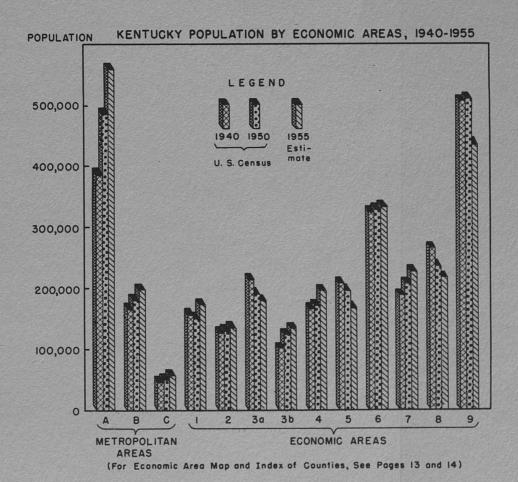
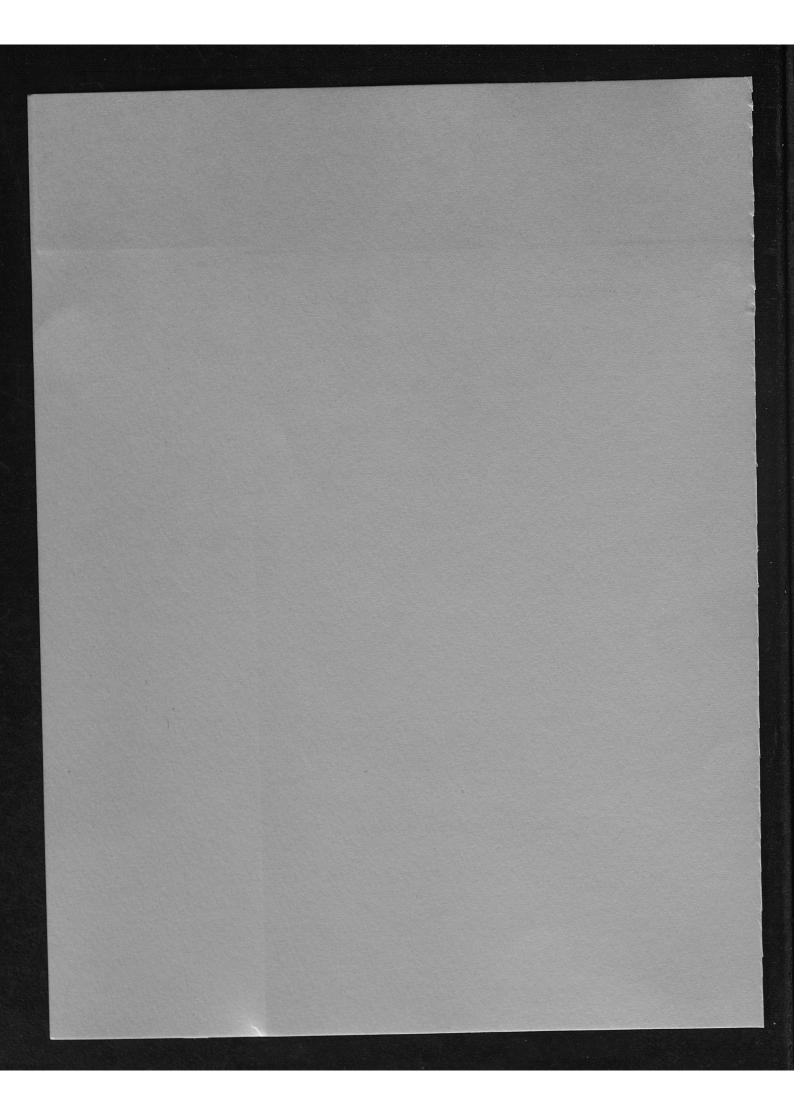
Population Estimates for Kentucky Counties,

June 30, 1955



AGRICULTURAL EXPERIMENT STATION
UNIVERSITY OF KENTUCKY
LEXINGTON



ESTIMATED POPULATION JUNE 30, 1955, NATURAL INCREASE AND

ESTIMATED NET MIGRATION APRIL 1, 1950, TO

JUNE 30, 1955, KENTUCKY, BY COUNTIES

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The State

According to an estimate made by the Department of Rural Sociology, Kentucky's total population $\frac{1}{}$ as of June 30, 1955, was 3,001,000. The estimate shows an increase of 56,000 over the 1950 U. S. Census total population figure, 2,944,806. This represents a gain of 2 percent over the 1950 population.

The net loss through migration for the period of a little more than 5 years was 210,000, an annual loss of 40,000 persons. The net loss through migration, however, was more than offset by the gain in population through natural increase. The excess of births over deaths amounted to 266,810 2/ for the period, or 50,800 per year.

^{1/} Includes U. S. Army personnel stationed in Kentucky and excludes military personnel with preservice residence in Kentucky.

^{2/} The vital statistics data were provided by the Division of Statistical Services, Kentucky State Department of Health, 620 South Third Street, Louisville 2, Kentucky. The data for the first six months of 1955 are from preliminary reports, with adjustments made to allow for incompleteness of these reports. The State Department of Health will publish county estimates later based on complete 1955 vital statistics.

The loss of population through migration is, of course, not a new development in Kentucky; rather it is a continuance of a long-time trend, and is to be explained, for the most part, by familiar factors. There is a continuing movement from farms to cities, from agriculture, to industry. Because of Kentucky's relative lack of industrial centers, compared with nearby states, thousands of Kentuckians have moved to business and industrial jobs outside the state. This movement has become so great that in spite of a comparative-ly high rate of natural increase the state's population has declined.

Population Trend 1940-1950

During the last intercensal period, April 1, 1940 to April 1, 1950, Kentucky's population increased 95,061. In this decade there were 752,440 births and 284,391 deaths, an excess of births over deaths of 468,049. If Kentucky could have held this natural increase, its population in 1950 would have been 3,317,794. However, the net loss of 372,988 through migration during the decade drained off most of the gain through natural increase so that the state's population in 1950 was 2,944,806. 2/

This represents a gain in Kentucky's population during the intercensal decade of 3.3 percent, compared with a 2 percent gain during the past 5 years. The average annual gain through natural increase, 1940-1950, was 46,800, while during the past 5 years the annual gain was 50,800. The average annual net loss through migration for the 10-year period was 37,300, and during the past 5 years it was 40,000.

^{1/} Based on the adjusted 1940 population (2,849,745).

^{2/} Cf. Brown, James S., and Richardson, Paul D., Changes in Kentucky's Population by Counties - Natural Increase and Net Migration, RS-5, Department of Rural Sociology, University of Kentucky, Lexington, Kentucky.

These comparisons reveal an apparent continuation in the 1940-1950 migration trend in the state as a whole.

Developments within the state itself have influenced shifts and changes among the various sections. Among these developments are: increasing inportance of Louisville as an industrial center, the construction of the AEC plant near Paducah and other industrialization in the Purchase, the decline of employment in coal mining, changes connected with Army camps (Fort Knox, Fort Campbell, Camp Breckinridge), the mechanization of agriculture, other changes in agriculture (such as the shift to grassland farming, development of new crops and increasing or decreasing emphasis on old crops), the higher birth rate and the arrival at school age of the so-called war babies. The various sections of the state obviously have been differently affected by these developments, and in the following discussion of changes in the areas some of these differences will be noted.

Suggestions for Interpreting These Estimates

While these estimates have been prepared as carefully as possible, it must be emphasized that they are only <u>estimates</u> and as such are subject to the limitations of the methods used in reaching them. 1/ The basic data for these estimates were school membership figures, 2/ and the basic assumption

The procedure followed in making these estimates is basically Method II as illustrated by Norman Lawrence and Benjamin Greenberg in Current Population Reports, Series P-25, No. 20, "Population Estimates," Bureau of the Census, Washington 25, D. C. For comments on the procedure and a brief summary of the method used in arriving at the state population estimate see page 20.

^{2/} Supplied by the Kentucky State Board of Education, Division of Census and Attendance, Frankfort, Kentucky.

on which these estimates were made was that the proportion of children 6 - 13, or 7 - 14 years of age 1/ in grades 1 - 8 was the same in 1955 as in 1950. This is probably a safe assumption in the case of large areas (such as the United States or Kentucky as a whole), but it is less likely to be true when small populations, such as those of counties, are estimated on that basis because relatively small population shifts of certain kinds greatly affect estimates based on school enrollment or membership figures. For example, if a disproportionate number of single men, single women, or childless couples enter or leave a county such migration is not reflected in school enrollment figures. The estimate of the county's population based on school membership, therefore, may well not indicate an increase or decrease as great as there actually has been.

Persons interpreting these county estimates, then, need to ask themselves: Is there anything in the county's situation which might make estimates based on school enrollment figures less valid than in the usual case?

Economic Areas of Kentucky 2/

The various sections of Kentucky have been differently affected by shifts in population during the past 5 years or so, as an analysis of the changes in the three metropolitan areas and the ten economic areas 3/ shows (Table 1).

^{1/} The reason for using two age groups is explained in the notes on computation of the estimates, which can be found on page 20 ff.

[&]quot;State economic areas are relatively homogeneous subdivisions of States. They consist of single counties or groups of counties which have similar economic and social characteristics. ... In the establishment of State economic areas, factors in addition to industrial and commercial activities were taken into account. Demographic, climatic, physiographic, and cultural factors, as well as factors pertaining to the production of agricultural and nonagricultural goods, were considered." Donald J. Bogue, State Economic Areas, U. S. Bureau of the Census, Washington, 1951, page 1.

^{3/} See Figure 1 for the Census Bureau's delineation of the metropolitan areas and non-metropolitan economic areas in Kentucky.

All 3 metropolitan areas and 6 of the 10 non-metropolitan economic areas gained in population. The percentage $\frac{1}{2}$ change in all 13 economic areas ranged from a gain of 15 percent to a loss of 15 percent.

a. Metropolitan Economic Areas

The 3 metropolitan areas had a combined gain of almost 100,000 in population during the 5-year period. Metropolitan Area A (Jefferson County) had a larger gain, percentage and numerical, than any other economic area in the state. The 15.5 percent gain in this Area amounted to a population increase of 75,000. The percentage gain in Metropolitan Area B (Campbell and Kenton counties) was slightly less than 10 percent, while Metropolitan Area C (Boyd County) gained well over 10 percent.

All 3 metropolitan areas had increases through net migration.

Metropolitan Area A, had a net gain of 28,000 through migration. The other 2 metropolitan areas had a combined gain of only 5,000 through migration. The gain in population through natural increase (i.e., excess of births over deaths) boosted the percentage gains considerably in all 3 metropolitan areas. Metropolitan Area A had a natural increase of 47,000, while Metropolitan Areas B and C had a combined natural increase of approximately 20,000.

b. Non-metropolitan Economic Areas

Even though 6 of the 10 non-metropolitan economic areas gained in population during the past 5 years, only 3 of them had net gains through migration. Gains of this nature in two of the economic areas

^{1/} Throughout this paper percentages are given in terms of the 1950 population.

(3b and 4) are attributed to changes in military personnel. The only other economic area to gain more than it lost through migration was Economic Area 1. The other 7 economic areas lost more persons through migration than they gained.

Economic Area 1 (The Purchase Area) has increased its population by 14 percent since 1950. Half of this gain (10,700) was through natural increase and the other half through migration. The total gain in population in Economic Area 1 amounted to more than 21,000, bringing the total population to 172,000. The rather remarkable net gain through migration was due primarily to the construction of the AEC plant near Paducah.

Four of the 8 counties in Economic Area 1 gained in population from 1950 to 1955. Three of these 4 counties gained through migration as well as by natural increase. The largest gain in population during the period (43 percent) was made by McCracken County. The other 3 counties increasing in population in the Area were adjacent to McCracken. The counties with the greatest losses in population (Calloway, Fulton, and Hickman) were the most distant from the AEC development project. Calloway County, with an 18 percent decrease in population, lost heaviest in the Area, while Fulton and Hickman, with losses of approximately 10 percent, were next.

Economic Area 2 (Owensboro-Henderson Area) made a modest gain in population from 1950 to 1955, but only because the natural increase more than offset the net loss of 5,700 through migration. The percentage increase was a little more than 4 percent. Although both urban counties in the Area, Daviess and Henderson, increased in population during the period, Daviess had a net loss of 2,200 through migration. Henderson

County had a slight gain in this respect. McLean County was the only other county in the Area with a net gain through migration. In other words, 3 of the 5 counties in the Area have increased in population since 1950, and 2 of these had net gains through migration. McLean, with an increase in population of 18 percent, had the largest increase among the counties in the Area.

Economic Area 3a (Western Coal Field Area) lost in population during the 5-year period. There were 3 other economic areas, however, which have had greater losses since 1950. Nine of the 12 counties in the Area decreased in population. This means that the natural increase in these counties was not great enough to offset the net losses through migration. More than half (5) of these 9 counties had losses of more than 15 percent. The 3 counties having an increase in population (Caldwell, Hopkins, and Lyon) had slight gains through net migration.

Natural increase, however, accounted for the bulk of the gains in these 3 counties. Changes in population in Economic Area 3a ranged from a gain of 9 percent in Lyon County to a loss of 18 percent in Edmonson County. The losses in this Area were primarily related to changes in coal mining, although changes in agriculture were also of some importance.

Economic Area 3b (Eastern Pennyroyal and Knobs Area) had a substantial gain (9 percent) in population between 1950 and 1955. A major portion of this gain was due to changes in military personnel stationed in Hardin County. Including these military changes, Hardin County had an increase in population of 19 percent. Both Bullitt and Meade counties had slightly higher gains, which amounted to approximately 20 percent.

Larue County had a substantial gain of 12 percent, while Taylor County just about held its own. The other 2 counties, Green and Hart, had rather heavy losses in population of 19 and 15 percent, respectively. All of the counties showing increases in population had net gains through migration.

Economic Area 4 (Pennyroyal Area) had a larger gain (14.5 percent) than any other non-metropolitan economic area in the state. Christian County, with the spectacular increase of 50 percent in population, was largely responsible for the remarkable gain in the Area. The gain in Christian County, as in Hardin County, was due to changes in military personnel stationed in the county. Four of the other 6 counties in Economic Area 4 showed gains in population. Three of these 4 counties (all but Simpson), however, had net losses through migration. In other words, natural increase in Barren, Logan, and Warren counties offset losses through migration during the period. Todd County had a loss of 5 percent, while Trigg County had a 17 percent loss in population.

Economic Area 5 (Eastern Highland Rim or South Central Knobs Area) had a heavy loss (15 percent) between 1950 and 1955. Lincoln was the only one of the 12 counties in this Area that had a gain in population during the period. The gain in Lincoln County was slight (2 percent) and due to the fact that the natural increase of 1,500 overcame the net loss of 1,200 through migration. Natural increase in the other 11 counties failed to offset their losses through migration. The losses ranged from 5 percent in Allen County to 31 percent in Metcalfe County. There were 7 counties having losses of more than 15 percent during the period.

Economic Area 6 (Outer Bluegrass Area) gained slightly (2 percent) from 1950 to 1955. There was a wide variation in population changes in the 26 counties of this large Area. The changes ranged from a 26 percent gain in Boone County to a 14 percent loss in Marion County. Fourteen of the 26 counties gained, while 12 lost in population. Of the 14 counties gaining in population, 5 would have lost but natural increase in these counties was greater than their losses through migration. Six of the 12 counties losing in population had a decrease of more than 10 percent. Oldham, Shelby, and Trimble counties showed gains of more than 10 percent. On the whole, the Outer Bluegrass Area continued its long-time trend of relative stability in population size.

Economic Area 7 (Inner Bluegrass Area) had a substantial increase during the 5-year period. Six of the 8 counties showed an increase in population, although the increase in two of the counties (Scott, 2 percent, and Woodford, 3 percent) was slight. Bourbon County just about held its own with less than a 1-percent decrease, while Mercer had a 5-percent loss. Only half of the counties gained through net migration. Fayette with a 16-percent increase, had the largest gain in the Area. The gain in Clark was a little less than 10 percent, while Harrison and Jessamine gained a little more than 10 percent. The same stability in population size, noted in the Outer Bluegrass Area, is evident in the Inner Bluegrass Area.

Economic Area 8 (Cumberland Plateau Margin Area) had a decrease of 17,000, amounting to 7 percent of its 1950 population, during the 5-year period. Only 3 of the 17 counties (Carter, Greenup, and Lawrence) in the Area gained in population. Losses in the other 14 counties ranged from 3 percent in Elliott and Powell to 30 percent in Morgan County. Greenup

County, with an increase of 14 percent in population not only made the largest gain in the Area but was the only county of the 17 to have a net gain through migration. The other two counties having gains in population had natural increases large enough to overcome the net loss through migration. Nine of the 14 counties decreasing in population had losses of more than 10 percent.

This Area with a great preponderance of families on small farms has lost a steady stream of migrants during the past 15 years. Many of these have probably been lost to the Ashland-Huntington Metropolitan Area, and more recently, to the AEC development in nearby southern Ohio.

Economic Area 9 (Cumberland Plateau Area) had by far the heaviest numerical, as well as percentage, loss among the economic areas during the past 5 years. The Area decreased 76,000 during that time. This heavy loss in population occurred in spite of the high rate of natural increase. There was an excess of births over deaths during the period of 62,000. The net out-migration not only cancelled out the gain through natural increase but reduced the 1950 population by another 76,000. In other words, the net out-migration (138,000) was more than twice the amount of natural increase for the Area.

Only 1 of the 14 counties in this Area gained in population during the past 5 years. Even this county, Leslie, had a net loss of 2,500 through migration, but the natural increase of 2,800 was great enough to more than overcome the loss. In the 13 counties losing in population during the period the losses ranged from 5 percent in Harlan County to 22 percent in Perry County. Ten of the counties had losses of more than 10 percent, and 6 of these 10 counties had losses of approximately 20 percent.

Changes in Population By Counties

The changes in population, including natural increase and net migration, are set forth in Table 2. Forty-eight of Kentucky's 120 counties, or 40 percent of the counties in the state, showed gains in total population between April 1, 1950, and June 30, 1955. More than half of these counties (32 counties) made net gains through migration. Said another way, 32 counties made gains through both migration and natural increase.

Five counties in the state have gained 25 percent or more since 1950; Ballard County gained 25 percent, Boone gained 26 percent, Christian gained 51 percent, McCracken gained 43 percent, and Hardin gained 19 percent. 2/ Seventeen of the remaining 43 counties making gains during the period had population increases of 10 percent or more.

As would be expected, Jefferson County had the highest numerical increase (75,000) in population during the period. Christian, Fayette, and McCracken were the only other counties in the state having a population increase between 1950 and 1955 of more than 10,000. When increase in population through migration alone is considered, Jefferson County with a net gain of 28,000 also had a greater gain in this respect, than any other county. Christian and McCracken counties, with a net gain through migration of 17,000 each were the only other counties gaining more than 10,000 through migration.

^{1/} See Figure 2 (page 19) for map indicating counties in Kentucky showing gain, loss, or no change in population during the past 5 years.

^{2/} The reasons for these gains have been discussed before under Economic Areas 1, 4, and 6.

Among the 72 counties with a loss in population since 1950, more than half (46 counties) lost 10 percent or more, 16 lost between 5 and 10 percent, and 10 lost less than 5 percent. Metcalfe County with a 31 percent loss in population had the highest percentage loss. Pike County with a loss of 12,000 had the greatest numerical population decrease among the counties.

The greatest loss through migration, without considering gains by natural increase, was also in Pike County (22,000). Other counties having net losses of over 10,000 in population through migration were: Floyd, 17,000; Perry, 16,000; Bell, 15,000; Letcher, 13,000; and Harlan 12,000. It is interesting to note that all 5 of these counties had a large percentage of employed males, 14 years of age and older, engaged in mining in 1950. Changes in mining undoubtedly accounted for a large part of the heavy losses in these counties.

The map on page 19 indicates clearly that for the most part the counties that increased in population during the past 5 years either contain or are clustered around large population centers. With the exception of Bell County, all counties having cities of 10,000 or more persons gained in population 1/2 between 1950 and 1955. It is evident from Figure 2 and the discussion of 1955 population estimates that the long-time trend of concentration of the state's population in urban areas is continuing.

^{1/} The gain in Franklin County was less than 1 percent.

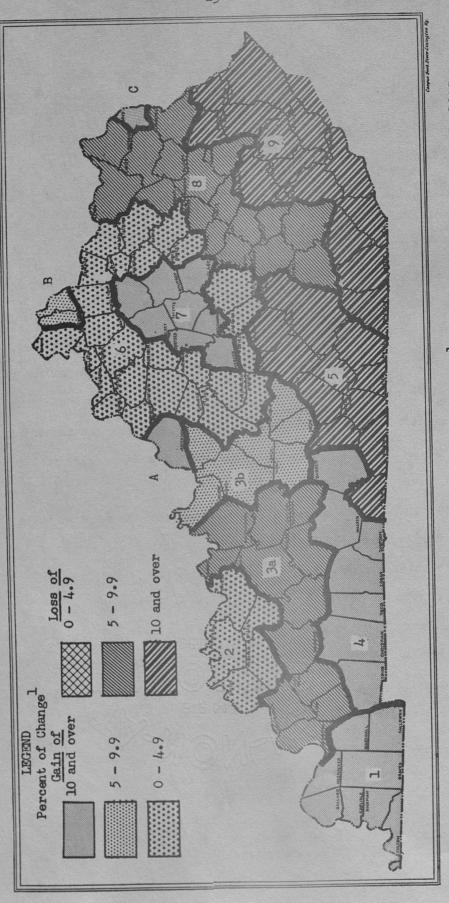


Figure 1. -- Percent Change in Population, Kentucky Economic Areas, April 1, 1950 Through June 30, 1955

It cannot be assumed that each county in the various economic areas had the same population change as that indicated for the entire economic area. For changes in individual counties see Table 2 and Figure 2.

METROPOLITAN AREA A	Economic Area 4	Economic Area 7
Jefferson	Barren	Bourbon
	Christian	Clark
METROPOLITAN AREA B	Logan	Fayette
Campbel1	Simpson	Harrison
Kenton	Todd	Jessamine
	Trigg	Mercer
METROPOLITAN AREA C	Warren	Scott
Boyd		Woodford
	Economic Area 5	. "0,001,010
Economic Area 1	Adair	
Ballard	Allen	
Calloway	Casey	Economic Area 8
Carlisle	Clinton	Carter
Fulton	Cumberland	Clay
Graves	Lincoln	Elliott
Hickman	Letcalfe	Estill
Marshall	Monroe	Greenup
McCracken	Pulaski	Jackson
	Rockcastle	Laurel
Economic Area 2	Russell	Lawrence
Daviess	Wayne	Lee
Henderson	Economic Area 6	Lewis
McLean	Anderson	Magoffin
Union	Bath	Menifee
Webster	Boone	Morgan
	Boyle	Owsley
Economic Area 3a	Bracken	Powell
Breckinridge	Carroll	Rowan
Butler	Fleming	Wolfe
Caldwell	Franklin	MOTIE
Crittenden	Gallatin	
Edmonson	Garrard	
Grayson	Grant	Economic Area 9
Hancock	Henry	Bell
Hopkins	Madison	Breathitt
Livingston	Marion	Floyd
Lyon	Mason	Harlan
Muhlenberg	Montgomery	Johnson
Ohio	Nelson	Knott
	Nicholas	Knox
Economic Area 3b	Oldham	Leslie
Bullitt	Owen	Letcher
Green	Pendleton	McCreary
Hardin	Robertson	Martin
Hart	Shelby	Perry
Larue	Spencer	Pike
Meade	Trimble	Whitley
Taylor	Washington	

Table 1.—Estimated Population June 30, 1955, and Natural Increase and Estimated Net Migration April 1, 1950 to June 30, 1955, Kentucky Metropolitan and Economic Areas

Area	1950 Total Population	Excess of Births over Deaths 1950-1955	Net Change Through Migration 1950-1955	Estimated Total Population June 30, 1955°	Change in Population 4/1/50-6/30/55 Number Percent
State	2,944,806	266,810	- 210,000 ^b	3,001,000 ^b	56,000 ^b 1.9
Metropolita	n				
Area A B C	484,615 180,450 49,949	46,884 14,356 4,742	28,088 3,389 1,783	559,587 198,195 56,474	74,587 15.4 17,745 9.8 6,525 13.1
Economic Ar	rea				
1 2 3a 3b 4 5 6 7 8	150,232 128,425 189,495 122,024 170,164 193,608 326,191 204,586 234,619 510,448	10,690 11,307 11,490 12,581 12,858 16,604 23,908 14,314 25,237 61,839	10,713 - 5,671 - 21,850 - 2,143 11,780 - 43,790 - 18,697 6,346 - 42,192 - 138,032	171,635 134,061 179,135 - 132,462 194,802 166,422 - 331,402 225,246 217,664 - 434,255 -	10,438 8.6 24,638 14.5 27,186 - 14.0 5,211 1.6 20,660 10.1 16,955 - 7.2

a. Including those away in the Armed Forces and military personnel change in Kentucky.

b. Rounded to the nearest thousand.

c. Including military personnel stationed in Kentucky and excluding those in the Armed Forces with pre-service residence in Kentucky.

ESTIMATED POPULATION JUNE 30, 1955, AND NATURAL INCREASE AND ESTIMATED NET MIGRATION, APRIL 1, 1950 TO JUNE 30, 1955, KENTUCKY BY COUNTIES

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County	1950 Population	Excess of births over deaths, 1950-1955	Net change through migration 1950-1955	Estimated Total Population June 30, 1955°	Change in Population 4/1/50-6/30/55 Number Percent
State	2,944,806	266,810	- 210,000 ^b	3,001,000	56,000 ^b 1.9
Adair* Allen Anderson Ballard Barren* Bath Bell Boone Bourbon* Boyd* Boyle* Bracken Breathitt Breckinridge* Bullitt Butler Caldwell Calloway* Campbell* Carroll Carter Casey* Christian* Clark* Clay Clinton Crittenden Cumberland Caviess* Cdmonson Cliott Cstill* Cayette* Clayette* Clayett	17,603 13,787 8,984 8,545 28,461 10,410 47,602 13,015 17,752 49,949 20,532 8,424 19,964 15,528 11,349 11,309 13,199 20,147 76,196 6,206 8,517 22,559 17,446 42,359 18,898 23,116 10,605 10,818 9,309 57,241 9,376 7,085 14,677 100,746 11,962 53,500 25,933	1,462 645 560 814 2,014 1,005 5,546 1,183 1,095 4,742 1,163 425 2,533 1,221 1,028 640 618 942 5,587 292 350 2,397 1,646 4,493 1,644 3,214 831 417 738 5,891 568 881 1,110 7,659 771 7,232 1,590	- 4,413 - 1,366 - 1,646 1,278 - 658 - 1,930 - 15,043 2,150 - 1,228 1,783 - 58 382 - 4,346 - 2,290 1,209 - 2,545 64 - 4,544 2,169 - 393 - 226 - 868 - 4,432 17,041 114 - 6,267 - 3,446 - 2,358 - 1,854 - 2,216 - 2,255 - 1,114 - 4,211 8,323 - 2,302 - 17,052 - 1,350	14,652 13,066 7,898 10,637 29,817 9,485 38,105 16,348 17,619 56,474 21,637 9,231 18,151 14,459 13,586 9,404 13,881 16,545 83,952 6,105 8,641 24,088 14,660 63,893 20,656 20,003 7,990 8,877 8,193 60,916 7,689 6,852 11,576 116,728 10,431 43,680 26,173	56,000° 1.9 - 2,951 - 16.8 - 721 - 5.2 - 1,086 - 12.1 2,092 24.5 1,356 4.8 - 925 - 8.9 - 9,497 - 20.0 3,333 25.6 - 133 - 0.7 6,525 13.1 1,105 5.4 807 9.6 - 1,813 - 9.1 - 1,069 - 6.9 2,237 19.7 - 1,905 - 16.8 682 5.2 - 3,602 - 17.9 7,756 10.2 - 101 - 1.6 124 1.5 1,529 6.8 - 2,786 16.0 21,534 50.8 1,758 9.3 - 3,053 - 13.2 - 2,615 - 24.7 - 1,941 - 17.9 - 1,116 - 12.0 3,675 6.4 - 1,687 - 18.0 - 233 - 3.3 - 3,101 - 21.1 15,982 15.9 - 1,531 - 12.8 - 9,820 - 18.4 240 0.9
allatin arrard	13,668 3,969 11,029	1,046 125 7 44	- 2,337 - 358 146	12,377 3, 73 6 11,919	- 1,291 - 9.4 - 233 - 5.9 890 8.1

Table 2 (Continued)

County	1950 Population	Excess of births over deaths, 1950 - 1955	Net change through migration 1950-1955	Estimated Total Population June 30, 1955	Change in Population 4/1/50-6/30/55 Number Percent
Grant Graves* Grayson Green Greenup* Hancock Hardin* Harlan* Harrison Hart* Henderson* Henry Hickman Hopkins* Jackson Jefferson* Jessamine Johnson* Kenton* Knott Knox Larue Laurel Lawrence Lee Letcher Lewis* Lincoln* Livingston Logan* Livingston Logan* Lyon McCracken* McCreary McLean Madison* Magoffin Marion Marshall Martin	9,809 31,364 17,063 11,261 24,887 6,009 50,312 71,751 13,736 15,321 30,715 11,394 7,778 38,815 13,101 484,615 12,458 23,846 104,254 20,320 30,409 9,956 25,797 14,418 8,739 15,537 39,522 13,520 18,668 7,184 22,335 6,853 49,137 16,660 10,021 31,179 13,839 17,212 13,387 11,677	483 1,703 1,209 714 2,555 351 6,508 8,567 459 1,096 2,529 653 386 2,669 1,406 46,884 840 2,310 8,769 2,470 2,864 785 2,570 1,060 1,030 2,780 4,793 1,562 1,503 464 1,290 166 4,306 1,876 809 2,437 2,144 2,037 1,201 1,607	39 - 86 - 1,914 - 2,883	11,837 33,804 11,644 14,836 15,605	3,252 10.6 238 - 2.1 857 - 11.0 2,812 7.2 2,101 - 16.0 74,972 15.5 1,595 12.8 4,902 - 20.6 9,989 9.6 3,385 - 16.7 3,866 - 12.7 1,237 12.4 1,358 - 5.3 801 5.6 990 - 11.3 309 2.0 8,275 - 20.9

Table 2 (Continued)

County	1950 Population	Excess of births over deaths, 1950 - 1955	Net change through migration 1950-1955	Estimated Total Population June 30, 1955	Change in Population 4/1/50-6/30/55 Number Percent
Mason*	18,486	1,386	136	20,008	1,522 8.2
Meade	9,422	1,360	537	11,319	1,897 20.1
Menifee	4.798	382	- 1,539	3,641 -	1,157 - 24.1
Mercer*	14,643	804	- 1,566	13,881 -	762 - 5.2
Metcalfe	9,851	657	- 3,764	6,744 -	3,107 - 31.5
Monroe	13,770	1,208	- 3,521	11,457 -	2,313 - 16.8
Montgomery*	13,025	1,098	- 1,925	12,198 -	827 - 6.3
Morgan*	13,624	1,335	- 5,367	9,592 -	4,032 - 29.6
Muhlenburg*	32,501	2,153	- 5,048	29,606 -	2,895 - 8.9
Nelson*	19,521	2,378	- 1,914	19,985	464 2.4
Nicholas	7.532	327	- 985	6,874 -	658 - 8.7
Ohio*	20,840	1,014	- 4,296	17,558 -	3,282 - 15.7
Oldham	11,018	902	229	12,149	1,131 10.3
Owen	9,755	516	- 1,515	8,756 -	999 - 10.2
Owsley	7,324	910	- 1,913	6,321 -	1,003 - 13.7
Pendleton	9,610	482	- 408	9,684	74 0.8
Perry	46,566	6,430	- 16,473	36,523 -	10.043 - 21.6
Pike	81,154	10,561	- 22,327	69,388 -	11,766 - 14.5
Powell	6,812	720	- 895	6,637 -	175 - 2.6
Pulaski	38,452	3,456	- 8,197	33,711 -	4,741 - 12.3
Robertson	2,881	88	- 231	2,738 -	143 - 5.0
Rockcastle	13,925	1,343	- 3,848	11,420 -	2,505 - 18.0
Rowan	12,708	1,134	- 2,121	11,721 -	987 - 7.8
Russell	13,717	1,148	- 4,116	10,749 -	2,968 - 21.6
Scott	15,141	931	- 634	15,438	297 2.0
Shelby*	17,912	1,123	1,730	20,765	2,853 15.9
Simpson	11,678	641	679	12,998	1,320 11.3
Spencer	6,157	564	- 1,184	5,537 -	620 - 10.1
Taylor*	14,403	1,090	- 1,180	14,313 -	90 - 0.6
Todd	12,890	817	- 14,12	12,295 -	595 - 4.6
Trigg	9,683	633	- 2,269	8,047 -	1,636 - 16.9
Primble	5,148	439	179	5,766	618 12.0
Union*	14,893	1,413	- 3,091	13,215 -	1,678 - 11.3
Warren	42,758	2,970	- 1,416	44,312	1,554 3.6
Washington*	12,777	1,079	- 2,540	11,316 -	1,461 - 11.4
Wayne	16,475	1,969	- 3,620	14,824 -	1,651 - 10.0
Webster*	15,555	665	- 2,094	14,126 -	1,429 - 9.2
Whitley	31,940	2,270	- 7,648	26,562 -	5,378 - 16.8
Wolfe	7,615	827	- 2,594	5,848 -	1,767 - 23.2
Woodford	11,212	880	- 526	11,566	354 3.2

[.] Including those away in the Armed Forces and military personnel changes in Kentucky.

[.] Rounded to nearest thousand.

[.] Including military personnel stationed in Kentucky and excluding those in the Armed Forces with pre-service residence in Kentucky

Counties marked with asterisk (*) are counties in which the 6 - 13 year age group was used. The 7 - 14 year age group was used in the other counties. See page 20 for reason for using the two age groups.

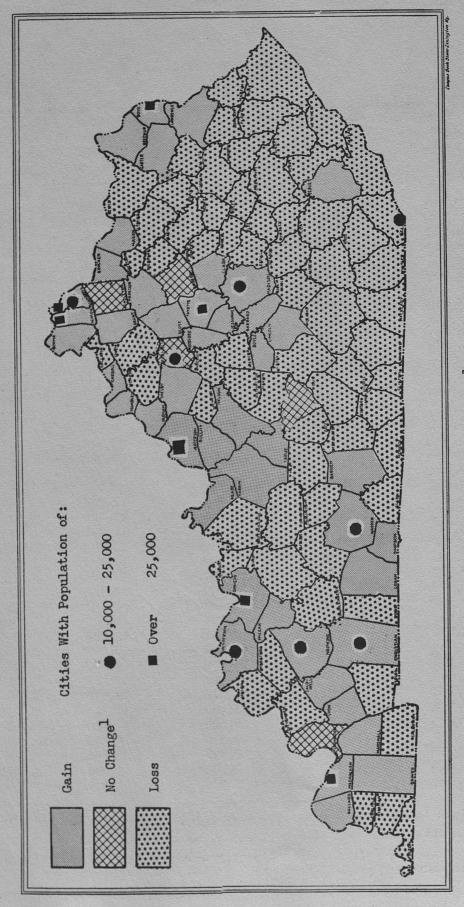


Figure 2.—-Counties in Kentucky Showing Gain, Loss or No Changel in Population, April 1, 1950 Through June 30, 1955

1. Gain or loss of less than one percent.

NOTES ON COMPUTING NET MIGRATION APRIL 1, 1950 TO JUNE 30, 1955, AND ESTIMATING POPULATION AS OF JUNE 30, 1955 FOR COUNTIES AND ECONOMIC AREAS OF KENTUCKY.

1. Net Migration Estimate

As mentioned in footnote 5 (page 3) the procedure followed is basically that published by the Census Bureau. According to this method, the amount of net migration is determined on the basis of school membership in grades 1 through 8. Two age groups were used in the present estimates as most accurately reflecting the age range of those in grades 1-8 in Kentucky. In those counties which had over 50 percent of the 5-year-olds enrolled in school at the time of the 1950 U. S. Census (counties marked with an asterisk in Table 2) the 6-13 year age range was used. In those counties which had less than 50 percent of the 5-year-olds enrolled in school in the 1950 census the 7-14 year age range was used. The estimates are based on the assumption that the total population migrated at the same rate and in the same direction as these two age groups.

Briefly the method involves the ratio of those 6-13, or 7-14 years of age to the membership 1/ in grades 1-8 as of April 1, 1950. Assuming that these ratios were the same in 1955, the population 6-13 years of age in some counties, and those 7-14 years of age in others, was estimated by applying these ratios to the membership in grades 1-8 at the close of the 1954-55 school year.

School membership, rather than school enrollment is used in this estimate. School membership gives the number enrolled as of a certain date, while school enrollment gives the total number enrolled in the school year up to a certain date. The enrollment figures include those who have been enrolled during the school year and have withdrawn, but the school membership figures do not.

The next step was to estimate the population, as of June 30, 1955, by survival factors. Life tables are available that give a reliable estimate of the average number of a particular age that are expected to survive for a given number of years. Survival rates vary among whites and nonwhites, males and females, and also in rural, urban, and metropolitan areas. All of these variations were included in the calculation of the present estimates. The various survival rates were applied to those in the age group in the 1950 Census who would be 6-13, or 7-14, years of age June 30, 1955. The resulting figure gave an estimate, assuming no migration, of these two age groups in the pertinent counties.

The estimate based on school membership reveals the actual estimated size of the age groups. The estimate based on survival factors reveals what the size of the group would have been with no loss or gain through migration. The amount of migration was then determined by subtracting the estimate based on survival factors from the estimate based on school membership. The rate of migration for each age group in the pertinent counties was calculated by dividing the gain or loss through migration by the size of the group.

The migration rate was then applied to the total population subject to migration. 1/ The assumption was made, as mentioned before, that the rate of migration for the total population was the same as that for the two age groups.

^{1/} The total population subject to migration was estimated by adding half the births during the period to the civilian population and subtracting those segments of population, such as college enrollment, and the number in resident institutions that remained constant during the 5-year period.

Following is the computation of the net migration estimate for the state:

Population in selected age groups, 4/1/50	448,923
Membership in grades 1 - 8, 4/1/50	465,006
Ratio of those in selected age groups to membership in grades 1 - 8, (448,923 ÷ 465,006)	0.96541
Membership in grades 1 - 8, 6/30/55	505,642
Estimated population in selected age groups, 6/30/55 (0.96541 X 505,642)	488,152
Survivors of those in selected age groups, 4/1/50 - 6/30/55	523,797
Net migration in these age groups (488,152 - 523,797)	- 35,645
Size of cohort, as of 4/1/50	528,018
Migration factor (-35,645 ÷ 528,018)	- 0.06751
Population subject to migration	3,073,158
Net migration at all ages (-0.06751 X 3,073,158)	- 207,000 ^a

II. Population Estimate

The civilian population, as of June 30, 1955, was estimated by adding to the 1950 civilian population, according to the U. S. Census, the natural increase and subtracting the loss through net migration during the period. From this number the net loss to the armed forces was subtracted leaving the estimated civilian population. The total population was estimated by simply adding to the civilian population the military personnel stationed in the various counties.

a Does not include changes in military personnel.

In an effort to gain greater reliability in estimating the population of Kentucky by counties, two refinements of previous population estimates made by the Rural Sociology Department, University of Kentucky, have been used in the 1955 estimates. One such refinement is the use of school membership data rather than school enrollment or school census data.

The other refinement involves the use of two age groups, 6-13 and 7-14, as reflecting more accurately the membership in grades 1-8. 2/

Although these refinements will affect, slightly, comparison between the 1955 estimates and those made previously, the estimates are in the main comparable. As pointed out earlier, 3/ however, the estimates of larger segments of population are more dependable than estimates of smaller segments. For the same reasons, estimates of changes in population are more dependable when the annual population estimates are compared with the 1950 population than when the estimates are compared on a year-to-year basis.

^{1/} The reason for this change is set forth in the footnote on page 20.

^{2/} The procedure used is described on page 20.

^{3/} See page 4.