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FARM OPERATOR LEVEL-OF-LIVING INDEXES FOR COUNTIES OF THE UNITED STATES.
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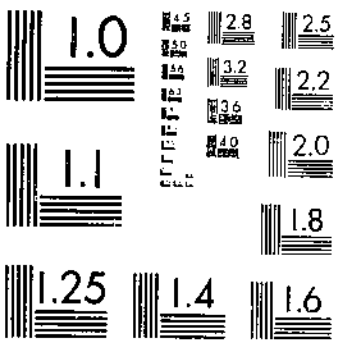

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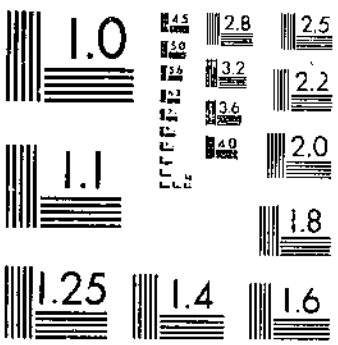

MICROCOPY RESOLUTION TEST CHART
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FARM OPERATOR

LEVEL-OF-LIVING INDEXES FOR COUNTIES OF THE UNITED STATES 1950, 1959, and 1964

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CONTENTS

TABLES

FIGURES

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FARM OPERATOR LEVEL-OF-LIVING INDEXES FOR COUNTIES OF THE UNITED STATES, 1950, 1959, AND 1964

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INTRODUCTION

This publication presents information on the material well-being of the farm operator and his family, derived from the quinquennial census of agriculture. It provides a farm operator level-of-living index based on a 1959 U.S. county average index of 100. The U.S. county average index had risen from 100 to 122 by 1964, while it stood at 59 in 1950. The current index was developed from 1964 Preliminary Census of Agriculture data using the same procedure as in 1959. Adjustments necessary to make the indexes comparable are explained under Methodology. Farm operator level-of-living indexes published for years prior to 1950 are not comparable to the indexes published here and in the report issued in 1962.[1]

The indexes are for regions, geographic divisions, States, State economic areas, and counties or combinations of counties, for all States except Alaska. The index for Alaska is available for the State only. Indexes for counties reporting no farms and other counties with special problems of classification of farms are not included.

Farm operator level-of-living indexes are designed to measure the relative well-being of farm operator families in all U.S. counties or county combinations, and to show changes occurring between 1950 and 1959 and from 1959 to 1964. They also supply an analytical basis for further study of the current characteristics of farms and farm population that may be needed for policy and program development and evaluation.

METHODOLOGY

The current farm operator level-of-living index is derived from five variables in the Census of Agriculture preliminary reports: (1) average value of products sold per farm, (2) average value of land and buildings per farm, (3) percentage of farms with telephones, (4) percentage of farms with home freezers, and (5) percentage of farms with automobiles. Weights for these items were derived through a factor analysis of data from the 1959 Census of Agriculture. (See table 1, and technical explanation on page 67.) These weights were then applied to data from 1950, 1959, and 1964 Censuses of Agriculture. Weights for dollar figures for 1950 and 1964 were adjusted for changes in price levels before and after 1959.

A basic requirement in the development of the 1959 level-of-living index formula was that relevant information be available for each county of the United States at frequent intervals. For this reason, major reliance was placed on data from the quinquennial censuses of agriculture. These censuses are the only source of nationwide information in the detail required for the computation of farm operator level-of-living indexes

[1] James D. Cowhig. Farm operator level-of-living indexes for counties of the United States, 1950 and 1959. U.S. Dept. Agr., Statis. Bul. 321, Sept. 1962. (Out of print; may be consulted in libraries.)

TABLE 1.--Stages in the development of farm-operator level-of-living index formula, 1950, 1959, and 1964

Computation	Variable				
	1	2	3	4	5
A. Identification and intercorrelations[1] of variables:					
1. Average value of land and buildings per farm	---	.825	.404	.402	.424
2. Average value of sales per farm		---	.362	.332	.370
3. Percent of farms with telephones			---	.633	.823
4. Percent of farms with home freezers				---	.683
5. Percent of farms with automobiles					---
B. Correlation with principal factor	.757	.711	.834	.782	.854
C. Standard deviations	30,477	7,589	23.92	14.66	15.18
D. Line B divided by Line C	.0000249	.0000937	.0349	.0533	.0563
E. Weights used in index formula, 1959 (Line D multiplied by 8.856 to yield zero point and U.S. county average = 100)	.000220	.000830	.309	.472	.498
F. Weights used in index formula, 1950[2]	.000260	.000982	.309	.472	.498
G. Weights used in index formula, 1964[3]	.000209	.000790	.309	.472	.498

[1] Intercorrelations based on data for 2,599 counties or combinations of counties in the conterminous United States, 1959.
[2] Adjusted for changes in prices paid by farmers (parity index) between 1950 and 1959.
[3] Adjusted for changes in prices paid by farmers (parity index) between 1959 and 1964.

at the county level. Availability of this information at 5-year intervals provides continuity in the series.

No information is available on the number of facilities per farm or on the quality of specified facilities or service. Each item in the index refers to some material aspect of living, since it was not possible to consider subjective states such as happiness.

Data for counties with fewer than 500 farms in 1959 were combined with other counties. Data for all counties included in each combination were treated as though they were for a single county. Effort was made to combine counties that were similar in agricultural

and other economic characteristics. Although data for 1959 were used in determining the combinations of counties, identical county combinations are used for 1950 and 1964. Indexes for Alaska as a whole are shown, even though fewer than 500 farms were enumerated in 1959.

It was not possible to adjust the 1950 data to explain the effect of the difference in definition of a farm used in the 1950 and 1959 censuses. The 1959 and 1964 definition of a farm is somewhat more restrictive than that used in 1950. Therefore some places which did not qualify as farms in 1959 and 1964 were counted as farms in 1950. Inclusion of more low-income farms in 1950 accounts in part for the differences in the indexes between 1950 and the later periods.

Because of special problems with regard to the classification of farms on Indian reservations, indexes were not computed for five counties in Arizona and three counties in New Mexico. In some cases a reservation had been counted as one farm in the censuses of agriculture and in other cases each farm operator on a reservation had been separately enumerated.

Indexes for States, divisions, and regions are averages of county indexes, unweighted for differences in the number of farms within counties. Comparisons are between county averages in the various geographic areas, not between farm averages in the areas.

Indexes for 1959 are not shown for Hawaii because information on average value of land and buildings per farm was not obtained for that State in the 1959 Census of Agriculture. The following are 1964 indexes for counties in Hawaii: Hawaii 112, Honolulu 158, Kauai 175, Maui 177, Kalawao 143, and the State 153.

SUMMARY OF FINDINGS

Based on level-of-living indexes, regions held the same rank for the three periods--West, first; North Central, second; Northeast, third; and South, fourth. There was only one change in the rank of the divisions between 1959 and 1964. West North Central and East North Central exchanged ranks; the former ranks third place, the latter ties with Middle Atlantic for fourth place. The Pacific and Mountain divisions continue to hold first and second places, respectively.

Between 1959 and 1964, only a few States improved their positions in the rank of States based on level-of-living indexes (table 2). Florida made the most outstanding gain, moving up from 33d to 18th place. New Mexico made the next highest advancement in rank. If the five Arizona counties which were omitted because of their Indian reservations had been included, Arizona might not have ranked first.

In general, there was less change in the rank of States between 1959 and 1964 than between 1950 and 1959. Greater differences would be expected in the longer 9-year period than in the second period of 4 years, but the change in definition of a farm also contributed to the greater differences between 1950 and 1959.

Southern States continued to have the lowest level-of-living indexes, in spite of substantial gains since 1959 (table 3). Florida and California gained the most points--32 each--on the level-of-living index. Arkansas and New Mexico made the next highest gain of 31 points each. Georgia and Texas, with an increase of 28 points each, held third place. Alabama and Mississippi were fourth with a gain of 27 points each, and Louisiana was fifth with a gain of 25 points. Although most of the Southern States increased their level-of-living indexes more than other States, their relative position improved in only a few instances. With the exception of Florida, all of the advances in rank were in the West South Central division. Mississippi, in spite of a great increase in its level-of-living index, continued to have the lowest rank.

TABLE 2.--Farm operator level-of-living indexes ranked for regions, geographic divisions, and States, 1950, 1959, and 1964

Region, division, and State	Rank		
	1950	1959	1964
United States:			
Regions:			
Northeast	3	3	3
North Central	2	2	2
South	4	4	4
West	1	1	1
New England	5	6	6
Maine	32	36	36
New Hampshire	24.5	31	35
Vermont	24.5	28.5	31.5
Massachusetts	13.5	26.5	27
Rhode Island	13.5	24	29
Connecticut	3	8.5	10.5
Middle Atlantic	3.5	4.5	4.5
New York	9.5	18	25.5
New Jersey	4	10.5	13
Pennsylvania	29	28.5	29
East North Central	2	3	4.5
Ohio	21	24	29
Indiana	17.5	16.5	24
Illinois	5.5	7	9
Michigan	30	30	34
Wisconsin	17.5	26.5	31.5
West North Central	3.5	4.5	3
Minnesota	13.5	20.5	25.5
Iowa	2	4	10.5
Missouri	34	37	38
North Dakota	27	20.5	20.5
South Dakota	19.5	20.5	19
Nebraska	7	10.5	8
Kansas	9.5	16.5	16.5
South Atlantic	8	8	8
Delaware	9.5	12.5	12
Maryland	27	20.5	20.5
Virginia	38	41	41
West Virginia	40.5	46	49.5
North Carolina	43	42.5	43
South Carolina	42	42.5	44
Georgia	44.5	40	40
Florida	37	33	18

TABLE 2.-- Farm operator level-of-living indexes ranked for regions, geographic divisions, and States, 1950, 1959, and 1964--Continued

Region, division, and State	Rank		
	1950	1959	1964
East South Central--------	9	9	9
Kentucky----------	39	44	47.5
Tennessee----------	44.5	45	46
Alabama----------	48	47	47.5
Mississippi----------	49	49	49.5
West South Central--------	7	7	7
Arkansas----------	47	48	45
Louisiana----------	40.5	39	37
Oklahoma----------	36	38	39
Texas----------	33	32	22.5
Mountain----------	6	2	2
Montana----------	27	5.5	6
Idaho----------	19.5	12.5	15
Wyoming----------	22.5	5.5	5
Colorado----------	16	8.5	7
New Mexico----------	35	34.5	22.5
Arizona----------	5.5	1	1
Utah----------	31	24	33
Nevada----------	13.5	3	3.5
Pacific[1]----------	1	1	1
Washington----------	9.5	14	16.5
Oregon----------	22.5	15	14
California----------	1	2	2
Alaska----------	46	34.5	42
Hawaii----------	---	---	3.5

[1] Excludes Hawaii in 1950 and 1959.

The South made the most outstanding improvement when percentage increase is considered. Eight States with the highest percentage increase in level-of-living indexes (1959-64) were in the South. Arkansas led with an increase of 48.4 percent, Mississippi was next with 43.5. Between 1950 and 1959, also, Southern States made the largest percentage gains in level-of-living indexes (table 3).

Farm operator level-of-living indexes for counties were grouped into quintiles for 1950, 1959, and 1964 (figs. 1, 2, and 3). At each break between quintiles, there were a number of counties with the same index. In 1964, these ties in quintiles for the level-of-living measure were broken by rank in income from other than farm sources.

Although counties in the bottom quintile were located chiefly in the Appalachian region and Southern States in both 1950 and 1959, in 1964 there was greater concentration of these counties, particularly in the eastern mountain areas. A larger proportion of counties in the top quintile were located in the West in 1964.

TABLE 3.-- Farm operator level-of-living indexes and percentage increases for the United States, regions, geographic divisions, and States, 1950, 1959, and 1964

Region, division, and State	Level-of-living index			Percentage increase	
	1950	1959	1964	1950-59	1959-64
United States	59	100	122	69.5	22.0
Regions:					
Northeast	75	112	126	49.3	12.5
North Central	76	114	130	50.0	14.0
South	39	81	108	107.7	33.3
West	77	126	145	63.6	15.1
New England	73	108	124	47.9	14.8
Maine	63	99	116	57.1	17.2
New Hampshire	72	104	119	44.4	14.4
Vermont	72	110	123	52.8	11.8
Massachusetts	79	111	126	40.5	13.5
Rhode Island	79	112	124	41.8	10.7
Connecticut	88	124	140	40.9	12.9
Middle Atlantic	76	114	128	50.0	12.3
New York	80	116	128	45.0	10.3
New Jersey	86	123	138	43.0	12.2
Pennsylvania	70	110	124	57.1	12.7
East North Central	77	115	128	49.4	11.3
Ohio	75	112	124	49.3	10.7
Indiana	77	117	130	51.9	11.1
Illinois	85	125	141	47.1	12.8
Michigan	68	106	120	55.9	13.2
Wisconsin	77	111	123	44.2	10.8
West North Central	76	114	131	50.0	14.9
Minnesota	79	113	128	43.0	13.3
Iowa	91	128	140	40.7	9.4
Missouri	55	93	112	69.1	20.4
North Dakota	71	113	132	59.2	16.8
South Dakota	76	113	133	48.7	17.7
Nebraska	82	123	142	50.0	15.4
Kansas	80	117	135	46.2	15.4
South Atlantic	38	81	108	113.2	33.3
Delaware	80	122	139	52.5	13.9
Maryland	71	113	132	59.2	16.8
Virginia	42	80	103	90.5	28.8
West Virginia	35	68	89	94.3	30.9
North Carolina	32	74	98	131.2	32.4
South Carolina	33	74	97	124.2	31.1
Georgia	31	82	110	164.5	34.1
Florida	47	102	134	117.0	31.4

TABLE 3.-- Farm operator level-of-living indexes and percentage increases for the United States, regions, geographic divisions, and States, 1950, and 1964--Continued

Region, division, and State	Level-of-living index			Percentage increase	
	1950	1959	1964	1950-59	1959-64
East South Central-------	30	68	92	126.7	35.3
Kentucky----------	39	72	92	84.6	27.8
Tennessee----------	31	71	94	129.0	32.4
Alabama----------	22	65	92	195.5	41.5
Mississippi----------	21	62	89	195.2	43.5
West South Central	47	91	120	93.6	31.9
Arkansas----------	25	64	95	156.0	48.4
Louisiana----------	35	90	115	157.1	27.8
Oklahoma----------	51	91	111	78.4	22.0
Texas----------	59	103	131	74.6	27.2
Mountain----------	71	122	139	71.8	13.9
Montana----------	71	126	144	77.5	14.3
Idaho----------	76	122	136	60.5	11.5
Wyoming----------	74	126	150	70.3	19.0
Colorado----------	78	124	143	59.0	15.3
New Mexico----------	53	100	131	88.7	31.0
Arizona----------	85	167	192	96.5	15.0
Utah----------	65	112	122	72.3	8.9
Nevada----------	79	135	153	70.9	13.3
Pacific----------	83	[1] 131	154	57.8	17.6
Washington----------	80	121	135	51.2	11.6
Oregon----------	74	119	137	60.8	15.1
California----------	93	147	179	58.1	21.8
Alaska----------	30	100	100	233.3	0
Hawaii----------	87	---	153	---	---

[1] 1959 Hawaii information not available.

Some of the Western States (particularly Montana, Wyoming, and Nevada) had many counties that moved to a higher quintile between 1950 and 1959 but remained in the same quintile between 1959 and 1964. Data are shown in table 4 that cross-classify counties in each State according to 1959 and 1964 quintile ranks.

Table 5 is a comparison of data for 1964 for the 10 counties having the highest level-of-living indexes, 10 counties having U.S. average index levels, and the 10 counties having the lowest index values.

Nine of the 10 counties with the highest indexes in 1964 were also among the 10 highest in 1959. In both years, 7 of the highest ranking counties were in California and 3 in Arizona. In California, although there was some shifting in rank, Imperial County remained first, Kern County second, and Kings County tenth; and Orange County replaced Fresno County, which dropped from a level-of-living index of 200 in 1959 to 181 in 1964.

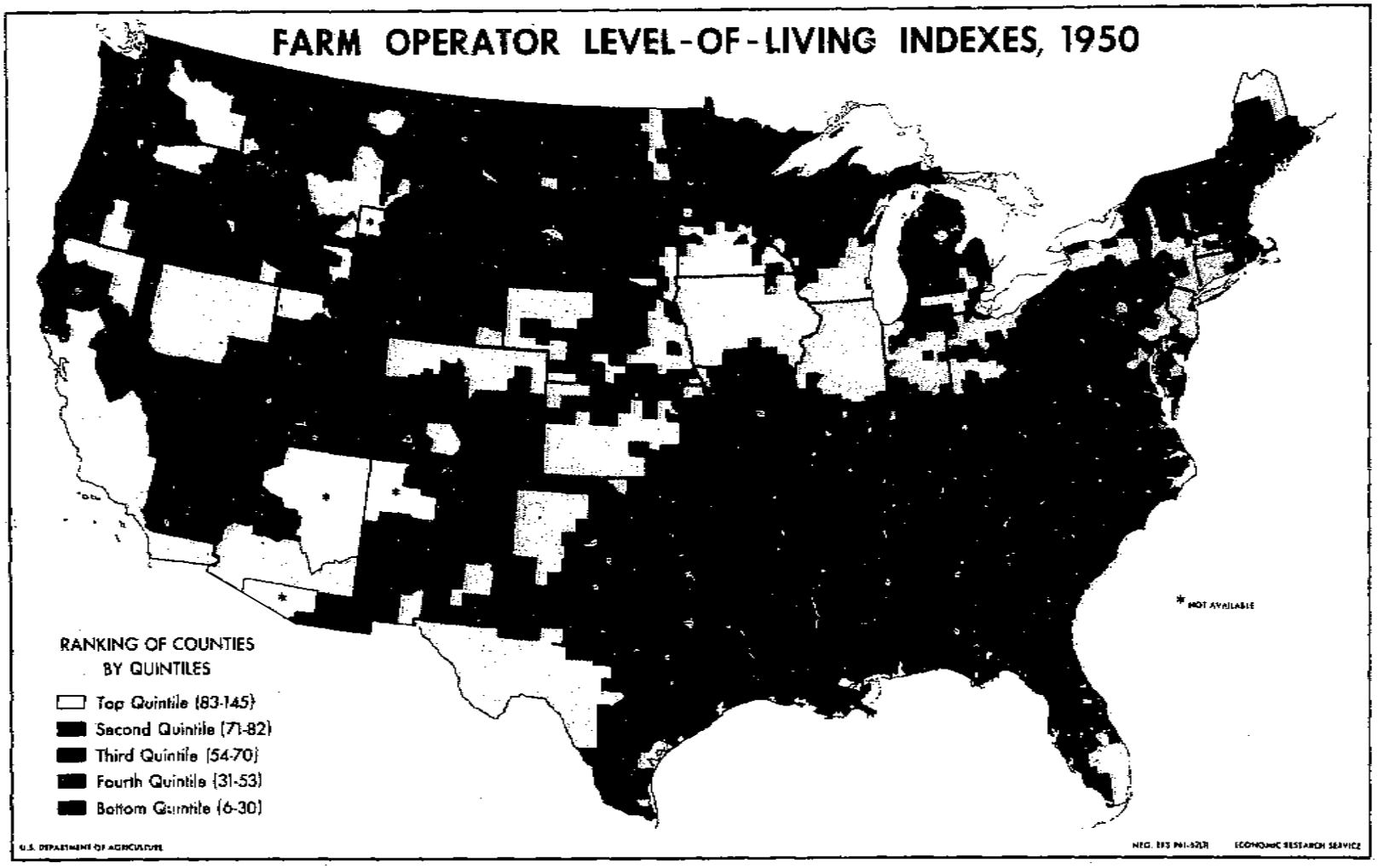

Figure 1

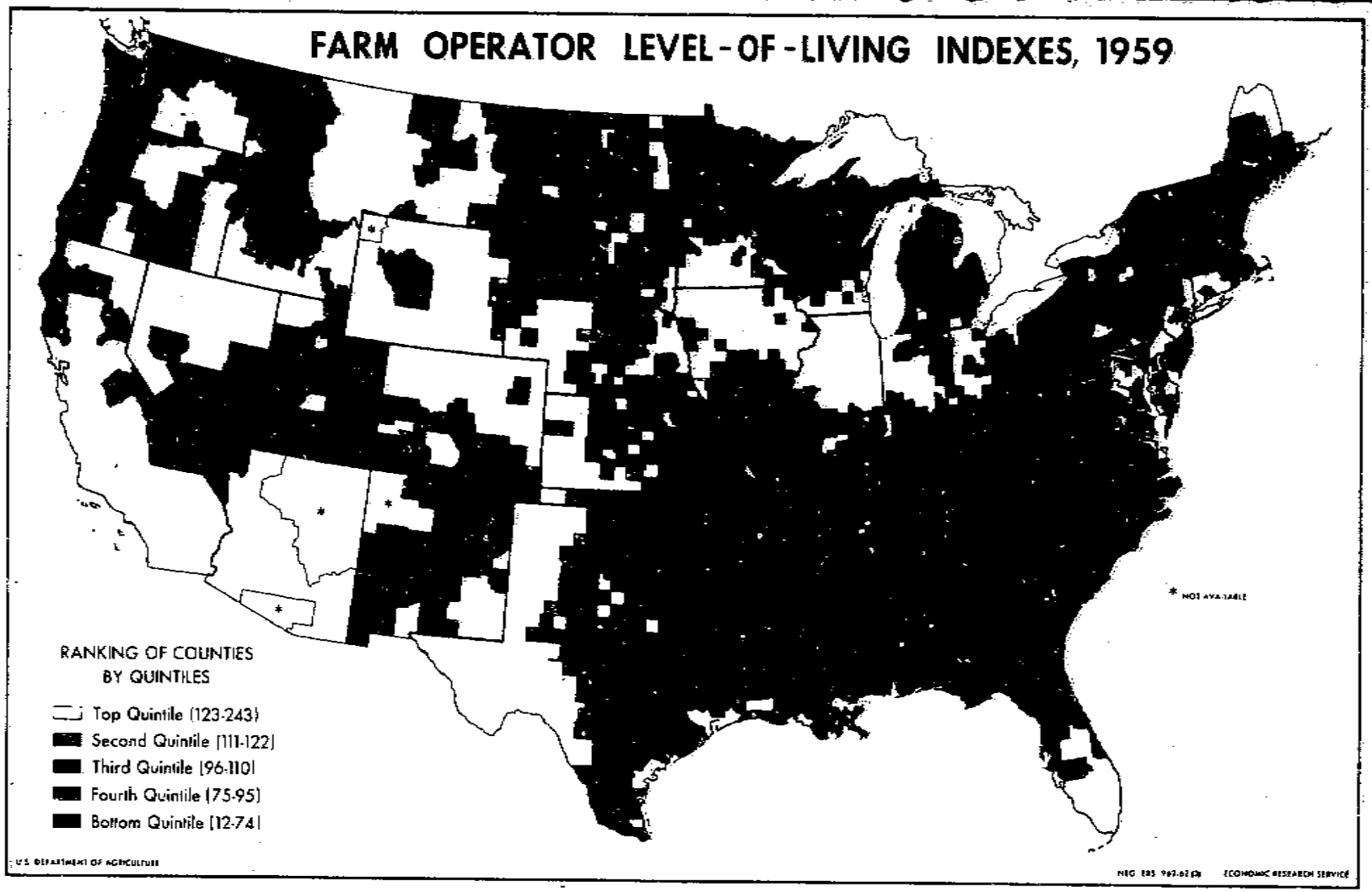

Figure 2

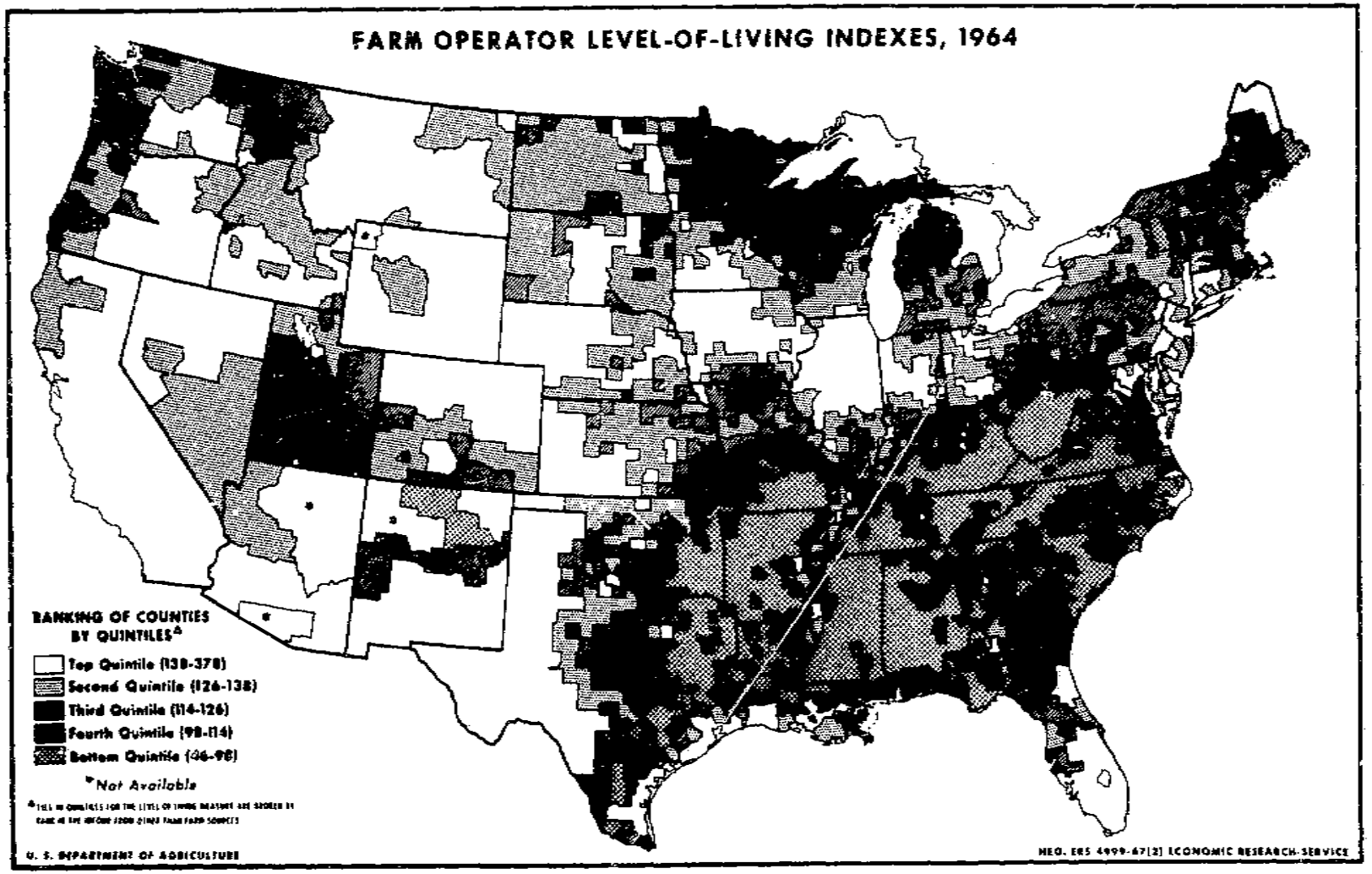

Figure 3

TABLE 4.--Comparison of quintile ranks of counties for farm operator level-of-living indexes, 1959 and 1964

(Excludes Alaska and Hawaii)

Alabama

1959 quintile	1964 quintile					
	1	2	3	4	5	Total
1						
2						
3						
4			2	13	1	16
5				11	40	51
Total			2	24	41	67

Arizona

1	7	2				9
2						
3						
4						
5						
Total	7	2				[1] 9

Arkansas

1						
2		1				1
3						
4	1	2	5	4	2	14
5			4	9	47	60
Total	1	3	9	13	49	75

California

1	44					44
2	7	4				11
3		2				2
4						
5						
Total	51	6				[1] 57

Colorado

1	33	2				35
2	1	11	2			14
3		5				5
4			7			7
5						
Total	34	18	9			[1] 61

Connecticut

1964 quintile					
1	2	3	4	5	Total
5					5
1	2				3
6	2				8

Delaware

2					2
	1				1
2	1				3

Florida

16					16
4	1	2			7
2	4	8	1		15
4		5	5		14
		2	5	8	15
26	5	17	11	8	67

Georgia

2	1				3
2	4	12	5		23
	4	21	70	7	102
	1	5	15	10	31
4	10	38	90	17	159

Idaho

15	4				19
5	9	2			16
	3	2	4		9
20	16	4	4		44

See footnote at end of table.

TABLE 4.--Comparison of quintile ranks of counties for farm operator level-of-living indexes, 1959 and 1964--Continued

(Excludes Alaska and Hawaii)

Illinois

1959 quintile	1964 quintile					
	1	2	3	4	5	Total
1	55	3				58
2	4	14	2			20
3		5	5	1		11
4			3	7		10
5					3	3
Total	59	22	10	8	3	102

Indiana

1	29	9				38
2		22	4			26
3		1	11	5		17
4			1	8	1	10
5					1	1
Total	29	32	16	13	2	92

Iowa

1	59	11				70
2	2	14	2			18
3		1	8	1		10
4				1		1
5						
Total	61	26	10	2		99

Kansas

1	29	5				34
2	9	28	6			43
3		2	15	7		24
4			1	3		4
5						
Total	38	35	22	10		105

Kentucky

1						
2	1	2	1	1		5
3		2	7	10		19
4			2	26	5	33
5				4	59	63
Total	1	4	10	41	64	120

Louisiana

1964 quintile						
1	2	3	4	5	Total
3					3
4	1	1			6
1	3	1	5		10
2	1	7	17	7	34
		1	3	6	10
10	5	10	25	13	[1] 63

Maine

1					1
	1	7	2		10
			4	1	5
1	1	7	6	1	16

Maryland

6					6
3	4				7
1	2	2			5
			5		5
10	6	2	5		[1] 23

Massachusetts

	3	3			6
	1	6			7
	4	9			[1] 13

Michigan

	2				2
	11	19			30
	3	27	6		36
		5	9		14
			1		1
	16	51	16		83

See footnote at end of table

TABLE 4.--Comparison of quintile ranks of counties for farm operator level-of-living indexes, 1959 and 1964--Continued

(Excludes Alaska and Hawaii)

Minnesota

1959 quintile	1964 quintile					
	1	2	3	4	5	Total
1	20	10				30
2	1	16	1			18
3		4	19	3		26
4			2	11		13
5						
Total	21	30	22	14		87

Mississippi

1						
2						
3				1		1
4	1	2	1	7	4	15
5			2	2	62	66
Total	1	2	3	10	66	82

Missouri

1	2					2
2		10	4			14
3		3	35	8		46
4	2	1	1	22	2	28
5				6	18	24
Total	4	14	40	36	20	[1] 114

Montana

1	33	1				34
2	7	7	1			15
3		3	1			4
4			3			3
5						
Total	40	11	5			56

Nebraska

1	35	4				39
2	16	27				43
3	1	4	6			11
4						
5						
Total	52	35	6			93

Nevada

1964 quintile						
1	2	3	4	5	Total
11					11
	6				6
11	6				17

New Hampshire

		2				2
		7				7
		1				1
		10				10

New Jersey

6						6
3	7					10
	3					3
9	10					[1] 19

New Mexico

5						5
7						7
4		1				5
2		5				7
				4		4
18		6		4		[1] 28

New York

6	2	1				9
2	21	13				36
	1	7	2	2		12
8	24	21	2	2		[1] 57

See footnote at end of table.

TABLE 4.--Comparison of quintile ranks of counties for farm operator level-of-living indexes, 1959 and 1964--Continued

(Excludes Alaska and Hawaii)

North Carolina

1959 quintile	1964 quintile					
	1	2	3	4	5	Total
1						
2						
3			3	1		4
4			8	31	10	49
5			1	4	42	47
Total			12	36	52	100

Pennsylvania

1964 quintile					
1	2	3	4	5	Total
4	2				6
2	11	15			28
		25	4		29
		2	1		3
6	13	42	5		[1] 66

North Dakota

1	3	3				6
2	4	23	5			32
3		11	3			14
4	1					1
5						
Total	8	37	8			53

Rhode Island

	3					3
		2				2
	3	2				5

Ohio

1	13	10	1			24
2	5	19	9			33
3		1	8	6		15
4				10	3	13
5				1	2	3
Total	18	30	18	17	5	88

South Carolina

		1	20	1		22
			4	20		24
		1	24	21		46

Oklahoma

1	1					1
2	3	7				10
3	1	10	8	6		25
4			4	17	2	23
5				2	16	18
Total	5	17	12	25	18	77

South Dakota

4	6					10
7	26	1				34
2	6	11				19
2	2					4
15	40	12				[1] 67

Oregon

1	10	1				11
2	3	10	3			16
3		2	7			9
4						
5						
Total	13	13	10			36

Tennessee

		2	3		5
	2	1	23	8	34
			4	52	56
	2	3	30	60	95

See footnote at end of table.

TABLE 4.--Comparison of quintile ranks of counties for farm operator level-of-living indexes, 1959 and 1964--Continued

(Excludes Alaska and Hawaii)

Texas

1959 quintile	1964 quintile					
	1	2	3	4	5	Total
1	74	4				78
2	16	14	9			39
3	2	10	27	17		56
4		1	5	30	17	53
5				5	23	28
Total	92	29	41	52	40	254

Utah

1	1	1	1			3
2		6	8			14
3			7	5		12
4						
5						
Total	1	7	16	5		29

Vermont

1						
2		1	1			2
3		6	6			12
4						
5						
Total		7	7			14

Virginia

1	2	2				4
2		2	2			4
3		4	9	5		18
4			3	27	11	41
5				1	29	30
Total	2	8	14	33	40	[1] 97

Washington

1964 quintile					
1	2	3	4	5	Total
11	1				12
	8	3			11
	1	10			11
		2	3		5
11	10	15	3		39

West Virginia

1					1
	3				3
		13	3		16
		1	34		35
1	3	14	37		55

Wisconsin

3	9				12
15	6				21
	22	3			25
	1	11			12
3	24	29	14		[1] 70

Wyoming

18					18
3	2				5
21	2				23

[1] Totals for some States shown here are less than the total number of counties in the State; 29 counties are not included because they have no farms.

TABLE 5.--Selected characteristics for counties with highest, average, and lowest farm operator level-of-living indexes, 1964

County and State	Level-of-living index		Average value of land and buildings per farm	Average value of sales per farm	Percent of farms reporting			Number of farms		Average size of farm	
	1964	1959			Telephones	Home freezers	Automobiles	1964	Percent change 1959-64	1964	Percent change 1959-64
			Dollars	Dollars	Pct.	Pct.	Pct.	No.	Pct.	Acres	Pct.
Highest indexes:[1]											
Imperial, Calif.	378	243	443,519	243,712	79	58	82	942	-27.9	625.3	64.0
Kern, Calif.	372	224	594,550	181,305	89	72	87	1,582	-23.3	2,279.0	31.8
Monterey, Calif.	309	187	490,926	125,856	89	76	88	1,115	-22.5	1,335.7	19.1
Yuma, Ariz.	301	178	474,984	134,837	72	67	83	568	-26.3	923.9	37.3
Ventura, Calif.	288	189	612,711	82,836	89	57	80	1,507	-19.1	289.9	20.2
Orange, Calif.	281	140	735,646	48,920	82	51	79	1,542	-54.0	157.5	52.8
Maricopa, Ariz.	272	212	389,481	112,662	88	65	87	2,154	-13.9	1,168.8	13.2
Yolo, Calif.	263	197	416,269	81,134	93	79	92	861	-15.3	689.6	23.9
Pinal, Ariz.	239	214	369,617	110,954	54	54	65	601	-14.1	4,472.5	29.1
Kings, Calif.	227	177	249,288	84,059	91	74	91	1,251	-17.1	700.9	56.0
Average indexes:[1] [2]											
Montcalm, Mich.	122	107	23,619	8,697	85	78	94	1,980	-16.5	150.6	11.0
Ray, Mo.	122	105	36,510	8,248	90	77	87	1,580	- 7.3	195.2	5.7
Bacon, Ga.	122	79	29,640	8,492	76	91	85	643	-18.4	184.0	16.5
Bexar, Tex.	122	114	78,436	9,300	78	69	84	1,864	- 4.4	263.5	-11.0
Greenwood, Kan.	122	108	77,662	10,961	82	59	88	873	-17.1	829.2	21.0
York, Maine	122	97	22,482	10,545	91	72	94	877	-31.6	151.6	16.5
Thurston, Wash.	122	116	36,430	6,782	92	78	88	1,193	- 2.2	108.9	- 6.5
Barron, Wis.	122	108	19,634	9,031	85	79	95	2,768	-10.9	162.0	7.8
Bear Lake, Idaho	122	117	51,801	7,001	85	77	86	516	-18.9	653.3	12.9
Butler, Pa.	122	111	23,987	8,445	88	82	90	1,764	-22.4	102.8	8.7
Lowest indexes:[1]											
Fulton, Ark.	59	43	14,430	2,169	12	52	52	954	-12.5	242.8	16.3
Dallas, Ala.	58	40	20,227	4,409	28	31	55	2,065	-26.7	215.1	27.1
Leslie, Ky.	58	12	3,736	273	28	59	41	287	-43.4	97.3	41.8
Letcher, Ky.	58	45	5,380	558	20	60	45	344	-43.6	71.9	3.2
Hancock, Tenn.	57	39	9,929	2,039	36	34	53	1,328	- 9.4	82.5	6.2
Buchanan, Va.	57	32	6,817	425	34	51	41	431	-58.1	62.3	-10.1
Wolfe, Ky.	53	36	10,065	1,811	29	37	47	703	-20.6	131.2	14.0
Knox, Ky.	52	32	7,605	1,006	26	36	49	968	-24.0	89.4	11.3
Owsley, Ky.	47	29	8,412	1,417	30	33	38	843	4.5	83.7	- 5.2
Breathitt, Ky.	46	26	5,818	994	30	34	38	922	-28.5	104.5	9.2

[1] Combinations of counties excluded. [2] Counties were selected from States where the average index appeared most frequently.

In 1959, 34 counties or combinations of counties had the same level-of-living index as the U.S. county average of 100. In 1964, there were 46 counties or combinations of counties in 22 States with the same level-of-living index as the U.S. county average of 122. The 10 counties with average indexes selected for analysis are in States having the largest number of counties with a level-of-living index of 122. Michigan is listed first because it had 6 counties with an index of 122. Missouri was next with 5, Georgia and Texas each had 4, Kansas and Maine 3 each, Washington and Wisconsin 2, and Idaho and Pennsylvania one.

Five of the 10 counties with the lowest level-of-living indexes in 1964 were among the 10 lowest in 1959. Marshall, Miss., Yancey, N.C., and Webster, W. Va., were not in the group in 1964, but Dallas, Ala., Fulton, Ark., and Hancock, Tenn., were added. In Kentucky, Magoffin and Perry counties were replaced by Letcher and Wolfe.

Striking economic differences between the counties with the highest, average, and lowest indexes persist, as shown in table 5. The value of land and buildings for the highest ranking counties averaged more than 10 times greater, and value of sales of farm products almost 14 times greater, than for the counties with an average index. The latter had land and buildings valued over 4 times greater, and sales more than 5 times greater, than the lowest ranking counties.

The number of farms decreased in all except one of the 30 counties selected for analysis, and the average size of farms increased in all except 4. Owsley County, Ky., showed a small increase in the number of farms between 1959 and 1964. Only 4 of the 10 lowest ranking counties had farms averaging more than 100 acres. In the group of counties with average indexes, the size ranged from 103 to 829 acres. Farms in the counties with the highest indexes averaged over 1,200 acres per farm.

No marked differences exist between the highest and average ranking counties in the possession of telephones, home freezers, and automobiles, but the lowest ranking counties reported a decidedly smaller proportion of farms with these items, especially telephones. The percentage of farms reporting telephones ranged from 54 to 93 percent in the two higher ranking groups of counties; from 12 to 36 percent in the lowest ranking group.

DEFINITIONS AND EXPLANATIONS

Definition of a farm

In 1959 and 1964, places of 10 or more acres were counted as farms if the estimated sales of agricultural products for the year amounted to at least $50. Places of less than 10 acres (in 1959 and 1964) were counted as farms if the estimated sales of agricultural products for the year amounted to at least $250. Places having less than these minimum estimated sales in 1959 and 1964 were also counted as farms if they could normally be expected to produce agricultural products in sufficient quantity to meet the requirements of the definition.

In 1950, places of 3 or more acres were counted as farms if the annual value of agricultural products in 1949, whether for home use or for sales (exclusive of home garden products) amounted to $150 or more. Places of less than 3 acres were counted as farms only if the annual sales of agricultural products in 1949 amounted to $150 or more.

In the three censuses the determination of whether a place qualified as a farm, under the respective definitions, was made during office processing operations and not by the census enumerator.

Average Value of Sales

The total value of farm products sold in 1959 and 1964 was obtained by enumeration for some products and by estimation for others. For details, see: U.S. Bureau of the Census, U.S. Census of Agriculture: 1959, Vol. I, Counties, p. XXV, Washington, D.C., 1961.

For 1950, the value of sales of farm products in 1949 as reported by farm operators was used. Estimates of sales were made only in cases where sales figures were not reported. Estimated sales accounted for only a small proportion of the total value of farm products sold.

Average Value of Land and Buildings

A question was designed to obtain the farm operator's estimate of the market value of the land and buildings on his place. In 1959 and 1964 the question was "About how much would the land and the buildings sell for?" The operator was asked to include land and buildings he owned, rented from others, managed for others, and rented to others.

In 1950, the question was "How much would this land and the buildings on it sell for?" Answers for each tenure category indicated above for 1959 were sought.

Specified Facilities

In 1959 and 1964, information about automobiles was obtained by means of a general question, "How many of the following are on this place?" Automobiles were included in the list of items. Information on telephones and home freezers was obtained by the question, "Do you have on this place_____?" A list of items including telephones and home freezers followed.

In 1950, the questions about facilities were: "Is there a telephone on this place?"; "Do you have_____?" followed by a list of 6 items including home freezer; and "How many of the following are on this place?" followed by a list of 10 items, including automobiles.

For the 3 facilities in 1959 and 1964, and for 2 facilities in 1950, the question referred specifically to "this place," which was defined to include all land operated. Thus, a nonresident operator with a telephone in his dwelling unit but not on his "place" should have answered "no" to the question regarding telephones. In areas where a significant proportion of operators did not also reside on the place operated, the number reporting facilities on the place may have been lower than the total number possessing such facilities.

TABLE 6.--Farm operator level-of-living indexes for counties of the United States, by State, 1950, 1959, and 1964

(Excludes Alaska and Hawaii. U.S. county average in 1959 = 100)

State and county	1950	1959	1964	State and county	1950	1959	1964
Alabama:							
Autauga	23	70	87	Houston	27	70	105
Baldwin	35	89	113	Jackson	15	57	88
Barbour	23	62	85	Jefferson	42	94	118
Bibb	20	66	95	Lamar	17	54	84
Blount	18	61	94	Lauderdale	29	76	101
Bullock	14	43	71	Lawrence	23	64	94
Butler	18	61	86	Lee	31	80	98
Calhoun	34	89	113	Limestone	27	75	101
Chambers	27	71	89	Lowndes	13	47	73
Cherokee	26	84	108	Macon	19	47	69
Chilton	18	64	89	Madison	28	72	109
Choctaw	14	50	76	Marengo	14	43	61
Clarke	14	46	78	Marion	19	50	81
Clay	18	60	90	Marshall	20	74	104
Cleburne	18	63	93	Mobile	42	90	115
Coffee	26	65	101	Monroe	18	59	87
Colbert	29	86	110	Montgomery	31	78	101
Conecuh	19	51	80	Morgan	28	74	99
Coosa	28	70	91	Perry	17	44	76
Covington	23	70	95	Pickens	16	57	85
Crenshaw	18	62	94	Pike	25	65	95
Cullman	21	70	97	Randolph	19	63	89
Dale	26	75	105	Russell	20	47	67
Dallas	15	40	58	St. Clair	24	70	105
De Kalb	21	69	99	Shelby	31	91	114
Elmore	27	72	99	Sumter	13	51	69
Escambia	19	79	105	Talladega	27	74	100
Etowah	36	82	104	Tallapoosa	22	75	93
Fayette	21	53	89	Tuscaloosa	22	65	90
Franklin	22	66	90	Walker	22	72	104
Geneva	22	66	100	Washington	19	65	80
Greene	15	36	61	Wilcox	11	36	62
Hale	17	50	75	Winston	17	56	92
Henry	30	80	103				
Arizona:							
Apache	NA	NA	NA	Mohave[3]	64	130	137
Cochise[1]	65	136	169	Navajo	NA	NA	NA
Coconino	NA	NA	NA	Pima	NA	NA	NA
Gila	NA	NA	NA	Pinal	89	214	239
Graham[2]	84	131	153	Santa Cruz	([1])	([1])	([1])
Greenlee	([2])	([2])	([2])	Yavapai	([3])	([3])	([3])
Maricopa	100	212	272	Yuma	110	178	301

[1] Indexes computed for following combinations of counties: [1] Cochise and Santa Cruz. [2] Graham and Greenlee. [3] Mohave and Yavapai.

Not available: Indexes for Apache, Coconino, Gila, Navajo, and Pima counties, because of the problem of classification of farms on Indian reservations.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Arkansas							
Arkansas	39	112	138	Lee	19	58	96
Ashley	20	57	104	Lincoln	14	62	105
Baxter	25	61	88	Little River	18	64	84
Benton	46	86	109	Logan	30	58	88
Boone	35	61	89	Lonoke	33	88	121
Bradley	21	58	85	Madison	21	50	86
Calhoun	22	70	92	Marion	21	50	83
Carroll	31	63	93	Miller	25	76	97
Chicot	21	74	115	Mississippi	31	92	133
Clark[1]	24	59	82	Monroe	18	61	100
Clay	29	72	99	Montgomery	19	52	77
Cleburne	18	47	82	Nevada	21	64	100
Cleveland	16	54	74	Newton	17	41	66
Columbia	22	58	83	Ouachita	27	74	93
Conway	20	65	93	Perry	15	53	85
Craighead	30	82	117	Phillips	20	63	111
Crawford	28	69	87	Pike	21	60	88
Crittenden	20	65	123	Poinsett	27	79	122
Cross	26	77	129	Polk	25	57	86
Dallas	([1])	([1])	([1])	Pope	23	65	89
Desha	14	69	113	Prairie	30	80	139
Drew	20	52	83	Pulaski	37	85	111
Faulkner	24	63	88	Randolph	31	58	80
Franklin	26	58	82	St. Francis	19	60	101
Fulton	22	43	59	Saline	40	74	95
Garland	40	81	100	Scott	25	51	74
Grant	29	69	88	Searcy	17	40	62
Greene	26	55	102	Sebastian	32	62	88
Hempstead	23	63	90	Sevier	20	60	90
Hot Spring	30	78	96	Sharp	23	48	66
Howard	24	61	91	Stone	20	38	66
Independence	26	64	94	Union	30	78	100
Izard	19	35	65	Van Buren	17	58	84
Jackson	30	83	119	Washington	42	85	116
Jefferson	21	68	115	White	21	64	93
Johnson	27	46	81	Woodruff	21	73	124
Lafayette	21	67	86	Yell	22	71	97
Lawrence	28	63	94				

Index computed for following combination of counties: [1] Clark and Dallas.

California							
Alameda	83	140	182	Colusa	111	163	214
Alpine[1]	63	125	151	Contra Costa	96	141	175
Amador	([1])	([1])	([1])	Del Norte	77	117	135
Butte	85	133	151	El Dorado	([1])	([1])	([1])
Calaveras	([1])	([1])	([1])	Fresno	94	200	181

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
California--Con.							
Glenn	97	133	168	San Benito	93	136	185
Humboldt	(2)	(2)	(2)	San Bernardino	78	131	175
Imperial	114	243	378	San Diego	84	126	140
Inyo[3]	72	117	145	San Francisco	NA	NA	NA
Kern	145	224	372	San Joaquin	95	138	174
Kings	105	177	227	San Luis Obispo	96	154	168
Lake	77	115	128	San Mateo	(5)	(5)	(5)
Lassen[4]	85	136	150	Santa Barbara	132	160	215
Los Angeles	91	143	204	Santa Clara	90	151	179
Madera	93	152	186	Santa Cruz	97	124	165
Marin[5]	103	159	193	Shasta[7]	67	110	127
Mariposa	(3)	(3)	(3)	Sierra	(6)	(6)	(6)
Mendocino	77	120	130	Siskiyou	87	132	153
Merced	88	144	165	Solano	96	151	194
Modoc	(4)	(4)	(4)	Sonoma	86	124	150
Mono	(3)	(3)	(3)	Stanislaus	86	136	156
Monterey	126	187	309	Sutter[8]	92	149	178
Napa	94	128	144	Tehama	75	126	140
Nevada[6]	74	120	142	Trinity	(7)	(7)	(7)
Orange	85	140	281	Tulare	93	154	182
Placer	75	126	140	Tuolumne	(3)	(3)	(3)
Plumas	(6)	(6)	(6)	Ventura	134	189	288
Riverside	81	159	216	Yolo	116	197	263
Sacramento	86	145	174	Yuba	(8)	(8)	(8)

Indexes computed for following combinations of counties: [1] Alpine, Amador, Calaveras, and El Dorado. [2] Del Norte and Humboldt. [3] Inyo, Mariposa, Mono, and Tuolumne. [4] Lassen and Modoc. [5] Marin and San Mateo. [6] Nevada, Plumas, and Sierra. [7] Shasta and Trinity. [8] Sutter and Yuba.

Colorado							
Adams[1]	92	137	165	Denver	NA	NA	NA
Alamosa[2]	103	137	161	Dolores[9]	61	110	127
Arapahoe	(1)	(1)	(1)	Douglas[10]	74	126	139
Archuleta[3]	61	94	125	Eagle	(7)	(7)	(7)
Baca	72	109	128	Elbert	(10)	(10)	(10)
Bent[4]	80	121	135	El Paso	80	133	147
Boulder	91	144	153	Fremont	(8)	(8)	(8)
Chaffee[5]	80	120	137	Garfield	(7)	(7)	(7)
Cheyenne[6]	66	123	141	Gilpin	(7)	(7)	(7)
Clear Creek[7]	74	124	150	Grand	(7)	(7)	(7)
Conejos	(3)	(3)	(3)	Gunnison	(5)	(5)	(5)
Costilla	(3)	(3)	(3)	Hinsdale	(5)	(5)	(5)
Crowley	(4)	(4)	(4)	Huerfano	(8)	(8)	(8)
Custer[8]	62	94	122	Jackson[11]	85	130	160
Delta	68	111	125	Jefferson	87	144	160

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Colorado--Con.							
Kiowa	(6)	(6)	(6)	Phillips[13]	83	129	145
Kit Carson	75	123	149	Pitkin	(7)	(7)	(7)
Lake	(7)	(7)	(7)	Prowers	72	125	137
La Plata	59	104	127	Pueblo	78	121	132
Larimer	101	140	150	Rio Blanco	(11)	(11)	(11)
Las Animas	53	93	118	Rio Grande	(2)	(2)	(2)
Lincoln	(6)	(6)	(6)	Routt	(11)	(11)	(11)
Logan[12]	89	135	163	Saguache	(2)	(2)	(2)
Mesa	76	118	125	San Juan	NA	NA	NA
Mineral	(5)	(5)	(5)	San Miguel	(9)	(9)	(9)
Moffat	(11)	(11)	(11)	Sedgwick	(12)	(12)	(12)
Montezuma	(9)	(9)	(9)	Summit	(7)	(7)	(7)
Montrose	72	124	129	Teller	(5)	(5)	(5)
Morgan	86	142	167	Washington	77	120	141
Otero	(4)	(4)	(4)	Weld	99	150	170
Ouray	(5)	(5)	(5)	Yuma	(13)	(13)	(13)
Park	(5)	(5)	(5)				

Indexes computed for following combinations of counties: [1] Adams and Arapahoe. [2] Alamosa, Rio Grande, and Saguache. [3] Archuleta, Conejos, and Costilla. [4] Bent, Crowley, and Otero. [5] Chaffee, Gunnison, Hinsdale, Mineral, Ouray, Park, and Teller. [6] Cheyenne, Kiowa, and Lincoln. [7] Clear Creek, Eagle, Garfield, Gilpin, Grand, Lake, Pitkin, and Summit. [8] Custer, Fremont, and Huerfano. [9] Dolores, Montezuma, and San Miguel. [10] Douglas and Elbert. [11] Jackson, Moffat, Rio Blanco, and Routt. [12] Logan and Sedgwick. [13] Phillips and Yuma.

Not available: Denver was completely urban in 1959 and 1964, and San Juan had no farms in 1959 and 1964.

Connecticut							
Fairfield[1]	96	124	140	New Haven	89	117	136
Hartford	94	131	161	New London	78	124	131
Litchfield	(1)	(1)	(1)	Tolland	89	127	138
Middlesex	90	124	141	Windham	84	119	134

Index computed for following combination of counties: [1] Fairfield and Litchfield.

Delaware							
Kent	71	103	128	Sussex	83	131	145
New Castle	87	132	144				
Florida							
Alachua	36	100	121	Bradford[3]	28	94	139
Baker[1]	26	72	114	Brevard[4]	63	94	166
Bay[2]	21	73	99	Broward[5]	84	183	233

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Florida--Con.							
Calhoun[6]	23	68	92	Levy	(10)	(10)	(10)
Charlotte[7]	66	125	140	Liberty	(6)	(6)	(6)
Citrus[8]	51	105	126	Madison	(15)	(15)	(15)
Clay	(3)	(3)	(3)	Manatee	58	110	123
Collier	(7)	(7)	(7)	Marion	42	96	135
Columbia	31	95	117	Martin	(5)	(5)	(5)
Dade	90	141	152	Monroe	(7)	(7)	(7)
De Soto[9]	55	121	140	Nassau	(11)	(11)	(11)
Dixie[10]	35	88	115	Okaloosa	24	67	118
Duval[11]	62	120	142	Okeechobee	(14)	(14)	(14)
Escambia	40	103	121	Orange[16]	71	138	164
Flagler[12]	64	105	135	Osceola	(16)	(16)	(16)
Franklin	(6)	(6)	(6)	Palm Beach	(5)	(5)	(5)
Gadsden	39	81	123	Pasco	62	115	132
Gilchrist[13]	26	84	112	Pinellas	71	111	126
Glades[14]	86	164	219	Polk	74	136	155
Gulf	(6)	(6)	(6)	Putnam[17]	60	107	149
Hamilton[15]	26	82	101	St. Johns	(17)	(17)	(17)
Hardee	42	99	119	St. Lucie	74	140	206
Hendry	(14)	(14)	(14)	Santa Rosa	32	100	120
Hernando	(8)	(8)	(8)	Sarasota	(7)	(7)	(7)
Highlands	(9)	(9)	(9)	Seminole	84	104	122
Hillsborough	50	119	118	Sumter	30	102	111
Holmes	18	70	91	Suwannee	28	88	112
Indian River	(4)	(4)	(4)	Taylor	(10)	(10)	(10)
Jackson	19	71	96	Union	(1)	(1)	(1)
Jefferson	25	60	83	Volusia	(12)	(12)	(12)
Lafayette	(13)	(13)	(13)	Wakulla	(6)	(6)	(6)
Lake	61	109	121	Walton	(2)	(2)	(2)
Lee	(7)	(7)	(7)	Washington	22	69	103
Leon	30	74	117				

Indexes computed for following combinations of counties: [1] Baker and Union. [2] Bay and Walton. [3] Bradford and Clay. [4] Brevard and Indian River. [5] Broward, Martin, and Palm Beach. [6] Calhoun, Franklin, Gulf, Liberty, and Wakulla. [7] Charlotte, Collier, Lee, Monroe, and Sarasota. [8] Citrus and Hernando. [9] De Soto and Highlands. [10] Dixie, Levy, and Taylor. [11] Duval and Nassau. [12] Flagler and Volusia. [13] Gilchrist and Lafayette. [14] Glades, Hendry, and Okeechobee. [15] Hamilton and Madison. [16] Orange and Osceola. [17] Putnam and St. Johns.

Georgia							
Appling	26	85	116	Barrow	32	78	110
Atkinson[1]	30	82	114	Bartow	29	80	112
Bacon	26	79	122	Ben Hill	36	76	114
Baker	31	72	121	Berrien	34	79	122
Baldwin[2]	33	80	109	Bibb[3]	46	101	124
Banks	29	71	110	Bleckley[4]	28	81	111

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Georgia--Con.							
Brantley[5]	25	85	112	Glascock[21]	44	79	99
Brooks	28	64	101	Glynn	(9)	(9)	(9)
Bryan[6]	33	87	109	Gordon	32	74	110
Bulloch	38	86	110	Grady	36	79	103
Burke	25	69	101	Greene	32	74	99
Butts[7]	36	79	104	Gwinnett	34	85	109
Calhoun[8]	24	70	118	Habersham	26	77	116
Camden[9]	28	90	108	Hall	30	84	116
Candler[10]	37	91	116	Hancock	23	50	75
Carroll[11]	29	82	109	Haralson	20	78	105
Catoosa	30	90	111	Harris[22]	33	75	87
Charlton	(9)	(9)	(9)	Hart	38	75	107
Chatham	(6)	(6)	(6)	Heard	(11)	(11)	(11)
Chattahoochee[12]	31	82	101	Henry	33	83	110
Chattooga	28	75	105	Houston	(3)	(3)	(3)
Cherokee	37	82	115	Irwin	34	86	124
Clarke[13]	42	104	116	Jackson	30	80	113
Clay	(8)	(8)	(8)	Jasper[23]	31	90	121
Clayton[14]	60	122	141	Jeff Davis	29	88	109
Clinch[15]	39	96	116	Jefferson	34	77	103
Cobb	42	107	111	Jenkins	38	74	109
Coffee	30	95	117	Johnson	28	72	101
Colquitt	31	97	122	Jones	(2)	(2)	(2)
Columbia[16]	37	87	106	Lamar	(7)	(7)	(7)
Cook	37	96	122	Lanier	(1)	(1)	(1)
Coweta	33	90	109	Laurens	27	80	112
Crawford	(3)	(3)	(3)	Lee	(19)	(19)	(19)
Crisp	41	107	136	Liberty	(6)	(6)	(6)
Dade[17]	31	81	97	Lincoln	(16)	(16)	(16)
Dawson[18]	30	65	102	Long	(6)	(6)	(6)
Decatur	30	91	118	Lowndes	33	92	114
De Kalb	(14)	(14)	(14)	Lumpkin	17	66	115
Dodge	(4)	(4)	(4)	McDuffie[24]	28	75	82
Dooly	31	92	130	McIntosh	(9)	(9)	(9)
Dougherty[19]	45	97	142	Macon[25]	37	88	131
Douglas	28	81	123	Madison	30	84	109
Early	20	72	106	Marion	(12)	(12)	(12)
Echols	(15)	(15)	(15)	Meriwether	27	61	82
Effingham	32	96	115	Miller[26]	29	90	121
Elbert	37	82	106	Mitchell	32	87	126
Emanuel	26	75	114	Monroe[27]	38	94	105
Evans	(10)	(10)	(10)	Montgomery	26	75	102
Fannin	23	51	81	Morgan	36	76	111
Fayette	24	80	104	Murray	22	64	102
Floyd	40	98	111	Muscogee	(12)	(12)	(12)
Forsyth	34	91	115	Newton[28]	26	98	108
Franklin[20]	34	83	114	Oconee	(13)	(13)	(13)
Fulton	43	117	126	Oglethorpe	34	76	102
Gilmer	16	52	82	Paulding	20	81	106

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Georgia--Con.							
Peach	(25)	(25)	(25)	Thomas	28	89	132
Pickens	(18)	(18)	(18)	Tift	43	102	132
Pierce	(5)	(5)	(5)	Toombs	23	87	109
Pike[29]	35	87	109	Towns	(32)	(32)	(32)
Polk	28	80	107	Treutlen[34]	30	83	107
Pulaski[30]	29	86	114	Troup	36	82	114
Putnam	(23)	(23)	(23)	Turner	29	98	125
Quitman[31]	27	62	90	Twiggs[35]	25	70	100
Rabun[32]	20	58	94	Union	14	49	87
Randolph	27	68	116	Upson	(27)	(27)	(27)
Richmond	(21)	(21)	(21)	Walker	(17)	(17)	(17)
Rockdale	(28)	(28)	(28)	Walton	35	79	107
Schley[33]	36	99	131	Ware	(15)	(15)	(15)
Screven	27	85	116	Warren	(24)	(24)	(24)
Seminole	(26)	(26)	(26)	Washington	29	81	108
Spalding	(29)	(29)	(29)	Wayne	26	84	108
Stephens	(20)	(20)	(20)	Webster	(31)	(31)	(31)
Stewart	(31)	(31)	(31)	Wheeler	(34)	(34)	(34)
Sumter	(33)	(33)	(33)	White	20	73	101
Talbot	(22)	(22)	(22)	Whitfield	34	90	117
Taliaferro	(24)	(24)	(24)	Wilcox	(30)	(30)	(30)
Tattnall	30	99	112	Wilkes	31	83	113
Taylor	(12)	(12)	(12)	Wilkinson	(35)	(35)	(35)
Telfair	26	71	104	Worth	31	84	123
Terrell	31	72	127				

Indexes computed for following combinations of counties: [1] Atkinson and Lanier. [2] Baldwin and Jones. [3] Bibb, Crawford, and Houston. [4] Bleckley and Dodge. [5] Brantley and Pierce. [6] Bryan, Chatham, Liberty, and Long. [7] Butts and Lamar. [8] Calhoun and Clay. [9] Camden, Charlton, Glynn, and McIntosh. [10] Candler and Evans. [11] Carroll and Heard. [12] Chattahoochee, Marion, Muscogee, and Taylor. [13] Clarke and Oconee. [14] Clayton and De Kalb. [15] Clinch, Echols, and Ware. [16] Columbia and Lincoln. [17] Dade and Walker. [18] Dawson and Pickens. [19] Dougherty and Lee. [20] Franklin and Stephens. [21] Glascock and Richmond. [22] Harris and Talbot. [23] Jasper and Putnam. [24] McDuffie, Taliaferro, and Warren. [25] Macon and Peach. [26] Miller and Seminole. [27] Monroe and Upson. [28] Newton and Rockdale. [29] Pike and Spalding. [30] Pulaski and Wilcox. [31] Quitman, Stewart, and Webster. [32] Rabun and Towns. [33] Schley and Sumter. [34] Treutlen and Wheeler. [35] Twiggs and Wilkinson.

Idaho							
Ada	78	129	137	Blaine[3]	74	119	150
Adams[1]	69	108	132	Boise	(3)	(3)	(3)
Bannock	76	119	141	Bonner[4]	46	96	103
Bear Lake	74	117	122	Bonneville	92	141	148
Benewah[2]	55	97	122	Boundary	(4)	(4)	(4)
Bingham	82	127	135	Butte[5]	61	116	135

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Idaho--Con.							
Camas	(3)	(3)	(3)	Latah	80	122	133
Canyon	85	127	145	Lemhi	(5)	(5)	(5)
Caribou	97	124	142	Lewis[7]	84	133	155
Cassia	77	129	155	Lincoln	(6)	(6)	(6)
Clark	(5)	(5)	(5)	Madison[8]	81	126	136
Clearwater	(4)	(4)	(4)	Minidoka	79	129	145
Custer	(5)	(5)	(5)	Nez Perce	(7)	(7)	(7)
Elmore	(3)	(3)	(3)	Oneida[9]	79	125	139
Franklin	76	117	129	Owyhee	66	131	149
Fremont	92	127	146	Payette	76	115	126
Gem	68	124	138	Power	(9)	(9)	(9)
Gooding[6]	73	115	134	Shoshone	(4)	(4)	(4)
Idaho	(1)	(1)	(1)	Teton	(8)	(8)	(8)
Jefferson	76	123	139	Twin Falls	90	139	147
Jerome	80	140	147	Valley	(1)	(1)	(1)
Kootenai	(2)	(2)	(2)	Washington	72	115	136

Indexes computed for following combinations of counties: [1] Adams, Idaho, and Valley. [2] Benewah and Kootenai. [3] Blaine, Boise, Camas, and Elmore. [4] Bonner, Boundary, Clearwater, and Shoshone. [5] Butte, Clark, Custer, and Lemhi. [6] Gooding and Lincoln. [7] Lewis and Nez Perce. [8] Madison and Teton. [9] Oneida and Power.

Illinois							
Adams	83	121	136	Effingham	77	116	130
Alexander[1]	42	83	112	Fayette	69	107	126
Bond	76	115	125	Ford	98	145	159
Boone	103	142	156	Franklin	48	86	110
Brown	75	112	128	Fulton	90	126	140
Bureau	100	142	152	Gallatin	55	109	132
Calhoun	51	86	108	Greene	75	114	140
Carroll	106	138	148	Grundy	108	140	160
Cass	92	129	154	Hamilton	42	78	117
Champaign	118	153	167	Hancock	84	126	143
Christian	95	139	165	Hardin[2]	37	67	94
Clark	65	108	127	Henderson	98	143	151
Clay	63	100	118	Henry	103	144	152
Clinton	79	125	136	Iroquois	105	141	159
Coles	85	134	151	Jackson	54	101	117
Cook	98	147	149	Jasper	63	112	129
Crawford	72	115	135	Jefferson	57	100	119
Cumberland	65	118	126	Jersey	74	121	142
De Kalb	111	160	169	Jo Daviess	90	129	135
De Witt	96	143	159	Johnson	37	70	94
Douglas	99	134	153	Kane	116	158	166
Du Page	104	149	161	Kankakee	95	139	153
Edgar	90	140	159	Kendall	120	152	157
Edwards	71	113	130	Knox	93	134	147

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Illinois--Con.							
Lake	103	148	164	Pope	(2)	(2)	(2)
La Salle	102	143	151	Pulaski	(1)	(1)	(1)
Lawrence	63	106	133	Putnam	(3)	(3)	(3)
Lee	110	142	157	Randolph	77	107	127
Livingston	111	148	162	Richland	71	109	131
Logan	105	152	166	Rock Island	97	128	140
McDonough	101	137	148	St. Clair	81	124	139
McHenry	106	141	152	Saline	53	92	116
McLean	106	149	168	Sangamon	103	142	159
Macon	98	146	163	Schuyler	76	117	133
Macoupin	70	120	133	Scott	80	118	138
Madison	80	119	134	Shelby	85	120	136
Marion	68	105	119	Stark	110	152	162
Marshall[3]	95	138	152	Stephenson	111	138	145
Mason	99	142	153	Tazewell	103	148	158
Massac	51	77	109	Union	51	83	104
Menard	105	146	165	Vermilion	96	139	159
Mercer	104	140	147	Wabash	89	111	142
Monroe	84	125	136	Warren	102	149	162
Montgomery	75	118	135	Washington	75	115	127
Morgan	87	132	148	Wayne	53	98	114
Moultrie	89	131	145	White	76	113	130
Ogle	110	145	158	Whiteside	105	143	151
Peoria	96	136	147	Will	98	138	150
Perry	62	93	117	Williamson	41	77	103
Piatt	119	156	174	Winnebago	100	134	146
Pike	74	113	131	Woodford	112	152	161

Indexes computed for following combinations of counties: [1] Alexander and Pulaski. [2] Hardin and Pope. [3] Marshall and Putnam.

Indiana							
Adams	86	116	123	Dearborn	72	108	116
Allen	87	121	128	Decatur	83	125	135
Bartholomew	75	116	132	De Kalb	80	120	130
Benton	108	152	168	Delaware	84	129	139
Blackford	85	119	130	Dubois	73	108	132
Boone	97	132	139	Elkhart	81	117	123
Brown[1]	51	104	117	Fayette	89	113	130
Carroll	108	137	143	Floyd	63	101	110
Cass	92	130	137	Fountain	87	127	143
Clark	58	97	114	Franklin	67	106	115
Clay	79	119	131	Fulton	87	120	135
Clinton	104	141	148	Gibson	76	113	131
Crawford	37	70	92	Grant	79	131	143
Daviess	65	104	118	Greene	60	98	126

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Indiana--Con.							
Hamilton	93	125	144	Parke	80	116	133
Hancock	89	131	139	Perry	44	92	106
Harrison	61	101	112	Pike	50	91	119
Hendricks	91	124	134	Porter	85	134	139
Henry	91	125	137	Posey	77	121	134
Howard	95	129	140	Pulaski	77	113	135
Huntington	87	131	138	Putnam	74	115	130
Jackson	62	106	123	Randolph	86	122	132
Jasper	77	130	149	Ripley	66	108	114
Jay	75	112	125	Rush	94	131	146
Jefferson	58	86	109	St. Joseph	82	127	133
Jennings	52	94	110	Scott	37	89	109
Johnson	85	126	136	Shelby	91	134	138
Knox	83	123	143	Spencer	68	101	118
Kosciusko	81	120	133	Starke	67	111	131
Lagrange	70	82	86	Steuben	81	118	133
Lake	83	133	143	Sullivan	70	123	128
La Porte	85	125	137	Switzerland	([2])	([2])	([2])
Lawrence	46	96	112	Tippecanoe	99	141	154
Madison	92	133	140	Tipton	93	136	148
Marion	90	125	141	Union	100	136	138
Marshall	80	118	131	Vanderburgh	84	122	135
Martin	43	80	99	Vermillion	75	125	140
Miami	87	128	141	Vigo	70	115	123
Monroe	([1])	([1])	([1])	Wabash	85	127	143
Montgomery	95	135	142	Warren	78	133	148
Morgan	71	121	128	Warrick	62	107	124
Newton	99	138	156	Washington	53	98	119
Noble	79	117	130	Wayne	98	133	139
Ohio[2]	60	94	110	Wells	87	122	134
Orange	42	80	103	White	95	136	153
Owen	61	105	117	Whitley	91	117	133

Indexes computed for following combinations of counties: [1] Brown and Monroe. [2] Ohio and Switzerland.

Iowa							
Adair	85	125	133	Calhoun	95	139	154
Adams	83	110	128	Carroll	101	137	153
Allamakee	84	118	128	Cass	92	127	137
Appanoose	70	97	120	Cedar	100	146	151
Audubon	99	129	145	Cerro Gordo	95	130	145
Benton	107	143	152	Cherokee	107	147	158
Black Hawk	96	135	147	Chickasaw	80	119	131
Boone	90	132	146	Clarke	77	110	121
Bremer	94	128	136	Clay	99	136	153
Buchanan	85	117	127	Clayton	85	124	131
Buena Vista	102	135	151	Clinton	104	140	150
Butler	95	128	138	Crawford	86	121	139

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Iowa--Con.							
Dallas	96	130	141	Marion	78	116	134
Davis	76	105	118	Marshall	100	141	150
Decatur	67	103	112	Mills	89	129	144
Delaware	84	126	138	Mitchell	93	131	148
Des Moines	97	129	142	Monona	86	121	134
Dickinson	93	135	147	Monroe	66	95	107
Dubuque	87	133	142	Montgomery	98	129	140
Emmet	100	137	152	Muscatine	101	135	143
Fayette	88	127	132	O'Brien	97	137	153
Floyd	92	136	145	Osceola	96	132	149
Franklin	102	142	153	Page	98	134	138
Fremont	88	125	143	Palo Alto	95	132	148
Greene	96	136	153	Plymouth	102	132	146
Grundy	105	148	153	Pocahontas	96	137	150
Guthrie	88	119	135	Polk	88	131	140
Hamilton	102	138	154	Pottawattamie	96	135	146
Hancock	101	136	148	Poweshiek	90	127	141
Hardin	97	136	148	Ringgold	82	107	121
Harrison	84	120	134	Sac	102	136	158
Henry	89	125	135	Scott	95	139	146
Howard	80	118	127	Shelby	105	139	147
Humboldt	97	139	155	Sioux	101	138	152
Ida	95	136	153	Story	98	141	153
Iowa	99	131	143	Tama	101	133	145
Jackson	89	121	138	Taylor	88	115	125
Jasper	89	129	139	Union	79	107	125
Jefferson	83	113	128	Van Buren	72	101	116
Johnson	100	129	137	Wapello	71	113	120
Jones	91	135	144	Warren	85	116	127
Keokuk	89	120	132	Washington	98	133	144
Kossuth	103	141	152	Wayne	75	106	123
Lee	83	120	127	Webster	94	134	156
Linn	91	133	139	Winnebago	92	125	143
Louisa	88	133	147	Winneshiek	90	124	133
Lucas	76	108	119	Woodbury	83	119	138
Lyon	101	136	146	Worth	91	129	140
Madison	83	115	130	Wright	100	135	157
Mahaska	90	127	139				
Kansas							
Allen	70	98	106	Chase[1]	88	117	155
Anderson	65	96	114	Chautauqua	59	96	116
Atchison	71	109	122	Cherokee	57	92	119
Barber	91	132	148	Cheyenne	83	133	146
Barton	91	120	142	Clark[2]	102	130	156
Bourbon	68	98	112	Clay	88	120	127
Brown	90	119	133	Cloud	78	110	126
Butler	77	122	132	Coffey	66	106	118

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Kansas--Con.							
Comanche	(2)	(2)	(2)	Mitchell	86	122	137
Cowley	76	118	126	Montgomery	65	100	113
Crawford	59	90	105	Morris	(1)	(1)	(1)
Decatur	86	128	138	Morton[10]	106	152	162
Dickinson	88	118	130	Nemaha	87	118	132
Doniphan	80	116	127	Neosho	63	102	113
Douglas	79	114	127	Ness	86	122	136
Edwards[3]	90	121	141	Norton	75	109	131
Elk	69	89	102	Osage	72	104	125
Ellis	75	118	128	Osborne	81	118	129
Ellsworth	89	117	131	Ottawa	79	120	134
Finney	96	151	166	Pawnee	89	135	148
Ford	94	127	147	Phillips	72	105	123
Franklin	75	117	123	Pottawatomie	79	115	126
Geary[4]	80	114	130	Pratt	88	123	142
Gove[5]	92	135	153	Rawlins	90	136	138
Graham	63	118	124	Reno	80	114	129
Grant[6]	101	158	175	Republic	79	105	123
Gray	97	135	145	Rice	86	130	146
Greeley[7]	89	144	161	Riley	92	125	132
Greenwood	72	108	122	Rooks	79	119	132
Hamilton[8]	91	134	144	Rush	83	116	122
Harper	88	131	140	Russell	83	112	131
Harvey	83	121	134	Saline	86	124	135
Haskell	(6)	(6)	(6)	Scott	(7)	(7)	(7)
Hodgeman	89	118	138	Sedgwick	79	127	140
Jackson	73	100	117	Seward[11]	89	127	149
Jefferson	64	107	123	Shawnee	75	122	128
Jewell	78	114	131	Sheridan	75	124	143
Johnson	75	118	132	Sherman	97	140	162
Kearny	(8)	(8)	(8)	Smith	75	127	129
Kingman	83	119	136	Stafford	92	119	141
Kiowa	(3)	(3)	(3)	Stanton	(10)	(10)	(10)
Labette	63	96	112	Stevens	(11)	(11)	(11)
Lane	(5)	(5)	(5)	Sumner	78	121	134
Leavenworth	70	101	116	Thomas	82	137	149
Lincoln	84	116	131	Trego	76	122	138
Linn	67	94	113	Wabaunsee	(4)	(4)	(4)
Logan[9]	71	122	148	Wallace	(9)	(9)	(9)
Lyon	73	110	132	Washington	82	112	125
McPherson	88	116	129	Wichita	(7)	(7)	(7)
Marion	88	115	130	Wilson	63	100	112
Marshall	82	107	120	Woodson	65	101	119
Meade	93	126	142	Wyandotte	68	108	123
Miami	76	109	125				

Indexes computed for following combinations of counties: [1] Chase and Morris. [2] Clark and Comanche. [3] Edwards and Kiowa. [4] Geary and Wabaunsee. [5] Gove and Lane. [6] Grant and Haskell. [7] Greeley, Scott, and Wichita. [8] Hamilton and Kearny. [9] Logan and Wallace. [10] Morton and Stanton. [11] Seward and Stevens.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Kentucky							
Adair	26	49	69	Hart	39	66	86
Allen	37	70	88	Henderson	52	100	114
Anderson	48	89	99	Henry	57	90	114
Ballard	49	90	118	Hickman	52	98	119
Barren	44	74	94	Hopkins	38	72	93
Bath	34	63	90	Jackson	13	41	70
Bell[1]	15	58	76	Jefferson	72	115	127
Boone	68	97	116	Jessamine	56	103	107
Bourbon	77	109	122	Johnson[3]	17	38	62
Boyd[2]	28	60	93	Kenton	73	111	113
Boyle	58	95	108	Knott	10	35	69
Bracken	56	83	100	Knox	12	32	52
Breathitt	7	26	46	Larue	44	86	99
Breckinridge	37	71	86	Laurel	19	49	71
Bullitt	48	85	109	Lawrence	11	41	71
Butler	23	54	86	Lee[4]	17	52	71
Caldwell	42	71	90	Leslie	6	12	58
Calloway	44	83	105	Letcher	17	45	58
Campbell	72	113	117	Lewis	26	58	73
Carlisle	41	74	103	Lincoln	36	79	90
Carroll	51	97	101	Livingston	32	72	105
Carter	17	41	72	Logan	43	80	96
Casey	21	51	71	Lyon	28	65	110
Christian	53	90	114	McCracken	48	87	106
Clark	64	102	109	McCreary	16	41	66
Clay	10	40	63	McLean	40	85	105
Clinton	18	47	69	Madison	42	80	98
Crittenden	35	67	85	Magoffin	13	33	66
Cumberland	19	49	77	Marion	44	75	97
Daviess	49	97	110	Marshall	41	80	102
Edmonson	25	61	84	Martin	([3])	([3])	([3])
Elliott	15	43	69	Mason	56	90	108
Estill	19	44	69	Meade	47	78	101
Fayette	89	118	152	Menifee	15	47	72
Fleming	39	76	100	Mercer	62	100	111
Floyd	16	43	79	Metcalfe	30	69	83
Franklin	61	96	113	Monroe	24	50	78
Fulton	47	105	126	Montgomery	50	86	100
Gallatin	56	94	108	Morgan	14	47	66
Garrard	52	85	93	Muhlenberg	28	61	85
Grant	64	98	112	Nelson	59	91	117
Graves	44	84	105	Nicholas	49	87	105
Grayson	28	53	79	Ohio	29	59	79
Green	32	65	93	Oldham	76	116	134
Greenup	([2])	([2])	([2])	Owen	45	88	102
Hancock	38	73	88	Owsley	10	29	47
Hardin	44	77	100	Pendleton	61	93	109
Harlan	([1])	([1])	([1])	Perry	10	26	60
Harrison	61	103	113	Pike	17	45	69

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Kentucky--Con.							
Powell	(4)	(4)	(4)	Todd	45	86	108
Pulaski	25	47	75	Trigg	41	74	102
Robertson	45	65	91	Trimble	50	86	105
Rockcastle	19	44	68	Union	59	107	129
Rowan	16	49	73	Warren	40	81	106
Russell	23	54	78	Washington	55	82	107
Scott	61	101	119	Wayne	21	41	69
Shelby	73	107	115	Webster	33	76	99
Simpson	50	100	111	Whitley	16	41	70
Spencer	62	98	115	Wolfe	12	36	53
Taylor	42	69	94	Woodford	74	98	128

Indexes computed for following combinations of counties: [1] Bell and Harlan. [2] Boyd and Greenup. [3] Johnson and Martin. [4] Lee and Powell.

Louisiana							
Acadia	50	106	124	Livingston	33	91	105
Allen	39	100	111	Madison	28	91	134
Ascension	37	98	109	Morehouse	24	74	117
Assumption	68	112	145	Natchitoches	20	69	91
Avoyelles	28	76	99	Orleans	NA	NA	NA
Beauregard	32	101	105	Ouachita	36	92	113
Bienville	25	78	92	Plaquemines	(2)	(2)	(2)
Bossier	26	76	105	Pointe Coupee	39	66	106
Caddo	33	76	96	Rapides	34	95	107
Calcasieu	55	124	149	Red River	19	82	109
Caldwell	26	77	100	Richland	27	82	109
Cameron	57	118	154	Sabine	22	72	98
Catahoula	22	79	102	St. Bernard	(2)	(2)	(2)
Claiborne	31	81	91	St. Charles	(2)	(2)	(2)
Concordia	23	78	117	St. Helena	26	65	94
De Soto	26	78	92	St. James	50	82	148
East Baton Rouge	57	122	125	St. John the Baptist	58	121	170
East Carroll	21	102	132	St. Landry	28	70	95
East Feliciana[1]	23	71	87	St. Martin	28	83	106
Evangeline	27	75	98	St. Mary	62	129	161
Franklin	27	69	105	St. Tammany	42	89	115
Grant	26	82	103	Tangipahoa	34	94	110
Iberia	62	115	140	Tensas	23	83	118
Iberville	48	98	154	Terrebonne	48	108	136
Jackson	28	98	112	Union	24	82	101
Jefferson[2]	49	91	117	Vermilion	50	113	137
Jefferson Davis	70	124	156	Vernon	21	85	96
Lafayette	42	90	110	Washington	29	94	104
Lafourche	49	107	135	Webster	33	99	112
La Salle	26	86	95	West Baton Rouge	54	94	139
Lincoln	30	94	110				

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Louisiana--Con.							
West Carroll	19	77	109	Winn	18	66	95
West Feliciana	(1)	(1)	(1)				

Indexes computed for following combinations of counties: [1] East Feliciana and West Feliciana. [2] Jefferson, Plaquemines, St. Bernard, and St. Charles.
Not available: Orleans was completely urban in 1959 and 1964.

Maine							
Androscoggin	68	106	122	Oxford	63	99	115
Aroostook	88	124	162	Penobscot	58	101	122
Cumberland	66	104	118	Piscataquis[2]	57	95	110
Franklin	58	91	110	Sagadahoc	(1)	(1)	(1)
Hancock	52	90	106	Somerset	(2)	(2)	(2)
Kennebec[1]	63	105	117	Waldo	61	101	127
Knox	63	98	105	Washington	46	82	94
Lincoln	68	100	106	York	72	97	122

Indexes computed for following combinations of counties: [1] Kennebec and Sagadahoc. [2] Piscataquis and Somerset.

Maryland							
Allegany	48	84	106	Howard	94	139	156
Anne Arundel	73	110	124	Kent	89	129	153
Baltimore*	92	129	142	Montgomery	96	142	184
Calvert	58	95	104	Prince Georges	65	108	123
Caroline	64	106	132	Queen Annes	80	118	141
Carroll	76	118	129	St. Marys	57	85	112
Cecil	78	114	138	Somerset	60	106	138
Charles	56	86	106	Talbot	76	137	156
Dorchester	72	113	127	Washington	68	121	127
Frederick	81	127	139	Wicomico	66	106	134
Garrett	43	83	100	Worcester	62	113	139
Harford	81	121	135				

*Includes Baltimore City.

Massachusetts							
Barnstable[1]	74	99	124	Hampshire	72	111	123
Berkshire	86	119	134	Middlesex	78	117	128
Bristol	74	101	122	Nantucket	(1)	(1)	(1)
Dukes	(1)	(1)	(1)	Norfolk	79	102	134
Essex	74	108	120	Plymouth	(1)	(1)	(1)
Franklin	86	119	132	Suffolk	NA	NA	NA
Hampden	84	118	126	Worcester	79	116	126

Index computed for following combinations of counties: [1] Barnstable, Dukes, Nantucket, and Plymouth.
Not available: Suffolk was completely urban in 1959 and 1964.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Michigan							
Alcona	54	101	112	Lake[5]	64	102	117
Alger	58	101	100	Lapeer	70	113	122
Allegan	74	109	123	Leelanau	66	93	118
Alpena	57	97	117	Lenawee	85	124	135
Antrim	50	104	121	Livingston	80	118	123
Arenac	62	97	115	Luce	52	103	125
Baraga[1]	56	89	108	Mackinac	55	102	115
Barry	79	114	124	Macomb	80	113	124
Bay	77	106	128	Manistee	53	100	119
Benzie	68	105	105	Marquette	(1)	(1)	(1)
Berrien	80	117	126	Mason	66	104	120
Branch	73	119	125	Mecosta	71	103	115
Calhoun	83	115	129	Menominee	64	98	115
Cass	71	111	125	Midland	73	109	122
Charlevoix	57	101	122	Missaukee	65	110	119
Cheboygan[2]	57	100	118	Monroe	79	113	126
Chippewa	59	96	113	Montcalm	70	107	122
Clare	69	116	125	Montmorency	55	92	110
Clinton	80	117	130	Muskegon	68	111	125
Crawford	67	85	112	Newaygo	69	103	121
Delta	61	106	117	Oakland	83	118	129
Dickinson	(1)	(1)	(1)	Oceana	64	103	120
Eaton	80	119	125	Ogemaw	71	107	122
Emmet	64	100	124	Ontonagon	(3)	(3)	(3)
Genesee	83	117	124	Osceola	62	100	121
Gladwin	58	105	120	Oscoda	68	117	117
Gogebic[3]	52	91	114	Otsego	44	90	118
Grand Traverse	67	113	123	Ottawa	76	113	126
Gratiot	66	112	130	Presque Isle	(2)	(2)	(2)
Hillsdale	76	113	123	Roscommon	47	55	104
Houghton[4]	54	80	116	Saginaw	78	116	127
Huron	80	110	132	St. Clair	67	103	114
Ingham	78	120	133	St. Joseph	73	112	120
Ionia	78	119	126	Sanilac	72	106	123
Iosco	51	102	113	Schoolcraft	45	93	118
Iron	(3)	(3)	(3)	Shiawassee	72	114	125
Isabella	68	107	127	Tuscola	77	109	126
Jackson	86	120	126	Van Buren	65	111	119
Kalamazoo	83	125	131	Washtenaw	91	122	135
Kalkaska	55	82	108	Wayne	81	113	122
Kent	77	117	126	Wexford	(5)	(5)	(5)
Keweenaw	(4)	(4)	(4)				

Indexes computed for following combinations of counties: [1] Baraga, Dickinson, and Marquette. [2] Cheboygan and Presque Isle. [3] Gogebic, Iron, and Ontonagon. [4] Houghton and Keweenaw. [5] Lake and Wexford.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Minnesota							
Aitkin	62	101	116	Marshall	69	96	116
Anoka	70	109	118	Martin	104	143	149
Becker	61	85	109	Meeker	85	110	125
Beltrami[1]	59	88	105	Mille Lacs	70	108	117
Benton	70	107	122	Morrison	66	103	120
Big Stone	79	120	132	Mower	85	128	132
Blue Earth	89	132	142	Murray	89	124	139
Brown	97	129	142	Nicollet	97	131	144
Carlton	63	101	112	Nobles	92	129	142
Carver	94	126	134	Norman	77	97	125
Cass	58	92	105	Olmsted	83	122	131
Chippewa	97	124	138	Otter Tail	72	101	120
Chisago	75	106	116	Pennington	68	101	120
Clay	76	112	134	Pine	66	98	116
Clearwater	55	84	107	Pipestone	87	130	143
Cook[2]	48	91	112	Polk	77	107	129
Cottonwood	86	133	143	Pope	83	110	127
Crow Wing	62	106	118	Ramsey	([3])	([3])	([3])
Dakota[3]	90	126	140	Red Lake	64	102	114
Dodge	81	120	137	Redwood	85	125	137
Douglas	77	103	118	Renville	95	129	143
Faribault	99	132	150	Rice	83	126	132
Fillmore	80	119	129	Rock	95	131	146
Freeborn	87	128	139	Roseau	63	90	106
Goodhue	81	120	131	St. Louis	60	100	113
Grant	75	105	133	Scott	82	118	133
Hennepin	87	124	133	Sherburne	62	104	119
Houston	86	114	125	Sibley	96	126	139
Hubbard	59	94	110	Stearns	77	115	129
Isanti	71	89	115	Steele	90	130	136
Itasca	64	104	118	Stevens	84	123	142
Jackson	96	132	149	Swift	78	116	131
Kanabec	66	97	119	Todd	75	105	119
Kandiyohi	82	115	130	Traverse	80	117	137
Kittson	70	104	130	Wabasha	85	127	135
Koochiching	([2])	([2])	([2])	Wadena	65	94	112
Lac qui Parle	88	118	132	Waseca	90	127	139
Lake	([2])	([2])	([2])	Washington	82	122	137
Lake of the Woods	([1])	([1])	([1])	Watonwan	94	128	141
Le Sueur	89	117	131	Wilkin	76	117	140
Lincoln	80	112	131	Winona	88	125	130
Lyon	93	126	142	Wright	78	110	125
McLeod	93	124	134	Yellow Medicine	81	118	135
Mahnomen	54	85	120				

Indexes computed for following combinations of counties: [1] Beltrami and Lake of the Woods. [2] Cook, Koochiching, and Lake. [3] Dakota and Ramsey.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Mississippi							
Adams	20	67	88	Leflore	18	58	115
Alcorn	26	63	89	Lincoln	27	79	97
Amite	22	63	80	Lowndes	25	67	90
Attala	22	46	69	Madison	16	49	67
Benton	19	53	73	Marion	19	74	88
Bolivar	19	75	120	Marshall	12	27	61
Calhoun	17	58	91	Monroe	25	67	87
Carroll	16	47	76	Montgomery	24	56	84
Chickasaw	18	56	79	Neshoba	14	60	84
Choctaw	15	48	82	Newton	18	64	95
Claiborne	24	53	83	Noxubee	16	42	64
Clarke	17	58	80	Oktibbeha	20	57	78
Clay	18	58	85	Panola	19	46	72
Coahoma	19	64	100	Pearl River	29	89	104
Copiah	22	60	82	Perry	18	61	88
Covington	19	59	92	Pike	32	81	97
De Soto	18	59	87	Pontotoc	19	58	87
Forrest	37	101	108	Prentiss	22	60	85
Franklin	26	58	90	Quitman	18	57	87
George[1]	24	79	98	Rankin	23	73	97
Greene	20	69	87	Scott	17	70	94
Grenada	24	56	84	Sharkey	([2])	([2])	([2])
Hancock	20	66	87	Simpson	18	52	89
Harrison	44	88	103	Smith	15	70	103
Hinds	23	50	75	Stone	([1])	([1])	([1])
Holmes	15	45	71	Sunflower	19	69	121
Humphreys	21	75	113	Tallahatchie	19	59	83
Issaquena[2]	20	83	132	Tate	18	53	71
Itawamba	21	64	88	Tippah	20	57	82
Jackson	34	84	103	Tishomingo	19	58	82
Jasper	16	59	91	Tunica	17	38	81
Jefferson	15	47	73	Union	25	64	95
Jefferson Davis	18	57	80	Walthall	21	70	90
Jones	28	82	101	Warren	23	81	87
Kemper	10	42	66	Washington	19	84	150
Lafayette	21	52	78	Wayne	18	67	80
Lamar	27	80	93	Webster	19	58	78
Lauderdale	25	65	90	Wilkinson	23	50	74
Lawrence	15	65	74	Winston	17	59	77
Leake	17	56	79	Yalobusha	20	47	78
Lee	26	66	95	Yazoo	19	61	90

Indexes computed for following combinations of counties: [1] George and Stone.
[2] Issaquena and Sharkey.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Missouri							
Adair	65	95	109	Jefferson	53	99	121
Andrew	74	113	126	Johnson	65	102	118
Atchison	89	139	150	Knox	63	100	120
Audrain	62	116	129	Laclede	41	71	99
Barry	40	84	106	Lafayette	78	114	127
Barton	55	101	118	Lawrence	53	89	111
Bates	63	100	116	Lewis	66	114	125
Benton	51	83	102	Lincoln	63	104	125
Bollinger	34	71	99	Linn	69	103	112
Boone	59	103	117	Livingston	65	103	119
Buchanan	69	110	120	McDonald	35	81	98
Butler	25	61	90	Macon	59	97	115
Caldwell	62	101	115	Madison	31	78	103
Callaway	63	98	112	Maries	40	72	100
Camden	37	66	97	Marion	70	102	121
Cape Girardeau	56	106	116	Mercer	57	97	114
Carroll	76	112	128	Miller	49	94	106
Carter[1]	22	48	82	Mississippi	34	93	144
Cass	68	105	123	Moniteau	67	96	113
Cedar	45	72	100	Monroe	70	108	129
Chariton	67	105	118	Montgomery	65	102	121
Christian	51	77	99	Morgan	56	88	107
Clark	73	106	127	New Madrid	32	85	136
Clay	68	119	135	Newton	50	89	106
Clinton	79	113	125	Nodaway	79	113	126
Cole	70	98	115	Oregon	32	61	82
Cooper	71	109	122	Osage	58	95	111
Crawford	40	87	104	Ozark	28	56	84
Dade	54	82	107	Pemiscot	34	89	145
Dallas	43	82	99	Perry	66	107	118
Daviess	62	101	112	Pettis	67	106	122
De Kalb	67	98	118	Phelps	48	82	101
Dent	38	66	85	Pike	67	106	122
Douglas	27	52	79	Platte	68	107	126
Dunklin	41	97	127	Polk	51	86	105
Franklin	72	105	113	Pulaski	37	76	95
Gasconade	64	92	107	Putnam	59	84	106
Gentry	70	107	121	Ralls	68	107	122
Greene	57	96	111	Randolph	61	103	116
Grundy	66	103	121	Ray	61	105	122
Harrison	64	107	119	Reynolds	([1])	([1])	([1])
Henry	61	92	114	Ripley	19	49	72
Hickory	45	77	107	St. Charles	71	116	132
Holt	86	127	138	St. Clair	47	76	101
Howard	62	97	117	St. Francois	49	94	104
Howell	33	66	88	St. Louis*	75	118	136
Iron	31	61	82	Ste. Genevieve	56	105	121
Jackson	75	113	136	Saline	68	114	134
Jasper	62	103	120	Schuyler	71	100	113

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Missouri--Con.							
Scotland	74	100	121	Texas	31	69	94
Scott	46	112	130	Vernon	60	93	109
Shannon	23	54	80	Warren	70	97	115
Shelby	73	107	123	Washington	30	62	98
Stoddard	37	87	118	Wayne	23	51	84
Stone	35	70	94	Webster	51	73	96
Sullivan	66	86	106	Worth	72	116	128
Taney	29	63	84	Wright	38	69	92

Index computed for following combination of counties: [1] Carter and Reynolds.
*Includes St. Louis City.

Montana							
Beaverhead[1]	98	149	181	Madison	(1)	(1)	(1)
Big Horn	69	125	146	Meagher	(2)	(2)	(2)
Blaine	59	111	146	Mineral	(12)	(12)	(12)
Broadwater[2]	85	140	149	Missoula	73	119	132
Carbon	68	120	136	Musselshell	(8)	(8)	(8)
Carter[3]	56	118	142	Park	(2)	(2)	(2)
Cascade	78	129	144	Petroleum	(8)	(8)	(8)
Chouteau	88	153	164	Phillips	63	115	132
Custer[4]	72	128	149	Pondera	(9)	(9)	(9)
Daniels	52	113	134	Powder River	(3)	(3)	(3)
Dawson[5]	67	110	133	Powell	(6)	(6)	(6)
Deer Lodge[6]	74	132	147	Prairie	(13)	(13)	(13)
Fallon	(5)	(5)	(5)	Ravalli	70	113	131
Fergus[7]	82	132	152	Richland	75	121	134
Flathead	62	122	126	Roosevelt	65	121	127
Gallatin	86	129	147	Rosebud	(4)	(4)	(4)
Garfield[8]	59	117	145	Sanders	(12)	(12)	(12)
Glacier[9]	72	135	152	Sheridan	73	114	139
Golden Valley[10]	81	127	150	Silver Bow	(6)	(6)	(6)
Granite	(6)	(6)	(6)	Stillwater	88	123	142
Hill	70	158	152	Sweet Grass	(10)	(10)	(10)
Jefferson	(6)	(6)	(6)	Teton	75	143	149
Judith Basin	(7)	(7)	(7)	Toole	(11)	(11)	(11)
Lake	52	104	116	Treasure	(4)	(4)	(4)
Lewis and Clark	(6)	(6)	(6)	Valley	57	128	134
Liberty[11]	81	164	162	Wheatland	(10)	(10)	(10)
Lincoln[12]	43	93	118	Wibaux	(5)	(5)	(5)
McCone[13]	63	124	139	Yellowstone	74	132	143

Indexes computed for following combinations of counties: [1] Beaverhead and Madison. [2] Broadwater, Meagher, and Park. [3] Carter and Powder River. [4] Custer, Rosebud, and Treasure. [5] Dawson, Fallon, and Wibaux. [6] Deer Lodge, Granite, Jefferson, Lewis and Clark, Powell, and Silver Bow. [7] Fergus and Judith Basin. [8] Garfield, Musselshell, and Petroleum. [9] Glacier and Pondera. [10] Golden Valley, Sweet Grass, and Wheatland. [11] Liberty and Toole. [12] Lincoln, Mineral, and Sanders. [13] McCone and Prairie.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Nebraska							
Adams	81	122	141	Jefferson	79	114	128
Antelope	76	122	134	Johnson	80	110	119
Arthur[1]	79	132	153	Kearney	83	127	147
Banner[2]	101	139	150	Keith	(6)	(6)	(6)
Blaine[3]	72	117	152	Keya Paha[10]	67	121	146
Boone	75	115	133	Kimball	(2)	(2)	(2)
Box Butte	93	130	145	Knox	76	111	129
Boyd	65	107	124	Lancaster	86	121	134
Brown	(3)	(3)	(3)	Lincoln	81	121	144
Buffalo	72	120	133	Logan	(1)	(1)	(1)
Burt	92	129	148	Loup	(9)	(9)	(9)
Butler	83	117	131	McPherson	(1)	(1)	(1)
Cass	90	126	136	Madison	84	122	136
Cedar	90	125	135	Merrick	84	123	149
Chase	82	131	147	Morrill	70	119	141
Cherry[4]	93	167	198	Nance	73	119	130
Cheyenne	(2)	(2)	(2)	Nemaha	82	116	123
Clay	73	121	137	Nuckolls	75	115	132
Colfax	94	127	142	Otoe	87	118	133
Cuming	104	148	155	Pawnee	73	105	115
Custer	77	114	132	Perkins	88	137	141
Dakota	68	129	141	Phelps	95	109	151
Dawes[5]	83	119	139	Pierce	85	121	132
Dawson	84	140	159	Platte	85	127	139
Deuel[6]	96	142	149	Polk	85	130	143
Dixon	79	119	135	Red Willow	78	113	138
Dodge	99	137	147	Richardson	92	128	137
Douglas	90	157	173	Rock	(10)	(10)	(10)
Dundy[7]	85	123	135	Saline	83	109	125
Fillmore	78	114	138	Sarpy	89	142	167
Franklin	82	113	129	Saunders	82	115	129
Frontier[8]	81	122	134	Scotts Bluff	85	131	160
Furnas	73	108	129	Seward	85	120	137
Gage	81	114	136	Sheridan	84	134	152
Garden	(1)	(1)	(1)	Sherman	64	97	120
Garfield[9]	69	115	140	Sioux	(5)	(5)	(5)
Gosper	75	123	135	Stanton	97	130	146
Grant	(4)	(4)	(4)	Thayer	69	112	131
Greeley	73	109	131	Thomas	(3)	(3)	(3)
Hall	86	128	146	Thurston	75	123	137
Hamilton	85	127	153	Valley	79	110	129
Harlan	84	117	129	Washington	95	131	143
Hayes	(8)	(8)	(8)	Wayne	94	132	145
Hitchcock	(7)	(7)	(7)	Webster	76	98	126
Holt	71	118	138	Wheeler	(9)	(9)	(9)
Hooker	(4)	(4)	(4)	York	86	129	143
Howard	78	116	130				

Indexes computed for following combinations of counties: [1] Arthur, Garden, Logan, and McPherson. [2] Banner, Cheyenne, and Kimball. [3] Blaine, Brown, and Thomas. [4] Cherry, Grant, and Hooker. [5] Dawes and Sioux. [6] Deuel and Keith. [7] Dundy and Hitchcock. [8] Frontier and Hayes. [9] Garfield, Loup, and Wheeler. [10] Keya Paha and Rock.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Nevada							
Churchill	84	112	134	Lyon	(2)	(2)	(2)
Clark[1]	68	111	127	Mineral	(2)	(2)	(2)
Douglas[2]	81	146	158	Nye	(1)	(1)	(1)
Elko[3]	84	172	178	Ormsby	(2)	(2)	(2)
Esmeralda	(1)	(1)	(1)	Pershing	(3)	(3)	(3)
Eureka	(3)	(3)	(3)	Storey	(2)	(2)	(2)
Humboldt	(3)	(3)	(3)	Washoe	(2)	(2)	(2)
Lander	(3)	(3)	(3)	White Pine	(1)	(1)	(1)
Lincoln	(1)	(1)	(1)				

Indexes computed for following combinations of counties: [1] Clark, Esmeralda, Lincoln, Nye, and White Pine. [2] Douglas, Lyon, Mineral, Ormsby, Storey, and Washoe. [3] Elko, Eureka, Humboldt, Lander, and Pershing.

New Hampshire							
Belknap[1]	69	100	116	Hillsborough	77	109	125
Carroll[2]	67	108	122	Merrimack	69	104	118
Cheshire	78	93	121	Rockingham[3]	75	112	117
Coos	(2)	(2)	(2)	Strafford	(3)	(3)	(3)
Grafton	(1)	(1)	(1)	Sullivan	(1)	(1)	(1)

Indexes computed for following combinations of counties: [1] Belknap, Grafton, and Sullivan. [2] Carroll and Coos. [3] Rockingham and Strafford.

New Jersey							
Atlantic[1]	65	110	128	Middlesex	91	124	147
Bergen[2]	94	121	132	Monmouth	92	118	143
Burlington	85	117	129	Morris	(4)	(4)	(4)
Camden[3]	78	115	138	Ocean	91	112	126
Cape May	(1)	(1)	(1)	Passaic	(2)	(2)	(2)
Cumberland	79	120	132	Salem	88	119	135
Essex[4]	86	120	134	Somerset	94	141	144
Gloucester	(3)	(3)	(3)	Sussex	88	128	147
Hudson	NA	NA	NA	Union	NA	NA	NA
Hunterdon	84	131	142	Warren	86	131	149
Mercer	96	131	161				

Indexes computed for following combinations of counties: [1] Atlantic and Cape May. [2] Bergen and Passaic. [3] Camden and Gloucester. [4] Essex and Morris.
Not available: Hudson and Union were completely urban in 1959 and 1964.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
New Mexico							
Bernalillo[1]	47	88	142	McKinley	NA	NA	NA
Catron[2]	30	86	118	Mora	29	55	71
Chaves	87	142	186	Otero	(6)	(6)	(6)
Colfax[3]	64	115	141	Quay	58	110	125
Curry	75	133	160	Rio Arriba	17	54	80
De Baca[4]	48	84	118	Roosevelt	57	116	138
Dona Ana	84	129	145	Sandoval	NA	NA	NA
Eddy	77	140	155	San Juan	NA	NA	NA
Grant[5]	57	113	150	San Miguel	31	56	85
Guadalupe	(4)	(4)	(4)	Santa Fe	(1)	(1)	(1)
Harding	(3)	(3)	(3)	Sierra	(5)	(5)	(5)
Hidalgo	(5)	(5)	(5)	Socorro	(6)	(6)	(6)
Lea	68	133	147	Taos	17	47	66
Lincoln[6]	45	97	141	Torrance	(4)	(4)	(4)
Los Alamos	NA	NA	NA	Union	67	105	140
Luna	(5)	(5)	(5)	Valencia	(2)	(2)	(2)

Indexes computed for following combinations of counties: [1] Bernalillo and Santa Fe. [2] Catron and Valencia. [3] Colfax and Harding. [4] De Baca, Guadalupe, and Torrance. [5] Grant, Hidalgo, Luna, and Sierra. [6] Lincoln, Otero, and Socorro.

Not available: Indexes not computed for McKinley, Sandoval, and San Juan counties because of the problem of classification of farms on Indian reservations; and Los Alamos had no farms in 1959 and 1964.

New York							
Albany[1]	83	114	126	Jefferson	75	114	127
Allegany	72	114	117	Kings	NA	NA	NA
Bronx	NA	NA	NA	Lewis	82	111	131
Broome	72	117	118	Livingston	88	126	129
Cattaraugus	73	114	119	Madison	79	116	128
Cayuga	85	121	127	Monroe	83	119	136
Chautauqua	73	112	123	Montgomery	79	121	127
Chemung	79	108	126	Nassau[4]	102	144	180
Chenango	77	115	127	New York	NA	NA	NA
Clinton	69	114	125	Niagara	78	116	125
Columbia	90	122	144	Oneida	79	115	127
Cortland	84	123	125	Onondaga	83	117	130
Delaware	81	117	127	Ontario	83	117	129
Dutchess[2]	96	135	143	Orange	84	120	132
Erie	84	118	129	Orleans	76	113	134
Essex	75	105	121	Oswego	67	108	119
Franklin	75	103	119	Otsego	83	116	129
Fulton[3]	71	106	92	Putnam	(2)	(2)	(2)
Genesee	85	115	131	Queens	NA	NA	NA
Greene	86	121	125	Rensselaer	77	111	120
Hamilton	(3)	(3)	(3)	Richmond	NA	NA	NA
Herkimer	85	115	126	Rockland[5]	98	135	148

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
New York--Con.							
St. Lawrence	72	109	122	Tioga	76	114	124
Saratoga[6]	71	105	110	Tompkins	91	124	127
Schenectady	([1])	([1])	([1])	Ulster	77	113	130
Schoharie	83	116	128	Warren	([6])	([6])	([6])
Schuyler	71	116	130	Washington	83	109	129
Seneca	87	114	125	Wayne	79	116	130
Steuben	69	110	123	Westchester	([5])	([5])	([5])
Suffolk	([4])	([4])	([4])	Wyoming	84	121	135
Sullivan	82	120	141	Yates	80	109	124

Indexes computed for following combinations of counties: [1] Albany and Schenectady. [2] Dutchess and Putnam. [3] Fulton and Hamilton. [4] Nassau and Suffolk. [5] Rockland and Westchester. [6] Saratoga and Warren.

Not available: Bronx, Kings, New York, Queens, and Richmond were completely urban in 1959 and 1964.

North Carolina							
Alamance	44	92	111	Duplin	29	82	107
Alexander	32	73	93	Durham	43	95	111
Alleghany	26	53	80	Edgecombe	38	67	92
Anson	31	66	92	Forsyth	50	93	108
Ashe	17	41	62	Franklin	32	67	90
Avery	24	45	73	Gaston	41	93	111
Beaufort	31	68	96	Gates	33	74	98
Bertie	36	64	88	Graham[5]	11	43	68
Bladen	28	76	93	Granville	37	68	103
Brunswick[1]	26	74	94	Greene	38	89	115
Buncombe	29	70	90	Guilford	51	96	112
Burke	27	72	89	Halifax	29	56	83
Cabarrus	45	99	117	Harnett	37	88	116
Caldwell	29	84	90	Haywood	30	75	92
Camden[2]	39	76	112	Henderson	31	95	106
Carteret[3]	31	78	97	Hertford	34	66	95
Caswell	35	68	90	Hoke	26	70	108
Catawba	40	89	111	Hyde	([4])	([4])	([4])
Chatham	31	84	109	Iredell	41	83	108
Cherokee	14	47	71	Jackson	16	53	65
Chowan	32	77	99	Johnston	40	88	114
Clay	12	50	77	Jones	34	79	107
Cleveland	33	81	102	Lee	34	88	115
Columbus	29	81	102	Lenoir	38	90	120
Craven	32	77	98	Lincoln	35	84	102
Cumberland	32	73	106	McDowell	22	59	88
Currituck	([2])	([2])	([2])	Macon	15	49	74
Dare[4]	28	66	90	Madison	19	37	61
Davidson	50	90	111	Martin	40	77	102
Davie	37	76	100	Mecklenburg	50	100	120

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
North Carolina--Con.							
Mitchell	13	46	73	Rutherford	27	65	96
Montgomery	27	72	100	Sampson	31	83	106
Moore	34	77	104	Scotland	25	67	121
Nash	35	75	97	Stanly	36	92	111
New Hanover	(1)	(1)	(1)	Stokes	29	70	90
Northampton	29	67	98	Surry	27	68	95
Onslow	28	83	99	Swain	(5)	(5)	(5)
Orange	40	88	112	Transylvania	24	70	97
Pamlico	(3)	(3)	(3)	Tyrrell	(4)	(4)	(4)
Pasquotank	43	87	120	Union	33	82	109
Pender	25	75	96	Vance	36	66	93
Perquimans	37	77	103	Wake	45	93	119
Person	31	61	95	Warren	25	57	81
Pitt	38	85	117	Washington	33	68	94
Polk	25	66	89	Watauga	18	44	77
Randolph	38	82	101	Wayne	39	89	118
Richmond	36	75	102	Wilkes	21	65	88
Robeson	29	80	100	Wilson	40	88	108
Rockingham	36	77	95	Yadkin	34	75	98
Rowan	49	99	118	Yancey	16	35	65

Indexes computed for following combinations of counties: [1] Brunswick and New Hanover. [2] Camden and Currituck. [3] Carteret and Pamlico. [4] Dare, Hyde, and Tyrrell. [5] Graham and Swain.

North Dakota							
Adams[1]	68	119	133	Hettinger	83	123	136
Barnes	72	109	129	Kidder	52	114	128
Benson	70	106	129	La Moure	72	114	129
Billings[2]	64	115	131	Logan	60	120	125
Bottineau	75	122	135	McHenry	77	113	128
Bowman[3]	75	118	135	McIntosh	64	111	124
Burke	63	118	123	McKenzie	64	111	131
Burleigh	62	110	133	McLean	70	112	132
Cass	91	133	150	Mercer[4]	66	108	129
Cavalier	70	111	126	Morton	74	109	128
Dickey	67	110	128	Mountrail	72	99	128
Divide	69	105	127	Nelson	72	114	135
Dunn	61	112	129	Oliver	(4)	(4)	(4)
Eddy	75	111	134	Pembina	85	125	136
Emmons	59	99	124	Pierce	75	127	136
Foster	73	119	145	Ramsey	73	116	139
Golden Valley	(2)	(2)	(2)	Ransom	75	96	127
Grand Forks	84	126	140	Renville	78	115	136
Grant	64	104	129	Richland	74	116	136
Griggs	66	105	123	Rolette	56	105	124

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
North Dakota--Con.							
Sargent	75	117	129	Towner	79	94	142
Sheridan	63	113	130	Traill	80	124	141
Sioux	(1)	(1)	(1)	Walsh	87	121	140
Slope	(3)	(3)	(3)	Ward	70	116	135
Stark	76	117	133	Wells	78	114	137
Steele	86	120	139	Williams	70	111	126
Stutsman	63	113	136				

Indexes computed for following combinations of counties: [1] Adams and Sioux. [2] Billings and Golden Valley. [3] Bowman and Slope. [4] Mercer and Oliver.

Ohio							
Adams	46	74	94	Holmes	48	64	70
Allen	88	125	135	Huron	88	118	134
Ashland	83	120	128	Jackson	45	78	97
Ashtabula	70	112	123	Jefferson	56	100	111
Athens	56	94	110	Knox	75	114	124
Auglaize	79	123	134	Lake	83	123	120
Belmont	56	104	110	Lawrence	39	75	99
Brown	61	88	104	Licking	77	114	125
Butler	90	127	135	Logan	81	116	130
Carroll	67	101	112	Lorain	83	122	130
Champaign	84	123	136	Lucas	81	125	136
Clark	89	126	140	Madison	94	131	147
Clermont	75	106	111	Mahoning	78	118	128
Clinton	79	118	132	Marion	85	126	137
Columbiana	76	112	118	Medina	83	116	126
Coshocton	66	106	115	Meigs	59	90	103
Crawford	81	121	139	Mercer	77	121	139
Cuyahoga	95	131	144	Miami	88	125	140
Darke	86	119	133	Monroe	54	96	106
Defiance	80	115	130	Montgomery	91	122	132
Delaware	79	118	129	Morgan	58	94	114
Erie	84	129	139	Morrow	71	113	124
Fairfield	84	121	130	Muskingum	69	101	117
Fayette	97	136	158	Noble	57	90	101
Franklin	86	139	147	Ottawa	75	118	129
Fulton	90	126	143	Paulding	79	115	137
Gallia	51	82	97	Perry	67	107	117
Geauga	74	92	96	Pickaway	92	122	142
Greene	82	123	142	Pike	45	88	108
Guernsey	56	90	107	Portage	77	116	122
Hamilton	86	112	121	Preble	87	121	130
Hancock	89	129	141	Putnam	89	127	137
Hardin	76	117	130	Richland	81	115	129
Harrison	59	95	111	Ross	69	105	118
Henry	91	125	143	Sandusky	84	121	139
Highland	71	105	118	Scioto	50	86	101
Hocking	59	96	115	Seneca	90	127	137

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Ohio--Con.							
Shelby	78	123	135	Vinton	39	77	96
Stark	81	118	126	Warren	81	121	129
Summit	76	123	129	Washington	52	98	111
Trumbull	70	111	117	Wayne	79	107	121
Tuscarawas	62	100	117	Williams	77	112	130
Union	81	107	129	Wood	86	130	143
Van Wert	86	120	141	Wyandot	93	126	142
Oklahoma							
Adair	22	63	89	Le Flore	25	59	83
Alfalfa	82	118	137	Lincoln	47	86	100
Atoka	25	60	86	Logan	58	96	110
Beaver	79	120	133	Love	41	90	100
Beckham	54	92	105	McClain	43	80	110
Blaine	67	102	127	McCurtain	18	50	83
Bryan[1]	36	76	99	McIntosh	20	60	88
Caddo	60	98	116	Major	71	101	119
Canadian	78	118	138	Marshall	([1])	([1])	([1])
Carter[2]	43	91	105	Mayes	41	86	110
Cherokee	25	57	88	Murray	([2])	([2])	([2])
Choctaw	26	56	81	Muskogee	30	73	98
Cimarron	71	115	144	Noble	68	110	133
Cleveland	56	94	117	Nowata	46	101	112
Coal	28	62	83	Okfuskee	29	62	93
Comanche	62	101	113	Oklahoma	62	100	130
Cotton	59	98	123	Okmulgee	36	77	95
Craig	46	88	107	Osage	56	117	126
Creek	39	88	98	Ottawa	48	96	117
Custer	71	111	128	Pawnee	52	101	110
Delaware	32	67	96	Payne	56	102	116
Dewey	64	97	114	Pittsburg	26	68	93
Ellis	73	96	129	Pontotoc	35	89	98
Garfield	81	111	132	Pottawatomie	44	87	107
Garvin	38	86	104	Pushmataha	21	57	82
Grady	52	100	114	Roger Mills	55	89	117
Grant	82	120	139	Rogers	49	106	111
Greer	56	92	121	Seminole	39	91	100
Harmon	69	98	127	Sequoyah	22	61	80
Harper	80	110	131	Stephens	48	94	106
Haskell	23	67	90	Texas	82	127	148
Hughes	32	73	89	Tillman	74	107	138
Jackson	70	105	126	Tulsa	59	110	130
Jefferson	51	95	110	Wagoner	30	72	107
Johnston	36	87	95	Washington	55	106	121
Kay	75	110	128	Washita	69	102	123
Kingfisher	77	118	129	Woods	83	117	133
Kiowa	72	106	130	Woodward	69	110	130
Latimer	20	64	80				

Indexes computed for following combinations of counties: [1] Bryan and Marshall. [2] Carter and Murray.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Oregon							
Baker	69	123	137	Lake	(5)	(5)	(5)
Benton	76	121	125	Lane	74	116	129
Clackamas	69	108	121	Lincoln	51	109	115
Clatsop[1]	62	108	118	Linn	76	121	129
Columbia	(1)	(1)	(1)	Malheur	68	127	145
Coos[2]	61	109	120	Marion	77	114	131
Crook[3]	77	129	157	Morrow	(4)	(4)	(4)
Curry	(2)	(2)	(2)	Multnomah	70	118	131
Deschutes	73	112	122	Polk	74	117	132
Douglas	66	110	123	Sherman	(4)	(4)	(4)
Gilliam[4]	111	171	179	Tillamook	78	120	126
Grant[5]	82	120	148	Umatilla	92	136	156
Harney	(5)	(5)	(5)	Union	73	114	132
Hood River	85	114	128	Wallowa	57	106	130
Jackson	69	115	131	Wasco	79	132	140
Jefferson	(3)	(3)	(3)	Washington	70	114	130
Josephine	58	107	126	Wheeler	(3)	(3)	(3)
Klamath	97	133	151	Yamhill	70	113	126

Indexes computed for following combinations of counties: [1] Clatsop and Columbia. [2] Coos and Curry. [3] Crook, Jefferson, and Wheeler. [4] Gilliam, Morrow, and Sherman. [5] Grant, Harney, and Lake.

Pennsylvania							
Adams	75	119	134	Elk	(1)	(1)	(1)
Allegheny	75	114	128	Erie	72	112	123
Armstrong	60	99	117	Fayette	61	99	114
Beaver	72	118	123	Forest	(1)	(1)	(1)
Bedford	61	106	118	Franklin	74	117	128
Berks	78	118	130	Fulton	49	99	113
Blair	69	118	129	Greene	58	93	104
Bradford	72	117	123	Huntingdon	63	102	118
Bucks	86	131	144	Indiana	63	105	119
Butler	69	111	122	Jefferson	58	100	116
Cambria	54	98	121	Juniata	67	111	124
Cameron[1]	68	104	122	Lackawanna	67	91	123
Carbon[2]	68	106	123	Lancaster	83	111	118
Centre	82	127	134	Lawrence	73	107	115
Chester[3]	97	131	141	Lebanon	79	125	137
Clarion	70	105	119	Lehigh	86	121	136
Clearfield	56	97	112	Luzerne	64	95	117
Clinton	(1)	(1)	(1)	Lycoming[4]	67	111	121
Columbia	74	113	125	McKean	68	108	124
Crawford	58	109	120	Mercer	73	108	121
Cumberland	73	113	131	Mifflin	65	105	114
Dauphin	72	119	128	Monroe[5]	76	114	138
Delaware	(3)	(3)	(3)	Montgomery	95	125	141

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Pennsylvania--Con.							
Montour[6]	69	115	127	Susquehanna	67	105	121
Northampton	87	116	131	Tioga	73	113	124
Northumberland	(6)	(6)	(6)	Union	72	118	126
Perry	70	109	120	Venango	63	103	116
Philadelphia	NA	NA	NA	Warren	65	112	120
Pike	(5)	(5)	(5)	Washington	69	112	120
Potter	71	111	120	Wayne	75	107	125
Schuylkill	(2)	(2)	(2)	Westmoreland	73	115	120
Snyder	59	107	117	Wyoming	66	108	121
Somerset	64	106	118	York	67	109	126
Sullivan	(4)	(4)	(4)				

Indexes computed for following combinations of counties: [1] Cameron, Clinton, Elk, and Forest. [2] Carbon and Schuylkill. [3] Chester and Delaware. [4] Lycoming and Sullivan. [5] Monroe and Pike. [6] Montour and Northumberland.
Not available: Philadelphia was completely urban in 1959 and 1964.

Rhode Island							
Bristol[1]	81	115	129	Providence	(2)	(2)	(2)
Kent[2]	77	108	116	Washington	(1)	(1)	(1)
Newport	(1)	(1)	(1)				

Indexes computed for following combinations of counties: [1] Bristol, Newport, and Washington. [2] Kent and Providence.

South Carolina							
Abbeville	37	71	102	Fairfield	27	65	85
Aiken	36	80	105	Florence	35	79	100
Allendale[1]	29	67	107	Georgetown	27	64	87
Anderson	41	80	99	Greenville	40	90	108
Bamberg	33	81	104	Greenwood	46	90	110
Barnwell	27	76	100	Hampton	(1)	(1)	(1)
Beaufort	15	54	87	Horry	34	83	105
Berkeley	21	52	68	Jasper	26	71	96
Calhoun	38	88	118	Kershaw	30	58	93
Charleston	33	78	111	Lancaster	26	65	96
Cherokee	34	70	97	Laurens	36	79	106
Chester	34	69	84	Lee	33	79	96
Chesterfield	28	68	89	Lexington	48	94	110
Clarendon	27	57	81	McCormick	(2)	(2)	(2)
Colleton	29	69	90	Marion	39	76	103
Darlington	36	83	105	Marlboro	30	71	101
Dillon	39	87	105	Newberry	45	92	113
Dorchester	30	59	83	Oconee	29	72	95
Edgefield[2]	31	65	88	Orangeburg	35	73	93

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
South Carolina--Con.							
Pickens	36	79	103	Sumter	28	63	94
Richland	42	91	98	Union	31	66	85
Saluda	38	89	105	Williamsburg	24	55	79
Spartanburg	37	79	99	York	37	77	103

Indexes computed for following combinations of counties: [1] Allendale and Hampton. [2] Edgefield and McCormick.

South Dakota							
Aurora	78	107	130	Jackson	(8)	(8)	(8)
Beadle	76	112	132	Jerauld	(2)	(2)	(2)
Bennett[1]	53	116	127	Jones[10]	71	107	141
Bon Homme	77	116	129	Kingsbury	81	118	132
Brookings	86	114	134	Lake	92	122	137
Brown	81	124	141	Lawrence	(3)	(3)	(3)
Brule	76	113	134	Lincoln	91	125	136
Buffalo[2]	69	114	134	Lyman	(10)	(10)	(10)
Butte[3]	78	120	135	McCook	82	115	127
Campbell	71	115	136	McPherson	69	114	131
Charles Mix	75	109	129	Marshall	70	107	126
Clark	75	100	124	Meade	73	116	138
Clay	88	123	138	Mellette[11]	64	119	143
Codington	81	108	127	Miner	79	108	126
Corson[4]	53	96	120	Minnehaha	94	127	138
Custer[5]	68	107	123	Moody	90	124	135
Davison	82	93	133	Pennington	73	121	130
Day	74	103	123	Perkins	54	107	138
Deuel	63	99	125	Potter	(9)	(9)	(9)
Dewey*[6]	54	95	142	Roberts	80	109	117
Douglas	83	91	132	Sanborn	73	117	124
Edmunds	70	107	129	Shannon	(1)	(1)	(1)
Fall River	(5)	(5)	(5)	Spink	80	117	141
Faulk[7]	78	124	140	Stanley	(6)	(6)	(6)
Grant	75	112	127	Sully	(9)	(9)	(9)
Gregory	76	107	125	Todd	(11)	(11)	(11)
Haakon[8]	65	119	135	Tripp	73	114	141
Hamlin	81	111	130	Turner	81	122	135
Hand	76	110	135	Union	96	128	137
Hanson	82	115	132	Walworth	77	130	142
Harding	(3)	(3)	(3)	Washabaugh	(8)	(8)	(8)
Hughes[9]	75	117	147	Yankton	78	113	131
Hutchinson	89	123	137	Ziebach	(4)	(4)	(4)
Hyde	(7)	(7)	(7)				

Indexes computed for following combinations of counties: [1] Bennett and Shannon. [2] Buffalo and Jerauld. [3] Butte, Harding, and Lawrence. [4] Corson and Ziebach. [5] Custer and Fall River. [6] Dewey and Stanley. [7] Faulk and Hyde. [8] Haakon, Jackson, and Washabaugh. [9] Hughes, Potter, and Sully. [10] Jones and Lyman. [11] Mellette and Todd. *Includes Armstrong.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Tennessee							
Anderson	30	75	99	Lauderdale	22	61	89
Bedford	48	89	110	Lawrence	26	72	94
Benton	22	69	91	Lewis[4]	25	64	85
Bledsoe	27	62	93	Lincoln	40	76	96
Blount	44	88	110	Loudon	39	88	103
Bradley	43	96	109	McMinn	30	78	103
Campbell	24	59	79	McNairy	20	53	86
Cannon	31	60	77	Macon	31	63	83
Carroll	32	75	98	Madison	34	77	103
Carter	23	69	89	Marion	32	79	96
Cheatham	30	79	99	Marshall	53	86	107
Chester	35	67	94	Maury	49	93	110
Claiborne	20	49	83	Meigs	27	84	98
Clay	18	50	68	Monroe[5]	26	71	100
Cocke	25	61	80	Montgomery	44	88	100
Coffee	33	75	99	Moore	35	63	99
Crockett	34	78	105	Morgan	18	59	91
Cumberland	19	53	77	Obion	([3])	([3])	([3])
Davidson	60	101	118	Overton	16	48	70
Decatur	30	66	85	Perry	([4])	([4])	([4])
De Kalb	25	59	76	Pickett	12	46	76
Dickson	33	72	105	Polk	([5])	([5])	([5])
Dyer	36	91	118	Putnam	22	55	76
Fayette	16	51	75	Rhea	26	82	90
Fentress	14	51	78	Roane	38	84	96
Franklin	38	80	101	Robertson	48	103	110
Gibson	43	86	111	Rutherford	44	82	103
Giles	37	82	97	Scott	21	62	93
Grainger	22	56	70	Sequatchie	([1])	([1])	([1])
Greene	34	68	94	Sevier	26	63	76
Grundy[1]	21	63	94	Shelby	39	77	106
Hamblen	43	81	96	Smith	43	71	98
Hamilton	41	96	110	Stewart	([2])	([2])	([2])
Hancock	16	39	57	Sullivan	39	85	103
Hardeman	20	61	81	Sumner	40	85	101
Hardin	21	55	84	Tipton	25	73	97
Hawkins	28	57	82	Trousdale	47	87	102
Haywood	24	58	80	Unicoi	22	59	77
Henderson	31	68	97	Union	21	51	75
Henry	40	88	104	Van Buren	([1])	([1])	([1])
Hickman	32	76	97	Warren	27	64	93
Houston[2]	25	57	85	Washington	37	84	102
Humphreys	27	71	95	Wayne	15	46	68
Jackson	25	54	77	Weakley	47	88	110
Jefferson	37	79	102	White	27	65	92
Johnson	20	50	74	Williamson	45	92	107
Knox	45	105	116	Wilson	45	82	103
Lake[3]	48	93	134				

Indexes computed for following combinations of counties: [1] Grundy, Sequatchie, and Van Buren. [2] Houston and Stewart. [3] Lake and Obion. [4] Lewis and Perry. [5] Monroe and Polk.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Texas							
Anderson	27	66	87	Coryell	59	88	119
Andrews[1]	78	126	147	Cottle[18]	68	101	123
Angelina	38	74	102	Crane	(1)	(1)	(1)
Aransas[2]	92	134	147	Crockett[19]	129	154	183
Archer[3]	82	127	130	Crosby	82	142	186
Armstrong[4]	85	130	147	Culberson	(10)	(10)	(10)
Atascosa[5]	53	101	116	Dallam[20]	106	149	187
Austin	62	93	105	Dallas	68	120	140
Bailey	67	137	179	Dawson	79	142	168
Bandera[6]	83	122	140	Deaf Smith[21]	94	161	188
Bastrop	42	83	96	Delta	46	77	93
Baylor[7]	64	110	128	Denton	58	106	118
Bee	67	107	114	De Witt	60	101	108
Bell	55	99	111	Dickens[22]	69	107	157
Bexar	76	114	122	Dimmit[23]	86	133	158
Blanco[8]	69	115	135	Donley	(17)	(17)	(17)
Borden[9]	72	111	141	Duval[24]	43	55	98
Bosque	55	98	110	Eastland	46	87	104
Bowie	32	74	99	Ector	(1)	(1)	(1)
Brazoria	64	113	147	Edwards[25]	115	163	179
Brazos	45	89	129	Ellis	58	103	117
Brewster[10]	115	147	186	El Paso	(10)	(10)	(10)
Briscoe	(4)	(4)	(4)	Erath	50	92	113
Brooks[11]	73	114	193	Falls	48	85	98
Brown	49	86	104	Fannin	45	65	91
Burleson	40	70	98	Fayette	56	78	95
Burnet	68	104	117	Fisher	65	98	126
Caldwell	58	96	107	Floyd	96	163	201
Calhoun[12]	56	114	144	Foard	(7)	(7)	(7)
Callahan	50	98	107	Fort Bend	56	99	133
Cameron	74	110	119	Franklin	33	68	92
Camp	25	67	95	Freestone	26	62	87
Carson[13]	94	124	147	Frio	(5)	(5)	(5)
Cass	22	60	96	Gaines	(1)	(1)	(1)
Castro	98	158	216	Galveston	(14)	(14)	(14)
Chambers[14]	75	132	148	Garza	(9)	(9)	(9)
Cherokee	27	71	90	Gillespie	82	107	122
Childress	71	110	122	Glasscock	(19)	(19)	(19)
Clay	59	108	130	Goliad	68	107	120
Cochran[15]	67	138	177	Gonzales	54	94	104
Coke[16]	79	112	131	Gray	(13)	(13)	(13)
Coleman	62	95	110	Grayson	50	85	103
Collin	54	95	116	Gregg[26]	31	82	102
Collingsworth[17]	65	107	118	Grimes	35	81	95
Colorado	65	97	118	Guadalupe	62	92	96
Comal	71	109	120	Hale	87	169	205
Comanche	50	85	103	Hall	74	112	134
Concho	(16)	(16)	(16)	Hamilton	61	93	116
Cooke	56	91	112	Hansford[27]	116	147	190

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Texas--Con.							
Hardeman	61	104	116	Lipscomb	(29)	(29)	(29)
Hardin	48	104	117	Live Oak	61	99	116
Harris	71	128	153	Llano	(8)	(8)	(8)
Harrison[28]	26	65	87	Loving[37]	101	181	165
Hartley	(20)	(20)	(20)	Lubbock	85	175	183
Haskell	72	108	130	Lynn	80	130	162
Hays	64	119	128	McCulloch	73	107	113
Hemphill[29]	93	138	161	McLennan	66	97	111
Henderson	26	63	90	McMullen	(24)	(24)	(24)
Hidalgo	78	113	115	Madison	34	69	110
Hill	63	89	105	Marion	(28)	(28)	(28)
Hockley	77	135	166	Martin	(31)	(31)	(31)
Hood[30]	52	95	106	Mason	90	112	131
Hopkins	33	80	95	Matagorda	(12)	(12)	(12)
Houston	24	60	88	Maverick	(23)	(23)	(23)
Howard[31]	71	122	146	Medina	69	113	115
Hudspeth	(10)	(10)	(10)	Menard	(34)	(34)	(34)
Hunt[32]	53	88	114	Midland	(1)	(1)	(1)
Hutchinson	(27)	(27)	(27)	Milam	49	84	98
Irion	(19)	(19)	(19)	Mills	58	91	103
Jack	55	102	122	Mitchell	64	111	130
Jackson	58	112	130	Montague	37	88	105
Jasper	41	99	108	Montgomery	40	96	104
Jeff Davis	(10)	(10)	(10)	Moore	(20)	(20)	(20)
Jefferson	75	135	165	Morris	26	66	89
Jim Hogg	(11)	(11)	(11)	Motley	(18)	(18)	(18)
Jim Wells	60	94	110	Nacogdoches	28	78	104
Johnson	57	97	116	Navarro	47	84	92
Jones	75	115	127	Newton	26	86	99
Karnes	59	98	101	Nolan	71	114	131
Kaufman	43	88	94	Nueces	97	147	164
Kendall	85	114	121	Ochiltree	(27)	(27)	(27)
Kenedy	(11)	(11)	(11)	Oldham	(21)	(21)	(21)
Kent[33]	64	97	126	Orange	(36)	(36)	(36)
Kerr	(6)	(6)	(6)	Palo Pinto	53	100	107
Kimble[34]	88	119	134	Panola	25	79	96
King	(22)	(22)	(22)	Parker	52	107	115
Kinney	(25)	(25)	(25)	Parmer	86	161	202
Kleberg	(11)	(11)	(11)	Pecos	(37)	(37)	(37)
Knox	77	106	135	Polk	21	73	100
Lamar	38	82	96	Potter[38]	93	152	183
Lamb	74	141	174	Presidio	(10)	(10)	(10)
Lampasas	69	103	113	Rains[39]	29	68	93
La Salle[35]	54	100	112	Randall	(38)	(38)	(38)
Lavaca	57	83	96	Reagan	(19)	(19)	(19)
Lee	42	77	87	Real[40]	87	122	147
Leon	26	59	83	Red River	31	65	83
Liberty[36]	54	109	133	Reeves	(37)	(37)	(37)
Limestone	39	81	89	Refugio	(2)	(2)	(2)

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Texas--Con.							
Roberts	(29)	(29)	(29)	Tom Green	(16)	(16)	(16)
Robertson	32	83	98	Travis	68	102	121
Rockwall	(32)	(32)	(32)	Trinity	24	55	79
Runnels	75	99	118	Tyler	31	81	111
Rusk	32	81	93	Upshur	(26)	(26)	(26)
Sabine	25	82	97	Upton	(19)	(19)	(19)
San Augustine	19	77	83	Uvalde	(40)	(40)	(40)
San Jacinto	19	48	81	Val Verde	(25)	(25)	(25)
San Patricio	(2)	(2)	(2)	Van Zandt	31	69	90
San Saba	60	108	123	Victoria	61	113	120
Schleicher	(19)	(19)	(19)	Walker	30	65	92
Scurry	63	123	131	Waller	41	91	118
Shackelford[41]	60	115	126	Ward	(37)	(37)	(37)
Shelby	28	76	102	Washington	52	84	96
Sherman	(20)	(20)	(20)	Webb	(35)	(35)	(35)
Smith	34	83	99	Wharton	65	107	125
Somervell	(30)	(30)	(30)	Wheeler	56	111	117
Starr	17	41	63	Wichita	69	109	125
Stephens	(41)	(41)	(41)	Wilbarger	77	127	138
Sterling	(19)	(19)	(19)	Willacy	96	130	147
Stonewall	(33)	(33)	(33)	Williamson	64	95	110
Sutton	(19)	(19)	(19)	Wilson	61	96	105
Swisher	88	147	190	Winkler	(1)	(1)	(1)
Tarrant	76	127	133	Wise	42	90	108
Taylor	62	112	121	Wood	(39)	(39)	(39)
Terrell	(25)	(25)	(25)	Yoakum	(15)	(15)	(15)
Terry	64	138	176	Young	55	88	119
Throckmorton	(3)	(3)	(3)	Zapata	(35)	(35)	(35)
Titus	26	76	100	Zavala	(23)	(23)	(23)

Indexes computed for following combinations of counties: [1] Andrews, Crane, Ector, Gains, Midland, and Winkler. [2] Aransas, Refugio, and San Patricio. [3] Archer and Throckmorton. [4] Armstrong and Briscoe. [5] Atascosa and Frio. [6] Bandera and Kerr. [7] Baylor and Foard. [8] Blanco and Llano. [9] Borden and Garza. [10] Brewster, Culberson, El Paso, Hudspeth, Jeff Davis, and Presidio. [11] Brooks, Jim Hogg, Kenedy, and Kleberg. [12] Calhoun and Matagorda. [13] Carson and Gray. [14] Chambers and Galveston. [15] Cochran and Yoakum. [16] Coke, Concho, and Tom Green. [17] Collingsworth and Donley. [18] Cottle and Motley. [19] Crockett, Glasscock, Irion, Reagan, Schleicher, Sterling, Sutton, and Upton. [20] Dallam, Hartley, Moore, and Sherman. [21] Deaf Smith and Oldham. [22] Dickens and King. [23] Dimmit, Maverick, and Zavala. [24] Duval and McMullen. [25] Edwards, Kinney, Terrell, and Val Verde. [26] Gregg and Upshur. [27] Hansford, Hutchinson, and Ochiltree. [28] Harrison and Marion. [29] Hemphill, Lipscomb, and Roberts. [30] Hood and Somervell. [31] Howard and Martin. [32] Hunt and Rockwall. [33] Kent and Stonewall. [34] Kimble and Menard. [35] La Salle, Webb, and Zapata. [36] Liberty and Orange. [37] Loving, Pecos, Reeves, and Ward. [38] Potter and Randall. [39] Rains and Wood. [40] Real and Uvalde. [41] Shackelford and Stephens.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Utah							
Beaver[1]	59	115	119	Piute	(1)	(1)	(1)
Box Elder	84	123	134	Rich	(6)	(6)	(6)
Cache	80	118	125	Salt Lake	72	127	146
Carbon[2]	53	113	115	San Juan	(4)	(4)	(4)
Daggett[3]	53	102	122	Sanpete	62	114	120
Davis	75	117	136	Sevier	81	132	121
Duchesne	46	98	119	Summit	(6)	(6)	(6)
Emery	(2)	(2)	(2)	Tooele	(5)	(5)	(5)
Garfield[4]	44	99	107	Uintah	(3)	(3)	(3)
Grand	(3)	(3)	(3)	Utah	67	116	125
Iron	(1)	(1)	(1)	Wasatch	(6)	(6)	(6)
Juab[5]	60	98	115	Washington	45	98	113
Kane	(4)	(4)	(4)	Wayne	(4)	(4)	(4)
Millard	65	109	121	Weber	79	111	134
Morgan[6]	77	119	132				

Indexes computed for following combinations of counties: [1] Beaver, Iron, and Piute. [2] Carbon and Emery. [3] Daggett, Grand, and Uintah. [4] Garfield, Kane, San Juan, and Wayne. [5] Juab and Tooele. [6] Morgan, Rich, Summit, and Wasatch.

Vermont							
Addison	78	116	137	Lamoille	66	101	123
Bennington[1]	69	108	119	Orange	66	113	122
Caledonia[2]	79	112	118	Orleans	72	109	124
Chittenden	76	118	125	Rutland	(1)	(1)	(1)
Essex	(2)	(2)	(2)	Washington	71	106	123
Franklin[3]	71	111	122	Windham	76	107	128
Grand Isle	(3)	(3)	(3)	Windsor	72	110	118

Indexes computed for following combinations of counties: [1] Bennington and Rutland. [2] Caledonia and Essex. [3] Franklin and Grand Isle.

Virginia							
Accomack[1]	65	121	137	Brunswick	31	55	84
Albemarle	52	91	112	Buchanan	17	32	57
Alleghany[2]	50	89	101	Buckingham	29	56	86
Amelia	30	72	90	Campbell	40	81	96
Amherst	30	70	84	Caroline	44	71	109
Appomattox	36	68	85	Carroll	24	48	70
Arlington	NA	NA	NA	Charles City[4]	51	107	125
Augusta	68	113	125	Charlotte	35	57	83
Bath[3]	48	82	92	Chesapeake City*[5]	65	123	135
Bedford	41	79	100	Chesterfield	64	99	113
Bland	31	60	87	Clarke[6]	61	109	129
Botetourt	54	87	107	Craig	(2)	(2)	(2)

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Virginia--Con.							
Culpeper[7]	50	99	110	Nelson	32	79	100
Cumberland	32	72	88	New Kent	(14)	(14)	(14)
Dickenson	19	43	78	Northampton	(1)	(1)	(1)
Dinwiddie	40	82	98	Northumberland	(15)	(15)	(15)
Essex[8]	39	73	108	Nottoway	35	79	111
Fairfax[9]	75	133	159	Orange	56	103	115
Fauquier	67	109	130	Page	40	89	106
Floyd	37	60	86	Patrick	23	52	82
Fluvanna	34	89	101	Pittsylvania	33	64	87
Franklin	35	72	94	Powhatan	(11)	(11)	(11)
Frederick	53	102	112	Prince Edward	35	69	83
Giles	37	84	95	Prince George[16]	54	88	107
Gloucester[10]	42	90	110	Prince William[17]	55	103	121
Goochland[11]	46	83	107	Pulaski	40	78	94
Grayson	29	60	73	Rappahannock	(7)	(7)	(7)
Greene[12]	44	77	92	Richmond	(13)	(13)	(13)
Greensville	29	74	95	Roanoke	59	104	109
Halifax	30	58	79	Rockbridge	48	95	106
Hanover	45	92	112	Rockingham	68	111	124
Henrico	64	108	121	Russell	24	49	65
Henry	35	76	87	Scott	16	37	60
Highland	(3)	(3)	(3)	Shenandoah	54	98	120
Isle of Wight	60	100	129	Smyth	38	70	86
James City	(4)	(4)	(4)	Southampton	39	95	111
King and Queen	37	68	94	Spotsylvania	44	86	111
King George[13]	43	75	114	Stafford	(17)	(17)	(17)
King William[14]	43	84	111	Surry	(16)	(16)	(16)
Lancaster[15]	46	86	103	Sussex	44	80	107
Lee	24	47	69	Tazewell	29	70	87
Loudoun	(9)	(9)	(9)	Virginia Beach City*	(5)	(5)	(5)
Louisa	45	77	96	Warren	(6)	(6)	(6)
Lunenburg	33	64	89	Washington	32	63	85
Madison	(12)	(12)	(12)	Westmoreland	(13)	(13)	(13)
Mathews	(10)	(10)	(10)	Wise	26	51	73
Mecklenburg	32	63	87	Wythe	42	81	100
Middlesex	(8)	(8)	(8)	York	(4)	(4)	(4)
Montgomery	42	84	103				
Nansemond	51	96	117				

Indexes computed for following combinations of counties: [1] Accomack and Northampton. [2] Alleghany and Craig. [3] Bath and Highland. [4] Charles City, James City, and York. [5] Chesapeake City and Virginia Beach City. [6] Clarke and Warren. [7] Culpeper and Rappahannock. [8] Essex and Middlesex. [9] Fairfax and Loudoun. [10] Gloucester and Mathews. [11] Goochland and Powhatan. [12] Greene and Madison. [13] King George, Richmond, and Westmoreland. [14] King William and New Kent. [15] Lancaster and Northumberland. [16] Prince George and Surry. [17] Prince William and Stafford.

*In 1963 Chesapeake City was formed by consolidating South Norfolk City and Norfolk County; Virginia Beach City was formed by consolidating Princess Ann County and Virginia Beach City.

Not available: Arlington was completely urban in 1959 and 1964.

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Washington							
Adams	142	166	189	Lewis	60	110	122
Asotin[1]	93	138	166	Lincoln	131	169	175
Benton	66	122	128	Mason	(5)	(5)	(5)
Chelan	86	117	128	Okanogan	70	110	129
Clallam	70	112	120	Pacific[6]	68	101	118
Clark	64	107	121	Pend Oreille	(3)	(3)	(3)
Columbia	(1)	(1)	(1)	Pierce	67	113	123
Cowlitz[2]	58	110	116	San Juan	(4)	(4)	(4)
Douglas	94	125	137	Skagit	75	118	134
Ferry[3]	51	92	113	Skamania	(2)	(2)	(2)
Franklin	115	127	153	Snohomish	65	108	124
Garfield	(1)	(1)	(1)	Spokane	75	119	137
Grant	103	134	160	Stevens	(3)	(3)	(3)
Grays Harbor	60	105	124	Thurston	67	116	122
Island[4]	80	114	127	Wahkiakum	(6)	(6)	(6)
Jefferson[5]	65	94	124	Walla Walla	98	157	164
King	72	115	133	Whatcom	71	109	125
Kitsap	63	107	116	Whitman	127	176	183
Kittitas	77	124	142	Yakima	77	123	141
Klickitat	73	111	132				

Indexes computed for following combinations of counties: [1] Asotin, Columbia, and Garfield. [2] Cowlitz and Skamania. [3] Ferry, Pend Oreille, and Stevens. [4] Island and San Juan. [5] Jefferson and Mason. [6] Pacific and Wahkiakum.

West Virginia							
Barbour	33	76	88	Lincoln	12	44	69
Berkeley[1]	57	95	108	Logan	(2)	(2)	(2)
Boone[2]	17	46	69	McDowell[7]	17	44	75
Braxton	16	41	61	Marion	43	80	100
Brooke[3]	70	106	115	Marshall	58	89	103
Cabell	29	70	87	Mason	30	60	84
Calhoun[4]	25	55	77	Mercer	24	58	82
Clay	17	36	64	Mineral	(6)	(6)	(6)
Doddridge	35	66	84	Mingo	(7)	(7)	(7)
Fayette	30	68	92	Monongalia	45	92	104
Gilmer	30	49	79	Monroe	31	73	92
Grant[5]	33	59	86	Morgan	(1)	(1)	(1)
Greenbrier	36	73	87	Nicholas	26	64	75
Hampshire[6]	44	76	99	Ohio	(3)	(3)	(3)
Hancock	(3)	(3)	(3)	Pendleton	53	77	101
Hardy	45	79	94	Pleasants[8]	41	83	99
Harrison	58	90	104	Pocahontas	39	69	91
Jackson	30	66	84	Preston	43	71	99
Jefferson	70	120	137	Putnam	29	66	87
Kanawha	36	76	92	Raleigh	25	67	83
Lewis	39	71	89	Randolph	32	65	91

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
West Virginia--Con.							
Ritchie	38	64	92	Wayne	18	48	77
Roane	38	62	80	Webster	21	29	62
Summers	22	52	79	Wetzel	36	68	93
Taylor	47	79	101	Wirt	(4)	(4)	(4)
Tucker	(5)	(5)	(5)	Wood	(8)	(8)	(8)
Tyler	35	81	99	Wyoming	20	58	66
Upshur	30	56	78				

Indexes computed for following combinations of counties: [1] Berkeley and Morgan. [2] Boone and Logan. [3] Brooke, Hancock, and Ohio. [4] Calhoun and Wirt. [5] Grant and Tucker. [6] Hampshire and Mineral. [7] McDowell and Mingo. [8] Pleasants and Wood.

Wisconsin							
Adams	63	99	113	La Crosse	86	116	128
Ashland	47	88	113	Lafayette	85	125	137
Barron	74	108	122	Langlade	71	115	130
Bayfield	56	93	111	Lincoln	65	103	111
Brown	76	113	129	Manitowoc	86	111	126
Buffalo	85	117	130	Marathon	69	106	120
Burnett	67	95	119	Marinette	59	91	114
Calumet	88	118	130	Marquette	71	101	119
Chippewa	69	105	123	Milwaukee	NA	NA	NA
Clark	67	110	124	Monroe	75	108	121
Columbia	91	120	132	Oconto	62	94	114
Crawford	75	108	116	Oneida	(1)	(1)	(1)
Dane	102	134	137	Outagamie	86	121	129
Dodge	96	124	134	Ozaukee	94	124	130
Door	74	110	121	Pepin	83	117	121
Douglas	55	110	117	Pierce	79	112	123
Dunn	67	104	122	Polk	79	109	121
Eau Claire	71	107	123	Portage	65	96	120
Florence[1]	58	93	109	Price	52	95	110
Fond du Lac	93	122	135	Racine	101	123	137
Forest	(1)	(1)	(1)	Richland	70	106	117
Grant	89	125	132	Rock	101	132	139
Green	99	128	137	Rusk	57	100	115
Green Lake	85	121	129	St. Croix	79	115	126
Iowa	90	122	130	Sauk	83	114	130
Iron	(1)	(1)	(1)	Sawyer	53	93	99
Jackson	69	99	116	Shawano*	75	109	119
Jefferson	98	122	131	Sheboygan	96	125	127
Juneau	69	106	112	Taylor	65	100	116
Kenosha	94	132	142	Trempealeau	73	106	119
Kewaunee	76	115	129	Vernon	75	102	117

TABLE 6.--Continued

State and county	1950	1959	1964	State and county	1950	1959	1964
Wisconsin--Con.							
Vilas	(1)	(1)	(1)	Waupaca	82	111	123
Walworth	97	134	143	Waushara	70	104	126
Washburn	60	96	115	Winnebago	86	118	132
Washington	92	122	131	Wood	79	111	123
Waukesha	104	129	136				

Index computed for the following combination of counties: [1] Florence, Forest, Iron, Oneida, and Vilas.

*Includes Menominee which became a county on April 30, 1961.

Not available: Milwaukee was completely urban in 1959 and 1964.

State and county	1950	1959	1964	State and county	1950	1959	1964
Wyoming							
Albany[1]	82	135	163	Niobrara	(5)	(5)	(5)
Big Horn[2]	73	131	150	Park	72	132	143
Campbell[3]	74	128	148	Platte	(4)	(4)	(4)
Carbon	(1)	(1)	(1)	Sheridan	71	133	150
Converse[4]	76	126	145	Sublette	(7)	(7)	(7)
Crook[5]	67	119	140	Sweetwater	(1)	(1)	(1)
Fremont[6]	59	111	136	Teton	(7)	(7)	(7)
Goshen	72	121	143	Uinta	(7)	(7)	(7)
Hot Springs	(6)	(6)	(6)	Washakie	(2)	(2)	(2)
Johnson	(3)	(3)	(3)	Weston	76	130	142
Laramie	84	127	153	Yellowstone Nat'l Park	NA	NA	NA
Lincoln[7]	77	126	156				
Natrona	(1)	(1)	(1)				

Indexes computed for following combinations of counties: [1] Albany, Carbon, Natrona, and Sweetwater. [2] Big Horn and Washakie. [3] Campbell and Johnson. [4] Converse and Platte. [5] Crook and Niobrara. [6] Fremont and Hot Springs. [7] Lincoln, Sublette, Teton, and Uinta.

Not available: Yellowstone National Park had no farms in 1959 and 1964.

Table 7.--Farm operator level-of-living indexes for State economic areas (SEA) and metropolitan areas, 1950, 1959, and 1964

(Excludes Alaska and Hawaii. U.S. county average in 1959 = 100)

State and area	1950	1959	1964
Alabama			
SEA			
1	27	75	101
2	19	66	96
3	29	80	107
4	23	67	92
5	20	60	87
6	14	43	67
7	16	54	78
8	27	84	109
9	23	66	95
Metropolitan			
A	42	94	118
B	20	47	67
C	31	78	101
D	42	90	115
E	22	65	90
F	28	72	109
Arizona			
SEA			
1	64	130	137
2a	100	196	270
2b	75	134	161
Metropolitan			
A	100	212	272
B	NA	NA	NA
Arkansas			
SEA			
1	44	86	113
2	27	61	87
3	24	60	86
4	26	63	88
5	22	65	90
6	23	63	88
7a	26	72	112
7b	34	93	133
8a	22	68	113
8b	18	68	112
9	22	49	77
Metropolitan			
A	37	85	111
California			
SEA			
1	77	117	132
2	90	126	147
3	103	150	207
4	95	150	185
5	87	140	161
6	97	161	198
7	134	189	288
8	114	243	378
9	72	122	145
Metropolitan			
A	96	150	187
B	90	151	179
C	86	145	174
D	95	138	174
E	94	200	181
F	88	142	243
G	84	126	140
H	80	145	196
J	145	224	372
K	132	160	215
Colorado			
SEA			
1	79	124	147
2a	65	112	127
2b	82	116	143
3	93	140	163
4	74	125	142
5	69	108	128
Metropolitan			
A	90	139	163
B	80	133	147
C	78	121	132
D	91	144	153
Connecticut			
SEA			
1	96	124	140
2	85	124	136
Metropolitan			
A	96	124	140
B	89	117	136
C	94	131	161

NA - Not available.

Table 7.--Continued

State and area	1950	1959	1964
Delaware			
SEA			
1	77	117	137
Metropolitan			
A	87	132	144
Florida			
SEA			
1	23	69	98
2	43	98	133
3	27	80	108
4	66	108	162
5	54	113	132
6	73	141	171
Metropolitan			
A	62	120	142
B	60	115	122
C	90	141	152
D	36	102	121
E	78	121	143
F	84	183	233
G	84	183	233
Georgia			
SEA			
1	30	81	108
2	22	61	97
3	30	81	112
4a	34	84	107
4b	32	80	99
5	33	81	105
6	29	78	107
7a	30	76	116
7b	33	88	123
8	30	86	115
9	31	90	111
Metropolitan			
A	31	81	97
B	48	111	126
C	31	82	101
D	44	79	99
E	33	87	109
F	46	101	124
G	46	101	124

State and area	1950	1959	1964
Idaho			
SEA			
1	62	110	130
2	72	116	137
3a	74	124	139
3b	79	128	144
4	82	125	138
Illinois			
SEA			
1	106	142	152
2	103	142	156
3	98	139	151
4	75	116	134
5	106	144	155
6a	97	138	157
6b	102	143	160
7	77	116	130
8	61	103	122
9	70	111	133
10	52	90	113
11	44	79	105
Metropolitan			
A	97	128	140
B	100	134	146
C	104	147	157
D	100	142	153
E	103	142	159
F	80	122	137
G	98	146	163
Indiana			
SEA			
1	83	121	130
2	81	121	139
3	82	115	126
4	91	128	137
5	88	127	138
6	68	110	126
7	50	93	111
8	59	98	113
9	92	133	146

Table 7.--Continued

State and area	1950	1959	1964
Indiana--Con.			
Metropolitan			
A	84	134	141
B	82	127	133
C	87	121	128
D	90	125	141
E	84	122	135
F	60	99	112
G	70	115	123
H	84	129	139
Iowa			
SEA			
1a	101	137	152
1b	92	127	140
2a	98	136	150
2b	97	137	152
3a	84	115	130
3b	74	105	119
4	89	125	136
5	96	132	143
6	94	132	142
Metropolitan			
A	83	119	138
B	96	135	146
C	88	131	140
D	95	139	146
E	96	135	147
F	91	133	139
Kansas			
SEA			
1	93	137	154
2a	86	128	143
2b	82	117	131
3a	84	122	135
3b	84	118	130
4	78	111	126
5	78	112	130
6	77	110	125
7	69	103	117
8	62	97	112
Metropolitan			
A	79	127	140
B	72	113	128
C	75	122	128

State and area	1950	1959	1964
Kentucky			
SEA			
1	46	88	111
2	45	91	111
3a	32	65	89
3b	42	75	97
4	45	84	104
5	25	54	76
6	54	89	106
7	65	102	116
8	16	45	69
9	14	38	65
Metropolitan			
A	72	115	127
B	72	112	115
C	28	60	93
D	52	100	114
E	89	118	152
Louisiana			
SEA			
1	24	82	102
2	24	82	116
3	33	75	102
4	27	84	101
5	34	84	104
6	51	104	140
7	53	112	136
8	25	84	98
Metropolitan			
A	30	76	101
B	49	91	117
C	57	122	125
D	55	124	149
E	36	92	113
Maine			
SEA			
1	88	124	162
2	59	96	113
3	58	94	108
4	66	103	120
Metropolitan			
A	66	104	118

Table 7.--Continued

State and area	1950	1959	1964
Maryland			
SEA			
1	46	84	103
2	77	123	134
3	57	89	107
4a	77	121	144
4b	65	110	135
Metropolitan			
A	82	120	133
B	80	125	154
C	85	128	143
Massachusetts			
SEA			
1	86	119	132
2	74	99	124
Metropolitan			
A	78	114	125
B	79	116	126
C	77	109	127
D	74	99	124
E	74	101	122
F	86	119	134
Michigan			
SEA			
1	51	92	112
2	56	100	115
3	64	103	118
4a	60	100	118
4b	59	98	116
5a	69	109	125
5b	76	108	127
6a	73	111	125
6b	72	114	123
7	75	116	124
8	73	108	120
9a	78	119	128
9b	76	113	125
Metropolitan			
A	78	116	127
B	77	117	126
C	77	106	128
Michigan--Con.			
Metropolitan			
D	83	117	124
E	79	119	129
F	81	115	125
G	83	125	131
H	86	120	126
J	91	122	135
Minnesota			
SEA			
1	71	103	124
2	57	94	111
3	67	96	116
4	68	102	118
5	84	118	135
6	85	121	132
7	90	125	136
8	92	129	143
Metropolitan			
A	60	100	113
B	84	121	134
Mississippi			
SEA			
1	19	68	112
2	18	49	75
3	23	64	85
4	21	59	86
5	21	59	83
6a	19	64	87
6b	17	58	82
7	26	80	97
8	33	79	98
Metropolitan			
A	23	50	75
Missouri			
SEA			
1	75	115	129
2a	65	100	115
2b	66	105	122
3	60	94	114
4	48	89	108

Table 7.--Continued

State and area	1950	1959	1964
Missouri--Con.			
SEA			
5	43	78	101
6	61	97	113
7	38	69	92
8	29	61	86
9a	36	87	113
9b	35	91	138
Metropolitan			
A	72	116	136
B	66	111	130
C	57	96	111
Montana			
SEA			
1a	55	105	123
1b	82	137	153
2a	78	137	152
2b	67	126	140
3	75	125	142
4	68	124	147
Nebraska			
SEA			
1	78	129	155
2	91	135	148
3a	77	117	136
3b	81	120	136
4	81	116	135
5	81	120	137
6	88	130	143
7	83	116	129
Metropolitan			
A	86	121	134
B	90	150	170
Nevada			
SEA			
1	79	143	155
Metropolitan			
A	68	111	127
New Hampshire			
SEA			
1	68	103	118
2	74	105	118
Metropolitan			
A	77	109	125
New Jersey			
SEA			
1	90	128	145
2	78	114	129
Metropolitan			
A	86	131	149
B	86	120	134
C	96	131	161
D	80	116	135
E	65	110	128
F	88	119	135
G	94	121	132
New Mexico			
SEA			
1a	30	86	118
1b	27	63	96
2	54	96	123
3	62	117	151
Metropolitan			
A	47	88	142
New York			
SEA			
1	78	114	132
2	84	117	129
3a	73	113	120
3b	77	114	126
4	84	122	126
5	74	111	104
6	81	116	128
7	75	109	124
8	77	107	120
9	87	124	137

Table 7.--Continued

State and area	1950	1959	1964
New York--Con.			
Metropolitan			
A	81	117	127
B	83	119	136
C	76	114	126
D	82	115	127
E	72	117	118
F	78	111	121
G	92	130	156
North Carolina			
SEA			
1	19	52	76
2	26	71	90
3	35	73	98
4a	37	81	104
4b	42	92	113
5	32	77	100
6	33	78	104
7	34	70	96
8	38	83	110
9	30	74	107
10	34	72	101
11	29	78	99
Metropolitan			
A	29	70	90
B	50	93	108
C	51	96	112
D	50	100	120
E	45	93	119
F	43	95	111
North Dakota			
SEA			
1	69	114	132
2a	69	109	127
2b	60	111	127
3a	72	113	133
3b	73	113	134
4	85	126	141
5	73	110	130
Ohio			
SEA			
1	84	121	137
2	83	121	136

State and area	1950	1959	1964
Ohio--Con.			
SEA			
3	86	123	137
4a	86	124	137
4b	75	104	115
5	74	108	115
6a	77	116	126
6b	63	100	113
7	64	96	109
8a	48	84	102
8b	56	94	108
Metropolitan			
A	81	125	136
B	86	139	147
C	87	123	138
D	90	127	135
E	89	127	132
F	76	123	129
G	81	118	126
H	74	114	123
J	56	104	110
K	86	112	121
L	39	75	99
M	83	122	130
N	89	126	140
O	88	125	135
Oklahoma			
SEA			
1	73	109	131
2	75	111	131
3	48	97	113
4	63	100	121
5	48	91	108
6	33	75	93
7a	44	91	104
7b	33	69	93
8	27	68	93
9	22	60	85
10	26	62	91
Metropolitan			
A	58	114	128
B	59	97	124
C	39	88	98
D	78	118	138

Table 7.--Continued

State and area	1950	1959	1964
Oregon			
SEA			
1a	62	110	120
1b	64	111	127
2a	77	114	128
2b	75	120	129
3	101	156	167
4	76	122	144
Metropolitan			
A	70	113	127
B	74	116	129
Pennsylvania			
SEA			
1a	68	108	119
1b	65	107	120
2	71	110	122
3	68	106	122
4a	62	102	117
4b	60	96	109
5	65	109	120
6	71	112	129
7	76	120	133
Metropolitan			
A	72	112	123
B	94	130	142
C	67	91	123
D	72	115	123
E	59	102	120
F	69	118	129
G	64	95	117
H	72	116	130
J	67	109	126
K	83	111	118
L	78	118	130
M	86	118	134
Rhode Island			
SEA			
1	81	115	129
Metropolitan			
A	78	110	120
South Carolina			
SEA			
1	32	76	99
2	40	82	104
3	32	69	93
4	35	74	97
5	29	63	91
6	31	73	101
7	34	76	98
8	25	62	85
Metropolitan			
A	45	92	104
B	36	80	105
C	33	78	111
D	40	90	108
South Dakota			
SEA			
1	65	111	134
2a	74	118	139
2b	76	110	131
3a	74	112	133
3b	80	110	130
4	78	110	127
5	89	123	136
Tennessee			
SEA			
1	32	75	102
2	31	70	94
3	26	64	89
4	40	89	103
5	44	82	103
6	25	60	82
7	22	62	90
8a	30	75	94
8b	28	64	85
Metropolitan			
A	39	77	106
B	60	101	118
C	41	96	110
D	40	89	108

Table 7.--Continued

State and area	1950	1959	1964
Texas			
SEA			
1	109	162	177
2	76	113	128
3	63	100	142
4	98	147	180
5	75	132	161
6a	67	107	128
6b	61	108	123
7a	49	94	109
7b	56	91	112
7c	62	96	113
8	50	85	101
9	36	75	98
10	56	88	99
11	68	109	121
12	28	71	94
13	30	78	98
14	59	108	130
15	83	118	127
16	115	148	171
Metropolitan			
A	115	147	186
B	66	112	125
C	60	106	124
D	66	97	111
E	68	102	121
F	76	114	122
G	71	128	153
H	64	122	149
J	93	152	183
K	76	118	128
L	85	175	183
M	75	132	148
N	97	147	164
O	58	106	118
P	68	114	124
Utah			
SEA			
1	77	120	129
2	71	116	131
3	53	104	116
Metropolitan			
A	72	127	146
B	79	111	134
Vermont			
SEA			
1	74	113	126
2	72	109	121
Virginia			
SEA			
1	23	49	73
2	30	58	78
3	45	83	98
4	58	104	121
5	54	98	116
6	37	76	96
7	32	62	86
8	44	84	111
9	65	121	137
10	47	89	110
Metropolitan			
A	59	104	109
B	75	133	159
C	64	104	117
D	65	123	135
E	51	107	125
F	35	76	90
Washington			
SEA			
1	66	101	121
2	76	114	128
3	63	107	116
4	61	112	119
5	78	114	129
6	73	120	136
7a	117	144	163
7b	101	149	169
8	51	92	113
Metropolitan			
A	72	115	133
B	67	113	123
C	64	107	121
D	75	119	137
E	65	108	124

Table 7.--Continued

State and area	1950	1959	1964
West Virginia			
SEA			
1	49	88	103
2a	25	59	81
2b	28	54	77
3	45	81	99
4	21	54	76
5	37	69	91
6	61	103	118
Metropolitan			
A	64	98	109
B	24	59	82
C	36	76	92
Wisconsin			
SEA			
1	58	96	112
2a	77	111	123
2b	78	109	123
Wisconsin--Con.			
SEA			
3	88	122	130
4	70	106	122
5	68	101	118
6	71	105	120
7	87	118	130
8	94	125	134
Metropolitan			
A	55	110	117
B	102	134	137
D	101	123	137
E	104	129	136
F	94	132	142
Wyoming			
SEA			
1	80	130	160
2a	68	125	144
2b	74	125	145

Factor Analysis: Some Basic Principles and an Application[1]

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In constructing the level-of-living index, the Department has used certain mathematical and statistical methods known as "factor analysis", or "component analysis". These methods were developed primarily by psychologists.

Those readers who are interested in a full, detailed, theoretical treatment of the subject might well read Harman's recent book which also includes an extensive bibliography. 1/ Hagood and Price 2/ discuss applications to sociological research. Tintner 3/ discussess uses in economic research.

The author thanks Ralph Champion, Farm Population Branch, ERS, for his help.

COUNTY INDEXES of levels of living are weighted averages of certain county census data, such as the percentages of farms with telephones, automobiles, home freezers, average value of farm products sold, and average value of land and buildings. Factor analysis helps determine which census elements to use and how to weight each element.

We shall show here that factor analysis maximizes the variance of the index, and that it also maximizes the sum of the squared correlations between the index and the several elements. Maximum variation in the index enables it to discriminate effectively between high, medium, and low levels.

To avoid excessive length, this problem is illustrated by considering an index based upon only three elements, say, X_1, X_2, and X_3. If I is the index, it can be written

$$(1) \qquad I=K+b_1X_1+b_2X_2+b_3X_3,$$

where K, b_1, b_2, and b_3 are constants to be determined in the analysis.

If lower-case letters are used to indicate deviations from the national averages, equation (1) can be written

$$(2) \qquad i=b_1x_1+b_2x_2+b_3x_3$$

If the x's are standardized by dividing each by its standard deviation, equation (2) can be written

$$(3) \qquad i=w_1z_1+w_2z_2+w_3z_3$$

where w_1, w_2, w_3 are the weights to z_1, z_2, z_3.

The weights should be assigned in such a way as to provide a great deal of variation in the index so that it will discriminate most effectively between counties that have high, medium, and low levels of living.

The variance of the index is

$$(4) \quad \text{var } i=\frac{1}{n}\sum i^2=w_1^2+2r_{12}w_1w_2 +2r_{13}w_1w_3+w_2^2+2r_{23}w_2w_3+w_3^2,$$

where r_{12}, r_{13}, and r_{23} are zero-order correlation coefficients.

As it stands, this variance has no maximum; that is, it could be increased indefinitely by multiplying all of the w's by a constant greater than 1. For instance, if each w were multiplied by 2, the variance of i would be multiplied by 4. To avoid this arbitrary result, we propose to maximize the variance of i, subject to the condition (or restraint) that the sum of the squared weights is unity; that is, so that

$$(5) \qquad w_1^2+w_2^2+w_3^2=1$$

To do this, we shall use a Lagrange multiplier. Such multipliers are discussed in modern texts on

1. Harry H. Harman, *Modern Factor Analysis*. Univ. of Chicago Press, 1960.

2. Margaret Jarman Hagood and Daniel O. Price, *Statistics for Sociologists*. Henry Holt & Co., New York, rev. ed., 1952. Ch. 26.

3. Gerhard Tintner, *Econometrics*. Wiley and Sons, New York, 1952. Ch. 6.

[1] Reprinted from pp. 21-24 of the Cowhig publication cited in footnote 1, p. 1 of this bulletin.
[2] Formerly Director Economic and Statistical Analysis Division.

advanced calculus [4] and in some books on economic theory.[5] In order to maximize (4) subject to condition (5) we can maximize

$$F=\text{var } i-g(w_1^2+w_2^2+w_3^2-1), \tag{6}$$

where g is known as a Lagrange multiplier. We can maximize F in equation (6) by differentiating it with respect to w_1, w_2, w_3, and g, and setting all the derivatives equal to zero. This gives us

$$\begin{aligned}(1-g)w_1+r_{12}w_2+r_{13}w_3&=0\\ r_{12}w_1+(1-g)w_2+r_{23}w_3&=0\\ r_{13}w_1+r_{23}w_2+(1-g)w_3&=0\\ {}^2+w_2^2+w_3^2&=1\end{aligned} \tag{7}$$

While these equations are necessary for a maximum solution, they are not sufficient. In other words, equations (7) may be satisfied with some values of g that result in a minimum F and some may result in neither a minimum nor a maximum. In order to have a true maximum, it is necessary that equations (7) be met, and also that the Hessian matrix

$$H=\begin{bmatrix}1-g & r_{12} & r_{13}\\ r_{12} & 1-g & r_{23}\\ r_{13} & r_{23} & 1-g\end{bmatrix} \tag{8}$$

be negative definite; that is, all diagonal elements of H must be negative, all principal 2-row determinants must be positive, all 3-row principal determinants must be negative, and so on. Thus, it is clear that in order to have a maximum solution, g must be greater than 1. In general, there will always be several values of g that will satisfy equations (7). In the case of three variables, there will be three such values of g. In the case of n variables, there will be n different values of g that will satisfy the equations. Any value of g that satisfies the equation is known as the root of the matrix shown in (8). We are concerned here with the maximum positive root, which is often known as the "dominant" root. In order to understand the meaning of the dominant root and also to give the basis of an iterative method of solving equations (7) the equations can be written in the form

$$\begin{aligned}w_1+r_{12}w_2+r_{13}w_3&=gw_1\\ r_{12}w_1+w_2+r_{23}w_3&=gw_2\\ r_{13}w_1+r_{23}w_2+w_3&=gw_3\end{aligned} \tag{9}$$

If the first equation is multiplied by w_1, the second by w_2, and the third by w_3, and three equations are added, the result is

$$\text{var } i=g(w_1^2+w_2^2+w_3^2) \tag{10}$$

Since the squares of the weights are subject to condition (5), equation (10) indicates that the dominant root g equals the variance of the index. Thus, as is often the case, the Lagrange multiplier g turns out to have a real statistical meaning.

The correlation between the z's and the index can be found by multiplying equation (3) successively by z_1, by z_2, and by z_3, and dividing each product by the standard deviation of the index (i.e., by $\sqrt{g}$). Then using (9), we find that

$$\begin{aligned}r_{z_1 i}&=\frac{w_1+r_{12}w_2+r_{13}w_3}{\sqrt{g}}=\sqrt{g}\cdot w_1\\ r_{z_2 i}&=\frac{r_{12}w_1+w_2+r_{23}w_3}{\sqrt{g}}=\sqrt{g}\cdot w_2\\ r_{z_3 i}&=\frac{r_{13}w_1+r_{23}w_2+w_3}{\sqrt{g}}=\sqrt{g}\cdot w_3\end{aligned} \tag{11}$$

The sum of the squared correlations is

$$r_{z_1 i}^2+r_{z_2 i}^2+r_{z_3 i}^2=g(w_1^2+w_2^2+w_3^2) \tag{12}$$

Since the sum of the squared weights is 1, the Lagrange multiplier also equals the sum of the squared correlations between the index and its elements. In the process of maximizing the variance of the index, we also maximize the sum of squared correlations.

Three Problems of Computation

There are three main practical problems in computing the index: (1) solving equations (7) to determine the weights associated with any particular set of census items, (2) comparing the results obtained by forming indexes from dif-

[4] Angus E. Taylor, *Advanced Calculus*. Ginn & Co., Boston. 1955. pp. 198–204.

[5] Paul A. Samuelson, *Foundations of Economic Analysis*. Harvard Univ. Press. 1958. pp. 362–365.

ferent groups of census items and determining which group to select, and (3) transforming the index into the most usable form. Each of these will be discussed briefly here. Then a numerical problem will be analyzed to illustrate the procedures.

Solving Equations (7)

Equations (7) can be solved by either of two processes: First, one could set the determinant of the coefficients of the first three equations equal to zero, solve for g, and then solve for the w's. In a problem of only three variables, this is a reasonably simple operation. However, when dealing with a large number of variables, such a direct solution is very time-consuming and laborious. In any case, it is possible to solve the equivalent equations (9) by an iterative process. One simply starts with any assumed initial values of the w's, inserts them into the left side of equation (9), and computes the second approximations of the weights. This process will be illustrated in the solution of the numerical example.

Comparing Sets of Census Items

Indexes can be computed for various sets of 3, 4, 5 or more census items. In general, we want an index that has a large variance. In comparing the results of several indexes, each of which is based on n items, we should ordinarily choose the one that gives the greatest variance. Sometimes, however, the addition of an item to an index may not increase the variance "significantly." Here there are perhaps no hard and fast rules for choosing between an index based on n variables and an index based on $n+1$ variables. Some statisticians have used as a general guide the variance divided by the number of items in the index. This is the same as the average of the squared correlations between the index and the several elements. I do not think that this sort of guide should be followed rigidly nor uncritically. If it were, one would always choose an index based upon a single element. Then the squared correlation would be 1, since the correlation of any variable with itself is 1. No index based upon more than one element could give an average squared correlation higher than 1.

The variance (or sum of squared correlations) in the 3-variable problem to be discussed next is 2.456—an average of 0.815. The final index used in this report is based upon 5 variables. Its variance (or sum of squared correlations) is 3.115—an average squared correlation of 0.623. Yet the additions of two items not only seems desirable from general considerations, but also raises the variance of the index by almost 27 percent.

Scaling the Index

The index so far described is in terms of the z's. Specifically, it can be written

$$I=w_1z_1+w_2z_2+w_3z_3 \tag{13}$$

But each $z_i=x_i/s_i$, where s_i is the standard deviation of X_i. So the index can be written

$$w_1\frac{X_1}{s_1}+w_2\frac{X_2}{s_2}+w_3\frac{X_3}{s_3} \tag{14}$$

Commonly we want to scale the index in such a way that it meets two criteria: (1) when all the items are 0, the index is to be 0; and, (2) when the value of each item in the index is at the national average, the index should be 100. We can scale the index by determining a constant k such that

$$k\left(w_1\frac{\overline{X}_1}{s_1}+w_2\frac{\overline{X}_2}{s_2}+w_3\frac{\overline{X}_3}{s_3}\right)=100, \tag{15}$$

where $\overline{X}_1$, $\overline{X}_2$, $\overline{X}_3$ are the national averages of X_1, X_2, X_3.

Then the scaled index is

$$I_s=\frac{kw_1}{s_1}X_1+\frac{kw_2}{s_2}X_2+\frac{kw_3}{s_3}X_3 \tag{16}$$

A Numerical Example

To illustrate the methods described above, let us construct a level-of-living index based upon only three Census items in each county. These three items will be the percentages of farms with telephones, with homefreezers, and with automobiles. The zero-order correlation coefficients are

$$R=\begin{bmatrix}1.000 & 0.633 & 0.823\\ 0.633 & 1.000 & 0.683\\ 0.823 & 0.683 & 1.000\end{bmatrix} \tag{17}$$

where the order of the three variables is as indicated just above (17).

To get weights for the index we must solve a set of equations such as (7) or the equivalent (9). Equations corresponding to (9) are

$$
\begin{aligned}
w_1+0.633w_2+0.823w_3&=gw_1\\
0.633w_1+w_2+0.683w_3&=gw_2\\
0.823w_1+0.683w_2+w_3&=gw_3
\end{aligned}
\tag{18}
$$

This set of equations has the obvious trivial solution $w_1=w_2=w_3=0$. It also has three nontrivial solutions, each with a different value of g. We are interested here in a solution with the largest positive value of g.

One way of finding such a solution is an iterative process, starting with an arbitrary set of trial values, such as $w_1=w_2=w_3=1.0$. (Here we are concerned only with the proportions between the weights. We do not yet require that the sum of the squared weights equal 1.) Substituting $w_1=w_2=w_3=1.0$ into (18), we get as a second approximation, $gw_1=2.456$, $gw_2=2.316$, $gw_3=2.506$, These numbers are shown in the first column of the lower part of (19). We could use these numbers as second approximations of our weights, but to keep the numbers comparable we shall divide each of them by the first number (i.e., by 2.456). This gives us as a second approximation the weights 1.000, 0.923, 1.020. This process can be continued indefinitely, and will eventually converge to the correct set of weights. When that happens it will be apparent that further iterations will not significantly change the weights.

A simple worksheet for this process is as follows:

Trial values of the w's

(1)	(2)	(3)	(4)	(5)	(6)
1.000	1.000	1.000	1.000	1.000	1.000
1.000	0.943	0.933	0.931	0 930	0. 930
1.000	1.020	1.021	1.021	1.021	1.021

(19) Estimates of gw from (18)

2.456	2.436	2.431	2.430	2.429
2.316	2.273	2.263	2.261	2.260
2. 506	2.487	2. 481	2.480	2. 479

After four iterations we get the set of weights 1.000, 0.930, 1.021. These are apparently correct to three decimals. These numbers are shown in the last column at the top of (19).

The sum of the squares of these numbers is 2.9073, and the square root of this sum is 1.7051. If we want the sum of squares of the index weights to equal 1.0, we must divide each of these numbers by 1.7051. This gives us the weights $w_1=0.586$, $w_2=0.545$, $w_3=0.599$. Thus, one form of the index would be $I=0.586z_1+0.545z_2+0.599z_3$. The variance of this index, in other words the value of g, is 2.429. Also, the sum of the squared correlations between the index and the three items is 2.429. This number is found at the top of the last column in the lower part of (19). It is easy to see that this number equals gw_1, for in this case w_1 is taken as 1.000. Thus the first equation in (18) shows that $2.429=g(1.000)$.

The correlations between each of the three items and the index can be found by multiplying the above weights by $\sqrt{g}$ (i.e. by 1.5586). This gives us the correlations

$$r_{x_1 I}=0.913,\ r_{x_2 I}=0.849,\ r_{x_3 I}=0.934$$

The standard deviations of X_1, X_2, X_3 were $s_1=23.92$, $s_2=14.66$, $s_3=15.18$. Remembering that each $z_i=x_i/s_i$, the equation $I=0.586z_1+0.545z_2+0.599z_3$ can be written.

$$I=0.586\,\frac{x_1}{23.92}+0.545\,\frac{x_2}{14.66}+0.599\,\frac{x_3}{15.18}$$

$$I=0.0245x_1+0.0372x_2+0.0395x_3 \tag{20}$$

This index would be zero for any county with no telephones, no freezers, and no automobiles. But we would like to scale the index so that a county with the average percentages of telephones, freezers, and automobiles would have an index of 100. The national averages (unweighted means of county means) were $\overline{X}_1=64.26$, $\overline{X}_2=55.57$, $\overline{X}_3=79.19$.

Inserting these averages into the above equation (20), we would have an index of 6.7696. Multiplying all the weights in the above equation by $100/6.7696=14.77$, we get the scaled index

$$I_s=0.362X_1+0.549X_2+0.583X_3 \tag{21}$$

Using this scaled index, a county with no telephones, no freezers, and no automobiles would get an index of zero. Also a county in which 64.26 percent of the farms had telephones, 55.57 percent had freezers, and 79.19 percent had automobiles would score

$$I_s=0.362\,(64.26)+0.549\,(55.57)+0.583\,(79.19)=100$$

RELATED REPORTS

The following sources contain information on the development and interpretation of level-of-living indexes.

Hagood, Margaret Jarman. Development of a 1940 rural-farm level-of-living index for counties. Rural Sociology 8: 171-180. June 1943.

_____ Rural level-of-living indexes for counties of the United States, 1940. U.S. Dept. Agr., Bur. Agr. Econ., Washington, D.C. 43 p. Oct. 1943.

_____ and Ducoff, Louis J. What level-of-living indexes measure. Amer. Sociol. Rev. 9: 78-84. Feb. 1944.

_____ Farm-operator family level-of-living indexes for counties of the United States, 1940 and 1945. U.S. Dept. Agr., Bur. Agr. Econ., Washington, D.C. 42 p. May 1947.

_____ Construction of county indexes for measuring change in level of living of farm-operator families, 1940-45. Rural Sociology 12: 139-150. June 1947.

_____ Farm-operator family level-of-living indexes for counties of the United States, 1930, 1940, 1945, and 1950. U.S. Dept. Agr., Bur. Agr. Econ., Washington, D.C. 82 p. May 1952.

_____ Bowles, Gladys K., and Mount, Robert R. Farm-operator family level-of-living indexes for counties of the United States, 1945, 1950, and 1954. U.S. Dept. Agr. Statis. Bul. 204, Washington, D.C. 106 p. Mar. 1957.

Cowhig, James D. Farm operator level-of-living indexes for counties of the United States, 1950 and 1959. U.S. Dept. Agr. Statis. Bul. 321, Washington, D.C. 64 p. Sept. 1962.

U.S. Dept. Agr., Agricultural Marketing Service. Major statistical series of the U.S. Department of Agriculture. How they are constructed and used. Vol. 7: Farm population, employment, and levels of living. Agr. Handb. 118, Washington, D.C. 25 p. Sept. 1957.

Chapter 3 describes the method of constructing county level-of-living indexes, what they measure, problems involved, and limitations of the series.

Other related reports are listed in: Levels of living of U.S. farm families. Selected annotated references 1940-1955, by Janet R. Stanton and Robert R. Mount. U.S. Dept. Agr. Misc. Publ. 746, Washington, D.C. 52 p. Nov. 1957. The bibliography contains 195 references.

Listed below are a few reports of additional research that show the continuing interest in the development and use of indexes to measure levels of living.

Collazo-Collazo, Jenaro; Rios, Jose Mariano; and Ramsey, Charles Eugene. Development of a level-of-living scale for Puerto Rican rural families. Puerto Rico Agr. Expt. Sta. Bul. 156, Rio Piedras. 27 p. Oct. 1960.

Describes the construction and standardization of a 40-item scale used in measuring the variability in the level of living of Puerto Rican rural families.

Cowhig, James D. Urban and rural levels of living: 1960. U.S. Dept. Agr., Agr. Econ. Rpt. 79, Washington, D.C. 18 p. July 1965.

This report, based on a special analysis of the 1-in-1,000 sample tabulations from the 1960 Census of Population and Housing, presents comparisons of urban and rural levels of living.

Danley, Robert A., and Ramsey, Charles E. Standardization and application of a level-of-living scale for farm and nonfarm families. Cornell Univ. Agr. Expt. Sta. Memoir 362, Ithaca. 23 p. July 1959.

Analyzes procedures used in standardizing a 13-item scale for the open-country population (farm and nonfarm) of Broome County, New York. A 9-item scale was derived from and compared with a longer scale.

Dickens, Dorothy. Levels of living of young white farm-operator families in Mississippi. Miss. Agr. Expt. Sta. Bul. 579, State College, 16 p. June 1959. Levels of living of young Negro farm-operator families in Mississippi. Miss. Agr. Expt. Sta. Bul. 580, State College. 16 p. July 1959.

These comparable studies show wide differences between the whites and Negroes in most of the measures reported. The bulletins are intended to provide a basis for educational and counseling services.

Lawson, Edwin D., and Boek, Walter E. Correlations of indexes of families' socioeconomic status. Social Forces 39: 149-152. Dec. 1960.

Seven indexes of socioeconomic status were compared, utilizing data from 1,805 families in 15 urban, suburban, and rural communities.

Mayo, Selz C.; Hamilton, C. Horace; and Pettus, Charles W. Sources of variation in the level of living of farm operators in the United States. Social Forces 39: 338-346. Mar. 1961.

This analysis shows that variations in population composition account for much of the regional variation in level of living in the South.

Pennock, Jean L. Rural family spending and consumption in a low-income area in Kentucky. U.S. Dept. Agr., Home Econ. Res. Rpt. 26, Washington, D.C. 101 p. Aug. 1964.

A study of 346 families living in the open country in five low income counties in south-central Kentucky for the period September 1956 through August 1957. The two measures of level of living used were (1) expenditures for family living made within the schedule year, and (2) the value of goods and services used.

Ramsey, Charles E., and Collazo (-Collazo), Jenaro. Some problems of cross-cultural measurement. Rural Sociology 25: 91-106. Mar. 1960.

Based on data on the level-of-living of 1,654 families in Puerto Rico and 549 families in Broome County, New York. Problems encountered included (1) obtaining a sufficient number of items to develop a scale, (2) testing the validity of the items, and (3) scoring the items.

Reuss, L.A., and Gilbraith, K.M. Resource characteristics and utilization and level-of-living items, rural households, North and West Florida, 1956. Florida Agr. Expt. Sta. Agr. Econ. Mimeo. Rpt. 60-11, in cooperation with Econ. Res. Serv., U.S. Dept. Agr., Gainesville. 130 p. Mar. 1960.

Contains tables showing 13 level-of-living items by net cash family income for farm and nonfarm households and by color of household.

Stockwell, Edward G. A socioeconomic ranking of counties in Connecticut and the Northeast region: 1960. Storrs Agr. Expt. Sta. Res. Rpt. 2, Storr. 18 p. Jan. 1965.

Describes statistical procedures used to derive the socioeconomic index score used in ranking the 299 counties in the Northeast Land Grant College Region.

Straus, Murray A. A technique for measuring values in rural life. Washington Agr. Expt. Sta. Tech. Bul. 29, Pullman. 34 p. Aug. 1959.

Describes procedures for adapting the "forced choice" technique to rural sociological studies resulting in the "Rural Attitudes Profile" designed to measure the following variables: innovation proneness, rural life preference, primary group preference, and economic motivation.

United Nations. Economic and Social Council. New York. Report on international definition and measurement of standards and levels of living. E/CN. 3/179, E/CN. 5/299. 95 p. 1954.

_____ General conclusions concerning statistical aspects of international definition and measurement of levels of living. E/CN.3/214. 19 p. Feb. 1956.

_____ International definition and measurement of levels of living. An interim guide. E/CN.3/270 Rev. 1, E/CN.5/353. 18 p. 1961.

These reports describe studies made by specialized agencies of the United Nations. Reports stress that because of lack of national statistics, especially in underdeveloped countries, international comparisons are difficult at present. The data obtained are useful in comparing various socioeconomic groups in specified areas.

United Nations. Department of Economic and Social Affairs, New York. Handbook of household surveys. A practical guide for inquiries on levels of living. (Provisional Edition). Studies in Methods. ST/Stat/Ser.F/10. 172 p. 1964.

Contains basic types of questions and methods which may be used to obtain, through household surveys, broad statistical assessment of certain aspects of levels of living conditions. It is intended as a guide for statisticians. The actual questions must fit local conditions and usually some prior experimentation with various types of questions is required.

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