the levy that he himself paid for that year. As was indicated above the data have no value for intercounty comparisons.

The second basis given above is the so-called full cash value basis of all taxable property in the state as estimated by the State Tax Commission. The establishing of this basis is the preliminary step in the apportionment of the general State levies among the counties and in the equalization and apportionment among the counties of the property assessed by the State Tax Commission.

The purpose of calculating the tax levies on this basis is to show tax trends and indicate what the levies would be in case the assessed values more nearly approximated the actual values as required by law. The data serve for making intercounty comparisons and present the best picture available of tax trends—that is, changes in levies from year to year within the different counties in the state.

The third basis represents the so-called equalized values of all taxable property in the state as equalized among the several counties according to their respective ratios. This basis is obtained by dividing the total full cash value of all taxable property in the state as estimated by the State Tax Commission into the assessed value of all property as described under the first basis and then in turn multiplying the total full cash value of all taxable property in each county by the ratio obtained in the first calculation.

The data obtained by calculating the levies upon this basis present a true picture of intercounty tax levies. This basis also represents the actual basis upon which the general millage levies such as the elementary school levy, market road levy, and the millages for the institutions of higher learning are based. The data, however, do not accurately present tax trends owing to the fact that the ratios of equalized values to full cash values as estimated by the Commission have varied from 70 percent in 1910 to approximately 60 percent in 1928.

The ratio of the assessed value as described under basis one to the full cash value as described under basis two constitutes the so-called county ratio.

The fourth basis used in the calculation of average tax levies upon rural and city properties is sale value. These levies apply only to real properties. Although the data are not complete for all counties for the

*On the 1928 Assessment rolls these ratios varied from 42 to 87.

years preceding 1921, they are adequate to give a fairly representative picture of the tax trend for these years.*

III. TAX LEVIES ON RURAL TAXABLE PROPERTY

In tables I, II, III, and IV are given respectively the levies in mills on rural taxable property by counties and years on the four bases, assessed value, equalized value, full cash value as estimated by the State Tax Commission, and sale value. The significance of these different bases has already been described†.

Assessed value basis. The data on tax levies in the table based on assessed values, although the most familiar to the taxpayer, are not valid for the purpose of making intercounty comparisons of levies and have little value for the measuring of tax burdens. They serve only one purpose, and this purpose is not served by the data of any of the other tables. They enable the taxpayer, either rural or urban, of any given county to compare the levies which he paid in his particular taxing precinct for any given year with the average levy, rural or urban, for the county as a whole.

Equalized value basis. The data in the table on the equalized value basis, Table II, are calculated on a valuation basis representing a weighted average of the assessed value basis for all counties. In other words, the sum total of the equalized values of the counties of the state for any given year is equal to the sum total of the assessed values of the counties for the same year.

*The following table illustrates the meaning of the three different bases upon which the tax levies in this study are calculated.

County	Base I Assessed value	Base II Full cash value	Base III Equalized value	County ratio
A	\$10,000,000	\$15,000,000	\$ 8,888,888.89	-.67
B	12,000,000	24,000,000	14,222,222.22	-.50
C	8,000,000	20,000,000	11,851,851.86	-.40
D	9,000,000	12,000,000	7,111,111.11	-.75
E	10,000,000	12,000,000	7,111,111.11	-.83
F	15,000,000	25,000,000	14,814,814.81	-.60
	64,000,000	108,000,000	64,000,000.00	-.5926

Figures under Base I represent the taxable values as assessed and equalized by county authorities including the taxable property equalized and apportioned by the State Tax Commission. Figures under Base II represent the full cash value of all taxable property in the respective counties as estimated by the State Tax Commission. Figures under Base III represent the equalized values for the respective counties. The equalized values for the respective counties are obtained as follows: The sum total of the figures under Base II are divided into the sum total of the figures under Base I. The percent obtained, .5926, is next multiplied by the figures under Base II for the respective counties. The county ratios are obtained by dividing the figures under Base I by the figures under Base II for the corresponding counties.

A perusal of any Biennial Report of the State Tax Commission of the State of Oregon will more fully explain these different bases of valuation. For example, see pp. 26 to 29, Tenth Report.

†See pages 9 and 10.

TABLE I. TAX LEVIES IN MILLS ON ASSESSED VALUES OF TAXABLE RURAL PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Baker	11.03	12.19	11.16	13.06	12.43	13.21	14.14	13.98	13.34	16.52	23.20	23.78	21.42	17.18	19.35	20.30	21.99	22.46	22.91
Benton	16.43	20.52	18.75	20.77	22.32	21.43	22.21	22.12	22.55	27.94	35.22	36.74	35.43	32.55	33.28	33.92	33.12	29.29	29.83
Clackamas	19.15	23.53	22.02	25.87	25.34	25.19	26.47	27.97	30.68	38.53	48.61	47.50	49.16	51.48	52.79	54.43	55.89	55.81	55.17
Clatsop	33.00	46.94	37.35	29.39	27.54	33.50	31.76	25.36	29.66	40.96	38.81	35.44	33.83	34.14	40.91	41.13	40.79	48.38	49.14
Columbia	15.60	18.58	17.38	20.82	22.35	24.35	30.22	29.88	33.66	45.75	52.02	37.47	36.64	36.15	36.09	41.61	44.75	42.70	41.75
Coos	24.67	22.66	24.68	30.22	29.38	29.03	27.55	33.25	26.09	36.40	44.83	45.19	47.15	48.21	52.74	48.25	44.02	44.19	47.21
Crook	20.48	24.43	31.06	31.92	28.96	32.60	34.26	23.12	22.54	29.29	36.43	42.04	41.02	38.56	36.35	38.16	37.83	38.36	39.49
Curry	13.46	13.58	12.97	17.86	17.05	17.84	17.60	19.61	19.63	22.72	27.06	30.36	30.64	33.18	41.20	37.29	41.25	39.44	37.55
Deschutes .....	.....	.....	.....	.....	.....	.....	.....	39.49	28.12	36.19	43.11	46.82	49.92	41.65	57.85	45.41	47.58	49.08	47.69
Douglas	13.49	19.21	15.75	16.49	16.03	16.73	19.31	16.48	16.43	24.23	25.75	31.19	29.22	31.37	31.97	33.17	35.70	30.86	29.63
Gilliam	7.05	7.28	10.32	10.72	12.47	11.46	13.67	15.62	9.73	12.71	15.98	16.79	16.36	15.91	16.43	16.58	17.07	18.10	16.84
Grant	14.07	23.98	19.12	22.08	18.65	18.80	16.30	16.48	18.13	25.41	25.46	31.18	31.69	29.73	29.06	28.77	29.22	28.29	29.33
Harney	12.01	15.05	14.57	23.14	25.70	27.31	26.91	17.49	16.60	20.99	27.54	27.24	21.80	22.81	24.72	21.95	24.72	26.44	26.62
Hood River	15.13	15.30	14.89	17.44	17.24	19.26	19.86	24.28	25.38	29.41	36.48	39.08	38.79	34.76	36.19	40.16	43.71	40.05	40.78
Jackson	10.61	14.73	13.82	18.12	18.23	17.48	19.90	18.84	20.69	27.95	36.10	35.82	35.28	33.13	34.11	35.11	34.11	31.09	31.17
Jefferson .....	.....	.....	.....	.....	.....	25.21	20.81	21.97	22.66	29.06	36.28	31.92	33.35	26.93	26.24	25.25	22.85	24.30	23.07
Josephine	19.70	21.83	20.98	20.83	28.22	21.90	27.28	27.28	29.03	35.88	38.40	39.84	39.25	37.76	37.75	37.93	37.27	32.22	37.18
Klamath	15.65	21.20	18.78	25.83	26.38	30.93	26.46	26.84	26.56	29.23	31.16	30.06	31.08	30.24	29.00	29.07	29.18	26.69	30.01
Lake	11.60	12.91	10.23	17.11	13.19	16.44	22.52	14.28	15.13	18.96	25.06	27.50	27.42	24.41	23.43	22.06	22.51	23.59	22.38
Lane	14.33	17.66	16.53	22.80	21.30	21.60	23.60	20.55	20.14	27.36	36.42	37.05	36.72	32.52	36.55	34.87	33.95	33.87	39.13
Lincoln	14.54	18.95	18.40	20.42	18.79	18.46	18.95	20.93	23.78	28.92	29.88	36.75	45.74	45.73	48.37	50.81	50.57	53.50	59.21
Linn	12.86	15.27	14.45	17.60	15.16	14.76	14.59	14.62	15.43	21.52	29.70	31.12	33.02	33.17	32.36	33.51	34.07	33.52	34.24
Malheur	17.42	19.62	17.20	20.59	20.09	25.30	34.02	21.85	22.48	27.03	31.46	32.33	36.35	31.54	27.79	28.88	31.97	34.21	35.29
Marion	11.40	18.29	13.23	17.50	16.71	18.37	18.73	19.44	20.83	27.24	35.09	35.16	33.98	31.71	34.77	34.67	34.66	34.21	34.88
Morrow	9.20	9.58	8.92	10.64	11.13	12.42	12.91	17.17	14.13	22.59	29.60	29.79	29.35	27.15	27.71	27.77	28.93	28.68	29.36
Multnomah	11.96	13.43	11.00	14.13	13.52	13.53	14.53	15.22	16.47	19.47	25.85	27.10	27.17	26.58	26.56	28.02	29.85	30.56	31.87
Polk	15.24	18.37	18.05	21.40	24.48	23.94	26.69	23.20	20.98	28.82	37.59	38.87	37.38	34.62	34.93	34.09	36.89	35.64	36.92
Sherman	10.71	10.23	10.90	13.63	13.51	15.15	15.99	15.44	11.35	15.60	17.43	18.77	16.94	15.92	16.07	16.96	19.09	20.55	22.85
Tillamook	19.40	22.13	27.12	28.73	19.22	19.10	19.65	20.63	21.54	26.27	33.82	35.86	33.14	30.41	31.59	35.55	37.05	37.77	37.93
Unatilla	7.95	10.23	9.63	13.00	10.78	10.90	10.95	10.99	11.49	19.74	22.71	24.68	23.15	23.25	22.06	23.09	24.10	24.57	24.86
Union	13.17	17.38	12.87	14.91	13.77	13.99	14.75	12.63	12.95	17.49	19.08	23.44	20.30	22.06	22.22	22.95	25.00	26.00	27.70
Wallowa	8.95	13.20	14.46	14.91	14.57	13.88	14.33	15.78	16.05	20.14	24.51	31.77	28.02	26.05	22.92	25.45	27.04	25.96	29.82
Wasco	19.60	20.41	19.58	19.54	17.59	16.93	16.55	18.73	19.31	24.19	29.86	30.99	31.87	28.83	28.71	28.64	29.73	29.99	33.18
Washington	17.05	23.34	20.04	26.20	22.00	22.91	23.31	26.29	26.39	33.80	44.64	44.78	41.82	40.27	39.15	39.24	40.63	41.43	42.51
Wheeler	17.68	17.11	16.98	20.44	19.13	17.92	18.34	18.79	16.42	18.66	22.66	27.39	25.82	23.70	22.93	22.73	24.08	24.96	26.85
Yamhill	21.55	20.85	22.53	23.10	23.54	24.03	24.98	18.39	19.13	26.55	30.84	31.85	30.38	29.25	31.26	32.33	31.43	32.32	33.20

TABLE II. TAX LEVIES IN MILLS ON EQUALIZED VALUES OF TAXABLE RURAL PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Weighted average	14.16	17.33	16.32	20.29	19.22	19.89	20.72	20.39	20.54	26.68	32.46	33.59	33.00	32.00	33.52	34.15	35.15	35.05	35.93
Baker	13.41	12.80	11.81	14.76	14.02	15.25	16.89	16.16	15.44	18.84	25.56	27.62	25.29	20.27	23.17	24.03	26.03	26.58	27.14
Benton	14.16	19.09	17.53	21.19	21.82	21.16	21.63	20.85	20.07	25.48	30.95	30.89	30.26	27.20	28.23	28.69	28.53	25.72	26.23
Clackamas	16.23	20.18	19.21	22.34	22.11	22.20	24.12	24.67	26.40	33.39	40.54	36.30	37.42	37.11	36.88	36.83	38.72	39.60	39.22
Clatsop	15.38	21.51	18.04	26.28	24.43	29.51	28.93	28.93	33.44	43.58	50.86	46.59	43.98	44.73	55.13	54.26	52.36	59.66	60.69
Columbia	16.53	18.41	17.07	24.49	26.22	28.48	28.48	29.53	32.47	42.43	47.26	41.80	42.11	44.41	45.63	49.96	51.39	48.34	45.92
Coos	20.22	22.45	24.24	32.73	30.49	29.55	28.56	32.87	30.96	38.73	46.07	47.66	48.34	48.18	53.51	48.97	43.86	47.03	50.32
Crook	18.52	20.22	24.20	25.06	23.08	26.25	28.52	20.75	19.73	24.49	29.30	36.63	36.32	34.10	34.46	37.44	38.34	40.18	41.42
Curry	16.16	15.47	15.57	22.43	22.04	23.31	24.05	25.94	25.35	29.33	33.85	39.45	39.49	43.47	54.82	50.45	55.05	52.83	50.35
Deschutes .....	.....	.....	.....	.....	.....	.....	.....	27.02	24.20	29.71	34.68	39.36	38.77	33.44	44.26	35.33	36.97	38.14	37.12
Douglas	14.10	19.88	16.44	19.42	16.63	18.80	22.45	18.30	17.55	25.78	30.69	36.72	34.95	34.94	35.10	36.47	38.60	32.84	31.59
Gilliam	8.36	7.97	11.42	12.45	14.06	13.23	16.75	18.53	13.00	17.39	21.90	23.09	22.87	22.67	24.32	25.24	25.94	26.61	24.79
Grant	11.13	19.14	15.20	18.02	17.67	15.36	16.90	17.80	19.16	25.70	26.54	32.41	33.47	32.63	33.84	34.55	35.54	34.89	35.73
Harney	11.54	14.68	14.30	22.89	24.35	26.97	27.47	22.61	21.19	23.93	30.35	27.49	21.66	22.05	24.67	23.40	28.40	31.29	32.44
Hood River	17.96	17.87	16.47	19.43	18.40	19.90	19.96	23.64	24.10	28.61	35.32	38.83	39.76	35.88	38.53	43.47	46.51	43.29	43.47
Jackson	12.59	18.29	16.36	21.05	20.29	17.26	19.38	17.77	19.03	26.34	33.34	35.59	35.61	33.11	34.61	36.23	36.30	34.15	34.81
Jefferson .....	.....	.....	.....	.....	.....	27.57	23.53	23.39	23.53	28.72	35.12	31.71	33.68	29.56	30.99	30.33	28.57	30.38	28.89
Josephine	17.82	20.65	20.61	22.89	31.40	23.95	30.43	29.46	30.15	37.10	38.33	41.41	41.45	40.83	42.06	42.99	42.18	36.47	42.15
Klamath	15.26	23.20	21.07	26.76	29.35	32.41	28.68	28.58	27.98	31.10	36.61	35.84	36.20	35.17	33.76	30.88	33.51	30.66	35.04
Lake	13.61	14.89	11.95	19.87	14.87	18.23	25.83	16.50	17.29	21.04	26.12	29.43	29.39	26.39	26.90	25.74	28.14	29.49	29.91
Lane	15.79	18.27	17.52	23.27	21.14	21.33	19.65	18.75	17.63	24.12	30.92	31.72	32.50	28.77	32.22	32.45	32.11	31.47	36.42
Lincoln	19.73	25.77	25.24	28.85	26.23	26.08	27.69	28.02	30.70	36.93	40.05	51.11	62.52	64.43	70.00	73.04	73.54	76.81	84.13
Linn	12.72	14.91	14.42	17.96	15.51	15.25	15.59	15.12	15.56	21.59	29.20	28.54	29.74	28.80	28.52	30.04	31.08	30.57	31.28
Malheur	18.95	22.34	19.84	23.92	20.54	24.22	22.44	19.60	21.54	25.07	28.58	28.66	29.36	27.90	25.88	28.83	31.86	33.51	34.64
Marion	11.28	18.66	13.60	18.13	17.34	18.98	19.71	20.11	21.32	27.74	33.98	33.85	33.26	30.13	32.39	32.84	32.79	32.94	33.64
Morrow	12.09	11.33	10.84	14.03	14.39	16.61	17.85	22.98	18.44	28.50	35.72	34.15	34.18	32.03	34.57	35.24	36.66	36.33	37.27
Multnomah	11.99	13.71	11.15	13.32	12.81	12.74	13.69	13.89	15.15	18.35	23.88	25.26	25.32	24.82	24.30	25.60	27.23	27.87	29.12
Polk	13.57	16.29	15.75	17.47	19.14	19.28	21.38	17.29	15.57	21.90	27.43	27.33	27.29	25.52	25.57	25.37	27.42	27.10	28.11
Sherman	11.35	10.59	11.38	14.55	13.82	15.64	17.07	15.97	16.18	21.81	25.18	26.40	22.63	22.16	22.46	24.10	27.73	29.51	32.86
Tillamook	20.00	22.57	27.90	27.06	25.43	26.11	28.08	29.19	29.72	35.94	44.83	48.24	44.27	42.83	45.19	48.10	48.81	49.12	48.79
Umatilla	9.66	12.09	11.26	15.71	12.97	13.24	13.42	13.37	13.63	21.91	27.73	29.43	26.61	26.28	25.69	26.95	28.50	28.64	29.44
Union	11.16	14.38	10.83	15.21	14.49	15.08	16.45	16.13	16.15	21.54	23.87	28.66	25.23	27.67	29.19	30.27	32.93	33.38	34.21
Wallowa	10.37	14.45	15.77	16.39	16.43	15.39	17.11	19.19	19.29	24.80	28.84	31.57	28.28	26.46	24.02	29.71	31.52	30.69	34.31
Wasco	16.06	16.29	16.18	21.77	19.84	19.29	19.49	21.08	21.49	26.84	34.24	35.99	37.62	34.00	34.87	35.37	36.66	37.99	39.87
Washington	14.46	20.36	17.49	20.57	17.86	18.44	18.68	20.39	19.97	26.21	33.24	33.53	33.13	31.66	30.60	30.54	31.57	32.35	32.37
Wheeler	15.74	13.66	13.49	18.93	20.13	19.59	21.04	21.72	20.22	22.24	27.33	31.83	30.48	28.74	28.99	29.99	32.12	32.89	35.89
Yamhill	18.27	16.65	18.26	18.13	18.34	19.05	19.62	17.90	17.88	24.22	27.57	29.21	27.84	27.32	29.12	29.51	28.67	29.49	30.34

TRENDS OF TAX LEVIES IN OREGON

TABLE III. TAX LEVIES IN MILLS ON FULL CASH VALUES OF TAXABLE RURAL PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Weighted average	10.02	11.72	10.47	12.92	12.78	13.09	13.19	13.41	13.84	17.55	21.79	21.98	21.25	19.53	20.15	20.19	20.81	20.75	21.23
Baker	9.49	8.66	7.58	9.40	9.32	10.04	10.75	10.63	10.41	12.39	17.17	18.07	16.28	12.37	13.93	14.21	15.41	15.73	16.04
Benton	10.02	12.91	11.25	13.50	14.51	13.93	13.77	13.71	13.53	16.76	20.78	20.21	19.48	16.60	16.97	16.96	16.89	15.22	15.50
Clackamas	11.49	13.65	12.33	14.23	14.70	14.61	15.35	16.22	17.79	21.96	27.22	23.75	24.09	22.65	22.17	21.77	22.91	23.44	23.18
Clatsop	10.89	14.55	11.58	16.75	16.25	19.43	18.42	19.02	22.54	28.67	34.15	30.48	27.74	27.31	33.14	32.08	31.00	35.32	35.87
Columbia	11.70	12.45	10.95	15.60	17.43	18.75	18.13	19.42	21.88	27.91	31.73	27.35	27.11	27.11	27.43	29.54	30.43	28.61	27.14
Coos	14.31	15.18	15.55	20.85	20.27	19.45	18.18	21.61	20.87	25.48	30.93	31.18	31.12	29.41	32.17	28.95	25.97	27.84	29.74
Crook	13.11	13.68	15.53	15.96	15.35	17.28	18.16	13.64	13.30	16.11	19.67	23.96	23.38	20.82	20.72	22.13	22.70	23.78	24.48
Curry	11.44	10.46	9.99	14.29	14.66	15.34	15.31	17.06	17.08	19.31	22.73	25.81	25.43	26.54	26.96	29.83	32.59	31.16	30.04
Deschutes								17.77	16.31	19.54	23.28	25.75	24.96	20.41	22.61	20.89	21.87	22.58	21.94
Douglas	9.98	13.45	10.55	12.37	11.06	12.38	14.29	12.03	11.83	16.96	20.60	24.02	22.50	21.33	21.10	21.56	22.83	19.44	18.67
Gilliam	5.92	5.39	7.33	7.93	9.35	8.71	10.66	12.18	8.76	11.44	14.70	15.11	14.72	13.84	14.62	14.92	15.36	15.75	14.65
Grant	7.88	12.95	9.75	11.48	11.75	10.11	10.76	11.70	12.91	16.91	17.82	21.20	21.55	19.92	20.34	20.43	21.04	20.65	21.12
Harney	8.17	9.93	9.18	14.58	16.19	17.75	17.49	14.87	14.28	15.74	20.38	17.98	13.95	13.96	14.83	13.83	16.81	18.24	19.17
Hood River	12.71	12.09	10.57	12.38	12.24	13.10	12.71	15.54	16.24	18.82	23.71	25.40	25.60	21.90	23.16	25.70	27.54	25.63	25.69
Jackson	8.91	12.37	10.50	13.41	13.49	11.36	12.34	11.68	12.83	17.33	22.38	23.28	22.93	20.21	20.81	21.42	21.49	20.21	20.57
Jefferson						18.15	14.98	15.38	15.86	18.89	23.58	20.75	21.68	18.04	18.63	17.93	16.91	17.98	17.07
Josephine	12.61	13.97	13.22	14.58	20.88	15.77	19.37	19.37	20.32	24.40	25.73	27.09	26.69	24.92	25.29	25.41	24.97	21.59	24.91
Klamath	10.80	15.69	13.52	17.05	19.52	21.34	18.26	18.79	18.86	20.46	24.62	23.45	23.31	21.47	20.30	18.26	19.84	18.15	20.71
Lake	9.63	10.07	7.67	12.66	9.89	12.00	16.44	10.85	11.65	13.84	17.54	19.25	18.92	16.11	16.17	15.22	16.66	17.46	17.68
Lane	11.18	12.36	11.24	14.82	14.06	14.04	12.51	12.33	11.88	15.87	20.76	20.75	20.93	17.56	19.37	19.18	19.01	18.63	21.52
Lincoln	13.96	17.43	16.19	18.38	17.44	17.17	17.63	18.42	20.69	24.29	26.89	33.44	40.25	39.33	42.08	43.18	43.54	45.47	49.72
Linn	9.00	10.08	9.25	11.44	10.31	10.04	9.92	9.94	10.49	14.20	19.60	18.67	19.15	17.58	17.15	17.76	18.40	18.10	18.49
Malheur	13.41	15.11	12.73	15.24	13.66	15.94	14.29	12.89	14.16	16.49	19.19	18.75	18.90	17.03	15.56	17.04	18.86	19.84	20.47
Marion	7.98	12.62	8.73	11.55	11.53	12.49	12.55	13.22	14.37	18.25	22.81	22.15	21.41	18.39	19.47	19.42	19.41	19.50	19.88
Morrow	8.56	7.66	6.96	8.94	9.57	10.93	11.36	15.11	12.43	18.75	23.98	22.34	22.01	19.55	20.78	20.83	21.70	21.51	22.02
Multnomah	8.49	9.27	7.15	8.48	8.52	8.39	8.72	9.13	10.21	12.07	16.03	16.53	16.30	15.15	14.61	15.13	16.12	16.50	17.21
Polk	9.60	11.02	10.11	11.13	12.73	12.69	13.61	11.37	10.49	14.41	18.42	17.88	17.57	15.58	15.37	15.00	16.23	16.04	16.61
Sherman	8.03	7.16	7.30	9.27	9.19	10.30	10.87	10.50	10.90	14.35	16.91	17.27	14.57	13.53	13.50	14.25	16.42	17.47	19.42
Tillamook	14.16	15.27	17.90	17.24	16.91	17.19	17.88	19.19	20.03	23.64	30.10	31.56	28.50	26.15	27.17	28.44	28.90	29.08	28.83
Umatilla	6.84	8.18	7.22	10.01	8.62	8.72	8.54	8.79	9.19	14.41	18.62	19.25	17.13	16.04	15.44	15.93	16.87	16.95	17.40
Union	7.90	9.73	6.95	9.69	9.64	9.93	10.47	10.61	10.88	14.17	16.03	18.75	16.24	16.89	17.55	17.90	19.50	19.76	20.22
Wallowa	7.34	9.77	10.12	10.44	10.93	10.13	10.89	12.62	13.00	16.31	19.36	20.65	18.21	16.15	14.44	17.56	18.66	18.17	20.28
Wasco	11.37	11.02	10.38	13.87	13.19	12.70	12.41	13.86	14.48	17.66	22.99	23.55	24.22	20.76	20.96	20.91	21.70	22.49	23.56
Washington	10.23	13.77	11.22	13.10	11.88	12.14	11.89	13.41	13.46	17.24	22.32	21.94	21.33	19.33	18.40	18.05	18.69	19.05	19.13
Wheeler	11.14	9.24	8.66	12.06	13.39	12.90	13.39	14.28	13.63	14.63	18.35	20.82	19.62	17.54	17.43	17.73	19.02	19.47	21.21
Yamhill	12.93	11.26	11.72	11.55	12.20	12.54	12.49	11.77	12.05	15.93	18.51	19.11	17.92	16.68	17.51	17.45	16.97	17.46	17.93

TABLE IV. TAX LEVIES IN MILLS ON SALE VALUES OF TAXABLE RURAL PROPERTIES BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Arithmetic average	8.91	6.61	7.04	7.16	6.83	6.85	7.17	7.24	10.20	13.46	15.08	14.87	14.16	14.67	14.82	15.33	15.14	15.46	
Baker			7.02	6.41	6.22	6.67	6.62	6.39	7.83	11.20	11.87	10.81	8.59	9.78	10.87	12.50	13.26	13.36	
Benton				11.38							13.47	12.80	12.64	13.34	14.07	13.68	11.80	12.17	
Clackamas	7.76	7.27	8.18	7.73	7.71	8.39	8.42	9.44	11.66	14.86	13.36	13.82	14.67	14.67	14.87	15.20	15.48	15.59	
Clatsop					5.95	7.29	7.19	6.71	9.06	15.50	17.97	17.54	16.65	15.58	20.14	18.57	18.84	20.56	22.36
Columbia					7.14	7.80	9.16	8.53	8.85	13.91	20.67	19.29	18.56	16.10	15.96	18.71	20.06	16.71	13.80
Coos	7.25											22.61	23.18	23.91	24.07	20.41	17.65	17.49	19.20
Crook												18.95	18.27	16.96	15.59	16.58	17.84	19.28	20.87
Curry												14.99	15.49	16.28	19.66	17.85	17.51	16.92	14.14
Deschutes								9.76	7.42	10.92	13.52	17.08	17.88	14.34	17.67	13.53	13.66	14.21	11.13
Douglas	9.41			6.49	6.82	7.84	7.04	6.71	10.40	11.03	13.95	13.00	13.71	13.97	13.60	14.42	12.79	13.10	
Gilliam		5.83	6.06	6.06	4.32	5.18	6.25	4.20	6.39	9.20	12.13	11.67	11.42	12.69	13.83	16.05	15.99	14.90	
Grant												17.98	17.81	17.06	15.58	16.51	18.04	18.33	19.06
Harney												12.03	9.39	8.70	9.66	8.40	10.84	10.78	11.15
Hood River		6.57	7.72	7.84	7.77	7.56	9.07	9.79	11.97	16.18	19.86	19.62	17.58	17.48	18.80	19.39	17.23	17.00	
Jackson	9.43			8.39							17.15	15.07	14.93	14.74	15.87	15.98	14.52	12.59	12.73
Jefferson												12.91	13.71	12.31	15.09	15.95	14.73	13.47	12.31
Josephine		10.04			12.42							20.53	20.10	18.25	17.93	17.58	16.90	12.99	13.72
Klamath											13.48	13.24	13.66	13.01	13.20	12.39	11.97	9.86	10.39
Lake												12.39	12.64	10.47	9.12	8.52	8.74	10.64	9.59
Lane		12.89			7.14	6.83	7.06	6.06	6.43	9.21	13.57	14.91	14.85	13.37	14.64	13.79	12.98	13.05	12.96
Lincoln		8.72			13.34							17.65	21.50	26.84	27.08	28.80	29.73	28.46	31.90
Linn		6.12			6.82							10.83	11.57	12.47	12.51	13.20	13.30	12.86	13.25
Malheur												14.87	16.66	13.75	12.14	12.80	16.57	17.00	17.93
Marion		12.44			6.54	7.19	7.23	7.96	8.39	11.40	14.39	13.71	13.26	13.12	14.28	13.93	12.92	12.23	12.35
Morrow			5.80	6.16	5.24	5.39	5.59	7.48	6.25	9.53	12.23	15.46	14.78	14.03	13.25	13.37	16.53	16.75	18.63
Multnomah				6.35	6.04	5.95	6.26	6.46	6.98	8.44	11.62	12.55	12.22	11.38	10.73	11.72	12.69		
Polk		6.43			6.84	6.68	7.87	6.89	6.20	8.09	10.30	11.13	10.82	10.75	11.30	11.40	12.00	11.45	11.73
Sherman				5.73	5.27	4.99	5.20	6.43	5.82	10.05	11.64	12.06	10.83	9.45	9.45	10.09	12.23	13.23	14.59
Tillamook					7.42	7.40	8.24	8.76	9.62	12.00	15.76	15.76	15.00	13.86	15.15	18.24	18.36	17.54	15.45
Umatilla			5.75	6.72	4.73	3.88	3.96	4.03	4.29	7.64	8.92	10.08	9.40	9.51	9.33	10.69	12.00	12.95	13.17
Union			6.37	6.88	5.88	5.56	6.40	6.06	7.02	9.65	10.75	13.46	11.76	12.52	11.79	11.86	12.60	13.02	13.23
Wallowa				7.62	7.99	6.87	6.39	5.68	6.03	8.23	10.63	14.62	12.91	13.54	11.64	13.46	13.60	14.56	17.25
Wasco			8.68	8.97	8.66	7.67	7.16	8.08	8.63	10.89	13.90	15.64	16.07	14.94	15.30	16.32	17.48	17.81	19.36
Washington												14.39	13.34	13.24	13.07	13.49	14.34	14.60	15.04
Wheeler												19.58	18.45	18.00	20.46	19.65	20.13	19.08	22.33
Yamhill	7.51										13.03	13.04	12.48	12.36	12.71	12.85	12.99	14.15	15.38

TRENDS OF TAX LEVIES IN OREGON

The ratios of equalized values to the full cash values are consequently the same for all the counties in the state for any given year. These ratios, however, as shown in Table V, are not the same from year to year.

TABLE V. RATIOS OF EQUALIZED VALUES TO FULL CASH VALUES FROM 1910 TO 1928

Year	Ratios of equalized values to full cash values
1910	70.78
1911	67.64
1912	64.16
1913	63.70
1914	66.49
1915	65.83
1916	63.66
1917	65.75
1918	67.39
1919	65.78
1920	67.14
1921	65.42
1922	64.38
1923	61.04
1924	60.12
1925	59.12
1926	59.20
1927	59.19
1928	59.10

The ratios that the levies on the equalized values for any given year bear to the levies on the full cash values are inverse to the respective ratios the bases bear to each other.

Owing to the changes in ratios from year to year the data should not be used to indicate tax trends. For intercounty comparisons, however, these data are significant for the reason that for any given year they present a true picture of intercounty levies. They are further significant because they are calculated on a valuation basis representing, as indicated above, the average for the assessed value basis, the one most familiar to the taxpayer.

In Table VI the counties are arranged in order of importance of tax levies on both the equalized value and assessed value bases for the year 1928. The data on the former basis present the true picture of the relative tax burden in terms of mills in the different counties in the state for the year under consideration. It is evident that any intercounty comparisons made on the basis of assessed values are misleading.

Full cash value basis. The data on the full cash basis, Table III, serve the two purposes of indicating the relative size of tax levies in the counties by years and the tax trends by counties over the period of years under observation.

According to the weighted average levies of all counties there was a slow but gradual increase in levies from 1910 to 1918, an increase from a levy of 10.02 mills to one of 13.84 mills or a 38.12 percent rise. The heavy increases came in the years 1919 and 1920, an increase from 13.84 mills in 1918 to 21.79 mills in 1920 or a rise of more than 57 percent in two years. The World War was over, prices were high, and many essential improvements neglected during the period of the war were in 1919 and 1920 com-

pleted or undertaken. These might be regarded as accrued liabilities that had to be met under the new high price level.*

There was another slight increase in average weighted levies on the assessment rolls in 1921 followed by a slight recession during the years 1922 and 1923†.

TABLE VI. MILLS ON RURAL EQUALIZED VALUES AND RURAL ASSESSED VALUES FOR THE YEAR 1928

County	Rank	Mills on rural equalized value 1928	County	Rank	Mills on rural assessed value 1928
Lincoln	1	84.13	Lincoln	1	59.21
Clatsop	2	60.69	Clackamas	2	55.17
Curry	3	50.83	Clatsop	3	49.14
Coos	4	50.32	Deschutes	4	47.69
Tillamook	5	48.79	Coos	5	47.21
Columbia	6	45.92	Washington	6	42.51
Hood River	7	43.47	Columbia	7	41.75
Josephine	8	42.15	Hood River	8	40.78
Crook	9	41.42	Crook	9	39.49
Wasco	10	39.87	Lane	10	39.13
Clackamas	11	39.22	Tillamook	11	37.93
Morrow	12	37.27	Curry	12	37.55
Deschutes	13	37.12	Josephine	13	37.18
Lane	14	36.42	Polk	14	36.92
Wheeler	15	35.89	Malheur	15	35.29
Grant	16	35.73	Marion	16	34.88
Klamath	17	35.04	Linn	17	34.24
Jackson	18	34.81	Yamhill	18	33.20
Malheur	19	34.64	Wasco	19	33.18
Wallowa	20	34.31	Multnomah	20	31.87
Union	21	34.21	Jackson	21	31.17
Marion	22	33.64	Klamath	22	30.01
Sherman	23	32.86	Benton	23	29.83
Harney	24	32.44	Wallowa	24	29.82
Washington	25	32.37	Douglas	25	29.63
Douglas	26	31.59	Morrow	26	29.36
Linn	27	31.28	Grant	27	29.33
Yamhill	28	30.34	Union	28	27.70
Lake	29	29.91	Wheeler	29	26.85
Umatilla	30	29.44	Harney	30	26.62
Multnomah	31	29.12	Umatilla	31	24.86
Jefferson	32	28.89	Jefferson	32	23.07
Polk	33	28.11	Baker	33	22.91
Baker	34	27.14	Sherman	34	22.85
Benton	35	26.23	Lake	35	22.38
Gilliam	36	24.79	Gilliam	36	16.84

Sales value basis. The levies given in Table IV are calculated on the sales value basis and apply to real property only. These data are significant for making intercounty comparisons and indicating trends in tax levies. They also serve as a measure of the tax burden on real property.

The arithmetic average of the levies of all counties based upon these sale values for the year 1928 is 15.46 mills as compared with 21.23 mills, the corresponding weighted average of the levies on the full cash value

*The market road levy of one mill on the equalized value basis became operative in 1919, and the elementary school levy of two mills on the same basis became operative the following year.

†The taxes levied on the assessment rolls of any one year are payable during the following calendar year, one half on or before the fifth day of May and the second half on or before the fifth day of November. Oregon Laws, Section 4323.

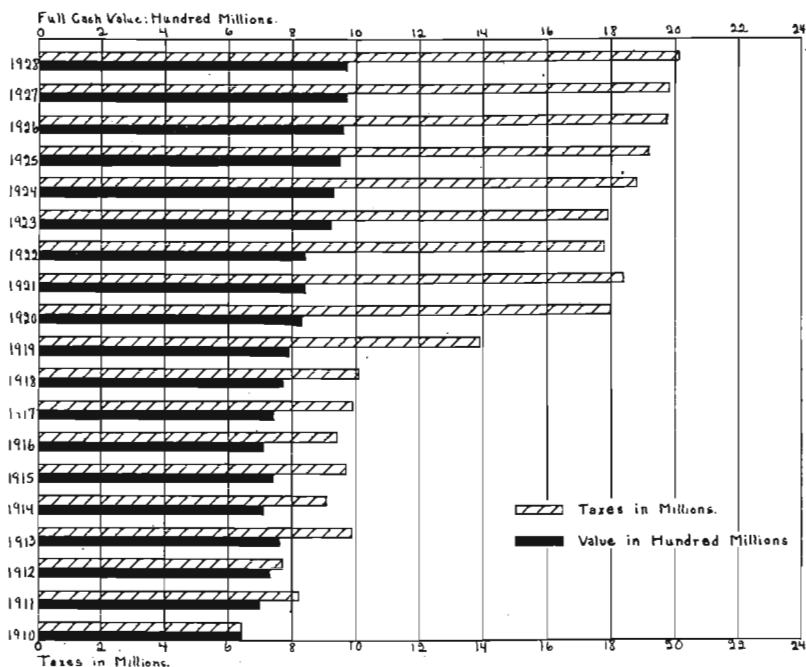


Fig. 1. Trend in full cash value of rural taxable property in Oregon and trend in total rural taxes from 1910 to 1928.

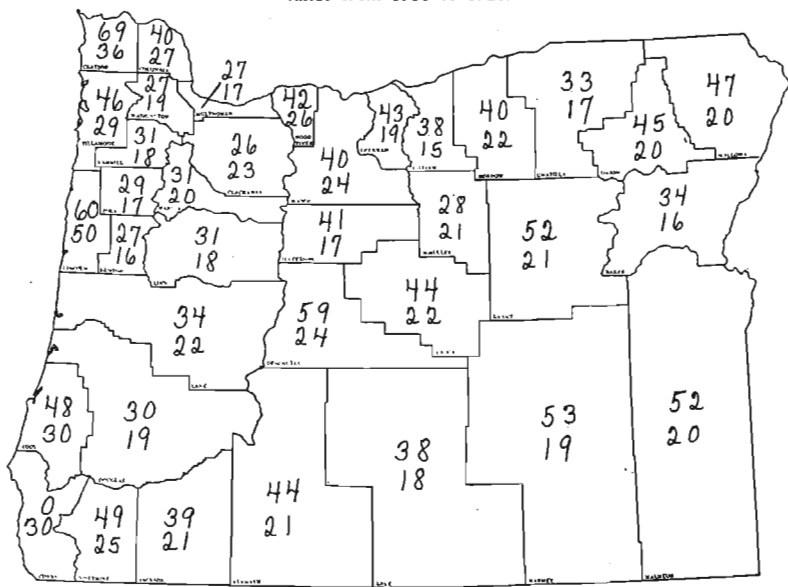


Fig. 2. In the outline map of Oregon are given the levies in mills on the full cash value basis for the year 1928. Upper figures indicate levies on city property and lower figures indicate levies on rural property.

TABLE VII. WEIGHTED AVERAGE LEVIES IN MILLS ON RURAL EQUALIZED AND FULL CASH VALUE BASES AND ARITHMETIC AVERAGE LEVIES ON SALE VALUE BASIS BY YEARS

Year	Equalized value basis	Full cash value basis	Sale value basis
1910	14.16	10.02	8.91
1911	17.33	11.72	6.61
1912	16.32	10.47	7.04
1913	20.29	12.92	7.16
1914	19.22	12.78	6.83
1915	19.89	13.09	6.85
1916	20.72	13.19	7.17
1917	20.39	13.41	7.24
1918	20.54	13.84	10.20
1919	26.68	17.55	13.46
1920	32.46	21.79	15.08
1921	33.59	21.98	14.87
1922	33.00	21.25	14.16
1923	32.00	19.53	14.67
1924	33.52	20.15	14.82
1925	34.15	20.19	15.33
1926	35.15	20.81	15.14
1927	35.05	20.75	15.46
1928	35.93	21.23	

basis. This would indicate that the ratio of full cash value to sale value is approximately 72.82 percent. The ratio of equalized value to full cash value for the same year is 59.10 percent. On these bases, real property selling for \$100.00 was valued at \$72.82 on the so-called full cash basis as estimated by the State Tax Commission, and \$43.04 on the equalized value basis.

	Values	Levies in mills	Amount of tax
Sale value	\$100.00	15.46	\$1.56
Full cash	72.82	21.23	1.56
Equalized	43.04	36.25	1.56

The trend indicated by the average levies on the sale values is essentially the same as that on the full cash value basis. A high point is reached in 1921, with a slight recession during the next few years.

IV. TAX LEVIES ON URBAN TAXABLE PROPERTY

Tax levies on urban taxable property are calculated as in the case of the rural levies on each of the four bases: assessed value, equalized value, full cash value, and sale value. These data appear in tables VIII, IX, X, and XI. The description of these bases and their significance as found under the preceding topic on tax levies on rural taxable property apply equally to urban levies.

TABLE VIII. TAX LEVIES IN MILLS ON ASSESSED VALUES OF TAXABLE CITY PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Baker	29.49	23.71	23.71	26.63	25.10	26.97	30.02	29.77	31.11	37.21	45.36	44.82	44.20	38.71	41.25	44.20	46.40	45.14	49.16
Benton	33.11	33.76	35.73	35.28	40.23	37.55	39.47	43.01	45.21	52.34	59.93	57.22	52.47	51.51	56.09	57.75	58.55	52.03	51.89
Clackamas	25.18	28.24	26.93	32.96	31.48	32.86	35.60	37.95	38.59	47.77	57.23	59.06	62.19	61.39	61.52	63.53	64.37	67.19	60.93
Clatsop	51.94	48.38	57.84	44.84	47.42	49.21	54.02	47.17	57.57	72.97	60.09	62.37	65.55	71.40	83.27	81.17	83.76	92.33	94.47
Columbia	29.35	32.39	28.87	32.79	32.62	27.94	48.58	48.95	50.20	71.33	78.23	58.19	54.81	58.83	63.71	65.52	65.26	60.60	62.20
Coos	40.31	41.09	40.14	46.25	54.30	51.78	51.50	54.89	41.04	54.86	65.33	65.77	69.03	74.48	82.84	77.13	72.51	72.32	75.49
Crook	26.73	34.02	53.62	58.02	48.92	48.42	59.92	47.53	65.58	75.24	100.85	89.70	90.12	88.39	87.95	111.65	92.07	94.72	95.51
Curry, No cities .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deschutes .....	.....	.....	.....	.....	.....	.....	.....	80.87	59.81	80.32	90.00	91.07	104.90	86.14	91.70	94.80	106.27	100.39	94.67
Douglas	27.42	29.70	30.45	30.84	30.65	31.23	34.19	32.63	35.38	42.43	50.93	48.66	47.08	47.99	48.91	52.65	51.77	49.10	48.27
Gilliam	18.94	20.36	21.87	24.74	28.72	29.32	30.37	25.81	26.51	33.11	45.42	44.66	47.40	54.10	54.80	45.28	48.94	49.22	43.87
Grant	31.30	45.65	34.27	39.02	32.03	33.03	33.79	34.11	37.56	48.49	54.29	59.37	61.41	61.76	63.37	65.89	62.88	66.48	71.92
Harney	17.94	26.03	21.49	29.98	36.98	42.48	46.49	29.94	34.60	37.40	47.97	42.98	41.48	55.15	59.75	80.20	62.28	76.70	73.81
Hood River	19.80	20.77	20.49	25.90	25.06	26.21	34.89	35.50	38.13	47.73	70.51	70.68	66.82	61.03	60.38	63.39	69.30	65.20	67.08
Jackson	25.32	31.89	31.03	38.59	40.18	43.86	42.82	40.84	41.23	49.11	61.68	63.75	62.74	60.02	60.87	65.82	64.22	61.32	59.80
Jefferson .....	.....	.....	.....	.....	.....	53.24	45.88	47.86	54.26	68.00	67.72	60.86	60.31	57.72	54.97	57.24	50.82	52.15	54.96
Josephine	34.50	33.97	30.49	28.54	38.50	37.51	42.99	47.01	51.90	56.60	73.10	73.63	70.49	71.05	72.64	72.12	73.04	69.70	73.55
Klamath	19.80	22.16	22.29	40.92	33.19	40.64	41.74	47.57	43.99	51.06	60.71	57.37	64.68	54.87	58.17	57.26	68.63	58.17	63.35
Lake	14.65	16.90	14.75	20.50	16.92	21.41	24.68	19.34	21.73	29.19	36.73	38.59	38.52	35.74	34.35	36.24	36.35	49.39	48.44
Lane	21.41	28.89	30.62	38.34	39.06	36.68	42.42	38.20	37.68	45.62	55.47	56.80	57.84	54.57	65.11	59.84	54.77	56.87	61.15
Lincoln	20.33	28.97	27.13	29.70	31.59	32.65	33.96	34.40	38.01	44.63	47.65	53.82	73.56	59.79	67.00	67.38	69.34	71.41	71.88
Linn	24.27	28.48	30.45	32.83	33.00	32.88	31.22	30.91	34.09	42.36	51.21	54.23	55.55	58.75	58.79	59.68	59.15	59.11	58.07
Malheur	31.17	36.45	33.41	35.11	34.62	45.33	65.02	51.34	57.89	70.54	71.82	68.81	74.33	73.30	68.20	72.49	77.54	81.95	90.36
Marion	20.36	28.94	26.98	31.86	29.72	30.94	30.76	30.06	31.88	39.19	49.77	48.06	47.84	45.81	51.43	51.62	51.50	53.21	54.75
Morrow	22.83	20.59	20.72	18.94	20.59	25.49	25.57	30.84	27.40	39.49	52.33	51.12	51.04	47.58	44.71	47.53	50.63	50.04	53.39
Multnomah	21.92	24.35	21.95	26.95	23.11	25.39	27.40	28.58	30.79	36.77	44.71	41.49	45.13	39.93	41.07	42.56	45.96	48.91	49.99
Polk	21.92	30.63	31.41	34.31	42.08	41.96	47.25	43.45	39.08	44.22	63.98	62.22	63.64	63.44	66.89	66.60	67.75	64.16	65.36
Sherman	28.11	23.74	23.96	23.75	26.13	26.09	31.44	33.25	30.14	41.09	34.35	37.16	34.20	34.09	37.51	37.18	39.67	45.48	50.47
Tillamook	32.16	37.67	33.23	32.77	29.77	24.39	32.43	31.66	31.35	40.61	51.98	52.98	49.90	45.00	50.24	51.08	55.06	63.12	60.50
Umatilla	18.36	21.56	20.64	25.04	25.13	26.04	26.63	26.41	28.68	42.32	43.82	43.08	42.18	40.32	39.24	40.01	40.99	42.39	46.69
Union	31.30	37.23	33.70	38.00	33.01	35.89	36.08	31.58	31.13	37.07	44.43	46.28	43.94	47.48	50.97	56.17	57.85	57.97	61.10
Wallowa	20.78	26.93	25.16	27.33	26.48	30.37	32.04	31.61	31.40	37.15	48.61	60.88	54.22	56.19	55.14	55.25	59.12	58.34	69.15
Wasco	27.31	28.35	27.30	25.40	27.75	29.15	32.69	35.34	37.21	40.73	48.88	49.59	50.46	50.25	48.40	47.23	52.56	48.83	55.96
Washington	22.50	31.98	30.61	38.72	34.13	34.83	37.29	38.14	37.88	43.33	56.26	57.86	55.75	54.75	52.64	58.46	54.47	61.09	58.98
Wheeler	20.94	18.69	19.92	22.95	27.46	31.81	29.48	28.14	22.75	26.46	30.66	33.24	32.63	30.76	29.84	30.59	31.86	33.14	35.40
Yamhill	31.46	34.83	36.74	36.71	36.85	38.44	40.16	34.84	34.17	42.97	51.72	53.48	53.60	54.96	56.68	57.46	58.14	58.47	57.91

TABLE IX. TAX LEVIES IN MILLS ON EQUALIZED VALUES OF TAXABLE CITY PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Weighted average	22.97	26.09	24.21	28.06	25.53	27.36	29.43	29.65	31.50	38.57	45.80	54.42	46.97	43.41	44.90	45.88	48.20	50.27	51.43
Baker	35.83	24.89	25.12	30.10	28.29	34.25	35.81	34.40	36.01	42.48	50.00	52.06	52.17	45.66	49.41	52.34	54.71	53.26	58.22
Benton	28.54	31.61	33.41	36.00	39.33	37.06	38.44	40.57	40.26	47.75	52.67	48.10	44.83	43.03	47.58	48.84	50.44	45.74	45.71
Clackamas	21.35	24.22	23.51	28.46	27.46	28.95	32.44	33.47	33.21	41.40	47.74	45.14	47.33	44.24	42.99	42.98	44.58	47.68	43.30
Clatsop	24.21	22.18	27.94	40.12	42.08	43.36	49.21	53.81	64.92	77.65	78.75	81.99	83.48	93.57	112.19	107.08	107.52	113.87	116.68
Columbia	31.10	32.09	28.35	38.60	38.26	32.68	45.79	48.39	48.41	66.15	71.08	64.94	63.00	72.28	80.54	78.69	74.96	68.59	68.41
Coos	33.03	40.71	39.41	50.10	56.35	52.69	53.40	54.27	48.71	58.37	67.15	69.37	70.76	74.42	84.05	78.29	72.26	76.97	80.47
Crook	24.18	28.16	41.78	45.54	38.99	38.98	49.89	42.65	57.41	62.91	81.12	78.15	79.78	78.19	83.38	109.53	93.31	99.22	100.20
Curry, No cities .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deschutes .....	.....	.....	.....	.....	.....	.....	.....	55.35	51.47	65.94	72.39	76.57	81.47	69.15	70.16	73.75	82.56	78.01	73.69
Douglas	28.66	30.74	31.80	36.32	31.81	35.11	39.75	36.23	37.80	45.15	60.68	57.28	56.30	53.46	53.69	57.89	55.97	52.25	51.46
Gilliam	22.48	22.28	24.20	28.75	32.40	33.84	37.21	30.62	35.40	45.30	62.24	61.43	66.26	77.10	81.13	68.93	74.41	72.34	64.59
Grant	24.77	36.44	27.25	31.86	30.77	32.12	35.03	36.84	39.57	50.87	56.60	61.71	64.86	67.79	73.79	79.13	76.46	81.98	87.62
Harney	17.23	25.40	21.11	29.65	35.04	41.94	47.47	38.70	44.16	42.64	52.88	42.47	41.23	53.31	59.64	85.46	71.53	89.41	89.91
Hood River	23.49	24.26	22.67	28.87	26.75	27.07	35.08	34.56	36.20	46.45	68.26	70.22	68.49	62.99	64.27	68.62	73.75	70.50	71.51
Jackson	30.05	39.61	36.75	44.84	44.71	43.31	41.71	38.51	37.93	46.29	56.95	63.34	63.34	59.98	61.77	67.92	68.34	67.34	66.78
Jefferson .....	.....	.....	.....	.....	.....	58.22	51.89	50.95	56.36	67.20	65.56	60.47	60.88	63.35	64.93	68.75	63.53	65.20	68.82
Josephine	31.19	32.14	29.94	31.36	42.85	41.03	47.94	50.77	53.90	58.51	72.95	76.54	74.45	76.81	80.95	81.73	82.67	78.89	83.38
Klamath	19.30	24.24	25.02	42.40	36.94	42.59	45.24	50.65	46.34	54.34	71.44	68.40	75.34	63.82	67.74	63.92	78.83	66.84	73.96
Lake	17.18	19.49	17.24	23.82	19.08	23.74	28.31	22.35	24.83	32.40	38.30	41.28	41.28	38.64	39.42	42.30	45.43	61.74	64.75
Lane	23.59	29.90	32.45	39.13	38.77	36.21	35.31	34.86	32.99	40.23	47.10	48.63	51.21	48.28	57.40	55.66	51.80	52.84	56.90
Lincoln	27.57	39.42	37.15	41.97	44.19	46.06	49.65	46.03	49.12	57.01	63.88	74.87	100.54	84.23	97.00	96.87	100.72	102.55	102.17
Linn	24.00	27.80	30.38	33.50	33.74	33.96	33.35	31.97	34.39	42.50	50.34	49.74	50.05	51.01	51.84	53.51	53.95	53.93	53.06
Malheur	33.91	41.50	38.52	40.78	35.40	43.39	42.90	46.06	54.12	65.42	65.26	61.01	60.03	64.84	63.53	72.34	77.28	80.29	88.68
Marion	20.13	29.52	27.76	33.02	30.85	31.96	32.38	31.09	32.65	39.92	48.18	46.29	46.82	43.53	47.91	48.90	48.72	51.25	52.81
Morrow	30.00	24.35	25.18	24.97	26.64	34.08	35.35	41.28	35.77	49.83	63.14	58.60	59.46	56.13	55.78	60.31	64.13	63.40	67.76
Multnomah	21.99	24.84	22.24	25.38	21.89	23.91	25.83	26.09	28.32	34.66	41.29	38.69	42.06	37.29	37.58	38.87	41.92	44.61	45.67
Polk	19.51	27.17	27.41	28.01	32.90	33.79	37.86	32.38	29.00	33.61	46.70	43.75	46.45	46.77	48.95	49.56	50.35	48.78	49.77
Sherman	29.79	24.57	25.02	25.35	26.72	26.95	33.59	34.39	42.92	57.46	49.63	52.26	45.68	47.47	52.41	52.82	57.63	65.31	72.59
Tillamook	33.18	38.42	34.18	30.86	39.40	33.34	46.36	44.77	43.27	55.57	68.90	71.26	66.65	63.39	71.88	69.12	72.53	82.11	77.80
Umatilla	22.31	25.51	24.12	30.27	30.23	31.64	32.63	32.14	34.04	46.96	53.51	51.36	48.47	45.58	45.70	46.70	48.46	49.41	55.29
Union	26.53	30.83	28.36	38.77	34.74	38.71	40.24	40.35	38.80	45.65	55.59	56.59	54.60	59.89	66.99	74.10	76.21	74.44	75.47
Wallowa	24.08	29.46	27.45	30.04	29.87	33.68	38.25	38.46	37.74	45.75	57.19	60.48	54.73	57.07	57.79	64.48	68.89	68.99	79.56
Wasco	22.38	22.64	22.55	28.30	31.29	33.21	38.52	39.77	41.41	45.20	56.06	57.61	59.57	59.27	58.76	58.32	64.81	61.86	67.23
Washington	19.08	27.90	26.72	30.39	27.72	28.04	29.88	29.58	28.67	33.60	41.90	43.33	44.15	43.05	41.16	45.48	42.33	47.47	44.90
Wheeler	18.63	14.92	15.83	21.25	28.90	34.79	33.81	31.37	28.02	32.58	36.87	38.61	38.52	37.29	37.73	40.36	42.51	43.68	47.32
Yamhill	26.67	27.80	29.78	28.81	28.82	30.37	31.54	33.91	31.94	39.19	46.19	49.04	49.12	51.32	52.79	52.48	53.04	53.31	52.92

TRENDS OF TAX LEVIES IN OREGON

TABLE X. TAX LEVIES IN MILLS ON FULL CASH VALUES OF TAXABLE CITY PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Weighted average	16.26	17.65	15.53	17.87	16.98	18.01	18.74	19.50	21.23	25.37	30.75	29.06	30.24	26.50	26.99	27.12	28.53	29.75	30.40
Baker	23.36	16.83	16.12	19.17	18.81	22.55	22.80	22.62	24.27	27.94	33.57	34.06	33.59	27.87	29.70	30.94	32.39	31.53	34.41
Benton	20.20	21.38	21.44	22.93	26.15	24.40	24.47	26.68	27.13	31.41	35.36	31.47	28.86	26.27	28.60	28.87	29.86	27.08	27.01
Clackamas	15.11	16.38	15.08	18.13	18.26	19.06	20.65	22.01	22.38	27.23	32.05	29.53	30.47	27.01	25.84	25.41	26.39	28.22	25.59
Clatsop	17.14	15.00	17.93	25.56	27.98	28.54	31.33	35.38	43.75	51.08	52.88	53.64	53.75	57.12	67.45	63.31	63.66	67.40	68.96
Columbia	22.01	21.70	18.19	24.59	25.44	21.51	29.15	31.82	32.63	43.51	47.72	42.48	40.56	44.12	48.42	46.52	44.38	40.60	40.43
Cooos	23.38	27.53	25.29	31.91	37.47	34.69	33.99	35.68	32.83	38.40	45.08	45.38	45.56	45.43	50.53	46.28	42.78	45.56	47.56
Crook	17.11	19.05	26.81	29.01	25.93	25.66	31.76	28.04	38.69	41.38	54.46	51.13	51.37	47.73	50.13	64.76	55.24	58.73	59.22
Curry. No cities .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Deschutes .....	.....	.....	.....	.....	.....	.....	.....	36.39	34.69	43.37	48.60	50.09	52.45	42.21	42.18	43.60	48.88	46.18	43.55
Douglas	20.29	20.79	20.40	23.13	21.15	23.11	25.30	23.82	25.47	29.70	40.74	37.47	36.25	32.63	32.28	34.22	33.13	30.93	30.41
Gilliam	15.91	15.07	15.53	18.31	21.54	22.28	23.69	20.13	23.86	29.80	41.79	40.19	42.66	47.07	48.77	40.75	44.05	42.82	38.17
Grant	17.53	24.65	17.48	20.29	20.18	21.14	22.30	24.22	26.67	33.46	38.00	40.37	41.76	41.38	44.36	46.78	45.27	48.53	51.78
Harney	12.20	17.18	13.54	18.89	23.30	27.61	30.22	25.45	29.76	28.05	35.50	27.78	26.55	32.54	35.85	50.53	42.35	52.92	53.14
Hood River	16.63	16.41	14.55	18.39	17.79	17.82	22.33	22.72	24.40	30.55	45.83	45.94	44.10	38.45	38.64	40.57	43.66	41.73	42.26
Jackson	21.27	26.79	23.58	28.56	29.73	28.51	26.55	25.32	25.56	30.45	38.24	41.44	40.78	36.61	37.13	40.15	40.46	39.86	39.47
Jefferson .....	.....	.....	.....	.....	.....	38.33	33.03	33.50	37.98	44.20	44.02	39.56	39.20	38.67	39.03	40.64	37.61	38.59	40.67
Josephine	22.08	21.74	19.21	19.98	28.49	27.01	30.52	33.38	36.33	38.49	48.98	50.07	47.93	46.89	48.67	48.32	48.94	46.70	49.28
Klamath	13.66	16.40	16.05	27.01	24.56	28.04	28.80	33.30	31.23	35.74	47.96	44.75	48.51	38.96	40.72	37.79	46.67	39.56	43.71
Lake	12.16	13.18	11.06	15.17	12.69	15.63	18.02	14.70	16.73	21.31	25.71	27.01	26.58	23.59	23.70	25.01	26.90	36.55	38.27
Lane	16.70	20.22	20.82	24.92	25.78	23.84	22.48	22.92	22.23	26.46	31.62	31.81	32.97	29.47	34.51	32.91	30.67	31.28	33.63
Lincoln	19.51	26.66	23.84	26.73	29.38	30.32	31.61	30.27	33.10	37.50	42.89	48.98	64.73	51.42	58.31	57.27	59.63	60.70	60.38
Linn	16.99	18.80	19.49	21.34	22.44	22.36	21.23	21.02	23.18	27.96	33.80	32.54	32.22	31.14	31.16	31.63	31.94	31.92	31.36
Malheur	24.00	28.07	24.72	25.98	23.54	28.56	27.31	30.29	36.47	43.03	43.81	39.91	38.65	39.58	38.19	42.77	45.75	47.53	52.41
Marion	14.25	19.97	17.81	21.03	20.51	21.04	20.61	20.44	22.00	26.26	32.35	30.28	30.14	26.57	28.80	28.91	28.84	30.33	31.21
Morrow	21.23	16.47	16.16	15.91	17.71	22.43	22.50	27.14	24.11	32.78	42.39	38.34	38.28	34.26	33.53	35.65	37.97	37.53	40.04
Multnomah	15.56	16.80	14.27	16.17	14.56	15.74	16.44	17.15	19.09	22.80	27.72	25.31	27.08	22.76	22.59	22.98	24.82	26.41	26.99
Polk	13.81	18.38	17.59	17.84	21.88	22.24	24.10	21.29	19.54	22.11	31.35	28.62	29.91	28.55	29.43	29.30	29.81	28.87	29.41
Sherman	21.08	16.62	16.05	16.15	17.77	17.74	21.38	22.61	28.93	37.80	33.32	34.19	29.41	28.98	31.51	31.23	34.12	38.66	42.90
Tillamook	23.48	25.99	21.93	19.66	26.20	21.95	29.51	29.44	29.16	36.55	46.26	46.62	42.91	38.70	43.21	40.86	42.95	48.60	45.98
Umatilla	15.79	17.25	15.48	19.28	20.10	20.83	20.77	21.13	22.94	30.89	35.93	33.60	31.21	27.82	27.47	27.61	28.69	29.25	32.68
Union	18.78	20.85	18.20	24.70	23.11	25.48	25.62	26.53	26.15	30.03	37.32	37.02	35.15	36.56	40.27	43.81	45.12	44.06	44.60
Wallowa	17.04	19.93	17.61	19.13	19.86	22.17	24.35	25.29	25.43	30.09	38.40	39.57	35.24	34.84	34.74	38.12	40.79	40.84	47.02
Wasco	15.84	15.31	14.47	18.03	20.81	21.86	24.52	26.15	27.91	29.73	37.64	37.69	38.35	36.18	35.33	34.48	38.37	36.62	39.73
Washington	13.50	18.87	17.14	19.36	18.43	18.46	19.02	19.45	19.32	22.10	28.13	28.35	28.43	26.28	24.74	26.89	25.06	28.10	26.54
Wheeler	13.19	10.09	10.16	13.54	19.22	22.90	21.52	20.63	18.88	21.43	24.65	25.26	24.80	22.76	22.68	23.86	25.17	25.85	27.97
Yamhill	18.88	18.80	19.11	18.35	19.16	19.99	20.08	22.30	21.53	25.78	31.01	32.08	31.63	31.33	31.74	31.03	31.40	31.56	31.27

TABLE XI. TAX LEVIES IN MILLS ON SALE VALUES OF TAXABLE CITY PROPERTY BY COUNTIES AND YEARS

County	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Arithmetic average	14.71	12.12	12.67	13.43	11.42	12.77	13.17	13.74	18.53	23.69	25.65	25.96	25.45	26.50	27.46	28.11	28.28	28.82	
Baker			14.31	12.95	13.97	14.17	14.09	14.91	17.64	21.90	22.37	22.31	19.36	20.86	23.66	26.38	26.65	28.67	
Benton				20.52							20.98	18.96	20.00	22.49	23.95	24.19	20.96	20.80	
Clackamas	9.32	8.89	10.42	9.60	10.06	11.28	11.43	11.87	14.44	17.50	16.61	17.49	17.50	17.10	17.36	17.50	18.64	17.21	
Clatsop				10.24	10.71	12.24	12.48	17.59	27.62	27.83	30.86	32.26	32.58	40.99	36.66	38.69	39.23	42.99	
Columbia				10.42	8.95	14.72	13.97	13.19	21.68	31.09	29.95	27.77	26.20	28.17	29.46	29.25	23.72	20.56	
Coos	13.15											32.91	33.94	36.93	37.80	32.63	29.07	28.62	27.42
Crook												40.43	40.13	38.88	37.73	48.51	43.43	47.61	50.48
Curry, No cities																			
Deschutes								19.98	15.78	24.24	28.22	33.23	37.56	29.65	28.01	28.25	30.50	29.07	22.09
Douglas	14.55			12.42	12.74	13.88	13.94	14.45	18.21	21.81	21.76	20.94	20.97	21.37	21.59	20.90	20.35	21.34	
Gilliam		12.36	13.98	13.97	11.06	11.50	10.32	11.43	16.64	26.16	32.25	33.81	38.84	42.29	37.76	46.01	43.50	38.81	
Grant												34.24	34.51	35.43	33.99	37.81	38.82	43.09	46.73
Harney												18.58	17.87	21.04	23.35	30.69	27.32	31.26	30.93
Hood River			9.04	11.46	11.39	10.57	13.28	13.26	14.71	19.43	31.26	35.92	33.80	30.87	29.16	29.68	30.73	28.06	27.97
Jackson	20.41			18.48							29.30	26.81	26.55	26.70	28.32	29.95	27.34	24.83	24.42
Jefferson												24.61	24.80	26.39	31.60	36.16	32.76	28.90	29.33
Josephine	15.63			16.94								37.95	36.10	34.34	34.50	33.43	33.12	28.10	27.13
Klamath											26.26	25.27	28.43	23.60	26.48	25.64	28.16	21.48	21.94
Lake												17.39	17.76	15.33	13.37	14.00	14.11	22.28	20.77
Lane	21.09			13.09	11.59	12.69	11.26	12.04	15.36	20.67	22.85	23.39	22.43	26.08	23.67	26.03	27.93	21.92	20.26
Lincoln	13.33			22.43							28.15	31.48	43.16	35.41	39.90	39.43	39.02	38.96	38.73
Linn	11.39			14.85								18.87	19.46	22.08	22.72	23.50	23.09	22.69	22.47
Malheur												31.65	34.07	31.96	29.78	32.13	40.19	40.73	45.90
Marion	19.68			11.63	12.11	11.87	12.31	12.85	16.40	20.41	18.74	18.67	18.95	21.12	20.74	19.20	19.02	19.39	
Morrow		13.48	10.97	9.70	11.05	11.06	13.43	12.12	16.66	21.62	26.54	25.70	24.59	21.37	22.89	28.93	29.22	33.88	
Multnomah				12.10	11.16	11.80	12.13	13.05	15.95	20.11	19.21	20.30	17.09	16.59	17.80	19.54			
Polk	10.72			11.76	11.71	13.92	12.90	11.56	12.42	17.54	17.81	18.42	19.70	21.64	22.27	22.03	20.61	20.77	
Sherman				9.99	10.20	8.59	10.22	13.85	15.45	26.48	22.95	23.87	21.86	20.23	22.05	22.12	25.42	29.28	32.22
Tillamook				11.50	9.45	13.60	13.44	13.99	18.55	24.22	23.29	22.58	20.52	24.10	26.21	27.28	29.31	24.64	
Umatilla			12.32	12.95	11.02	9.28	9.62	9.68	10.71	16.35	17.22	17.59	17.12	16.49	16.59	18.52	20.41	22.34	24.74
Union		16.67	17.54	14.10	14.27	15.66	15.16	16.86	20.44	25.02	26.57	25.46	26.95	27.05	29.02	29.16	29.03	29.18	
Wallowa				13.96	14.52	15.02	14.28	11.37	11.80	15.18	21.09	28.02	24.98	29.21	28.00	29.22	29.74	32.71	40.01
Wasco			12.11	11.66	13.67	13.20	14.15	15.24	16.63	18.33	22.75	25.02	25.45	26.03	25.79	26.92	30.91	29.00	32.65
Washington												18.59	17.79	18.00	17.58	20.10	19.23	21.43	20.87
Wheeler												23.76	23.31	23.37	26.62	26.46	26.63	25.34	29.44
Yamhill	12.54										21.85	21.90	22.02	23.22	23.05	22.85	24.02	25.59	26.83

As in the case of the rural levies there is a slow but gradual increase in average weighted levies from 1910 to 1918. On the full cash value basis this increase is from 16.26 mills in 1910 to 21.23 mills in 1918, or a rise of 30.57 percent during the period. The increase during the two following years is 9.52 mills or a rise of 44.84 percent. A noticeable recession sets in the following year, 1921, whereas in the case of the rural levies the high peak was reached during that year with a slight recession beginning the following year, 1922.

In Table XII are given the weighted average levies in mills on urban equalized and full cash value bases and the simple average levies on the sales value basis by years.

TABLE XII. WEIGHTED AVERAGE LEVIES IN MILLS ON URBAN EQUALIZED AND FULL CASH VALUE BASES AND SIMPLE AVERAGE LEVIES ON SALES VALUE BASIS BY YEARS

Year	Equalized value basis	Full cash value basis	Sale value basis
1910	22.97	16.26	.....
1911	26.09	17.65	14.71
1912	24.21	15.53	12.12
1913	28.06	17.87	12.67
1914	25.53	16.98	13.43
1915	27.36	18.01	11.42
1916	29.43	18.74	12.77
1917	29.65	19.50	13.17
1918	31.50	21.23	13.74
1919	38.57	25.37	18.53
1920	45.80	30.75	23.69
1921	44.42	29.06	25.65
1922	46.97	30.24	25.96
1923	43.41	26.50	25.45
1924	44.90	26.99	26.50
1925	45.88	27.12	27.46
1926	48.20	28.53	28.11
1927	50.27	29.75	28.28
1928	51.43	30.40	28.82

V. COMPARISON OF RURAL AND URBAN TAX LEVIES

The term tax burden as used under a general property tax system is not a well defined term. Sometimes the personal conception is uppermost and it is intended to describe the relation of the taxpayer to the tax; it is a question of the ability of the taxpayer to meet his taxes. At other times the term is used in a more or less objective sense; it is intended to describe the relation of the size of the tax to the income from its base. Generally the term is used in total disregard of the value of the services and utilities provided by the government upon the expenditure of tax funds.

It is therefore apparent that a comparison of rural and urban levies has little or no significance as a means of measuring relative tax burdens. The comparative data on levies appearing in the following paragraphs are not presented with a view to conveying such information.

The total rural taxes in the state have risen from \$6,390,829.00 in 1910 to \$20,334,636.28 in 1928, representing an increase of 218 percent.

Total city taxes rose from \$9,040,724.00 in 1910 to \$28,618,546.06 in 1928, an increase of 217 percent.

Total taxes of Multnomah county cities rose during the same period from \$6,142,170.00 to \$17,171,050.40, representing an increase of 180 percent.

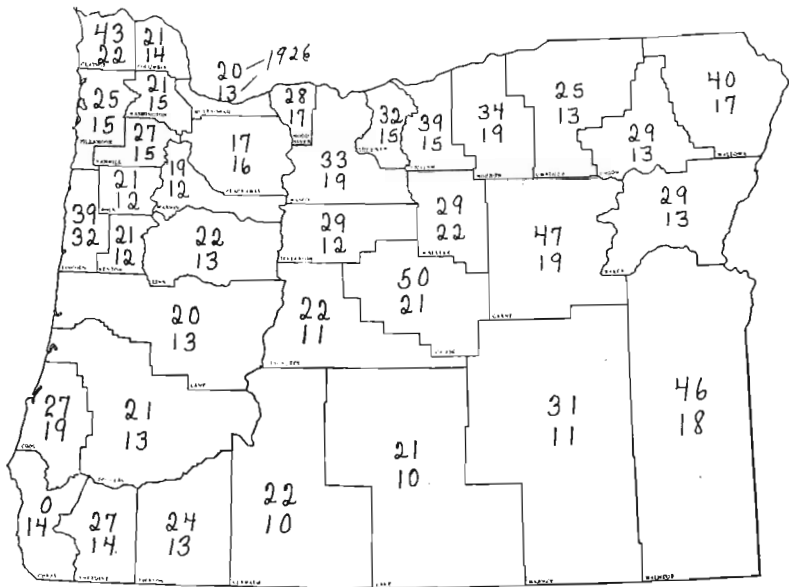


Fig. 3. In the outline map of Oregon upper figures indicate levies in mills on city property and lower figures indicate levies in mills on rural property on the sale value basis for the year 1928.

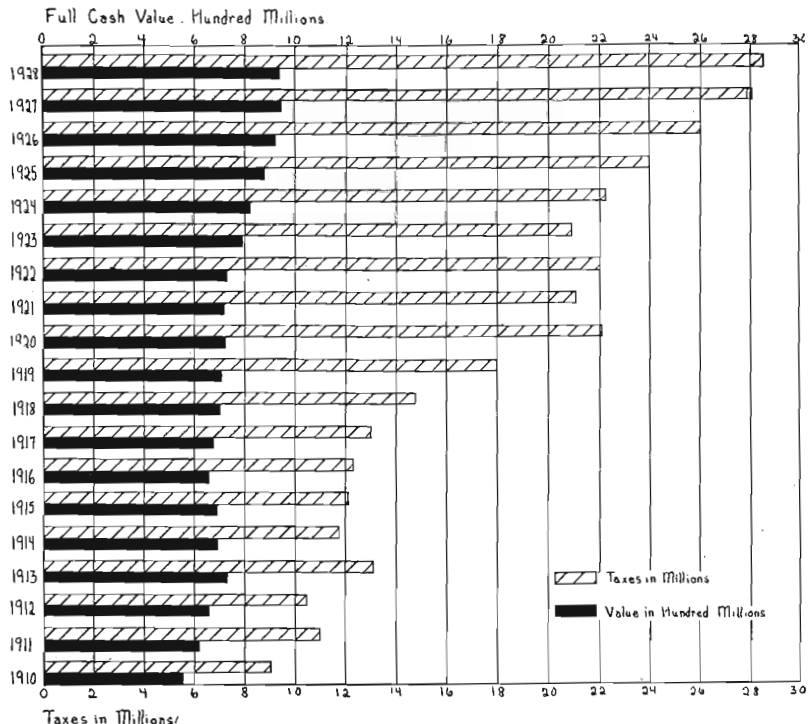


Fig. 4. Trend in full cash value of urban taxable property in Oregon and trend in total urban taxes in Oregon from 1910 to 1928.

Taxes of cities other than Multnomah county cities rose from \$2,898,553.00 to \$11,447,495.66, an increase of 295 percent.

The increase in levies both actual and on the percentage basis are presented in tables XII, XIII, and XIV.

TABLE XIII. INCREASE IN TAX LEVIES: RURAL, ALL CITIES, CITIES OUTSIDE OF MULTNOMAH COUNTY, AND MULTNOMAH COUNTY CITIES, FULL CASH VALUE BASIS

Class	1910-13 or prewar levies	1928 levies	1928 in- crease in mills over prewar levies	1928 in- crease over 1910-13 av- erage levies in per- centages
Rural	11.28	21.23	9.95	88
All cities	16.83	30.40	13.57	81
Cities outside of Multnomah county..	19.71	37.46	17.75	90
Multnomah county cities	15.70	26.99	11.29	72

TABLE XIV. INCREASE IN TAX LEVIES; RURAL, ALL CITIES, CITIES OUTSIDE OF MULTNOMAH COUNTY CITIES, AND MULTNOMAH COUNTY CITIES, SALE VALUE BASIS

Class	1910-13 or prewar levies	1928 levies	1928 in- crease in mills over prewar levies	1928 in- crease over 1910-13 av- erage levies in per- centages
Rural	7.52	15.46	7.94	106
All cities	13.17	28.82	15.65	119
Cities outside of Multnomah county..	13.17	28.82	15.65	119
Multnomah county cities	12.10 (1913)	19.54 (1926)	7.44	61

The relation between the size of the city levies and the size of the rural levies in the respective counties for any given year may be expressed in terms of coefficients of correlation. The coefficient of correlation between the 1910-13 average city and 1910-13 average rural levies for the respective counties is $.6116 \pm .0735$, and the coefficient of correlation between the corresponding levies for the year 1928 is $.5922 \pm .0740$. These coefficients, although carrying considerable significance, warrant the conclusion that city local expenditures and rural local expenditures are not in all cases affected by the same conditions.

VI. THE EFFECT OF RISING TAXES UPON LAND VALUES

The problem of the effect of rising taxes upon land values is involved in the intricate subjects of economic rent, the shifting and incidence of taxes, and the effects of utilities and services acquired at public expenditure upon land values.

The value of land is generally conceded to be very largely a function of the two variables, present and prospective economic rent and the prevailing rate of interest on equally desirable investments. It is also generally con-

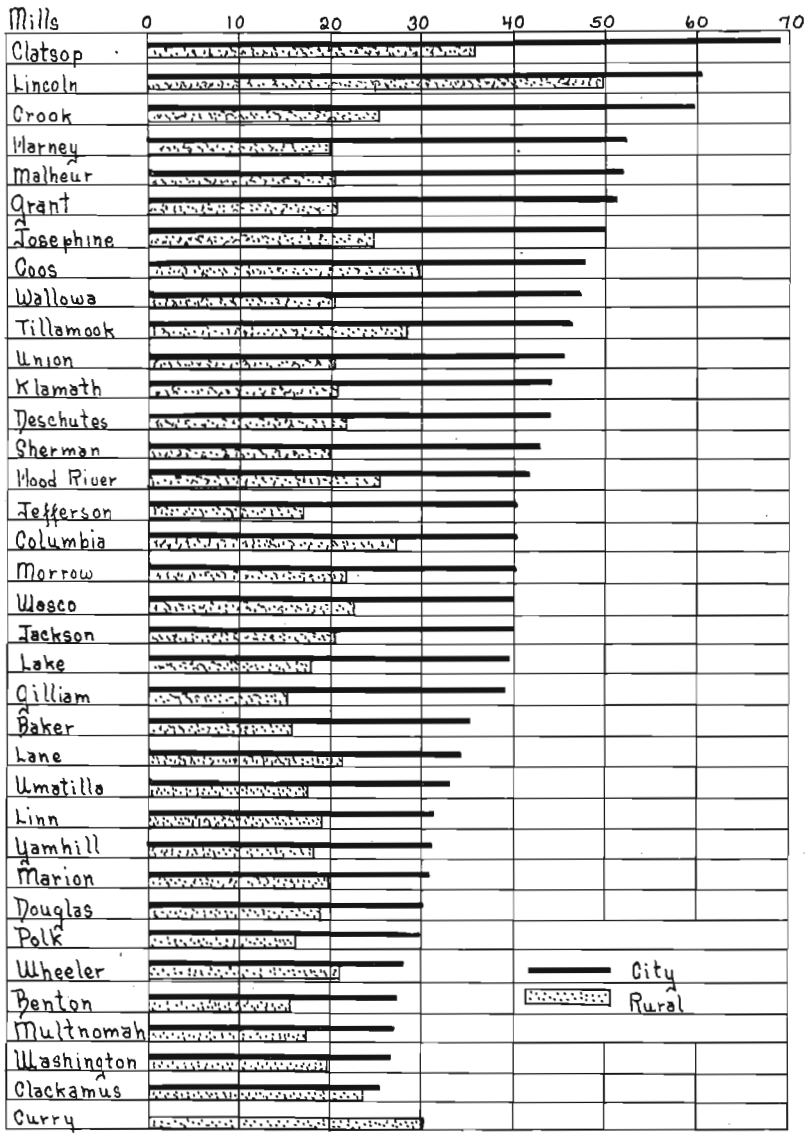


Fig. 5. Levies in mills on the full cash value basis, urban and rural, for the year 1928.

ceded that taxes on land values cannot be shifted or evaded. It is apparent, therefore, that taxes placed on land values must be paid out of the net income from the land; to the degree that the economic rent is thus absorbed, the market value of the land to the judicious buyer very largely disappears.*

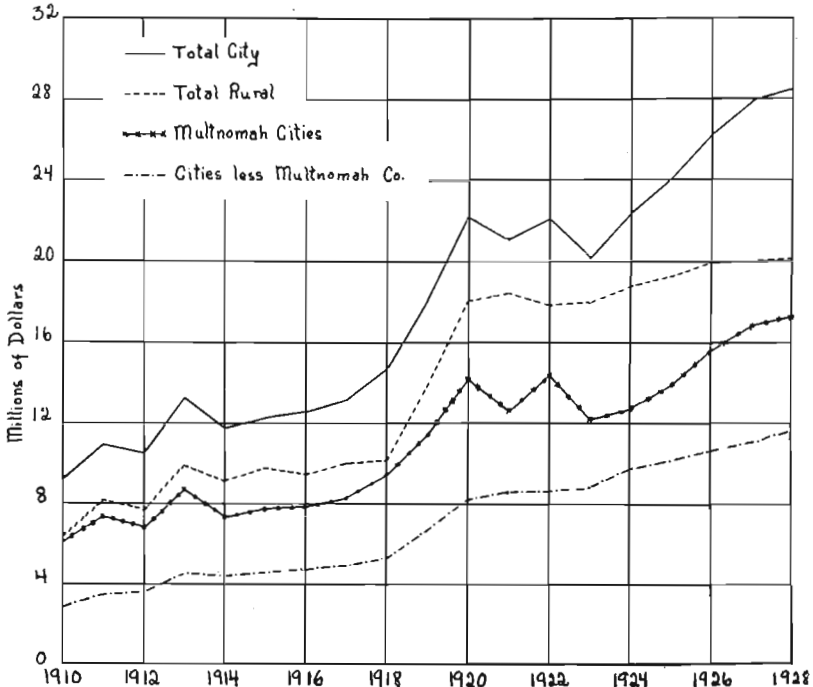


Fig. 6. Trends in total taxes—rural, urban, urban less Multnomah county, and Multnomah county urban taxes.

To measure the effects of taxes upon land values would therefore appear to consist very largely of the simple problem of measuring the percentage of the net income from the land absorbed by the taxes imposed, were it not for the unknown factor—that is, the degree to which the present economic rent is the result of the services and utilities acquired upon the expenditure of the tax monies.

Better roads, better schools, better sanitation, and greater protection to life and property, together with the many other services provided by the modern state, are generally conceded to be conducive, both directly and indirectly, to increasing land values; but it is doubtful whether their effects could be made amenable to statistical presentation even in the presence of the most searching investigation.

*This statement is based on the assumption that there are available other avenues of investment that are either tax exempt or are subject to the shifting and evasion of taxes. This assumption, however, is not one hundred percent true.

There are therefore two sets of factors in the problem, those tending to appreciate land values and those tending to depreciate the same values. The former are the less tangible, although no less real; whereas the latter are more tangible and hence more easily measured and statistically presented.

No attempt will be made to measure the effects of publicly provided services and utilities in their appreciative effects upon land values. In the accompanying tables, however, are presented the depreciating effects of tax levy increases upon the market values of both rural and urban lands. A five-percent investment basis has been assumed.*

In the following calculations it was recognized that if the market value of land is reduced by an increasing tax the assessed value of the land or the tax base is itself also reduced†. Therefore the tax burden is not increased in direct proportion to the increase in the tax levies nor is the market value of land proportionately reduced.

In the absence of taxes the market value of land is determined, as stated above, by capitalizing the economic rent at the prevailing rate of interest. After the imposition of taxes, the market value of land is determined by capitalizing the economic rent at the current rate of interest as augmented by the tax‡.

The weighted average rural tax levies in the State of Oregon for the years indicated have been as shown in Table XV.

TABLE XV. LEVIES IN MILLS ON RURAL FULL CASH VALUE, AND SALE VALUE BASES, 1910-1928

Year	Weighted average levy on rural land, full cash value basis	Increase in mills over 1910-13, average mills	Unweighted average levy on rural land sale value basis	Increase in mills over 1911-13, average mills
1910	10.02	-1.26	.....	.....
1911	11.72	.44	8.91	1.39
1912	10.47	-.81	6.61	-.91
1913	12.92	1.64	7.04	-.48
1914	12.78	1.50	7.16	-.36
1915	13.09	1.81	6.83	-.69
1916	13.19	1.91	6.85	-.67
1917	13.41	2.13	7.17	-.35
1918	13.84	2.56	7.24	-.28
1919	17.55	6.27	10.20	2.68
1920	21.79	10.51	13.46	5.94
1921	21.98	10.70	15.08	7.56
1922	21.25	9.97	14.87	7.35
1923	19.53	8.25	14.16	6.64
1924	20.15	8.87	14.67	7.15
1925	20.19	8.91	14.82	7.30
1926	20.81	9.53	15.33	7.81
1927	20.75	9.47	15.14	7.62
1928	21.23	9.95	15.46	7.94

Applying the above-stated formula to the data presented in Table XV, results are obtained as shown in Table XVI.

*This percentage was arrived at in consultation with representatives of the Farm Management department of the Oregon Agricultural Experiment Station.

†The assessor usually endeavors to assess the land at a certain percentage of the market or sale value.

‡No attempt is made in this study to analyze the effects of annual general property tax levies upon the value of timber lands.

TABLE XVI. PERCENTAGE OF CURRENT RURAL LAND VALUES ABSORBED BY CURRENT TAX LEVIES OVER AND ABOVE PREWAR LEVIES

Year	Percentage of value absorbed on full cash value basis	Percentage of value absorbed on sale value basis
1910
1911
1912
1913
1914
1915
1916
1917
1918
1919
1920
1921
1922
1923
1924
1925
1926
1927
1928

.....	87	2.70
.....	3.18	.....
.....	2.91	.....
.....	3.49	.....
.....	3.68	.....
.....	4.09	.....
.....	4.87	.....
.....	11.14	5.09
.....	18.71	10.62
.....	17.63	13.13
.....	16.62	12.82
.....	14.16	11.72
.....	15.07	12.51
.....	15.12	12.74
.....	16.01	13.51
.....	15.92	13.22
.....	16.60	13.70

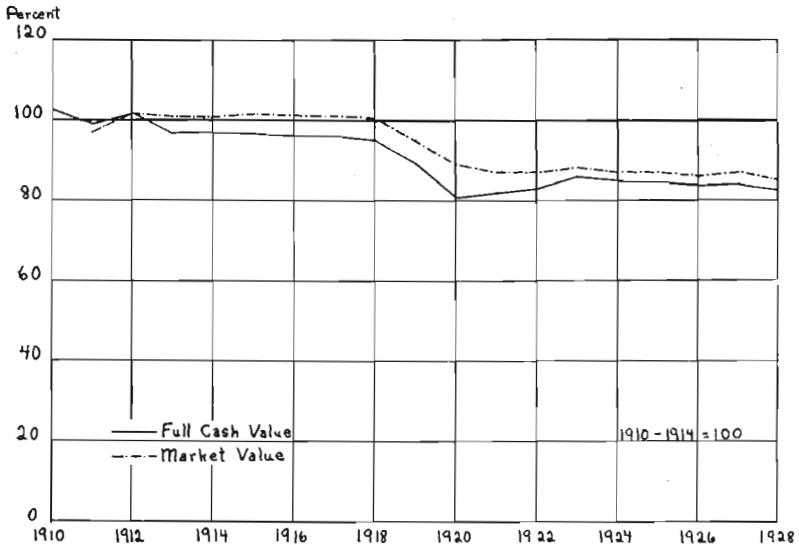


Fig. 7. Market value of rural land in Oregon as affected by the increase in tax levies above the 1910-13 average levies as calculated on the full cash value and market or sale value bases.

According to the foregoing data it would appear that on the average the 1928 market value of the rural lands in Oregon, assuming a five-percent investment basis, has been absorbed to the extent of 16.60 percent as calculated on the full cash value basis and 13.70 percent as calculated on the sale value basis.

Basing the market value of rural land on an investment return of less than five percent would augment the percentage of land values absorbed by increasing tax levies. Assuming a four-percent return, the 1928 increase

in tax levies over the 1910-13 prewar average would absorb 19.92 percent of the current land value as calculated on the full cash value basis and 16.56 percent as calculated on the sale value basis.*

The data presented in Table XVII indicate the corresponding percentages of the market values of rural land in the different counties in the state absorbed by the 1928 increases in tax levies over the 1910-13 averages.

TABLE XVII. PERCENTAGE OF MARKET VALUE OF RURAL LAND ABSORBED BY THE 1928 TAX LEVY INCREASES OVER THE 1910-13 AVERAGE LEVY ARRANGED BY COUNTIES

County	Increase in mills over 1910-13 average: full cash value basis	Percentage of market value of rural land absorbed by 1928 tax increase over 1910-13 average levy
1. Lincoln	33.23	39.93
2. Clatsop	22.43	30.97
3. Curry	18.49	27.00
4. Columbia	14.46	22.43
5. Morrow	13.99	21.86
6. Hood River	13.75	21.57
7. Coos	13.27	20.97
8. Tillamook	12.69	20.24
9. Wasco	11.90	19.22
10. Union	11.65	18.89
11. Sherman	11.48	18.67
12. Josephine	11.31	18.45
13. Wheeler	10.93	17.94
14. Wallowa	10.86	17.84
15. Grant	10.60	17.49
16. Clackamas	10.25	17.01
17. Crook	9.91	16.54
18. Marion	9.66	16.19
19. Umatilla	9.34	15.74
20. Jackson	9.27	15.64
21. Lane	9.12	15.43
22. Multnomah	8.86	15.05
23. Harney	8.70	14.82
24. Linn	8.55	14.60
25. Gilliam	8.01	13.81
26. Lake	7.67	13.30
27. Deschutes	7.37	12.85
28. Baker	7.26	12.68
29. Douglas	7.08	12.40
30. Washington	7.05	12.36
31. Klamath	6.44	11.41
32. Malheur	6.35	11.27
33. Polk	6.14	10.94
34. Yamhill	6.06	10.81
35. Benton	3.58	6.68
36. Jefferson	2.50	4.76

The percentages shown in Table XVII for the individual counties are calculated in the same manner and on the same investment basis as the preceding data for all counties.

Urban land values are affected by increasing taxes in essentially the same manner as rural land values. The offsetting effects of the services and utilities publicly provided may, however, be somewhat more pronounced than in rural areas. On the basis of present increases in tax levies over the prewar average levies, urban land values have been affected as shown in tables XVIII-XXII.

*The following problem suggests itself: To what degree is full cash value of taxable property in a county as estimated by the State Tax Commission affected by high local taxes?

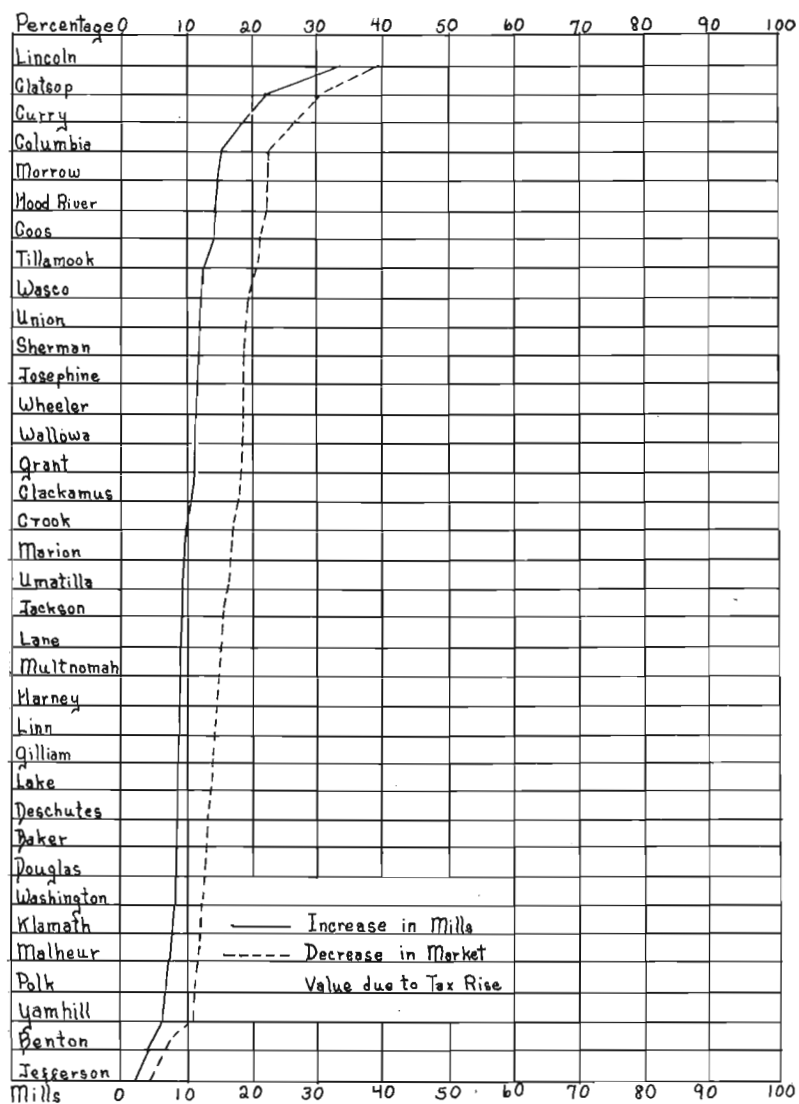


Fig. 8. Percentage of market value of rural land absorbed by the 1928 tax levy increase over the 1910-13 average levies, arranged by counties in order of importance.

TABLE XVIII. INCREASE IN TAX LEVIES ON URBAN LAND VALUES EXCLUSIVE OF MULTNOMAH COUNTY ON FULL CASH VALUE AND MARKET VALUE BASES

Year	Weighted average levy on urban land exclusive of Multnomah county, full cash value basis	Increase in mills over 1910-13, average mill levy	Average levy on urban land exclusive of Multnomah county, market value basis	Increase in mills over 1910-13, average mill levy
1910	17.95	-1.76	.....	.....
1911	19.70	-.01	14.71	1.53
1912	18.73	-.98	12.12	-1.06
1913	22.47	2.76	12.72	-.46
1914	23.38	3.67	13.58	.40
1915	23.80	4.09	11.43	-1.75
1916	24.42	4.71	12.83	-.35
1917	25.19	5.48	13.23	.05
1918	26.49	6.78	13.77	.59
1919	32.55	12.84	18.67	5.49
1920	37.93	18.22	23.86	10.68
1921	37.15	17.44	25.84	12.66
1922	36.97	17.26	26.13	12.95
1923	34.37	14.66	25.70	12.52
1924	36.32	16.61	26.79	13.61
1925	36.06	16.35	27.74	14.56
1926	36.48	16.77	28.37	15.19
1927	36.72	17.01	28.28	15.10
1928	37.46	17.75	28.82	15.64

TABLE XIX. PERCENTAGE OF MARKET VALUE OF URBAN LAND EXCLUSIVE OF MULTNOMAH COUNTY ABSORBED BY 1928 TAX LEVY INCREASE OVER PREWAR AVERAGE LEVIES

Year	Full cash value basis	Market value basis
1910	.....	.....
1911	.....	2.97
1912	.....	.....
1913	5.23	.....
1914	6.84	.79
1915	7.56	.....
1916	8.61	.....
1917	9.88	.10
1918	11.94	1.17
1919	20.43	9.89
1920	26.71	17.60
1921	25.86	20.20
1922	25.66	20.57
1923	22.67	20.03
1924	24.94	21.40
1925	24.64	22.55
1926	25.12	23.30
1927	25.38	23.20
1928	26.20	23.83

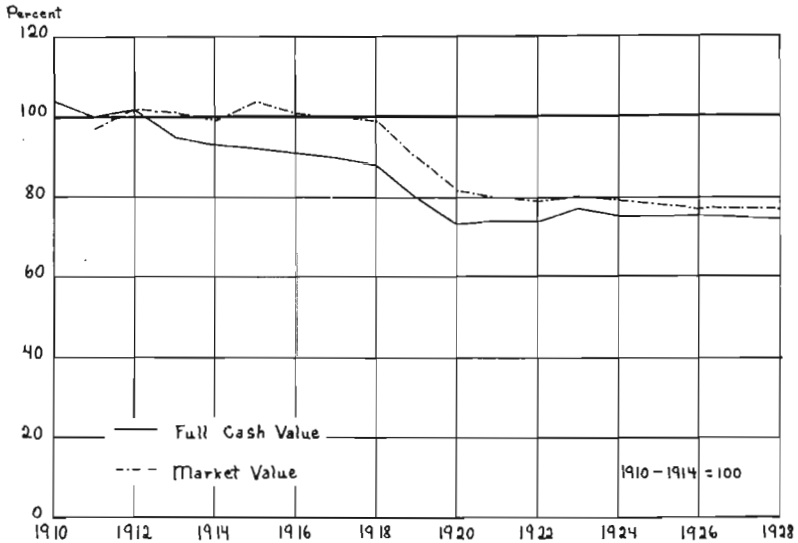


Fig. 9. Market value of urban land in Oregon outside of Multnomah county as affected by the increase in tax levies above the 1910-13 average levies as calculated on the full cash value and sale or market value bases.

TABLE XX. INCREASE IN TAX LEVIES ON URBAN LAND VALUES OF MULTNOMAH COUNTY, FULL CASH VALUE AND MARKET VALUE BASES

Year	Weighted average levy on Multnomah county urban land, full cash value basis	Increase in mills over 1910-13 average mills levy	Average levy on Multnomah county urban land, sale value basis	Increase in mills over 1913-14 average mills levy
1910	15.56	-.14	.....	.....
1911	16.80	1.10	.....	.....
1912	14.27	-1.43	.....	.....
1913	16.17	.47	6.35	.23
1914	14.56	-1.14	6.04	-.08
1915	15.74	.04	5.95	-.17
1916	16.44	.74	6.26	.14
1917	17.15	1.45	6.46	.34
1918	19.09	3.39	6.98	.86
1919	22.80	7.10	8.44	2.32
1920	27.72	12.02	11.62	5.50
1921	25.31	9.61	12.55	6.43
1922	27.08	11.38	12.22	6.10
1923	22.76	7.06	11.38	5.26
1924	22.59	6.89	10.73	4.61
1925	22.98	7.28	11.72	5.60
1926	24.82	9.12	12.69	6.57
1927	26.41	10.71	.....	.....
1928	26.99	11.29	.....	.....

TABLE XXI. PERCENTAGE OF MARKET VALUE OF MULTNOMAH COUNTY URBAN LAND ABSORBED BY 1928 TAX INCREASES OVER PREWAR LEVIES

Year	Multnomah county urban land, full cash value basis	Multnomah county urban land, market value basis
1910	.....	.....
1911	2.15	.....
1912	.....	.....
1913	.93	.46
1914	.....	.....
1915	.08	.....
1916	1.46	.28
1917	2.82	.68
1918	6.35	1.69
1919	12.43	4.43
1920	19.18	9.91
1921	16.12	11.39
1922	18.54	10.87
1923	12.37	9.52
1924	12.11	8.44
1925	12.71	10.07
1926	15.43	11.61
1927	17.64	.....
1928	18.51	.....

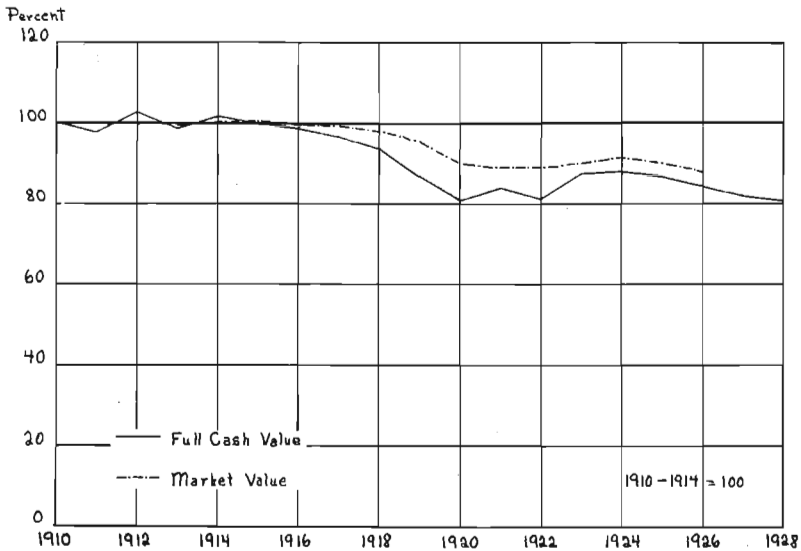


Fig. 10. Market value of urban land in Multnomah county as affected by the increase in tax levies above 1910-13 average levies as calculated on full cash value and market or sale value bases.

TABLE XXII. INCREASE IN MILLS ON URBAN LAND VALUE OVER 1910-13
AVERAGE LEVIES GIVEN BY COUNTIES AND CORRESPONDING
PERCENT OF MARKET VALUE OF URBAN LAND
ABSORBED BY 1928 TAX LEVY INCREASE
OVER PREWAR LEVIES

County	Increase in mills of 1923 Increase in mills of 1928 levy over 1910-13, aver- age levies, full cash value basis	Percentage of market value of urban land ab- sorbed by 1928 increase over 1910-13 average levy
1. Clatsop	50.05	50.03
2. Harney	37.69	42.98
3. Crook	36.22	42.01
4. Lincoln	36.19	41.99
5. Grant	31.79	38.87
6. Wallowa	28.59	36.38
7. Josephine	28.53	36.33
8. Malheur	26.72	34.83
9. Hood River	25.76	34.00
10. Klamath	25.43	33.71
11. Sherman	25.42	33.70
12. Lake	25.38	33.67
13. Union	23.97	32.41
14. Wasco	23.82	32.28
15. Tillamook	23.21	31.70
16. Morrow	22.60	31.13
17. Gilliam	21.96	30.52
18. Deschutes	20.55	29.13
19. Coos	20.53	29.11
20. Columbia	18.81	27.34
21. Jefferson	17.67	26.11
22. Wheeler	16.22	24.49
23. Umatilla	15.73	23.93
24. Baker	15.04	23.12
25. Jackson	14.42	23.38
26. Lane	12.96	20.58
27. Marion	12.94	20.56
28. Polk	12.50	20.00
29. Yamhill	12.48	19.98
30. Linn	12.20	19.61
31. Multnomah	11.29	18.42
32. Clackamas	9.41	15.84
33. Washington	9.32	15.71
34. Douglas	9.26	15.63
35. Benton	5.52	9.94

The average percentage of the market value of urban land, outside of Multnomah county, absorbed by the 1928 tax increases over the 1910-13 average is 26.20 percent on the full cash value basis and 23.83 percent on the sale value basis. For Multnomah county urban lands the percentages are 18.42 and 11.61 respectively.* For the urban lands of individual counties the percentages on the full cash value basis range from 50.05 percent for Clatsop county to 9.94 percent for Benton county.

For the rural land values for the individual counties the percentages range from 39.93 percent for Lincoln county to 4.76 percent for Jefferson county.

VII. THE RURAL TAX BURDEN

No attempt will be made to measure the rural tax burden in terms of the farmer's ability to meet his taxes. More data on rural net income would be necessary than are available at present.

The farmer's tax burden is a function of many variables, among which the following conditions are predominant: the size of the tax levy itself,

*The market value data are based upon the 1926 levies.

volume of commodities produced by the farmer for the market, prices received for his produce, and prices paid by the farmer for commodities purchased, including production costs.

An index prepared by the Statistical Division of the United States Bureau of Agricultural Economics presenting the ratio of prices received

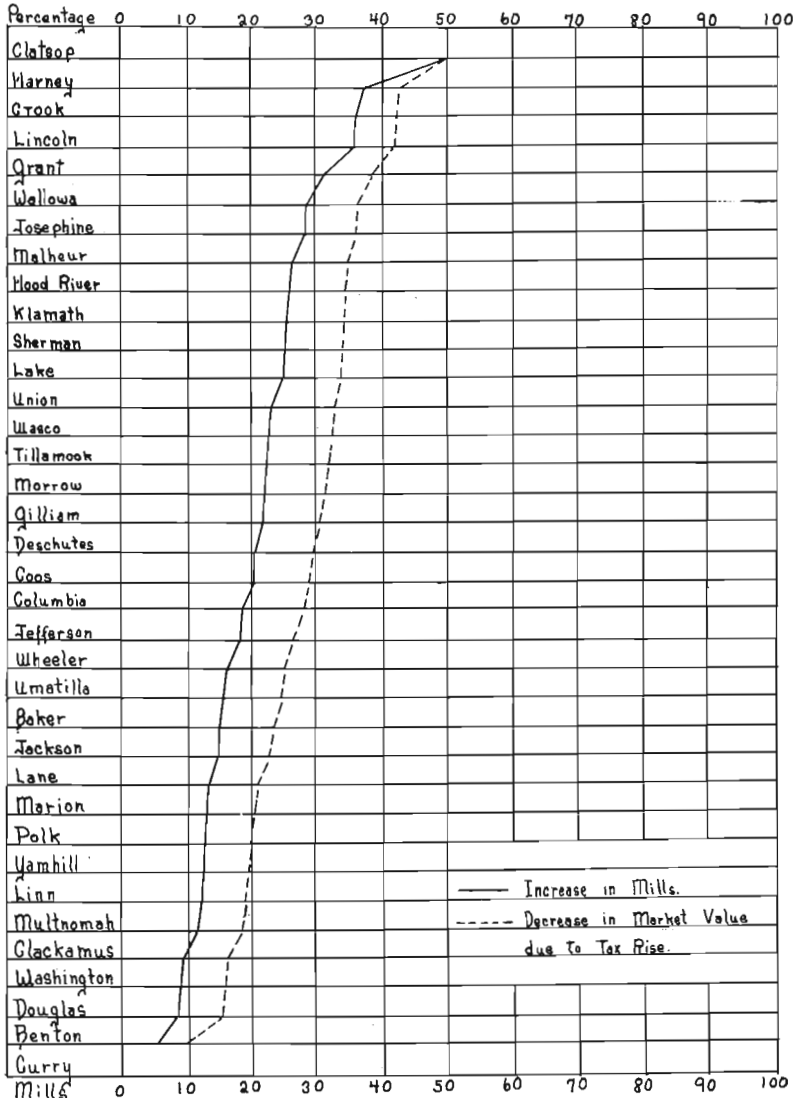


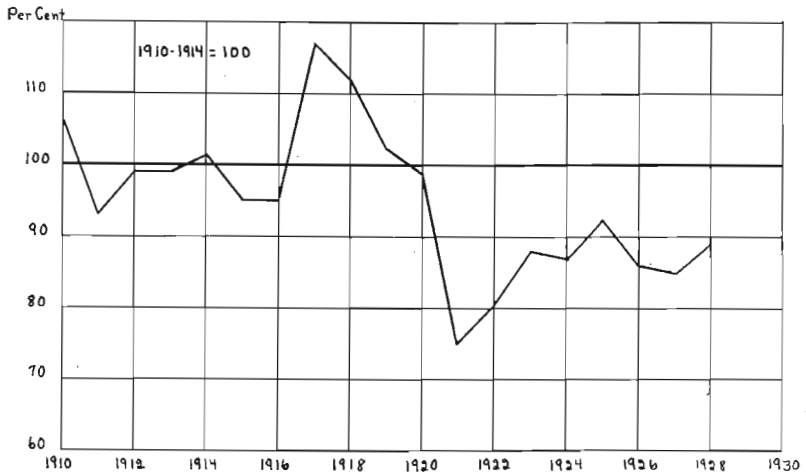
Fig. 11. Percentage of market value of urban land absorbed by the 1928 tax levy increase over the 1910-13 average levies, arranged by counties in order of importance.

by farmers to prices paid by them may throw some light on the farmer's ability to pay the tax dollar (Table XXIII).

TABLE XXIII. INDEX NUMBERS OF FARM PRICES AND PRICES PAID BY FARMERS FOR COMMODITIES PURCHASED

Year*	Index numbers of farm prices including 30 items	Index numbers of prices paid by farmers for commodities bought	Ratio of prices received to prices paid
1910	103	98	106
1911	95	101	93
1912	99	100	99
1913	100	100	99
1914	102	101	101
1915	100	106	95
1916	117	123	95
1917	176	150	118
1918	200	178	112
1919	209	205	102
1920	205	206	99
1921	116	156	75
1922	124	152	81
1923	135	153	88
1924	134	154	87
1925	147	159	92
1926	136	156	87
1927	131	154	85
1928	139	156	89

*"The Agricultural Situation"—Issued monthly by the Bureau of Agricultural Economics, United States Department of Agriculture, June 1, 1929. Page 22.



U.S. Department of Agriculture

Bureau of Agricultural Economics

Fig. 12. Trend of purchasing power of farm products in terms of things the farmers buy, 1910-1928.

It is evident from the foregoing that the so-called farmer's dollar has been below par since 1919, reaching its lowest point in 1921, when it stood at 75. This was also the year when the tax levies reached their highest peak.

It may be pointed out that this index of the purchasing power of farm products in terms of things the farmer buys is based upon the composite prices of 30 commodities the farmer sells and as no one farmer produces at most more than a few of these commodities the index may not be representative of his economic position. The producer of meat animals may occupy a position far more favorable than the producer of dairy products, and the producer of cotton may be advantageously situated as compared with the grain grower. Their relative positions, moreover, may shift in the course of a few years.

No generalizations on the rural tax burden can have much significance in the absence of detailed information of the economic situation of the farmer concerned.

VIII. RATIOS OF REAL PROPERTY VALUES TO TOTAL PROPERTY VALUES

The summaries of assessment and tax rolls of the counties do not admit of a satisfactory segregation of real and personal property values. Land classified under acres is found within city limits, and rural areas contain lots and improvements on lots. The problem is further complicated by the fact that the total valuations of public utility property are not only not divided into real and personal but the allocation of the totals between rural and urban taxing precincts is not found in the public reports.

In an attempted segregation of real property values from personal and public utility property values for both cities and rural areas the following course was taken: from the total assessed value of all property in the given county for the given year was deducted the total assessed value of all city property in that county. The assessed value of lands and improvements thereon was deducted from the total rural valuation, the difference representing the value of rural personal property and public utility property. The assessed value of lots and improvement on lots was taken to represent the city real valuation.*

The results obtained indicate that real property, other than public utility property, represents approximately 66 percent of all city property and 74 percent of all rural property.

The variations in these percentages for the state as a whole do not exceed two points for either rural or urban precincts during the period under consideration. As between the different counties, however, the ratios of real property valuations to total valuations vary from 55 to 83 for cities and from 59 to 89 for rural areas.

In order to substantiate the correctness of these percentages the valuations for real properties of one or more cities in each of twenty counties in the state were taken directly from the 1927 assessment and tax rolls of these counties. The data obtained indicated that real property other than public service property represented 66.60 percent of the total city valuations as against the 67.41 percent found by the foregoing calculations

*All counties other than Tillamook and Multnomah were included in the calculation covering the period from 1913 to 1927. Tillamook county was excluded because of the large number of lots and improvements in unincorporated beach resorts. Multnomah county was excluded because of the many valuable improvements on acreage within the city limits.

for the same year. Rural real property ratios were not substantiated by actual investigation. It is evident, however, that the rural ratios cannot be far amiss if the city ratios are so nearly correct because the real property in the state is necessarily either rural or urban.*

It may then be correctly assumed that for the state as a whole the real property exclusive of public utility property bears approximately 66 percent of the city taxes and 74 percent of the rural taxes.

IX. TAX LEVIES AND TRENDS IN TERMS OF THE PREWAR DOLLAR

In an attempt to evaluate current taxes and tax levies in terms of the prewar dollar a number of problems are encountered.

One of the first to suggest itself is the possible effect of the changing price level as measured by the "All Commodity Wholesale Price Index" upon the value of the tax base which under a general property tax system is almost synonymous with the taxable real property of the state.

Another problem encountered is the selection of the index year. Taxes levied upon the rolls of one year are not paid until the following year. The index number of either year might be used in evaluating the actual tax dollar in term of the prewar dollar.

In answer to the first problem it is evident that the annual changes in the price level as measured by the "All Commodity Wholesale Price Index" are not reflected in the tax base as expressed in the full cash value basis. In Table XXIV are given the values of the taxable property, rural and urban, on the full cash value basis for the years 1910 to 1928, together with the yearly percentage increases over the preceding year.

TABLE XXIV. RURAL AND CITY FULL CASH VALUES IN THE STATE OF OREGON FOR THE YEARS INDICATED AND ANNUAL PERCENTAGE INCREASES OVER PRECEDING YEAR

Year	City	Percentage of increase over preceding year	Rural	Percentage of increase over preceding year
1910	\$556,033,730	.....	\$637,676,070	.....
1911	617,832,040	11.11	698,977,580	9.61
1912	676,734,450	9.53	733,750,860	4.97
1913	735,297,105	8.65	762,862,837	3.97
1914	690,666,026	-6.07	711,568,396	-6.72
1915	682,478,360	-1.18	737,108,848	3.59
1916	669,165,407	-1.95	711,233,886	-3.51
1917	671,778,780	.39	740,521,762	4.12
1918	694,906,912	3.44	770,412,601	4.04
1919	712,389,299	2.59	793,316,719	2.97
1920	723,898,980	1.62	826,379,264	4.17
1921	723,789,720	-.01	836,425,820	1.22
1922	728,008,846	.58	839,906,655	.42
1923	791,508,539	8.72	916,114,780	9.07
1924	830,593,146	4.94	930,759,299	1.60
1925	884,449,553	6.48	950,069,621	2.07
1926	924,728,130	4.55	951,281,630	.13
1927	943,760,119	2.06	955,777,158	.47
1928	941,514,377	-.24	957,576,637	.19

*In some counties in Oregon the property is listed on the tax rolls according to ownership alphabetically arranged, or what is known as "In Personam." In other counties the property is listed according to location, or what is known as "In Rem." In the latter counties the real property in cities is segregated from the personal and public utility property, and the desired data are therefore readily available. In the former counties it is necessary to go through the whole tax rolls to obtain the necessary information.

There appear no abrupt changes in the full cash values of taxable property either rural or urban in the state in the years 1919, 1920, 1921, and 1922 as compared with the values of the respective preceding years. These were the years of greatest fluctuation in the price level as evidenced by the index numbers. During the following year, 1923, however, there is an increase of 8.72 percent in the full cash value of urban property over the value of the preceding year and a corresponding increase of 9.07 percent in the value of rural property. The index numbers for 1922 and 1923 were 152 and 156 respectively.

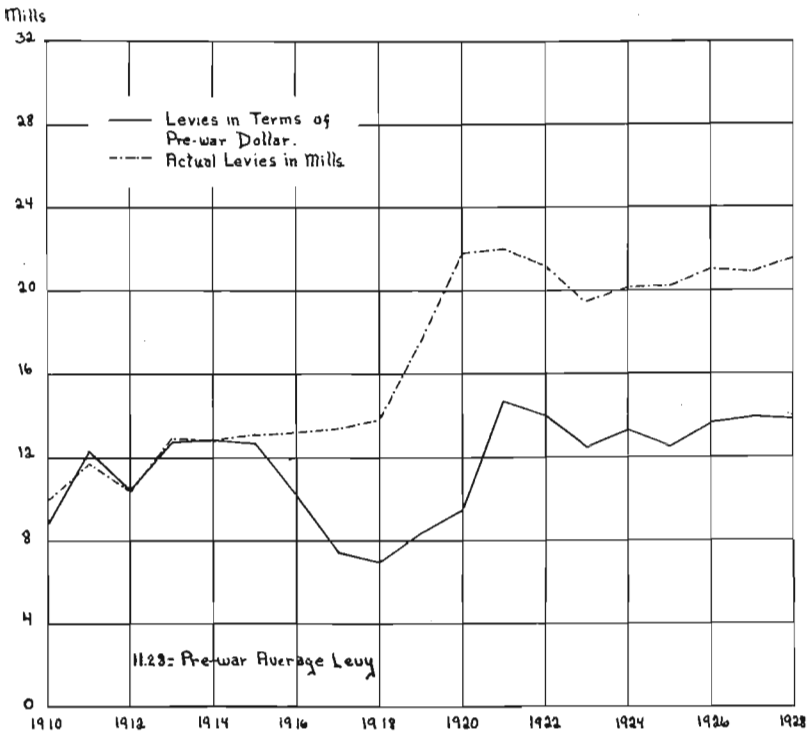


Fig. 13. Trends of actual levies and levies in terms of the prewar dollar—rural full cash value basis.

It is a generally recognized fact that real property values do not vary in harmony with changes in wholesale prices. The sale value of land is largely determined by present and prospective economic rent capitalized at the prevailing rate of interest. Temporary economic conditions do not enter largely into the determination of land values.

According to data gathered by the Bureau of Agricultural Economics of the United States Department of Agriculture through its crop reporters

the trend of farm real estate values in Oregon has been as follows:* Average of 1912-1914 = 100 percent.

1912—97	1916—100	1920—130	1924—113
1913—100	1917—104	1921—130	1925—110
1914—103	1918—112	1922—122	1926—107
1915—99	1919—118	1923—115	1927—106
			1928—106

In the light of these data it would appear that changes in tax levies from year to year must be sought for, not in changes in the tax base as affected by fluctuations in the value of the dollar recorded in a price index, but in either or both of the following conditions: changes in the value of the dollar or changes in the amount of purchasing power demanded by the government, state or local.

No definite conclusions, however, are warranted for the reason that the long-time effect of the change in the purchasing power of the dollar upon the full cash value of taxable property in the state remains an unknown variable.

The matter of the choice of the index year—that is, the year of assessment or the year during which the taxes are actually paid, is not amenable

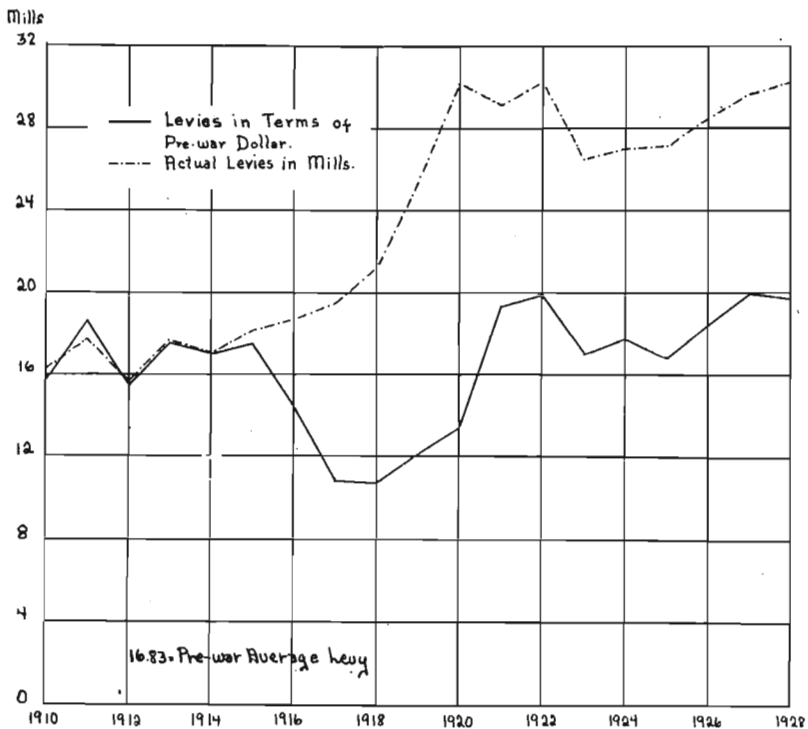


Fig. 14. Trends of actual levies and levies in terms of the prewar dollar—urban full cash value basis.

*Circular 60, United States Department of Agriculture. (1912, 1913, 1914 = 100 percent.)

to a satisfactory solution. The evidence, however, seems to be in favor of the assessment year. The state makes most of its commitments during the year of assessment, and budgets are made up during this year largely on the assumption that the current price level will continue to prevail. From the standpoint of the tax burden upon the taxpayer, however, the index of the year during which the taxes are paid might seem the more logical one, although here it must be admitted that the first installment payable in the month of May comes largely out of business and property returns of the preceding year. This is particularly true of the farmer.

In Table XXV are given the total actual general property taxes—rural, total urban, Multnomah county urban, and total urban exclusive of Multnomah county. In Table XXVI are given the corresponding values in terms of the prewar dollar as measured by the "All Commodity Wholesale Price Index" of the United States Bureau of Labor Statistics.

TABLE XXV. TOTAL RURAL, TOTAL CITY, MULTNOMAH COUNTY CITY, AND TOTAL CITY LESS MULTNOMAH COUNTY CITY TAXES

Year	Rural totals	City totals	Multnomah city	Total city taxes less Multnomah city taxes
1910	6,390,829.60	9,040,724.45	6,142,170.91	2,898,553.54
1911	8,192,086.06	10,900,975.85	7,355,508.52	3,545,467.33
1912	7,684,455.89	10,512,072.33	6,920,359.06	3,591,713.27
1913	9,859,940.09	13,140,728.70	8,668,916.56	4,471,812.14
1914	9,092,246.52	11,724,816.29	7,296,477.76	4,428,338.53
1915	9,653,216.96	12,294,087.63	7,714,575.72	4,579,511.91
1916	9,383,426.62	12,537,617.40	7,838,286.17	4,699,331.23
1917	9,926,327.61	13,097,606.14	8,165,853.67	4,931,752.47
1918	10,663,324.54	14,753,101.85	9,419,644.24	5,333,457.61
1919	13,921,946.78	18,073,452.06	11,356,019.81	6,717,432.25
1920	18,011,389.96	22,259,324.43	14,106,556.30	8,152,768.13
1921	18,382,507.42	21,035,317.53	12,512,567.10	8,522,750.43
1922	17,847,621.01	22,015,250.96	13,418,889.57	8,596,361.39
1923	17,894,858.40	20,975,892.47	12,216,956.47	8,758,936.00
1924	18,754,735.41	22,418,356.22	12,754,125.82	9,664,230.40
1925	19,182,671.58	23,989,061.36	13,882,679.74	10,106,381.62
1926	19,795,686.53	26,390,494.55	15,627,492.97	10,763,001.58
1927	19,829,763.12	28,083,827.08	16,823,756.43	11,260,070.65
1928	20,334,636.28	28,618,546.06	17,171,050.40	11,447,495.66

TABLE XXVI. TOTAL RURAL, TOTAL URBAN, MULTNOMAH COUNTY URBAN, AND URBAN EXCLUSIVE OF MULTNOMAH COUNTY URBAN TAXES IN TERMS OF THE PREWAR DOLLAR

Year	Rural totals	City totals	Multnomah city totals	Total city less Multnomah county
1910	\$ 6,204,689.00	\$ 8,777,402.00	\$ 5,963,273.00	\$ 2,814,130.00
1911	8,623,248.00	11,474,711.00	7,742,640.00	3,732,071.00
1912	7,608,372.00	10,407,992.00	6,851,841.00	3,556,151.00
1913	9,666,608.00	12,883,067.00	8,498,938.00	4,384,129.00
1914	9,092,247.00	11,724,816.00	7,296,478.00	4,428,338.00
1915	9,372,055.00	11,936,007.00	7,489,879.00	4,446,128.00
1916	7,273,974.00	9,719,083.00	6,076,191.00	3,642,892.00
1917	5,514,626.00	7,276,448.00	4,536,585.00	2,739,863.00
1918	5,385,517.00	7,451,061.00	4,757,396.00	2,693,665.00
1919	6,629,498.00	8,606,406.00	5,407,629.00	3,198,777.00
1920	7,831,039.00	9,677,967.00	6,133,285.00	3,544,682.00
1921	12,255,005.00	14,023,545.00	8,341,711.00	5,681,834.00
1922	11,741,856.00	14,483,718.00	8,828,217.00	5,655,501.00
1923	11,471,063.00	13,446,085.00	7,831,382.00	5,614,703.00
1924	12,338,642.00	14,748,918.00	8,390,872.00	6,358,046.00
1925	11,841,155.30	14,808,062.57	8,569,555.40	6,238,507.17
1926	12,854,341.90	17,136,684.77	10,147,722.71	6,988,962.07
1927	13,308,565.85	18,848,206.10	11,291,111.70	7,557,094.40
1928	13,290,611.95	18,704,932.07	11,222,908.76	7,482,023.31

According to the foregoing data total actual taxes of 1928 and 1928 actual taxes reduced to a prewar dollar basis have increased as follows over the actual taxes of 1910:

	Percentage of increase of 1928 taxes over 1910 taxes	Percentage of increase of 1928 taxes reduced to prewar dollar basis over 1910 taxes	Percentage of total increase of 1928 taxes over 1910 taxes due to decrease in value of 1928 dollar
Rural	218	108	49
Urban	217	107	49
Multnomah county urban	180	83	46
Urban less Multnomah county..	295	158	54

Approximately one-half of the increase in the total 1928 taxes over the 1910 taxes is due to the decrease in the purchasing power of the 1928 dollar as compared with the dollar of 1910.

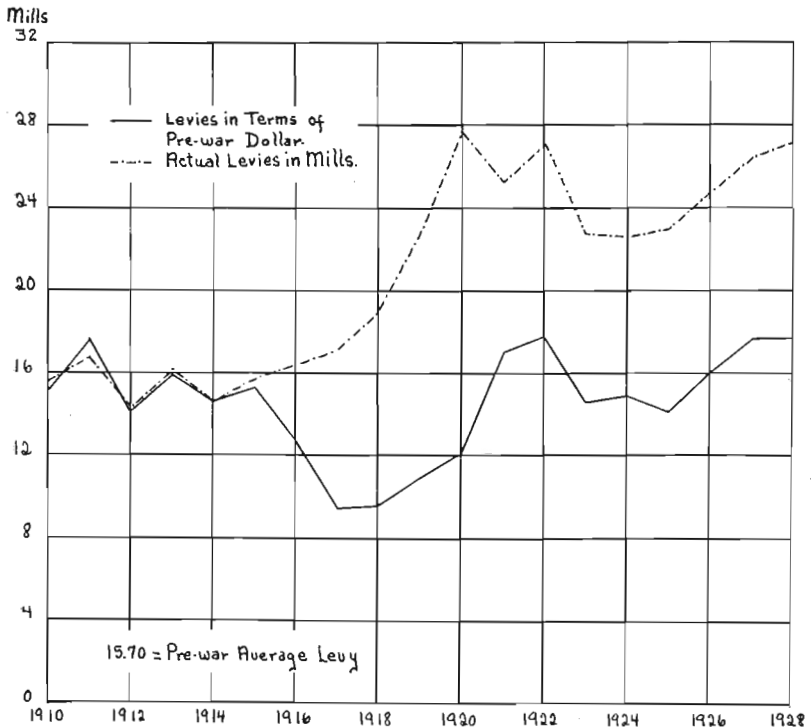


Fig. 15. Trends in actual levies and levies in terms of the prewar dollar—Multnomah county cities full cash value basis.

In Table XXVII are given the actual levies on the full cash value basis, rural, city, and Multnomah county cities and their corresponding values in terms of the prewar dollar.

TABLE XXVII. ACTUAL LEVIES AND LEVIES IN TERMS OF THE PREWAR DOLLAR ON THE FULL CASH VALUE BASIS OF RURAL, URBAN, AND MULTNOMAH COUNTY URBAN PROPERTY

Year	Rural		Urban		Multnomah county urban	
	Actual	Prewar	Actual	Prewar	Actual	Prewar
1910	10.02	9.73	16.26	15.79	15.56	15.11
1911	11.72	12.34	17.65	18.58	16.80	17.68
1912	10.47	10.37	15.53	15.38	14.27	14.13
1913	12.92	12.67	17.87	17.52	16.17	15.85
1914	12.78	12.78	16.98	16.98	14.56	14.56
1915	13.09	12.71	18.01	17.49	15.74	15.28
1916	13.19	10.22	18.74	14.53	16.44	12.74
1917	13.41	7.45	19.50	10.83	17.15	9.53
1918	13.84	6.99	21.23	10.72	19.09	9.64
1919	17.55	8.36	25.37	12.08	22.80	10.86
1920	21.79	9.47	30.75	13.37	27.72	12.05
1921	21.98	14.65	29.06	19.37	25.31	16.87
1922	21.25	13.98	30.24	19.89	27.08	17.82
1923	19.53	12.52	26.50	16.99	22.76	14.59
1924	20.15	13.26	26.99	17.76	22.59	14.86
1925	20.19	12.46	27.12	16.74	22.98	14.19
1926	20.81	13.51	28.53	18.53	24.82	16.12
1927	20.75	13.93	29.75	19.97	26.41	17.72
1928	21.23	13.88	30.40	19.87	26.99	17.64

X. CONCLUSIONS

In the State of Oregon in common with many other states the general property tax system is very largely a real property tax system. Hence the tax levies as treated in this study may be considered primarily as levies upon real property.

The primary object of this study is to provide factual evidence on the tax situation in the state, both rural and urban, by counties and years. The taxpayer may use these data for making comparisons both as between levies for different counties and as between levies for different years within the same county.

The author does not presume to criticize the levies or trends in levies in any taxing precinct. Such criticism would imply a criticism of the ways in which the people spend a portion of their income.

It is beyond the scope of this study to analyze the total levy into its constituent parts such as levies for schools, roads, ports, and other purposes. Likewise no attempt is made to measure the effects of publicly provided services and utilities upon real property values. The author would venture the opinion, however, based upon such evidence as was available, that the effects are usually underestimated.

Theoretically and practically the "ability" or "faculty" theory of taxation has been accepted, but with increasingly larger sums of money spent publicly the taxpayer is beginning to think more along the lines of the benefits conferred, if not upon himself, at least upon the public at large. In other words the accounting demanded of those spending the public money is becoming increasingly more exacting.

The electors of each county, rural and urban, must judge for themselves to what limit it is feasible to go in increasing the levies upon real property values within their taxing precincts. The taxes are for the most part local and there is no constitutional limit, other than the six-percent limitation, placed upon the taxing powers of the precinct.

The effects of tax levies upon real property values are self-evident although economic friction may not permit of their operation with a finesse set forth in the previous tables. In the main the results are there.

The offsetting or appreciating effects upon land values of publicly provided services and utilities such as better roads, school, and port facilities, are no less real, although less tangible, than the effects of tax levies.

A central problem in taxation must ever remain a constant balancing in the mind of the taxpayer of the value of present taxes paid and the value of present and prospective returns from the monies publicly expended. With an increase in the monies so expended the problem of balancing these values becomes one of the greatest economic importance.

The 1919 and 1920 rises in tax levies were in response to an emergency arising out of changes in the price level and are evidence of the taxpayer's loyalty to his state and its institutions.

There appears little possibility of making retrenchments in the public standard of living and hence little possibility of reducing public expenses. Relief if necessary must come through greater equalization of the tax load.