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# Population Change in West Virginia, 1900 - 1955--

Population Estimates,  
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Net Migration for the Counties

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# Population Change in West Virginia, 1900-1955--

## Population Estimates, Natural Increase, and Net Migration for the Counties

Leonard M. Sizer

West Virginia has recorded gains in population with each census from 1900 to 1950, though the rate of gain has decreased each decade, as is indicated in Table 1.

Table 1. Population of West Virginia, 1900-1950, and Percentage of Change from Previous Decade.\*

Year	Population	Percentage of change
1900	958,800	
1910	1,221,119	27.4
1920	1,413,701	19.9
1930	1,729,205	18.1
1940	1,901,974	10.0
1950	2,005,552	5.4

\*United States Census of Population 1950, Vol. 1, Chapter 1, Tables 6 & 7.

During the five-year period since 1950, information<sup>1</sup> released periodically by the Census Bureau indicates that West Virginia's population, as a whole, is declining. Previous census returns indicated that many

<sup>1</sup>United States Bureau of the Census, *Current Population Reports, Population Estimates*, P-25, No. 125, November 8, 1956; No. 129, January 20, 1956; No. 145, October 19, 1956.

Table 2. Population Estimates, July 1,\* 1955, and Components of Population Change for West Virginia Counties, April 1, 1950 to July 1, 1955.

County	Civilian Population April 1, 1950	Estimated Population July 1, 1955	Components of Change			Percentage of change 1950-1955
			Natural Increase	Net Migration	Net loss to armed forces	
Barbour	19,745	18,454	1,182	-2,266	207	-6.54
Berkeley	30,359	32,060	1,288	+ 3	290	+5.60
Boone	33,173	35,513	3,874	-1,138	396	+7.05
Braxton	18,082	17,556	1,528	-1,865	189	-2.91
Brooke	26,904	28,660	1,875	+ 229	348	+6.53
Cabell	108,035	110,282	8,543	-5,092	1,204	+2.08
Calhoun	10,252	9,788	681	-1,953	99	-4.59
Clay	14,961	15,463	1,097	-1,222	183	+3.36
Doddridge	9,026	8,097	331	-1,172	88	-10.29
Fayette	82,443	76,777	7,879	-12,669	876	-6.87
Gilmer	9,746	8,920	428	-1,118	136	-8.48
Grant	8,756	8,575	806	- 901	86	-2.07
Greenbrier	39,295	38,617	3,457	-3,713	422	-1.72
Hampshire	12,477	12,662	705	- 492	128	+ .68
Hancock	34,388	37,689	3,616	+ 52	367	+9.60
Hardy	10,032	9,757	605	- 832	108	-2.74
Harrison	85,296	82,974	5,864	-7,381	805	-2.72
Jackson	15,299	15,392	361	- 725	143	+ .61
Jefferson	17,184	17,273	1,216	- 938	189	+ .52
Kanawha	233,629	249,961	26,848	-13,926	2,580	+4.31
Lewis	21,074	20,625	881	-1,150	180	-2.13
Lincoln	22,466	23,912	2,283	- 571	266	+6.44
Logan	77,391	71,101	2,556	-14,893	953	-8.13
McDowell	98,887	92,392	11,985	-17,424	1,056	-6.57
				5,023	704	-7.11

Mineral	22,333	21,809	1,467	-1,751	240	-1.07
Mingo	47,402	49,182	6,575	-4,250	552	-2.35
Monongalia	60,797	58,081	4,499	-6,084	1,131	+3.74
Monroe	13,123	13,643	718	- 62	136	-4.47
Morgan	8,276	8,277	641	- 556	84	+3.96
Nicholas	27,626	28,299	2,067	-2,149	315	+ .01
Ohio	71,672	68,981	4,274	-6,992	673	+2.18
Pendleton	9,313	9,117	598	- 688	106	-3.75
Pleasants	6,369	6,978	432	+ 239	62	-2.10
Pocahontas	12,480	11,759	805	-1,403	123	+9.56
Preston	31,399	30,658	2,551	-2,940	352	-5.78
Putnam	21,021	24,469	1,723	+1,967	242	-2.36
Raleigh	96,273	92,419	9,662	-12,464	1,052	+16.40
Randolph	30,558	28,986	2,418	-3,609	381	-4.00
Ritchie	12,535	11,397	454	-1,489	103	-5.14
Roane	18,408	18,128	1,039	-1,130	189	-9.08
Summers	19,183	17,500	1,097	-2,573	207	-1.52
Taylor	18,422	17,236	959	-1,965	180	-8.77
Tucker	10,600	8,880	481	-2,113	88	-6.44
Tyler	10,535	10,195	319	- 569	90	-16.23
Upshur	19,242	18,779	1,403	-1,633	233	-3.23
Wayne	38,696	40,509	3,123	- 903	407	-2.41
Webster	17,888	17,172	1,733	-2,247	191	+4.68
Wetzel	20,154	19,492	1,355	-1,839	178	-4.00
Wirt	5,119	5,048	164	- 187	48	-3.28
Wood	66,540	69,442	5,547	-2,044	601	-1.39
Wyoming	37,540	41,350	4,938	- 684	444	+4.36
Total	2,005,552	1,990,894	175,796	-168,454	22,000	+10.15
						- .73

\*July 1 date is used because of the completeness and availability of school enrollment figures as of that date which are used in calculating net migration. Likewise, vital statistics are complete for the previous year as of that date.

rural areas of the State have shown smaller populations with each successive census since 1900, even though the State as a whole was increasing in population.

The interplay of forces which has affected West Virginia's farm population has been concisely stated by Armentrout and Johnson as follows:

"With the exception of the Shenandoah River Valley, The South Branch Valley, the Greenbrier Valley, and the highest plateau section north of the Greenbrier Valley, practically all of the state has had an agricultural development more or less incidental to the development of the lumber, oil, gas, and coal industries. While major improvements were being made in the agriculture of the nation from 1880 to 1920, the agriculture in much of West Virginia was largely in a state of arrested development. The influx of populations caused by the lumber, oil and gas industries and the subsequent decline in these industries has tended to leave a larger population dependent upon agriculture than otherwise might have been the case if the land had been settled originally only for agricultural purposes. Land has been devoted to agricultural uses even where the probable income was small, because the income from lumber, oil and gas made up the difference. With a relatively small income remaining from these sources today, the occupants of the land in many sections are forced to get along on the limited income possible from agriculture alone. This has led to land uses not entirely consistent with conservation of soil or with good timber or pasture management. There is a tremendous pressure of population on the land, and low-income farmers abound."<sup>2</sup>

The situation described, together with developments within the coal industry, a drop in coal consumption, and mechanization of mining, have caused a lessening in employment opportunities within the State, resulting in a drop in the total population.

Since the 1920 census, West Virginia has depended upon an excess of births over deaths for its population increase, while, at the same time, witnessing a net out-migration.<sup>3</sup> Only recently has this stream of out-migration exceeded the total natural increase for the State as a whole.

Some have viewed with alarm West Virginia's population loss, whereas others, though expressing regret, have indicated that under the existing circumstances the State could now take better care of those who remained. Until West Virginia is able to share more intensely in industrial development, as is a lively possibility, population loss is likely to continue.

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<sup>2</sup>W. W. Armentrout and T. D. Johnson, *Types of Farming in West Virginia*, West Virginia University Agricultural Experiment Station Bulletin 292, August, 1939, p. 5.

<sup>3</sup>Calculated from successive United States Census data.

## POPULATION ESTIMATES FOR JULY 1, 1955

Table 2 contains the estimates of the July 1, 1955, population for West Virginia by counties. These estimates are calculations and not census figures. The estimates are derived from the 1950 census, vital statistics, and school enrollment figures by a technique which the Bureau of Census has formulated for small areas—that is, counties, cities, and metropolitan areas.

West Virginia school enrollment figures are generally available for the county units only. Unless other and less reliable techniques would be used, population estimates for small areas other than counties would be possible only as school enrollment figures can be made to correspond to the appropriate geographic units.

### ESTIMATING PROCEDURES

The estimates in Table 2 are made by use of the following procedures:<sup>4</sup>

The natural increase figures recorded by the Bureau of Vital Statistics, United States Department of Health, Education, and Welfare, are revised for under-registration of births with an adjustment for the percentage of white and non-white in the 1950 population.

The net migration figure is based upon the school enrollment figures for 1955 adjusted by the relationship of the school enrollment of 1950 to the age cohort 7 1/4 to 14 1/4 and compared with the age cohort 1 1/4 to 9 1/4 of the 1950 census adjusted for underenumeration of lower age groups and for survival.

This relationship between school enrollment and appropriate age cohort is then adjusted so as to be related to the migration of all age groups. The factor 0.94 is the figure which the Bureau of the Census has discovered to be the one most accurately expressing the relationship between this particular school enrollment—age cohort and the total population.

The 0.94 factor is then multiplied by the 1950 census figures, adjusted for underenumeration of younger ages, for births occurring 1950 to 1955, and for loss to the armed forces.

The product is the net migration for the specific area concerned. The net loss to the armed forces has been apportioned to the counties on the basis of the county's proportion of 20- to 24-year-old males to the

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<sup>4</sup>For a more complete account of the procedures see United States Bureau of the Census, *Current Population Reports, Population Estimates: Illustrative Example of a Method of Estimating the Current Population of Sub-Divisions of the United States*, No. 133, March 1956, p. 25.



State's total of this age group. The estimated population for July 1, 1955, is the sum of the 1950 civilian population, plus the natural increase, (plus or minus) the net migration, less the net loss to the armed forces. No adjustment needed to be made for increased military personnel located within the State since there are no major military installations in West Virginia. In considering the accuracy of the estimate of the population for any county, the method used could properly be examined in the light of variations in migration which do not fit the patterns implied in the use of the 0.94 factor between the school enrollment-appropriate age cohort and the total net migration.

### **SOME REASONS FOR POPULATION CHANGE**

Among the factors in population change which may be used to explain the changes in evidence are: (1) a continuing decline in the number of persons engaged in agriculture, supplemented by some consideration of a better man-land ratio having been achieved in the light of technological developments and shifts within agriculture as commercial enterprises; (2) the decline in the number of persons employed in mining, the closing of exhausted mines and the opening of new ones, and the differential advantages of certain mining areas for coal shipments abroad and to industrial areas; (3) the continuing suburban developments which cross county and state boundaries; (4) the beginning of or continuing industrial developments.

A field survey is planned for the summer of 1957 to study the influence of population change and migration upon rural community life. The field survey is expected to indicate if population gains or losses have continued among a selected list of communities which lost or gained more than ten per cent between 1940 and 1950. Factors which seem to relate to these population changes will be studied.