Population Projections

Utah and Utah's Counties

by
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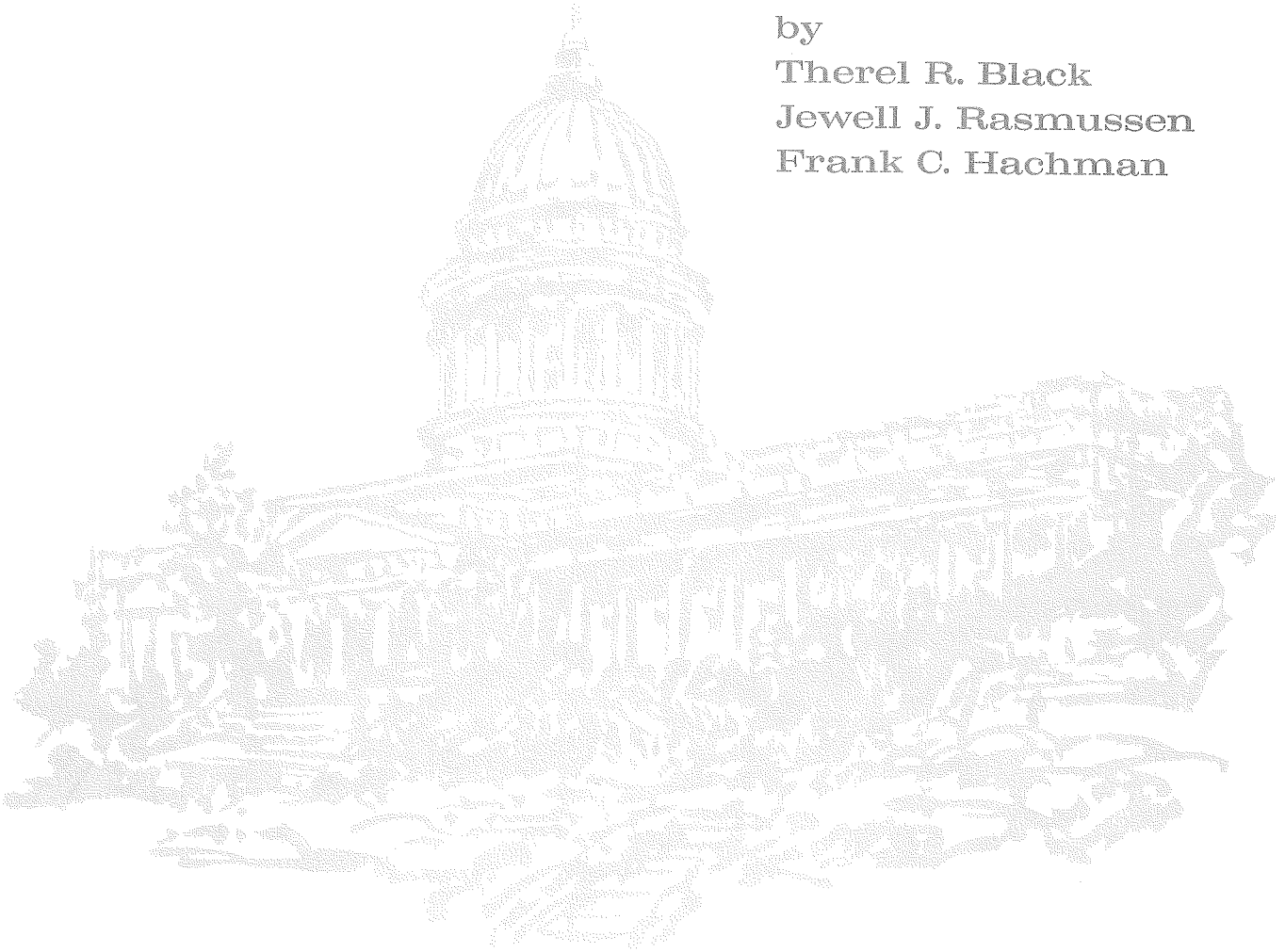

ECONOMIC AND POPULATION STUDIES

UTAH STATE PLANNING PROGRAM

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PREFACE

This report is a product of various studies designed to realize further development of appropriate concepts of how Utah's population may grow. The place of such studies in a state planning program is obvious. Sound estimates of the effects on population of existing conditions, and beyond this of plausible structural changes, are indispensable for planning which efficiently provides for the future.

The best planning decisions, of course, usually will not result from any mechanical use of projected numbers. The demanding exercises in judgment which surround the selection of the projection technique most appropriate for the study, or the modification of an existing series to reflect unforeseen developments, arise because an attempt to precisely predict the size of future population is necessarily a chimerical endeavor. Regardless of the achievements of the social sciences, the future remains significantly imponderable, and the best that any useful projection technique can provide is only a rough sketch of expected conditions. An important consequence of the state of the projection arts, greatly complicating the presentation and interpretation of results, is the fact that no single projection technique is uniformly superior for answering all questions concerning even the general nature of what is implied for the future through existing conditions.

These characteristics of projection techniques restrict the ability to predict population magnitudes which are further developed in Section I of this report. They are mentioned here, not to register a caveat, but to explain the division of activity among the authors and the resulting form of the report. While the entire report has been subjected to a coordination of effort and presentation, only Section I was jointly developed. The remaining sections, in the interest of realizing as much sound conjecture as possible, were cooperatively produced but still remain largely as independent reports. In fact, the basic projection series can be seriously misconstrued if they are not understood to be the independent results of different methodologies.

The principal projection series are explained and presented in Sections II and III of the report. As the two sections are concerned with the outcome of different partial determinants of population growth, it is not surprising that the projections differ in their magnitudes. Indeed, comparing the different series can reveal tensions which could arise if the natural development of population is not equal to the economic base for supporting that population.

The usefulness of the projections can only be jeopardized if the series are viewed as having provided alternative predictions of Utah populations. The

program of drawing upon the specific skills and information of both the sociologist and the economist was not directed at obtaining either a uniform forecast or a collection of possible outcomes of which the reader would have the responsibility of selecting that which seemed most plausible. Sections II and III are better regarded as containing the supplementary implications for Utah's populations derived from both the demographic trends and economic patterns recently evidenced in the state.

The job of discerning the demographic trends and establishing the results of their continuance was performed at Utah State University in a project directed by Therel R. Black, Chairman of the Department of Sociology. The implications for the populations of Utah counties of these natural increase potentials and plausible migration rates are presented as Section II of the report. Dr. Black is individually responsible for the contributions to the report contained in Section II.

The consequences for county populations of sustaining particular employment trends were developed at the University of Utah under the project directorship of Jewell J. Rasmussen, Chairman of the Department of Economics. Dr. Rasmussen is individually responsible for the form and content of Section III. Both Professors Black and Rasmussen contributed to the historical series presented in Section I. The individual accountability for the series is noted in that section.

In Section IV the demographic and economic influences on a region's population are combined in an attempt to establish the broad outlines of the net effect. This effort was built on the basic projections as an experiment in their coordination, and thus, the presented results must be regarded as being strictly supplemental to the fundamental work discussed in Sections II and III. This part of the program was developed by Frank C. Hachman, Assistant Professor of Economics at the University of Utah while he was on leave to that University's Bureau of Economic and Business Research where he provided consulting services to the Office of the State Planning Coordinator. Mr. Hachman is likewise solely responsible for the content of Section IV.

The authors again wish to express their mutual indebtedness to Mr. Robert Huefner who, as State Planning Coordinator, provided the original stimulus for this interdisciplinary development of population projections and arranged for the financial support of the project under a contract with the Urban Renewal Administration of the Federal Housing and Home Finance Agency. The brief statements on the acknowledgement page can only hint at the extent of the additional obligations the authors have to those who materially assisted the development and presentation of this report. However, only the authors bear any responsibility for errors of fact or judgment contained in the report.

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Section I

NATURE AND PURPOSE OF THIS REPORT

Information about the probable number and composition of Utah's future population is vital to the welfare of the state and its counties. Such information is basic when making plans and programs--both public and private--for developing the state's resources. And if population figures for the future are to be more than mere guesses, they must be based as much as possible upon reality. This report attempts to derive future population figures upon the basis of an examination of recent trends on births, deaths, migration and employment. Reasonably firm plans for the future in industrial development and employment are also taken into consideration.

While an attempt is made to project population in terms of "reality," the reader of this report must remember that these projections are not predictions. Rather, the projections are estimates of likely populations under specified and reasonable assumptions about past trends and future developments. Furthermore, the reader should be aware that the projections are made from a certain point of time. Modifications occurring after that point of time, therefore, cannot be considered. This time specification is a realistic necessity. In order to utilize developments more recent than the specified time-base, current projections must be continually updated. Each updating, however, is similarly limited by its specified time-base.

In the last three or four decades, significant events have resulted in marked changes in the population of the state and many communities: the Great Depression of the 1930's with its scarcity of jobs; World War II and its special impact on Utah; the post-war defense program in Utah, and especially the missile program; and the current slowdown in Utah's economy, due largely to retrenchment in the missile industry. Changes of this type and magnitude make it very difficult to project the population of small areas such as counties, and even difficult for a state when its population is as small as Utah's.

Nevertheless, population projections by counties are vital for planning purposes. In an effort to provide highly informative and soundly based projections, a twofold approach was selected. One approach, a study of the natural increase as modified by migration, is presented in Section II of this report. These projections are generated from specific birth, death, and migration rate assumptions; and both the projections and the historical background which led to the rates employed are discussed in Section II. The second approach involved an economic analysis of job potentials, assuming that county and state populations are ultimately constrained by the availability

of jobs. Population projections based on estimated employment are presented in Section III.

Thus, for planning and other purposes, there are two sets of population estimates for each county. One set--for the years 1965, 1970, 1975, and 1980--results from making specific assumptions about birth, death, and migration rates. The other, based on estimated future employment, presents county population estimates for the same years as above plus the years 2000, and 2020.

These projections then give rise to important questions: How many people of the projected natural population increases in Utah and each county will find employment in the state and home counties, and how many will be forced to migrate elsewhere? Should it be the policy of the state and counties to attempt to retain their native citizens; or should the policy be to let migration solve the pending problem? The latter question is often asked in relation to certain rural Utah counties that have inadequate industrial and employment opportunities. But the questions must also be asked as to whether or not industries can be attracted to rural counties, and how jobs can be created.

Similar questions pertain to natural or biological increase: Should Utah be concerned with its relatively high rate of natural increase? Can Utah afford not to give some thought to this issue at a time when the world is alarmed about rapid population expansion? What effects will a continued rapid natural increase have upon existing resources and upon disproportionate increases in the dependent population? How much natural increase can occur without adversely affecting the level of living and the provisions of public services? Appropriate population projections are a necessary part of the foundation needed for answering these questions. However, considering the present level of knowledge concerning the interrelated dynamics of economic development and population growth, and the limited scope of this report, answers to these questions are not ventured in this study.

Projections of population by natural increase are appropriate in the case of nations, where migration is almost wholly internal, and to some extent for states where considerable inter-county migration may take place. Counties, to the contrary, are small units and will almost surely experience migrations which are largely reflective of job availability. Because of this, estimated employment developments are generally used for planning purposes to provide the first approximation to expected county population. However, this method can neither give rise to a detailed description by age and sex, nor can it pinpoint the expected amounts and directions of migration. It is through the cohort-survival projection technique that these important estimates are best produced.

Section IV of this report attempts to integrate the two basic approaches into a synthesis which provides population estimates generated by cohort-survival computations that are consistent with expected employment patterns.

This synthesis estimates the age distributions and specific migration levels which would result from the combination of projected vital rates and job-based totals.

Further, a direct comparison of the two basic projection techniques can lead to estimates of the number of new jobs needed, if each county provides local opportunity for its natural increase population. Alternately, the combined projection method focuses attention on the nature of the problem facing each county in terms of, (1) how much out-migration will be experienced by some counties and how much in-migration by others, and (2) the types and scope of long-range planning that will be necessary to provide adequate public services.

Trends in Birth and Death Rates of Utah and the U.S.

During any given time period, the changes of a population can be determined by the balance of additions through births and in-migration and subtractions by deaths and out-migration with the difference between births and deaths constituting the natural source of growth in the population. In recent times, both in the U.S. and in Utah, this natural increase has been and continues to be the main source of population growth. Nevertheless, in an open population, migration plays an important role. In a relative way, the U.S. has a closed population while Utah's population is open to migration.

In Utah the rate of natural increase has been and continues to be high in comparison to other states in the nation. Every year since 1915, Utah's birth rates have been higher and her death rates lower than those of the U.S. (see Table 1). In fact, the average natural rate of population increase in Utah throughout this period has been about 60 per cent higher than that of the U.S.

Since 1915, because of a high, fluctuating birth rate and a low, declining death rate, Utah has experienced a rapid growth by natural increase. However, part of this natural increase has moved out of the state during some years. Still, the highest rates of natural increase, as shown in Table 1, have occurred in the past two decades because of the post-war baby boom and favorable economic conditions.

Not only has there been a higher rate of natural increase in Utah than in the United States over the 50-year period, but the difference in the natural increase between Utah and the U.S. has been greater during the last half of this period. Except for the influenza year of 1918 where the difference between the Utah and the U.S. rates of natural increase was 8.8 per thousand per year, there were no differences as high as 6 until 1932. From 1941 to 1965, on the other hand, all differences have been substantially greater than 6 per thousand with the exception of 1965. The highest difference of 10.2 occurred in 1952 and since that year the difference has shown a general decline to 5.6 per thousand per year in 1965.

Table 1

BIRTH, DEATH, AND NATURAL INCREASE RATES OF UTAH
AND THE UNITED STATES: 1915 to 1965

Year	Live births per 1,000 population		Deaths per 1,000 population		Natural increase per 1,000 population		
	Utah[1]	U.S.[2]	Utah[1]	U.S.[3]	Utah	U.S.	Difference
1965	22.4	19.5	6.7	9.4	15.7	10.1	5.6
1964	24.5	21.0	6.6	9.4	17.9	11.6	6.3
1963	25.7	21.7	6.7	9.6	19.0	12.1	6.9
1962	27.4	22.4	6.6	9.5	20.8	12.9	7.9
1961	28.4	23.3	6.5	9.3	21.9	14.0	7.9
1960	29.6	23.7	6.7	9.5	22.9	14.2	8.7
1959	29.2	24.3	6.7	9.4	22.5	14.9	7.6
1958	29.7	24.5	6.8	9.5	22.9	15.0	7.9
1957	31.1	25.3	6.8	9.6	24.3	15.7	8.6
1956	30.9	25.2	6.8	9.4	24.1	15.8	8.3
1955	31.5	25.0	6.7	9.3	24.8	15.7	9.1
1954	32.7	25.3	6.9	9.2	25.8	16.1	9.7
1953	32.2	25.0	7.2	9.6	25.0	15.4	9.6
1952	33.2	25.1	7.5	9.6	25.7	15.5	10.2
1951	32.2	24.9	7.3	9.7	24.9	15.2	9.7
1950	30.9	24.1	7.3	9.6	23.6	14.5	9.1
1949	31.3	24.5	7.1	9.7	24.2	14.8	9.4
1948	32.0	24.9	7.8	9.9	24.2	15.0	9.2
1947	34.2	26.6	7.9	10.1	26.3	16.5	9.8
1946	28.6	24.1	7.5	10.0	21.1	14.1	7.0
1945	26.5	20.4	8.2	10.6	18.3	9.8	8.5
1944	26.7	21.2	8.2	10.6	18.5	10.6	7.9
1943	27.2	22.7	8.0	10.9	19.2	11.8	7.4
1942	27.5	22.2	8.4	10.3	19.1	11.9	7.2
1941	24.6	20.3	8.2	10.5	16.4	9.8	6.6
1940	24.2	19.4	8.8	10.8	15.4	8.6	6.8
1939	24.0	18.8	8.7	10.6	15.3	8.2	7.1
1938	24.7	19.2	9.1	10.6	15.6	8.6	7.0
1937	24.0	18.7	9.4	11.3	14.6	7.4	7.2
1936	23.8	18.4	9.7	11.6	14.1	6.8	7.3
1935	24.1	18.7	9.6	10.9	14.5	7.8	6.7
1934	24.2	19.0	9.3	11.1	14.9	7.9	7.0
1933	22.9	18.4	8.4	10.7	14.5	7.7	6.8
1932	23.2	19.5	8.5	10.9	14.7	8.6	6.1
1931	23.4	20.2	8.7	11.1	14.7	9.1	5.6
1930	25.4	21.3	9.9	11.3	15.5	10.0	5.5
1929	24.4	21.2	10.0	11.9	14.4	9.3	5.1
1928	25.7	22.2	10.1	12.0	15.6	10.2	5.4
1927	25.7	23.5	9.5	11.3	16.2	12.2	4.0
1926	26.6	24.2	10.4	12.1	16.2	12.1	4.1
1925	28.2	25.1	9.2	11.7	19.0	13.4	5.6
1924	29.0	26.1	10.5	11.6	18.5	14.5	4.0
1923	28.8	26.0	9.5	12.1	19.3	13.9	5.4
1922	29.7	26.2	10.5	11.7	19.2	14.5	4.7
1921	31.9	28.1	10.5	11.5	21.4	16.6	4.8
1920	31.3	27.7	11.5	13.0	19.8	14.7	5.1
1919	29.2	26.1	11.0	12.9	18.2	13.2	5.0
1918	33.0	28.2	14.1	18.1	18.9	10.1	8.8
1917	30.7	28.5	10.4	14.0	20.3	14.5	5.8
1916	29.8	29.1	10.3	13.8	19.5	15.3	4.2
1915	29.7	29.5	9.8	13.2	19.9	16.3	3.6

[1]The number of Utah births and deaths from which the rates are derived are taken from 1954 Utah Annual Report--Vital Statistics, p. 5 (1915 to 1929 births and deaths) and 1963 Utah Annual Report--Vital Statistics, p. 2 (1929 to 1963 births and deaths). Population estimates which provide the base for the rates are taken from Current Population Reports, Population Estimates, Series P-25, Nos. 289, Aug. 31, 1964 (1960 to 1963 population estimates), 229, May 26, 1961 (1950 to 1960 population estimates), and 139, June 27, 1956 (1915 to 1949 population estimates).

[2]U.S. birth rates are from Natality Statistics Analysis, United States--1962, Vital and Health Statistics, National Center for Health Statistics, Series 21, No. 8, U.S. Department of Health, Education and Welfare, Washington, D.C., March 1966.

[3]U.S. death rates are from Vital Statistics of the United States, Vol. II--Mortality, Part A, pages 1-3, and Population Index, Vol. 32, No. 3, July 1966, p. 476.

Historical Series of Population Data

As a means of providing additional perspective for the remaining sections of this report, and also to provide a ready reference for some of the basic population data of the state, several historical series, including inter-census estimates by county for each year of the period 1940 to 1965, are presented at this point.[1]

The estimated population by county for each year of the quarter century from 1940 to 1965 is of much interest when projecting the population for future years. These data show the trends and the upheavals that have primarily resulted from the impact of World War II, the post-war missile program, the revolution in agriculture, and major economic developments in a number of counties.

Table 2 shows the decennial population of each county in Utah from its origin to 1960, and Table 3 gives the census population of each county as a percentage of the state. Table 4 presents the changing relative importance of the four Wasatch Front Counties--Salt Lake, Davis, Weber, and Utah--individually and as a group. Table 5 shows that the population of Utah is rising slowly but steadily as a per cent of the nation's population. Table 6 contains the inter-census estimates of each county as of July for each year from 1940 to 1949; Table 7, from 1950 to 1959; and Table 8, from 1960 to 1965.

One troublesome problem might be noted with respect to Table 8. For all but 1964 and 1965, the sum of the estimated county populations is adjusted to agree with the estimated population of the state made by the U.S. Bureau of the Census. The most recent estimates by the Census Bureau drastically reduced the provisional figure of 992,000 for July 1, 1964 to 977,000, and estimated the population of Utah for July 1, 1965 at only 994,000. Nevertheless, the provisional estimate for 1966 was 1,008,000.[2] In contrast, the Utah Population Work Committee estimated Utah's population at 988,000 as of January 1, 1964 and 1,003,000 on January 1, 1965. Data on school

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[1]The Utah Population Work Committee requested Dr. Therel R. Black of Utah State University and Dr. Jewell J. Rasmussen, University of Utah, to prepare tentative estimates for the 1940 and 1950 decades, respectively, for review and adoption by the committee. The inter-census population estimates for the 1940's and 1950's are the result of this joint effort. The estimates for the 1960's were made by Dr. Rasmussen on the basis of the Utah Population Work Committee estimates for January 1 of each year.

[2]U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 348 (Washington: U.S. Government Printing Office, 1966).

Table 2

POPULATION OF UTAH BY COUNTIES:
Selected Years 1850 to 1960

County	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960
Beaver		785	2,007	3,918	3,340	3,613	4,717	5,139	5,136	5,014	4,856	4,331
Box Elder		1,608	4,855	6,761	7,642	10,009	13,894	18,788	17,810	18,832	19,734	25,061
Cache		2,605	8,229	12,562	15,509	18,139	23,062	26,992	26,424	29,797	33,536	35,788
Carbon						5,004	8,624	15,489	17,798	18,459	24,901	21,135
Daggett								400	411	564	364	1,164
Davis	1,134	2,904	4,459	5,279	6,751	7,996	10,191	11,450	14,021	15,784	30,867	64,760
Duchesne								9,093	8,263	8,958	8,134	7,179
Emery				556	5,076	4,657	6,750	7,411	7,042	7,072	6,304	5,546
Garfield					2,457	3,400	3,660	4,768	4,642	5,253	4,151	3,577
Grand					541	1,149	1,595	1,808	1,813	2,070	1,903	6,345
Iron	360	1,010	2,277	4,013	2,683	3,546	3,933	5,787	7,227	8,331	9,642	10,795
Juab		672	2,034	3,474	5,582	10,082	10,702	9,871	8,605	7,392	5,981	4,597
Kane			1,513	3,085	1,685	1,811	1,652	2,054	2,235	2,561	2,299	2,667
Millard		715	2,753	3,727	4,033	5,678	6,118	9,659	9,945	9,613	9,387	7,866
Morgan			1,972	1,783	1,780	2,045	2,467	2,542	2,536	2,611	2,519	2,837
Piute			82	1,651	2,842	1,954	1,734	2,770	1,956	2,203	1,911	1,436
Rich			1,955	1,263	1,527	1,946	1,883	1,890	1,873	2,028	1,673	1,685
Salt Lake	6,157	11,295	18,337	31,977	58,457	77,725	131,426	159,282	194,102	211,623	274,895	383,035
San Juan				204	365	1,023	2,377	3,379	3,496	4,712	5,315	9,040
Sanpete	365	3,815	6,786	11,557	13,146	16,313	16,704	17,505	16,022	16,063	13,891	11,053
Sevier			19	4,457	6,199	8,451	9,775	11,281	11,199	12,112	12,072	10,565
Summit		198	2,512	4,921	7,733	9,439	8,200	7,862	9,527	8,714	6,745	5,673
Tooele	152	1,008	2,177	4,497	3,700	7,361	7,924	7,965	9,413	9,133	14,636	17,868
Uintah				799	2,762	6,458	7,050	8,470	9,035	9,898	10,300	11,582
Utah	2,026	8,248	12,203	17,973	23,768	32,456	17,942	40,792	49,021	57,382	81,912	106,991
Wasatch			1,244	2,927	3,595	4,736	8,920	4,625	5,636	5,754	5,574	5,308
Washington		691	3,064	4,235	4,009	4,612	5,123	6,764	7,420	9,269	9,836	10,271
Wayne						1,907	1,749	2,097	2,067	2,394	2,205	1,728
Weber	1,186	3,675	7,858	12,344	22,723	25,239	35,179	43,463	52,172	56,714	83,319	110,744
State Total	11,380	40,273[a]	86,786[b]	143,963	210,779[c]	276,749	373,351	449,396	507,847	550,310	688,862	890,627

[a]Includes 741 in Cedar County; 141 in Green River County; and 162 in Shambip County.

[b]Includes 450 in Rio Virgin County.

[c]Includes 2,874 Indians on reservations not distributed by county.

Source: U.S. Census reports.

Table 3

POPULATION OF COUNTIES IN UTAH AS A PER CENT OF STATE TOTAL:
Selected Years 1850 to 1960

County	1850	1860	1870	1880	1890	1900	1910	1920	1930	1940	1950	1960
Beaver		1.95	2.31	2.72	1.59	1.31	1.26	1.14	1.01	0.91	0.70	0.49
Box Elder		3.99	5.59	4.70	3.63	3.62	3.72	4.18	3.51	3.42	2.86	2.81
Cache		6.47	9.48	8.73	7.36	6.56	6.18	6.01	5.40	5.41	4.87	4.02
Carbon						1.81	2.31	3.45	3.50	3.35	3.61	2.37
Daggett								0.09	0.08	0.10	0.05	0.13
Davis	9.96	7.21	5.14	3.67	3.20	2.89	2.73	2.55	2.76	2.87	4.48	7.27
Duchesne								2.02	1.63	1.63	1.18	0.81
Emery				0.39	2.41	1.68	1.81	1.65	1.39	1.28	0.91	0.62
Garfield					1.17	1.23	0.98	1.06	0.91	0.95	0.60	0.40
Grand					0.26	0.42	0.43	0.40	0.36	0.38	0.28	0.71
Iron	3.16	2.51	2.62	2.79	1.27	1.28	1.05	1.29	1.42	1.51	1.40	1.21
Juab		1.67	2.35	2.41	2.65	3.64	2.87	2.20	1.70	1.34	0.87	0.52
Kane			1.74	2.14	0.80	0.65	0.44	0.46	0.44	0.46	0.33	0.30
Millard		1.78	3.17	2.59	1.91	2.05	1.64	2.15	1.96	1.75	1.36	0.88
Morgan			2.27	1.24	0.84	0.74	0.66	0.57	0.50	0.47	0.37	0.32
Piute			0.09	1.15	1.35	0.71	0.46	0.62	0.38	0.40	0.28	0.16
Rich			2.25	0.88	0.72	0.70	0.50	0.42	0.37	0.37	0.24	0.19
Salt Lake	54.10	28.05	21.13	22.21	27.73	28.08	35.21	35.44	38.22	38.46	29.91	43.01
San Juan				0.14	0.17	0.37	0.64	0.75	0.69	0.86	0.77	1.02
Sanpete	3.22	9.47	7.82	8.03	6.24	5.90	4.47	3.89	3.15	2.92	2.02	1.24
Sevier			0.02	3.10	2.94	3.05	2.62	2.51	2.21	2.20	1.75	1.19
Summit		0.49	2.89	3.42	3.67	3.41	2.20	1.75	1.88	1.58	0.98	0.64
Tooele	1.34	2.50	2.51	3.12	1.76	2.66	2.12	1.77	1.85	1.66	2.13	2.01
Uintah				0.55	1.31	2.33	1.89	1.88	1.78	1.80	1.50	1.30
Utah	17.80	20.48	14.06	12.48	11.27	11.73	10.16	9.08	9.65	10.43	11.89	12.01
Wasatch			1.43	2.03	1.71	1.71	2.39	1.03	1.11	1.05	0.81	0.60
Washington		1.72	3.53	2.94	1.90	1.67	1.37	1.50	1.46	1.69	1.43	1.15
Wayne						0.69	0.47	0.47	0.41	0.44	0.32	0.19
Weber	10.42	9.13	9.05	8.57	10.78	9.11	9.42	9.67	10.27	10.31	12.10	12.43
State Total	100.00	100.00[a]	100.00[b]	100.00	100.00[c]	100.00	100.00	100.00	100.00	100.00	100.00	100.00

[a]Includes 2.58 per cent in Cedar, Green River and Shambip Counties.

[b]Includes 0.55 per cent in Rio Virgin County.

[c]Includes 1.36 in Indian population not distributed by county.

Source: Computed from Table 2.

Table 4

POPULATION OF SALT LAKE, WEBER, UTAH AND DAVIS COUNTIES AS PER CENT OF TOTAL POPULATION IN UTAH: Selected Census Years, 1850 to 1960

Year	Salt Lake	Weber	Utah	Davis	Four-County Total
1850	54.10	10.42	17.80	9.96	92.28
1860	28.05	9.13	20.48	7.21	64.87
1870	21.13	9.05	14.06	5.14	49.38
1880	22.21	8.57	12.38	3.67	46.93
1890	27.73	10.78	11.27	3.20	52.98
1900	28.08	9.11	11.23	2.89	51.81
1910	35.21	9.42	10.16	2.73	57.52
1920	35.44	9.67	9.08	2.55	56.74
1930	38.22	10.27	9.65	2.76	60.90
1940	38.46	10.31	10.43	2.87	62.07
1950	39.91	12.10	11.89	4.48	68.38
1960	43.01	12.43	12.01	7.27	74.72

Source: Table 3.

Table 5

UTAH'S POPULATION AS A PER CENT OF TOTAL POPULATION OF UNITED STATES:
Selected Census Years, 1850 to 1960

Year	United States Population	Utah	
		Population	Per Cent of United States
1850	23,261,000	11,380	.049
1860	31,513,000	40,273	.128
1870	39,905,000	86,786	.217
1880	50,262,000	143,963	.286
1890	63,056,000	210,779	.335
1900	76,094,000	276,749	.364
1910	92,407,000	373,351	.404
1920	106,466,000	449,396	.422
1930	123,077,000	507,847	.413
1940	131,954,000	550,310	.417
1950	151,234,000	688,862	.455
1960	179,323,000	890,627	.497

Source: Bureau of the Census, Census of Population 1850-1960.

Table 6

ESTIMATED POPULATION OF UTAH BY COUNTY: 1940 to 1949[a]

County	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Beaver	4,900	5,100	4,600	3,900	4,000	4,200	4,500	4,600	4,500	4,600
Box Elder	18,900	18,400	18,200	18,300	18,300	18,200	18,700	19,600	19,700	20,200
Cache	29,900	30,100	30,000	29,200	28,400	28,200	30,200	31,000	32,500	33,500
Carbon	18,700	17,800	18,100	19,100	21,000	22,600	22,100	20,700	22,700	24,000
Daggett	600	700	600	400	400	400	400	300	300	300
Davis	15,500	16,800	18,400	23,800	24,700	24,000	27,300	27,500	29,000	29,600
Duchesne	8,700	8,900	8,000	7,600	7,600	7,300	7,600	7,600	7,500	7,900
Emery	7,000	6,900	6,600	6,000	5,600	5,300	5,200	5,200	5,600	5,800
Garfield	5,300	5,000	4,800	4,300	3,900	4,000	4,100	4,000	3,800	4,000
Grand	2,200	2,000	2,100	2,000	2,000	2,100	2,100	2,000	1,900	2,000
Iron	8,400	8,300	8,100	7,700	7,500	7,300	8,500	9,000	9,000	9,500
Juab	7,400	7,100	6,400	5,700	5,600	5,500	5,900	5,800	6,000	6,000
Kane	2,600	2,500	2,500	2,400	2,200	2,100	2,300	2,300	2,100	2,300
Millard	9,700	9,100	8,800	9,300	9,600	9,800	9,400	8,700	8,600	8,900
Morgan	2,600	2,600	2,700	3,000	2,700	2,500	2,500	2,500	2,400	2,500
Piute	2,200	2,200	2,000	2,000	2,000	1,800	1,800	1,900	2,000	2,000
Rich	2,000	2,300	2,000	1,900	2,000	1,900	1,700	1,400	1,300	1,600
Salt Lake	213,700	213,900	232,200	257,200	238,000	226,000	259,300	252,400	257,400	265,000
San Juan	4,600	4,600	4,600	4,600	4,300	3,500	3,700	3,800	3,700	4,900
Sanpete	15,900	15,300	14,200	13,500	13,500	13,000	14,000	13,800	14,000	13,900
Sevier	12,300	11,800	11,300	10,400	10,000	10,300	11,400	11,700	12,300	12,300
Summit	8,600	8,500	8,300	7,700	7,000	6,200	6,600	6,900	7,000	6,800
Tooele	8,800	9,300	14,300	30,900	19,700	20,900	13,800	13,100	14,400	14,900
Uintah	10,000	9,500	9,300	8,200	7,400	7,400	8,800	9,600	10,300	10,500
Utah	56,900	56,300	55,900	64,700	68,200	63,900	71,300	75,800	78,000	79,000
Wasatch	5,800	5,800	5,800	5,800	5,600	5,300	5,800	5,900	5,700	5,800
Washington	9,200	9,700	5,600	8,600	8,100	8,300	8,700	8,700	8,700	9,800
Wayne	2,300	2,400	2,100	1,900	2,000	1,900	1,900	1,700	1,900	2,100
Weber	57,100	58,100	63,700	70,900	73,400	75,200	78,400	78,500	80,700	81,100
State Total	552,000	551,000	575,000	631,000	605,000	591,000	638,000	636,000	653,000	671,000

[a]Averages of component method II and vital rates method. Estimates of county populations rounded to nearest 100 persons, adjusted to agree with State totals as revised by the U.S. Census Bureau, Population Estimates, Series P-25, No. 139, June 27, 1956.

Note: Because of rounding, detail may not add to totals.

Table 7

ESTIMATED POPULATION OF UTAH BY COUNTY: 1950 to 1959[a]

County	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959
Beaver	4,800	4,600	4,500	4,400	4,300	4,400	4,300	4,300	4,300	4,300
Box Elder	19,800	19,800	19,700	19,700	19,600	19,900	20,000	20,900	22,300	23,800
Cache	33,600	33,500	33,600	33,700	33,800	34,500	34,900	34,900	35,000	35,400
Carbon	24,800	24,400	23,100	23,000	22,900	22,800	22,500	22,400	22,000	21,800
Daggett	400	400	400	400	400	400	400	400	500	1,000
Davis	31,200	34,600	38,400	41,300	43,100	45,800	49,000	52,700	56,600	60,400
Duchesne	8,100	8,000	7,900	7,800	7,600	7,600	7,600	7,500	7,300	7,300
Emery	6,300	6,100	5,900	5,800	5,700	5,700	5,700	5,700	5,600	5,600
Garfield	4,100	4,000	3,800	3,700	3,600	3,700	3,700	3,700	3,600	3,600
Grand	1,900	2,000	2,000	2,100	2,400	4,000	5,000	5,200	5,600	6,000
Iron	9,700	9,700	9,700	9,800	9,900	10,100	10,300	10,300	10,400	10,600
Juab	5,900	5,800	5,600	5,500	5,400	5,300	5,200	5,000	4,900	4,700
Kane	2,300	2,300	2,300	2,300	2,300	2,400	2,400	2,500	2,700	2,700
Millard	9,300	9,200	9,100	9,000	8,800	8,800	8,700	8,500	8,200	8,000
Morgan	2,500	2,500	2,600	2,600	2,600	2,600	2,700	2,700	2,700	2,700
Piute	1,900	1,900	1,800	1,800	1,700	1,700	1,700	1,600	1,500	1,500
Rich	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700	1,700
Salt Lake	279,000	285,600	295,500	305,000	312,200	330,200	343,200	352,100	362,100	373,600
San Juan	5,300	5,100	5,000	5,000	5,000	6,000	6,900	7,800	8,600	9,300
Sanpete	13,800	13,400	12,900	12,500	12,500	12,300	12,000	11,400	11,000	11,000
Sevier	12,000	11,700	11,500	11,300	11,100	11,200	11,100	10,700	10,600	10,500
Summit	6,700	6,500	6,400	6,300	6,100	6,100	6,000	5,900	5,800	5,700
Tooele	15,000	16,100	18,000	18,000	18,000	18,100	18,200	18,000	17,900	17,900
Uintah	10,300	10,000	10,200	10,300	10,300	10,600	10,900	10,900	11,100	11,300
Utah	83,000	83,000	85,700	87,600	89,500	93,000	97,000	100,000	101,700	104,300
Wasatch	5,500	5,400	5,400	5,400	5,300	5,400	5,400	5,400	5,300	5,300
Washington	9,800	9,700	9,600	9,600	9,700	10,000	10,200	10,200	10,200	10,400
Wayne	2,200	2,100	2,100	2,000	2,000	2,000	2,000	1,900	1,800	1,700
Weber	85,000	87,000	89,600	91,500	93,000	96,500	100,100	102,000	104,200	107,800
State Total	696,000	706,000	724,000	739,000	750,000	783,000	809,000	826,000	845,000	870,000

[a]Estimates of county population rounded to the nearest 100 persons, adjusted to agree with state totals as revised by the Bureau of the Census, Population Estimates, Series P-25, No. 304, April 8, 1965.

Note: Because of rounding, detail may not add to totals.

Table 8

ESTIMATED POPULATION OF UTAH BY COUNTY: 1960 to 1965[a]

County	1960	1961	1962	1963	1964	1965
Beaver	4,300	4,400	4,600	4,200	4,200	4,200
Box Elder	25,500	29,000	31,200	31,200	30,000	28,800
Cache	36,100	38,200	39,300	39,500	40,300	41,000
Carbon	21,200	20,600	19,500	18,300	18,000	18,000
Daggett	1,200	1,300	1,700	1,400	800	700
Davis	65,600	70,200	75,200	79,300	82,000	84,500
Duchesne	7,200	7,200	7,100	6,900	6,800	6,600
Emery	5,500	5,500	5,400	5,400	5,500	5,700
Garfield	3,500	3,500	3,500	3,400	3,300	3,200
Grand	6,400	8,100	8,400	8,000	7,800	7,500
Iron	10,900	11,100	11,200	10,700	10,600	10,800
Juab	4,600	4,500	4,500	4,500	4,600	4,600
Kane	2,700	2,700	2,700	2,700	2,600	2,600
Millard	7,900	8,000	7,800	7,500	7,400	7,400
Morgan	2,800	3,000	3,000	3,000	3,000	3,100
Piute	1,400	1,500	1,400	1,400	1,400	1,400
Rich	1,700	1,700	1,600	1,600	1,600	1,500
Salt Lake	387,500	401,400	412,000	424,200	432,000	440,000
San Juan	9,100	8,600	7,900	7,300	7,800	7,700
Sanpete	11,100	11,100	11,000	10,900	10,900	10,900
Sevier	10,600	10,600	10,400	10,100	10,100	9,800
Summit	5,700	5,700	5,700	5,700	5,800	6,000
Tooele	18,000	19,000	20,600	21,300	21,500	22,000
Uintah	11,700	12,400	12,900	12,800	12,300	12,600
Utah	108,300	112,200	113,600	114,200	115,700	119,000
Wasatch	5,300	5,400	5,400	5,400	5,400	5,400
Washington	10,400	10,400	10,400	10,300	10,400	10,400
Wayne	1,700	1,700	1,700	1,700	1,700	1,600
Weber	112,100	117,000	118,600	119,600	120,500	121,000
State Total	900,000	936,000	958,000	973,000	984,000	998,000

[a]Estimates of county's population, rounded to nearest 100 persons, adjusted to agree with state totals as revised by the U.S. Bureau of the Census (except 1964 and 1965), Population Estimates, Series P-25, No. 348, September 16, 1966.

Note: Because of rounding, detail may not add to totals.

enrollment and changes in the labor force do not seem to support the drastic downward revisions made by the Census Bureau. Such low state totals would also require substantial out-migration of population, and there is little evidence to support this condition. Hence, the committee is in doubt as to how much its estimates should be revised downward.

Because of the possibility of some upward revisions of Utah's population estimates by the Census Bureau, the estimated population of Utah for July 1, 1964 is placed at 984,000, and for July 1, 1965, at 998,000. It should also be noted that these state totals are closer to the sum of the individual county population estimates than are the estimates of the Census Bureau. An estimate of Utah's population for 1965 based on the work force would be approximately 999,000.

Section I

Section II

Section III

Section IV

Section II

PROJECTING POPULATION BY THE COMPONENT METHOD[3]

There are several possible methods of estimating future population such as: mathematical methods, economic methods, and component methods. There are advantages and disadvantages in each of them.[4]

The component method of population projections usually involves separate projections of numbers of males and females in each age group of the population. Instead of choosing a single variable such as employment from which to project population, this method deals with the trends of population components--births, deaths, and migration. This method assumes that population changes are a result of all social, economic and other cultural factors. In other words, it assumes that man is both a rational and an emotional being, and that the totality of his actions is reflected in changes in births, deaths, and migration. In this method, the future births are estimated from the number of women in each age group and the projected specific fertility rates, while the number of deaths are estimated separately for each age and sex group, applying assumed age and sex-specific survival ratios. Similarly, the volume of net migration is also estimated separately for each age and sex.

The advantage of this method is that actual changes in population components are used in computing future population, and therefore it is possible to obtain age and sex compositions of the population in addition to the total population. The future population is projected by each component; thus, if there are errors in one of the basic assumptions, it is possible to detect the errors when additional information is made available. For example, if the assumptions on the future course of fertility are too high, the errors in the projections are confined to the cohorts born during the projection period, and therefore, the size of population in other ages can still be acceptable if assumptions on mortality and migration are correct.

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[3]The author of Section II, Dr. Therel Black, wishes to acknowledge the help in its preparation of Dr. Yun Kim of Utah State University.

[4]United Nations, Methods for Population Projections by Sex and Age, Population Studies, No. 25, United Nations, New York, N.Y., 1956, pp. 2-3. See also Therel R. Black and James D. Tarver, Age and Sex Population Projections of Utah Counties, Utah Agricultural Experiment Station, Bulletin 457, December, 1965.

One limitation of the component method is in the large number of calculations. With computer technology this problem is lessened. The accuracy of the component method, as with other methods, is dependent upon the correctness of the assumptions used.

Population Projections Based on Natural Increase Only

An attempt to project population change due to natural increase and net migration makes apparent the advisability of taking into account the age and sex composition of the population.[5] The wisdom of doing so is made evident particularly on a county or some other local basis. A county composed largely of older people is likely to have a higher death rate than a county with a younger population. A county with a large number of women in the child bearing ages is likely to have a higher birth rate than a county with few women in these ages. Also, a county with a large number of youth nearing adulthood is likely to have a greater migration rate than a county with few persons in this age group.

Age composition variation is evident in Table 9 which shows the median ages of populations of Utah counties in 1960. Note that Sanpete County has a median age of nearly 30 years, while San Juan County has a median age of 17.8, and Davis a median age of 19.0. Even more extreme is the city of Kearns with a median age of 12.8 years.

To take age and sex into account in making projections, the population is divided into 16 age groups for each sex, and separate birth and death rates are calculated for each of the 32 groups. Rates so devised are known as age-specific rates, and are distinguished from "crude" rates which are calculated for the total population at large.

Base Population

The most recent year for which census information is available about the total population by age, sex and county is 1960. This enumerated population, though not corrected for underenumeration, is assumed to be correct and was projected forward in five-year periods to 1980.

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[5]The procedure and most of the projections in this section are summarized from two detailed reports published by the Utah Agricultural Experiment Station as follows: Therel R. Black and James D. Tarver, Age and Sex Population Projections of Utah Counties, Bulletin 457, December 1965, and James D. Tarver and Therel R. Black, Making County Population Projections--A Detailed Explanation of a Three Component Method, Illustrated by Reference to Utah Counties, Technical Bulletin 459, June 1966. The data in Table 14 were taken from unpublished work tables in relation to these two reports.

Age-Specific Death Rates

To project population by the component method it is necessary to have age-specific death rates for the projection period. In this study, the age-specific death rates to be used in projecting populations are derived from the actual experience of the 1959 to 1961 period.

While total or crude death rates within a state may vary considerably from one county to another, separate age-specific death rates for the two sexes in the different counties are usually similar. Therefore, in making population projections for Utah and the different counties of Utah, only one series of age-specific death rates for each sex will be used.[6] This series will be that for the state of Utah as a whole for the 1959 to 1961 period, with a slight adjustment downward as projections extend into the future to coincide with the slightly downward trends in the death rate expected on a national level.[7]

Age-Specific Birth Rates

To estimate the expected number of births, it is necessary to estimate the age-specific birth rates for the projection period. Unlike the age-specific death rates, age-specific birth rates vary considerably from one area to another. For example, in Table 10 note the differences in San Juan, Carbon, and Salt Lake Counties in the number of births per 1,000 women per year in each of the several age groups of women in childbearing ages.

Because age-specific birth rates differ from county to county, the rates in each county are employed separately. Also, because rates vary by age of women, rates are calculated separately for five-year age groups of women in the childbearing ages.

What the future age-specific birth rates will be is difficult to estimate. For projecting population change due to natural increase alone, it is assumed that the 1959 to 1961 rates in each of the counties of the state will continue through the projection period. The 1959 to 1961 period is the most recent one for which actual age-specific rates can be figured because for this period the 1960 Census figures on the number of women in childbearing ages are available as a base for figuring the rates.

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[6]For the estimated age-specific death rates for the projection period see Tarver and Black, pp. 43-44.

[7]For detailed assumptions on the expected trend of the death rate see U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Population Estimates, Series P-25, No. 286, July 1964.

Table 9

MEDIAN AGE OF POPULATION IN UTAH COUNTIES: 1960

County	Median Age	County	Median Age
Beaver	26.6	Salt Lake	24.0
Box Elder	21.7	San Juan	17.8
Cache	22.6	Sanpete	29.9
Carbon	24.9	Sevier	25.8
Daggett	23.6	Summit	24.8
Davis	19.0	Tooele	22.3
Duchesne	19.8	Uintah	20.7
Emery	24.0	Utah	21.2
Garfield	22.8	Wasatch	23.2
Grand	22.2	Washington	21.7
Iron	21.6	Wayne	22.8
Juab	27.5	Weber	23.6
Kane	22.5		
Millard	22.8	Kearns (city)	12.8
Morgan	23.0		
Piute	24.2	State	22.9
Rich	24.0		

Source: United States Census of Population for Utah, 1960 General Population Characteristics, Table 27.

Table 10

NUMBER OF BIRTHS PER ONE THOUSAND WOMEN IN CHILD-BEARING AGE GROUPS IN SAN JUAN, CARBON, AND SALT LAKE COUNTIES: 1959 to 1961

	Number of Births per One Thousand Women 1959 to 1961		
Age Groups	San Juan County	Carbon County	Salt Lake County
15 to 19	124.3	60.0	91.2
20 to 24	380.8	298.7	278.6
25 to 29	259.6	219.0	228.5
30 to 34	210.5	111.8	146.3
35 to 39	130.1	63.4	76.4
40 to 44	70.4	16.5	23.5

Source: Utah State Department of Health, Utah Vital Statistics Annual Report for 1959 to 1961, and United States Department of Commerce, Bureau of the Census, United States Census of Population 1960, Utah, General Population Characteristics, PC(1)46B, Table 27.

Projections Without Migration

If a region is assumed to have no migration, either in or out, any change in the size of the population is necessarily the result of differences between birth and death rates. If assumptions of no migration are made for Utah and her counties, a rapidly increasing population would result from a continuation of past trends. It has already been noted that the birth rates in Utah have been substantially higher than the death rates. Table 11 shows the significant population growth in all counties which would result from continuing the 1959 to 1961 birth rates in association with slight decreases in death rates and an assumption of no migration.

For the state as a whole, the population is projected to increase by 64.7 per cent between 1960 and 1980. This is equivalent to a phenomenal exponential growth rate of 2.5 per cent per year. The United States as a whole has not had a natural rate of population increase this high within the past century. Indeed, the world's notoriously fast-growing underdeveloped countries are only projected to grow at a rate of approximately 2 per cent per year between 1950 and 1975.[8]

Within this projected total for Utah, there is considerable variation from county to county. This variation is evident in Table 12 which presents a ranking of counties from the highest to the lowest amounts of percentile change in the 1960 to 1980 period. The variations reflect county differences in age and sex composition with resulting impacts upon numbers of births and deaths. They also reflect differences in age-specific birth rates.

Unusually high percentile growths are projected in San Juan[9], Uintah, Davis, and Box Elder Counties, and relatively low growths are projected in Beaver, Carbon, Wayne, and Sanpete. Table 13 shows these eight counties according to percentile growth, median age, and age-specific birth rates in the two most prolific age groups of women. It will be noted that San Juan, Uintah, Davis, and Box Elder Counties have lower median ages. Also, they have higher age-specific birth rates, particularly in the 20 to 24 age group.

Population Projections Based on Natural Increase and Net Migration

As indicated above, a projection of the population simply upon the basis of natural increase is unrealistic. This would be true even if there were complete

(Continued on page 26)

[8]Calculated from data in The Population Dilemma, edited by Philip M. Hauser. Prentice Hall Inc., Englewood Cliffs, N.J., 1963, p. 35.

[9]The unusually high projected growth in San Juan may be due in part to an estimated birth rate which is too high because of a possible undercount of Navajo Indians by the 1960 Census.

Table 11

CURRENT AND PROJECTED POPULATIONS OF UTAH COUNTIES:
Selected Years 1960 to 1980

[Projections of the populations of counties in Utah to 1980 assuming a slight decline of the 1959 to 1961 death rates, a continuation of the 1959 to 1961 birth rates, and no migration.]

Counties	1960 Population	Projection Dates			
		July 1, 1965	July 1, 1970	July 1, 1975	July 1, 1980
Beaver	4,331	4,700	5,200	5,810	6,500
Box Elder	25,061	28,740	32,990	38,210	44,540
Cache	35,788	40,600	46,070	52,140	59,000
Carbon	21,135	23,060	25,540	28,650	31,890
Daggett	1,164	1,310	1,460	1,650	1,850
Davis	64,760	74,760	85,950	100,000	117,200
Duchesne	7,179	8,110	9,290	10,790	12,560
Emery	5,546	6,100	6,870	7,830	8,920
Garfield	3,577	4,030	4,620	5,330	6,150
Grand	6,345	7,380	8,430	9,680	11,270
Iron	10,795	12,050	13,540	15,320	17,320
Juab	4,597	5,010	5,610	6,360	7,220
Kane	2,667	3,030	3,460	4,020	4,690
Millard	7,866	8,640	9,800	11,340	13,140
Morgan	2,837	3,180	3,600	4,120	4,740
Piute	1,436	1,570	1,760	1,980	2,230
Rich	1,685	1,870	2,110	2,440	2,830
Salt Lake	383,035	430,260	481,960	542,880	614,980
San Juan	9,040	10,930	13,020	15,620	18,900
Sanpete	11,053	11,940	13,350	15,120	17,050
Sevier	10,565	11,480	12,830	14,570	16,490
Summit	5,673	6,310	7,130	8,140	9,300
Tooele	17,868	20,110	22,650	25,720	29,280
Uintah	11,582	13,390	15,520	18,090	21,110
Utah	106,991	121,760	138,430	156,920	177,310
Wasatch	5,308	5,960	6,790	7,780	8,920
Washington	10,271	11,370	12,900	14,890	17,240
Wayne	1,728	1,860	2,060	2,320	2,620
Weber	110,744	124,290	140,130	159,400	181,990
State Totals	890,627	1,003,800	1,133,070	1,287,030	1,467,240

[a]Totals may not compute because of rounding.

Table 12

PROJECTED PERCENTAGE OF NATURAL POPULATION INCREASE
IN UTAH AND ITS COUNTIES: 1960 to 1980

County	Percentage Increase	County	Percentage Increase
San Juan	109.1	Weber	64.3
Uintah	82.3	Summit	64.0
Davis	81.0	Tooele	63.9
Box Elder	77.7	Emery	60.8
Grand	77.6	Salt Lake	60.6
Kane	75.7	Iron	60.5
Duchesne	74.9	Daggett	59.3
Garfield	71.8	Juab	57.1
Wasatch	68.0	Sevier	56.0
Washington	67.9	Piute	55.2
Rich	67.7	Sanpete	54.2
Morgan	67.2	Wayne	51.8
Millard	67.1	Carbon	50.9
Utah	65.7	Beaver	50.2
Cache	64.8	State	64.7

Table 13

PROJECTED PERCENTAGE CHANGE IN POPULATION
FOR EIGHT UTAH COUNTIES: 1959 to 1961

[Projected percentage change in population between 1960 and 1980 for eight counties (four fast and four slower growing) by median age of the population and by age-specific birth rates in the two most prolific age groups of women.]

Counties	Percentage Growth	Median Age	Age-specific Birth Rates Per One-Thousand Women 1959 to 1961	
			20 to 24	25 to 29
Fast growth				
San Juan	109	18	381	260
Uintah	82	21	394	228
Davis	81	19	334	251
Box Elder	78	22	364	247
Slower growth				
Beaver	50	27	321	205
Carbon	51	25	299	219
Wayne	52	23	256	258
Sanpete	54	30	398	241

accuracy in the assumed birth and death rates. It is well known that each year sizable numbers of people move from community to community, county to county, and state to state. Movement occurs as job opportunities slacken or expand, or as other social factors exert influence. Between 1950 and 1960 there were considerable differences among the counties of Utah with respect to migration. In spite of high rates of natural increase, some counties lost total population in the ten-year period because of net out-migration. Increase in other counties beyond that due to natural increase was attributable to net in-migration.

Thus, projections which include a net migration component are preferred to projections which include natural increase alone, even though there is value in projections which suggest the magnitude of total population change if there were no migration.

How much net migration will occur in Utah and in each of the counties of Utah in each five-year period between 1960 and 1980 is, of course, difficult to determine in advance.

Assumptions on Future Net Migration

The extent of future net migration is dependent upon the economic and other social factors in the area of study. Therefore, it is extremely difficult to estimate the extent of future net migration. One approach to this problem is to project in terms of past experience. This indicates that certain age and sex groups migrate more than others and that migration from certain counties is greater than from others. By using past net migration in each age and sex group in each county, we can derive rates that can be used for making projections.

The decade from 1950 to 1960 offers us the most recent experience. Thus, on the assumption that net migration will continue at the same rate as it did from 1950 to 1960,[10] the population of the counties of Utah can be projected to 1980 by five-year periods as was done with the assumption of natural increase as the only component.

Modified Assumptions on Age-Specific Birth Rates[11]

To make more realistic projections, it is necessary to modify assumptions on birth rates from those used above which presumed that the 1960 rates

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[10]For details see Tarver and Black, pp. 48-50.

[11]No modification in the assumption of a slightly declining death rate is made since there are no apparent reasons to think that age-specific death rates will change greatly in the near future.

would continue. It is now well known that crude birth rates have declined considerably since 1960 in both Utah and the United States.[12] There are some questions, however, as to the relative importance of the various factors which jointly determine the crude rate.

Some of the decline in Utah's crude birth rate can be attributed to recent changes in the age pattern of marriage for women and to proportionately fewer women in the reproductive ages.[13] It is increasingly apparent that falling, age-specific birth rates are also contributing to the decline in the crude rate, but recognized authorities are expressing much uncertainty over both the nature of the present trends and their possible future courses.

The U.S. Bureau of the Census has used four birth rate assumptions in projecting the population of the United States. Their assumptions, known as Series A, B, C, and D, range from "slight" to "substantial" decreases from the 1960 rates.[14] It is significant that the Bureau of the Census saw justification only for assumptions of decreasing fertility but has not indicated a preference for any specific assumption. However, Philip M. Hauser, as late as 1964 judged the Series B Census assumption of "only a very moderate" reduction as being "...the best estimate to make at the present time with present fertility trends."[15]

On the basis of these facts and ideas, it was decided to initially tie county birth rates in Utah to the Census Bureau birth rate assumption B. This is done by starting with the age-specific birth rates for each county as they were from 1959 to 1961, but for the projections into the future the rates are reduced to maintain a constant ratio to the Series B Census assumptions.

Statistics developed since the calculations of projections in conformity with the Series B birth assumption have revealed that the Utah age-specific birth rates have declined faster than Series B would suggest. Therefore in Section IV of this report, the integrated projections are calculated on the fertility assumption of Utah birth rates being linked with the Census Bureau Series C

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[12]Table 1, this report.

[13]Yun Kim and Therel R. Black, "Age Pattern of Marriage and the Trend of Birth Rate in Utah," Proceedings, Utah Academy of Science Meetings, April 1967 (to be published).

[14]U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Population Estimates, P-25, No. 301, Feb. 26, 1965, p. 1.

[15]Philip M. Hauser, "The Population Explosion," U.S. News and World Report, Aug. 31, 1964, p. 62.

assumption. This assumption, which describes a "substantial decrease" in birth rates, may still err in the direction of overstating the number of future births.[16]

The Population Projections

What will be the future population of counties by age and sex implied by assuming a slight decline of the 1959 to 1961 Utah age-specific death rates, a continuation of the 1950 to 1960 county net migration rates, and a moderate reduction of the 1959 to 1961 county age-specific birth rates? Table 14 (see page 30) shows such age and sex projections for each county for each five-year period from 1960 to 1980.

If Assumption B on fertility rates proves to be too high for the projection period 1960 to 1980, the estimate of number of births during this period will require some downward adjustment. Nevertheless, the age group 5 years and over in 1965, 10 years and over in 1970, 15 years and over in 1975, and 20 years and over in 1980 are free from errors in this assumption of fertility. Therefore, the figures for these age groups can be safely used for planning and other purposes, subject to the correctness of the mortality and migration assumptions.

In utilizing the data of Table 14, caution should be taken in the use of statistics for Daggett and Grand counties. These two counties are small and they had unusually large population growth associated with mineral and water resource development in the 1950 to 1960 period. At this time, projections of previous net migration trends for these counties are not appropriate.

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[16] A contemporary investigation of birth rates in Utah by Yun Kim and Therel R. Black at Utah State University indicates that the age-specific rate from the period from 1960 to 1965 may be lower even than the Series C assumptions. Results of such investigation will appear in a forthcoming publication of the Utah Agricultural Experiment Station.

Table 14

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES BY AGE AND SEX: 1960 to 1980

The following projections are developed on the assumptions of a slight reduction of the 1959 to 1961 age-specific death rates of Utah, a continuation of the 1950 to 1960 county age-specific net migration rates, and a very moderate reduction of county age-specific birth rates for 1959 to 1961.

Table 14[a]

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980[b]

[The underlying projections assume a slight reduction of the 1959 to 1961 age-specific death rates of Utah, a continuation of the 1950 to 1960 county age-specific net migration rates, and a very moderate reduction of county age-specific birth rates for 1959 to 1961. Enumerations stated in the 1960 county populations are taken from the Department of Commerce, Bureau of the Census; Census of Population PC(1)-46B.

1960

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Beaver:	Male	271	570	194	71	509	440	176	2,231
	Female	251	468	191	81	488	435	186	2,100
	Total	522	1,038	385	152	997	875	362	4,331
Box Elder:	Male	1,951	3,118	1,016	795	3,121	1,891	761	12,653
	Female	1,893	2,994	1,015	849	2,994	1,812	851	12,408
	Total	3,844	6,112	2,031	1,644	6,115	3,703	1,612	25,061
Cache:	Male	2,383	3,706	1,914	2,104	3,842	2,686	1,382	18,017
	Female	2,397	3,623	1,817	1,885	3,505	2,883	1,661	17,771
	Total	4,780	7,329	3,731	3,989	7,347	5,569	3,043	35,788
Carbon:	Male	1,345	2,627	1,028	399	2,378	2,168	859	10,804
	Female	1,265	2,465	917	539	2,661	1,890	594	10,331
	Total	2,610	5,092	1,945	938	5,039	4,058	1,453	21,135
Daggett:	Male	99	139	47	38	168	125	17	633
	Female	72	124	40	47	160	74	14	531
	Total	171	263	87	85	328	199	31	1,164
Davis:	Male	5,690	8,922	2,408	1,846	9,195	3,716	1,103	32,880
	Female	5,424	8,418	2,459	2,027	8,890	3,451	1,211	31,880
	Total	11,114	17,340	4,867	3,873	18,085	7,167	2,314	64,760
Duchesne:	Male	546	973	333	158	753	674	215	3,652
	Female	520	928	322	202	763	582	210	3,527
	Total	1,066	1,901	655	360	1,516	1,256	425	7,179
Emery:	Male	357	690	268	120	567	559	242	2,803
	Female	346	674	244	122	578	540	239	2,743
	Total	703	1,364	512	242	1,145	1,099	481	5,546
Garfield:	Male	228	468	174	87	405	376	122	1,860
	Female	233	428	157	94	377	306	122	1,717
	Total	461	896	331	181	782	682	244	3,577
Grand:	Male	546	713	214	258	975	500	115	3,321
	Female	566	643	254	270	821	377	93	3,024
	Total	1,112	1,356	468	528	1,796	877	208	6,345
Iron:	Male	730	1,347	589	331	1,276	898	339	5,510
	Female	677	1,308	536	344	1,289	818	313	5,285
	Total	1,407	2,655	1,125	675	2,565	1,716	652	10,795
Juab:	Male	285	553	195	101	436	498	218	2,286
	Female	240	536	197	106	472	471	289	2,311
	Total	525	1,089	392	207	908	969	507	4,597
Kane:	Male	209	327	135	64	295	257	85	1,372
	Female	183	309	101	75	305	228	94	1,295
	Total	392	636	236	139	600	485	179	2,667
Millard:	Male	498	1,055	346	116	742	782	376	3,915
	Female	483	1,055	355	140	823	756	339	3,951
	Total	981	2,110	701	256	1,565	1,538	715	7,866
Morgan:	Male	217	353	134	66	308	264	104	1,446
	Female	191	307	131	78	317	246	121	1,391
	Total	408	660	265	144	625	510	225	2,837

(Continued)

[a]This table was prepared by Dr. Yun Kim from the original work tables of Black and Tarver (see footnote 4).

[b]The projected county population figures were rounded to the nearest ten and the projected state population figures were rounded to the nearest hundred.

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1960

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Piute:	Male	82	182	74	31	135	166	53	723
	Female	79	168	79	34	147	142	64	713
	Total	161	350	153	65	282	308	117	1,436
Rich:	Male	115	206	91	32	169	182	93	888
	Female	101	193	81	37	160	147	78	797
	Total	216	399	172	69	329	329	171	1,685
Salt Lake:	Male	27,421	43,814	14,620	11,858	48,311	30,795	12,043	188,862
	Female	26,656	42,217	15,749	14,295	48,337	31,972	14,947	194,173
	Total	54,077	86,031	30,369	26,153	96,648	62,767	26,990	383,035
San Juan:	Male	941	1,134	317	258	1,192	577	158	4,577
	Female	900	1,158	378	365	1,096	446	120	4,463
	Total	1,841	2,292	695	623	2,288	1,023	278	9,040
Sanpete:	Male	582	1,285	598	205	941	1,225	709	5,545
	Female	520	1,188	528	216	1,040	1,239	777	5,508
	Total	1,102	2,473	1,126	421	1,981	2,464	1,486	11,053
Sevier:	Male	620	1,325	435	211	1,094	1,039	483	5,207
	Female	619	1,325	450	222	1,155	1,050	537	5,358
	Total	1,239	2,650	885	433	2,249	2,089	1,020	10,565
Summit:	Male	377	692	281	129	600	582	232	2,893
	Female	339	631	246	150	610	557	247	2,780
	Total	716	1,323	527	279	1,210	1,139	479	5,673
Tooele:	Male	1,332	2,231	677	861	2,337	1,428	443	9,309
	Female	1,263	2,075	679	584	2,276	1,234	448	8,559
	Total	2,595	4,306	1,356	1,445	4,613	2,662	891	17,868
Uintah:	Male	927	1,555	476	326	1,420	955	325	5,984
	Female	831	1,402	500	375	1,353	850	287	5,598
	Total	1,758	2,957	976	701	2,773	1,805	612	11,582
Utah:	Male	7,681	12,697	5,491	4,529	12,512	7,781	2,809	53,500
	Female	7,190	12,063	5,951	5,239	12,007	7,671	3,370	53,491
	Total	14,871	24,760	11,442	9,768	24,519	15,452	6,179	106,991
Wasatch:	Male	386	666	248	115	580	439	193	2,681
	Female	330	630	240	128	605	477	217	2,627
	Total	716	1,296	488	243	1,185	970	410	5,308
Washington:	Male	687	1,339	547	220	966	852	576	5,187
	Female	624	1,294	486	236	1,045	881	518	5,084
	Total	1,311	2,633	1,033	456	2,011	1,733	1,094	10,271
Wayne:	Male	96	240	91	32	179	171	67	876
	Female	105	221	71	39	187	166	63	852
	Total	201	461	162	71	366	337	130	1,728
Weber:	Male	7,817	13,457	4,494	2,922	13,822	9,216	3,581	55,309
	Female	7,492	12,854	4,607	3,468	13,786	9,160	4,068	55,435
	Total	15,309	26,311	9,101	6,390	27,608	18,376	7,649	110,744
State Totals:	Male	64,419	106,384	37,435	28,283	109,228	71,296	27,879	444,924
	Female	61,790	101,699	38,781	32,247	108,247	70,861	32,078	445,703
	Total	126,209	208,083	76,216	60,530	217,475	142,157	59,957	890,627

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1965

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Beaver:	Male	220	510	190	130	380	460	180	2,070
	Female	200	410	170	130	380	430	220	1,940
	Total	430	920	350	260	760	880	400	4,010
Box Elder:	Male	2,790	3,680	1,250	960	3,360	2,040	820	14,900
	Female	2,690	3,570	1,250	980	3,260	2,010	940	14,700
	Total	5,480	7,250	2,500	1,950	6,620	4,050	1,760	29,610
Cache:	Male	2,470	4,030	1,960	2,060	4,020	2,770	1,450	18,760
	Female	2,480	4,010	1,900	1,740	3,660	3,030	1,760	18,580
	Total	4,950	8,040	3,870	3,790	7,680	5,800	3,220	37,340
Carbon:	Male	1,010	2,220	950	700	1,750	2,120	860	9,610
	Female	940	2,080	960	680	2,090	2,040	700	9,490
	Total	1,950	4,300	1,910	1,380	3,840	4,160	1,560	19,100
Daggett:	Male	220	330	100	90	340	260	20	1,360
	Female	160	290	80	60	350	170	20	1,110
	Total	380	620	180	140	680	430	40	2,470
Davis:	Male	8,210	13,350	4,530	3,190	12,520	5,460	1,350	48,600
	Female	7,780	12,820	4,470	3,500	12,580	4,990	1,530	47,670
	Total	15,980	26,170	9,000	6,690	25,100	10,450	2,870	96,280
Duchesne:	Male	460	920	330	230	600	630	240	3,410
	Female	440	860	310	230	670	580	220	3,300
	Total	900	1,780	640	450	1,270	1,210	460	6,710
Emery:	Male	300	630	250	180	460	540	240	2,590
	Female	290	620	240	170	480	530	250	2,580
	Total	590	1,250	480	360	940	1,070	490	5,170
Garfield:	Male	230	410	170	120	330	390	120	1,780
	Female	240	380	160	110	310	310	120	1,620
	Total	470	790	320	230	640	700	240	3,400
Grand:	Male	920	1,620	570	480	2,690	990	150	7,420
	Female	950	1,640	500	520	2,000	740	130	6,480
	Total	1,870	3,260	1,060	1,000	4,680	1,730	280	13,900
Iron:	Male	710	1,360	600	500	1,200	950	370	5,680
	Female	650	1,350	560	460	1,240	900	360	5,510
	Total	1,370	2,710	1,160	950	2,430	1,840	730	11,190
Juab:	Male	260	450	200	130	320	450	220	2,020
	Female	210	430	190	130	360	440	270	2,030
	Total	470	880	380	260	680	880	490	4,040
Kane:	Male	200	380	130	110	290	270	100	1,480
	Female	170	340	110	80	290	260	110	1,370
	Total	370	720	240	190	580	530	220	2,840
Millard:	Male	440	880	360	220	520	700	400	3,520
	Female	420	880	350	240	620	730	390	3,620
	Total	860	1,760	710	450	1,140	1,430	790	7,150
Morgan:	Male	200	410	140	100	290	260	120	1,510
	Female	170	350	120	110	320	260	130	1,450
	Total	370	760	260	210	600	520	250	2,960

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1965

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Piute:	Male	70	140	60	50	110	140	60	630
	Female	70	140	60	50	100	150	60	630
	Total	140	280	120	100	210	290	120	1,260
Rich:	Male	110	210	70	70	140	180	90	860
	Female	100	180	80	60	140	160	70	770
	Total	210	390	140	120	280	330	160	1,640
Salt Lake:	Male	30,360	53,150	20,630	16,510	51,610	35,740	13,930	221,940
	Female	29,350	52,390	21,440	18,160	53,250	37,360	17,550	229,500
	Total	59,720	105,540	42,060	34,670	104,860	73,100	31,480	451,440
San Juan:	Male	1,040	1,630	460	360	1,420	760	170	5,840
	Female	1,000	1,670	490	460	1,430	620	140	5,790
	Total	2,040	3,300	950	810	2,840	1,370	300	11,630
Sanpete:	Male	530	1,060	500	370	680	1,130	700	4,970
	Female	470	950	440	340	780	1,190	770	4,940
	Total	1,000	2,010	940	710	1,470	2,320	1,460	9,910
Sevier:	Male	550	1,090	480	300	850	1,010	510	4,790
	Female	540	1,100	500	320	900	1,070	590	5,030
	Total	1,100	2,200	980	620	1,750	2,080	1,100	9,820
Summit:	Male	380	630	260	190	490	510	220	2,690
	Female	340	590	230	180	510	520	260	2,620
	Total	720	1,220	490	370	1,000	1,030	480	5,310
Tooele:	Male	1,280	2,350	1,060	790	2,460	1,650	510	10,090
	Female	1,210	2,190	920	690	2,260	1,500	530	9,290
	Total	2,490	4,540	1,980	1,480	4,720	3,150	1,040	19,380
Uintah:	Male	1,080	1,670	580	390	1,390	1,030	350	6,480
	Female	960	1,510	540	430	1,370	910	320	6,040
	Total	2,040	3,170	1,120	820	2,760	1,940	660	12,520
Utah:	Male	7,990	14,810	6,290	5,680	13,590	8,750	3,170	60,260
	Female	7,420	14,240	6,600	6,110	13,600	8,800	3,800	60,560
	Total	15,400	29,040	12,880	11,790	27,190	17,560	6,960	120,830
Wasatch:	Male	350	680	230	180	480	500	200	2,620
	Female	300	580	240	180	520	490	250	2,540
	Total	650	1,260	470	350	1,000	980	450	5,160
Washington:	Male	680	1,280	540	380	830	850	670	5,230
	Female	610	1,240	480	360	920	920	620	5,150
	Total	1,280	2,520	1,020	740	1,760	1,770	1,290	10,380
Wayne:	Male	70	180	80	60	120	180	70	750
	Female	70	170	80	50	150	170	70	760
	Total	140	350	150	100	270	350	140	1,510
Weber:	Male	8,490	15,140	6,030	4,450	14,000	10,760	4,000	62,860
	Female	8,080	14,640	6,080	4,620	14,240	10,670	4,740	63,060
	Total	16,570	29,780	12,110	9,070	28,240	21,430	8,740	125,930
State Totals:	Male	71,600	125,200	49,000	38,900	117,200	81,400	31,300	514,700
	Female	68,300	121,600	49,500	41,100	118,800	81,900	36,900	518,100
	Total	139,900	246,800	98,500	80,100	236,000	163,400	68,200	1,032,900

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1970

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Beaver:	Male	210	410	200	130	340	440	190	1,920
	Female	190	350	150	120	340	430	220	1,800
	Total	400	760	350	240	680	870	420	3,720
Box Elder:	Male	3,020	4,770	1,510	1,170	3,720	2,210	850	17,250
	Female	2,880	4,660	1,500	1,190	3,660	2,190	1,010	17,080
	Total	5,900	9,440	3,000	2,360	7,380	4,400	1,860	34,330
Cache:	Male	2,410	4,170	2,200	2,120	4,180	2,690	1,580	19,350
	Female	2,370	4,220	2,140	1,830	3,760	2,970	1,910	19,210
	Total	4,780	8,390	4,340	3,950	7,950	5,660	3,490	38,560
Carbon:	Male	960	1,810	800	650	1,540	1,960	900	8,620
	Female	880	1,700	780	710	1,800	2,050	820	8,740
	Total	1,840	3,510	1,580	1,370	3,340	4,010	1,720	17,360
Daggett:	Male	400	800	180	180	680	500	30	2,770
	Female	290	580	220	100	640	390	30	2,250
	Total	680	1,370	400	290	1,330	890	60	5,020
Davis:	Male	12,010	18,880	7,010	5,760	17,240	8,210	1,660	70,760
	Female	11,220	18,270	6,970	6,140	17,990	7,590	1,950	70,130
	Total	23,230	37,150	13,990	11,900	35,230	15,790	3,610	140,890
Duchesne:	Male	440	820	330	220	540	580	260	3,190
	Female	410	740	310	220	620	540	250	3,080
	Total	840	1,560	640	440	1,160	1,120	500	6,270
Emery:	Male	290	560	230	170	430	490	250	2,420
	Female	280	540	220	170	460	490	270	2,430
	Total	570	1,090	450	340	900	980	510	4,840
Garfield:	Male	220	380	160	120	310	360	140	1,690
	Female	220	380	130	110	280	280	140	1,530
	Total	430	760	290	230	590	650	270	3,220
Grand:	Male	1,880	3,090	1,120	1,210	6,720	2,080	220	16,330
	Female	1,900	3,310	1,080	980	4,640	1,370	190	13,480
	Total	3,780	6,400	2,200	2,200	11,370	3,440	410	29,810
Iron:	Male	740	1,300	660	510	1,250	980	410	5,850
	Female	670	1,250	680	480	1,270	940	420	5,710
	Total	1,420	2,540	1,340	990	2,520	1,920	840	11,560
Juab:	Male	240	410	160	130	270	380	210	1,800
	Female	200	340	170	130	320	390	250	1,800
	Total	430	750	320	260	600	770	470	3,600
Kane:	Male	200	390	150	100	320	290	120	1,570
	Female	180	340	130	90	300	270	120	1,430
	Total	380	730	280	190	620	560	240	3,000
Millard:	Male	430	750	320	220	450	610	410	3,200
	Female	410	710	340	230	550	680	420	3,350
	Total	840	1,460	660	460	1,010	1,300	830	6,550
Morgan:	Male	210	420	160	110	300	250	120	1,580
	Female	180	340	140	100	350	260	150	1,510
	Total	390	760	300	210	650	520	270	3,090

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1970

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Piute:	Male	60	120	50	40	100	120	60	560
	Female	60	110	50	40	100	130	70	560
	Total	130	240	100	80	200	240	130	1,120
Rich:	Male	120	190	90	50	140	160	100	840
	Female	100	170	70	60	140	150	70	750
	Total	210	350	160	110	280	310	170	1,600
Salt Lake:	Male	34,840	59,980	25,800	22,780	58,520	40,950	16,040	258,910
	Female	33,190	59,310	27,640	24,330	60,470	43,170	20,610	268,720
	Total	68,030	119,290	53,440	47,110	118,990	84,120	36,660	527,630
San Juan:	Male	1,260	2,050	610	510	1,670	1,000	200	7,290
	Female	1,180	2,030	720	590	1,810	830	170	7,320
	Total	2,440	4,080	1,330	1,090	3,480	1,830	360	14,610
Sanpete:	Male	510	930	420	320	660	960	700	4,490
	Female	450	800	370	290	720	1,080	760	4,460
	Total	960	1,720	790	610	1,370	2,040	1,460	8,960
Sevier:	Male	550	930	420	330	740	940	550	4,450
	Female	540	960	420	350	830	1,020	630	4,740
	Total	1,080	1,890	840	680	1,570	1,960	1,180	9,190
Summit:	Male	360	620	230	180	450	440	230	2,510
	Female	310	560	230	160	460	480	250	2,470
	Total	670	1,180	460	340	910	930	480	4,980
Tooele:	Male	1,360	2,310	1,160	1,200	2,550	1,740	610	10,930
	Female	1,260	2,220	940	910	2,300	1,710	660	10,000
	Total	2,620	4,530	2,100	2,110	4,850	3,440	1,270	20,930
Uintah:	Male	1,110	1,850	640	460	1,410	1,060	390	6,920
	Female	970	1,660	590	470	1,450	930	360	6,440
	Total	2,080	3,510	1,230	930	2,860	1,990	760	13,360
Utah:	Male	8,800	15,760	7,700	6,470	15,580	9,420	3,630	67,360
	Female	8,070	15,090	8,240	6,790	15,700	9,730	4,320	67,940
	Total	16,860	30,850	15,940	13,260	31,280	19,150	7,960	135,310
Wasatch:	Male	340	630	260	160	460	480	210	2,550
	Female	280	530	220	180	500	460	280	2,460
	Total	620	1,160	480	340	960	940	490	5,000
Washington:	Male	690	1,230	530	380	840	850	730	5,250
	Female	620	1,120	540	360	910	940	720	5,200
	Total	1,310	2,350	1,070	740	1,750	1,780	1,440	10,450
Wayne:	Male	60	120	70	50	110	170	80	650
	Female	70	130	60	50	120	180	80	680
	Total	130	260	130	100	230	340	160	1,340
Weber:	Male	9,620	16,340	7,050	5,860	15,370	12,310	4,500	71,050
	Female	9,040	15,780	7,220	6,010	15,230	12,380	5,520	71,180
	Total	18,660	32,120	14,270	11,870	30,600	24,690	10,010	142,230
State Totals:	Male	83,300	142,000	60,200	51,600	136,900	92,600	35,400	602,000
	Female	78,400	138,200	62,300	53,200	137,700	94,100	42,600	606,500
	Total	161,700	280,200	122,500	104,800	274,700	186,700	78,000	1,208,500

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1975

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Beaver:	Male	190	370	160	140	320	410	200	1,780
	Female	180	310	130	110	320	380	240	1,660
	Total	370	670	290	240	640	780	440	3,440
Box Elder:	Male	3,470	5,820	1,730	1,410	4,170	2,420	940	19,960
	Female	3,300	5,640	1,760	1,430	4,200	2,390	1,080	19,800
	Total	6,770	1,460	3,490	2,840	8,380	4,810	2,020	39,760
Cache:	Male	2,510	4,190	2,280	2,370	4,400	2,560	1,680	20,000
	Female	2,470	4,200	2,290	2,060	3,940	2,850	2,080	19,890
	Total	4,980	8,390	4,570	4,430	8,350	5,410	3,760	39,890
Carbon:	Male	890	1,540	700	550	1,440	1,680	940	7,740
	Female	820	1,430	700	580	1,700	1,900	910	8,050
	Total	1,720	2,970	1,390	1,130	3,150	3,590	1,840	15,790
Daggett:	Male	780	1,560	520	310	1,390	910	70	5,560
	Female	570	1,120	400	290	1,140	880	50	4,460
	Total	1,360	2,680	920	610	2,540	1,790	120	10,020
Davis:	Male	18,780	27,240	9,890	8,910	25,940	11,810	2,220	104,800
	Female	17,540	26,070	10,070	9,570	28,120	10,960	2,540	104,870
	Total	36,320	53,310	19,960	18,480	54,060	22,770	4,760	209,670
Duchesne:	Male	410	740	300	220	510	510	270	2,970
	Female	390	660	270	220	570	500	270	2,880
	Total	800	1,400	570	400	1,080	1,020	540	5,860
Emery:	Male	280	510	210	160	410	430	260	2,240
	Female	260	490	200	160	450	440	280	2,280
	Total	540	1,000	410	310	860	870	530	4,520
Garfield:	Male	200	360	130	120	310	330	140	1,590
	Female	200	370	130	90	270	260	140	1,440
	Total	390	730	260	210	580	580	280	3,030
Grand:	Male	3,870	5,620	2,660	2,400	16,270	4,810	400	36,020
	Female	3,920	5,970	2,870	2,150	9,930	2,940	310	28,100
	Total	7,790	11,590	5,520	4,550	26,200	7,740	710	64,110
Iron:	Male	810	1,310	610	560	1,320	990	440	6,050
	Female	730	1,250	600	580	1,320	970	480	5,940
	Total	1,540	2,560	1,210	1,140	2,650	1,970	930	11,980
Juab:	Male	220	370	140	100	260	300	210	1,600
	Female	180	310	120	110	290	350	240	1,610
	Total	400	680	260	220	550	650	450	3,200
Kane:	Male	220	380	170	120	330	300	140	1,670
	Female	190	330	140	100	310	280	140	1,500
	Total	410	720	310	220	650	580	280	3,160
Millard:	Male	410	700	260	200	420	520	410	2,920
	Female	390	660	250	230	520	610	440	3,100
	Total	800	1,360	510	430	950	1,120	850	6,020
Morgan:	Male	220	410	190	130	310	250	140	1,640
	Female	190	330	150	120	360	270	170	1,580
	Total	410	740	340	240	670	520	300	3,220

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1975

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Piute:	Male	60	110	40	30	90	90	60	490
	Female	60	100	40	30	100	110	60	500
	Total	110	210	80	70	190	200	130	990
Rich:	Male	120	190	80	70	140	140	100	830
	Female	100	160	60	50	140	130	80	740
	Total	220	350	140	120	290	270	180	1,560
Salt Lake:	Male	43,310	67,480	29,920	28,500	72,050	45,520	18,600	305,370
	Female	41,240	66,050	32,420	31,380	73,970	47,960	24,250	317,260
	Total	84,560	133,530	62,340	59,870	146,020	93,470	42,850	622,630
San Juan:	Male	1,630	2,380	910	660	2,020	1,330	240	9,160
	Female	1,530	2,320	1,000	860	2,310	1,100	200	9,320
	Total	3,160	4,690	1,910	1,520	4,330	2,420	440	18,480
Sanpete:	Male	450	870	350	270	620	760	720	4,040
	Female	400	740	290	240	660	900	780	4,020
	Total	850	1,610	640	510	1,290	1,670	1,500	8,060
Sevier:	Male	520	880	340	280	720	820	570	4,140
	Female	510	900	350	300	800	930	690	4,470
	Total	1,030	1,780	690	580	1,520	1,750	1,260	8,610
Summit:	Male	340	600	220	160	420	380	220	2,350
	Female	300	540	200	160	420	430	260	2,320
	Total	640	1,150	420	320	840	810	480	4,670
Tooele:	Male	1,510	2,340	1,170	1,320	3,050	1,800	680	11,870
	Female	1,400	2,230	1,020	930	2,580	1,870	780	10,810
	Total	2,900	4,570	2,190	2,250	5,640	3,670	1,460	22,680
Uintah:	Male	1,160	2,000	670	510	1,470	1,130	420	7,370
	Female	1,020	1,790	630	510	1,530	980	400	6,860
	Total	2,190	3,790	1,290	1,020	3,000	2,110	810	14,230
Utah:	Male	10,140	16,840	8,440	7,930	18,040	9,980	4,190	75,560
	Female	9,300	15,940	9,030	8,480	18,180	10,480	4,960	76,370
	Total	19,440	32,780	17,460	16,410	36,220	20,460	9,160	151,930
Wasatch:	Male	320	600	240	190	440	440	240	2,460
	Female	270	490	200	160	490	440	300	2,360
	Total	590	1,090	450	350	920	880	540	4,820
Washington:	Male	720	1,240	500	380	880	810	760	5,280
	Female	640	1,110	450	400	920	920	800	5,240
	Total	1,350	2,350	950	770	1,800	1,740	1,560	10,530
Wayne:	Male	60	100	40	40	100	140	80	570
	Female	60	110	50	40	110	160	90	620
	Total	120	210	90	80	210	300	180	1,190
Weber:	Male	11,420	18,120	7,580	6,860	18,410	13,450	5,110	80,950
	Female	10,720	17,320	7,810	7,140	17,850	13,510	6,420	80,760
	Total	22,140	35,430	15,390	14,000	36,260	26,960	11,530	161,710
State Totals:	Male	105,000	164,900	70,400	64,900	176,300	105,000	40,400	727,000
	Female	98,900	158,900	73,600	68,500	173,500	105,900	49,400	728,800
	Total	203,900	323,800	144,100	133,400	349,800	210,900	89,900	1,455,800

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1980

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Beaver:	Male	180	340	130	110	340	340	220	1,640
	Female	160	280	110	100	300	330	260	1,530
	Total	340	620	240	200	640	670	470	3,180
Box Elder:	Male	4,140	6,500	2,460	1,620	4,740	2,740	1,020	23,220
	Female	3,940	6,260	2,490	1,680	4,830	2,700	1,200	23,080
	Total	8,080	12,760	4,950	3,300	9,570	5,430	2,220	46,310
Cache:	Male	2,690	4,220	2,360	2,460	4,760	2,450	1,790	20,740
	Female	2,650	4,200	2,370	2,200	4,330	2,690	2,180	20,630
	Total	5,350	8,420	4,730	4,660	9,090	5,140	3,970	41,370
Carbon:	Male	800	1,450	530	480	1,410	1,290	980	6,940
	Female	740	1,340	530	510	1,610	1,590	1,060	7,380
	Total	1,540	2,790	1,060	990	3,020	2,880	2,040	14,320
Daggett:	Male	1,600	2,970	1,100	910	2,440	2,070	150	11,240
	Female	1,160	2,130	860	550	2,180	1,780	90	8,740
	Total	2,750	5,110	1,960	1,460	4,620	3,850	240	19,980
Davis:	Male	29,100	41,370	14,020	12,570	40,560	16,790	3,000	157,420
	Female	27,160	39,320	14,190	13,820	44,850	15,730	3,460	158,540
	Total	56,260	80,690	28,220	26,390	85,420	32,520	6,460	315,950
Duchesne:	Male	390	700	260	210	520	420	280	2,770
	Female	360	620	230	190	560	440	290	2,700
	Total	750	1,320	490	400	1,080	860	560	5,460
Emery:	Male	260	490	180	140	400	350	260	2,080
	Female	250	460	170	140	420	400	300	2,140
	Total	500	950	350	290	820	750	560	4,220
Garfield:	Male	180	340	130	100	300	290	150	1,490
	Female	180	340	130	90	250	220	140	1,350
	Total	370	670	260	180	550	510	290	2,840
Grand:	Male	8,300	11,540	4,260	5,660	35,160	13,620	780	79,310
	Female	8,410	12,130	4,620	5,710	20,460	6,920	580	58,840
	Total	16,710	23,670	8,880	11,380	55,610	20,540	1,360	138,160
Iron:	Male	850	1,390	600	520	1,490	930	490	6,270
	Female	770	1,320	580	510	1,500	980	520	6,180
	Total	1,620	2,720	1,180	1,030	2,990	1,900	1,010	12,440
Juab:	Male	190	340	120	90	250	210	200	1,410
	Female	160	290	110	80	280	260	250	1,430
	Total	340	630	230	180	540	470	450	2,840
Kane:	Male	240	410	160	140	380	300	160	1,770
	Female	200	350	130	110	340	290	160	1,580
	Total	440	760	290	250	710	590	320	3,350
Millard:	Male	380	680	230	160	430	390	400	2,670
	Female	360	640	220	170	530	500	450	2,870
	Total	730	1,320	450	330	960	890	850	5,540
Morgan:	Male	240	430	170	140	340	240	150	1,710
	Female	200	340	130	120	400	270	180	1,650
	Total	440	780	300	270	730	510	320	3,360

(Continued)

Table 14 (Continued)

CURRENT AND PROJECTED POPULATION OF UTAH COUNTIES
BY AGE AND SEX: 1960 to 1980

1980

Counties		Age Groups							
		0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and Over	Total
Piute:	Male	50	100	40	30	90	60	70	430
	Female	50	90	30	30	90	80	70	440
	Total	100	190	70	50	180	140	140	870
Rich:	Male	110	190	70	60	150	120	110	810
	Female	100	170	60	50	150	110	80	720
	Total	210	360	130	100	300	230	200	1,530
Salt Lake:	Male	53,680	80,850	32,940	33,050	91,640	49,590	21,560	363,310
	Female	51,100	78,520	35,520	36,800	94,510	52,160	28,270	376,880
	Total	104,790	159,370	68,460	69,850	186,150	101,750	49,840	740,190
San Juan:	Male	2,170	2,980	1,000	990	2,500	1,710	320	11,680
	Female	2,040	2,890	1,090	1,190	3,020	1,470	270	11,970
	Total	4,210	5,870	2,090	2,180	5,520	3,180	590	23,640
Sanpete:	Male	390	800	320	220	600	560	710	3,610
	Female	340	680	260	190	630	710	780	3,600
	Total	730	1,480	580	410	1,230	1,280	1,500	7,200
Sevier:	Male	470	860	300	230	720	670	580	3,830
	Female	460	870	320	250	770	800	730	4,200
	Total	940	1,720	620	480	1,490	1,470	1,300	8,030
Summit:	Male	320	570	220	150	410	320	210	2,200
	Female	280	510	210	150	410	350	280	2,180
	Total	600	1,080	430	300	820	670	490	4,380
Tooele:	Male	1,640	2,550	1,130	1,320	3,670	1,780	760	12,850
	Female	1,520	2,400	970	1,000	2,880	1,970	910	11,660
	Total	3,160	4,950	2,100	2,330	6,550	3,760	1,670	24,520
Uintah:	Male	1,250	2,080	770	540	1,610	1,130	470	7,860
	Female	1,100	1,850	720	540	1,620	1,030	430	7,300
	Total	2,350	3,930	1,490	1,080	3,240	2,160	900	15,160
Utah:	Male	11,780	19,000	8,740	8,690	21,380	10,650	4,830	85,060
	Female	10,790	17,860	9,260	9,290	22,060	10,880	5,800	85,930
	Total	22,570	36,860	18,000	17,980	43,440	21,530	10,630	171,000
Wasatch:	Male	310	570	220	180	460	380	260	2,380
	Female	260	470	180	150	470	420	320	2,270
	Total	570	1,040	410	330	930	800	570	4,650
Washington:	Male	720	1,280	490	350	930	740	820	5,330
	Female	640	1,140	440	340	1,000	870	860	5,290
	Total	1,360	2,420	930	690	1,930	1,620	1,680	10,620
Wayne:	Male	50	90	30	30	100	110	90	500
	Female	50	100	40	30	100	130	100	550
	Total	100	190	70	60	210	240	190	1,060
Weber:	Male	13,300	21,050	8,210	7,370	22,660	14,100	5,980	92,670
	Female	12,490	19,980	8,400	7,720	21,750	14,140	7,480	91,950
	Total	25,790	41,020	16,600	15,100	44,410	28,240	13,460	184,620
State Totals:	Male	135,800	206,100	81,200	78,500	240,400	124,400	46,800	913,200
	Female	127,900	197,500	84,400	83,700	232,300	120,200	57,500	903,600
	Total	263,700	403,700	165,600	162,200	472,700	244,600	104,300	1,816,800

Section I

Section II

Section III

Section IV

Section III

POPULATION PROJECTIONS ON EMPLOYMENT TRENDS

It is a fundamental assumption of this approach to population projections that the population size of a given region--in this case the state of Utah and its constituent counties--is principally determined by the employment opportunities in that region. Hence, it follows that net in or out-migration will tend to bring about a balance between employment opportunities and the natural increase in population. Net migration for the state of Utah in each decade since 1900 is shown in Table 15.

Table 15

NET MIGRATION OF TOTAL RESIDENT POPULATION IN UTAH:
1900 to 1960

Decade	Net Migration
1900-1910	+24,900
1910-1920	- 200
1920-1930	-30,800
1930-1940	-30,500
1940-1950	+ 9,000
1950-1960	+10,000

Source: Decades 1950 to 1960 and 1940 to 1950 from U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 227, April 26, 1961. All prior decades are from U.S. Bureau of the Census, Historical Statistics of the United States, p. 45.

The scarcity of jobs in Utah in the two decades prior to World War II is evidenced clearly by the net out-migration. The thousands of jobs resulting from the war-stimulated activities reversed the migration pattern and for two decades some net in-migration has prevailed. It is quite likely that the slowing down in the growth of Utah employment due to the cutbacks in the missile industry and other causes has eliminated net in-migration and may have produced net out-migration again.

The components of change on a county basis for the decade of 1950 to 1960 are shown in Table 16. Here it is seen that 21 of the Utah's 29 counties had net out-migration. Of the eight counties with net in-migration, two counties--Salt Lake and Davis--accounted for 85.5 per cent of the total. Thus, the lack of employment opportunities resulted in net out-migration in most of Utah's rural counties from 1950 to 1960.

In projecting the populations of the state and the counties, the general procedure was as follows. The population of the state was projected first and was based on a projection of the growth of employment in the state. The population of each county was then projected independently of the state, also based on employment possibilities in each county. Adjustments were then made in the county figures so that the sum of the county populations would equal the projected total population of the state. The reason for this last step is simply that population projections for large areas are likely to be more accurate than for small areas. In small regions, it is possible for one unanticipated factor to change the economic pattern and thus the population of the area. The larger the region, the less will be the likelihood of such an occurrence.

A further limitation of the employment method for areas as small as counties is the growing interdependence and in some cases a certain amount of integration with contiguous counties. In Utah perhaps the best example of this situation is Davis County. Because of the fact that South Davis serves in part as a residential area for the people who work in Salt Lake City and because many people who work in North Davis live in Weber County or other places outside Davis County, there is a vast difference between the employment-population ratios of South Davis and North Davis. Adjustments and variations in techniques must be made to cope with situations of this kind. Freeways and perhaps other rapid transit systems will undoubtedly increase this aspect of the problem along the Wasatch Front in the years ahead.

Nevertheless, as troublesome as such situations may be, the population of most counties and of the state itself will ultimately depend to a large extent upon the demand for labor within the county or state, i.e., the number of jobs available in the basic industries and non-service governmental activities together with the ancillary jobs in the various service industries that arise in connection with basic industry employment. This approach disregards short-run cyclical fluctuations and is applicable only to periods of time of sufficient duration that the growth factors inherent in a region's economy can work themselves out. The methodology used in developing the population projections from employment projections may be briefly summarized as follows:

(1) Employment in each of ten major industry categories is first projected. The employees in these ten categories are designated as "classified workers" and account for some 80 to 90 per cent of the total civilian labor force.

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Table 16

ESTIMATES OF THE COMPONENTS OF CHANGE IN THE RESIDENT POPULATION AND NET CIVILIAN MIGRATION, BY COUNTY AND AREA: 1950 to 1960

Area and County	April 1, 1960 Census	April 1, 1950 Census	Net Change 1950-1960		Components of Change, 1950 to 1960				Net Civilian Migration 1950-1960	
							Net Total Migration			
			Amount	Rate	Births	Deaths	Amount	Rate	Amount	Rate
Area A										
Salt Lake	383,035	274,895	+108,140	+ 39.3	101,774	23,806	+30,172	+11.0	+32,249	+11.7
Area B										
Weber	110,744	83,319	+ 27,425	+ 32.9	31,120	6,563	+ 2,868	+ 3.4	+ 3,294	+ 4.0
Area 1	97,970	95,744	+ 2,226	+ 2.3	27,805	7,542	-18,037	-18.8	-17,184	-17.9
Box Elder	25,061	19,734	+ 5,327	+ 27.0	6,199	1,518	+ 646	+ 3.3	+ 802	+ 4.1
Cache	35,788	33,536	+ 2,252	+ 6.7	10,576	2,391	- 5,933	-17.7	- 5,486	-16.4
Morgan	2,837	2,519	+ 318	+ 12.6	848	204	- 326	-12.9	- 307	-12.2
Rich	1,685	1,673	+ 12	+ .7	573	111	- 450	-26.9	- 440	-26.3
Sanpete	11,053	13,891	- 2,838	- 20.4	3,028	1,303	- 4,563	-32.8	- 4,480	-32.3
Sevier	10,565	12,072	- 1,507	- 12.5	3,163	983	- 3,687	-30.5	- 3,623	-30.0
Summit	5,673	6,745	- 1,072	- 15.9	1,683	555	- 2,200	-32.6	- 2,160	-32.0
Wasatch	5,308	5,574	- 266	- 4.8	1,735	477	- 1,524	-27.3	- 1,490	-26.7
Area 2	171,751	112,779	+ 58,972	+ 52.3	46,170	7,467	+20,269	+18.0	+20,495	+18.2
Davis	64,760	30,867	+ 33,893	+109.8	15,800	2,073	+20,166	+65.3	+19,538	+64.7
Utah	106,991	81,912	+ 25,079	+ 30.6	30,370	5,394	+ 103	+ 0.1	+ 957	+ 1.2
Area 3	127,127	122,125	+ 5,002	+ 4.1	39,119	8,950	-25,167	-20.6	-25,023	-20.5
Beaver	4,331	4,856	- 525	- 10.8	1,342	387	- 1,480	-30.5	- 1,459	-30.1
Carbon	21,135	24,901	- 3,766	- 15.1	6,602	1,525	- 8,843	-35.5	- 8,703	-35.0
Daggett	1,164	364	+ 800	+219.8	164	22	+ 658	+180.8	+ 663	+182.1
Duchesne	7,179	8,134	- 995	- 11.7	2,589	529	- 3,015	-37.1	- 2,963	-36.4
Emery	5,546	6,304	- 758	- 12.0	1,627	484	- 1,901	-30.2	- 1,864	-29.6
Garfield	3,577	4,151	- 574	- 13.8	1,074	308	- 1,340	-32.3	- 1,317	-31.7
Grand	6,345	1,903	+ 4,442	+233.4	1,387	253	+ 3,308	+173.8	+ 3,337	+175.4
Iron	10,795	9,642	+ 1,153	+ 12.0	3,228	648	- 1,391	-14.4	- 1,298	-13.5
Juab	4,597	5,981	- 1,384	- 23.1	1,433	504	- 2,313	-38.7	- 2,284	-38.2
Kane	2,667	5,299	+ 368	+ 16.0	790	189	- 233	-10.1	- 217	- 9.4
Millard	7,866	9,387	- 1,521	- 16.2	2,557	665	- 3,413	-36.4	- 3,364	-35.8
Piute	1,436	1,911	- 475	- 24.9	415	131	- 759	-39.7	- 750	-39.2
San Juan	9,040	5,315	+ 3,725	+ 70.1	3,226	437	+ 936	+17.6	+ 988	+18.6
Tooele	17,868	14,636	+ 3,232	+ 22.1	5,625	1,103	- 1,290	- 8.8	- 1,846	-13.0
Uintah	11,582	10,300	+ 1,282	+ 12.4	3,511	822	- 1,407	-13.7	- 1,336	-13.0
Washington	10,271	9,836	+ 435	+ 4.4	3,013	791	- 1,787	-18.2	- 1,724	-17.5
Wayne	1,728	2,205	- 477	- 21.6	536	116	- 897	-40.7	- 886	-40.2
State Total	890,627	688,862	+201,765	+ 29.3	245,988	54,328	+10,105	+ 1.5	+13,831	+ 2.0

Source: U.S. Bureau of the Census, Current Population Reports, Series P-23, No. 7, November, 1962.

(2) To the classified workers are added the non-classified workers consisting of the self-employed and unpaid family workers, private household workers, the unemployed, and workers involved in labor disputes. The number in this group is estimated by an average percentage of classified workers. Total classified workers must also be adjusted downward because some workers hold more than one job and thus are counted twice. Summation of classified workers, non-classified workers, and the adjustment for multiple job holding produces the total civilian labor force.

(3) Finally, an analysis of the relationship between total civilian labor force and population provides a "multiplier" which is then applied to the projected total civilian labor force to produce an estimation of the population.

In Table 17 are given the population projections for the state as a whole and for each county by five-year intervals to 1980, and then by 20-year intervals to 2020. The projections to 1980 are based on a careful analysis of employment trends from 1952 to 1964 and an evaluation of any possible economic developments that might occur in the projection period.[17] For the state as a whole, total employment increased at an annual average rate of about 2.2 per cent in the base period. However, the projection of employment was not done by a simple extrapolation of the aggregate experience but rather by the separate projection of each of the ten categories of employment. This method resulted in aggregate growth rate of about 2.8 per cent or an average of about 11,100 new jobs per year during the period of 1964 to 1980.

The projections to 2000 and 2020 are largely extensions of the 1980 data on the basis of a rate of growth for the state that appears to be reasonable. For the 40-year period of 1980 to 2020, it was assumed that there would be on the average about 12,000 new jobs each year. This number of jobs would mean an annual growth rate of about 1-7/8 per cent from 1980 to 2000, and approximately 1-1/4 per cent from 2000 to 2020.

The population projections also assume a fairly stable relationship between employment opportunities and resulting population. Population multipliers for these projections were as follows: 1980, 2.65; 2000, 2.64; and 2020, 2.63.

The population estimates for the state of Utah, based solely on the estimates of employment opportunities, are compared in Table 18 with various

(Continued on page 49)

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[17]See Lawrence Nabers, Jewell J. Rasmussen, and John W. Lord, Employment, Population, Income, and Automobiles in Salt Lake, Ogden, Provo, Metropolitan Areas and State of Utah (Salt Lake City: Bureau of Economic and Business Research, University of Utah, December 1966), especially Tables 8 and 27, and Appendix 2, p. 105.

Table 17

PROJECTED POPULATION OF UTAH BY COUNTY:
Selected Years 1970 to 2020

County	1970	1975	1980	2000	2020
Beaver	4,200	4,400	4,500	5,000	5,300
Box Elder	31,000	35,500	39,500	56,000	75,500
Cache	45,100	50,500	55,000	65,000	76,000
Carbon	18,000	19,000	20,000	25,000	30,000
Daggett	800	900	1,000	1,500	2,000
Davis	104,000	124,200	142,700	226,500	311,700
Duchesne	6,500	6,600	6,700	6,900	7,100
Emery	5,900	6,200	6,500	7,200	8,000
Garfield	3,100	3,200	3,300	3,600	4,000
Grand	7,700	7,900	8,100	10,000	12,000
Iron	11,100	11,700	12,300	14,700	18,000
Juab	4,700	5,000	5,300	6,000	6,600
Kane	2,700	3,000	11,000[a]	12,000[a]	13,000[a]
Millard	7,600	8,000	8,200	9,000	10,000
Morgan	3,500	4,300	4,800	5,000	6,000
Piute	1,400	1,400	1,400	1,500	1,600
Rich	1,500	1,600	1,700	1,700	1,700
Salt Lake	512,000	576,400	661,400	976,500	1,310,000
San Juan	8,100	8,700	9,200	10,000	11,000
Sanpete	10,900	11,000	11,000	11,000	11,000
Sevier	9,800	10,000	10,300	12,000	13,200
Summit	6,400	7,500	8,500	10,500	12,000
Tooele	23,600	28,000	30,800	36,000	40,000
Uintah	13,000	15,000	16,000	25,000[b]	40,000[b]
Utah	140,000	156,800	173,200	243,200	310,500
Wasatch	5,500	6,200	6,500	8,000	9,000
Washington	10,700	11,500	12,000	14,000	15,000
Wayne	1,600	1,600	1,600	1,700	1,800
Weber	134,200	151,700	174,300	245,500	313,000
State Totals	1,134,600	1,277,800	1,446,800	2,050,000	2,675,000

[a]Assuming that the Kaiparowitz Plateau coal project is well underway, and that about half of the new population live in Kane County, with the other half in Page.

[b]Assuming extensive development of oil shale in western Colorado and eastern Utah.

Note: If these developments fail to materialize, projected populations of Kane and Uintah Counties and the state of Utah would be as follows:

	1980	2000	2020
Kane	3,300	4,000	5,000
Uintah	16,000	18,000	20,000
State	1,439,100	2,035,000	2,647,000

Table 18

COMPARISON OF VARIOUS POPULATION PROJECTIONS FOR UTAH

Year	Economic Basis (Sec. III)	U.S. Bureau of the Census[a]					ORRRC[b]	Stanford Research Institute[c]	Harline[d]	Natural Increase (Sec. II)
		I-B	II-B	I-D	II-D	III				
1970	1,131.6	1,087	1,088	1,072	1,073	1,093	e	1,110	e	1,133.1
1975	1,277.8	1,207	1,209	1,155	1,157	1,221	e	1,227	e	1,287.0
1976	e	e	e	e	e	e	1,297	e	e	e
1980	1,446.8	1,346	1,351	1,249	1,253	1,372	e	1,354	1,407	1,467.2
1985	e	1,494	1,503	1,352	1,361	1,534	e	e	e	e
2000	2,050.0	e	e	e	e	e	2,116	e	2,004	e
2020	2,675.0	e	e	e	e	e	e	e	2,571	e

[a]U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 362, March 7, 1967.

[b]Outdoor Recreation Resources Review Commission, Projections to the Years 1976 and 2000: Economic Growth, Population, Labor Force and Leisure, and Transportation (Study Report No. 23, 1962) p. 82.

[c]Stanford Research Institute, Basic Economic Projections.

[d]Osmond L. Harline, Municipal and Industrial Water Requirements, Utah Counties, 1960-2000 -- A Summary, July 1963.

[e]Not estimated.

other projections independently made. The economic projections are somewhat higher than the U.S. Bureau of the Census projections but are well in line with most others. An important point to note is that the estimates of this report based on employment possibilities are very close to the projections based on natural increase with no in, or out-migration.

The remainder of this section of the report contains the supporting details for the population projections in Table 17. For each county there are three supporting tables: (1) resident population as of July 1 for each year of the critical 26-year period from 1940 to 1965, (2) employment trends by major categories from 1952 to 1965, and (3) resident population as reported by the U.S. Census Bureau each decade from the initial count to 1960, and projected population 1970 to 2020. The tables, 87 in all, are listed mutually in the contents under the same table number, Table 19.

BEAVER COUNTY

Beaver County reached a peak population of 5, 139 in 1920 and remained virtually stationary in population for the next two decades. Small losses appeared in the Census of 1940 and 1950 with significant out-migration by 1960 when the U.S. Census reported a population of 4, 331. In the quarter century from 1940 to 1965, the population of Beaver declined from some 5, 000 to 4, 200.

Total employment and the total labor force were only slightly less in 1965 than in 1952. A steady decline of employment in agriculture and transportation was offset by a substantial gain in employment in trade and a slight gain in government. However, employment dipped in the mid-fifties and from this point there has been some improvement.

On a basis of prospective employment only small increases in population can be projected. Beaver County may be regarded as a natural tourist stop which may provide some additional employment in the future. Whether the present level of light manufacturing--40 to 50 employees--can be expanded is not at all certain.

RESIDENT POPULATION IN BEAVER COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	4,900	.89	1953	4,400	.60
1941	5,100	.93	1954	4,300	.57
1942	4,600	.80	1955	4,400	.56
1943	3,900	.62	1956	4,300	.53
1944	4,000	.66	1957	4,300	.52
1945	4,200	.71	1958	4,300	.41
1946	4,500	.71	1959	4,300	.49
1947	4,600	.72	1960	4,300	.49
1948	4,500	.69	1961	4,400	.47
1949	4,600	.69	1962	4,300	.45
1950	4,800	.69	1963	4,200	.43
1951	4,600	.65	1964	4,200	.43
1952	4,500	.62	1965	4,200	.42

EMPLOYMENT TRENDS IN BEAVER COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Transportation	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	435	384	128	221	1,558	160	1,715
1953	418	339	148	221	1,465	165	1,630
1954	402	293	135	214	1,390	151	1,542
1955	411	291	145	226	1,422	115	1,538
1956	393	266	169	239	1,468	159	1,628
1957	376	249	181	212	1,435	150	1,585
1958	371	222	191	213	1,360	170	1,533
1959	355	298	195	210	1,523	160	1,678
1960	346	279	188	225	1,483	150	1,637
1961	326	272	200	220	1,418	170	1,592
1962	340	269	229	222	1,470	140	1,610
1963	310	254	232	235	1,530	130	1,660
1964	330	253	231	244	1,540	170	1,710
1965	310	207	224	266	1,510	130	1,640

RESIDENT POPULATION IN BEAVER COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	5,014	.91
1860	785	1.95	1950	4,856	.70
1870	2,007	2.31	1960	4,331	.49
1880	3,918	2.72			
1890	3,340	1.59	1970	4,200	.37
1900	3,613	1.31	1975	4,400	.34
1910	4,717	1.26	1980	4,500	.31
1920	5,139	1.14	2000	5,000	.24
1930	5,136	1.01	2020	5,300	.20

[a]No census taken.

BOX ELDER COUNTY

For three decades, 1920 to 1950, the population of Box Elder County was relatively stable, between 18,000 and 20,000. Then in 1956, Thiokol Chemical Corporation began construction of its facilities for research and development of missiles in the county. Employment increased from 6,300 in 1955 to a peak of 14,370 in 1962. As a result of this industrial expansion, the 1960 Census reported 25,061 and reached an estimated peak of 31,200 in 1962. Then cutbacks in the missile industry began slowly in the latter half of 1963, increasing considerably in 1964 and 1965. With jobs declining in the county, the population fell to an estimated 28,800 on July 1, 1965.

Although employment has been declining since 1962, it is believed that this trend will be reversed and that by 1970 there will be modest increases in employment and population. Box Elder's position as part of the Wasatch Front--with its heavy investment in industrial facilities, potential mineral extraction from the Great Salt Lake, and recreation potential in Willard Bay--results in the county's receiving a share of the state's growth in the years ahead.

RESIDENT POPULATION IN BOX ELDER COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	18,900	3.42	1953	19,700	2.67
1941	18,400	3.34	1954	19,600	2.61
1942	18,200	3.17	1955	19,900	2.54
1943	18,300	2.90	1956	20,000	2.47
1944	18,300	3.02	1957	20,900	2.53
1945	18,200	3.08	1958	22,300	2.64
1946	18,700	2.93	1959	23,800	2.74
1947	19,600	3.08	1960	25,500	2.83
1948	19,700	3.02	1961	29,000	3.10
1949	20,200	3.01	1962	31,200	3.26
1950	19,800	2.84	1963	31,200	3.21
1951	19,800	2.80	1964	30,000	3.05
1952	19,700	2.72	1965	28,800	2.89

EMPLOYMENT TRENDS IN BOX ELDER COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Manufacturing	Construction	Trade			
1952	2,339	470	279	756	6,288	317	6,604
1953	2,287	458	175	826	6,161	353	6,514
1954	2,149	480	152	842	6,083	425	6,509
1955	2,209	431	147	834	6,306	453	6,759
1956	2,112	499	595	876	6,783	357	7,140
1957	2,017	534	897	948	7,127	360	7,484
1958	1,992	898	1,046	1,023	7,805	353	8,167
1959	1,906	2,624	851	1,151	9,650	238	9,889
1960	1,859	3,802	595	1,228	11,021	274	11,295
1961	1,755	5,138	917	1,307	13,147	319	13,466
1962	1,800	6,222	787	1,419	14,370	350	14,720
1963	1,640	6,131	483	1,391	13,770	380	14,150
1964	1,540	4,498	390	1,288	11,510	750	12,260
1965	1,340	3,170	273	1,213	9,790	740	10,540

RESIDENT POPULATION IN BOX ELDER COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	18,832	3.42
1860	1,608	3.99	1950	19,734	2.86
1870	4,855	5.59	1960	25,061	2.81
1880	6,761	4.70			
1890	7,642	3.63	1970	31,000	2.73
1900	10,009	3.62	1975	35,500	2.78
1910	13,894	3.72	1980	39,500	2.73
1920	18,788	4.18	2000	56,000	2.73
1930	17,810	3.51	2020	75,500	2.82

[a]No census taken.

CACHE COUNTY

Decade by decade, Cache County has shown a steady, although sometimes modest, increase in population. Likewise in the base period of 1952 to 1965, employment increased consistently. For all employment during this period except self-employment, the rate of increase was 2.2 per cent per annum. The average percentage increase was 2.4 per cent.

Of the four selected employment categories, agriculture continued to decline, manufacturing increased, construction increased slightly, and government, influenced heavily by Utah State University, nearly doubled during the base period.

It would appear realistic, therefore, to assume continued growth in employment opportunities in Cache County and hence substantial increases in population. A growth rate of about 2.0 per cent is assumed from 1965 to 1980, about 1.25 per cent to 2000, and 0.75 per cent from 2000 to 2020.

RESIDENT POPULATION IN CACHE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	29,900	5.42	1953	33,700	4.56
1941	30,100	5.46	1954	44,800	4.51
1942	30,000	5.22	1955	34,500	4.41
1943	29,200	4.63	1956	34,900	4.31
1944	28,400	4.69	1957	34,900	4.23
1945	28,200	4.77	1958	35,000	4.14
1946	30,200	4.73	1959	35,400	4.07
1947	31,000	4.87	1960	36,100	4.01
1948	32,500	4.98	1961	38,200	4.08
1949	33,500	4.99	1962	39,300	4.10
1950	33,600	4.83	1963	39,500	4.06
1951	33,500	4.75	1964	40,300	4.10
1952	33,600	4.64	1965	41,000	4.11

EMPLOYMENT TRENDS IN CACHE COUNTY:
1952 to 1965

Year	Agriculture	Manufacturing	Construction	Government	Total Employment	Unemployment	Total Labor Force
1952	2,462	888	453	1,966	9,456	560	10,018
1953	2,408	893	424	2,027	9,522	550	10,073
1954	2,278	871	465	2,000	9,430	682	10,112
1955	2,326	895	444	2,098	9,665	659	10,324
1956	2,222	933	548	2,255	9,896	591	10,487
1957	2,123	882	552	2,498	10,003	560	10,566
1958	2,096	954	539	2,609	10,234	545	10,780
1959	2,007	1,096	588	2,753	10,729	430	11,160
1960	1,956	1,107	559	2,922	11,007	558	11,565
1961	1,782	1,158	700	3,039	11,276	636	11,912
1962	1,900	1,218	673	3,199	11,720	510	12,230
1963	1,730	1,233	675	3,445	11,890	610	12,500
1964	1,670	1,232	585	3,700	12,160	880	13,040
1965	1,465	1,281	632	4,146	12,520	830	13,350

RESIDENT POPULATION IN CACHE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	29,797	5.41
1860	2,605	6.47	1950	33,536	4.87
1870	8,229	9.48	1960	35,788	4.02
1880	12,562	8.73			
1890	15,509	7.36	1970	45,100	3.97
1900	18,139	6.56	1975	50,500	3.95
1910	23,062	6.18	1980	55,000	3.80
1920	26,992	6.01	2000	65,000	3.17
1930	27,424	5.40	2020	76,000	2.84

[a]No census taken.

CARBON COUNTY

Carbon County reached a peak population of 24,901 in 1950 and since then has declined to an estimated 18,000 in 1964 and 1965. This population decline is consistent with the employment pattern. Total civilian employment declined from an average of 7,672 in 1953 to an average of 5,550 in 1965, a decrease of 27.7 per cent.

Employment in the basic mining industry fell throughout the base period, decreasing from an average of 3,107 in 1953 to 1,234 in 1965. Other basic industries that also had declining employment in 1952 to 1964 period are agriculture and transportation. For all employment except self-employment, the rate of decline was 2.5 to 3.0 per cent per year during the base period.

On the basis of the postwar employment record, no increase in population would be justified. However, on the assumption that some of the efforts being made to provide new markets for coal--locating generating plants in the coal fields with extra high voltage transmission of energy, transporting coal in the form of slurry by pipeline, and improved methods of making gas from coal--will bear fruit within the next decade or so, some increase in population is projected in Carbon County beginning in 1975 at a rather modest rate of increase.

RESIDENT POPULATION IN CARBON COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	18,700	3.39	1953	23,000	3.11
1941	17,800	3.23	1954	22,900	3.05
1942	18,100	3.15	1955	22,800	2.91
1943	19,100	3.03	1956	22,500	2.79
1944	21,000	3.47	1957	22,400	2.71
1945	22,600	3.82	1958	22,000	2.66
1946	22,100	3.46	1959	21,800	2.51
1947	20,700	3.25	1960	21,200	2.36
1948	22,700	3.48	1961	20,600	2.20
1949	24,000	3.58	1962	19,500	2.04
1950	24,800	3.56	1963	18,300	1.88
1951	24,400	3.46	1964	18,000	1.83
1952	23,100	3.19	1965	18,000	1.80

EMPLOYMENT TRENDS IN CARBON COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Mining	Transportation	Government	Total Employment	Unemployment	Total Labor Force
1952	295	2,987	638	919	7,293	510	7,803
1953	289	3,107	625	931	7,672	326	7,998
1954	273	2,390	545	924	6,822	940	7,762
1955	279	2,278	511	911	6,528	502	7,030
1956	266	2,399	544	908	6,947	473	7,420
1957	255	2,569	572	936	7,454	302	7,756
1958	252	2,228	563	872	6,640	774	7,414
1959	241	1,890	561	836	5,951	1,240	7,191
1960	234	1,829	535	858	5,815	677	6,492
1961	221	1,710	545	942	5,640	652	6,292
1962	227	1,516	581	937	5,526	670	6,196
1963	210	1,338	517	1,019	5,290	628	5,918
1964	170	1,252	501	1,018	5,416	550	5,986
1965	150	1,234	506	1,131	5,550	450	6,000

RESIDENT POPULATION IN CARBON COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	18,459	3.35
1860	a	a	1950	24,901	3.61
1870	a	a	1960	21,135	2.37
1880	a	a			
1890	a	a	1970	18,000	1.59
1900	5,004	1.81	1975	19,000	1.50
1910	8,624	2.31	1980	20,000	1.40
1920	15,489	3.45	2000	25,000	1.22
1930	17,798	3.50	2020	30,000	1.12

[a]No census taken.

DAGGETT COUNTY

The first U.S. Census for Daggett County was made in 1920. The population remained quite static at 400 to 500 until the construction of the Flaming Gorge Dam began in 1958. Employment in construction increased total employment by five to six-fold. Population jumped to an estimated 1,700 in 1962 and then declined to an estimated 700 in 1965.

The future of this small, remote county is very uncertain. With the completion of the dam, the largest employment category is government--much of it engaged in operating and supervising the dam and adjacent facilities. It is expected that in the future many of the services ancillary to outdoor recreation may increase. Hence, some increase in population seems justified. With such small numbers, the amount of increase in employment and population is not very reliable.

RESIDENT POPULATION IN DAGGETT COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	600	.11	1953	400	.05
1941	700	.13	1954	400	.05
1942	600	.10	1955	400	.05
1943	400	.06	1956	400	.05
1944	400	.07	1957	400	.05
1945	400	.07	1958	500	.06
1946	400	.06	1959	1,000	.11
1947	300	.05	1960	1,200	.13
1948	300	.05	1961	1,300	.14
1949	300	.04	1962	1,700	.18
1950	400	.06	1963	1,400	.14
1951	400	.06	1964	800	.08
1952	400	.06	1965	700	.07

EMPLOYMENT TRENDS IN DAGGETT COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Construction	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	76	0	3	34	138	0	138
1953	74	1	5	35	142	0	142
1954	70	0	4	36	135	2	138
1955	72	79	4	40	233	0	233
1956	68	1	3	42	148	10	158
1957	66	44	3	36	179	0	179
1958	64	104	5	95	315	10	325
1959	62	72	2	71	263	20	283
1960	60	40	9	175	334	20	354
1961	57	439	19	195	793	30	823
1962	58	646	22	219	1,027	10	1,037
1963	50	284	16	206	638	20	658
1964	40	49	8	144	290	30	320
1965	40	12	12	140	260	30	290

RESIDENT POPULATION IN DAGGETT COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	564	.10
1860	a	a	1950	364	.05
1870	a	a	1960	1,164	.13
1880	a	a			
1890	a	a	1970	800	.07
1900	a	a	1975	900	.07
1910	a	a	1980	1,000	.07
1920	400	.09	2000	1,500	.07
1930	411	.08	2020	2,000	.07

[a]No census taken.

DAVIS COUNTY

Since 1940 the population of Davis County has been growing faster than that of any other county in the state. Although from 1910 to 1940 the county's population increased only about 50 per cent, it has just about doubled each decade since 1940.

Davis County is the major exception to the general thesis of this section of the report that employment basically determines the population of the area. This exception is due largely to the fact that the county is located between and, in fact, connects the state's two largest metropolitan areas with the result that many people who work at Hill Air Force Base do not live in Davis County and many people who live in South Davis do not work in the county.

The population of Davis County will be significantly affected by the program of the U.S. Defense Department to expand Hill Air Force Base operations by nearly 5,000 additional employees by mid-1968, by further development of the Freeport Center, and by industrial expansion in the Woods Cross-North Salt Lake area. Therefore, economic expansion of the county and surrounding areas would justify a rate of population increase higher than that for the state as a whole. Approximate growth rates used for Davis County were as follows: 1965 to 1980, 3-1/2 per cent; 1980 to 2000, 1-3/8 per cent; and 2000 to 2020, 1-5/8 per cent.

RESIDENT POPULATION IN DAVIS COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	15,500	2.81	1953	41,300	5.59
1941	16,800	3.05	1954	43,100	5.75
1942	18,400	3.20	1955	45,800	5.85
1943	23,800	3.77	1956	49,000	5.06
1944	24,700	4.08	1957	52,700	6.38
1945	26,000	4.40	1958	56,600	6.70
1946	27,300	4.28	1959	60,400	6.94
1947	27,500	4.32	1960	65,600	7.29
1948	29,000	4.44	1961	70,200	7.50
1949	29,600	4.41	1962	75,200	7.85
1950	31,200	4.48	1963	79,300	8.15
1951	34,600	4.90	1964	82,000	8.33
1952	38,400	5.30	1965	84,500	8.47

EMPLOYMENT TRENDS IN DAVIS COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	1,180	1,224	935	18,293	24,740	200	24,940
1953	1,150	1,312	1,045	16,888	23,350	300	23,650
1954	1,080	1,314	1,046	14,465	20,740	620	21,360
1955	1,110	1,348	1,179	13,960	21,170	460	21,630
1956	1,060	1,353	1,318	14,199	21,690	440	22,130
1957	1,020	1,358	1,538	13,984	21,680	780	22,460
1958	1,000	1,500	1,490	14,079	22,200	800	23,000
1959	950	1,895	1,722	14,582	23,540	570	24,110
1960	930	2,298	1,849	14,359	23,880	780	24,660
1961	880	2,353	1,856	14,351	24,130	1,060	25,190
1962	900	3,177	1,987	14,538	25,470	1,170	26,640
1963	830	3,512	2,166	14,492	26,070	1,280	27,350
1964	1,080	2,929	2,274	14,427	25,980	1,460	27,450
1965	980	2,426	2,430	15,778	26,900	1,680	28,590

RESIDENT POPULATION IN DAVIS COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	1,134	9.96	1940	15,784	2.87
1860	2,904	7.21	1950	30,867	4.48
1870	4,459	5.14	1960	64,760	7.27
1880	5,279	3.67			
1890	6,751	3.20	1970	104,000	9.17
1900	7,996	2.89	1975	124,200	9.72
1910	10,191	2.73	1980	142,700	9.86
1920	11,450	2.55	2000	226,500	11.05
1930	14,021	2.76	2020	311,700	11.65

DUCHESNE COUNTY

Duchesne County was not created until 1914 by a division of Wasatch County and its first Census in 1920 proved to be its largest. As in so many rural counties, the most rapid decline in population began after 1940 concurrent with the expanded industrialization of the state along the Wasatch Front.

In the base period 1952 to 1965, total employment was considerably lower at the end of the period than at the beginning, although it held fairly steady from 1954 to 1962. The level of unemployment also increased some in the last five years and would have to be regarded as quite high. The number of jobs in agriculture declined rapidly; employment in mining was erratic but tended downward; only services and government increased, and these very modestly.

Since the expansion of jobs in Duchesne County does not seem very optimistic at this time, the projected population is held stationary until 1975 and then increased very slightly thereafter.

RESIDENT POPULATION IN DUCHESNE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	8,700	1.58	1953	7,800	1.06
1941	8,900	1.62	1954	7,600	1.01
1942	8,000	1.39	1955	7,600	.97
1943	7,600	1.20	1956	7,600	.94
1944	7,600	1.26	1957	7,500	.91
1945	7,300	1.24	1958	7,300	.86
1946	7,600	1.19	1959	7,300	.84
1947	7,600	1.19	1960	7,200	.80
1948	7,500	1.15	1961	7,200	.77
1949	7,900	1.18	1962	7,100	.74
1950	8,100	1.16	1963	6,900	.71
1951	8,000	1.13	1964	6,800	.69
1952	7,900	1.09	1965	6,600	.66

EMPLOYMENT TRENDS IN DUCHESNE COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Transportation	Trade	Government			
1952	1,220	127	292	293	2,640	140	2,780
1953	1,190	73	300	290	2,620	160	2,780
1954	1,120	73	255	286	2,440	290	2,730
1955	1,150	65	250	294	2,470	250	2,720
1956	1,100	70	240	294	2,450	160	2,610
1957	1,050	128	257	281	2,520	160	2,680
1958	1,040	87	274	287	2,490	190	2,680
1959	990	74	264	319	2,450	210	2,660
1960	970	61	271	346	2,510	250	2,770
1961	910	87	276	355	2,490	280	2,770
1962	940	69	288	363	2,530	260	2,790
1963	860	37	265	348	2,400	290	2,690
1964	680	29	237	318	2,000	240	2,240
1965	610	30	253	366	1,950	230	2,180

RESIDENT POPULATION IN DUCHESNE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	8,958	1.63
1860	a	a	1950	8,134	1.18
1870	a	a	1960	7,179	.81
1880	a	a			
1890	a	a	1970	6,500	.57
1900	a	a	1975	6,600	.52
1910	a	a	1980	6,700	.48
1920	9,093	2.02	2000	6,900	.34
1930	8,263	1.63	2020	7,100	.27

[a]No census taken.

EMERY COUNTY

The population of Emery County reached a peak of 7,411 in 1920 and then remained at about 7,000 for the next two decades. Smaller populations were recorded in both 1950 and 1960 as the employment picture became less favorable. Within the base period used in this report, total employment was 2,228 in 1952, increased to 2,541 in 1955, and then declined to 1,910 in 1965. Unemployment also remained fairly high in the last half of this period. The basic industries of mining, agriculture, and transportation all show significant declines in the 14-year period.

In view of the very unfavorable postwar employment situation, no increase in population would appear to be justified. However, the labor force remained quite stable in 1962 to 1965. It is not unrealistic to assume that the bottom of the decline has been reached and the the future holds a modest increase in employment opportunities. Like Carbon County, the future of Emery County depends to a large extent upon the revival of the coal industry and possibly the development of other minerals. The Joe's Valley Dam and reservoir will likely result in some increase in recreational services. Population is projected to increase at an annual rate of about 1 per cent.

RESIDENT POPULATION IN EMERY COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	7,000	1.27	1953	5,800	.78
1941	6,900	1.25	1954	5,700	.76
1942	6,600	1.15	1955	5,700	.73
1943	6,000	.95	1956	5,600	.70
1944	5,600	.93	1957	5,700	.69
	5,300	.90	1958	5,600	.66
1946	5,200	.82	1959	5,600	.64
1947	5,200	.82	1960	5,500	.61
1948	5,600	.86	1961	5,500	.59
1949	5,800	.86	1962	5,400	.56
1950	6,300	.91	1963	5,400	.55
1951	6,100	.86	1964	5,500	.56
1952	5,900	.81	1965	5,700	.57

EMPLOYMENT TRENDS IN EMERY COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Mining	Transportation	Government	Total Employment	Unemployment	Total Labor Force
1952	764	799	62	224	2,228	80	2,308
1953	747	928	64	221	2,336	74	2,410
1954	705	891	59	212	2,279	260	2,539
1955	721	1,000	76	223	2,541	128	2,669
1956	690	968	84	216	2,425	107	2,532
1957	659	1,024	80	226	2,500	68	2,568
1958	657	814	47	235	2,231	176	2,407
1959	622	731	33	269	2,133	270	2,403
1960	607	737	37	296	2,149	153	2,302
1961	572	668	37	280	2,020	148	2,168
1962	590	529	45	301	1,922	150	2,072
1963	540	389	49	316	1,923	142	2,065
1964	420	301	37	331	1,840	200	2,050
1965	380	288	34	401	1,910	180	2,090

RESIDENT POPULATION IN EMERY COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	7,072	1.28
1860	a	a	1950	6,304	.91
1870	a	a	1960	5,546	.62
1880	556	.39			
1890	5,076	2.41	1970	5,900	.52
1900	4,657	1.68	1975	6,200	.49
1910	6,750	1.81	1980	6,500	.45
1920	7,411	1.65	2000	7,200	.35
1930	7,042	1.39	2020	8,000	.30

[a]No census taken.

GARFIELD COUNTY

The population of Garfield County was relatively stable between 1920 and 1940, reaching a peak of 5,253 in the latter year. Like most rural counties in the state, population declined steadily after 1940 to an estimated 3,200 in 1965.

Since 1954, both the total number employed and the labor force has been very stable. The steady decline in agriculture and mining was offset by some increases in employment in manufacturing (lumber and wood products), trade, services and government.

Perhaps one of the most promising fields for increased employment is in the tourist industry. More accessibility to the area through new and improved roads will no doubt bring some economic expansion.

A very modest expansion is envisaged in the years ahead with a population increase of a little less than .75 per cent per annum.

RESIDENT POPULATION IN GARFIELD COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	5,300	.96	1953	3,700	.50
1941	5,000	.91	1954	3,600	.48
1942	6,800	.83	1955	3,700	.47
1943	4,300	.68	1956	3,700	.46
1944	3,900	.64	1957	3,700	.45
1945	4,000	.68	1958	3,600	.43
1946	4,100	.64	1959	3,600	.41
1947	4,000	.63	1960	3,500	.39
1948	3,800	.58	1961	3,500	.37
1949	3,000	.60	1962	3,500	.37
1950	4,100	.59	1963	3,400	.35
1951	4,000	.59	1964	3,300	.34
1952	3,800	.52	1965	3,200	.32

EMPLOYMENT TRENDS IN GARFIELD COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	450	58	82	217	1,220	230	1,450
1953	440	79	85	213	1,330	280	1,610
1954	410	70	88	221	1,410	220	1,630
1955	420	111	98	215	1,440	240	1,680
1956	410	131	107	221	1,440	230	1,670
1957	390	126	105	231	1,410	220	1,630
1958	380	142	115	230	1,410	200	1,610
1959	370	199	110	236	1,500	190	1,690
1960	360	220	107	255	1,510	220	1,730
1961	340	189	116	257	1,430	210	1,640
1962	350	190	114	268	1,410	180	1,590
1963	320	209	133	283	1,470	180	1,650
1964	260	162	132	294	1,420	160	1,580
1965	220	172	130	318	1,410	140	1,560

RESIDENT POPULATION IN GARFIELD COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	5,253	.95
1860	a	a	1950	4,151	.60
1870	a	a	1960	3,577	.40
1880	a	a			
1890	2,457	1.17	1970	3,100	.27
1900	3,400	1.23	1975	3,200	.27
1910	3,660	.98	1980	3,300	.23
1920	4,768	1.06	2000	3,600	.18
1930	4,642	.91	2020	4,000	.15

[a]No census taken.

GRAND COUNTY

After nearly a half century of being a small quiet county of 2,000 people or less, new economic developments in Grand County and neighboring San Juan County in the 1950's and early 1960's pushed the population to 6,345 in 1960 and to an estimated 8,400 in 1962.

Total employment rose from less than 900 in 1952 to more than 3,600 in 1962 but then declined to 2,750 in 1965 as construction fell off rapidly with completion of the potash plant southwest of Moab in San Juan County. The economic developments underlying the employment expansion include uranium, potash, oil and gas, outdoor filming of movies, and tourism.

With some slowing down and reduction in employment, population fell to an estimated 7,500 in 1965. It is believed, however, that this will be the low point and increased economic activities in the future will again result in growing population. Hence, population increases are projected at about 1 per cent per annum for Grand County.

RESIDENT POPULATION IN GRAND COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	2,200	.40	1953	2,100	.28
1941	2,000	.36	1954	2,400	.32
1942	2,100	.37	1955	4,000	.51
1943	2,000	.32	1956	5,000	.62
1944	2,000	.33	1957	5,200	.63
1945	2,100	.36	1958	5,600	.66
1946	2,100	.33	1959	6,000	.69
1947	2,000	.31	1960	6,400	.71
1948	1,900	.29	1961	8,100	.87
1949	2,000	.30	1962	8,400	.88
1950	1,900	.27	1963	8,000	.82
1951	2,000	.28	1964	7,800	.79
1952	2,000	.28	1965	7,500	.75

EMPLOYMENT TRENDS IN GRAND COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Mining	Construction	Transportation			
1952	140	187	17	98	859	20	879
1953	140	154	26	110	932	20	952
1954	130	287	132	101	1,554	20	1,574
1955	130	436	243	153	2,186	20	2,206
1956	130	444	297	172	2,324	40	2,364
1957	120	626	104	214	2,384	40	2,424
1958	120	555	69	246	2,261	80	2,341
1959	120	519	77	235	2,212	60	2,272
1960	110	663	58	243	2,498	60	2,558
1961	110	716	325	248	3,023	80	3,103
1962	110	594	889	248	3,613	70	3,683
1963	100	556	224	241	2,872	170	3,042
1964	80	624	178	202	2,860	180	3,040
1965	71	663	100	177	2,750	160	2,900

RESIDENT POPULATION IN GRAND COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	2,070	.38
1860	a	a	1950	1,903	.28
1870	a	a	1960	6,345	.71
1880	a	a			
1890	541	.26	1970	7,700	.68
1900	1,149	.42	1975	7,900	.62
	1,595	.43	1980	8,100	.56
1920	1,808	.40	2000	10,000	.49
1930	1,813	.36	2020	12,000	.45

[a]No census taken.

IRON COUNTY

With the lone exception of one decade, 1880 to 1890, the population of Iron County has increased slowly but steadily each Census since it was established in 1850. A small reduction in employment in 1963 caused a little dip in estimated population in 1963 and 1964.

In the 14-year period of 1952 to 1965, total employment remained nearly the same, showing a little decline in 1963 but some increase in 1964. Among the basic industries, agriculture, mining, and transportation show downward trends in employment in recent years. On the other hand, government, trade, construction, and even manufacturing have shown some gain, with government employment showing the greatest gain.

A continuation of the trend of slowly increasing employment, perhaps largely concentrated in trade and services as the tourist industry grows, seems appropriate for Iron County. Hence, a low population growth rate, less than 1 per cent to 1980 and about 1 per cent from 1980 to 2020, is used in projecting the population of this county.

RESIDENT POPULATION IN IRON COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	8,400	1.52	1953	9,800	1.33
1941	8,300	1.51	1954	9,900	1.32
1942	8,100	1.41	1955	10,100	1.29
1943	7,700	1.22	1956	10,300	1.27
1944	7,500	1.24	1957	10,300	1.25
1945	7,300	1.24	1958	10,400	1.23
1946	8,500	1.33	1959	10,600	1.22
1947	9,000	1.42	1960	10,900	1.21
1948	9,000	1.38	1961	11,100	1.19
1949	9,500	1.42	1962	11,200	1.17
1950	9,700	1.39	1963	10,700	1.10
1951	9,700	1.37	1964	10,600	1.08
1952	9,700	1.34	1965	10,800	1.08

EMPLOYMENT TRENDS IN IRON COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Mining	Transportation	Government			
1952	714	541	366	591	3,934	170	4,104
1953	698	723	362	593	3,951	150	4,101
1954	660	633	380	583	3,918	252	4,170
1955	675	541	385	586	3,838	192	4,030
1956	645	539	403	647	3,903	160	4,063
1957	616	608	402	643	3,918	170	4,088
1958	608	572	363	721	4,033	190	4,223
1959	582	514	296	753	3,905	200	4,105
1960	567	558	273	763	3,906	180	4,086
1961	535	535	257	808	3,944	190	4,134
1962	552	434	254	914	3,969	170	4,139
1963	500	303	254	960	3,846	160	4,006
1964	490	274	261	1,035	4,060	210	4,270
1965	450	305	242	1,107	4,200	160	4,360

RESIDENT POPULATION IN IRON COUNTY:
U.S. Census 1850 to 1960: Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	360	3.16	1940	8,331	1.51
1860	1,010	2.51	1950	9,642	1.40
1870	2,277	2.62	1960	10,795	1.21
1880	4,013	2.79			
1890	2,683	1.27	1970	11,100	.98
1900	3,546	1.28	1975	11,700	.92
1910	3,933	1.05	1980	12,300	.85
1920	5,787	1.29	2000	14,700	.72
1930	7,227	1.42	2020	18,000	.67

JUAB COUNTY

Juab reached a peak population of 10,702 in 1910 and had less than half this number in 1960. The decline in population is due largely to decreasing employment in two basic industries--mining and agriculture. In the basic post-war period of 1952 to 1965, employment in both of these industries declined substantially. In terms of employment, manufacturing is more important than either agriculture or mining. In the 1952 to 1965 base period, employment in manufacturing was somewhat erratic, varying between 300 and 400; government employment increased; and trade and service employment increased a little at the end of the period. Total employment decreased, although the total labor force was fairly stable.

Since 1960, population in Juab County has been very stable with a slight increase in 1964 and 1965. Fairly stable employment and population appear to be quite realistic for Juab County. On the basis of a very slight improvement, particularly in manufacturing, trade, and services, small population increases of 200 per five-year period are projected to 1980 with about the same rate of increase to 2000 and 2020.

RESIDENT POPULATION IN JUAB COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	7,400	1.34	1953	5,500	.74
1941	7,100	1.29	1954	5,400	.72
1942	6,300	1.10	1955	5,300	.68
1943	5,700	.90	1956	5,200	.64
1944	5,600	.93	1957	5,000	.61
1945	5,500	.93	1958	4,900	.58
1946	5,900	.92	1959	4,700	.54
1947	5,800	.91	1960	4,600	.51
1948	6,000	.92	1961	4,500	.48
1949	6,000	.89	1962	4,500	.47
1950	5,900	.85	1963	4,500	.46
1951	5,800	.82	1964	4,600	.47
1952	5,600	.77	1965	4,600	.46

EMPLOYMENT TRENDS IN JUAB COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Manufacturing	Mining	Government			
1952	430	357	316	240	2,020	80	2,100
1953	420	399	313	233	2,010	90	2,100
1954	400	373	282	226	1,920	140	2,060
1955	400	412	270	220	1,960	150	2,110
1956	390	378	224	222	1,860	160	2,020
1957	370	380	230	233	1,830	150	1,980
1958	360	331	203	230	1,710	200	1,910
1959	350	273	160	256	1,630	240	1,930
1960	340	327	171	288	1,710	130	1,840
1961	320	304	159	294	1,680	220	1,900
1962	330	299	185	300	1,700	230	1,930
1963	300	420	193	320	1,860	140	2,000
1964	240	442	193	330	1,840	140	1,980
1965	210	381	209	340	1,780	130	1,910

RESIDENT POPULATION IN JUAB COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	7,392	1.34
1860	672	1.67	1950	5,981	.87
1870	2,034	2.35	1960	4,597	.52
1880	3,474	2.41			
1890	5,582	2.65	1970	4,700	.41
1900	10,082	3.64	1975	5,000	.39
1910	10,702	2.87	1980	5,300	.37
1920	9,871	2.20	2000	6,000	.29
1930	8,605	1.70	2020	6,600	.25

[a]No census taken.

KANE COUNTY

Kane County had about 400 more people in 1880 than it had in 1960. From 3,085 in 1880, population declined to 1,652 in 1910 and increased to 2,667 in 1960.

In recent years, total employment and labor force have varied considerably. The construction of Glen Canyon Dam, the making of movies, and tourism have been major factors affecting employment. Although the total labor force of 980 in 1965 was about the same as that in 1952 (951), the number was between 1,100 and 1,300 in most of the years in this base period.

As usual, agricultural employment declined but government employment increased. Employment in trade and services about doubled. As the recreational facilities around Lake Powell are increased and tourism increases in the region, some increase in employment and population can be expected. However, the most important economic development under consideration in Kane County is the planned multimillion-dollar coal project on the Kaiparowitz Plateau. Current plans indicate that ultimately employment would reach about 2,500 in the project. This number of basic jobs plus the additional employment created in trade and services, etc., would probably result in increased population of some 20,000 to 25,000. Assuming that the project is well underway in the next decade and that about half of the new population lives in Page, Arizona, the projected population of Kane County is estimated to increase from 3,000 in 1975 to some 11,000 in 1980 with only small additions in 2000 and 2020. If the coal project fails to materialize, only small increases in population are projected.

RESIDENT POPULATION IN KANE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	2,600	.47	1953	2,300	.31
1941	2,500	.45	1954	2,300	.31
1942	2,500	.43	1955	2,400	.31
1943	2,400	.38	1956	2,400	.30
1944	2,200	.36	1957	2,500	.30
1945	2,100	.36	1958	2,700	.32
1946	2,300	.36	1959	2,700	.31
1947	2,300	.36	1960	2,700	.30
1948	2,100	.32	1961	2,700	.29
1949	2,300	.34	1962	2,700	.28
1950	2,300	.33	1963	2,700	.28
1951	2,300	.33	1964	2,600	.26
1952	2,300	.32	1965	2,600	.26

EMPLOYMENT TRENDS IN KANE COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Trade	Services	Government	Total Employment	Unemployment	Total Labor Force
1952	223	62	91	120	761	190	951
1953	218	61	127	122	808	150	958
1954	206	67	102	122	760	116	876
1955	210	88	145	124	864	118	982
1956	202	98	149	170	936	122	1,058
1957	193	123	200	307	1,233	100	1,333
1958	190	133	142	327	1,179	100	1,279
1959	182	139	144	137	970	70	1,040
1960	178	128	130	149	978	80	1,058
1961	167	127	176	149	1,065	90	1,155
1962	173	133	210	150	1,046	70	1,116
1963	160	134	267	163	1,101	90	1,191
1964	130	117	149	168	860	100	960
1965	110	142	179	194	900	80	980

RESIDENT POPULATION IN KANE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	2,561	.46
1860	a	a	1950	2,299	.33
1870	1,513	1.74	1960	2,667	.30
1880	3,085	2.14			
1890	1,685	.80	1970	2,700	.24
1900	1,811	.65	1975	3,000	.23
1910	1,652	.44	1980	11,000[b]	.76 (.23)[b]
1920	2,054	.46	2000	12,000[b]	.59 (.20)[b]
1930	2,235	.44	2020	13,000[b]	.49 (.19)[b]

[a]No census taken.

[b]Assuming that the Kaiparowitz Plateau coal project is well underway, and that about half of the new population lives in Kane County with the other half in Page. If the project fails to materialize, projected population of Kane County would be as follows: 1980: 3,300; 2000: 4,000; 2020: 5,000.

MILLARD COUNTY

Although Millard County reached its peak population of 9,945 in 1930, the number of people in the county was fairly constant from 1920 to 1950 at 9,400 to 9,900. Population dropped sharply in 1960 to 7,900 and then seems to have become quite stable at about 7,400 or 7,500.

Agriculture is by far the dominant industry in the county and average employment in this category declined from 1,330 in 1952 to 758 in 1965. Employment in transportation also declined during this period. Trade and services registered small gains in jobs, with government employment increasing more rapidly than any other category. The county has benefited considerably from serving motorists who pass through the county on Highway 91.

In the key base period of 1952 to 1965, total employment dropped, although it has stabilized at around 2,600 to 2,700. There is no apparent basis for much increased economic activity in the county. On the other hand, no further declines seem imminent. On the assumption that there will be a little improvement in economic activity, small increases in population are projected--less than .625 per cent per year.

RESIDENT POPULATION IN MILLARD COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	9,700	1.76	1953	9,000	1.22
1941	9,100	1.65	1954	8,800	1.17
1942	8,800	1.53	1955	8,800	1.12
1943	9,300	1.47	1956	8,700	1.08
1944	9,600	1.59	1957	8,500	1.03
1945	9,800	1.66	1958	8,200	.97
1946	9,400	1.47	1959	8,000	.92
1947	8,700	1.37	1960	7,900	.89
1948	8,600	1.32	1961	8,000	.85
1949	8,900	1.33	1962	7,800	.81
1950	9,300	1.34	1963	7,500	.77
1951	9,200	1.30	1964	7,400	.75
1952	9,100	1.26	1965	7,400	.74

EMPLOYMENT TRENDS IN MILLARD COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Transportation	Trade	Government			
1952	1,330	297	335	350	3,000	120	3,120
1953	1,290	268	336	343	2,890	150	3,040
1954	1,220	241	340	340	2,800	180	2,980
1955	1,250	250	360	360	2,950	150	3,100
1956	1,200	251	348	385	2,920	160	3,080
1957	1,140	230	346	338	2,760	130	2,890
1958	1,130	210	343	321	2,710	140	2,850
1959	1,080	165	356	379	2,660	150	2,810
1960	1,050	154	354	431	2,680	170	2,850
1961	990	149	345	407	2,560	160	2,720
1962	1,020	140	335	420	2,600	120	2,720
1963	940	145	364	414	2,530	110	2,640
1964	960	152	372	442	2,690	150	2,840
1965	758	138	352	451	2,550	140	2,690

RESIDENT POPULATION IN MILLARD COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	9,613	1.75
1860	715	1.78	1950	9,387	1.36
1870	2,753	3.17	1960	7,866	.88
1880	3,727	2.59			
1890	4,033	1.91	1970	7,600	.67
1900	5,678	2.05	1975	8,000	.63
1910	6,118	1.64	1980	8,200	.57
1920	9,659	2.15	2000	9,000	.44
1930	9,945	1.96	2020	10,000	.37

[a]No census taken.

MORGAN COUNTY

Morgan County's small population was nearly constant at 2,500 from 1920 through 1950. Then in 1960 it increased by 12 per cent over 1950 and again has remained nearly constant at an estimated 3,000, with a little gain in 1965.

Agriculture and manufacturing provide a large part of the basic employment in Morgan County and both industries declined some between 1952 and 1965. In contrast to most counties, trade and services combined have remained virtually constant during the base period of 1952 to 1965. Employment declined in transportation, increased in government, and was very erratic in construction. Total employment was somewhat less in 1962 to 1964 than in 1952 to 1954, but there was a 10 per cent increase in 1965.

On the basis of employment trends, perhaps very little increase in population would be justified. However, as Davis and Weber Counties expand, Morgan County may become more important as a place to live. On this basis, an increase in population is projected.

RESIDENT POPULATION IN MORGAN COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	2,600	.47	1953	2,600	.35
1941	2,600	.47	1954	2,600	.35
1942	2,700	.47	1955	2,600	.33
1943	3,000	.48	1956	2,700	.33
1944	2,700	.45	1957	2,700	.33
1945	2,500	.42	1958	2,700	.32
1946	2,500	.39	1959	2,700	.31
1947	2,500	.39	1960	2,800	.31
1948	2,400	.37	1961	3,000	.32
1949	2,500	.37	1962	3,000	.31
1950	2,500	.36	1963	3,000	.31
1951	2,500	.35	1964	3,000	.30
1952	2,600	.36	1965	3,100	.31

EMPLOYMENT TRENDS IN MORGAN COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Transportation	Government	Total Employment	Unemployment	Total Labor Force
1952	291	219	62	95	924	10	934
1953	285	224	57	101	882	16	898
1954	269	205	50	98	863	23	886
1955	275	220	52	101	1,054	13	1,067
1956	263	196	49	102	908	32	939
1957	251	190	39	115	802	43	846
1958	248	186	31	122	822	26	848
1959	240	187	33	124	864	20	885
1960	232	179	35	131	905	29	934
1961	218	201	34	129	854	50	903
1962	220	196	34	126	830	40	870
1963	210	179	33	133	800	60	860
1964	170	182	33	133	870	60	930
1965	150	197	28	142	940	80	1,020

RESIDENT POPULATION IN MORGAN COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	2,611	.47
1860	a	a	1950	2,519	.37
1870	1,972	2.27	1960	2,837	.32
1880	1,783	1.24			
1890	1,780	.84	1970	3,500	.31
1900	2,045	.74	1975	4,300	.34
1910	1,467	.66	1980	4,800	.33
1920	2,542	.57	2000	5,000	.24
1930	2,536	.50	2020	6,000	.22

[a]No census taken.

PIUTE COUNTY

After reaching a peak in 1890, the population of Piute County fluctuated considerably between that year and 1960 when at 1,432 it was half as large as it was in 1890.

In the 14-year period of 1952 to 1965, total employment declined some but was quite stable in the last part of this period. Agriculture was the primary source of employment, which as in other counties declined substantially during this period. Employment in government increased some, but showed little trend in other industries.

On the basis of the apparent stability of employment in Piute County and an appraisal of possible future economic development, it would appear that there is little likelihood of much improvement in employment in the future. Hence, the same population as in recent years is projected to 1980, and then beyond this latter year, only token increases are projected.

RESIDENT POPULATION IN PIUTE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	2,200	.40	1953	1,800	.24
1941	2,200	.40	1954	1,700	.23
1942	2,000	.35	1955	1,700	.22
1943	2,000	.32	1956	1,700	.21
1944	2,000	.33	1957	1,600	.19
1945	1,800	.30	1958	1,500	.18
1946	1,800	.28	1959	1,500	.17
1947	1,900	.30	1960	1,400	.16
1948	2,000	.31	1961	1,500	.16
1949	2,000	.30	1962	1,400	.15
1950	1,900	.27	1963	1,400	.14
1951	1,900	.27	1964	1,400	.14
1952	1,800	.25	1965	1,400	.14

EMPLOYMENT TRENDS IN PIUTE COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Mining	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	290	24	24	80	505	13	519
1953	284	35	18	82	515	9	524
1954	268	45	16	83	523	18	541
1955	274	52	17	84	539	9	549
1956	262	46	21	84	518	13	533
1957	250	45	23	82	497	22	519
1958	250	32	17	79	470	30	500
1959	240	25	20	83	470	20	490
1960	230	28	22	88	470	25	490
1961	210	32	17	85	440	30	470
1962	220	36	17	101	470	20	490
1963	200	34	19	102	460	20	480
1964	170	43	21	108	470	30	500
1965	150	26	21	113	410	30	440

RESIDENT POPULATION IN PIUTE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	2,203	.40
1860	a	a	1950	1,911	.28
1870	82	.09	1960	1,436	.16
1880	1,651	1.15			
1890	2,842	1.35	1970	1,400	.12
1900	1,954	.71	1975	1,400	.11
1910	1,734	.46	1980	1,400	.10
1920	2,770	.62	2000	1,500	.07
1930	1,956	.38	2020	1,600	.06

[a]No census taken.

RICH COUNTY

Since 1870 the population of Rich County has fluctuated mostly between 1,500 and 2,000, the peak being 2,028 in 1940. In the next two decades, the population was extremely stable at about 1,700, declining to an estimated 1,500 in 1965.

Although total employment was nearly the same in 1952 and 1965, it had been higher than either of these years several times in this period. As in other rural counties, agricultural employment has declined substantially. The main factor offsetting this loss has been an increase in employment in mining with assistance from some increase in governmental employment, trade, and services.

Any increase in employment in Rich County will have to come from two principal sources: more intensive exploitation of the extensive phosphate deposits which are found in the county, and increased recreational development of Bear Lake. On this basis, a small increase in population is projected to 1980 and then held constant thereafter.

RESIDENT POPULATION IN RICH COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	2,000	.36	1953	1,700	.23
1941	2,300	.42	1954	1,700	.23
1942	2,000	.35	1955	1,700	.22
1943	1,900	.30	1956	1,700	.21
1944	2,000	.33	1957	1,700	.21
1945	1,900	.32	1958	1,700	.20
1946	1,700	.27	1959	1,700	.20
1947	1,400	.22	1960	1,700	.19
1948	1,300	.20	1961	1,700	.18
1949	1,600	.24	1962	1,600	.18
1950	1,700	.24	1963	1,600	.16
1951	1,700	.24	1964	1,600	.16
1952	1,700	.23	1965	1,500	.15

EMPLOYMENT TRENDS IN RICH COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Mining	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	323	0	20	76	516	30	546
1953	316	12	16	74	526	20	546
1954	299	49	18	70	568	12	580
1955	305	97	21	71	601	14	615
1956	292	67	26	74	566	21	587
1957	279	52	26	83	553	30	583
1958	276	46	27	78	543	30	573
1959	264	77	28	90	572	30	602
1960	255	100	30	87	605	20	625
1961	242	73	25	87	545	30	575
1962	250	74	28	89	570	10	580
1963	230	86	27	93	556	20	576
1964	190	101	33	105	520	20	540
1965	170	111	30	118	530	20	550

RESIDENT POPULATION IN RICH COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	2,028	.37
1860	a	a	1950	1,673	.24
1870	1,955	2.25	1960	1,685	.19
1880	1,263	.88			
1890	1,527	.72	1970	1,500	.13
1900	1,946	.70	1975	1,600	.13
1910	1,883	.50	1980	1,700	.12
1920	1,890	.42	2000	1,700	.08
1930	1,873	.37	2020	1,700	.06

[a]No census taken.

SALT LAKE COUNTY

From the first Census in 1850, Salt Lake County has grown steadily in population, and after the principal colonization period was over, the county's population increased steadily as a per cent of the state. For example, in 1950 the population of Salt Lake County was 40.09 per cent of the state, whereas in 1965 it was estimated to be 44.09 per cent. The factor responsible for this change is net in-migration. As seen in Table 16 above, net in-migration for the 1950 to 1960 decade was 30,172 out of a total population increase of 108,140.

The explanation for the county's growth in population is economic opportunity. To illustrate, in the postwar period of 1952 to 1960, employment in the Salt Lake Metropolitan area increased at an average annual rate of 3.5 per cent as against a growth rate for the state as a whole of only 2.2 per cent for this period. With the exception of agriculture, which lost jobs in the 1952 to 1965 base period, and mining, which held fairly constant, all other categories had increasing employment. The most rapidly growing categories were manufacturing, services, finance, trade, and government.

There is no reason to doubt that Salt Lake County will not continue to expand economically more rapidly than the state as a whole and thus will increase in population more rapidly than the state, eventually approaching 50 per cent of the state's population.

RESIDENT POPULATION IN SALT LAKE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	213,700	38.71	1953	305,000	41.27
1941	213,900	38.82	1954	312,200	41.63
1942	232,200	40.38	1955	330,200	42.17
1943	257,200	40.76	1956	343,200	42.42
1944	238,000	39.34	1957	352,100	42.63
1945	226,000	38.24	1958	362,100	42.85
1946	259,300	40.64	1959	373,600	42.94
1947	252,400	39.69	1960	387,500	43.06
1948	257,400	39.42	1961	401,400	42.88
1949	265,000	39.49	1962	412,000	43.00
1950	279,000	40.09	1963	424,200	43.60
1951	285,600	40.45	1964	432,000	43.90
1952	295,500	40.81	1965	440,000	44.09

EMPLOYMENT TRENDS IN SALT LAKE COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Manufacturing	Mining	Services	Government	Total Employment	Unemployment	Total Labor Force
1952	15,971	6,409	12,512	14,997	119,350	2,540	122,000
1953	16,498	6,508	13,041	15,476	122,080	2,650	125,040
1954	16,492	6,215	13,334	15,988	123,480	3,800	127,310
1955	17,255	6,700	14,168	16,459	130,250	3,210	134,380
1956	18,541	7,770	14,908	17,128	137,000	2,760	139,790
1957	19,520	7,587	15,659	18,025	140,110	3,220	143,350
1958	19,853	6,308	16,339	19,259	143,000	5,810	149,020
1959	21,063	5,606	17,826	20,112	149,840	4,800	156,870
1960	23,390	6,631	18,489	20,550	156,090	5,390	162,090
1961	24,859	6,798	19,283	22,139	162,380	6,410	168,820
1962	27,857	6,729	20,437	22,990	170,930	5,610	176,550
1963	28,542	6,344	21,731	24,352	176,580	6,810	183,390
1964	27,324	5,459	22,283	25,729	177,040	7,600	186,130
1965	26,987	6,724	22,653	27,512	179,670	9,450	189,250

RESIDENT POPULATION IN SALT LAKE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	6,157	54.10	1940	211,623	38.46
1860	11,295	28.05	1950	274,895	39.91
1870	18,337	21.13	1960	383,035	43.01
1880	31,977	22.21			
1890	58,457	27.73	1970	512,000	45.13
1900	77,725	28.08	1975	576,400	45.11
1910	131,426	35.21	1980	661,400	45.71
1920	159,282	35.44	2000	976,500	47.63
1930	194,102	38.22	2020	1,310,000	48.97

SAN JUAN COUNTY

Because of the oil and uranium booms of the 1950's, the population of San Juan County jumped from 5,315 in 1950 to an estimated 9,300 in 1959. Since then, it has declined to an estimated 7,700 in 1965 as employment has dropped.

Total employment increased from 1,870 in 1952 to 4,580 in 1958 and then declined to 2,410 in 1965. The factor most responsible for this fluctuation is employment in mining and mineral production, which shot up from 253 in 1952 to 1,732 in 1958 and dropped to 330 in 1965. As usual, employment in agriculture has been declining steadily.

Employment in government has increased greatly as it has also in trade, services, and manufacturing, although the latter has been quite erratic.

The future growth of San Juan County is in doubt. Unless mining and mineral production is rejuvenated, much of the future growth will depend upon tourism and outdoor recreational developments at Lake Powell, Canyonlands National Park, the national monuments, and the three Utah State parks--Dead Horse Point, Indian Creek, and the Great Goosenecks.

An annual growth rate in the neighborhood of 1 per cent is probably not too unrealistic and population projections are made on this basis.

RESIDENT POPULATION IN SAN JUAN COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	4,600	.83	1953	5,000	.68
1941	4,600	.83	1954	5,000	.67
1942	4,600	.80	1955	6,000	.77
1943	4,600	.73	1956	6,900	.85
1944	4,300	.71	1957	7,800	.94
1945	3,500	.59	1958	8,600	1.02
1946	3,700	.58	1959	9,300	1.07
1947	3,800	.60	1960	9,100	1.01
1948	3,700	.57	1961	8,600	.92
1949	4,900	.73	1962	7,900	.82
1950	5,300	.76	1963	7,300	.75
1951	5,100	.72	1964	7,800	.79
1952	5,000	.69	1965	7,700	.77

EMPLOYMENT TRENDS IN SAN JUAN COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Mining	Government	Total Employment	Unemployment	Total Labor Force
1952	740	41	253	150	1,870	20	1,890
1953	720	55	418	154	2,080	30	2,110
1954	690	39	708	152	2,490	40	2,530
1955	700	28	1,081	168	3,330	20	3,350
1956	670	197	1,133	176	3,590	20	3,620
1957	640	321	1,510	200	4,400	10	4,410
1958	630	234	1,732	242	4,580	40	4,620
1959	600	179	1,610	272	4,340	40	4,380
1960	580	56	1,434	314	3,760	90	3,850
1961	550	94	1,272	350	3,600	60	3,660
1962	570	126	1,063	292	3,440	30	3,470
1963	520	118	852	418	3,310	40	3,350
1964	410	110	518	440	2,710	60	2,770
1965	360	99	330	473	2,410	70	2,480

RESIDENT POPULATION IN SAN JUAN COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	4,712	.86
1860	a	a	1950	5,315	.77
1870	a	a	1960	9,040	1.02
1880	204	.14			
1890	365	.17	1970	8,100	.71
1900	1,023	.37	1975	8,700	.68
1910	2,377	.64	1980	9,200	.64
1920	3,379	.75	2000	10,000	.49
1930	3,496	.69	2020	11,000	.41

[a]No census taken.

SANPETE COUNTY

For about a half century, Sanpete County had a very stable population of 16 to 17 thousand, reaching its peak population of 17,505 in 1920. A decline set in after 1940 with population again stabilizing at about 11,000 after 1956.

The most descriptive word for total employment in the base period of 1952 to 1965 is "stability," hovering around 4,000. Unfortunately, another characteristic of this period is relatively high unemployment. The steady decline in agricultural employment and one or two other industries has been offset by some increase in manufacturing, government, services, and construction.

It would certainly appear that further declines of any consequence in employment are not likely to occur. Likewise, it is also quite clear that there is little evidence to support much growth. Additional water from the Gooseberry project would aid agriculture and the livestock industry. Perhaps economically sound light manufacturing can be expanded, but there is no assurance it can be done.

Because of this rather pessimistic employment outlook no increases in population are projected.

RESIDENT POPULATION IN SANPETE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	15,900	2.88	1953	12,500	1.69
1941	15,300	2.78	1954	12,500	1.67
1942	14,200	2.47	1955	12,300	1.57
1943	13,500	2.14	1956	12,000	1.48
1944	13,500	2.23	1957	11,400	1.38
1945	13,000	2.20	1958	11,000	1.30
1946	14,000	2.19	1959	11,000	1.26
1947	13,800	2.17	1960	11,100	1.23
1948	14,000	2.14	1961	11,100	1.19
1949	13,900	2.07	1962	11,000	1.15
1950	13,800	1.98	1963	10,900	1.12
1951	13,400	1.90	1964	10,900	1.11
1952	12,900	1.78	1965	10,900	1.09

EMPLOYMENT TRENDS IN SANPETE COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	1,796	308	375	549	3,915	670	4,585
1953	1,757	482	378	547	4,194	330	4,524
1954	1,663	374	398	530	3,973	952	4,925
1955	1,697	452	388	534	4,090	971	5,061
1956	1,621	502	357	547	4,096	570	4,666
1957	1,549	544	346	542	4,073	530	4,603
1958	1,500	521	355	523	3,900	600	4,500
1959	1,500	315	319	585	3,700	860	4,600
1960	1,400	367	313	632	3,800	740	4,600
1961	1,300	479	357	660	3,900	500	4,400
1962	1,390	562	314	691	4,200	400	4,600
1963	1,270	559	318	734	4,110	410	4,520
1964	1,060	572	316	720	3,810	420	4,230
1965	930	552	312	737	3,680	340	4,020

RESIDENT POPULATION IN SANPETE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	365	3.22	1940	16,063	2.92
1860	3,815	9.47	1950	13,891	2.02
1870	6,786	7.82	1960	11,053	1.24
1880	11,557	8.03			
1890	13,146	6.24	1970	10,900	.96
1900	16,313	5.90	1975	11,000	.86
1910	16,704	4.47	1980	11,000	.76
1920	17,505	3.89	2000	11,000	.54
1930	16,022	3.15	2020	11,000	.41

SEVIER COUNTY

Although the population of Sevier County reached a peak of 12,112 in 1940, it was relatively stable at 10,500 to 12,000 for about a half century. After 1950, a slow decline set in which reduced population to an estimated 9,800 in 1965.

In the base period of 1952 to 1965, the total labor force was very stable at 4,000 to 4,100 in most of the years. The extensive decline in agricultural employment has been offset by increases in government, services, finance, and self-employment. Other categories remained fairly constant.

The prospects for much economic expansion in Sevier County are not very bright. With the development of new water supply, some expansion could occur in agriculture and livestock. Two other potentials for growth exist: the tourist industry and manufacturing based on such resources as bentonite, Fuller's Earth, quartzite, and coal silica.

On the basis of the above information, further declines in population are not anticipated; rather, very small increases are projected in the years ahead.

RESIDENT POPULATION IN SEVIER COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	12,300	2.23	1953	11,300	1.53
1941	11,800	2.14	1954	11,100	1.48
1942	11,300	1.97	1955	11,200	1.43
1943	10,400	1.65	1956	11,100	1.37
1944	10,000	1.65	1957	10,700	1.30
1945	10,300	1.74	1958	10,600	1.25
1946	11,400	1.79	1959	10,500	1.21
1947	11,700	1.84	1960	10,600	1.18
1948	12,300	1.88	1961	10,600	1.13
1949	12,300	1.83	1962	10,400	1.09
1950	12,000	1.72	1963	10,100	1.04
1951	11,700	1.66	1964	10,100	1.03
1952	11,500	1.58	1965	9,800	.98

EMPLOYMENT TRENDS IN SEVIER COUNTY:
1952 to 1965

Year	Employment In Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Manufacturing	Trade	Government			
1952	1,200	481	587	400	3,730	150	3,880
1953	1,170	460	640	404	3,850	170	4,020
1954	1,110	453	659	404	3,810	240	4,050
1955	1,130	483	629	414	3,920	190	4,110
1956	1,080	448	613	442	3,860	170	4,070
1957	1,030	459	606	500	3,850	150	4,000
1958	1,020	444	600	491	3,800	230	4,030
1959	980	510	616	532	3,930	200	4,130
1960	950	478	638	561	4,000	210	4,210
1961	900	460	632	564	3,880	250	4,130
1962	920	396	654	578	3,920	180	4,100
1963	850	408	632	601	3,840	200	4,040
1964	710	479	635	609	3,720	230	3,950
1965	650	460	640	662	3,690	200	3,890

RESIDENT POPULATION IN SEVIER COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	12,112	2.20
1860	a	a	1950	12,072	1.75
1870	19	.02	1960	10,565	1.19
1880	4,457	3.10			
1890	6,199	2.94	1970	9,800	.86
1900	8,451	3.05	1975	10,000	.78
1910	9,775	2.62	1980	10,300	.71
1920	11,281	2.51	2000	12,000	.59
1930	11,199	2.21	2020	13,200	.49

[a]No census taken.

SUMMIT COUNTY

The population of Summit County has fluctuated considerably, with almost equal peak populations of about 9,500 in 1900 and 1930 but only 5,673 in 1960 and an estimated 6,000 in 1965.

In the period 1952 to 1965, total employment declined a little to 1963 but then increased some in 1964 and 1965 as construction, trade, and services had sharp increases. In contrast to the days when Park City was at its peak population, only a handful of people work in the mines now, compared to the many hundreds who were employed there at that time. Like most other rural counties, agricultural employment continues downward. On the other hand, employment in manufacturing has increased substantially, with increases also in government.

There is some growth potential in Summit County. The rejuvenation of Park City, a growing lumber milling industry in the Kamas area, and some other industries are providing more jobs. Hence, some increases in population are projected.

RESIDENT POPULATION IN SUMMIT COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	8,600	1.56	1953	6,300	.85
1941	8,500	1.54	1954	6,100	.81
1942	8,300	1.44	1955	6,100	.78
1943	7,700	1.22	1956	6,000	.74
1944	7,000	1.16	1957	5,900	.71
1945	6,200	1.05	1958	5,800	.69
1946	6,600	1.03	1959	5,700	.66
1947	6,900	1.08	1960	5,700	.63
1948	7,000	1.07	1961	5,700	.61
1949	6,800	1.01	1962	5,700	.59
1950	6,700	.96	1963	5,700	.59
1951	6,500	.92	1964	5,800	.59
1952	6,400	.88	1965	6,000	.60

EMPLOYMENT TRENDS IN SUMMIT COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Mining	Trade	Total Employment	Unemployment	Total Labor Force
1952	620	48	332	186	2,140	130	2,270
1953	600	49	71	188	1,760	320	2,080
1954	570	51	80	189	1,840	250	2,090
1955	580	77	54	186	1,870	210	2,080
1956	560	98	58	185	1,820	190	2,010
1957	530	116	40	175	1,690	260	1,950
1958	520	169	41	163	1,660	260	1,920
1959	500	247	39	167	1,750	160	1,910
1960	490	189	36	174	1,760	190	1,950
1961	460	171	32	178	1,720	240	1,960
1962	470	170	40	200	1,740	190	1,940
1963	430	195	30	201	1,700	190	1,890
1964	340	189	30	282	1,820	140	1,960
1965	310	166	31	287	1,860	180	2,040

RESIDENT POPULATION IN SUMMIT COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	8,714	1.58
1860	198	.49	1950	6,745	.98
1870	2,512	2.89	1960	5,673	.64
1880	4,921	3.42			
1890	7,733	3.67	1970	6,400	.56
1900	9,439	3.41	1975	7,500	.59
1910	8,200	2.20	1980	8,500	.59
1920	7,862	1.75	2000	10,500	.51
1930	9,527	1.88	2020	12,000	.45

[a]No census taken.

TOOELE COUNTY

Tooele County is one of the few counties in Utah that has not had significant losses in population at one time or another, although there are several plateaus of nearly constant population: 1900 to 1920, 1930 to 1940, and 1952 to 1960. Since 1960, the estimated population has increased quite steadily to 22,000 in 1965.

The most important factor in the growth of the Tooele County in the last 25 years has been the national defense activities in the county. In the period 1952 to 1965, total government employment accounted for some three-fifths to two-thirds of total employment. Employment in both agriculture and mining is small and decreasing. Transportation has also declined as a source of jobs. Several industries--trade, services, and manufacturing--tended to sag in the middle of the 1952 to 1965 period but were increasing at the end of the period.

The growth of Tooele County depends largely upon two major factors: national defense activities and the amount of industrial expansion, including utilization of Great Salt Lake. Increasing population is projected at an annual rate of about 2 per cent to 1980, 1 per cent to 2000, and 0.5 per cent to 2020.

RESIDENT POPULATION IN TOOELE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	8,800	1.59	1953	18,000	2.44
1941	9,300	1.69	1954	18,000	2.40
1942	14,300	2.49	1955	18,100	2.44
1943	30,900	4.90	1956	18,200	2.25
1944	19,700	3.26	1957	18,000	2.18
1945	20,900	3.54	1958	17,900	2.12
1946	13,800	2.16	1959	17,900	2.06
1947	13,100	2.06	1960	18,000	2.00
1948	14,400	2.21	1961	19,000	2.03
1949	14,900	2.22	1962	20,600	2.15
1950	15,000	2.16	1963	21,300	2.19
1951	16,100	2.28	1964	21,500	2.18
1952	18,000	2.49	1965	22,000	2.20

EMPLOYMENT TRENDS IN TOOELE COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Manufacturing	Mining	Transportation	Government			
1952	785	280	412	7,198	10,950	40	10,990
1953	597	209	360	6,543	9,740	350	10,090
1954	537	177	318	5,121	7,920	600	8,520
1955	599	218	350	4,712	7,770	400	8,180
1956	699	295	354	4,015	7,100	220	7,340
1957	688	160	346	3,810	6,620	260	6,890
1958	564	124	345	3,676	6,310	580	6,890
1959	561	79	304	3,736	6,300	340	6,740
1960	621	86	387	3,733	6,390	280	6,720
1961	680	79	287	3,839	6,590	300	6,890
1962	651	87	304	4,982	7,930	160	8,090
1963	736	47	284	5,566	8,620	220	8,840
1964	740	51	212	5,624	8,550	270	8,820
1965	650	105	201	6,054	8,950	230	9,180

RESIDENT POPULATION IN TOOELE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	152	1.34	1940	9,133	1.66
1860	1,008	2.50	1950	14,636	2.13
1870	2,177	2.51	1960	17,868	2.01
1880	4,497	3.12			
1890	3,700	1.76	1970	23,600	2.08
1900	7,361	2.66	1975	28,000	2.19
1910	7,924	2.12	1980	30,800	2.13
1920	7,965	1.77	2000	36,000	1.76
1930	9,413	1.85	2020	40,000	1.50

UINTAH COUNTY

Uintah County has a record of continuous population growth and will most likely continue to grow. Since 1950 there have been two minor declines as employment adjustments have taken place.

With the exception of agriculture, every major industry group has tended to increase in employment. Since 1950, employment in agriculture has declined steadily, but for the period 1952 to 1962, total employment has increased at an annual rate of about 3 per cent. Since 1962, however, total employment has declined each year.

Several factors should produce economic growth in Uintah County: outdoor recreation, especially in the Flaming Gorge area; further development of the basin's minerals; and eventual development of the abundant oil shale deposits.

Increased population is projected. Between 1965 and 1980, a modest increase of 1 to 1.5 per cent per year is used, and thereafter, assuming that extensive development of oil shale is underway in western Colorado and eastern Utah by that time, population is increased at an annual rate of 2.5 per cent. If there is no extensive development of oil shale, only modest population growth is projected.

RESIDENT POPULATION IN UINTAH COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	10,000	1.81	1953	10,300	1.39
1941	9,500	1.72	1954	10,300	1.37
1942	9,300	1.62	1955	10,600	1.35
1943	8,200	1.30	1956	10,900	1.35
1944	7,400	1.22	1957	10,900	1.32
1945	7,400	1.25	1958	11,100	1.31
1946	8,800	1.38	1959	11,300	1.30
1947	9,600	1.51	1960	11,700	1.30
1948	10,300	1.58	1961	12,400	1.32
1949	10,500	1.56	1962	12,900	1.35
1950	10,300	1.48	1963	12,800	1.32
1951	10,000	1.42	1964	12,300	1.25
1952	10,200	1.41	1965	12,600	1.26

EMPLOYMENT TRENDS IN UINTAH COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Mining	Government	Total Employment	Unemployment	Total Labor Force
1952	1,090	80	514	409	3,540	50	3,590
1953	1,060	80	433	417	3,440	120	3,560
1954	1,010	81	381	432	3,130	230	3,360
1955	1,030	97	444	431	3,280	180	3,460
1956	980	113	585	478	3,590	130	3,720
1957	940	122	729	583	3,860	150	4,010
1958	930	125	664	637	3,920	180	4,100
1959	890	140	750	632	4,260	150	4,410
1960	860	165	838	649	4,480	180	4,660
1961	790	151	977	647	4,510	190	4,700
1962	840	144	1,096	740	4,850	100	4,950
1963	770	151	897	794	4,470	180	4,650
1964	600	131	862	789	4,230	280	4,510
1965	540	117	884	805	4,180	240	4,420

RESIDENT POPULATION IN UINTAH COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	9,898	1.80
1860	a	a	1950	10,300	1.50
1870	a	a	1960	11,582	1.30
1880	799	.55			
1890	2,762	1.31	1970	13,000	1.15
1900	6,458	2.33	1975	15,000	1.17
1910	7,050	1.89	1980	16,000	1.11
1920	8,470	1.88	2000	25,000[b]	1.22 (.88)[b]
1930	9,035	1.78	2020	40,000[b]	1.50 (.76)[b]

[a]No census taken.

[b]Assuming extensive developments of oil shale in western Colorado and eastern Utah. If this development fails to materialize, projected population would be as follows: year 2000, 18,000; year 2020, 20,000.

UTAH COUNTY

Utah County's population has increased steadily with the rate of increase dropping some and falling below that of the state between 1900 and 1940. After 1940, Utah County increased at about the same rate as the state. Between 1950 and 1960, the increase in population was almost the same as the natural increase, whereas the state had a small in-migration.

From 1952 on, total employment in Utah County increased at an annual rate of about 2.5 per cent. Unemployment has also increased. From 1952 to 1957, inclusive, unemployed ranged between 1,000 and 1,600; between 1958 and 1965, it varied between 2,100 and 3,000. Virtually all of the increase in employment after 1952 was accounted for by the expansion of services, including growth of the Brigham Young University, government, and wholesale and retail trade. Other categories showed increases of negligible amounts or actual declines, the latter including agriculture, transportation and communications.

In summary, it is perhaps fair to conclude that much of the growth in recent years in Utah County has been due to the B.Y.U. and that industrial growth is quite slow. Hence, on the basis of economic opportunity, rather modest increases in population are projected. From 1965 to 1980, population is projected to increase at about 2.5 per cent per year; from 1980 to 2000, about 1.75 per cent annually; and from 2000 to 2020, about 1.25 per cent per year.

RESIDENT POPULATION IN UTAH COUNTY
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	56,900	10.31	1953	87,600	11.85
1941	56,300	10.22	1954	89,500	11.93
1942	55,900	9.72	1955	93,000	11.88
1943	64,700	10.25	1956	97,000	11.99
1944	68,200	11.27	1957	100,000	12.01
1945	63,900	10.81	1958	101,700	12.04
1946	71,300	11.18	1959	104,300	12.00
1947	75,800	11.92	1960	108,300	12.03
1948	78,000	11.94	1961	112,200	11.99
1949	79,000	11.77	1962	113,600	11.86
1950	83,000	11.93	1963	114,700	11.79
1951	83,000	11.76	1964	115,700	11.76
1952	85,700	11.84	1965	119,000	11.92

EMPLOYMENT TRENDS IN UTAH COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Manufacturing	Services	Government			
1952	2,763	6,714	2,336	2,773	24,315	1,360	25,672
1953	2,825	7,651	2,535	2,948	26,065	1,093	27,158
1954	2,680	7,033	2,903	3,152	25,769	1,659	27,428
1955	2,736	8,231	3,197	3,327	28,666	1,175	29,841
1956	2,615	8,680	3,512	3,577	30,482	1,038	31,521
1957	2,498	8,777	4,038	3,721	31,346	1,160	32,508
1958	2,465	7,523	4,295	3,941	30,080	2,682	32,760
1959	2,361	6,886	4,811	3,861	29,887	2,160	33,522
1960	2,301	7,609	5,196	4,341	31,859	2,520	34,382
1961	2,171	7,367	5,461	4,463	31,446	2,892	34,338
1962	2,238	6,941	5,772	4,598	32,080	2,690	34,770
1963	2,050	7,003	6,479	4,707	32,750	2,540	35,290
1964	2,240	7,481	7,109	4,830	34,530	2,330	36,870
1965	1,800	7,679	8,047	5,170	35,870	2,990	38,860

RESIDENT POPULATION IN UTAH COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	2,026	17.80	1940	57,382	10.43
1860	8,248	20.48	1950	81,912	11.89
1870	12,203	14.06	1960	106,991	12.01
1880	17,973	12.48			
1890	23,768	11.27	1970	140,000	12.34
1900	32,456	11.73	1975	156,800	12.27
1910	37,942	10.16	1980	173,200	11.97
1920	40,792	9.08	2000	243,200	11.86
1930	49,021	9.65	2020	310,500	11.61

WASATCH COUNTY

The population of Wasatch County has been nearly stationary at 5,400 to 5,700 from 1930 to 1965. Neither the decline in agricultural employment, which has hit so many rural counties, nor the national defense program, concentrated in the Wasatch Front Counties, has had a major impact on Wasatch County.

In the base period of 1952 to 1965, the labor force, total employment, and even unemployment have remained fairly stable. However, unemployment has been quite high at around 8 to 10 per cent in most of the years in this period. The decrease in agricultural employment has been offset primarily by increases in trade, services, and government.

The overall economic stability in Wasatch County, together with potential increases in employment in outdoor recreation (Wasatch Mountain State Park) and possibly industrial activities, would suggest modest growth in the future. Hence, population increases are projected at about 1 to 1.25 per cent per year.

RESIDENT POPULATION IN WASATCH COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	5,800	1.05	1953	5,400	.73
1941	5,800	1.05	1954	5,300	.71
1942	5,800	1.01	1955	5,400	.69
1943	5,800	.92	1956	5,400	.67
1944	5,600	.93	1957	5,400	.65
1945	5,300	.90	1958	5,300	.63
1946	5,800	.91	1959	5,300	.61
1947	5,900	.93	1960	5,300	.59
1948	5,700	.87	1961	5,400	.58
1949	5,800	.86	1962	5,400	.56
1950	5,500	.79	1963	5,400	.55
1951	5,400	.76	1964	5,400	.54
1952	5,400	.75	1965	5,400	.54

EMPLOYMENT TRENDS IN WASATCH COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Mining	Trade	Total Employment	Unemployment	Total Labor Force
1952	508	97	366	254	1,846	102	1,948
1953	497	83	307	243	1,797	174	1,971
1954	471	69	337	259	1,826	194	2,021
1955	480	76	502	248	2,033	159	2,199
1956	459	67	526	257	2,014	157	2,170
1957	439	67	417	249	1,860	214	2,074
1958	400	64	257	243	1,700	250	1,950
1959	400	64	252	264	1,700	170	1,900
1960	400	54	258	264	1,750	200	1,950
1961	400	38	242	268	1,700	200	1,900
1962	390	30	320	290	1,770	220	1,990
1963	360	72	384	308	1,890	210	2,100
1964	280	74	426	290	1,890	150	2,040
1965	250	75	455	283	1,870	180	2,050

RESIDENT POPULATION IN WASATCH COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	5,754	1.05
1860	a	a	1950	5,574	.81
1870	1,244	1.43	1960	5,308	.60
1880	2,927	2.03			
1890	3,595	1.71	1970	5,500	.50
1900	4,736	1.71	1975	6,200	.47
1910	8,920	2.39	1980	6,500	.43
1920	4,625	1.03	2000	8,000	.39
1930	5,636	1.11	2020	9,000	.34

[a]No census taken.

WASHINGTON COUNTY

With the exception of the Census in 1890, when a small decrease was recorded, Washington County's population has increased steadily although usually quite slowly. It is one of a few rural counties that has escaped the problem of a declining population in recent decades.

In the key postwar period of 1952 to 1965, total employment increased at an average annual rate of about 1 per cent. There was some variation, of course. As in other rural counties, employment in agriculture declined, as it did in transportation also. All other major categories registered increasing employment, especially trade and services.

Washington County should enjoy a limited amount of growth in the years ahead from such sources as increased water from the Dixie Project, the tourist industry, and possibly more manufacturing or processing activities. Therefore, population is projected to increase at an annual rate of about 1 per cent to 2000 and then about 0.5 per cent to 2020.

RESIDENT POPULATION IN WASHINGTON COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	9,200	1.67	1953	9,600	1.30
1941	9,700	1.76	1954	9,700	1.29
1942	9,600	1.67	1955	10,000	1.28
1943	8,600	1.36	1956	10,200	1.26
1944	8,100	1.34	1957	10,200	1.23
1945	8,300	1.40	1958	10,200	1.21
1946	8,700	1.36	1959	10,400	1.20
1947	8,700	1.37	1960	10,400	1.16
1948	8,700	1.33	1961	10,400	1.11
1949	9,800	1.46	1962	10,400	1.09
1950	9,800	1.41	1963	10,300	1.06
1951	9,700	1.37	1964	10,400	1.06
1952	9,600	1.33	1965	10,400	1.04

EMPLOYMENT TRENDS IN WASHINGTON COUNTY:
1952 to 1965

Year	Employment in Selected Industries				Total Employment	Unemployment	Total Labor Force
	Agriculture	Construction	Trade	Service			
1952	954	117	424	184	2,957	190	3,147
1953	933	60	469	282	3,090	180	3,270
1954	881	70	505	331	3,154	181	3,335
1955	901	98	540	320	3,262	219	3,481
1956	861	71	594	378	3,329	209	3,538
1957	822	92	602	360	3,417	220	3,637
1958	812	151	586	403	3,577	190	3,767
1959	778	174	589	355	3,460	240	3,700
1960	757	97	591	351	3,290	230	3,520
1961	715	101	619	316	3,273	200	3,473
1962	737	109	606	292	3,210	200	3,410
1963	670	234	660	332	3,423	200	3,623
1964	620	190	683	324	3,330	190	3,520
1965	570	161	785	362	3,550	160	3,710

RESIDENT POPULATION IN WASHINGTON COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	9,269	1.69
1860	691	1.72	1950	9,836	1.43
1870	3,064	3.53	1960	10,271	1.15
1880	4,235	2.94			
1890	4,009	1.90	1970	10,700	.94
1900	4,612	1.67	1975	11,500	.90
1910	5,123	1.37	1980	12,000	.83
1920	6,764	1.50	2000	14,000	.68
1930	7,420	1.46	2020	15,000	.56

[a]No census taken.

WAYNE COUNTY

Since its creation in 1892, Wayne County has always been a small county, reaching a maximum population of 2,394 in 1940 and declining to an estimated 1,600 in 1965.

Total employment and the total labor force have remained relatively stable in most of the 14-year period of 1952 to 1965, with a sharp reduction of both in 1964. Agriculture has been providing more than half of the jobs until the last few years of the base period. During this period, employment in this industry declined slowly. The only employment category showing any increase in the base period is government.

With such attractions as high mountain lakes and Capitol Reef National Monument, the tourist trade could become more important in the future. However, not much population growth can be expected from this source. Hence, only token increases are projected.

RESIDENT POPULATION IN WAYNE COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	2,300	.42	1953	2,000	.27
1941	2,400	.44	1954	2,000	.27
1942	2,100	.37	1955	2,000	.26
1943	1,900	.30	1956	2,000	.25
1944	2,000	.33	1957	1,900	.23
1945	1,900	.32	1958	1,800	.21
1946	1,900	.30	1959	1,700	.20
1947	1,700	.27	1960	1,700	.19
1948	1,900	.29	1961	1,700	.18
1949	2,100	.31	1962	1,700	.18
1950	2,200	.32	1963	1,700	.17
1951	2,100	.30	1964	1,700	.17
1952	2,100	.29	1965	1,600	.16

EMPLOYMENT TRENDS IN WAYNE COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Construction	Trade	Government	Total Employment	Unemployment	Total Labor Force
1952	368	8	15	77	580	10	590
1953	360	12	14	76	568	10	578
1954	341	9	13	73	584	10	594
1955	348	41	17	89	726	10	736
1956	332	15	15	92	609	20	629
1957	318	27	13	97	599	20	619
1958	313	8	14	108	598	20	618
1959	300	3	15	107	597	20	617
1960	292	3	12	118	592	10	602
1961	277	47	11	119	641	20	661
1962	285	22	9	131	640	20	660
1963	260	23	13	130	620	20	640
1964	210	6	16	132	490	30	520
1965	180	4	18	202	530	15	545

RESIDENT POPULATION IN WAYNE COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	a	a	1940	2,394	.44
1860	a	a	1950	2,205	.32
1870	a	a	1960	1,728	.19
1880	a	a			
1890	a	a	1970	1,600	.14
1900	1,907	.69	1975	1,600	.13
1910	1,749	.47	1980	1,600	.11
1920	2,097	.47	2000	1,700	.08
1930	2,067	.41	2020	1,800	.07

[a]No census taken.

WEBER COUNTY

Ogden City and its surrounding suburban communities is Utah's second largest metropolitan area. As such its growth has been relatively a little greater than that of the state of Utah until the rapid expansion of national defense activities in the Hill Air Force Base and North Ogden areas in World War II.

Because of the presence of Hill Air Force Base, with its large number of jobs adjacent to Weber County, it is not possible to get a clear relationship between employment and population in Weber County alone. This relationship is further compounded by the defense activities in Box Elder County.

The growth of Weber County is thus greatly influenced by the national defense programs in northern Utah. There is no way by which the policy decisions with respect to national defense activities assigned to northern Utah can be safely predicted. In recent years the percentage of employment in the two categories of national defense and government in the Ogden Metropolitan area has been just about double that of the state of Utah. The current build up of Hill Air Force Base by some 5,000 additional workers will have an important effect on Weber County.

With respect to Weber County alone, it can be noted that in the period 1952 to 1965, the labor force increased a little faster than total employment, thus giving rise to increasing unemployment in this period. Employment declined significantly in transportation and agriculture. While employment increased in both manufacturing and government (including defense), the latter increased more rapidly than the former.

Substantial economic growth will very likely continue in Weber County although perhaps not as fast as in Davis County and Salt Lake County. Population increases for Weber County are projected at about 2.5 per cent annually to 1980, 1.75 per cent to 2000, and 1.25 per cent to 2020.

RESIDENT POPULATION IN WEBER COUNTY:
Estimated as of July 1, 1940 to 1965

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1940	57,100	10.34	1953	91,500	12.38
1941	58,100	10.54	1954	93,000	12.40
1942	63,700	11.08	1955	96,500	12.32
1943	70,900	11.24	1956	100,100	12.37
1944	73,400	12.13	1957	102,000	12.35
1945	75,200	12.72	1958	104,200	12.33
1946	78,400	12.29	1959	107,800	12.39
1947	78,500	12.34	1960	112,100	13.46
1948	80,700	12.36	1961	117,000	12.50
1949	81,100	12.09	1962	118,600	12.38
1950	85,000	12.21	1963	119,600	12.29
1951	87,000	12.32	1964	120,500	12.25
1952	89,600	12.38	1965	121,000	12.12

EMPLOYMENT TRENDS IN WEBER COUNTY:
1952 to 1965

Year	Employment in Selected Industries: Agriculture	Manufacturing	Transportation	Government	Total Employment	Unemployment	Total Labor Force
1952	1,551	3,867	5,270	6,918	30,786	502	31,288
1953	1,517	4,044	5,149	6,194	30,399	760	31,156
1954	1,435	3,761	4,755	5,701	28,516	1,349	29,864
1955	1,465	3,852	4,817	5,702	29,632	1,220	30,861
1956	1,400	4,143	4,756	5,815	30,804	1,323	32,127
1957	1,337	4,496	4,562	6,009	31,028	1,412	32,439
1958	1,300	4,858	4,236	6,284	31,800	1,300	33,100
1959	1,300	5,560	4,568	6,668	34,500	1,100	35,600
1960	1,225	5,715	4,522	7,253	35,700	1,600	37,300
1961	1,123	5,847	4,238	7,866	36,400	1,700	38,100
1962	1,200	5,000	4,081	8,392	36,430	1,920	38,350
1963	1,090	4,874	3,899	8,736	36,480	2,150	38,630
1964	1,350	4,540	3,735	8,896	36,790	2,260	39,070
1965	1,270	4,077	3,657	9,408	36,820	2,580	39,400

RESIDENT POPULATION IN WEBER COUNTY:
U.S. Census 1850 to 1960; Projected 1970 to 2020

Year	Population	Per Cent of Utah	Year	Population	Per Cent of Utah
1850	1,186	10.42	1940	56,714	10.31
1860	3,675	9.13	1950	83,319	12.10
1870	7,858	9.05	1960	110,744	12.43
1880	12,344	8.57			
1890	22,723	10.78	1970	134,200	11.83
1900	25,239	9.11	1975	151,700	11.87
1910	35,179	9.42	1980	174,300	12.05
1920	43,463	9.67	2000	245,500	11.99
1930	52,172	10.27	2020	313,000	11.70

Section I

Section II

Section III

Section IV

Section IV

A SYNTHESIS OF THREE-COMPONENT AND EMPLOYMENT BASED PROJECTIONS

A consideration of the preceding sections indicated that a synthesis of the cohort-survival and the employment base population projection methods could be of more interest for planning purposes than either technique would be if used independently. If ideal projection techniques exist, their synthesis would accurately relate population to expected economic development with the precision and detail of the three-component, cohort-survival method. But, ideal projection techniques do not exist. Thus, the challenge is to develop, if possible, a usable integrated approach, given the inescapable imperfections in both methodology and technique.

Both the component and employment base techniques associate the very complicated and imperfectly understood causal system of population dynamics with different sets of partial determinants. As a result, the two approaches differ in the type of projection series that each is most appropriate to generate and in the necessary qualifications on their interpretation. Unfortunately, a synthesis of the methods will not just combine their complementary characteristics, but will also compound their individual qualifications and limitations. It is thus of some importance to note briefly the relative advantages and limitations of the separate methods so that both the compounded limitations as well as the added usefulness of the combined approach can be better assessed.

The confidence with which a given projection sequence can be used directly depends upon the stability and persistence of the basic trends used to generate the projections. For example, the cohort-survival computations for a closed region generate detailed descriptions of populations, the realization of which can be expected with relatively high confidence. While it is recognized that the vital rates are not constant in societies where economic conditions and individual aspirations are subject to change, the rates do tend to change relatively slowly in predictable ways as compared with other partial determinants of population.

Unfortunately for planning purposes, the relative confidence and ease with which one can project plausible birth and death rates does not extend over to the third factor in the three-component technique. Neither generalizations from past experience nor theoretical considerations establish confidence in the extrapolation of migration rates over extended periods of time. The

age-specific net migration rates of open regions have often experienced changes in value which exceed the effects on birth and death rates of any but the most profound catastrophe or social upheaval. Not only are the migration rates subject to large possible change, but within the brief five to twenty-year span of the projection period, the age and sex distribution of a population is more sensitive to possible changes in migration rates than to what is likely to develop in either birth or death rates. This is of the greatest consequence for component projections of county populations because the migration rates for small regions are both larger in value and subject to greater variation than they are for larger regions.

As an alternative to a single projection series, a listing of the implications of several different migration rate assumptions can be of use. Such sets of multiple projections are most valuable when there is sufficient diversity and abundance of assumption to allow for the approximation of all possible economic developments. But, the number of possible combinations of assumptions and time mixes of rates[18] is such that it is not feasible to provide more than the broad range within which the actual developments will occur.

These considerations do result in the argument that if the forecasting interest for a small, open region is limited to population totals, then an employment base procedure generates the more appropriate projections.[19] The technique of relating population to employment has the advantage that patterns of economic development and their implications for employment can be identified and projected with about the same order of confidence as the projections of age-specific birth and death rates. There is, of course, somewhat less confidence in the projection of relationship between employment and population, with the most difficult application being that of the largely residentiary county. Additionally, a very important limitation of the employment

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[18]This adding to the number of cases by using different time mixes of rates is necessary for the complete catalog of projections because migration rates are not uniformly distributed across age groups. Because of this, for example, five years of high migration followed by five years of low migration will not result in the same population distribution as the same migration values in a reversed sequence.

[19]A rather forceful discussion of these and related issues is Dr. Robert K. Arnold's article, "The Conceptual Gap Between The Employment and Component Method for Projecting Population" pages 77-86 in Methodology and Techniques for Long Range Projections of Population, Labor Force and Employment, Proceedings of Institutes held at U. of C. Extension, San Francisco, May 13, 1965 and U.S.C., Los Angeles, May 18, 1965. California Commission on Manpower, Automation and Technology. Commat Report No. 65-3.

base method for planning is that it cannot give sensitive projections of age and sex distributions. There is no adequate substitute for the component method for projecting population descriptions.

A comparison of these basic techniques gave rise to the thought that it could be suitable to use the employment base totals to generate the migration rates which would realize the employment base total when applied in the cohort-survival technique. The key to whether or not this is feasible is the regularity with which it is possible to associate age-specific migration rates with total migration rates. If a regular association does exist between these variables, then those determinants of population change in which it is possible to have greater confidence in assumed value over time--age-specific birth and death rates and pattern of economic development--can be brought together to project both the expected population total and the associated age-sex description.

The qualifications on the results of such a computational technique are those already existing in the two basic approaches plus a major new consideration. The accuracy of the projections will be subject to combinations of projected birth and death rates varying from their assumed time paths, to errors induced by assuming given populations to be uniformly distributed in age across a five-year span, to unforeseen changes in the relationship between employment and population totals, and to surprises in the pattern of economic development. To these is added the new factor, the errors resulting from attempting to associate age-specific migration rates with total migration rates independent of the age-sex distributions, cultural characteristics, and institutional factors.

The justification for going ahead in the face of these obvious difficulties is that by relating population change to expected developments in the more basic determinants, it is possible to generate sounder and more informative projections than those produced by less complicated extrapolations. If the cohort-survival technique can be linked to possible economic development, then as part of a continuing program of population research it may even become feasible to provide the detailed implications of different possible patterns of regional economic development.

The Development and Form of the Synthesis

It was noted that the realization of a useful combined approach depends upon the regularity of relationship between age-specific and total migration rates. An examination of the Census findings for Utah in the years 1950 and 1960 provides a basis for measuring the regularity of association between age-specific and total out-migration rates, and for estimating the distribution of response to migration pressures across the various age groups.

The total net migration rate is defined as the ratio of the other than natural increase change in population to the population which would have resulted from natural increase alone. The numbers identified as the total net migration rates are, for each county, generated by the following process:

> The estimate of the population that would have been in the county in 1960 had there been no migration from 1950 is subtracted from the number enumerated in 1960. This change from the county's imputed natural increase is then divided by the estimated natural increase population. The resulting ratio can be thought of as the proportion of those who did move relative to the number which could have moved.

The age-specific net migration rate for a definite cohort is then computed in a similar manner. The following serves as an example of both concepts:

> In 1950 Beaver County was enumerated to have a population of 4,856 with 494 being in the 10 to 14-year age group. By 1960, had there been no migration but just the experience of the normal births and deaths, it is estimated that there would have been 5,810 people in Beaver County with 480 of them in the 20 to 24 age group. The enumerated population in 1960 was 4,331 with but 152 in the 20 to 24-year age group. The imputed occurrence was a net out-migration of 1,479, of which 328 were in the 20 to 24 end of period cohort in 1960. The total net migration rate for this experience was (4,331-5,810)/5,810 or -0.2546. The age-specific net migration rate for the cohort of ages 20 to 24 in 1960 was (152-480)/480 or -0.6833. The negative values indicate that Beaver County experienced net out-migration between 1950 and 1960, both in total and for that specific age group.[20]

The assumption that a county will realize a specific population at some future date implies a total migration rate which can similarly be calculated. To make this calculation, it is only necessary to replace the number for the enumerated population with the size of the projected employment base

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[20]The work of Professors Therel R. Black and James D. Tarver is the source for the migration, birth, and death rates and the birth and death rate extrapolations used in this study. For a discussion of the computational technique and an appreciation of the large amount of real effort involved in the development of these rates, the interested reader is advised to consult their Making County Population Projections--A Detailed Explanation of a Three-Component Method, Illustrated by Reference to Utah Counties, Utah Agricultural Experiment Station, Logan, 1966. The generosity of Dr. Black in providing the figures and assisting in their use is most gratefully acknowledged. He is, of course, in no way responsible for any misuse of his work.

population. This redefines the migration rate as the ratio of the difference between the end of period employment base total and natural increase population to the natural increase population.

This implicit migration rate, when applied to every age group in a three-component, cohort-survival computational routine, would tend to generate the employment base total. However, a projection with the same migration assumption for every age group would reach a specified total with nothing of interest having been achieved. The resulting age-sex distribution in this case would be as unrepresentative of a possible population as if a population was projected with the same birth and death rate assumption for every cohort. It is obviously desirable to relate the different age-specific net migration rates to the total migration rate. The following attempt to relate these rates is based on an examination of the migration rates developed by Utah counties for the 1950 to 1960 period and, in concept, parallels the national measures developed by Dorothy Swaine Thomas.[21]

The total migration rates for Utah counties for the ten-year period ranged from the computed highs of 1.300 for Daggett County and 1.089 for Grand County down to the low of -0.346 for Piute County. If the very unusual rates of Daggett and Grand are ignored, then 27 of the 29 Utah counties had ten-year rates within a narrower range of 0.452 to -0.346. When the projected future natural increase populations are compared with the employment base projections, the implied total migration rates fall well within this narrower range with two exceptions: the population decline in Daggett County between 1960 and 1965 implied a five-year net migration rate of -0.460 and the projected boom in Kane County between 1975 and 1980 results in a 2.278 five-year rate. As it is highly desirable to have a minimum of extrapolation beyond observed values when projecting functional relationship, it should be noted that any estimated relationship between total and age-specific migration rates established by the ten-year experience of 27 counties will be based on total migration rates substantially exceeding all implicit future rates other than the Daggett and Kane extremes.

The Grand and Daggett experiences were not used when relating age-specific migration to total net migration as it was believed that two exceptional examples are entirely too small a sample to meaningfully describe the behavior of contemporary Utah populations under extreme growth conditions. Similarly, although the results should point in the correct direction, the application of the resulting formulas to the rare Daggett and Kane projection values must be done

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[21] Dorothy Swaine Thomas, "Age and Economic Differentials in Interstate Migration," Population Index, XXIV, No. 4 (October 1958), 313-324.

with a lower order of confidence than can be expressed in the other applications. The justification for these restrictions is the truly exceptional migration rate in these cases.[22]

A statistical distribution of migration response was achieved by regressing each of the 16 age-specific migration rates against the total migration rate. The equations that were fitted were of the form $Y = bX$, with Y representing any one of the 16 age-specific migration rates and X being the total migration rate. This equation resulted from assuming age groups to differ in their sensitivity to migration pressure with the age-specific migration rate being proportional to the total migration rate. While the simplicity of these assumptions is undesirable, the analysis was limited to 27 usable observations. This ruled out having any confidence in the results of a multivariate analysis which could quantify the influence of characteristics such as sex ratios, age distributions, cultural and social institutions, distance from urban areas, and any of the other forces which shape the facts of migration and do vary among Utah counties. Thus, the 16 resulting "b" values are maximum likelihood estimates of the responsiveness of each age group to migration inducements relative to the responsiveness of the population as a whole. The calculated values and their coefficients of determination are given in Table 20.

The r^2 values of up to .96 are pleasingly high, and where the values are not high it is also the case that the ages involved are not the large contributors to a migration experience. The high r^2 values for the age groups which are the major contributors to migration are, of course, not surprising because this analysis is one of regressing a part back on the whole. While this would be an unacceptable procedure for the test of a hypothesis, the task here is to estimate the typical distribution of a given occurrence across age groups rather than to predict the migration rate itself or to discern the socio-economic forces actually responsible for migration. As the high degree of association did occur in the face of the substantial differences among Utah counties, there is some promise that a pattern has been estimated which may be assumed to be relatively stable. While it cannot be assumed that the age distribution of migration is constant over time, it is not plausible that the age distribution of

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[22]At percentage increases of 233 per cent and 230 per cent, Grand and Daggett Counties were respectively the 4th and 6th most rapidly growing counties in the conterminous United States between 1950 and 1960. The estimated decline by 40 per cent in Daggett County's population between 1960 and 1965 was a larger percentage decrease in county population than that experienced by any U.S. county between 1950 and 1960 with the exception of San Juan County, Colorado with a decrease of 42 per cent. The five-year growth projected for Kane County, if the Kaiparowitz Plateau coal project develops as is conjectured, is an increase by 267 per cent, a growth that was exceeded by only three U.S. counties over an entire ten-year experience between 1950 and 1960.

Table 20

REGRESSION ESTIMATION OF AGE-SPECIFIC MIGRATION RELATIVE TO TOTAL MIGRATION RATE

Age at End of Period	Ratio: Age-Specific Migration to Total Migration Rate	Coefficient of Determination (r^2)
0-4	.317	.36
5-9	.795	.62
10 - 14	.930	.94
15 - 19	1.098	.88
20 - 24	2.080	.96
25 - 29	2.059	.90
30 - 34	1.235	.55
35 - 39	1.173	.71
40 - 44	.850	.54
45 - 49	.700	.74
50 - 54	.558	.59
55 - 59	.466	.51
60 - 64	.440	.42
65 - 69	.389	.50
70 - 74	.386	.40
75 +	.352	.25

migration will assume a sharply different character. The work of Dorothy S. Thomas in the examination of the age distribution of interstate migration differed in measure and definition (population at mid-intercensal period rather than end of period, interstate rather than county net migration, etc.,) and yet the findings are quite comparable.[23]

For the next step, the incorporation of this distribution of migration response into a three-component computational routine is relatively simple. For example, an application of birth and death rate assumptions to the population assumed for Beaver County in mid-1965 results in a natural increase of births over deaths of approximately 290 by 1970. The economic circumstances of Beaver County, however, are such that it is reasonable to project a population of a constant 4,200 up to 1970. Because of the natural increase which

[23]Dorothy Swaine Thomas, op. cit., p. 316.

would tend to occur, a constant population implies net out-migration; in this case, a net migration rate of (4,200 - 4,490)/4,490 or -0.065. The implication of this total net migration rate for the 20 to 24 cohort of July, 1970 is a net migration rate of -0.135. The 15 to 19 cohort of July, 1965 was estimated at 424 by the application of this technique to the previous period. Normal death rates indicate that three members of this age group will not survive the five-year period and the implied migration rate projects approximately 57 (-0.135 times 421) of this group as migrating out of Beaver County. The computer printed out an adjusted estimate of 365 in the 20 to 24 cohort for July 1, 1970.

These estimates must be carefully interpreted. The values are conditional predictions of the cohort population of the county if the employment base projection is realized and the birth rate, survival rate, and migration response assumptions are appropriate. The discrepancy between what is now projected for any county on July 1, 1970 and what will be experienced on that day can arise in each of the three phases of the combined approach.

Departures from existing employment trends or unexpected changes in the relationship between employment and population will have obvious effects, as will departures from the projected birth and death rate assumptions. Indeed, the computational scheme itself generates errors to the extent that the actual age-specific population is not uniformly distributed across the five-year interval.

There is cumulatively joined to these sources of difference between projections and realization the possibility that any specific county will differ from the "typical" response to migration pressures. The statistical technique for distributing migration rates does ignore the extent to which the county departs from average characteristics. For example, a community in which a college or university is of major importance will find its migration experience to have a substantially different distribution over the age groups than that realized by counties without such an institution. To the extent a county has such specific factors to be considered there is justification for considering the age-specific population projections to have been made with less precision than otherwise would have been the case. Specific judgments which should be made in consideration of unusual circumstances certainly apply to Cache, Daggett, Salt Lake, and Utah Counties.

The size of the population of Daggett County means that individual diversity is not averaged out into the total pattern as uniformly as it is in larger populations. Beyond this, the rarely experienced rate of net out-migration--when distributed according to the patterns of normal experience--over-concentrated the migration in the 20 to 24 and 25 to 29-year age groups. Daggett County's population is likely to be more uniformly distributed across the 20 to 59-year age classifications with much less of a depopulation in the 20 to 29 groups than that of the distribution generated by the projection technique. This implies a

less uneven distribution across the advancing age groups and a downward bias in the births projected for Daggett County. Similarly, the 1975 to 1980 Kane County projections over-concentrate the possible in-migration into the 20 to 29-year age groups with corresponding results.

The Daggett and Kane County considerations resulted from their very unusual experiences. The qualifications on the projections for Cache, Salt Lake, and Utah Counties are necessitated by the generalized model overlooking special conditions. Cache, Salt Lake, and Utah Counties tend to have substantial net in-migration in the 15 to 19 and 20 to 24-year age groups, even though the county as a whole may be realizing net out-migration. It is also consistent with past experience to assume that the projected migration for the 0 to 4, 5 to 9, 25 to 29, 30 to 34, and 35 to 39 cohorts is somewhat overstated in these counties. In these cases the projection series tend to understate the 15 to 19 and 20 to 24 populations for each period and overstate the 0 to 14 and 25 to 39 populations.

It is a characteristic of these cohort projections, when adjusted to totals determined by employment trends, that the larger the geographic region or population and the broader the age-sex breakdown, the greater the confidence which can be held in the realization of the projections. Obviously, the percentage of the population of school age for 1980 is projected with much more confidence for the state than for a small county, and the number under 20 years of age is more reliable than the number given as being in the 15 to 19 cohort.

The following tables are the result of adjusting the three-component method to the employment based projections, but as with any statistical technique, the results require the exercise of judgment that increases in carefulness as the detail increases in the data used. These results should not be casually used for decisions which may critically depend upon a very narrow range of values. It is as foolish to suspend personal judgment for an act of gambling on specious accuracy as it would be to refuse the use of the broader projected patterns because of what may appear to be pretensions of exactness.

The test of any projection technique is simply the relative performance which it renders. Used alone, the employment base technique can make only very generalized statements about the age distributions of populations and an unmodified three-component method for small areas must be somewhat arbitrary about migration rate assumptions. This combined approach, by grounding the three-component technique in expected economic experience, hopefully generates population distributions better rooted in reality than those achieved by applying either approach separately.

The Integrated 1970, 1975, and 1980 Projections for Utah Counties

The results of applying the integrated projection technique are typified by Table 21. These values are the implications of moderately declining birth rates (county, age-specific birth rates of maintaining the 1960 ratio to the Bureau of the Census Series C assumption), slight death rate reductions, and the migration rates implied by the economic growth projections presented in Section III of this report.

The components of population change which would result in a county realizing projected totals are interim births, deaths, and net migration. These components of change are presented for the three future projection periods as Table 21. The components of change and the implied annual death and birth rates for the state as a whole are also shown. It must be remembered that the numbers in the tables are subject to the qualifications on interpretation which already have been mentioned. While great precision cannot be attributed to the numbers, the projections are useful to the extent that they correctly display the broad implications of present trends. It is possible for even the broadest implications to be of interest and not at all obvious. For example, although age-specific birth rates were computed to generally decline by about 16 per cent by 1980, the projected age redistribution of the population is sufficient to increase the crude birth rate by 1975 to 1980, as compared to 1965 to 1970. While the crude birth and death rates at the county level would show the effects of the projected migration experience, even the marked aging projected for the relatively declining counties is not expected to be sufficient to reduce the rate of natural increase to a level consistent with the pattern of economic development. Sixteen of the counties are calculated to experience net out-migration in each of the five-year periods to 1980, and only the Wasatch Front Counties are projected to realize sustained in-migration. This would be a continuance of an established pattern with the percentage of Utah's population located in the four Wasatch Front Counties projected to increase to approximately 80 per cent by 1980 from the 75 per cent in 1960.

The projected number of persons in broad age groups are presented in Tables 22 through 24. Table 25 contains the 1965 estimates, derived by applying the combination projection method to the 1960 to 1965 interval. The 1965 estimates were required as an intermediate step between the 1960 enumeration and the projections for 1970 and subsequent years. The estimates for 1965 are not now of major interest but do provide a continuity of series and a basis for comparison with the projected values given in Tables 26, 27, and 28.

Some of the most striking implications of the assumptions generating these projection series are seen in Tables 22, 23, and 24 where the projected aging of the population is evident. While there is a projection of a 33 per cent

increase in the number under the age of 20 between 1965 and 1980, the total population is projected to increase by approximately 45 per cent.

The proportion of the state's population over 65 years of age tends to show a very slight increase, but in this age group several counties are notably different from the state-wide experience. Beaver, Carbon, Garfield, Juab, Millard, Piute, Rich, Sanpete, Sevier, and Wayne are counties projected to experience further relative decline and sustained out-migration which tends to substantially increase the proportion of population over 65. The above counties are those projected to have in excess of 11 per cent of their populations being 65 and over by 1980. Only two counties, Juab and Sanpete, had comparable proportions in 1960.

The combined projection technique does signal a significant departure from historic behavior. The employment base projections provide for the Utah population growing at an instantaneous rate of approximately 2.4 per cent per year. While this rate of population increase is comparable to the 1940 to 1960 experience, the projected contribution of births over deaths is remarkably different.

Prior to 1960, net in-migration was of relatively little consequence in establishing Utah's population. For example, in 1960 the population of Utah was estimated to have been only 10,073 larger than what it would have been with Utah births and deaths and no migration since 1950. Recent Utah growth has been only slightly above the rate of natural increase but the result of the projected decline in birth rates is a natural rate of growth falling somewhat below the projected population development. The assumed decrease in birth rates implies a yearly natural increase of births over deaths in the neighborhood of 19 to 21 per thousand of population, or an instantaneous growth rate of approximately 2 per cent per year. The implication is that Utah's population development will be characterized much more by relocation activity within the state than by population pressure upon the economic activity of the state as a whole. Before this be taken as a highly optimistic forecast let it be noted that a slightly less favorable assumption on birth rate trends results in natural increase in population which corresponds very closely to the employment base projections. Any failure to realize the employment projections, even without higher birth rates, would more likely correspond in migration behavior to the outflow of the Twenties rather than the near balance of the Fifties. Clearly, for Utah to overlook possibilities for profitable economic expansion is to threaten the ability of future residents of Utah to continue to live and work in Utah.

Table 21

PROJECTED COMPONENTS OF POPULATION CHANGE:
1965 to 1970; 1970 to 1975; 1975 to 1980[a]

[Minus sign (-) denotes negative number. Utah average annual birth rates per thousand of population per year of 25.9 for 1965 to 1970, 26.8 for 1970 to 1975, and 27.8 for 1975 to 1980 are implied. Utah average annual death rates per thousand of population per year of 6.5 for 1965 to 1970, 6.5 for 1970 to 1975, and 6.4 for 1975 to 1980 are also implied.]

Counties		Projected			Projected Population Change	Indicated Net Migration
		Births	Deaths	Natural Increase		
Beaver:	1965 to 1970	450	190	260	0	-260
	1970 to 1975	500	200	300	200	-100
	1975 to 1980	540	210	330	100	-230
Box Elder:	1965 to 1970	4,180	950	3,230	2,200	-1,030
	1970 to 1975	4,810	1,050	3,760	4,500	740
	1975 to 1980	5,740	1,150	4,590	4,000	-590
Cache:	1965 to 1970	5,900	1,540	4,360	4,100	-260
	1970 to 1975	6,220	1,630	4,590	5,400	810
	1975 to 1980	6,910	1,750	5,160	4,500	-660
Carbon:	1965 to 1970	1,720	770	960	0	-960
	1970 to 1975	2,050	830	1,220	1,000	-220
	1975 to 1980	2,350	900	1,450	1,000	-450
Daggett:	1965 to 1970	50	20	30	100	70
	1970 to 1975	90	30	60	100	40
	1975 to 1980	130	40	90	100	10
Davis:	1965 to 1970	13,780	2,000	11,780	19,500	7,720
	1970 to 1975	17,540	2,490	15,050	20,200	5,150
	1975 to 1980	20,990	2,990	18,000	18,500	500
Duchesne:	1965 to 1970	780	250	540	-100	-640
	1970 to 1975	860	260	600	100	-500
	1975 to 1980	950	280	670	100	-570
Emery:	1965 to 1970	720	250	480	200	-280
	1970 to 1975	790	260	530	300	-230
	1975 to 1980	850	270	580	300	-280
Garfield:	1965 to 1970	380	130	240	-100	-340
	1970 to 1975	410	140	270	100	-170
	1975 to 1980	450	150	300	100	-200
Grand:	1965 to 1970	980	190	790	200	-590
	1970 to 1975	990	220	770	200	-570
	1975 to 1980	1,100	240	860	200	-660
Iron:	1965 to 1970	1,260	380	870	300	-570
	1970 to 1975	1,370	420	950	600	-350
	1975 to 1980	1,500	450	1,050	600	-450
Juab:	1965 to 1970	570	230	340	100	-240
	1970 to 1975	640	240	400	300	-100
	1975 to 1980	700	240	460	300	-160
Kane:	1965 to 1970	340	100	240	100	-140
	1970 to 1975	410	110	290	300	10
	1975 to 1980	1,490	120	1,370	8,000	6,670
Millard:	1965 to 1970	930	340	590	200	-390
	1970 to 1975	1,110	370	740	400	-340
	1975 to 1980	1,180	370	810	200	-610
Morgan:	1965 to 1970	440	120	320	400	80
	1970 to 1975	560	140	430	800	370
	1975 to 1980	700	150	550	500	-50

(Continued)

Table 21 (Continued)

PROJECTED COMPONENTS OF POPULATION CHANGE:
1965 to 1970; 1970 to 1975; 1975 to 1980[a]

Counties		Projected			Projected Population Change	Indicated Net Migration
		Births	Deaths	Natural Increase		
Piute:	1965 to 1970	160	60	100	0	-100
	1970 to 1975	170	70	100	0	-100
	1975 to 1980	170	70	100	0	-100
Rich:	1965 to 1970	180	80	100	0	-100
	1970 to 1975	210	70	130	100	-30
	1975 to 1980	240	80	160	100	-60
Salt Lake:	1965 to 1970	60,330	15,580	44,750	72,000	27,250
	1970 to 1975	70,880	17,850	53,030	64,400	11,370
	1975 to 1980	83,950	19,850	64,100	85,000	20,900
San Juan:	1965 to 1970	1,040	200	840	400	-440
	1970 to 1975	1,270	230	1,040	600	-440
	1975 to 1980	1,560	260	1,300	500	-800
Sanpete:	1965 to 1970	1,380	630	750	0	-750
	1970 to 1975	1,420	620	800	100	-700
	1975 to 1980	1,390	600	790	0	-790
Sevier:	1965 to 1970	1,120	470	640	0	-640
	1970 to 1975	1,240	490	750	200	-550
	1975 to 1980	1,300	500	800	300	-500
Summit:	1965 to 1970	810	260	550	400	-150
	1970 to 1975	970	270	700	1,100	400
	1975 to 1980	1,180	300	870	1,000	130
Tooele:	1965 to 1970	2,890	650	2,240	1,600	-640
	1970 to 1975	3,370	740	2,640	4,400	1,760
	1975 to 1980	3,990	880	3,110	2,800	-310
Uintah:	1965 to 1970	1,790	400	1,390	400	-990
	1970 to 1975	2,030	440	1,590	2,000	410
	1975 to 1980	2,360	510	1,850	1,000	-850
Utah:	1965 to 1970	17,280	3,760	13,520	21,000	7,480
	1970 to 1975	19,410	4,310	15,100	16,800	1,700
	1975 to 1980	21,320	4,820	16,500	16,400	-100
Wasatch:	1965 to 1970	700	220	480	100	-380
	1970 to 1975	780	230	550	700	150
	1975 to 1980	890	250	640	300	-340
Washington:	1965 to 1970	1,380	490	900	300	-600
	1970 to 1975	1,580	490	1,090	800	-290
	1975 to 1980	1,720	490	1,230	500	-730
Wayne:	1965 to 1970	160	70	90	0	-90
	1970 to 1975	180	70	110	0	-110
	1975 to 1980	200	80	120	0	-120
Weber:	1965 to 1970	16,220	4,370	11,850	13,200	1,350
	1970 to 1975	19,230	4,900	14,340	17,500	3,160
	1975 to 1980	23,090	5,450	17,640	22,600	4,960
State Totals:	1965 to 1970	137,900	34,700	103,200	136,600	33,400
	1970 to 1975	161,100	39,200	121,900	143,200	21,300
	1975 to 1980	189,000	43,500	145,500	169,000	23,500

[a]Parts may not add to totals because of rounding errors. Entries for counties are rounded to nearest 10. Totals for state are derived by summing over counties. State totals are rounded to the nearest 100.

Table 22

RECENT AND PROJECTED PERCENTAGE OF POPULATION
IN UTAH COUNTIES, 0 TO 19 YEARS OF AGE:
Selected Years 1930 to 1980

County	1930	1940	1950	1960	1965	1970	1975	1980
Beaver	48.7	44.8	44.5	44.9	44.0	42.1	40.0	39.7
Box Elder	50.9	45.9	45.4	47.8	49.2	48.6	47.1	46.4
Cache	48.8	44.0	41.1	44.3	44.0	44.9	44.7	44.1
Carbon	50.1	44.1	45.1	45,6	44.4	41.0	39.0	37.8
Daggett	52.1	45.4	44.8	44.8	48.1	45.0	41.0	37.0
Davis	49.9	45.2	45.3	51.4	51.8	49.4	46.9	45.7
Duchesne	54.1	51.0	50.0	50.4	50.4	48.1	45.9	44.8
Emery	51.2	48.0	47.3	46.5	45.8	44.2	43.2	43.2
Garfield	56.1	52.7	49.1	47.2	47.3	45.5	44.4	44.5
Grand	46.1	42.0	43.5	46.3	48.3	48.4	47.4	44.9
Iron	48.9	44.9	44.7	48.0	46.3	44.4	42.0	41.0
Juab	45.7	43.0	43.1	43.6	44.0	42.7	42.4	43.3
Kane	53.7	49.9	46.5	47.4	48.1	47.2	46.2	46.3
Millard	52.9	47.7	46.3	48.2	47.8	45.4	44.0	45.0
Morgan	48.9	44.2	44.1	47.0	47.0	46.2	44.9	44.8
Piute	51.8	45.7	48.2	46.2	43.6	41.6	40.4	40.9
Rich	50.3	43.4	44.4	46.7	45.8	45.1	43.8	44.1
Salt Lake	41.5	37.6	38.4	44.6	45.7	44.8	43.3	42.2
San Juan	54.1	53.8	51.5	53.4	58.1	56.7	53.8	50.5
Sanpete	48.8	44.2	43.4	42.5	41.6	41.2	42.0	43.8
Sevier	51.5	46.6	45.3	45.2	45.0	42.4	41.4	41.6
Summit	44.2	44.3	43.5	45.2	45.2	44.4	43.7	44.2
Tooele	44.8	43.1	43.0	46.2	46.7	45.1	43.1	42.1
Uintah	51.1	49.8	48.2	49.1	50.3	49.4	47.5	47.0
Utah	48.8	44.6	44.5	47.7	46.4	45.2	43.8	42.7
Wasatch	50.3	46.0	46.3	47.1	47.2	46.2	44.7	44.5
Washington	53.2	48.6	47.8	48.5	47.7	44.3	45.1	45.8
Wayne	56.6	52.7	52.2	47.7	45.4	41.1	38.6	38.8
Weber	44.0	39.8	40.7	45.8	46.5	45.1	43.7	43.0
State	46.0	42.0	41.8	46.1	46.6	45.5	44.0	43.1

Table 23

RECENT AND PROJECTED PERCENTAGE OF THE POPULATION IN UTAH COUNTIES, 20 TO 64 YEARS OF AGE: Selected Years 1930 to 1980

County	1930	1940	1950	1960	1965	1970	1975	1980
Beaver	46.6	49.9	49.3	46.7	45.8	46.9	48.8	50.4
Box Elder	45.0	48.9	48.1	45.7	44.4	44.9	46.6	47.2
Cache	45.7	49.6	52.1	47.2	48.2	47.4	47.9	48.8
Carbon	48.4	53.2	51.2	47.5	47.1	49.4	50.4	47.7
Daggett	45.0	51.2	47.5	52.6	45.4	47.1	48.3	51.2
Davis	45.4	49.6	50.3	45.0	44.8	47.2	49.6	50.5
Duchesne	43.1	45.1	45.3	43.6	42.2	43.2	44.4	44.6
Emery	43.7	47.2	46.2	44.8	45.1	46.1	46.6	45.9
Garfield	40.8	44.0	45.6	46.0	44.3	44.2	44.5	42.8
Grand	49.6	52.7	49.0	50.4	48.1	47.1	47.0	48.2
Iron	47.6	50.4	50.2	45.9	46.8	47.8	49.7	50.3
Juab	50.3	51.0	49.3	45.3	44.5	45.8	46.2	44.8
Kane	42.9	46.0	47.7	45.9	43.6	44.2	44.8	49.2
Millard	42.9	46.8	47.8	42.7	41.8	43.7	45.0	43.8
Morgan	46.8	50.9	48.5	45.1	44.6	45.6	47.5	47.6
Piute	43.2	50.4	46.4	45.6	46.3	47.2	47.6	45.6
Rich	46.5	52.7	49.1	43.1	43.3	43.7	44.2	43.8
Salt Lake	53.8	56.5	54.8	48.4	47.4	48.4	49.7	50.9
San Juan	42.2	42.9	44.7	43.5	37.9	38.5	40.8	43.2
Sanpete	45.4	48.7	47.1	44.0	44.8	45.2	44.1	42.1
Sevier	44.2	48.3	48.1	45.2	44.2	46.1	46.6	46.2
Summit	52.5	51.3	49.8	46.3	45.9	46.4	47.1	46.6
Tooele	51.8	52.3	52.8	48.8	48.4	49.2	51.1	51.8
Uintah	44.5	45.9	46.8	45.6	44.1	44.1	45.9	45.7
Utah	46.0	50.0	50.1	46.5	47.8	49.0	50.3	51.1
Wasatch	45.6	48.9	47.6	45.2	44.4	44.7	46.2	45.9
Washington	41.8	45.5	45.3	40.9	41.6	43.3	45.3	44.9
Wayne	40.5	44.1	43.9	44.8	45.4	48.5	49.4	48.4
Weber	51.3	54.3	53.3	47.3	46.5	47.7	49.0	49.7
State	49.5	52.5	52.0	47.4	46.7	47.8	49.2	50.1

Table 24

RECENT AND PROJECTED PERCENTAGE OF THE POPULATION IN UTAH COUNTIES, 65 YEARS OF AGE AND OLDER: Selected Years 1930 to 1980

County	1930	1940	1950	1960	1965	1970	1975	1980
Beaver	4.7	5.2	6.2	8.4	10.0	10.7	11.1	11.7
Box Elder	4.0	5.2	6.5	6.4	6.4	6.4	6.3	6.4
Cache	5.5	6.5	6.7	8.5	7.7	7.6	7.3	7.1
Carbon	1.5	2.7	3.7	6.9	8.4	9.6	10.6	12.0
Daggett	2.9	3.4	7.7	2.6	5.1	6.9	9.8	11.0
Davis	4.6	5.2	4.4	3.6	3.4	3.3	3.5	3.8
Duchesne	2.8	3.9	4.7	5.9	7.3	8.5	9.6	10.4
Emery	5.0	4.8	6.5	8.7	8.9	9.7	10.1	10.7
Garfield	3.1	3.4	5.3	6.8	8.2	10.0	10.8	11.4
Grand	4.3	5.3	7.5	3.3	3.6	4.4	5.5	6.8
Iron	3.4	4.7	5.1	6.0	6.8	7.7	8.2	8.6
Juab	4.0	6.0	7.6	11.0	11.3	11.4	11.2	11.8
Kane	3.4	4.1	5.8	6.7	8.0	8.3	8.8	4.4
Millard	4.2	5.4	6.0	9.1	10.4	10.8	10.9	11.1
Morgan	4.3	4.9	7.4	7.9	8.1	7.9	7.5	7.4
Piute	5.0	4.0	5.4	8.2	9.4	10.6	11.3	13.0
Rich	3.1	3.9	6.5	10.2	10.3	10.7	11.5	11.8
Salt Lake	4.6	5.9	6.8	7.0	6.9	6.9	6.9	6.9
San Juan	3.5	3.3	3.8	3.1	3.9	4.7	5.3	6.2
Sanpete	5.7	7.0	9.6	13.4	13.5	13.6	13.8	14.0
Sevier	4.2	5.1	6.6	9.6	10.7	11.5	12.0	12.1
Summit	3.3	4.4	6.7	8.4	8.8	9.1	9.0	9.1
Tooele	3.4	4.6	4.2	5.0	4.9	5.7	5.8	6.1
Uintah	4.2	4.3	5.0	5.3	5.6	6.5	6.6	7.2
Utah	5.1	5.4	5.4	5.8	5.8	5.7	5.9	6.2
Wasatch	4.1	5.1	6.2	7.7	8.2	8.9	9.0	9.4
Washington	5.0	5.9	6.9	10.7	10.7	10.4	9.6	9.2
Wayne	2.8	3.2	3.9	7.5	8.8	9.9	11.5	12.4
Weber	4.7	5.9	6.1	6.9	7.0	7.2	7.3	7.3
State	4.5	5.5	6.2	6.5	6.7	6.7	6.8	6.9

Table 25

ESTIMATED POPULATION OF UTAH COUNTIES
BY AGE GROUPS: 1965

	Age Groups							
	0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and over	Total
Beaver	440	980	420	300	750	870	420	4,200
Box Elder	4,090	7,310	2,780	2,110	6,480	4,190	1,840	28,800
Cache	5,720	8,900	3,440	3,840	9,970	5,940	3,180	41,000
Carbon	1,860	4,180	1,960	1,090	3,320	4,070	1,510	18,000
Daggett	80	200	60	10	130	190	40	700
Davis	11,800	23,270	8,730	6,380	21,350	10,110	2,850	84,500
Duchesne	840	1,780	700	420	1,160	1,210	480	6,600
Emery	670	1,330	610	450	1,000	1,110	520	5,700
Garfield	410	760	340	200	550	670	260	3,200
Grand	1,080	1,920	620	500	2,000	1,100	270	7,500
Iron	1,290	2,620	1,090	900	2,330	1,820	740	10,800
Juab	530	1,000	490	340	750	960	520	4,600
Kane	350	660	250	170	470	490	210	2,600
Millard	860	1,830	850	510	1,140	1,440	770	7,400
Morgan	410	760	290	260	600	530	250	3,100
Piute	150	310	150	120	220	310	130	1,400
Rich	180	370	140	100	230	310	150	1,500
Salt Lake	56,330	104,460	40,130	32,600	104,460	71,400	30,620	440,000
San Juan	1,330	2,470	670	290	1,560	1,080	300	7,700
Sanpete	1,260	2,140	1,140	940	1,620	2,320	1,470	10,900
Sevier	1,060	2,240	1,110	640	1,690	2,000	1,050	9,800
Summit	760	1,350	600	480	1,120	1,150	530	6,000
Tooele	2,740	5,300	2,230	1,670	5,580	3,390	1,080	22,000
Uintah	1,830	3,240	1,280	890	2,650	2,010	700	12,600
Utah	15,960	28,000	11,220	11,080	28,320	17,510	6,890	119,000
Wasatch	700	1,300	550	400	1,000	1,000	440	5,400
Washington	1,300	2,520	1,140	870	1,770	1,680	1,110	10,400
Wayne	150	380	190	120	270	340	140	1,600
Weber	15,310	28,980	11,980	8,880	26,580	20,750	8,520	121,000
State Total	129,500	240,600	95,200	76,600	229,100	160,000	67,000	998,000

Table 26

PROJECTED POPULATION OF UTAH COUNTIES
BY AGE GROUPS: 1970

	Age Groups							
	0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and over	Total
Beaver	440	870	470	360	730	870	450	4,200
Box Elder	4,060	7,700	3,300	2,560	6,810	4,570	1,990	31,000
Cache	5,780	10,460	4,020	3,380	12,060	5,950	3,430	45,100
Carbon	1,660	3,820	1,890	1,730	3,020	4,140	1,740	18,000
Daggett	50	210	100	70	90	220	60	800
Davis	13,790	25,610	12,010	10,230	24,740	14,150	3,470	104,000
Duchesne	750	1,610	770	560	1,080	1,170	560	6,500
Emery	700	1,280	630	550	1,110	1,060	570	5,900
Garfield	360	720	330	260	500	610	310	3,100
Grand	940	2,060	720	520	1,870	1,240	340	7,700
Iron	1,220	2,470	1,250	970	2,420	1,920	860	11,100
Juab	550	970	480	430	810	910	540	4,700
Kane	330	660	290	220	480	490	220	2,700
Millard	900	1,650	900	750	1,180	1,390	820	7,600
Morgan	430	820	370	310	740	550	280	3,500
Piute	150	280	150	130	250	280	150	1,400
Rich	170	340	170	120	240	300	160	1,500
Salt Lake	60,170	116,740	52,310	44,940	120,680	82,020	35,140	512,000
San Juan	1,000	2,630	960	590	1,330	1,200	380	8,100
Sanpete	1,320	2,150	1,020	970	1,860	2,090	1,480	10,900
Sevier	1,070	2,020	1,060	950	1,650	1,910	1,130	9,800
Summit	790	1,410	640	570	1,250	1,150	580	6,400
Tooele	2,820	5,380	2,440	2,080	5,750	3,790	1,340	23,600
Uintah	1,720	3,280	1,420	1,070	2,600	2,060	850	13,000
Utah	17,200	32,010	14,120	12,550	36,400	19,710	8,010	140,000
Wasatch	680	1,280	590	460	1,030	970	490	5,500
Washington	1,340	2,400	1,210	990	1,960	1,680	1,110	10,700
Wayne	160	310	190	170	270	340	160	1,600
Weber	15,960	30,530	14,050	12,180	28,480	23,320	9,660	134,200
State Total	136,500	261,700	117,900	100,700	261,400	180,100	76,300	1,134,600

Table 27

PROJECTED POPULATION OF UTAH COUNTIES
BY AGE GROUPS: 1975

County	Age Groups							Total
	0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and over	
Beaver	490	840	440	440	880	830	490	4,400
Box Elder	4,750	8,160	3,810	3,440	8,030	5,080	2,240	35,500
Cache	6,140	11,580	4,860	4,140	13,870	6,210	3,700	50,500
Carbon	2,010	3,390	2,010	1,830	3,800	3,950	2,010	19,000
Daggett	90	150	130	100	130	200	90	900
Davis	17,390	27,150	13,680	13,080	30,700	17,880	4,320	124,200
Duchesne	830	1,430	760	640	1,190	1,100	640	6,600
Emery	770	1,300	610	570	1,330	990	630	6,200
Garfield	400	700	330	290	580	550	350	3,200
Grand	950	1,830	960	610	1,740	1,370	430	7,900
Iron	1,340	2,380	1,190	1,160	2,660	2,010	960	11,700
Juab	630	1,040	450	450	1,000	860	560	5,000
Kane	400	660	330	290	570	480	260	3,000
Millard	1,080	1,660	780	810	1,490	1,300	870	8,000
Morgan	570	920	450	440	1,000	600	320	4,300
Piute	160	280	130	120	290	250	160	1,400
Rich	200	330	170	160	300	250	180	1,600
Salt Lake	69,990	120,560	59,110	54,330	142,100	90,320	40,000	576,400
San Juan	1,230	2,160	1,290	850	1,410	1,290	470	8,700
Sanpete	1,370	2,370	890	880	2,190	1,780	1,520	11,000
Sevier	1,210	1,970	960	930	1,960	1,770	1,200	10,000
Summit	970	1,600	710	720	1,660	1,160	670	7,500
Tooele	3,370	5,790	2,900	2,780	7,180	4,360	1,620	28,000
Uintah	2,010	3,510	1,610	1,500	3,120	2,260	990	15,000
Utah	19,120	34,010	15,530	14,370	42,990	21,480	9,290	156,800
Wasatch	780	1,360	640	620	1,270	980	560	6,200
Washington	1,540	2,520	1,120	1,140	2,420	1,650	1,100	11,500
Wayne	180	280	160	160	330	300	180	1,600
Weber	19,000	31,820	15,460	14,630	34,770	24,970	11,040	151,700
State Total	159,000	271,800	131,500	121,500	311,000	196,200	86,800	1,277,800

Table 28

PROJECTED POPULATION OF UTAH COUNTIES
BY AGE GROUPS: 1980

County	Age Groups							Total
	0 to 4	5 to 14	15 to 19	20 to 24	25 to 44	45 to 64	65 and over	
Beaver	530	870	390	380	1,060	740	530	4,500
Box Elder	5,630	8,730	3,960	3,660	9,440	5,560	2,520	39,500
Cache	6,770	11,810	5,650	4,700	15,180	6,980	3,910	55,000
Carbon	2,300	3,570	1,700	1,900	4,740	3,400	2,390	20,000
Daggett	130	150	90	130	200	190	110	1,000
Davis	20,660	31,560	12,960	13,700	37,680	20,650	5,480	142,700
Duchesne	910	1,430	660	630	1,400	970	700	6,700
Emery	830	1,400	590	550	1,540	900	700	6,500
Garfield	440	700	330	280	680	490	380	3,300
Grand	1,070	1,710	860	800	1,660	1,460	550	8,100
Iron	1,460	2,440	1,150	1,090	3,120	1,980	1,060	12,300
Juab	680	1,140	480	420	1,250	710	620	5,300
Kane	2,230	1,860	1,010	1,650	2,870	890	480	11,000
Millard	1,140	1,820	720	660	1,840	1,110	900	8,200
Morgan	690	1,020	440	440	1,250	610	360	4,800
Piute	160	290	120	110	330	200	180	1,400
Rich	240	350	160	150	370	220	200	1,700
Salt Lake	83,250	134,090	61,610	63,020	175,240	98,740	45,450	661,400
San Juan	1,510	2,040	1,100	1,050	1,580	1,350	570	9,200
Sanpete	1,340	2,450	1,020	750	2,450	1,450	1,540	11,000
Sevier	1,270	2,130	890	850	2,340	1,570	1,250	10,300
Summit	1,160	1,810	790	730	2,150	1,090	770	8,500
Tooele	3,910	6,250	2,800	2,820	8,430	4,710	1,880	30,800
Uintah	2,290	3,590	1,650	1,420	3,650	2,260	1,140	16,000
Utah	20,970	36,260	16,650	15,420	49,430	23,630	10,840	173,200
Wasatch	870	1,400	630	560	1,500	920	610	6,500
Washington	1,670	2,700	1,130	970	2,860	1,550	1,110	12,000
Wayne	190	300	130	130	390	250	200	1,600
Weber	22,880	35,940	16,100	16,370	44,530	25,680	12,790	174,300
State Total	187,200	299,800	135,800	135,300	379,200	210,300	99,200	1,446,800