

# Population Growth and Migration in Alaska

By Greg Williams

**P**opulation statistics for the state of Alaska have historically been characterized by periods of expansion followed by periods of contraction depending on the economic climate of the state. However, the net result has been an overall increase in the population of the state. With good economic times Alaska's population increased from 495,300 in 1983 to 523,048 in 1984, a 5.6% increase.

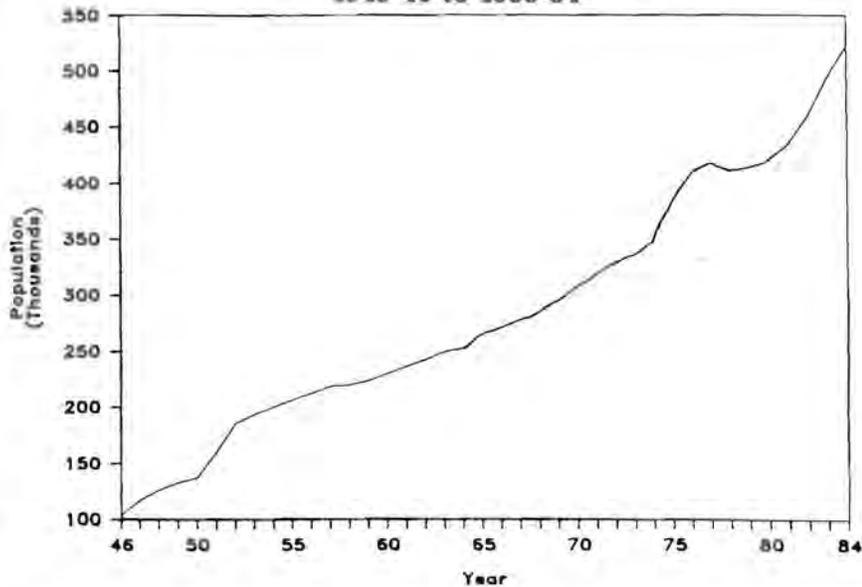
## Population Trends

Alaska's population growth since World War II has been impressive, as shown in Table 1 and Figure 1. The period from the end of World War II until 1952 saw rapid growth in Alaska's population, with the greatest increase during the military buildup for the Korean Conflict. The average annual growth rate for this period was 9.6% per year. From 1952 to 1965, Alaska underwent a much slower, but smoother, average annual growth rate of 2.7% per year. During the period from 1965 through 1973 the rate of population growth gradually increased, producing an average annual growth rate of 3.0% per year.

The construction of the oil pipeline had an impact on population growth during the period from 1973 to 1976. The average annual growth rate during this period was 6.6% per year. The completion of the pipeline construction 'boom' was clearly followed by a 'bust' during the 1976-1980 period. During 1977-78, Alaska actually had a net out-migration of about 6,400 people. The average annual growth rate over the four year period, however, was 0.6% per year as growth in the population due to natural increases offset this out-migration.

Beginning in 1981, another economic boom began, primarily as the result of construction and infrastructure development fueled by both state and private spending. The rapid increase in state spending and the resulting private sector optimism were based on oil prices and state oil tax revenues. As a result, Alaska's population has grown by approximately 30% in four and a quarter years, making it the most rapidly growing state in America

**Figure 1**  
**Alaska Population Trends**  
**1945-46 to 1983-84**



since the 1980 census. The main part of this growth occurred from 1980-1983 during which the average annual growth rate was 5.9% per year. The peak of this growth occurred in 1982-83 and began to slow during 1983-84 with an average annual growth rate of 5.5%. The average annual growth rate for the U.S. as a whole during the 1980-84 period was 1.0% per year.

While no official estimates of the population exist yet for July 1, 1985, preliminary indications are that growth will be slowing much as it did in the 1976-80 period after the pipeline construction boom. The trend toward slower, more moderate growth has resulted from a slowdown in capital spending by state government and private enterprise. The slowdown of spending has occurred because of the current lower price of oil on the world market. However, if the net balance of migration to Alaska during 1984-85 were to be zero, the 1985 population of the state should reach 533,000 due to natural increase alone.

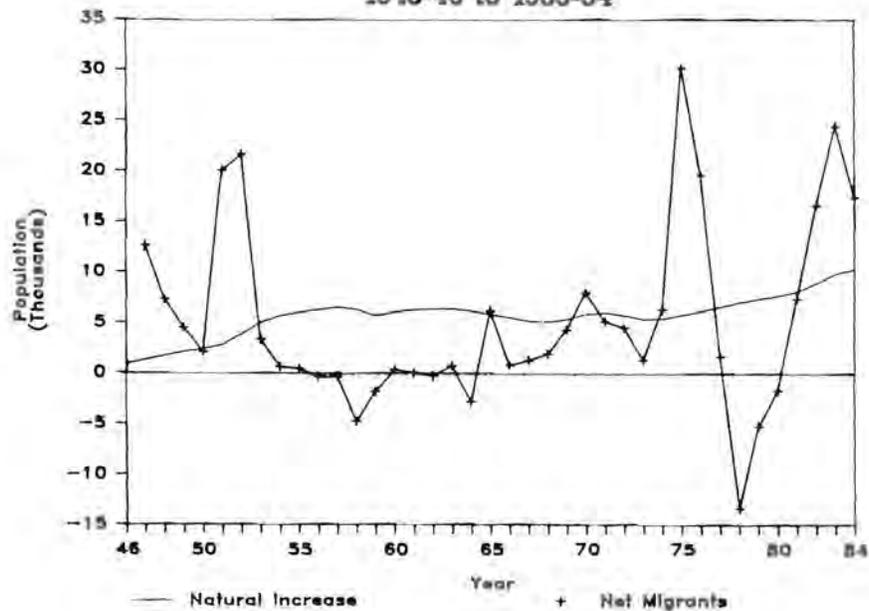
The pace of economic growth, and in turn the population of Alaska, will depend upon the relative demand for Alaskan resources in the U.S. and world economies and will also depend on the amount of federal spending in Alaska. Despite fluctuations in

Alaska's population growth, the overall trend during the post-war period has been towards strong positive growth, with over a fivefold increase in population since 1946. While economic optimism and investment in some areas of Alaska, particularly in construction, have periodically been greater than underlying demographic conditions warranted, overall population growth has and should continue.

### Components of Change

Population change is composed of two components, natural increase (births and deaths) and migration (as shown in Table 1 and Figure 2). In general, natural increase is the relatively stable component of population change. Death rates change very slowly, and while current fertility fluctuates depending on a variety of factors, the general trend in births does not change pace or direction rapidly. Migration is the most volatile component in Alaska's population change, often changing dramatically from one year to the next.

**Figure 2**  
**Alaska Components of Growth**  
1945-46 to 1983-84



Between July 1, 1983, and July 1, 1984, 12,208 persons were born in Alaska and 1,903 persons died, for a net natural increase of 10,305 persons. Alaskan births are currently equivalent to about 2.5% of the population and deaths about 0.4% of the population at the beginning of each year. The net growth as a result of natural increase is 2.1% per year.

Migration was a larger component of change than natural increase in about one-third of the years since 1945. The highest post-World War II proportional growth due to migration occurred during the build up for the Korean War in 1950-51 (14.7%), 1951-52 (13.6%), and during 1945-46 (12.3%). In part, these high percentages were a result of a small population base in these years. The net migration for 1982-83 was numerically larger than in 1950-51, but was equivalent to only 5.3% of the 1982 population. The largest single numerical increase due to migration (30,235 or 8.7%), occurred during pipeline construction in 1974-75. The largest numerical loss (-13,356 or 3.2%), occurred at the end of the pipeline construction in 1977-78. Between July 1, 1983 and July 1, 1984, Alaska gained 17,453 persons through migration. This is 1.7 times the gain through natural increase.

### **Migration**

Where there is rapid population growth as discussed above, well over half of the growth is accounted for by migration as opposed to natural increase. In the past we have lacked accurate migration indicators. This inability to measure migration accurately has been the most important factor in the inaccuracy of population estimates.

Beginning in 1984, Internal Revenue Service migration statistics were made available to Alaska. While these statistics have been available to the U.S. Census Bureau for some time and have aided in the generation of Census Bureau estimates, they have only recently been released to the states. This data significantly improved our ability to track the migration component of population change by providing an independent indicator of migration.

Tabulating the data for IRS migration requires comparing about 90 million income tax return records for two years for change of address. The result is a matrix of 3,141 by 3,141 counties, or county equivalents, with the total number of no change, out-

migrants and in-migrants for every county in America. To insure confidentiality, only the county totals are reported to the Census Bureau by IRS, and where county-to-county flows are small, they are suppressed. Further, these statistics as provided to the states can only be released as migration rates so that the actual number of filers and exemptions are not released.

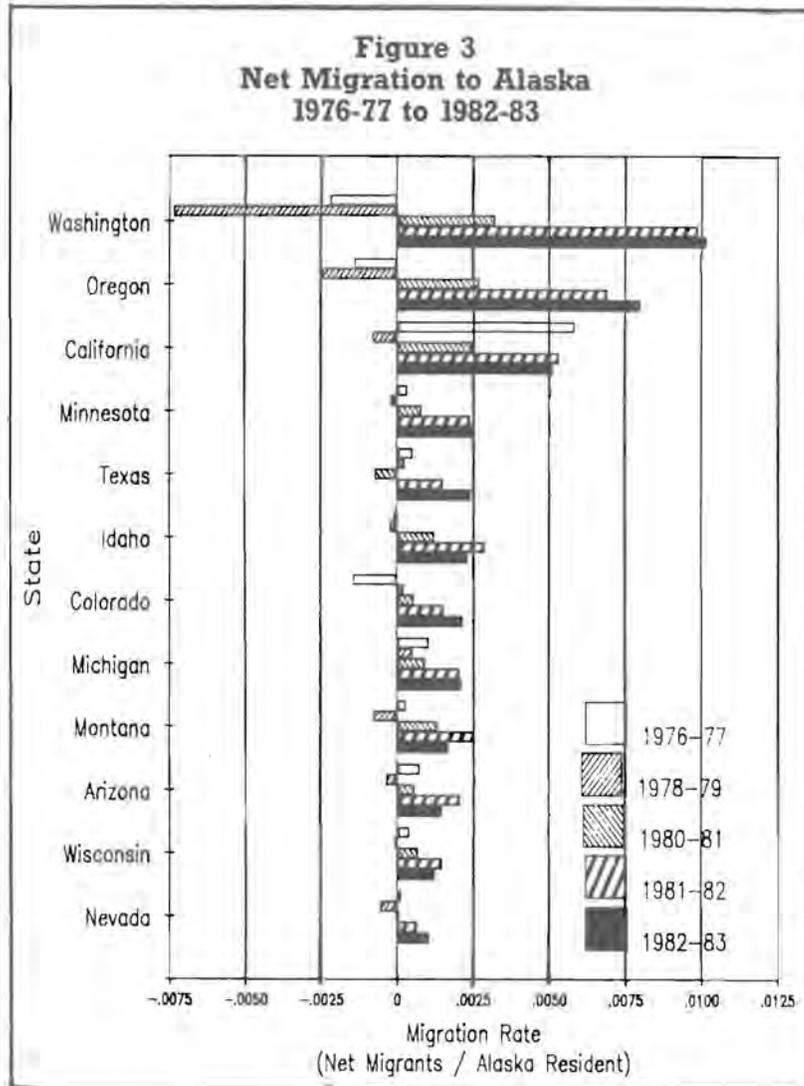
As valuable as these data are for estimating migration they do have limitations. Only the number of filers and dependents on returns for persons under 65 are counted. IRS migration misses persons who do not file tax returns in one or both years being compared, as a result new filers are missed. Statistics may be supplemented by using statistics on the changing number of medicare recipients to track change among older citizens. One limitation of importance to Alaska is that the movement of persons living on subsistence and not filing tax returns are missed.

Migration involves two distinct movements: in-migration, those persons moving into an area; and out-migration, those moving out of an area. What is usually reported as migration is the net balance of these two forces, or 'net migration'. This is the net gain or loss to a community due to migration. Also of interest to some persons is the 'gross migration'. This is the total amount of movement which results from adding the in and out migration. Real estate agents are frequently interested in gross migration because every time someone moves in or out they may potentially generate real estate business. If the in-migration equals the out-migration, then the net migration will be zero. However, if the turnover is high, the gross migration may be quite substantial. This is generally the case in areas with large transient populations such as areas with large military populations. In such places, station strengths may remain stable but troops are rotated on a regular basis.

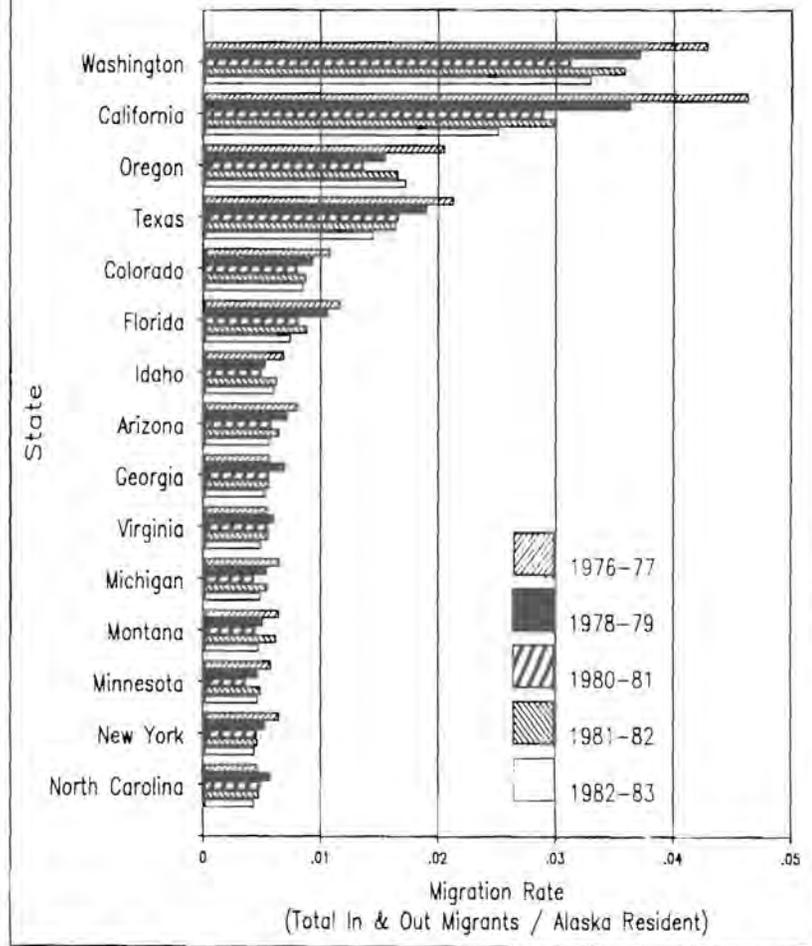
### **Net and Gross Migration to Alaska**

Trends in gross and net migration to and from the states which contributed the most to the exchange of migrants with Alaska are presented in Figures 3 and 4. In general, people tend to more frequently move short distances as opposed to long distances. It is no surprise then, that the most migrants to Alaska

are contributed by the west coast and mountain states nearest to Alaska. Of all the people who have moved to or from Alaska in the 1980's, about half moved to or from: Washington (14%), California (12%), Oregon (7%), Texas (7%), Colorado (4%), Florida (4%), Idaho (3%), or Arizona (3%). The remaining states contributed 2% or less each to the stream of migrants. Migration from Texas tends to be oil related and the migration from Florida tends to consist mostly of military and Coast Guard migrants.

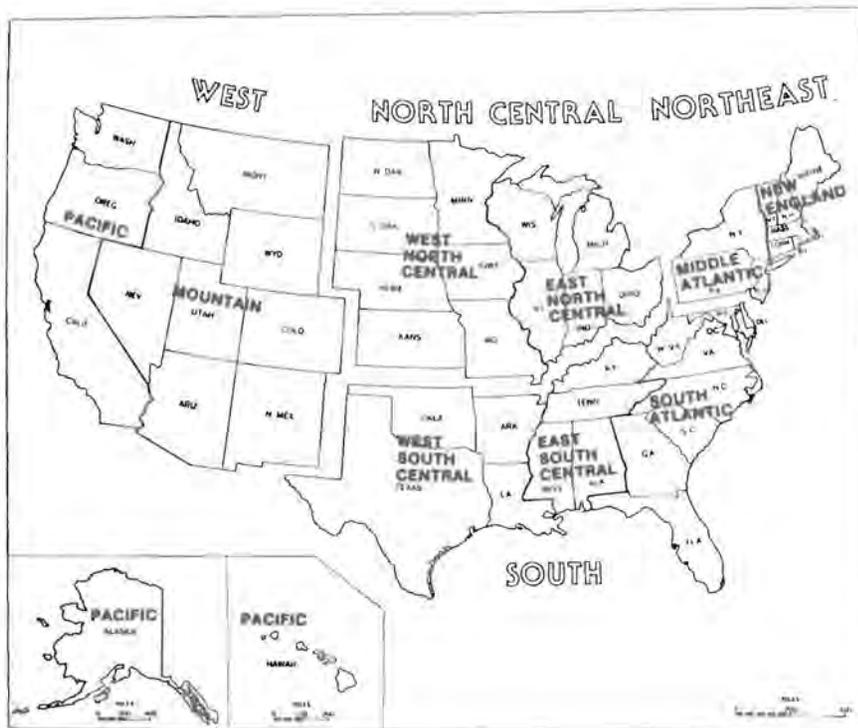


**Figure 4**  
**Gross Migration for Alaska**  
**1976-77 to 1982-83**



The regional distribution of persons who moved to and from Alaska in the 1980s are as follows: Pacific (34%), Mountain (16%), South Atlantic (13%), West South Central (11%), East North Central (7%), West North Central (7%), East South Central (4%), Middle Atlantic (4%), and New England (3%). The South Atlantic states have a heavier than expected contribution of migrants because they are the home of a number of major military and Coast Guard bases which regularly rotate personnel to Alaska.

In general, the states that contribute the most to an in-migration in times of prosperity in Alaska are also the states that people go back to when times get hard. Changes in in-migration, however, are more rapid than changes in out-migration. People are more easily attracted to an area than repelled from an area. If there is not a positive attraction to lure a potential migrant somewhere else, then all options to remaining in a place must generally be exhausted in order for a person to leave. More often than not, the decision to migrate is a mixture of attractions and repulsions which collectively affect the decision to move. While there are many factors affecting a family's or individual's decision to move, the most important factor for persons of working age is availability of work.



Given the regional distribution of migrants to Alaska, it is not surprising that while migration to and from the state is in part dependent upon federal military and program policy, it is also strongly dependent upon Alaska's economic opportunities relative to those in the West and in particular the Pacific Northwest.

A more detailed discussion of Alaska population trends, migration and the population of census areas and places is available in *Alaska Population Overview* currently available from the Alaska Department of Labor.

### **Summary**

As estimated by the Alaska Department of Labor, Alaska's population as of July 1, 1984, was 523,048. The estimated population for the United States as of July 1, 1984, was 236,681,000. Alaska's land area of 570,833 square miles is 16.3% of the total land area of the United States while Alaska's population in 1984 consisted of 0.2% of the population of the United States. Alaska has an average of 0.91 persons per square mile. When Anchorage, which contains 46% of the state's population, is excluded from the calculation, the remainder of Alaska averaged 0.49 persons per square mile. Since most Alaskans live in towns and villages or clustered settlements, some remote areas of the state like Yukon-Koyukuk have as few as 50 persons per 1,000 square miles.

**Table 1**  
**Annual Components of Population Change for Alaska**  
**1945-1984**

July 1 to June 30	End of Period Population	Pop. Change	Components of Change			
			Births	Deaths	Natural Increase	Net Mig.
1945-46	103000		2050	1220	830	
1946-47	117000	14000	2490	1200	1290	12710
1947-48	126000	9000	2890	1180	1710	7290
1948-49	132600	6600	3300	1190	2110	4490
1949-50	137100	4500	3620	1220	2400	2100
1950-51	160000	22900	4110	1310	2800	20100
1951-52	185500	25500	5130	1310	3820	21680
1952-53	193800	8300	6270	1280	4990	3310
1953-54	200100	6300	6910	1240	5670	630
1954-55	206500	6400	7190	1200	5990	410
1955-56	212400	5900	7480	1220	6260	-360
1956-57	218600	6200	7730	1240	6490	-290
1957-58	220100	1500	7450	1200	6250	-4750
1958-59	224000	3900	6830	1170	5660	-1760
1959-60	230400	6400	7290	1250	6040	360
1960-61	236700	6300	7560	1300	6260	40
1961-62	242800	6100	7610	1290	6320	-220
1962-63	249900	7100	7670	1320	6350	750
1963-64	253200	3300	7480	1380	6100	-2800
1964-65	265200	12000	7170	1390	5780	6220
1965-66	271500	6300	6810	1320	5490	810
1966-67	277900	6400	6410	1300	5110	1290
1967-68	284900	7000	6350	1317	5033	1967
1968-69	294600	9700	6670	1330	5340	4360
1969-70	308500	13900	7230	1370	5860	8040
1970-71	319600	11100	7435	1443	5992	5108
1971-72	329800	10200	7126	1461	5665	4535
1972-73	336400	6600	6776	1466	5310	1290
1973-74	348100	11700	6831	1466	5365	6336
1974-75	384100	36000	7260	1495	5765	30235
1975-76	409800	25700	7691	1570	6122	19579
1976-77	418000	8200	8142	1611	6532	1669
1977-78	411600	-6400	8606	1650	6956	-13356
1978-79	413700	2100	8983	1649	7334	-5234
1979-80	419700	6000	9309	1645	7664	-1664
1980-81	435200	15500	9786	1698	8088	7413
1981-82	460837	25637	10714	1754	8960	16678
1982-83	495290	34453	11713	1850	9863	24591
1983-84	523048	27758	12208	1903	10305	17453

Source: Alaska Department of Labor, Research & Analysis, Demographic Unit, 1985.