

Population Change of Missouri During the 20TH Century

Ravindra Amonker and Ryan Burson¹

Introduction

Population size and its distribution with respect to various geographical units are among the most important elements in the study of population. These elements are closely associated with the potential for population growth and decline, the economic situation, the age profile, and a variety of other population characteristics. Furthermore, extensive information on population size and distribution is vital if programs relating to agriculture, health, education, transportation, housing, urban renewal, law enforcement, and waste disposal are to be administered equitably. Finally, the facts about the number and distribution of inhabitants are most commonly needed for variety of research purposes. For example, social scientists

compute indexes for criminality, births, deaths, marriage and divorce, based on the characteristics of the population. Administrators must have such information in order to determine how state and federal funds for various programs are apportioned among counties, states and other political subdivisions.

The population of Missouri, as well as any specific area within its boundaries, is constantly changing. To determine changes in population the United States Bureau of the Census gathers a large amount of data, which includes counts of people, their distribution, and their characteristics. The census is conducted at the beginning of each decade, and data from successive censuses provide comparisons of changes in number,

¹Address correspondence to: Dr. Ravindra Amonker, Southwest Missouri State University, Department of Sociology and Anthropology, PACB, Room 451; Springfield, MO 65804. e-mail:rga748f@smsu.edu

distribution and characteristics of population.

The first census of the population of the United States was taken in 1790 and subsequent enumerations have been made each 10 years to the present. The Census of 2000 was the twenty-second decennial census of the United States population.

This report provides an overview of major changes in the population of Missouri during the 20th century and some factors representing these changes. In addition, it is concerned with the final 2000 population counts of Missouri, its counties, and the independent City of St. Louis with emphasis on changes between 1990 and 2000. This report is prepared primarily for people who do not have United States Census material at hand, but desire to know some of the general changes that have occurred in Missouri's population.

Growth of Population

Missouri's percent of change in population has been lower than the nation over the past 100 years (Table1). National percent change from census to census have ranged from a low of 7.2 percent during the depression years of the 1930s to a high of 21.0 percent during the peak-immigration years of the 1910s, followed by peak-baby boom years of the 1950s. Although the percent of increases of Missouri were lower than the nation, the population still managed to increase from 3,106,665 in 1900 to 5,595,211 persons in 2000, an increase of 2,488,546 or 80.1 percent in 100 years, averaging 8 percent decade.

The percent change of Missouri's population was lowest during the decade from 1910-1920, with a modest 3.4 percent increase. This was the result of both lower reproductive rate, and a steady decline in immigration rate from abroad during these years.

Table 1. Population Growth of Missouri and the United States: 1900-2000

Year	Missouri Population	Missouri Total	Change Percent	U.S. Change Percent
1900	3,106,665	---	---	---
1910	3,293,335	186,670	6.0	21.0
1920	3,404,055	110,720	3.4	14.9
1930	3,629,367	225,312	6.6	16.1
1940	3,784,664	155,297	4.3	7.2
1950	3,954,653	169,989	4.5	14.5
1960	4,319,813	365,160	9.2	18.5
1970	4,677,623	357,810	8.3	13.4
1980	4,916,766	239,143	5.1	11.4
1990	5,116,901	200,135	4.1	9.8
2000	5,595,211	478,310	9.3	13.2

Source: U. S. Bureau of the Census (1993 and 2001)

The decade with the next lowest population growth was the 1980-1990 decade, with a modest 4.1 percent increase. Both a lower reproductive rate and net out migration from the State were responsible. The decade 1930-1940 also showed a low rate of population increase of 4.3 percent reflective of the Great Depression. Because of the Depression, immigration from abroad shrank to very low levels and the reproductive rate reached an unprecedented low level. With the advent of the Second World War, population growth rates recovered, and during the decades 1950-

1960 and 1960-1970, there were increases of 9.2 percent and 8.3 percent respectively. These increases were the result of a rise in the birth rate, a phenomenon popularly known as the baby boom. After 1970, the population course shifted again, and the growth rate resumed its low level in the decades from 1970 to 1980, and 1980 to 1990. However, during the decade from 1990 to 2000, the population had the highest growth rate of 9.3 percent increase, reflective of both modest reproductive growth and vigorous net migration growth in the state.

Patterns of population growth and decline have varied greatly between counties of Missouri. Some have experienced continued population growth while others have had continued losses for several decades. Still others have had alternate increases and decreases lasting for comparatively short periods of time. On a long-term basis, of Missouri's 114 counties, 61 gained population, and 53 lost population between 1900 and 2000. The City of St. Louis also had a smaller population in 2000 than in 1900 and experienced the largest loss (227,049) in population, from 575,238 to 348,189 (Table 2). In the 20th century, there are clearly three fundamental types of factors involved in growth or decline of areas and counties of Missouri (Figure 1)². First, the decline in population in the northern agricultural areas such as Atchison County -156.6 percent,

Chariton County -217.9 percent, Holt County -219.2 percent, Putnam County -219.5 percent, and Worth County -312.8 percent, is reflective of outmigration resulting from technological advances in agriculture leading to a decline in the farm population. Mechanization enabled the large farm operator to produce more with less hired labor. Thus, a number of farmers went out of business and their lands were consolidated into larger holdings.

Second, the metropolitan areas have grown as the center city residents have moved to the outer limits of the metropolitan areas. These areas influence growth as far as 40 to 50 miles from the major cities, reflecting the interstate highway's (I-44, I-70 and I-55) effect, which leads to growth expansion far beyond the central city. The percent of population change for counties outside Kansas City (Cass County 71.2%, Platte County 78.1% and Clay County 89.7%), St. Louis (Franklin County 67.4%, Jefferson County 87.0%, and St. Charles

²Editor's note: Figures 1-4 are in pdf format.

Area	Population		Change		Area	Population		Change	
	2000	1900	Total	Percent		2000	1900	Total	Percent
Missouri	5,595,211	3,106,665	2,488,546	80.1	Daviess	8,016	21,325	-13,309	-62.4
Adair	24,977	21,728	3,249	15.0	DeKalb	11,597	14,418	-2,821	-19.6
Andrew	16,492	17,332	-840	-4.8	Dent	14,927	12,986	1,941	14.9
Atchison	6,430	16,501	-10,071	-61.0	Douglas	13,084	16,802	-3,718	-22.1
Audrain	25,853	21,160	4,693	22.2	Dunklin	33,155	21,706	11,449	52.7
Barry	34,010	25,532	8,478	33.2	Franklin	93,807	30,581	63,226	206.7
Barton	12,541	18,253	-5,712	-31.3	Gasconade	15,342	12,298	3,044	24.8
Bates	16,653	30,141	-13,488	-44.7	Gentry	6,861	20,554	-13,693	-66.6
Benton	17,180	16,556	624	3.8	Greene	240,391	52,713	187,678	356.0
Bollinger	12,029	14,650	-2,621	-17.9	Grundy	10,432	17,832	-7,400	-41.5
Boone	135,454	28,642	106,812	372.9	Harrison	8,850	24,398	-15,548	-63.7
Buchanan	85,998	121,838	-35,840	-29.4	Henry	21,997	28,054	-6,057	-21.6
Butler	40,867	16,769	24,098	143.7	Hickory	8,940	9,985	-1,045	-10.5
Caldwell	8,969	16,656	-7,687	-46.2	Holt	5,351	17,083	-11,732	-68.7
Callaway	40,766	25,984	14,782	56.9	Howard	10,212	18,337	-8,125	-44.3
Camden	37,051	13,113	23,938	182.6	Howell	37,238	21,834	15,404	70.6
Cape Girardeau	68,693	24,315	44,378	182.5	Iron	10,697	8,716	1,981	22.7
Carroll	10,285	26,455	-16,170	-61.1	Jackson	654,880	195,193	459,687	235.5
Carter	5,941	6,706	-765	-11.4	Jasper	104,686	84,018	20,668	24.6
Cass	82,092	23,636	58,456	247.3	Jefferson	198,099	25,712	172,387	670.5
Cedar	13,733	16,923	-3,190	-18.9	Johnson	48,258	27,843	20,415	73.3
Chariton	8,438	26,826	-18,388	-68.5	Knox	4,361	13,479	-9,118	-67.6
Christian	54,285	16,939	37,346	220.5	Laclede	32,513	16,523	15,990	96.8
Clark	7,416	15,383	-7,967	-51.8	Lafayette	32,960	31,679	1,281	4.0
Clay	184,006	18,903	165,103	873.4	Lawrence	35,204	31,662	3,542	11.2
Clinton	18,979	17,363	1,616	9.3	Lewis	10,494	16,724	-6,230	-37.3
Cole	71,397	20,578	50,819	247.0	Lincoln	38,944	18,352	20,592	112.2
Cooper	16,670	22,532	-5,862	-26.0	Linn	13,754	25,503	-11,749	-46.1
Crawford	22,804	12,959	9,845	76.0	Livingston	14,558	22,302	-7,744	-34.7
Dade	7,923	18,125	-10,202	-56.3	McDonald	21,681	13,574	8,107	59.7
Dallas	15,661	13,903	1,758	12.6	Macon	15,762	33,018	-17,256	-52.3
					Madison	11,800	9,975	1,825	18.3
Area	Population		Change		Area	Population		Change	
	2000	1900	Total	Percent		2000	1900	Total	Percent
Maries	8,903	9,616	-713	-7.4	Reynolds	6,689	8,161	-1,472	-18.0
Marion	28,289	26,331	1,958	7.4	Ripley	13,509	13,186	323	2.4
Mercer	3,757	14,706	-10,949	-74.5	St. Charles	283,883	24,474	259,409	1059.9
Miller	23,564	15,187	8,377	55.2	St. Clair	9,652	17,907	-8,255	-46.1
Mississippi	13,427	11,837	1,590	13.4	Ste. Genevieve	17,842	10,359	7,483	72.2
Moniteau	14,827	15,931	-1,104	-6.9	St. Francois	55,641	24,051	31,590	131.3
Monroe	9,311	19,716	-10,405	-52.8	St. Louis	1,016,315	50,040	966,275	1931.0
Montgomery	12,136	16,571	-4,435	-26.8	Saline	23,756	33,703	-9,947	-29.5
Morgan	19,309	12,175	7,134	58.6	Schuyler	4,170	10,840	-6,670	-61.5
New Madrid	19,760	11,280	8,480	75.2	Scotland	4,983	13,232	-8,249	-62.3
Newton	52,636	27,001	25,635	94.9	Scott	40,422	13,092	27,330	208.8
Nodaway	21,912	32,938	-11,026	-33.5	Shannon	8,324	11,247	-2,923	-26.0
Oregon	10,344	13,906	-3,562	-25.6	Shelby	6,799	16,167	-9,368	-57.9
Osage	13,062	14,096	-1,034	-7.3	Stoddard	29,705	24,669	5,036	20.4
Ozark	9,542	12,145	-2,603	-21.4	Stone	28,658	9,892	18,766	189.7
Pemiscot	20,047	12,115	7,932	65.5	Sullivan	7,219	20,282	-13,063	-64.4
Perry	18,132	15,134	2,998	19.8	Taney	39,703	10,127	29,576	292.1
Pettis	39,403	32,438	6,965	21.5	Texas	23,003	22,192	811	3.7
Phelps	39,825	14,194	25,631	180.6	Vernon	20,454	31,619	-11,165	-35.3
Pike	18,351	25,744	-7,393	-28.7	Warren	24,525	9,919	14,606	147.3
Platte	73,781	16,193	57,588	355.6	Washington	23,344	14,263	9,081	63.7
Polk	26,992	23,255	3,737	16.1	Wayne	13,259	15,309	-2,050	-13.4
Pulaski	41,165	10,394	30,771	296.0	Webster	31,045	16,640	14,405	86.6
Putnam	5,223	16,688	-11,465	-68.7	Worth	2,382	9,832	-7,450	-75.8
Ralls	9,626	12,287	-2,661	-21.7	Wright	17,955	17,519	436	2.5
Randolph	24,663	24,442	221	0.9	City of St. Louis	348,189	575,238	-227,049	-39.5
Ray	23,354	24,805	-1,451	-5.8					

Source: U. S. Bureau of the Census (1902 and 2001)

County 91.4%) and Springfield (Christian County 68.8% and Webster County 46.4%) have been affected by this growth. This kind of change, labeled as "suburbanization", has been taking place throughout the United States for decades, and Missouri is no exception to the national pattern. Lower population density, greater space with relatively fewer restrictions on land use, lower land prices, greater employment and educational opportunities, and higher standards of living offer added attractions for these high growth areas.

Finally, an unusual phenomenon affecting population changes is the movement of people to the less populated rural areas of the Missouri Ozarks (Taney County 74.5%, Stone County 65.5%, and Camden County 64.6%) in the southern part of the State. The attraction of man-made lakes, such as Lake of the Ozarks, Pomme de Terre Lake, Table Rock Lake, and Lake Taneycomo, is eminently clear. In addition, the region's less hurried way of life

has become a major attraction for the settlers. The growth potential of these areas has been well identified by developers, who now offer housing sites, homes, shopping strips and varied services. Once again, lower land prices, taxes, and cost of living; coupled with limited restrictions, less congestion and pollution, and scenic beauty are the major attractions in the Missouri Ozarks. The development of recreation and tourist facilities has created jobs, bringing more people into the area. Immigration of retirees and returning persons is also a significant factor. Living conditions, familial ties, and a sense of coming home are among the likely determinants of this movement.

Size and Distribution of Population

The number of inhabitants residing in Missouri on April 1, 2000 was 5,595,211 persons. This was an absolute increase of 478,310 over the 1990 count of 5,116,901. While Missouri's population grew by 9.3

percent, the nation's population increased by 13.2 percent to over 281 million during the 1990-2000 decade. Compared with other states, Missouri ranked seventeenth among the states in total population in 2000. California, the most populous state, had over six times (33,871,648) as many people as Missouri. In 2000, Missouri contained 1.9 percent of the nation's total population, and accounted for 2 percent, or 68,945 square miles, of the nation's land area.

Between 1990 and 2000, twenty-nine states in the nation exceeded Missouri's percent of increase in population. The greatest percent of increase in this 10-year period occurred in Nevada, whose population showed a phenomenal 56.3 percent gain, and this increase was closely followed by Arizona with 40.0 percent, and Colorado with 30.6 percent. At the other extreme, only the District of Columbia sustained a population loss, with a 5.7 percent decrease. Missouri's pattern of

change was similar historically to many midwestern states. The state is on the edge of the Sunbelt, and those states to the south generally increased more rapidly than Missouri, while large industrial states such as Illinois, Michigan, Ohio and New York had a slower percent change of increase than Missouri.

Population distribution is the geographical arrangement of the population within the physical space of the state boundaries. The major factors that determine the pattern of population distribution are: (1) geographical factors, such as climate, terrain, soils and natural resources; (2) economic, social and political factors, such as the type of economic activity and the form of social organization; and (3) demographic factors, such as the different growth rates that exist between areas as a result of differences in births, deaths and migration rates (United Nations, 1973).

Although Missouri ranked seventeenth among the states in total numbers of people, the population was very unevenly distributed throughout the state (Table 3). Some counties had very large, densely settled populations, while others had very small, sparsely settled populations. In 2000, St. Louis County was the most populous county in Missouri with a total of 1,016,315 residents, or 18.2 percent of the state's population. The second most populous county was Jackson, with 654,880 residents (11.7%), followed by St. Louis City with 348,189 residents (6.2%), St. Charles County with 283,883 (5.1%), Greene County with 240,391 residents (4.3 %), Jefferson County 198,116 (3.3%), Boone County 130,179 (2.4 %) and Jasper County with 104,686 (1.9%). These eight counties and the City of St. Louis are parts of the St. Louis, Kansas City, Springfield, Columbia, and Joplin metropolitan areas, and accounted for over 56 percent of the State's total population in 2000. Worth County

was the least populous county in Missouri, with a total of 2,382 residents (0.04%).

One notable feature of Missouri's population picture is the wide variation among counties in gains and losses in the number of people. Of Missouri's 114 counties, 97 gained population and 17 lost population during the 1990-2000 decade. St. Charles County grew by 71,132 persons during the decade, Greene County by 32,442, Clay County by 30,595, Jefferson County by 26,719, Boone County by 23,075, St. Louis County by 22,807, and Jackson County by 21,646. On the other hand, the City of St. Louis experienced the largest numerical decline in population of 48,496 persons, followed by Pemiscot County 1,874, and New Madrid County 1,168 persons.

Although the population of Missouri increased by 9.3 percent, the change in population of counties was very uneven

Table 3. Population Change and Components of Population Change of Missouri by Counties: 1990-2000

Area	Population		Change: 1990-2000		Components of Population Change: 1990-2000					
	2000	1990	Total	Percent	Natural Increase			Net Migration		
					Births	Deaths	Total	Percent	Total	Percent
Missouri	5,595,211	5,116,901	284,504	5.6	344,128	241,249	102,879	2.0	181,625	5.0
Adair	24,977	24,577	400	1.6	2,788	2,269	519	2.1	-119	-0.5
Andrew	16,492	14,632	1,860	12.7	1,769	1,550	219	1.5	1,641	11.2
Atchison	6,430	7,457	-1,027	-13.8	664	959	-295	-4.0	-732	-9.8
Audrain	25,853	23,599	2,254	9.6	3,223	2,973	250	1.1	2,004	8.5
Barry	34,010	27,547	6,463	23.5	4,409	3,569	840	3.0	5,623	20.4
Barton	12,541	11,312	1,229	10.9	1,696	1,447	249	2.2	980	8.7
Bates	16,653	15,025	1,628	10.8	1,963	2,110	-147	-1.0	1,775	11.8
Benton	17,180	13,859	3,321	24.0	1,411	2,319	-908	-6.6	4,229	30.5
Bollinger	12,029	10,619	1,410	13.3	1,374	1,271	103	1.0	1,307	12.3
Boone	135,454	112,379	23,075	20.5	17,227	7,426	9,801	8.7	13,274	11.8
Buchanan	85,998	83,083	2,915	3.5	11,636	9,669	1,967	2.4	948	1.1
Butler	40,867	38,765	2,102	5.4	5,288	5,150	138	0.4	1,964	5.1
Caldwell	8,969	8,380	589	7.0	1,035	1,105	-70	-0.8	659	7.9
Callaway	40,766	32,809	7,957	24.3	4,551	3,053	1,498	4.6	6,459	19.7
Camden	37,051	27,495	9,556	34.8	3,261	3,319	-58	-0.2	9,614	35.0
Cape Girardeau	68,693	61,633	7,060	11.5	8,273	6,301	1,972	3.2	5,088	8.3
Carroll	10,285	10,748	-463	-4.3	1,300	1,455	-155	-1.4	-308	-2.9
Carter	5,941	5,515	426	7.7	809	773	36	0.7	390	7.1
Cass	82,092	63,808	18,284	28.7	10,187	5,805	4,382	6.9	13,902	21.8
Cedar	13,733	12,093	1,640	13.6	1,459	1,976	-517	-4.3	2,157	17.8
Chariton	8,438	9,202	-764	-8.3	823	1,335	-512	-5.6	-252	-2.7
Christian	54,285	32,644	21,641	66.3	6,198	3,106	3,092	9.5	18,549	56.8
Clark	7,416	7,547	-131	-1.7	818	911	-93	-1.2	-38	-0.5
Clay	184,006	153,411	30,595	19.9	23,780	12,357	11,423	7.4	19,172	12.5
Clinton	18,979	16,595	2,384	14.4	2,251	1,963	288	1.7	2,096	12.6
Area	Population		Change: 1990-2000		Components of Population Change: 1990-2000					
	2000	1990	Total	Percent	Natural Increase			Net Migration		
					Births	Deaths	Total	Percent	Total	Percent
Cole	71,397	63,579	7,818	12.3	8,966	5,561	3,405	5.4	4,413	6.9
Cooper	16,670	14,835	1,835	12.4	1,914	1,728	186	1.3	1,649	11.1
Crawford	22,804	19,173	3,631	18.9	2,978	2,390	588	3.1	3,043	15.9
Dade	7,923	7,449	474	6.4	885	1,116	-231	-3.1	705	9.5
Dallas	15,661	12,646	3,015	23.8	1,960	1,609	351	2.8	2,664	21.1
Daviess	8,016	7,865	151	1.9	1,137	1,108	29	0.4	122	1.6
DeKalb	11,597	9,967	1,630	16.4	1,018	1,204	-186	-1.9	1,816	18.2
Dent	14,927	13,702	1,225	8.9	1,700	1,823	-123	-0.9	1,348	9.8
Douglas	13,084	11,876	1,208	10.2	1,467	1,392	75	0.6	1,133	9.5
Dunklin	33,155	33,112	43	0.1	4,844	4,674	170	0.5	-127	-0.4
Franklin	93,807	80,603	13,204	16.4	12,554	7,946	4,608	5.7	8,596	10.7
Gasconade	15,342	14,006	1,336	9.5	1,724	1,970	-246	-1.8	1,582	11.3
Gentry	6,861	6,854	7	0.1	826	1,112	-286	-4.2	293	4.3
Greene	240,391	207,949	32,442	15.6	30,126	21,218	8,908	4.3	23,534	11.3
Grundy	10,432	10,536	-104	-1.0	1,259	1,650	-391	-3.7	287	2.7
Harrison	8,850	8,469	381	4.5	965	1,367	-402	-4.7	783	9.2
Henry	21,997	20,044	1,953	9.7	2,402	2,914	-512	-2.6	2,465	12.3
Hickory	8,940	7,335	1,605	21.9	737	1,375	-638	-8.7	2,243	30.6
Holt	5,351	6,034	-683	-11.3	544	821	-277	-4.6	-406	-6.7
Howard	10,212	9,631	581	6.0	1,150	1,170	-20	-0.2	601	6.2
Howell	37,238	31,447	5,791	18.4	4,714	4,307	407	1.3	5,384	17.1
Iron	10,697	10,726	-29	-0.3	1,364	1,838	-474	-4.4	445	4.1
Jackson	654,880	633,234	21,646	3.4	99,176	62,618	36,558	5.8	-14,912	-2.4
Jasper	104,686	90,465	14,221	15.7	14,779	10,707	4,072	4.5	10,149	11.2
Jefferson	198,099	171,380	26,719	15.6	26,746	13,460	13,286	7.8	13,433	7.8

Table 3 (con't)										
Area	Population				Components of Population Change: 1990-2000					
	Population		Change: 1990-2000		Births	Deaths	Natural Increase		Net Migration	
	2000	1990	Total	Percent			Total	Percent	Total	Percent
Johnson	48,258	42,514	5,744	13.5	6,643	2,907	3,736	8.8	2,008	4.7
Knox	4,361	4,482	-121	-2.7	512	651	-139	-3.1	18	0.4
Laclede	32,513	27,158	5,355	19.7	4,166	3,204	962	3.5	4,393	16.2
Lafayette	32,960	31,107	1,853	6.0	3,922	3,822	100	0.3	1,753	5.6
Lawrence	35,204	30,236	4,968	16.4	4,606	3,794	812	2.7	4,156	13.7
Lewis	10,494	10,233	261	2.6	1,237	1,237	0	0.0	261	2.6
Lincoln	38,944	28,892	10,052	34.8	4,791	2,704	2,087	7.2	7,965	27.6
Linn	13,754	13,885	-131	-0.9	1,779	2,052	-273	-2.0	142	1.0
Livingston	14,558	14,592	-34	-0.2	1,813	1,953	-140	-1.0	106	0.7
McDonald	21,681	16,938	4,743	28.0	2,957	1,927	1,030	6.1	3,713	21.9
Macon	15,762	15,345	417	2.7	1,848	2,218	-370	-2.4	787	5.1
Madison	11,800	11,127	673	6.0	1,359	1,592	-233	-2.1	906	8.1
Maries	8,903	7,976	927	11.6	953	928	25	0.3	902	11.3
Marion	28,289	27,682	607	2.2	3,970	3,582	388	1.4	219	0.8
Mercer	3,757	3,723	34	0.9	387	535	-148	-4.0	182	4.9
Miller	23,564	20,700	2,864	13.8	3,082	2,496	586	2.8	2,278	11.0
Mississippi	13,427	14,442	-1,015	-7.0	2,067	1,887	180	1.2	-1,195	-8.3
Moniteau	14,827	12,298	2,529	20.6	1,753	1,414	339	2.8	2,190	17.8
Monroe	9,311	9,104	207	2.3	1,051	1,110	-59	-0.6	266	2.9
Montgomery	12,136	11,355	781	6.9	1,414	1,589	-175	-1.5	956	8.4
Morgan	19,309	15,574	3,735	24.0	2,131	2,340	-209	-1.3	3,944	25.3
New Madrid	19,760	20,928	-1,168	-5.6	2,893	2,588	305	1.5	-1,473	-7.0
Newton	52,636	44,445	8,191	18.4	6,622	4,850	1,772	4.0	6,419	14.4
Nodaway	21,912	21,709	203	0.9	2,164	2,029	135	0.6	68	0.3
Oregon	10,344	9,470	874	9.2	1,178	1,384	-206	-2.2	1,080	11.4
Osage	13,062	12,018	1,044	8.7	1,606	1,221	385	3.2	659	5.5
Ozark	9,542	8,598	944	11.0	972	1,135	-163	-1.9	1,107	12.9
Pemiscot	20,047	21,921	-1,874	-8.5	3,840	2,933	907	4.1	-2,781	-12.7
Perry	18,132	16,648	1,484	8.9	2,260	1,883	377	2.3	1,107	6.6
Pettis	39,403	35,437	3,966	11.2	5,223	4,238	985	2.8	2,981	8.4
Phelps	39,825	35,248	4,577	13.0	4,500	3,816	684	1.9	3,893	11.0
Pike	18,351	15,969	2,382	14.9	2,060	1,893	167	1.0	2,215	13.9
Platte	73,781	57,867	15,914	27.5	9,356	3,929	5,427	9.4	10,487	18.1
Polk	26,992	21,826	5,166	23.7	3,257	2,786	471	2.2	4,695	21.5
Pulaski	41,165	41,307	-142	-0.3	6,707	2,516	4,191	10.1	-4,333	-10.5
Putnam	5,223	5,079	144	2.8	577	786	-209	-4.1	353	7.0
Ralls	9,626	8,476	1,150	13.6	941	881	60	0.7	1,090	12.9
Randolph	24,663	24,370	293	1.2	3,242	3,057	185	0.8	108	0.4
Ray	23,354	21,968	1,386	6.3	2,944	2,202	742	3.4	644	2.9
Reynolds	6,689	6,661	28	0.4	759	719	40	0.6	-12	-0.2
Ripley	13,509	12,303	1,206	9.8	1,689	1,697	-8	-0.1	1,214	9.9
St. Charles	283,883	212,751	71,132	33.4	38,647	13,421	25,226	11.9	45,906	21.6
St. Clair	9,652	8,457	1,195	14.1	957	1,308	-351	-4.2	1,546	18.3
Ste. Genevieve	17,842	16,037	1,805	11.3	1,934	1,487	447	2.8	1,358	8.5
St. Francois	55,641	48,904	6,737	13.8	6,665	6,253	412	0.8	6,325	12.9
St. Louis	1,016,315	993,508	22,807	2.3	135,917	92,347	43,570	4.4	-20,763	-2.1
Saline	23,756	23,523	233	1.0	2,939	2,928	11	0.0	222	0.9
Schuyler	4,170	4,236	-66	-1.6	511	654	-143	-3.4	77	1.8
Scotland	4,983	4,822	161	3.3	672	709	-37	-0.8	198	4.1
Scott	40,422	39,376	1,046	2.7	5,923	4,130	1,793	4.6	-747	-1.9

Area	Components of Population Change: 1990-2000									
	Population		Change: 1990-2000		Natural Increase				Net Migration	
	2000	1990	Total	Percent	Births	Deaths	Total	Percent	Total	Percent
Shannon	8,324	7,613	711	9.3	1,002	813	189	2.5	522	6.9
Shelby	6,799	6,942	-143	-2.1	832	1,072	-240	-3.5	97	1.4
Stoddard	29,705	28,895	810	2.8	3,301	3,798	-497	-1.7	1,307	4.5
Stone	28,658	19,078	9,580	50.2	2,873	2,496	377	2.0	9,203	48.2
Sullivan	7,219	6,326	893	14.1	856	1,028	-172	-2.7	1,065	16.8
Taney	39,703	25,561	14,142	55.3	4,305	3,627	678	2.7	13,464	52.7
Texas	23,003	21,476	1,527	7.1	2,689	2,577	112	0.5	1,415	6.6
Vernon	20,454	19,041	1,413	7.4	2,596	2,365	231	1.2	1,182	6.2
Warren	24,525	19,534	4,991	25.6	3,109	1,911	1,198	6.1	3,793	19.4
Washington	23,344	20,380	2,964	14.5	3,031	2,125	906	4.4	2,058	10.1
Wayne	13,259	11,543	1,716	14.9	1,474	1,679	-205	-1.8	1,921	16.6
Webster	31,045	23,753	7,292	30.7	4,108	2,423	1,685	7.1	5,607	23.6
Worth	2,382	2,440	-58	-2.4	261	398	-137	-5.6	79	3.2
Wright	17,955	16,758	1,197	7.1	2,427	2,129	298	1.8	899	5.4
City of Louis	348,189	396,685	-48,496	-12.2	66,405	49,700	16,705	4.2	-65,201	-16.4

Source: U. S. Bureau of the Census, Missouri Department of Health, and Missouri Office of Administration (2001).

between 1990 and 2000 (Figure 2). At one extreme were Christian, Stone and Taney counties, which had population increases of 57.3 percent, 44.2 percent, and 38.8 percent respectively. Seventeen others had population increases exceeding 20 percent. These were:

Barry	23.5%	Dallas	23.8%	Platte	27.5%
Benton	24.0	Hickory	21.9	Polk	23.7
Boone	20.5	Lincoln	34.8	St. Charles	33.3
Callaway	24.3	McDonald	28.8	Warren	25.6
Camden	38.8	Moniteau	20.6	Webster	30.7
Cass	28.7	Morgan	24.0		

At the other extreme was Atchison County, which had a loss of 13.8 percent of the population, followed by the City of St. Louis, which experienced a population loss of 12.2 percent during the decade.

Components of Population Change

Changes in the size of an area's population are primarily the result of three processes: (1) people are born, causing an increase in population; (2) people die, causing a loss in numbers, and (3) people migrate, resulting in a decrease or increase in population, depending on the direction of their movement. When more births than deaths occur in a given area, the phenomenon is referred to as natural increase, while natural decrease occurs when there are more deaths than births. Further, a gain from migration occurs when more people move into an area than move out during a given period. Thus changes in the size of an area's population involve two components, natural increase or

decrease, and net migration (Weller and Bouvier, 1981).

In a departure from demographic trends extending back many decades, a majority of the population increase in Missouri between 1990 and 2000 came from net migration growth and not from natural increase (excess of births over deaths). Of 478,310 persons added to the population, 219,681 persons were added through natural increase (the difference between 752,793 births and 533,112 deaths), while 258,629 were added as a result of net migration. Thus, 54 percent of the total population increase came from net migration and 46 percent from natural increase.

A fairly new population phenomenon continued in Missouri during the 1990-2000 decade. Seventy-one counties and the City of St. Louis had a natural increase; yet 42 counties had a reverse situation, with more deaths than births, a reflection of the higher proportion of elderly populations in these

counties (Figure 3). Consequently, had there been no migration, 42 of Missouri's 114 counties would have declined in population because they had more deaths than births. But due to net in-migration, only thirteen of these counties had fewer residents in 2000 than in 1990. There was a considerable difference in the percent natural change among Missouri counties during the 1990-2000 decade. The natural change varied from a high of 11.9 percent for St. Charles County and 10.1 percent for Pulaski County to a low of - 8.7 percent for Hickory County and - 5.6 percent for Worth County.

Between 1990 and 2000, 99 of Missouri's counties had a net in-migration of people (Figure 4); twenty-nine of these, such as Benton, Hickory, and Morgan counties, had enough immigration to counterbalance their natural decreases, and caused them to register total population gain during the decade. The

counties showing net in-migration above 10,000 residents during the decade were:

Boone	13,274
Clay	19,172
Jefferson	13,433
Cass	13,902
Greene	23,534
Platte	10,487
Christian	18,549
Jasper	10,149
St. Charles	45,906

A total of 15 counties and St. Louis City experienced net out-migration between 1990 and 2000. Of this group, four counties such as New Madrid County, Pulaski County, and the City of St. Louis registered natural increase, however, the number of out-migrants was so large that these counties still sustained population losses over the period from 1990 to 2000. Six counties with net out-migration, such as Adair, Scott and Reynolds counties had sufficient natural increases to permit a slight and in some cases significant population increase, while another 5 counties such as Carroll, Clark, and Holt experienced both net out-migration and natural decrease, leading to

population losses during the decade. The City of St. Louis registered the largest numerical net out-migration of 65,201 persons, followed by St. Louis County, 20,763 and Jackson County, 14,942 persons. Between 1990 and 2000, the counties showing the net in-migration above 30 percent were: Benton County 30.5 percent, Camden County 35.0 percent, Christian County 56.8 percent, Hickory County 30.6 percent, Stone County, 48.2 percent, and Taney County, 52.7 percent. At the other extreme, Pemiscot County and the City of St. Louis had the greatest net out-migration of 12.7 percent and 16.4 percent respectively, during the decade.

Conclusion

The population of Missouri, as well as any specific area within its boundaries, is constantly changing. These population changes represent people's adjustment to economic development, social environment, and the exercise of residential preferences. As we

enter the 21st Century and look toward the future, it becomes clear that changes in population will increasingly affect our society. The population of Missouri, like the population of the United States, will continue to change as long as people, as population actors, vary their fertility, mortality, and migration behaviors. We face the challenge of anticipating such changes and encourage institutions at all levels to plan in ways that will maximize the well-being and satisfaction of the population.

References

- U. S. Bureau of the Census, 1902. *Twelfth Census of the United States Taken in the Year 1900*, Census Reports, Volume II; Part II. Washington, D.C.
- U. S. Bureau of the Census, 1993. *Missouri: 1990 Census of Population and Housing Unit Counts*, CPH-2-27. Washington, D.C.
- U. S. Bureau of the Census, 2001. *Resident and Apportionment Population for States*, Washington, D.C.
- U. S. Bureau of the Census, Missouri Department of Health and Missouri Office of Administration, 2001. *Population Change and Components of Population Change of Missouri by Counties: 1990-2000*. Jefferson City.

The Missouri Electronic Journal of Sociology, 2, 40-54 (2001)

United Nations, 1973. ***The Determinants and Consequences of Population Change***, Volume 1, (pp.162-172), New York.

Weller, Robert H. and Leon F. Bouvier, 1981. ***Population: Demography and Policy***. New York: St. Martin's Press.