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Social Sciences

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THE RELATION OF POPULATION DENSITY TO INDICES OF INCOME IN OKLAHOMA, 1930

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Income per square mile and the relation of population density to income should be given consideration in both the delimination and description of geographic regions. It is the purpose of this paper to ascertain, (1) the relative income per square mile and (2) the relation of population density to income in the counties of Oklahoma in 1930.

Per square mile incomes of counties are not accurately known, but it has been found that there is a close relationship between per square mile income and three selected criteria when states are used as units. The criteria are, (1) values of retail sales exclusive of food sales, (2) total bank deposits, and (3) assessed valuations of personal and real property.

Indices of relative income per square mile in the counties of Oklahoma for 1930 have been derived from these criteria. County indices computed from each criterion are shown in columns 2, 3, and 4 of the accompanying table, and an unweighted average of the three is given in column 5. The index for the state as a whole is 100 in every case. The figures in column 5 reveal that only a few counties had per square mile incomes above the average for the state. Tulsa and Oklahoma counties were conspicuous in this respect.

If it is assumed that each county should support a population density proportionate to its income index an ideal distribution of 1930 population may be computed for Oklahoma. Computed densities for counties, based on this assumption, are listed in column 6. Actual 1930 population densities are given in column 7. Column 8 shows plus and minus departures of actual from computed densities for each county in 1930 in terms of population per square mile. If plotted on a map the figures in this column would show that all sections of the state except the panhandle, the winter wheat belt, and some counties with relatively large cities had more population than could be supported by 1930 income at the average economic status of the state.

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County 1	Per Square Mile Indices				Population Per Square Mile		
	Retail Sales 2	Bank Deposits 3	Property Valuation 4	Mean 5	Computed 6	Actual 7	Plus-Minus 8
Adair	35	11	29	25	9	25	17
Alfalfa	53	40	110	68	23	18	-6
Atoka	12	7	33	17	6	15	9
Beaver	11	11	32	18	6	6	0
Beckham	93	70	71	78	27	32	5
Blaine	60	43	65	56	19	22	3
Bryan	64	37	74	58	20	35	15
Caddo	90	61	74	75	26	39	13
Canadian	91	75	109	92	32	32	0
Carter	136	123	159	139	48	50	2
Cherokee	22	18	33	24	8	23	14
Choctaw	42	16	48	35	12	31	19
Cimarron	12	4	19	12	4	3	-1
Cleveland	121	104	112	112	39	45	6
Coal	22	8	49	26	9	22	13
Comanche	99	53	63	72	25	31	6
Cotton	58	24	61	48	16	24	8
Craig	44	41	77	54	19	24	5
Creek	179	76	171	142	49	67	18
Custer	83	50	79	71	25	28	3
Delaware	11	4	20	12	4	19	15
Dewey	34	25	36	32	11	13	2
Ellis	21	12	37	23	8	9	1
Garfield	193	117	187	166	57	43	-14
Garvin	80	74	87	80	28	38	10
Grady	109	92	110	104	36	43	7
Grant	39	39	106	61	21	14	-7
Greer	78	54	62	65	22	31	9
Harmon	64	24	58	49	17	25	8
Harper	21	10	27	19	7	8	1
Haskell	28	6	38	24	8	26	18
Hughes	108	67	75	83	29	38	10
Jackson	118	50	83	84	29	37	8
Jefferson	42	43	62	49	17	23	6
Johnston	26	11	46	28	10	20	10
Kay	189	176	238	201	69	54	16

| County 1 | Per Square Mile Indices | | | | Population Per Square Mile | | |
	Retail Sales 2	Bank Deposits 3	Property Valuation 4	Mean 5	Computed 6	Actual 7	Plus-Minus 8
Kingfisher	48	38	83	56	19	18	-1
Kiowa	77	51	71	66	23	28	5
Latimer	19	6	30	18	6	15	9
Le Flore	34	19	48	34	12	27	15
Lincoln	78	81	112	90	31	35	4
Logan	112	120	114	115	40	38	-2
Love	18	23	46	29	10	19	9
McClain	72	52	83	69	24	38	15
McCurtain	29	9	22	20	7	18	11
McIntosh	37	35	50	41	14	35	21
Major	20	17	52	30	10	13	3
Marshall	35	31	68	45	16	26	11
Mayes	44	20	53	39	13	26	13
Murray	61	52	74	62	21	29	8
Muskogee	231	254	234	237	82	82	0
Noble	51	48	96	65	22	21	-2
Nowata	37	30	71	46	16	23	7
Okfuskee	75	92	99	89	31	47	16
Oklahoma 1579		2132	968	1560	538	309	-229
Okmulgee	221	171	219	204	70	81	11
Osage	52	51	90	64	22	21	-1
Ottawa	154	185	154	164	57	81	24
Pawnee	66.	81	127	91	31	34	3
Payne	141	143	250	178	61	54	-7
Pittsburg	78	51	39	56	19	37	18
Pontotoc	123	81	98	101	35	45	10
Pottawatomie	324	197	171	231	80	84	4
Pushmataha ..	12	9	19	13	4	10	6
Roger Mills	27	11	29	22	8	13	5
Rogers	44	48	84	59	20	27	6
Seminole	402	172	306	293	101	126	25
Sequoyah	22	7	36	22	8	28	20
Stephens	91	88	82	87	30	37	7
Texas	28	21	39	29	10	7	-3
Tillman	87	41	49	59	20	28	8
Tulsa 1562		2943	1268	1924	664	321	-343
Wagoner	35	32	100	56	19	39	20
Washington ..	244	394	312	317	109	65	-44
Washita	63	39	71	58	20	29	9
Woods	50	35	57	47	16	13	-3
Woodward	35	25	52	37	12	12	0
STATE	100	100	100	100	34	34	0

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