Rural-Urban POPULATION CHANGE *and* MIGRATION *in Missouri 1940-1950*

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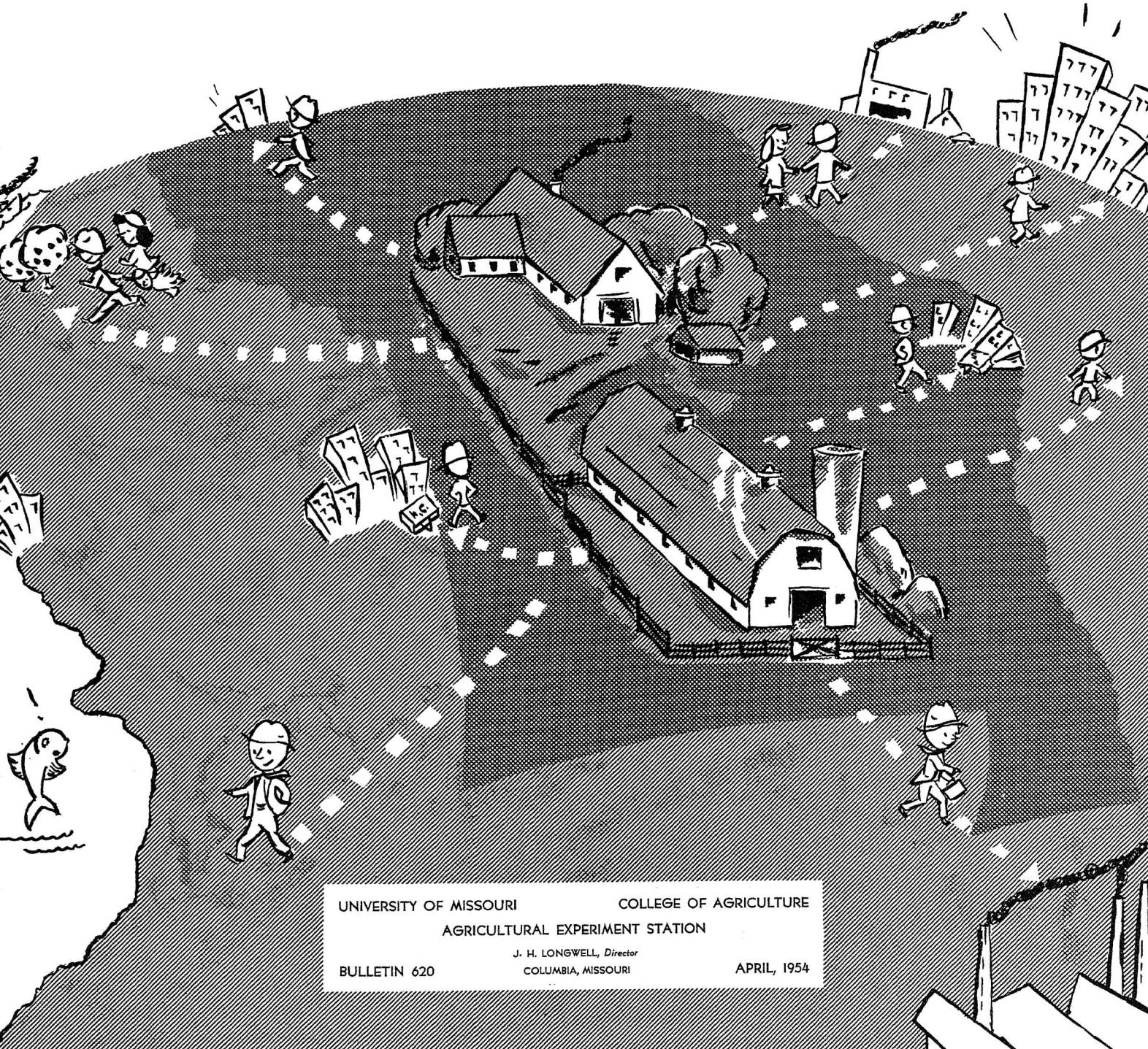

UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
J. H. LONGWELL, *Director*
BULLETIN 620 COLUMBIA, MISSOURI APRIL, 1954

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Contribution from the Missouri Agricultural Experiment Station as a collaborator under North Central Region cooperative research project N. C. 18 entitled "Population Dynamics in the North Central Region and Related Rural Social and Economic Problems."

Report on Department of Rural Sociology Research Project Number P-27, Entitled "Rural Population"

Rural-Urban Population Change And Migration In Missouri 1940-1950

ROBERT L. MCNAMARA, PETER NEW, AND
DONNELL PAPPENFORT

POPULATION GROWTH TO 1950

Early Settlement Patterns[1]

Prior to the Louisiana Purchase of 1804, the white population in Missouri resided mainly along the Mississippi River. The new annexation brought a stream of migrants who moved westward and inhabited an area bordering the Missouri River and extending west to Liberty in Clay County. Some settlements were established in the White River region, in Stone and Taney Counties to the south.

The area of settlement in 1820 can be divided roughly into five principal districts: The New Madrid, Cape Girardeau, Ste. Genevieve, St. Louis, and Boone's Lick districts.

Population doubled during the decade of 1820-30, with most of the immigrants coming from Virginia, Kentucky, North Carolina, and Tennessee into Boone's Lick district in Central Missouri and spreading into the counties both north and south of the Missouri River.

The northern half of the State was settled by migrants from New England, New York, Pennsylvania, and Ohio. Numerous overseas immigrants entered the counties bordering St. Louis; Germans, Poles, and Irish were the predominant foreign nationalities. By 1840, most of Missouri, with the exception of the Ozark and southeast Missouri regions, was settled.

Population Growth Since 1830

A Federal census has been taken at the beginning of each decade since the admission of Missouri to the Union. Starting in 1830 with about 140,000 persons, the population increased at a rapid rate and by the turn of the century had exceeded 3 million. In the half century since, growth has been at a less rapid rate, but by 1950 nearly 4 million people were recorded in the State. Up to 1900 the largest portion of the population growth was due to increases in rural residents, but since the turn of the century the rural population has declined steadily, with the exception of a small increase during the 1930-40 decade. During these 50 years, the urban part of the population continued to gain so that by 1930 more than one-half of the total was urban. This urban majority continued to increase through the 1950 census (Table 1).

TABLE 1 -- RURAL AND URBAN POPULATION, MISSOURI, 1830-1950

Year	Total	Rural	Urban	Percentage change over preceding decade: Total	Rural	Urban
1830	140,455	135,478	4,977	-----	-----	-----
1840	383,702	367,233	16,469	173.2	171.1	230.9
1850	682,044	601,486	80,558	77.8	63.8	389.1
1860	1,182,012	978,525	203,487	73.3	62.7	152.6
1870	1,721,295	1,291,717	429,578	45.6	32.0	111.1
1880	2,168,380	1,622,387	545,993	26.0	25.6	27.1
1890	2,679,185	1,822,219	856,966	23.6	12.3	57.0
1900	3,106,665	1,978,561	1,128,104	16.0	8.6	31.6
1910	3,293,335	1,899,630	1,393,705	6.0	- 4.0	23.5
1920	3,404,055	1,817,152	1,586,903	3.4	- 4.3	13.9
1930	3,629,367	1,770,248	1,859,119	6.6	- 2.6	17.2
1940	3,784,664	1,823,968	1,960,696	4.3	3.0	5.5
1950[a]	3,954,653	1,769,351	2,185,302	4.5	- 3.0	11.5

[a]The 1950 population is classified according to the 1940 definitions of urban and rural populations.

Rural Population Near Cities Increased

The increase in rural population near cities indicates a continuation of the national trend toward suburbanization. Primarily, it represents a movement of urban-employed workers into unincorporated areas in the "urban fringe." The decline in number of farms by one-fifth in the four metropolitan counties shows clearly that the rural-farm population is declining in the territory adjacent to the two largest cities of the State. Conversely, the rural-nonfarm population has increased rapidly in these areas. In the Kansas City metropolitan area, 84 percent of the rural population was nonfarm by 1950, in contrast with 72 percent in 1940. The St. Louis area showed a similar change where 93 percent of the rural population in 1950 consisted of nonfarm residents, compared with 84 percent in 1940.

Numerically, more than one-third of a million rural residents were counted in the 1950 Census in these two metropolitan areas. More than 300,000 of this total were nonfarm people, which is equivalent to a 56 percent increase since the 1940 Census.

[1]This is based largely on C. T. Pihlblad, "Population," Chapter 9, in *Missouri: It's Resources, People, and Institutions,* University of Missouri 1950, pp. 201-202.

POPULATION CHANGE BY ECONOMIC AREAS, 1940-50

The population of Missouri increased 4.5 percent during the decade 1940-1950. Closer examination reveals that the growth was in the large metropolitan areas and cities while a decided decline occurred in the open country areas.

Economic Areas

Changes in Missouri's population during the 1940's were brought about by various social and economic factors such as industrial change, mechanization of agriculture, and decline of natural resources. To understand and interpret the differential growth of population due to these factors, a recent delineation of the economic areas of the State has been used.[2]

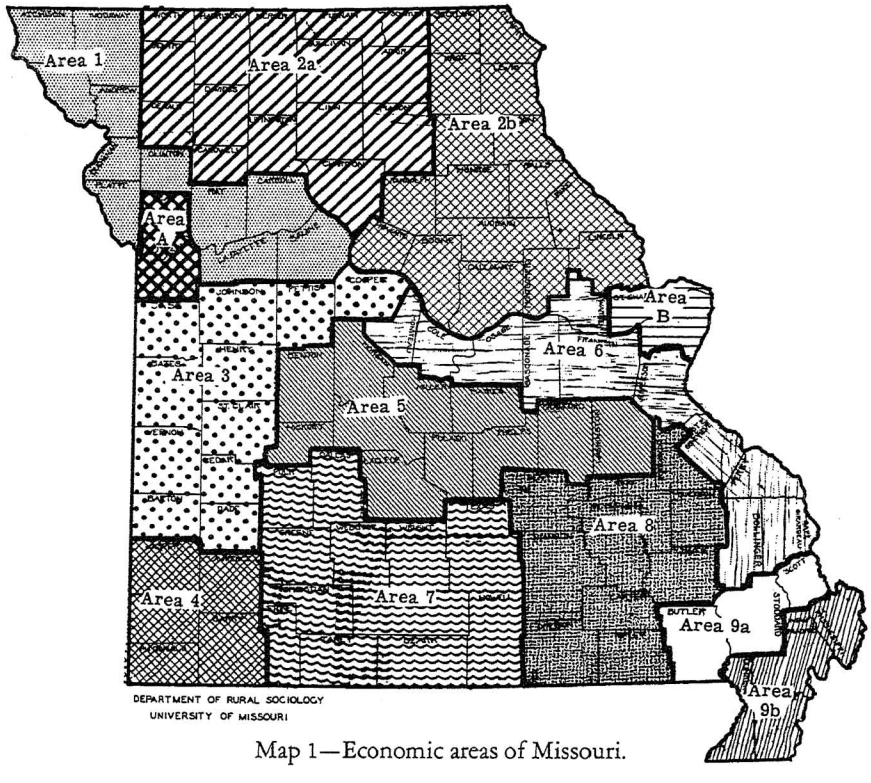
Missouri has within its boundaries two cities with populations above 100,000. One of these is Kansas City which, together with the adjacent counties of Clay and Jackson, is designated on Map 1 as Area A. The other, St. Louis, together with St. Louis and St Charles Counties, is called Area B. These two areas will be referred to by the capital letters *A* and *B,* and also as the *metropolitan areas.*

All other Missouri counties are classified into *nonmetropolitan areas.* There are nine such areas in the State; two of these (Areas 2 and 9) are further divided into sub-areas. The nonmetropolitan areas will be identified by arabic numerals and their sub-areas by the addition of *a* and *b.*

The boundaries of the nonmetropolitan areas were delineated on the basis of a number of indexes. Type of farming was important as well as industrial and population characteristics. These nonmetropolitan areas vary in size from 5 to 32 counties, in population from 13,000 to 121,000, and in number of farms from 12,000 to 47,000.

Area 1, in the northwest, has the highest rural living levels in the State. Livestock and livestock products are the chief sources of income for this area. The produce sold in this area accounting for nearly 20 percent of the State total value of farm products sold or used, gives it the highest farm property value in the State.

Area 2, situated in the northern part of the State and subdivided into Areas 2a and 2b, is predominantly livestock country; although corn is the chief product in the western section. Farms are well mechanized and the rural levels of living fairly high.



Map 1—Economic areas of Missouri.

[2]Donald J. Bogue, *State Economic Areas,* U. S. Bureau of the Census (Washington, D. C.: Government Printing Office, 1951).

Area 3, in the southwest, has mixed farming with wheat predominant in the western section (prairie country). Cattle and corn are raised in the rest of the area. The rural level of living in Area 3 is well above the State average.

Area 4, in the southwest corner of the State, has a large dairy industry with one-third of all dairy farms in the State being concentrated in that area. Rural living level is about equal to the average for the State.

Areas 5 and 6, in the central-southeast portion of the State contain a large number of livestock farms. The income from sale of livestock and livestock products accounts for 90 percent of all products sold in this area. The rural levels of living are relatively low.

Area 7, in the south, is another major dairy producing section of the State, with about one-third of all dairy farms in the State centering in the western part of the area. Area 7 has the highest value of dairy products sold of any region in the State. A large number of unclassified farms are located in the eastern part of the area. The rural level of living is about 25 percent below the State average.

Area 8, in the south, derives its largest income outside of farming from lead mining. The rural levels of living are lower than in any other economic area and a majority of the farms are unclassified, although there are some livestock farms. The median income of the families of this region is the lowest in the State.

Area 9, commonly known as the "boot-heel" area of the State, is divided into a northern and southern part (identified as 9a and 9b). About 12 percent of the population is non-white, which is a higher concentration of non-white farm population than found in any other economic area of the State. There are three times as many tenants and share croppers as owners on the farms. Although there are some livestock farms in the northern part, nearly 60 percent of the farmers in this area (9) grow cotton on very fertile land. The rural levels of living are lower than in any other economic area of the State with the exception of Area 8.

Recent Population Changes

Population increased 4.5 percent between 1940 and 1950 (Table 2). The metropolitan areas (A and B) had a uniform percentage increase of slightly more than 15 percent. Considered as a whole, the nonmetropolitan areas decreased about 4.0 percent.

TABLE 2 -- CHANGE IN TOTAL POPULATION, ECONOMIC AREAS, MISSOURI, 1940-50

Area	1940	1950[a]	Change 1940-50 Number	Change 1940-50 Percent
The State	3,784,664	3,954,653	169,989	4.5
Metropolitan Areas	1,624,085	1,879,235	255,150	15.7
A	508,245	586,256	78,011	15.4
B	1,115,840	1,292,979	177,139	15.9
Nonmetropolitan Areas	2,160,579	2,075,418	-85,161	-3.9
1	278,907	263,856	-15,051	-5.4
2	494,715	460,746	-33,969	-6.9
2a	226,183	194,337	-31,846	-14.1
2b	268,532	266,409	-2,123	-0.8
3	210,231	191,635	-18,596	-8.8
4	171,676	166,665	-5,011	-2.9
5	138,129	130,521	-7,608	-5.5
6	222,218	227,590	5,372	2.4
7	258,265	257,417	- 848	-0.3
8	134,026	120,028	-13,998	-10.4
9	252,412	256,960	4,548	1.8
9a	97,662	104,012	6,350	6.5
9b	154,750	152,948	-1,802	-1.2

[a]1940 definitions.

All nonmetropolitan areas except Area 6 and Sub-area 9a, which increased 2 and 6 percent, respectively, lost population during the decade. The largest percentage losses were in Area 8 and Sub-area 2a.

Every area experienced an increase in urban residents as indicated by Table 3,[3] especially in the areas where a number of sizeable cities were located.[4] The largest percentage increase occurred in Area 5; however, the numerical growth was only 6,172.[5] The greatest numerical gains, together with high percent-

TABLE 3 -- URBAN POPULATION CHANGE BY ECONOMIC AREAS, MISSOURI, 1940-50

Area	1940	1950[a]	Change 1940-50 Number	Change 1940-50 Percent
The State	1,960,696	2,185,302	224,606	11.5
Metropolitan Areas	1,377,665	1,537,990	160,325	11.6
A	426,394	494,235	67,841	15.9
B	951,271	1,043,755	92,484	9.7
Nonmetropolitan Areas	583,031	647,312	64,281	11.0
1	113,813	117,895	4,082	3.6
2	120,889	139,174	18,285	15.1
2a	41,406	41,809	403	1.0
2b	79,483	97,365	17,882	22.5
3	52,557	54,547	1,990	3.8
4	68,531	71,532	3,001	4.4
5	12,756	18,928	6,172	48.4
6	78,457	85,518	7,061	9.0
7	67,900	75,131	7,231	10.6
8	19,434	20,638	1,204	6.2
9	48,694	63,949	15,255	31.3
9a	25,264	34,451	9,187	36.4
9b	23,430	29,498	6,068	25.9

[a]1940 definitions.

[3]Throughout this report, the 1940 definitions of urban and rural have been used. See Appendix 2 in Hagood, M. J., and Sharp, E. F., "Rural-Urban Migration in Wisconsin: 1940-1950", *Research Bulletin 176,* Madison, Wisconsin: University of Wisconsin, August, 1951 pp. 51-52, for a discussion of the comparability of the data for 1940 and 1950.

[4]Again, the change in the definition of urban areas affected the population in the metropolitan areas.

[5]In 1950 Rolla and Lebanon, which had a population of 5,141 and 5,025, respectively, in 1940, increased their population to 9,354 and 6,808 respectively. These increases accounted for 97.1 percent of the gain in Area 5.

age increases, were in Area 9 and Sub-area 2b. Together, these two regions contributed more than one-half of the urban increase in nonmetropolitan areas. The metropolitan areas, with large urban population bases in 1940, show only moderate percentage increases; however, the gains account for 71 percent of the State urban growth.

The rural population shows a different pattern (Table 4). Every nonmetropolitan area experienced a net loss of rural population while both metropolitan areas gained. The gains in metropolitan areas were more than offset by the nonmetropolitan losses, resulting in a net rural decline of 54,617, or 3.0 percent. The rural increase was higher surrounding St. Louis (51 percent) than in the Kansas City metropolitan area. Among the nonmetropolitan areas, Sub-area 2a had both the largest numerical and percentage decrease in the State while Area 6 experienced the smallest loss.

TABLE 4 -- RURAL POPULATION CHANGE BY ECONOMIC AREAS, MISSOURI, 1940-50

Area	1940	1950[a]	Change 1940-50 Number	Change 1940-50 Percent
The State	1,823,968	1,769,351	-54,617	-3.0
Metropolitan Areas	246,420	341,245	94,825	38.5
A	81,851	92,021	10,170	12.4
B	164,569	249,224	84,655	51.4
Nonmetropolitan Areas	1,577,548	1,428,106	-149,442	-9.5
1	165,094	145,961	-19,133	-11.6
2	373,826	321,572	-52,254	-14.0
2a	184,777	152,528	-32,249	-17.5
2b	189,049	169,044	-20,005	-10.6
3	157,674	137,088	-20,586	-13.1
4	103,145	95,133	-8,012	-7.8
5	125,373	111,593	-13,780	-11.0
6	143,761	142,072	-1,689	-1.2
7	190,365	182,286	-8,079	-4.2
8	114,592	99,390	-15,202	-13.3
9	203,718	193,011	-10,707	-5.3
9a	72,398	69,561	-2,837	-3.9
9b	131,320	123,450	-7,870	-6.0

[a]1940 definitions.

Rural Farm Population Decreased

The shift in rural population during the last decade, 1940-50, has been from the country to the metropolitan areas and to the cities of more than 2,500. The increase in rural population that took place in metropolitan areas A and B reflects a residence trend on the part of urban-employed workers, rather than an increase in the agricultural population. However, for the rest of the State, the decrease has been significant.

In the overall rural population decline, the loss was mostly among rural-farm people. The farm population nearest the largest cities decreased almost one-third while in the nonmetropolitan areas the loss was about 22 percent, varying from 19 percent in Sub-area 9a to over 28 percent in Area 8.

TABLE 5 -- NUMBER AND PERCENT CHANGE OF RURAL-FARM AND RURAL-NONFARM POPULATION, 1940-1950.

Area	Rural-Farm Number 1940	Rural-Farm Number 1950	Rural-Farm Percent Change	Rural-Nonfarm Number 1940	Rural-Nonfarm Number 1950	Rural-Nonfarm Percent Change
The State	1,112,430	863,496	-22.4	705,324	658,442	- 6.6
Metropolitan	48,993	32,752	-33.2[a]	197,427	94,706	-52.0[a]
A	22,963	14,752	-35.8	58,888	38,409	-34.8
B	26,030	18,000	-30.8	138,539	56,297	-59.4
Nonmetropolitan	1,063,437	830,744	-21.9	507,897	563,736	11.0
1	90,822	73,640	-18.9	58,309	61,359	5.1
2	251,777	193,981	-23.0	131,798	135,871	3.1
2a	130,890	98,485	-24.8	63,636	62,323	-2.1
2b	120,887	95,496	-21.0	68,162	73,548	7.9
3	108,077	84,838	-21.5	49,597	47,102	-5.0
4	67,481	54,131	-19.8	35,664	41,002	15.0
5	73,786	54,846	-25.7	37,894	44,545	17.6
6	96,112	76,758	-20.1	47,649	59,874	25.6
7	154,393	123,632	-19.9	49,665	58,932	18.6
8	70,073	50,159	-28.4	44,519	49,231	10.6
9	150,916	118,759	-21.3	52,802	65,820	24.6
9a	52,929	42,745	-19.2	19,469	26,816	37.7
9b	97,987	76,014	-22.4	33,333	39,004	17.0

[a]Due to changes in the definition of urban population, the metropolitan farm and nonfarm populations are not strictly comparable.

BIRTHS AND DEATHS, 1940-49

Population change in a given area is the result of additions to the population (births and in-migrants) and removals (deaths and out-migrants). If there were no movement of people into or out of an area then the difference between the births and deaths (natural increase) would be a complete measure of population

change. In reality, however, birth and death rates provide only a partial explanation of the growth or decline of a population.

Changes in the Birth Rate

During the 1940-49 decade a rapid increase was experienced in the crude birth rate. From 1940 to 1947, nearly 50 percent gain was registered, and at the close of the decade the birth rate was about one-third higher than 10 years earlier (Table 6). Since 1946, the crude birth rates in Missouri have been more than 20 per thousand of population and are considerably higher than any of the birth rates reported since the State became a part of the birth registration area in 1927.

TABLE 6 -- CRUDE BIRTH RATES IN MISSOURI BY URBAN AND RURAL RESIDENCE, 1940-49

Year	Births per 1,000 mid-year population		
	Total	Urban	Rural
1940	16.2	15.8	16.7
1941	17.1	16.9	17.4
1942	18.4	19.0	17.6
1943	19.5	20.3	18.6
1944	19.2	19.6	18.8
1945	18.9	19.8	17.8
1946	21.7	22.9	20.3
1947	23.7	24.3	22.8
1948	22.2	22.8	21.6
1949	21.8	22.2	21.4

Source: Births by urban and rural residence according to 1940 definitions were obtained from reports of the National Office of Vital Statistics (formerly the Bureau of the Census). Population estimates for the total population are from the Bureau of the Census, P-25, No. 47. The urban-rural distribution of the population was estimated by interpolation between April 1940 and April 1950.

Crude rural birth rates traditionally have been higher than urban rates but during the 1940-49 decade this relationship was reversed in Missouri. For the last eight years of the decade (since 1942) crude urban birth rates have exceeded those of the small towns and open country. Birth rates in Missouri are now sufficiently high to more than replace population.

A rise in the birth rate occurred in every economic area of the State during the decade of the 40's. There was little difference between urban and rural crude birth rates in either 1940 or 1949, although by the latter year the birth rates had increased more than one-third in most of the economic areas. The sharpest rise of both urban and rural birth rates occurred in the most urbanized areas of the State—in the metropolitan areas including Kansas City and St. Louis—and by 1949 the crude birth rate of the metropolitan areas was not exceeded by any economic area of the State, with the exception of southeast Missouri (Table 7).

Outside of the two metropolitan areas (A and B), Missouri is a predominantly rural State. When the nonmetropolitan economic areas are arranged as in Figure I to show how increases in the crude birth rate appear when plotted against the percentage of the population that was urban in 1940, it is apparent that the more urban and the less urban areas have both experienced increases in the birth rate. For example, there were 5 nonmetropolitan economic areas with gains of more than 4 points in the crude birth rate. Two of these areas were among the most rural in the State, having less than 15 percent urban population in 1940, but two others were among the most urban of the economic areas with more than 30 percent of their population living in cities.

TABLE 7 -- BIRTH RATES[a] FOR ECONOMIC AREAS OF MISSOURI, 1940 AND 1949

Area	1940			1949		
	Total	Urban	Rural	Total	Urban	Rural
The State	16.3	16.1	16.5	21.8	22.2	21.4
Metropolitan	14.9	15.4	12.4	22.3	22.5	21.4
A	15.0	16.1	9.2	22.2	22.1	22.6
B	14.9	15.1	14.0	22.3	22.6	21.0
Nonmetropolitan	17.3	17.7	17.1	21.4	21.4	21.3
1	15.2	15.4	14.9	19.0	18.7	19.2
2	15.6	15.8	15.5	19.3	20.5	18.8
2a	15.6	15.9	15.5	18.5	21.6	17.6
2b	15.6	15.8	15.5	19.9	20.1	19.8
3	14.9	16.3	14.4	18.1	18.2	18.1
4	17.5	18.6	16.8	20.2	20.8	19.7
5	18.3	27.0	17.5	22.3	24.7	21.9
6	16.8	17.8	16.2	21.9	21.9	21.9
7	18.0	18.1	17.9	21.8	22.3	21.6
8	20.2	21.2	20.1	22.2	25.6	21.5
9	22.1	22.9	22.0	28.9	27.6	29.3
9a	21.9	20.9	22.2	27.0	25.8	27.7
9b	22.3	25.1	21.8	30.2	29.9	30.3

Source: See Footnote to Table 6.
[a]Per 1,000 population.

When Figure 1 is examined for urban and rural birth rates separately, the effect of urbanity is still not

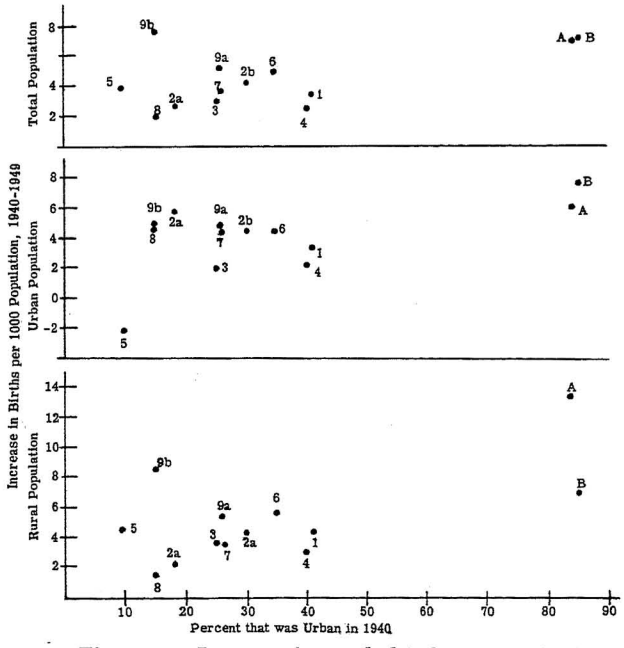


Figure 1—Increase in crude birth rate, 1940-49, in relation to percentage of the population that was urban in 1940, by economic areas.

clear. In urban population, 7 of the 11 nonmetropolitan economic areas had gains in the birth rate of from 4 to 6 points, but these gains had little relationship with the extent of urbanization. Only in the rural population of the nonmetropolitan economic areas is a relationship evident between increase in birth rate and extent of population that was urban in 1940. Here the areas with a higher proportion of their population living in urban areas showed higher rates of increase in their birth rates during the 1940-49 decade (Figure 1).

Apparently, factors causing the rise of birth rates have not had an equal effect on rural and urban populations. Only a slight correlation is observable in Figure 2, which portrays the increase in rural birth rates plotted against the increase in urban birth rates.

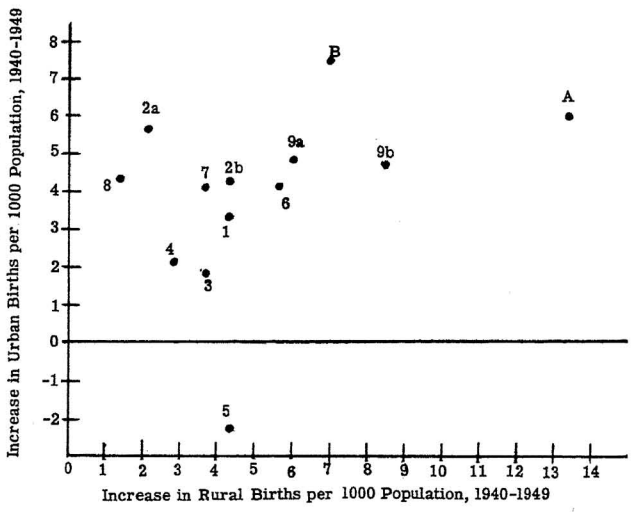


Figure 2—Increase in rural birth rate in relation to increase in urban birth rate, 1940-49, by economic areas.

Another set of factors was used to discover how the rural birth rates were related to prosperity among farmers during the decade. A measure of the degree of prosperity among farmers is available in the form of farm operator level of living indexes for 1940 and 1950, published by the Bureau of Agricultural Economics, U. S. D. A. Figure 3 shows the 1940 rural birth rate plotted against the 1940 farm operator level of living index with a line connecting the two points the 1949 rural birth rate plotted against the 1950 level of living index with a line connecting the two points for each economic area.

The pattern exhibited by the 1940 plotting shows a rather clear negative relationship between birth rate and level of living of farm operators at the beginning of the decade. That is, rural birth rates tended to be high in economic areas of low level of living and were

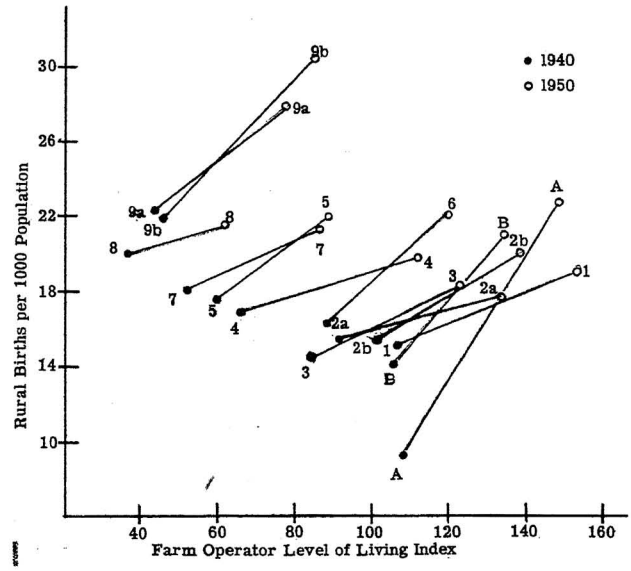


Figure 3—Increase in rural birth rate, 1940-49, in relation to increase in farm operator level of living index, 1940-50, by economic areas.

generally lower in areas of relatively high levels of living.

In 1949-50 the pattern was considerably different. Economic areas of relatively low level of living no longer had the highest birth rates and the more prosperous areas generally showed greater gains in birth rates. The net effect was that by 1950 the birth rates in the various economic areas of the State were more nearly equal, regardless of their level of living differences. This is another way of saying that although birth rates moved upward in every economic area during the decade, the greatest gains were reported in areas with higher levels of living. The outstanding exception was in economic area 9, the subdivisions (9a and 9b) of which constitute the Mississippi Delta area of southeast Missouri. Birth rates in the Delta area have long been maintained at high levels. In this area, 1940 birth rates were at a high level not reached by the other economic areas of the State until 10 years later. And during the 1940-50 decade, birth rates continued to rise in southeast Missouri with an increase in the farm operator level of living, much the same as in the rest of the State.

Death Rates 1940-49

Death rates moved downward slightly during the decade. The crude death rate for Missouri was 11.6 (per 1,000 population) in 1940 and 11.2 in 1949. When death rates are computed for specific age groups, it is clear that some improvement in mortality occurred in all groups indicated in Table 8, but the

TABLE 8 -- AGE SPECIFIC DEATH RATES[a], MISSOURI, 1940, 1949-50

Age	1940	1949-50
All ages	11.6	11.2
Under 5 years	13.2	7.8
5 - 14 years	1.0	0.6
15 - 44 years	3.1	2.1
45 - 64 years	14.1	12.6
65 years & over	69.6	62.9

Source: Reports of Missouri State Division of Health, 1940, 1949, 1950; U. S. Census of Population 1940, 1950.

[a]Per 1,000 population of specified age.

gains were most pronounced among children under 5 years of age.

The small improvement in the crude death rate was due entirely to reduction of the urban rate which dropped from 12.8 to 11.6 while the rural rate increased slightly from 10.3 to 10.7 per 1,000 population in the 10-year period.

In general, the reductions in death rates occurred in those areas, both urban and rural, in which in-migration was found, but this has been primarily due to the younger age group who in-migrated. Conversely, the areas, largely nonmetropolitan rural, losing population by migration tended to show a rise in death rate due to the increasing proportion of older persons.

Out-migration from the rural areas of the State could be expected to consist largely of young adults and few older people so that such movement out of an area would result in higher crude death rates. It does not mean that there has been a deterioration in general health conditions. Good examples of the effect of migration on crude death rates can be seen in economic areas 2b, 5, and 9a. These are economic areas of sizable additions to urban residence by in-migration and of large removals from rural residence by out-migration. Presumably it is because of this interchange that decline of the urban, and increase of the rural death rates have occurred (Table 9).

TABLE 9 -- CRUDE DEATH RATES[a] FOR ECONOMIC AREAS OF MISSOURI, 1940-1949

Area	1940			1949		
	Total	Urban	Rural	Total	Urban	Rural
The State	11.6	12.8	10.3	11.2	11.6	10.7
Metropolitan	11.8	12.3	8.6	10.8	11.5	7.2
A	11.8	12.2	9.4	11.0	11.5	8.0
B	11.7	12.3	8.2	10.6	11.5	6.9
Nonmetropolitan	11.5	14.0	10.5	11.6	11.7	11.6
1	12.3	15.2	10.3	12.1	12.7	11.5
2	12.3	14.1	11.6	13.2	11.7	13.9
2a	11.4	13.3	10.9	14.2	14.7	14.0
2b	13.0	14.5	12.4	12.5	10.5	13.8
3	13.3	16.4	12.2	13.1	13.8	12.8
4	12.2	14.3	10.7	11.5	12.2	10.9
5	10.3	14.8	9.8	11.1	9.5	11.4
6	10.6	11.6	10.1	10.0	9.4	10.3
7	10.4	12.5	9.7	11.0	11.6	10.8
8	10.6	12.7	10.2	10.6	13.7	9.9
9	9.8	13.5	9.0	9.9	10.5	9.7
9a	9.8	12.3	9.0	9.8	9.1	10.2
9b	9.8	14.9	9.0	10.0	12.2	9.4

Source: See footnote to Table 6.

[a]Per 1,000 population.

POPULATION CHANGE BY MIGRATION 1940-1950

The 1940-50 decade was a period of change. On that basis it can be divided into three parts: first, recovery from the depression years; second, the prosperous and unsettling years of the second World War; and third, the period of readjustment following the close of hostilities. These changes necessarily had a considerable effect on the economy of the Nation and upon the personal lives of the people. The demands of war brought about expansion and readjustment in the structure of industry. New factories were constructed and many plants were placed on 24-hour production days. The farms, too, were affected; acreage was expanded and production intensified to meet the demands of a war economy.

Widespread migrations occurred as workers, including many women and older persons who were new additions to the labor force, moved into industrial jobs in response to manpower requirements. Some areas experienced heavy population losses while others became overcrowded. Millions of young men and women, including 450,000 Missourians[6] entered the armed forces. Frequently their families changed residence to remain together. Demand for agricultural products reached new peaks at the same time that the supply of farm labor was greatly reduced. Increased yields through improved efficiency and expansion of acreage through mechanization—to the extent that machinery was available—provided a partial solution.

When World War II ended, many people returned to former homes. Others, however, in their work or military experience had learned new trades, acquired different interests, or established homes in new places. Mechanization of agriculture and changes in industry had contributed to new patterns of employment opportunities. One result was a redistribution of large numbers of people. Rural population losses in Missouri recorded by the 1950 Census are but one evidence of new national alignments of agriculture and industry.

[6]Information supplied by Office of the Adjutant General, Jefferson City, Missouri.

Method of Estimating Net Migration, 1940-50

The method used in estimating net migration was to subtract the deaths that occurred during the decade from the births and add the resulting natural increase to the 1940 enumerated population. This figure was then compared with the 1950 Census count and the difference attributed to the net change resulting from migration.[7]

Natural Increase

In 1940, 57.1 percent of Missouri's population lived in nonmetropolitan areas. By 1950 the proportion residing in metropolitan and nonmetropolitan areas had become more nearly equal (47.5, 52.5). This change can be explained by noting the pattern of natural increase and its retention throughout the State.

There were 363,643 more births than deaths in Missouri during the 1940-50 decade. This excess of births over deaths is termed natural increase and was distributed between metropolitan and nonmetropolitan areas in proportions nearly identical with the 1940 population distribution. The nonmetropolitan areas, which had 57.1 percent of the State population in 1940, contributed 56.5 percent of the natural increase during the decade.

The highest rates of natural increase were concentrated in the nonmetropolitan areas south of the Missouri River and extending from the third tier of counties from the Kansas border on the west to the Mississippi River on the east.[8] Areas 5, 6, 7, and 8 had more than twice as many births as deaths during the decade; Area 9 (Mississippi Delta region) contributed more than three births for each death.

Missouri, as a whole, did not retain its natural increase. More than half of the gain was lost to other states through migration. Although the State population increased about 170,000 during the decade, a net of 193,654 persons was lost to other states through migration.

Retention or loss of natural increase was not uniform throughout the State. The national trend toward urbanization was evident in Missouri For example, the two metropolitan areas (A and B) were the only areas to gain population through migration. They not only retained all of their natural increase but also added 97,000 new residents.

The nonmetropolitan areas, as a whole, actually declined in population; that is, out-migration exceeded natural increase. All of the nonmetropolitan areas had more out-migrants than in-migrants, and all except two (Area 6 and Sub-area 9a) lost more population through migration than natural increase provided.

When migration rates are considered it is evident that nonmetropolitan areas were faced with more ser-

TABLE 10 -- BIRTHS, DEATHS, AND NET MIGRATION, ECONOMIC AREAS OF MISSOURI, 1940-50

Area	Population April 1, 1940	Births April 1940 to April 1950[a]	Deaths Jan. 1940 to Jan. 1950	Net migration April 1940 to April 1950	Population April 1, 1950[b]
The State	3,784,664	794,272	430,629	-193,654	3,954,563
Metropolitan Areas	1,624,085	356,783	198,472	96,839	1,879,235
A	508,245	110,300	62,017	29,728	586,256
B	1,115,840	246,483	136,455	67,111	1,292,979
Nonmetropolitan Areas	2,160,579	437,489	232,157	-290,493	2,075,418
1	278,907	46,830	33,004	- 28,877	263,856
2	494,715	82,899	58,662	- 58,206	460,746
2a	226,183	35,597	25,478	- 41,965	194,337
2b	268,532	47,302	33,184	- 16,241	266,409
3	210,231	34,486	25,707	- 27,375	191,635
4	171,676	37,410	20,061	- 22,360	166,665
5	138,129	30,256	13,410	- 24,454	130,521
6	222,218	44,801	21,402	- 18,027	227,590
7	258,265	55,470	25,141	- 31,177	257,417
8	134,026	28,306	12,506	- 29,798	120,028
9	252,412	77,031	22,264	- 50,219	256,960
9a	97,662	27,952	8,969	- 12,633	104,012
9b	154,750	49,079	13,295	- 37,586	152,948

[a]Adjusted for under-registration.
[b]According to 1940 definitions.

[7]The National Office of Vital Statistics, Public Health Service provided the birth and death data for making migration estimates. The birth data used correspond to the Census decade extending from April 1, 1940 to April 1, 1950. A correction for under-registration of births was made according to a method provided by the National Office of Vital Statistics. Since the distribution of deaths by months does not vary enough to introduce serious error, the death tabulations represent the calendar years, 1940 through 1949. The 1940 Census definitions for rural and urban residence have been followed as closely as possible throughout the study.

[8]Warren County, north of the Missouri River, is included in Area 6; Saline, Pettis, and Cooper counties—south of the Missouri River—fall in Area 3. St. Louis is a metropolitan county.

ious adjustment problems because of changes in population than were the metropolitan areas. The 97,000 metropolitan in-migrants were only 6 percent of the 1940 area population, while the 290,000 nonmetropolitan out-migrants represented 13.4 percent of their 1940 population base. Only one nonmetropolitan area (Sub-area 2b) had an out-migration rate as low as the metropolitan in-migration rate. The other nonmetropolitan out-migration rates ranged from 8.1 to 24.3 percent.

Migration To Cities, 1940-50

Since 1930, the urban population of Missouri has exceeded that of the rural. During the 1940-50 decade, the urban proportion of the total continued to increase so that by 1950, 55.3 percent of the population resided in places of 2,500 or more persons.

Missouri's cities contributed 54.8 percent of all births during the decade, a percentage approximately equal to the 1950 urban proportion of the State population. However, 59.3 percent of all deaths occurred among city residents. For this reason, the excess of births over deaths (natural increase) was nearly identical in rural and urban Missouri.

In effect, the cities retained their natural increase and added an additional 44,774 persons. Rural areas, on the other hand, not only relinquished their entire natural increase but also lost an additional 54,617 persons through migration. Because of this, Missouri's rural population declined both in actual numbers and as a percent of the total (Table 11).

As pointed out, all nonmetropolitan areas in Missouri had net losses due to migration. Table 12 shows that for every nonmetropolitan area the rural out-migration rate was higher than the rate for urban and rural considered together. In no case of urban loss was the rate equal to the lowest rural rate.

Missouri's urban trend was consistent. Not only was three-fourths of the urban growth accounted for in the two metropolitan areas but the only rural gains through migration in the State occurred in the countryside surrounding St. Louis and Kansas City.

It should be noted that the in-migration of 96,839 to metropolitan areas does not mean that the two large cities can claim this growth. Only one-third of this increase occurred within the cities of Areas A and B. Two-thirds of the expansion was in suburban places of less than 2,500 population.

The growth of the rural portion of metropolitan areas does not necessarily indicate expanding agricul-

TABLE 11 -- BIRTHS, DEATHS, AND NET MIGRATION: MISSOURI, RURAL AND URBAN, 1940-50

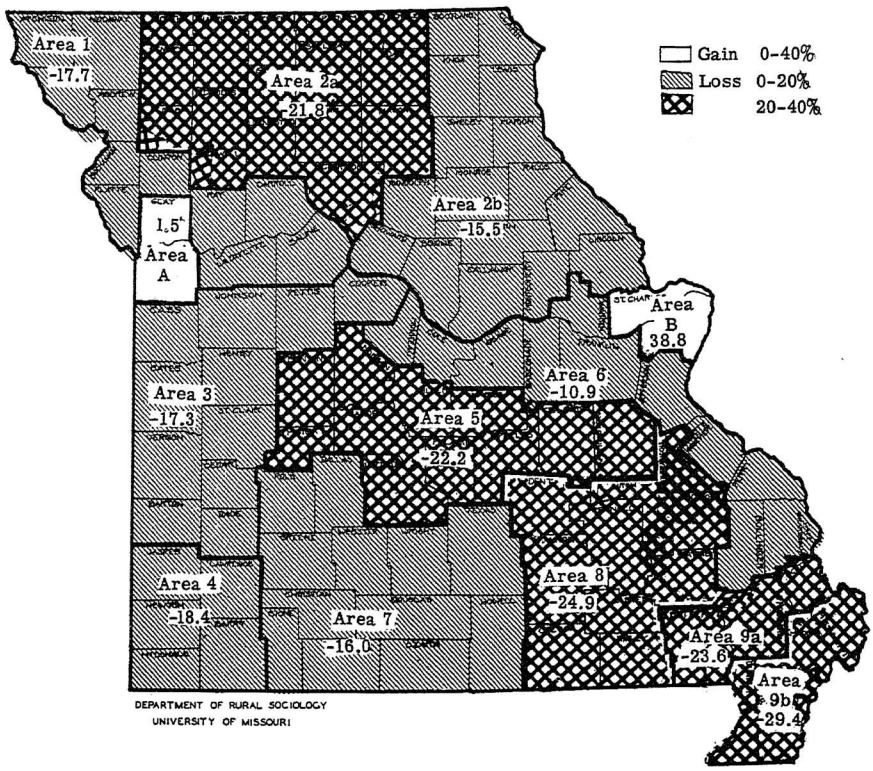
Area	Population April 1, 1940	Births April 1940 to April 1950[a]	Deaths Jan. 1940 to Jan. 1950	Net migration April 1940 to April 1950	Population April 1, 1950[b]
The State	3,784,664	794,272	430,629	-193,654	3,954,653
Urban	1,960,696	435,002	255,170	44,774	2,185,302
Rural	1,823,968	359,270	175,459	-238,428	1,769,351

[a]Adjusted for under-registration.
[b]The 1950 population is classified according to the 1940 definition of urban and rural.

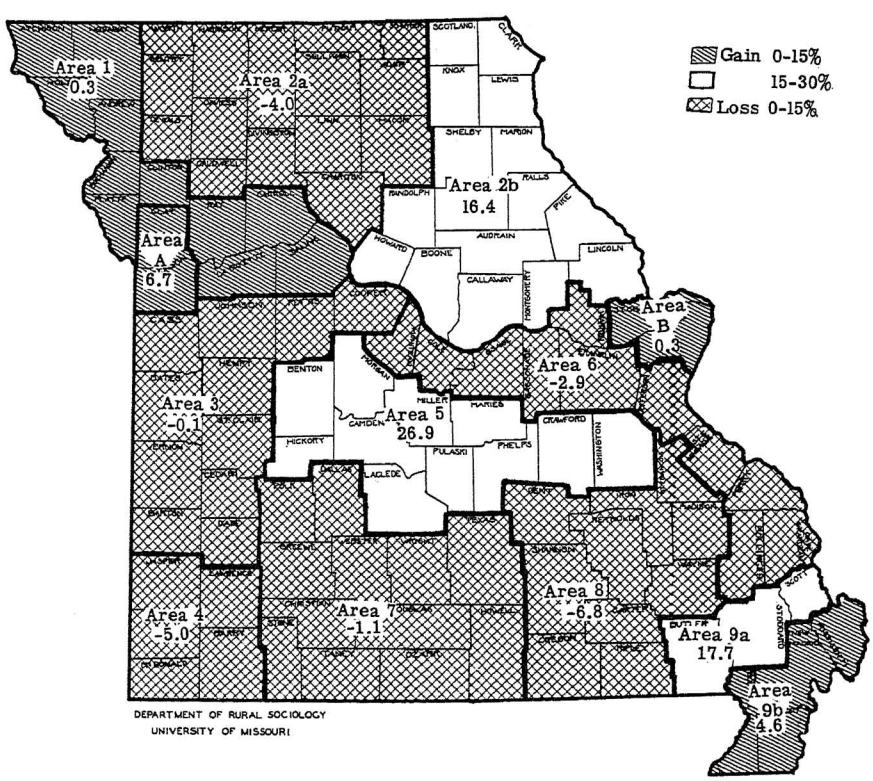
TABLE 12 -- CHANGE DUE TO NET MIGRATION, ECONOMIC AREAS OF MISSOURI, RURAL AND URBAN, 1940-50

	Total Population		Urban Population[a]		Rural Population[a]	
Area	Change due to migration 1940-50	Migration as percent of 1940 population	Change due to migration 1940-50	Migration as percent of 1940 population	Change due to migration 1940-50	Migration as percent of 1940 population
The State	-193,654	- 5.1	44,774	2.3	-238,428	-13.1
Metropolitan	96,839	6.0	31,806	2.3	65,033	26.4
A	29,728	5.8	28,541	6.7	1,187	1.5
B	67,111	6.0	3,265	0.3	63,846	38.8
Nonmetropolitan	-290,493	-13.4	12,968	2.2	-303,461	-19.2
1	- 28,877	-10.4	395	0.3	- 29,272	-17.7
2	- 58,206	-11.8	11,385	9.4	- 69,591	-18.6
2a	- 41,965	-18.6	- 1,668	- 4.0	- 40,297	-21.8
2b	- 16,241	- 6.0	13,053	16.4	- 29,294	-15.5
3	- 27,375	-13.0	- 28	- 0.1	- 27,347	-17.3
4	- 22,360	-13.0	- 3,412	- 5.0	- 18,948	-18.4
5	- 24,454	-17.7	3,430	26.9	- 27,884	-22.2
6	- 18,027	- 8.1	- 2,298	- 2.9	- 15,729	-10.9
7	- 31,177	-12.1	- 722	- 1.1	- 30,455	-16.0
8	- 29,798	-22.2	- 1,321	- 6.8	- 28,477	-24.9
9	- 50,219	-19.9	5,539	11.4	- 55,758	-27.4
9a	- 12,633	-12.9	4,467	17.7	- 17,100	-23.6
9b	- 37,586	-24.3	1,072	4.6	- 38,658	-29.4

[a]According to 1940 definitions.



Map 2—Net gain or loss in rural population due to migration, 1940-50, by economic areas. (Expressed as percentage of the 1940 population).



Map 3—Gain or loss in urban population due to migration, 1940-50, by economic areas. (Expressed as a percentage of the 1940 population.)

ture. In 1940, 71.9 percent of the rural population of Area A was "rural-nonfarm"; the corresponding proportion for Area B was 84.2. In both areas the number of farms declined by one-fifth between 1940 and 1950. Thus, the evidence indicates an increase in the number of suburban "commuters" rather than in the number of farmers.

The suburban growth was not equal for the two metropolitan areas. Nearly all of the gain through migration in Jackson and Clay counties (Area A) occurred in cities; nearly all of the gain in the St. Louis metropolitan area was rural.

Net migration figures do not reveal the extent to which these patterns of change represent direct rural-to-suburban movements, exchange of population with other states, or rural-to-urban migration accompanied by urban-suburban dispersion. All three processes undoubtedly are involved. However, other studies have shown the latter to be typical; rural people migrate to cities at the same time that city residents, many of whom are former rural migrants, are moving to the suburbs.

Most of the urban growth in nonmetropolitan areas was concentrated in northeast Missouri (Sub-area 2b). But this area had little urban growth when an accounting was made of the out-of-county college students who, in 1950, for the first time were counted as residents of the counties in which they were attending school.[9] The Northern Ozarks (Area 5) and the Mississippi Delta Region (Area 9) had high rates of increase only because of the small urban population base located there in 1940.

AGRICULTURAL FACTORS IN MIGRATION

The movement of population to and from the rural areas of Missouri is due not only to the situation prevailing in agriculture, but also to urban developments. During the decade 1930-39, when both agriculture and urban industry were depressed, there was a minimum net rural-urban movement of population. Indeed, for a short time at the depression's worst, a net urban-rural migration apparently occurred. But, with the return of industrial prosperity and the consequent improvement in opportunity for employment, the net rural-urban migration quickly swelled to considerable volume. As the war came on, the demand for manpower to serve in the armed forces, and the rapid mechanization of agriculture were reciprocating factors.

In addition to the rural-urban movement, an important shift of population occurred from urban to rural. In the metropolitan areas of Kansas City and St. Louis, the rural population gained over 65,000, amounting to migration of a number equivalent to more than one-fourth of the rural population living in these metropolitan areas at the beginning of the decade.

Several "streams" of migration may be distinguished that account for the changes occurring in the rural population of Missouri during the 1940-50 decade:

1. **Movement away from farms of entire farm-operator families that were not replaced.** Evidence of this movement lies in the fact that the number of farms declined about 10 percent, accounting for a loss of about 26,000 farms or about 100,000 people during the 10-year period.

2. **Movement of young adults from Missouri farms.** Relatively high rural birth rates have resulted in surpluses of farm youth beyond the capacity of the farm economy to absorb. For example, if Missouri farms had retained all of the farm boys who reached age 25 during the decade 1940-49 there would have been 144 of these young men for every 100 older men leaving the labor force through death or retirement.[10]

3. **Movement of farm wage workers from rural areas.** As evidence of this type of movement, the increased mechanization may be cited, also the reduction of about 22 percent in farm wage expenditures between 1939 and 1949 after allowances are made for the increase in farm wage rates.

4. **Movement of individuals and families from the small villages to urban centers.** The concentration of services and functions in larger centers is but one of the many evidences of social change affecting rural life. Rural people have come to rely on urban centers for many services formerly provided by smaller centers.

Although the number and total population of the small towns of Missouri has changed little in the past decades, the balance has been accomplished by the attraction of the smaller centers for elderly and retired persons from cities and farms. By 1950, about 14 percent of the population of the rural nonfarm places were 65 years of age or older. This proportion was fully 40 percent higher than was reported for the

[9]See Appendix E for a discussion of the relationship between urban growth and college enrollment.

[10]Conrad Taeuber, *Replacement Rates of Rural-Farm Males Aged 25-69 Years, by Counties 1940-50,* BAE, Washington, D. C., Dec., 1944.

farm population or for city residents. The villages and small towns have not retained their natural increase and continue to lose large numbers of young people to urban centers.

5. **Suburban growth, or the movement of many persons with urban employment to rural areas** because of suburbanization of urban industry, difficulty of obtaining housing in the cities, desire to live in the country, and, doubtless, many other reasons. This was particularly true of the metropolitan areas, but this type of movement also occurred in the rural areas adjacent to smaller cities of the State.

With the exception of the metropolitan areas (A and B) the first four types of movement, which involve movement of people *away from* rural areas, were more important than the fifth type, which involved movement *to* rural areas. With the exception of rural territory adjoining Kansas City and St. Louis, rural areas throughout the State experienced net losses due to migration. A relatively small amount of urban-to-rural movement occurred in each of the nonmetropolitan areas but was more than offset by much larger rural to urban movements. Consequently, the net change in rural population due to migration does not fully account for the change due to net migration from farms.

The remainder of this section is devoted to an examination of agricultural changes over the decade that have an important bearing on rural-urban migration, particularly of types 1, 2, and 3 described above.

Reduction in Number of Farms

Because of a change in the definition of a farm, the number of farms reported by the Bureau of the Census for 1950 is not comparable exactly with the number reported for 1940. However, the discrepancy probably is insignificant for practical purposes as the change in definition affected only the smallest farms. Missouri farms under 10 acres in size accounted for only about 5 percent of the total number at both the 1940 and 1950 enumerations.

There were 26,000 fewer farms in Missouri in 1950 than in 1940, ten years previously. Only in the southeast (Area 9) was an increase noted, and there the gain was a very modest one. Elsewhere in Missouri the losses were fairly uniform. The reductions in the metropolitan areas were relatively large but constituted only a small part, less than 10 percent, of the total loss sustained in the State. In the nonmetropolitan sections heavy losses occurred in both the northern areas (1, 2a, and 2b) and the southern areas (5, 6, and 8). In fact, the 12,000 fewer farms in the northern part of the State accounted for nearly one-half of Missouri's total loss (Table 13). The significance of these data with respect to rural-urban migration is that, in Missouri, 93 percent of the farms were occupied by resident farm operator families so that the reduction cited in number of farms must reflect closely a corresponding reduction in farm operator families.

TABLE 13 -- NUMBER OF FARMS, BY ECONOMIC AREAS OF MISSOURI, 1940 AND 1950

Area	Number of Farms 1940	Number of Farms 1950	Percentage Change
The State	256,100	230,045	-10.2
Metropolitan Areas	11,333	9,083	-19.9
A	5,803	4,620	-20.4
B	5,530	4,463	-19.3
Nonmetropolitan Areas	244,767	220,962	- 9.7
1	25,436	21,983	-13.6
2	65,680	57,003	-13.2
2a	33,996	29,163	-14.2
2b	31,684	27,840	-12.1
3	27,778	25,417	- 8.5
4	15,439	15,067	- 2.4
5	19,858	17,088	-13.9
6	22,093	19,763	-10.5
7	32,522	30,353	- 6.7
8	14,530	12,514	-13.9
9	21,431	21,774	1.6
9a	9,161	9,379	2.4
9b	12,270	12,395	1.0

Rise in Farm Levels of Living

A measure of the level of prosperity reached by farmers has been prepared from data provided by the Censuses of Agriculture.[11] The indexes presented in Table 14 relate to the average level of living of farm operators and are based upon a selection of items that enter into the annual consumption of goods and ser-

TABLE 14 -- AVERAGE COUNTY FARM OPERATOR FAMILY LEVEL OF LIVING INDEXES, BY ECONOMIC AREAS OF MISSOURI, 1940, 1945, AND 1950

Area	Average Index Value 1940	1945	1950	Percentage Change 1940-50	1940-45	1945-50
United States		100	122			
The State	78	93	114	46.2	19.2	22.6
Metropolitan Areas						
A	108	140	149	38.0	29.6	6.4
B	105	122	134	27.6	16.2	9.8
Nonmetropolitan Areas						
1	107	130	152	42.1	21.5	16.9
2	95	113	136	43.2	18.9	20.4
2a	91	109	134	47.3	19.8	22.9
2b	101	117	138	36.6	15.8	17.9
3	84	104	122	45.2	23.8	17.3
4	66	84	111	68.2	27.3	32.1
5	60	69	89	48.3	15.0	29.0
6	88	100	120	36.4	13.6	20.0
7	52	66	86	65.4	26.9	30.3
8	37	45	61	64.9	21.6	35.6
9	45	60	80	77.8	33.3	33.3
9a	44	56	77	75.0	27.3	37.5
9b	46	64	85	84.8	39.1	32.8

[11]Margaret Jarman Hagood, *Farm Operator Family Level of Living Indexes for Counties of the United States 1930, 1940, 1945, and 1950,* Bureau of Agricultural Economics, U. S. Dept. of Agriculture, Washington, D. C., May, 1952.

vices by farm families. The data for successive five-year intervals show how farm families compare in the different economic areas and how the average level of living has changed over a period. The indexes have as their base the average county for the United States in 1945. This average has an index value of 100.

During the 1940-50 decade the average level of living index for Missouri farm operator families increased 46 percent and by 1950 was 114. Thus, in 1950 farm family living in Missouri was slightly above that of the average farm family in the United States in 1945 and was somewhat lower than the nation's average of 122 in 1950.

Although every economic area of the State showed large increases in level of living index (increases ranged from 28 to 85 percent), the areas with the lowest indexes in 1940 showed the greatest gains during the decade. The southeast Delta, the Ozark, and southwest Missouri areas improved their level of living scores by at least 65 percent.

Progress in improvement of level of living was somewhat different in the early years of the decade, compared with the post-war years. The differences are most marked between farm operator families in the metropolitan areas and those living in the predominantly rural areas of the State. Farmers living near the largest cities showed greater gains in farm living during the period 1940-45 and much smaller gains in the last five years of the decade. Possibly, during the earlier period, their easier access to employment opportunities in urban war industry had the effect of supplementing farm income and making possible the purchase of goods and services at a more rapid rate than obtained during the post-war years when urban employment of farm people was a less urgent matter. On the other hand, farmers in nonmetropolitan areas experienced a steady demand for farm products throughout the decade and this was reflected in more nearly balanced improvement in the farm operator level of living over the 10-year period.

Perhaps greater interest attaches to the relationship of level of living among farm people and the changes in the number of people who farm. The data in this study show that where the farm family level of living indexes are relatively high, the greatest reduction in number of farms has occurred. In effect, this indicates a reduction in the number of farm families in an area tends to raise the level of living of those who remain. Figure 4 shows this relationship for the various economic areas of Missouri. In eight economic areas having 10 percent, or greater, losses in number of farms over the decade, 6 areas had, by 1950, family level-of-living indexes of 120 or more. The four economic areas which sustained the least loss or reported small gains in number of farms were areas with generally lower levels of living, although their relative prosperity was much improved over that of 1940. It is not contended that the increased prosperity of Missouri farm families is caused by out-migration of many farm families but it is certain that it has been one factor in the rise of farm family living.

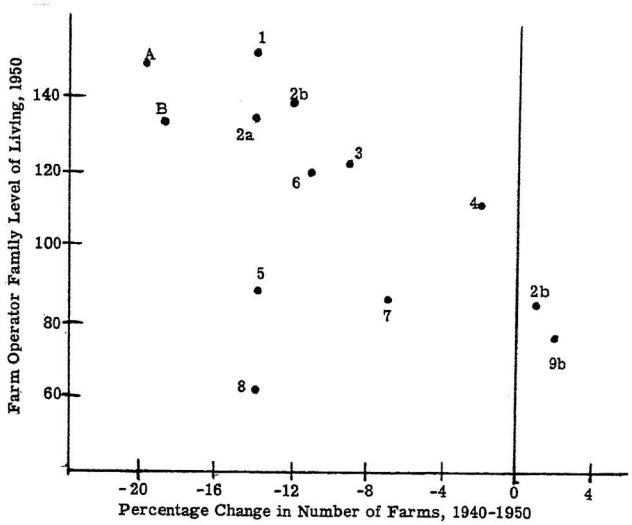


Figure 4.—Farm operator level of living index in relation to percentage change in number of farms, 1940-50, by economic areas.

Change in Use of Hired Labor

In 1939, only 30 percent of the farm operators of Missouri had expenditures for wages during the year (Table 15). The average wage bill for the 77,000 farmers who hired some labor was $184 per farm. During World War II the number of operators who hired some help during the year increased to 109,000 in 1944. This number amounted to 45 percent of all operators. However, the average amount of labor used by farmers who had some hired help decreased 18 percent during the war period.

Several factors were involved in the change. During the war, labor was hired to replace the family members who previously worked on the farm but had entered the armed services or urban industry. And, with expanded operations and more money to spend, a larger number of farmers were able to employ workers. The decline in the amount spent per farm for labor was a result of the sheer scarcity of laborers.

The actual wage expenditure for all Missouri farmers was 5 percent lower in 1944 than in 1939, but this was due largely to the smaller average amount of labor used by farmers who did hire labor.

Between 1944 and 1949 the number of Missouri farmers using hired labor dropped slightly to 108,000. However, the number of farms also decreased, from 243,000 to 230,000 so that the proportion of farmers

TABLE 15 -- PERCENTAGE OF FARMS REPORTING EXPENDITURES FOR HIRED LABOR, 1939, 1944, AND 1949, AND PERCENTAGE CHANGE IN CASH WAGE EXPENDITURES ADJUSTED FOR CHANGE IN PRICE LEVELS, ECONOMIC AREAS OF MISSOURI, 1939 AND 1949

Area	Percent of farms reporting cash farm expenditures			Percentage change in wage expenditures adjusted for change in price level, 1939-49
	1939	1944	1949	
The State	30.0	45.0	47.0	-17.9
Metropolitan Areas	38.1	43.8	43.5	-52.5
A	35.4	37.0	42.9	-45.6
B	40.9	51.6	44.2	-60.2
Nonmetropolitan Areas	29.6	45.0	47.2	-12.9
1	43.7	58.0	58.5	-35.6
2	31.4	47.4	52.2	-16.6
2a	29.1	48.7	54.4	- 9.4
2b	34.0	46.0	49.9	-22.3
3	25.9	47.5	48.1	-27.9
4	20.8	33.1	41.6	- 0.1
5	25.3	37.9	48.1	-21.7
6	30.0	46.6	45.3	-27.8
7	20.7	31.5	38.9	11.5
8	22.5	27.4	30.2	- 9.6
9	51.3	65.3	61.8	7.6
9a	35.9	52.2	56.5	71.5
9b	60.0	74.8	65.9	- 0.6

using hired labor increased from 45 to 47 percent. The amount of expenditure for wages dropped 13 percent during the same period.

For the decade as a whole, every economic area, except the two areas numbered 7 and 9, had some reductions in the use of hired labor. The substitution of hired labor for share croppers in Area 9 may account for much of the 72 percent increase in expenditure for labor there, while increased dairy production in the southern part of the State is probably related to the 12 percent increase in Area 7.

The reduction between 1939 and 1949 in the use of hired labor in nonmetropolitan areas was heaviest in the northern sections of the State. The reduction of expenditures in the metropolitan areas was significantly large.

Trends in the use of hired labor indicated by the data on wage expenditures are supported by the census data on the number of hired workers actually employed at the time of the census. The week to which the employment figures relate was several weeks later in 1950 than in 1940, and was in the spring when employment was increasing seasonally; but the number of hired workers employed was 39 percent fewer in 1950 than in 1940.

Increase in Farm Mechanization

If the increase in number of tractors on Missouri farms can be taken as an index of mechanization, it can be said that a phenomenal increase in farm mechanization occurred during the decade, 1940-1950. During the 10 years, nearly twice as many tractors were added to Missouri farms as were reported in 1940. Even the metropolitan areas had an increase in tractors of more than 100 percent, while the nonmetropolitan areas had an increase of 185 percent. Those nonmetropolitan areas which were least mechanized in 1940 had the largest increases. The Ozark areas (7 and 8) and the cotton growing area of southeast Missouri (Area 9) reported 300 to 400-percent increases in tractors over the decade. These also were the areas with the largest relative losses of rural population. Area 9, for example, is estimated to have lost approximately 56,000 rural people through net migration during the decade and during this time the number of tractors per

TABLE 16 -- FARMS REPORTING TRACTORS AND NUMBER OF TRACTORS ON FARMS, BY ECONOMIC AREAS OF MISSOURI, 1940-50

Area	Farms reporting tractors				Tractors on farms			
			Increase 1940-50				Increase 1940-50	
	1940	1950	Number	Percent	1940	1950	Number	Percent
The State	41,948	100,276	58,328	139.0	45,155	125,964	80,809	179.0
Metropolitan Areas	2,998	5,122	2,124	70.8	3,286	6,790	3,504	106.6
A	1,063	2,349	1,286	121.0	1,188	3,048	1,860	156.6
B	1,935	2,773	838	43.3	2,098	3,742	1,644	78.4
Nonmetropolitan Areas	38,950	95,154	56,204	194.1	41,869	119,174	77,305	184.6
1	7,421	14,000	6,579	88.7	8,148	19,022	10,874	133.5
2	12,154	28,162	16,008	131.7	12,921	34,308	21,387	165.5
2a	5,462	14,357	8,895	162.9	5,785	16,655	10,870	187.9
2b	6,692	13,805	7,113	106.3	7,136	17,653	10,517	147.4
3	6,440	13,040	6,600	102.5	6,819	15,980	9,161	134.3
4	1,651	4,872	3,221	195.1	1,778	5,898	4,120	231.7
5	1,722	5,037	3,315	192.5	1,799	5,678	3,879	215.6
6	4,178	9,628	5,450	130.4	4,381	11,422	7,041	160.7
7	1,673	7,333	5,660	338.3	1,742	8,140	6,398	367.3
8	562	2,699	2,137	380.2	583	3,021	2,438	418.2
9	3,149	10,383	7,234	229.7	3,698	15,705	12,007	324.7
9a	1,231	4,203	2,972	241.4	1,370	5,765	4,395	320.8
9b	1,918	6,180	4,262	222.2	2,328	9,940	7,612	327.0

100 farms increased from 17 to 72. In Areas 7 and 8, where heavy losses of rural population also occurred, only 5 of each 100 farm operators had tractors in 1940, but 10 years later the proportion had increased to 25. This is not to imply, however, that farm mechanization has been the major factor bringing on heavy losses of farm people by migration. The areas cited (7, 8, and 9) are areas of high natural increase and, therefore, have relatively large numbers of people seeking employment opportunities. These are areas which traditionally have had high rates of out-migration.

Increase in mechanization was heavy throughout the State. Nearly one-half of Missouri farms had tractors in 1950, whereas, only about one of every six possessed tractors in 1940. Herein must lie a partial explanation of the continued high production on Missouri farms despite widespread heavy losses of rural manpower.

Increase in Sale of Farm Products

Although the number of farms declined, and large numbers of people left rural areas, and although less money was spent for hired labor during the decade, 1940-49, the production of farms in Missouri increased considerably. After making an adjustment for changes in prices received by farmers, the total value of products sold gained 30 percent. Area 4 in southwestern Missouri showed the largest increase, with nearly 60 percent gain in the value of farm production. Increases generally ranged from 25 to 50 percent in the nonmetropolitan areas but in the farming areas adjacent to the largest cities, there was little change in the total value of farm products produced during the decade (Table 17).[12]

Figure 5 has been prepared to show the relationship between increase in farm output and labor requirements. In general, areas with the greatest gains in farm production had the smallest decreases in use of hired help. Of the three areas with the highest increases in products sold, two reported gains in their expenditures for labor while the third had only a slight loss.

TABLE 17 -- AVERAGE VALUE OF PRODUCTS SOLD PER FARM 1949, AND PERCENTAGE CHANGE IN VALUE OF PRODUCTS SOLD (ADJUSTED FOR CHANGES IN PRICES RECEIVED BY FARMERS), 1939 AND 1949, BY ECONOMIC AREAS

Area	Average value of products sold per farm reporting, 1949	Percentage change in total value of products sold (adjusted for price changes) 1939 and 1949
	$	%
The State	3,130	30.0
Metropolitan Areas	4,304	2.0
A	4,852	2.6
B	3,736	2.0
Nonmetropolitan Areas	3,082	32.1
1	5,402	24.1
2	3,556	32.7
2a	3,432	29.8
2b	3,687	35.6
3	3,180	29.4
4	2,087	59.2
5	1,786	24.8
6	2,469	33.7
7	1,758	40.6
8	1,180	21.5
9	4,581	35.3
9a	3,051	50.4
9b	5,739	30.1

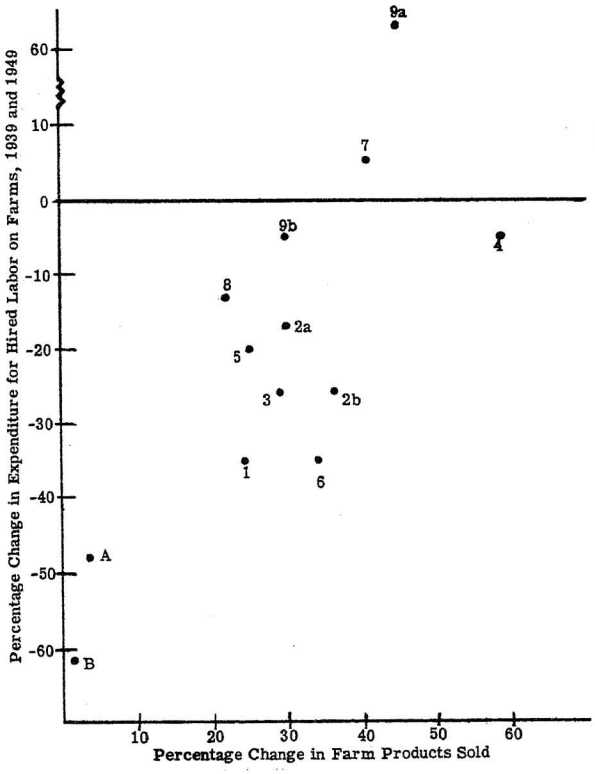


Figure 5—Percentage change in farm wage expenditures (adjusted for wage rate changes) in relation to percentage change in farm products sold (adjusted for price changes) ,1939 and 1949, by economic areas.

[12]The average value of products sold per farm was about $1,000 for the crop year 1939, five years later in 1944 the average value per farm ($2200) had more than doubled, and by 1949 it was more than three times the 1939 average (not adjusted for price changes).

FUTURE POPULATION TRENDS[13]

Analysis of population growth and rural-urban migration in the last decade provides some basis for understanding the present manpower situation, and for anticipating developments that are likely to take place during this decade. Although population predictions and forecasts covering a considerable period of time have not been highly successful, population projections for relatively short periods of time are highly justifiable and are likely to be more reliable.

Several important lessons have been learned as a result of past experience with population projections. One is that internal economic and international factors that affect the general level of employment and income have pronounced effects on both fertility and migration. This is especially true when depressed conditions prevail for some time, as in the 1930's, or when near-full employment prevails for some time, as in the 1940's and thus far into the 1950 decade. Also apparent, is the fact that the majority of families in the United States now exercise some control over the size of their families and probably over the timing of the births of their children. This means that fluctuations in the birth rate in response to economic conditions are likely to be more marked than in the past.

Another fact that is visible in retrospect is that the "long time downward trend in the birth rate" has come about chiefly as a result of a gradual shift from the large family pattern to the small-to-medium family pattern. The great majority of American families now in the child-bearing period appear to be following the latter pattern.

A final lesson is concerned with the relation of population movements to economic and technological changes. In this century of change, technological and other developments are so accelerated that the changes in one decade now are greater than those that took a generation to evolve in the last century, and even longer in earlier times. Hence, one cannot project past demographic trends into the future with precision, even though birth rates, death rates, and migration rates tend to persist and have rarely taken abrupt changes in direction.

As a result of awareness of this final lesson, projections of population have provided for a greater range of possibilities, even in projections for only a short-run period such as 10 years.

Outlook for National Population Growth

Official projections of the total population of the United States are issued periodically by the Bureau of the Census.[14] These projections show a wider range between the low and high estimates than was the case in earlier projections. From a July, 1950, level of 151.8 million, the population of the United States is expected to increase to 169.4 million by 1960 under the medium assumptions. The range of what seems within the realm of likelihood is indicated by the low series projection of 161.7 million and the high projection of 180.3 million for 1960.

The projections have been carried farther into the future with an ever-widening range. For the year 1975, the medium projection is for a national population of 190.1 million, with a range from 165.6 million to 225.3 million.[15]

Compared with previous projections, the medium series in these latest projections can be regarded as "optimistic" in the sense of expecting more population growth than most of the earlier projections.

The increasing range between the high and low is indicative of the recognition that components of population change cannot be predicted precisely. In the months since these last projections were made, population growth has slightly exceeded projections based on the high assumptions. Population analysts agree that the crude birth rates of the last 10 years will not continue indefinitely at their present levels, but there is no agreement how soon or how fast the birth rate will fall or what will be the future size of completed families.

Trends in Regional Distribution in the United States

In recent decades, population redistribution within the United States has shown fairly persistent trends through depression, war, and peacetime prosperity. People have moved mainly toward borders of the country—to the West Coast, the Great Lakes industrial areas, the Atlantic Seaboard, and the Gulf Coast.

The most important regional population shift expected in the next two and one-half decades is a continuation of the movement to the Pacific Coast and, to a lesser extent, to the Mountain and the South Atlantic States. The New England, Middle Atlantic,

[13]The material of this section is adapted largely from Hagood, Margaret Jarman and Sharp, E. F., "Rural-urban Migration in Wisconsin, 1940-50," *Wisconsin Agricultural Experiment Station Bulletin 176,* August 1951, pp. 39-42.

[14]Bureau of the Census, Current Population Reports, Series P-25, No. 43.

[15]Projections to 1975 are unofficial projections of the Census Bureau furnished to the Bureau of Agricultural Economics.

and West North Central States are expected to show slower population growth than the country as a whole.

These fairly long-time trends might be substantially altered by atomic or bacteriological warfare or by fear of them. To date, however, there is no evidence of the effect of such fears on the regional distribution of population of the United States.

Under the medium assumptions, the population of the West North Central Division, of which Missouri is a part, is expected to rise from 14.2 million in 1950 to 14.7 million by 1960, and to 15.8 million by 1975. The low to high range is from 14.1 to 15.7 million for 1960 and from 13.8 to 18.8 million for 1975.[16]

Distribution Trends Within the West North Central Division

The West North Central Division is made up of seven states—Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas. Of these states, only Minnesota has gained substantially in its share of the total population of the Division in the past 50 years. Iowa, Missouri, Nebraska, Kansas, and the Dakotas have shown slight declines in their shares of the regional population. Missouri has maintained its position as the most populous state and had about 28 percent of the total population of the Division in 1950. Since 1890, Missouri's share has held close to 30 percent.

These shares have been projected into the future by methods similar to those used for Divisions.[17] The projected share for Missouri has been applied to the population projections for the West North Central Division.

Outlook for Population Growth in Missouri

Table 18 shows low, medium, and high projections for Missouri's population to 1975 corresponding to the low, medium, and high projections made for the United States and major geographic divisions. If we assume the medium forecasts, the population of Missouri will show a slight gain from its 1950 count of 3,955,000 to 3,961,000 in 1955, will hold about steady by 1960 and then increase to 4,062,000 by 1975.

TABLE 18 -- PROJECTIONS OF MISSOURI'S POPULATION TO 1975 (MIDYEAR DATES)

Year	Low	Medium	High
1955	3,873,000	3,961,000	4,069,000
1960	3,743,000	3,921,000	4,173,000
1975	3,539,000	4,062,000	4,815,000

Source: Projection of the population of the West North Central Division taken from Margaret Jarman Haggod and Jacob S. Siegel, "Projections of the Regional Distribution ot the Population of the United States to 1975," Agricultural Economics Research, Vol. III, No. 2, Bureau of Agricultural Economics, April, 1951. Missouri's share of the Division's population was projected by methods similar to those described in the article and applied to the regional projections. The underlying projections for the United States as a whole are from the Bureau of the Census.

The small loss projected for Missouri during the 1950-60 decade reverses the trend established during the past 50 years, during which time the population of the State increased from 100,000 to 200,000 per decade. The increase of about 140,000 projected for the period 1960-75 is more nearly like the population growth of the past 50 years.

If past trends continue, the urban population of the State will continue to increase more rapidly than will the rural population. The process of rural-urban migration likely will continue because of the excess of rural youth reaching working age over the employment opportunities made available on the farms of Missouri. Further decrease in the number of farms and farm workers as mechanization proceeds will provide additional numbers of rural migrants to cities within and outside the State. The rate of this migration will depend on the maintenance of full employment and on the development of industry in the cities of Missouri and nearby states.

[16]Margaret Jarman Hagood and Jacob S. Siegel, "Projections of the Regional Distribution of the Population of the United States to 1975," *Agricultural Economics Research*, Vol. III, No. 2, BAE, April, 1951.

[17]Hagood and Siegel, *op. cit.*

TABLE A -- CONTINUED

Area and County	1940 population	Excess of births over deaths 1940-50	Net Change through migration 1940-50	1950 population	Net Change through migration as percentage of 1940 population
Pettis	33,336	1,798	- 3,557	31,577	-11
St. Clair	13,146	783	- 3,447	10,482	-26
Vernon	25,586	-593	- 2,308	22,685	- 9
Area 4	171,676	17,349	- 22,360	166,665	-13
Barry	23,546	2,958	- 4,749	21,755	-20
Jasper	78,705	6,801	- 6,400	79,106	- 8
Lawrence	24,637	1,301	- 2,518	23,420	-10
McDonald	15,749	2,440	- 4,045	14,144	-26
Newton	29,039	3,849	- 4,648	28,240	-16
Area 5	138,129	16,846	- 24,454	130,521	-18
Benton	11,142	596	- 2,658	9,080	-24
Camden	8,971	1,137	- 2,247	7,861	-25
Crawford	12,512	1,352	- 2,630	11,234	-21
Hickory	6,506	368	- 1,487	5,387	-23
Laclede	18,718	2,732	- 2,440	19,010	-13
Maries	8,638	1,018	- 2,233	7,423	-26
Miller	14,798	1,522	- 2,586	13,734	-17
Morgan	11,140	887	- 1,820	10,207	-16
Phelps	17,437	2,636	1,431	21,504	8
Pulaski	10,775	1,661	- 2,044	10,392	-19
Washington	17,492	2,937	- 5,740	14,689	-33
Area 6	222,218	23,399	- 18,027	227,590	- 8
Bollinger	12,898	1,381	- 3,260	11,019	-25
Cape Girardeau	37,775	4,446	- 3,824	38,397	-10
Cole	34,912	3,348	- 2,796	35,464	- 8
Franklin	34,049	3,862	- 1,484	36,427	- 4
Gasconade	12,414	937	- 1,009	12,342	- 8
Jefferson	32,023	3,431	2,553	38,007	8
Moniteau	11,775	602	- 1,537	10,840	-13
Osage	12,375	1,288	- 2,362	11,301	-19
Perry	15,358	2,259	- 2,727	14,890	-18
Ste. Genevieve	10,905	1,561	- 1,229	11,237	-11
Warren	7,734	284	- 352	7,666	- 5
Area 7	258,265	30,329	- 31,177	257,417	-12
Christian	13,538	1,207	- 2,333	12,412	-17
Dallas	11,523	1,102	- 2,233	10,392	-19
Douglas	15,600	2,252	- 5,214	12,638	-33
Greene	90,541	10,574	3,708	104,823	4
Howell	22,270	2,705	- 2,250	22,725	-10
Ozark	10,766	1,831	- 3,741	8,856	-35
Polk	17,400	1,107	- 2,445	16,062	-19
Stone	11,298	1,484	- 3,034	9,748	-27
Taney	10,323	1,362	- 1,822	9,863	-18
Texas	19,813	2,471	- 3,292	18,992	-17
Webster	17,226	2,157	- 4,311	15,072	-25
Wright	17,967	2,077	- 4,210	15,834	-23
Area 8	134,026	15,800	- 29,798	120,028	-22
Carter	6,226	756	- 2,205	4,777	-35
Dent	11,763	1,017	- 1,844	10,936	-16
Iron	10,440	1,275	- 2,257	9,458	-22
Madison	9,656	1,532	- 808	10,380	- 8
Oregon	13,390	1,589	- 3,001	11,978	-22
Reynolds	9,370	1,375	- 3,827	6,918	-41
Ripley	12,606	1,887	- 3,079	11,414	-24
St. Francois	35,950	3,332	- 4,006	35,276	-11
Shannon	11,831	1,518	- 4,972	8,377	-42
Wayne	12,794	1,519	- 3,799	10,514	-30

TABLE A -- CONTINUED

Area and County	1940 population	Excess of births over deaths 1940-50	Net Change through migration 1940-50	1950 population	Net Change through migration as percentage of 1940 population
Area 9	252,412	54,767	- 50,219	256,960	-20
Area 9a	97,662	18,983	- 12,633	104,012	-13
Butler	34,276	6,524	- 3,093	37,707	- 9
Scott	30,377	5,951	- 3,486	32,842	-11
Stoddard	33,009	6,508	- 6,054	33,463	-18
Area 9b	154,750	35,784	- 37,586	152,948	-24
Dunklin	44,957	9,438	- 9,066	45,329	-20
Mississippi	23,149	5,540	- 6,138	22,551	-27
New Madrid	39,787	10,866	- 11,209	39,444	-28
Pemiscott	46,857	9,940	- 11,173	45,624	-24
Metropolitan Area A	508,245	48,283	29,728	586,256	6
Clay	30,417	4,667	10,137	45,221	33
Jackson	477,828	43,616	19,591	541,035	4
Metropolitan Area B	1,115,840	110,028	67,111	1,292,979	6
St. Charles	25,562	2,984	1,288	29,834	5
St. Louis	274,230	39,107	93,012	406,349	34
St. Louis City	816,048	67,937	- 27,189	856,796	- 3

*Less than 1.

TABLE B -- URBAN POPULATION, NATURAL INCREASE, AND NET MIGRATION, MISSOURI COUNTIES, 1940-50
(Exclusive of counties with no urban population, 1940)

Area and County	1940 population	Excess of births over deaths 1940-50	Net Change through Migration 1940-50	1950 population	Net Change through Migration as percentage of 1940 population
State	1,960,696	179,832	44,774	2,185,302	+ 2
Area 1	113,813	3,687	395	117,895	*
Buchanan	75,711	1,956	921	78,588	1
Carroll	4,070	55	255	4,380	6
Clinton	3,615	12	- 57	3,570	- 2
Lafayette	8,874	605	- 977	8,502	-11
Nodaway	5,700	286	- 848	6,834	15
Ray	4,240	160	- 65	4,335	- 2
Saline	11,603	613	- 530	11,686	- 5
Area 2	120,889	6,900	11,385	139,174	9
Area 2a	41,406	2,071	- 1,668	41,809	- 4
Adair	10,080	807	223	11,110	2
Grundy	7,046	73	- 962	6,157	-14
Harrison	2,682	138	- 106	2,714	- 4
Linn	9,380	413	- 811	8,982	- 9
Livingston	8,012	497	185	8,694	2
Macon	4,206	143	- 197	4,152	- 5
Area 2b	79,483	4,829	13,053	97,365	16
Audrain	11,725	1,560	962	14,247	8
Boone	18,399	2,410	11,165	31,974	61
Callaway	8,297	- 1,504	3,259	10,052	39
Howard	2,608	183	353	3,144	14
Marion	20,865	1,490	- 1,911	20,444	- 9
Pike	4,669	320	- 600	4,389	-13
Randloph	12,920	370	- 175	13,115	- 1
Area 3	52,557	2,018	- 28	54,547	*
Barton	2,992	241	0	3,233	0
Bates	2,958	188	187	3,333	6
Cooper	6,089	273	324	6,686	5
Henry	6,041	123	- 89	6,075	- 1
Johnson	5,868	222	767	6,857	13
Pettis	20,428	1,015	- 1,089	20,354	- 5
Vernon	8,181	- 44	- 128	8,009	- 2
Area 4	68,531	6,413	- 3,412	71,532	- 5
Barry	3,819	578	- 366	4,031	-10
Jasper	53,833	4,482	- 2,833	55,482	- 5
Lawrence	4,632	379	- 118	4,893	- 3
Newton	6,247	974	- 95	7,126	- 2
Area 5	12,756	2,742	3,430	18,928	27
Laclede	5,025	1,002	781	6,808	16
Miller	2,590	221	- 45	2,766	- 2
Phelps	5,141	1,519	2,694	9,354	52
Area 6	78,457	9,359	- 2,298	85,518	- 3
Cape Girardeau	22,539	2,862	- 116	25,285	- 1
Cole	24,268	2,234	- 1,403	25,099	- 6
Franklin	9,273	950	- 354	9,869	- 4
Jefferson	13,158	1,634	- 737	14,055	- 6
Moniteau	2,525	245	- 143	2,627	- 6
Perry	3,907	822	- 138	4,591	- 4
Ste. Genevieve	2,787	612	593	3,992	21

TABLE B -- CONTINUED

Area and County	1940 population	Excess of births over deaths 1940-50	Net Change through Migration 1940-50	1950 population	Net Change through Migration as percentage of 1940 population
Area 7	67,900	7,953	- 722	75,131	- 1
Greene	61,238	7,005	- 1,512	66,731	- 2
Howell	4,026	474	418	4,918	10
Polk	2,636	474	372	3,482	14
Area 8	19,434	2,525	- 1,321	20,638	- 7
Dent	3,151	438	22	3,611	1
Madison	3,414	601	- 319	3,696	- 9
St. Francois	12,869	1,486	- 1,024	13,331	- 8
Area 9	48,694	9,716	5,539	63,949	11
Area 9a	25,264	4,720	4,467	34,451	18
Butler	11,163	1,932	1,969	15,064	18
Scott	10,993	2,099	1,671	14,763	15
Stoddard	3,108	689	827	4,624	27
Area 9b	23,430	4,996	1,072	29,498	5
Dunklin	9,008	1,865	1,208	12,081	13
Mississippi	5,182	1,064	- 745	5,501	-14
Pemiscot	9,240	2,067	609	11,916	7
Metropolitan Area A	426,394	39,300	28,541	494,235	7
Clay	11,150	1,296	2,001	14,447	18
Jackson	415,244	38,004	26,540	479,788	6
Metropolitan Area B	951,271	89,219	3,265	1,043,755	*
St. Charles	10,803	1,610	1,901	14,314	18
St. Louis	124,420	19,672	28,553	172,645	23
St. Louis City	816,048	67,937	-27,189	856,796	- 3

*less than 1.

TABLE C -- RURAL POPULATION, NATURAL INCREASE, AND NET MIGRATION, MISSOURI COUNTIES, 1940-50.

Area and County	1940 population	Excess of births over deaths 1940-50	Net change through migration 1940-50	1950 population	Net change through migration as percentage of 1940 population
State	1,823,968	183,811	-238,428	1,769,351	-13
Area 1	165,094	10,139	- 29,272	145,961	-18
Andrew	13,015	645	- 1,933	11,727	-15
Atchison	12,897	1,240	- 3,010	11,127	-23
Buchanan	18,356	1,467	- 1,585	18,238	- 9
Carroll	13,744	789	- 3,324	11,209	-24
Clinton	9,749	407	- 1,876	8,280	-19
Holt	12,476	617	- 3,260	9,833	-26
Lafayette	18,982	1,205	- 3,417	16,770	-18
Nodaway	19,856	1,585	- 4,242	17,199	-21
Platte	13,862	1,082	29	14,973	*
Ray	14,344	543	- 3,290	11,597	-23
Saline	17,813	559	- 3,364	15,008	-19
Area 2	373,826	17,337	- 69,591	321,572	-19
Area 2a	184,777	8,048	- 40,297	152,528	-22
Adair	10,166	801	- 2,388	8,579	-23
Caldwell	11,629	248	- 1,948	9,929	-17

TABLE C -- CONTINUED

Area and County	1940 population	Excess of births over deaths 1940-50	Net change through migration 1940-50	1950 population	Net change through migration as percentage of 1940 population
Chariton	18,084	848	- 3,988	14,944	-22
Daviess	13,398	628	- 2,846	11,180	-21
DeKalb	9,648	329	- 2,054	7,923	-21
Gentry	13,359	442	- 2,765	11,036	-21
Grundy	8,670	295	- 1,902	7,062	-22
Harrison	13,843	789	- 3,239	11,393	-23
Linn	12,036	418	- 2,571	9,883	-21
Livingston	9,988	489	- 2,639	7,838	-26
Macon	17,190	302	- 3,312	14,180	-19
Mercer	8,766	370	- 1,901	7,235	-22
Putnam	11,327	693	- 2,854	9,166	-25
Schuyler	6,627	218	- 1,085	5,760	-16
Sullivan	13,701	737	- 3,139	11,299	-23
Worth	6,345	441	- 1,666	5,120	-26
Area 2b	189,049	9,289	- 29,294	169,044	-15
Audrain	10,948	1,026	- 2,392	9,582	-22
Boone	16,592	1,111	- 1,245	16,458	- 8
Callaway	14,797	813	- 2,346	13,264	-16
Clark	10,166	564	- 1,727	9,003	-17
Howard	10,418	532	- 2,237	8,713	-21
Knox	8,878	336	- 1,597	7,617	-18
Lewis	11,490	432	- 1,189	10,733	-10
Lincoln	14,395	763	- 1,680	13,478	-12
Marion	10,711	770	- 2,102	9,379	-20
Monroe	13,195	360	- 2,241	11,314	-17
Montgomery	12,442	500	- 1,387	11,555	-11
Pike	13,658	567	- 1,770	12,455	-13
Ralls	10,040	550	- 1,962	8,628	-20
Randolph	11,538	503	- 2,238	9,803	-19
Scotland	8,557	294	- 1,519	7,332	-18
Shelby	11,224	168	- 1,662	9,730	-15
Area 3	157,674	6,761	- 27,347	137,088	-17
Barton	11,156	636	- 2,347	9,445	-21
Bates	16,573	650	- 3,022	14,201	-18
Cass	19,534	869	- 1,078	19,325	- 6
Cedar	11,697	460	- 1,494	10,663	-13
Cooper	11,986	729	- 2,793	9,922	-23
Dade	11,248	878	- 2,802	9,324	-25
Henry	16,272	963	- 3,267	13,968	-20
Johnson	15,749	559	- 2,449	13,859	-16
Pettis	12,908	783	- 2,468	11,223	-19
St. Clair	13,146	783	- 3,447	10,482	-26
Vernon	17,405	549	- 2,180	14,676	-13
Area 4	103,145	10,936	- 18,948	95,133	-18
Barry	19,727	2,380	- 4,383	17,724	-22
Jasper	24,872	2,319	- 3,567	23,624	-14
Lawrence	20,005	922	- 2,400	18,527	-12
McDonald	15,749	2,440	- 4,045	14,144	-26
Newton	22,792	2,875	- 4,553	21,114	-20
Area 5	125,373	14,104	- 27,884	111,593	-22
Benton	11,142	596	- 2,658	9,080	-24
Camden	8,971	1,137	- 2,247	7,861	-25
Crawford	12,512	1,352	- 2,630	11,234	-21
Hickory	6,506	368	- 1,487	5,387	-23
Laclede	13,693	1,730	- 3,221	12,202	-24
Maries	8,638	1,018	- 2,233	7,423	-26
Miller	12,208	1,301	- 2,541	10,968	-21
Morgan	11,140	887	- 1,820	10,207	-16
Phelps	12,296	1,117	- 1,263	12,150	-10
Pulaski	10,775	1,661	- 2,044	10,392	-19
Washington	17,492	2,937	- 5,740	14,689	-33

TABLE C -- CONTINUED

Area and County	1940 population	Excess of births over deaths 1940-50	Net change through migration 1940-50	1950 population	Net change through migration as percentage of 1940 population
Area 6	143,761	14,040	- 15,729	142,072	-11
Bollinger	12,898	1,381	- 3,260	11,019	-25
Gape Girardeau	15,236	1,584	- 3,708	13,112	-24
Cole	10,644	1,114	- 1,393	10,365	-13
Franklin	24,776	2,912	- 1,130	26,558	- 5
Gasconade	12,414	937	- 1,009	12,342	- 8
Jefferson	18,865	1,797	3,290	23,952	17
Moniteau	9,250	357	- 1,394	8,213	-15
Osage	12,375	1,288	- 2,362	11,301	-19
Perry	11,451	1,437	- 2,589	10,299	-23
Ste. Genevieve	8,118	949	- 1,822	7,245	-22
Warren	7,734	284	- 352	7,666	- 5
Area 7	190,365	22,376	- 30,455	182,286	-16
Christian	13,538	1,207	- 2,333	12,412	-17
Dallas	11,523	1,102	- 2,233	10,392	-19
Douglas	15,600	2,252	- 5,214	12,638	-33
Greene	29,303	3,569	5,220	38,092	18
Howell	18,244	2,231	- 2,668	17,807	-15
Ozark	10,766	1,831	- 3,741	8,856	-35
Polk	14,764	633	- 2,817	12,580	-19
Stone	11,298	1,484	- 3,034	9,748	-27
Taney	10,323	1,362	- 1,822	9,863	-18
Texas	19,813	2,471	- 3,292	18,992	-17
Webster	17,226	2,157	- 4,311	15,072	-25
Wright	17,967	2,077	- 4,210	15,834	-23
Area 8	114,592	13,275	- 28,477	99,390	-25
Carter	6,226	756	- 2,205	4,777	-35
Dent	8,612	579	- 1,866	7,325	-22
Iron	10,440	1,275	- 2,257	9,458	-22
Madison	6,242	931	- 489	6,684	- 8
Oregon	13,390	1,589	- 3,001	11,978	-22
Reynolds	9,370	1,375	- 3,827	6,918	-41
Ripley	12,606	1,887	- 3,079	11,414	-24
St. Francois	23,081	1,846	- 2,982	21,945	-13
Shannon	11,831	1,518	- 4,972	8,377	-42
Wayne	12,794	1,519	- 3,799	10,514	-30
Area 9	203,718	45,051	- 55,758	193,011	-27
Area 9a	72,398	14,263	- 17,100	69,561	-24
Butler	23,113	4,592	- 5,062	22,643	-22
Scott	19,384	3,852	- 5,157	18,079	-27
Stoddard	29,901	5,819	- 6,881	28,839	-23
Area 9b	131,320	30,788	- 38,658	123,450	-29
Dunklin	35,949	7,573	- 10,274	33,248	-29
Mississippi	17,967	4,476	- 5,393	17,050	-30
New Madrid	39,787	10,866	- 11,209	39,444	-28
Pemiscott	37,617	7,873	- 11,782	33,708	-31
Metropolitan Area A	81,851	8,983	1,187	92,021	2
Clay	19,267	3,371	8,136	30,774	42
Jackson	62,584	5,612	- 6,949	61,247	-11
Metropolitan Area B	164,569	20,809	63,846	249,224	39
St. Charles	14,759	1,374	- 613	15,520	- 4
St. Louis	149,810	19,435	64,459	233,704	43
St. Louis City	---------	--------	--------	---------	---

*Less than 1.

TABLE D -- SELECTED AGRICULTURAL ITEMS, 1950, AND PERCENTAGE CHANGE IN SELECTED ITEMS, 1940-50, MISSOURI COUNTIES

Area and County	Number of farms, 1950	Percentage change in number of farms 1940-50	Farm operator family level of living index, 1950	Per centage change in level of living index 1940-50	Percentage change in cash farm wage expenditures (Adjusted for change in farm wage rates)[a] 1939-49	Percentage change in number of tractors per 10,000 acres of cropland harvested, 1940-50	Percentage change in value of farm products sold (Adjusted for changes in prices farmers received)[b] 1939-49
State	230,045	-10	114	46	-22	182	30
Area 1	21,983	-14	152	42	-35	147	24
Andrew	1,954	-12	151	31	-43	156	42
Atchison	1,295	-14	167	21	-47	131	-11
Buchanan	2,046	-16	138	38	-37	150	30
Carroll	2,195	-18	156	54	-26	120	16
Clinton	1,223	-23	171	80	17	185	90
Holt	1,371	-14	155	32	-41	132	2
Lafayette	2,555	- 9	162	46	-22	150	34
Nodaway	3,135	- 9	162	40	-28	193	27
Platte	1,706	-17	146	55	-39	132	26
Ray	2,101	-15	119	41	-62	178	7
Saline	2,402	- 9	143	36	-35	125	26
Area 2	57,003	-13	---	--	-22	145	33
Area 2a	29,163	-14	134	47	-17	166	30
Adair	1,926	-13	130	49	-33	172	18
Caldwell	1,536	-14	124	32	-33	119	44
Chariton	2,454	-12	142	46	-20	130	32
Daviess	2,108	-11	131	58	- 8	163	33
DeKalb	1,676	- 6	142	53	-15	146	40
Gentry	1,705	-16	146	43	-40	163	32
Grundy	1,569	-15	139	65	3	164	28
Harrison	2,513	-11	130	49	-13	168	42
Linn	1,951	-17	146	40	-32	178	14
Livingston	1,720	-20	136	55	-17	134	23
Macon	2,802	-17	133	56	-19	207	15
Mercer	1,476	-18	114	65	24	207	59
Putnam	1,726	-14	114	56	- 1	383	52
Schuyler	1,018	-15	146	35	-39	172	11
Sullivan	2,077	-14	130	57	69	349	13
Worth	906	-16	147	29	-29	96	42
Area 2b	27,840	-12	138	37	-26	127	36
Audrain	2,151	2	133	24	-42	91	39
Boone	2,409	-15	119	31	-56	192	25
Callaway	2,499	-12	130	49	-33	244	31
Clark	1,398	-16	144	41	-23	103	60
Howard	1,462	- 9	139	40	-24	148	31
Knox	1,392	-14	136	33	-16	85	33
Lewis	1,350	-20	138	25	-32	125	41
Lincoln	2,024	-11	127	40	-42	144	38
Marion	1,434	-13	148	25	-38	109	19
Monroe	1,989	-15	153	51	- 4	110	30
Montgomery	1,799	- 7	130	35	-16	180	35
Pike	1,754	-17	134	37	*	99	35
Ralls	1,468	- 9	143	34	-48	102	55
Randolph	1,711	-15	131	42	15	172	43
Scotland	1,356	-14	150	38	17	119	49
Shelby	1,644	- 9	157	39	4	114	26
Area 3	25,417	- 8	122	45	-26	154	29
Barton	1,912	- 4	117	34	-11	108	22
Bates	2,635	-12	122	39	-36	112	40
Cass	2,657	- 5	136	45	-20	149	29
Cedar	2,006	1	98	44	12	296	57
Cooper	1,895	- 9	143	43	-24	166	46
Dade	1,936	- 7	112	53	-11	206	30

TABLE D -- CONTINUED

Area and County	Number of farms, 1950	Percentage change in number of farms 1940-50	Farm operator family level of living index, 1950	Per centage change in level of living index 1940-50	Percentage change in cash farm wage expenditures (Adjusted for change in farm wage rates)[a] 1939-49	Percentage change in number of tractors per 10,000 acres of cropland harvested, 1940-50	Percentage change in value of farm products sold (Adjusted for changes in prices farmers received)[b] 1939-49
Henry	2,382	-14	116	30	-63	135	11
Johnson	2,833	- 7	136	53	-18	198	39
Pettis	2,381	- 6	141	47	-27	138	42
St. Clair	1,976	-14	92	42	-26	169	19
Vernon	2,804	-12	125	58	18	161	30
Area 4	15,067	- 2	111	68	- 5	283	59
Barry	3,401	2	97	73	25	586	70
Jasper	2,963	- 3	134	56	-13	150	63
Lawrence	3,096	1	119	59	-14	242	63
McDonald	2,318	- 6	89	85	5	1,178	103
Newton	3,289	- 6	115	77	-27	274	24
Area 5	17,088	-14	89	48	-20	285	25
Benton	1,869	-12	98	29	-34	167	21
Camden	1,004	-23	74	64	21	483	17
Crawford	1,490	-21	92	51	-54	321	37
Hickory	1,198	-14	91	40	- 9	293	39
Laclede	2,536	- 7	86	54	24	356	10
Maries	1,431	- 9	74	21	-33	333	*
Miller	2,029	- 5	108	57	- 6	306	57
Morgan	1,648	-10	108	38	-15	206	46
Phelps	1,501	-22	100	54	-18	559	5
Pulaski	1,124	-28	79	84	-35	142	5
Washington	1,258	-12	67	72	- 6	330	59
Area 6	19,763	-11	120	36	-35	177	34
Bollinger	1,999	- 8	60	25	20	403	25
Cape Girardeau	2,378	-11	105	24	-32	300	34
Cole	1,638	- 5	142	26	-39	128	10
Franklin	3,169	- 6	145	54	-51	157	21
Gasconade	1,399	-11	127	32	8	120	37
Jefferson	1,831	-31	112	42	-45	132	20
Moniteau	1,622	- 4	140	31	- 5	254	57
Osage	1,764	- 5	118	42	14	193	75
Perry	1,747	- 6	123	34	-39	186	48
Ste. Genevieve	1,062	-20	110	55	-30	275	55
Warren	1,154	- 4	133	30	-35	126	16
Area 7	30,353	- 7	86	65	5	430	41
Christian	2,384	- 3	113	55	31	381	52
Dallas	2,151	11	92	92	50	398	49
Douglas	2,383	-16	54	69	38	423	31
Greene	3,982	- 9	126	42	- 1	342	37
Howell	3,032	- 7	76	73	-11	618	31
Ozark	1,804	-15	60	107	13	573	25
Polk	2,814	- 8	110	34	7	374	54
Stone	1,740	- 7	81	108	43	899	46
Taney	1,383	- 8	71	115	-11	520	62
Texas	3,430	*	70	56	- 6	369	45
Webster	2,572	- 9	111	79	- 1	629	27
Wright	2,678	- 8	73	66	-23	516	35
Area 8	12,514	-14	61	65	-13	526	22
Carter	547	-17	33[c]	65[c]	143	837	41
Dent	1,632	- 7	73	26	21	655	-13
Iron	852	-29	62	63	41	1,731	48
Madison	945	*	65	38	-15	603	18
Oregon	1,951	- 3	76	117	- 9	926	49
Reynolds	1,005	-22	43[c]	65[c]	-34	618	37
Ripley	1,717	-11	49	113	53	557	27

TABLE D -- CONTINUED

Area and County	Number of farms, 1950	Percentage change in number of farms 1940-50	Farm operator family level of living index, 1950	Percentage change in level of living index 1940-50	Percentage change in cash farm wage expenditures (Adjusted for change in farm wage rates)[a] 1939-49	Percentage change in number of tractors per 10,000 acres of cropland harvested, 1940-50	Percentage change in value of farm products sold (Adjusted for changes in prices farmers received)[b] 1939-49
St. Francois	1,201	-18	111	61	-54	304	27
Shannon	1,360	-19	44	47	-54	490	10
Wayne	1,304	-17	51	96	7	268	8
Area 9	21,774	2	---	--	3	232	35
Area 9a	9,379	2	77	75	63	229	50
Butler	3,480	3	62	121	9	569	33
Scott	1,838	*	91	60	14	164	63
Stoddard	4,061	3	79	72	164	199	49
Area 9b	12,395	1	85	85	- 5	234	30
Dunklin	3,312	- 5	101	120	38	209	48
Mississippi	1,879	-19	68	79	-11	168	42
New Madrid	3,857	11	81	84	-25	206	24
Pemiscot	3,347	11	90	67	-16	368	17
Metropolitan Area A	4,620	-20	149	38	-49	233	2
Clay	1,713	-11	148	44	-34	190	25
Jackson	2,907	-25	150	32	-53	260	-14
Metropolitan Area B	4,463	-19	134	28	-62	104	2
St. Charles	1,981	- 9	133	37	-42	91	28
St. Louis	2,445	-25	134	19	-68	127	-13
St. Louis City	37	-55	---	--	-59	962	-59

[a]Data on cash expenditures for farm wages in 1949 were adjusted for comparison with data for 1939. This was done on the basis of the index for farm wage rates in Missouri, which was reported by the State Agricultural Statistician. The 1949 index (443) was 366% of the 1939 index (121), and the 1949 expenditures were multiplied by its reciprocal, (.2732).

[b]The 1949 prices were adjusted for comparability with 1939 by multiplying them by the reciprocal (.3876) of the change in the simple unweighted average of prices received by farmers, 1939-49 (258 percent), reported by the State Agricultural Statistician.

[c]Carter and Reynolds are combined in the Hagood index. Individual indices are here assigned on the basis of 1940, in relation to 1940 combined scores.

*Less than 1.

Source: U.S. Bureau of the Census, Censuses of Agriculture 1940, 1945, 1950; Margaret Jarman Hagood, Farm Operator Family Level of Living Indices for Counties of the U. S., 1930, 1940, 1945 and 1950. Bureau of Agricultural Economics, Washington D. C., May 1952.

APPENDIX II

CHANGE IN CENSUS PRACTICE IN ENUMERATION OF COLLEGE STUDENTS AND ITS EFFECT ON URBAN POPULATION CHANGE IN NONMETROPOLITAN AREA[18]

As stated previously, the comparability of 1940 and 1950 urban population change of Missouri could not be maintained because of the different methods of classifying college students used in the two censuses.

In 1940, unmarried college students were generally classified as residents of the area where their parents resided. In 1950, all college students were classified as residents of the area where they were living. The effect of this change, as shown in Appendix Table E, is serious for all counties in nonmetropolitan areas, in which one or more colleges are located.

There are essentially 28 junior and senior colleges in nonmetropolitan areas of Missouri with a sufficiently large number of students from counties other than the ones in which the colleges are located to make a difference in the actual "growth" of the urban population. Enrollments of these colleges range from 75 (Monett Junior College) to 10,395 (University of Missouri)[19] and they are distributed through eight economic areas of Missouri (Area 9 has no colleges), with one-third of these colleges concentrating in Subarea 2b.

[18]The cooperation of the 28 junior and senior colleges in supplying enrollment data is greatly appreciated.

[19]The figures cited are from the Fall enrollment data, 1949-1950.

TABLE E -- NUMBER OF OUT-OF-THE-COUNTY COLLEGE STUDENTS IN NONMETROPOLITAN AREAS

Area and County	College	Out-of-the-County Enrollment[a]	1940-1950 Urban Population Change[b]
Area 1			4,082
Atchison	Tarkio Junior	169	------c
Buchanan	St. Joseph College	65	2,877
Nodaway	Northwest Missouri State	655	1,134
Saline	Missouri Valley	303	83
Area 2			18,285
Sub-area 2a			403
Adair	Kirksville Osteopathic	375	1,030
	Northeast Missouri State	863	
Sub-area 2b			17,882
Boone	Christian	243	12,575
	Stephens	2,081	
	University of Missouri	9,491	
Callaway	William Woods Junior	333	1,755
	Westminster	518	
Howard	Central	678	536
Lewis	Culver-Stockton	394	------c
Marion	Hannibal - La Grange	121	-420
Randolph	Moberly Junior	42	195
Area 3			1,990
Cooper	Kemper Military Academy and Junior	364	597
Johnson	Central Missouri State	1,345	989
Area 4			3,001
Barry	Monett Junior	30	212
Jasper	Joplin Junior	105	1,649
Area 5			6,172
Phelps	Rolla School of Mines	2,141	4,213
Area 6			7,061
Cape Girardeau	Southeast Missouri State	1,021	2,746
Cole	Jefferson City Junior	46	831
	Lincoln University	838	
Perry	St. Mary Seminary	93	684
Area 7			7,231
Greene	Drury College	528	5,493
	Southwest Missouri State	1,005	
Polk	Southwest Baptist	267	846
Area 8			1,204
St. Francois	Flat River Junior	78	462
Area 9			15,255
Sub-area 9a	(no colleges)		9,187
Sub-area 9b	(no colleges)		6,068

[a]Enrollment data were for the Fall semester, 1949-1950, supplied by the registrars of the 28 junior and senior colleges.

[b]Source: U. S. Census 1950, P-A25.

[c]Atchison and Lewis Counties do not have urban population.

For most of the counties, the urban population growth in the decade may be attributed to out-of-county college students. For example, Boone County (Sub-area 2b) had an increase of 12,575 population, but of this gain 11,815 or nearly 94 percent, could be accounted for by out-of-county students enrolled in the three colleges (Christian College, Stephens College, and the University of Missouri).

Appendix Table E shows the change in the urban population of each county where colleges are located and the number of out-of-the-county students.[20] It is quite evident that when the number of college students is taken into consideration a large portion of the gain in urban population for the counties affected is accounted for. Moreover, there are four counties—Saline in Area 1, Howard in Sub-area 2b, Johnson in Area 3, and Cole in Area 5—which actually would have experienced losses in urban population had the out-of-county students been enumerated on the 1940 basis.[21]

Any attempt to interpret the phenomenon of urban growth in Missouri merely by examining the absolute numerical increase of various counties will be misleading without adequately studying some of the factors which are related to this growth. The data and explanation presented in this appendix may suggest one method whereby the source of growth of urban population between 1940 and 1950 may be investigated.

APPENDIX III

CURRENT AGE-SEX COMPOSITION OF MISSOURI POPULATION[22]

There were striking shifts in the age composition of Missouri's population between 1940 and 1950.

Increases were largest among the very young and the very old. The number of children under five years of age increased 27.4 percent, and the number of persons 65 years of age and over increased 20 percent.

These changes are producing needs for more school facilities for children and more hospital and other types of services required by older people.

Fewer Draft-Age Youths

Tabulations in this report do not provide an age grouping identical with that of young men subject to military service. However the age group 15 to 24 years provides a basis for discussion.

The percentage of youths aged 15 to 24 years in Missouri's population dropped from 16.7 percent in 1940 to 13.8 percent in 1950. In spite of the over-all population growth of 3.2 percent in the decade, this age group decreased 15.2 percent in number.

One reason for the drop is that the number of births that occurred between 1925 and 1935 was smaller than the number in the preceding 10 years. After 1955, this age group will begin to increase rapidly due to the high birth rates after 1940.

Appendix Table F presents the figures by age and sex for Missouri's population according to the 1950 definitions of rural and urban and of the farm populations. These data by residence are not directly comparable with figures presented earlier in this bulletin based on the 1940 definitions.

Farm Population Is Younger; Has Greater Proportion of Males

The rural-farm population has a younger population and a more masculine population than the urban population, while the rural-nonfarm is intermediate between the other two categories.

For example, the proportion of the population under 25 years of age is 43 percent for the rural-farm, 41 percent for the rural-nonfarm, and 38 percent for the urban population of Missouri. In the matter of ratios of the sexes, there are 111 males per 100 females in the rural-farm population, 97 in the rural-nonfarm, and only 91 in the urban.

The rural-nonfarm population leads in the proportion of older people. Persons 65 years of age and over make up 13.9 percent of the rural-nonfarm population, compared with 9.5 percent of the urban and 9.6 percent of the rural-farm population. The number of

[20]In Lewis County (Sub-area 2b), where Culver-Stockton College is situated, and in Atchison County (Area 1), where Tarkio Junior College is located, there are no towns over 2,500. For the change of urban population in other counties, see Appendix Table B.

[21]One county (Marion—Sub-area 2b) reported a loss in urban population over the decade, a loss that would have been 25 percent larger if out-of-county students had not been enumerated.

[22]The material of this section is adapted largely from Hagood and Sharp, *op. cit.*, pp. 53-55.

TABLE F -- POPULATION BY AGE, SEX, AND RESIDENCE, MISSOURI, 1950

Age and Sex	The State	Urban	Rural Non-farm	Rural Farm
Both sexes, all ages	3,954,653	2,432,715	658,442	863,496
Under 5 years	384,391	230,575	68,862	84,954
5-9	322,288	175,045	59,555	87,688
10-14	279,534	144,320	50,169	85,045
15-24	552,864	349,264	85,862	117,738
25-34	573,009	388,349	88,424	96,236
35-44	559,373	363,976	82,534	112,863
45-64	875,806	549,052	131,195	195,559
65+	407,388	232,134	91,841	83,413
Male, all ages	1,940,863	1,162,299	324,481	454,083
Under 5 years	196,264	117,045	35,523	43,696
5-9	163,874	88,248	30,237	45,389
10-14	142,399	72,692	25,553	44,154
15-24	266,940	161,624	41,512	63,804
25-34	276,806	187,064	42,754	46,988
35-44	272,162	173,293	41,182	57,687
45-64	430,050	261,674	64,078	104,298
65+	192,368	100,659	43,642	48,067
Female, all ages	2,013,790	1,270,416	333,961	409,413
Under 5 years	188,127	113,530	33,339	41,258
5-9	158,414	86,797	29,318	42,299
10-14	137,135	71,628	24,616	40,891
15-24	285,924	187,640	44,350	53,934
25-34	296,203	201,285	45,670	49,248
35-44	287,211	190,683	41,352	55,176
45-64	445,756	287,378	67,117	91,261
65+	215,020	131,475	48,199	35,346

Source: U. S. Census 1950, PB - 25.

persons 65 years and over, reported in Missouri in 1950, was about 407,000.

If 10-year survival rates are applied to the population 55 years of age and over, projections can be obtained of the number of persons who will be 65 years of age and over in 1960.

If the assumption is made that there will be no net change in the age group through migration, there will be approximately 460,000 persons 65 years of age and over in Missouri's population at the end of this decade—an increase of 13 percent between 1950 and 1960.

High Fertility and Prospects for Population Growth

Ratios of children under five years of age to women of childbearing age provide an indication of fertility in the five years immediately preceding the census. On Missouri farms in 1950, there were 536 children for each 1,000 women of child bearing age (15-44 years). The rural-nonfarm and urban ratios were 524 and 398, respectively. Similar ratios computed for 1940 show the same rank, but a greater relative spread between the farm and the urban. For the state as a whole, the fertility ratio increased from 310 children per 1,000 women of childbearing age in 1940 to 442 in 1950—an increase of 43 percent.

Another useful measure of fertility is the net reproduction rate which is the ratio of total female births in two successive generations. For the white segment of Missouri's population during 1935-40, the net reproduction rate was 923. This means that if birth and death rates (at each age) which prevailed in the period 1935-40 continued, a cohort of 1,000 women starting life together would bear 923 daughters during their lifetimes. A net reproduction rate of 1,000 would be required for each generation to replace itself. Therefore, fertility among white women in Missouri between 1935 and 1940 was below that required for population replacement on a long-term basis.

From the data of the 1950 census, the Census Bureau has computed a preliminary net reproduction rate for Missouri for the period 1945-50. (Life tables exactly appropriate for the computations are not yet available.) The net reproduction rate for Missouri in 1945-50 was 1,361. If the birth and death rates underlying this rate were continued indefinitely, each generation would be 36 percent larger than the preceding generation. Population students do not expect the 1945-50 level of birth rate to be maintained indefinitely but the rate could fall substantially and still be above the levels required for population replacement. Forecasters are not wholly in agreement over the future levels of fertility to be expected. In general, the outlook for continued population growth in the future through natural increase is decidedly much brighter now than a decade ago.