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ABSTRACT

Population trends will have a significant impact on educators' decision making, not only because of declining enrollment, but also because employment patterns and staffing in schools and colleges will be affected. Among the factors that educators must contend with are: (1) The birth rate has been increasing slowly since 1974: (2) The reduction in the number of teachers will not be as severe as the reductions in the number of school age persons: (3) Regional, state, and community enrollment patterns differ widely, with population declines in the suburbs becoming an enrollment factor for the metropolitan districts: and (4) A shortage of qualified teachers is possible in the late 1980s, particularly among elementary, math, science, special education, industrial arts, and agriculture teachers unless teaching is made to appear more attractive. It is suggested that local associations: (1) study local conditions: (2) guard against regressive attitudes: (3) increase the effectiveness of the associations' communications: and (4) update goals for improving the quality of schools and of teaching. (FG)

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nea helping teachers teach

RESEARCH MEMO

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Population Trends and Their Implications for Association Planning, 1981

POPULATION TRENDS AND THEIR IMPLICATIONS FOR ASSOCIATION PLANNING, 1981

William S. Graybeal
Project Director

FOREWORD

A review of trends in number of persons likely to be enrolled and in the number of faculty employed provides useful information to local associations for planning programs and setting priorities. Likewise, this type of trend information aids the state and national associations in making informed decisions which allow for capitalizing on—rather than being penalized by—anticipated changes in population and employment.

This Memo gives a brief review of the major population trends that will influence enrollments and staffing in schools and colleges in each state for the next twenty years along with a summary of certain other factors that may need to be considered in planning appropriate responses to these changes.

Although the Memo does not include estimates of the effects of present and proposed cutbacks in financial support for schools and colleges, it has been estimated that Federal, state and local financial cutbacks will reduce the total number of public-school teachers by 10 percent in fall 1981, thereby having a chilling effect upon past trends of annual improvements in the pupil-teacher ratio. Changes in the Federal higher education student financial assistance provisions may actually reduce higher education enrollments by 750,000 students—a reduction over and above the serious staff cutbacks resulting from severe financial constraints in several states. The overall outcomes of these changes will not be known for several months, making it even more important for local associations to consider the guidelines for planning cited in this Memo.

This report was prepared by William S. Graybeal, Research Specialist, with assistance from members of the NEA Research Editorial and Copy Preparation staff, whose essential supporting services assured its timely release.

Peg Jones
Acting Director
NEA Research

June 1981

POPULATION TRENDS AND THEIR IMPLICATIONS FOR ASSOCIATION PLANNING, 1981

- The number of annual births was 3.5 million in U.S. fiscal year 1980, was 3.4 million in 1979, and was 3.3 million in 1977 and in 1978—higher than the 3.15 million each year between 1973 and 1976, but lower than the 3.7 million in 1970.
- The number of annual births is projected to increase 150,000 in fiscal 1981, 100,000 in 1982, 50,000 in 1983 and in 1984, 30,000 in 1985 and in 1986, and less than 15,000 in 1987 before beginning to decline again each year beginning in 1989.
- The states differ widely in the change in the number of births in 1980 from the number born in 1975. The number decreased or increased by less than 6.0 percent in Connecticut, District of Columbia, Massachusetts, New Jersey, New York, North Carolina, and West Virginia; while the number increased by at least 25 percent in Alaska, Arizona, California, Florida, Nevada, Utah, Washington, and Wyoming.
- The total number of public school teachers is projected to continue to decrease each year until 1984.
- The number of persons aged 18 to 21 is estimated to have reached a peak of 17,156,000 in 1979; now an era of annual decreases has begun that will end in 1994 when 12,972,000 persons will be in this age group.
- Continuing reductions in the numbers of graduates prepared to teach in addition to the deterioration in the attractiveness of teaching as a career have reduced the teacher surplus and created some shortages in several assignment areas.

National Population Trends

Wide differences in the local status and rates of change in birth rates and population migration have contributed to severe enrollment declines in some school systems and higher education institutions while enrollment in others continues to grow. Also, some states are facing continuing enrollment declines while other states will have heavy growth rates. Immediate and informed planning is needed to correct the resultant problems and to take advantage of the opportunities facing education and the teaching profession.

Trends among school-age populations. The 3,111,000 births in fiscal 1974 were the lowest in any year since 1946. The numbers born each year between 1973 and 1976 have been less than 3.2 million. The number of births increased to 3.3 million in fiscal 1977, remained at that level in 1978, increased to 3.4 million in fiscal 1979, and increased to 3.5 million in fiscal 1980. The number of children born each year will probably increase until 1988, despite a continuation of relatively low birth rates. The number of births during the 12 months ending with January 1981 (3.6 million) is up by 150,000 over the previous 12-month period. Except for the

moderate increase in the numbers born between 1969 and 1971, the number of children born each year decreased annually between 1961 and 1974.

The outcome (reported in 1977 projections by the U S Bureau of the Census and shown in Table 1) is that for the nation as a whole the number of age 5-17 children will decrease annually between 1971 and 1984 In 1985 the number of age 5-17 children and youth will begin to increase every year until the year 2000.

The age 18-21 population peaked at 17.2 million persons last year and is now beginning an era of annual decreases that will last until 1995.

The rates of decrease in the numbers of these population groupings will not be constant. The most severe drop in the age 5-17 population will be between 1975 and 1983, with annual decreases ranging between 1.0 and 2.3 percent. Only in 1978, 1979, 1980, and 1981 will the annual decreases equal or exceed 1 9 percent of the previous year's age 5-17 population The age 5-13 group dropped between 2 0 and 2 6 percent in 1973, 1974, and 1977 through 1979 The age 14-17 group will decrease annually from 1976 through 1990, except in 1985 when there will be a small increase of 130,000 over 1984. The years in which the percentage drop in the age 14-17 population will exceed 2.0 percent are from 1979 through 1983 and from 1987 through 1989. The annual decrease will be over 3 percent in 1980 through 1982, 1988, and 1989. The largest percentage decrease will be in 1982, when a drop of 550,000 youth will be a reduction of 3.7 percent of the number in 1981.

The age 18-21 population will decline by 2.0 percent or more annually between 1983 and 1987 and between 1991 and 1993. In 1994 this age group will reach its lowest number since 1969 (when it was 14,426,000), when it will decline to 12,972,000. The drop of 4 2 million persons in this age group between its peak size of 17,156,000 in 1979 to the 1994 low is about one-fourth (24.4 percent) of the total in this age group in 1979.

The age 5-17 population projections are highly accurate for at least the next six years, and the age 18-21 population projections are highly accurate through 1994 because both are based on the numbers of children born before 1977.

The population projections listed in Table 1 indicate the basic numbers that will influence enrollment trends and the number of staff. Projections of actual enrollments and/or numbers of teachers require the application of assumptions about the population percentage that will be enrolled and the ratio of students to teachers. Table 1 shows the base line from which these related estimates may be derived.

Trends in teacher employment. It is difficult to project accurately the number of teachers that will be employed for several reasons, e.g., the unknown effects of high levels of unemployment and underemployment, cut-backs in school programs resulting from tax reductions and limitations, continuing need to improve preschool education-related experiences, increased emphasis on appropriate instruction for handicapped children and youth, increased need to provide instruction for functionally illiterate youth and adults, and likely changes in the long-term trend toward increasing the number of professional staff per 1,000 students. However, barring a major change in the trend toward lowering the pupil-teacher ratio, the reductions in numbers of teachers will probably not be as severe as the reductions in the numbers of school-age persons.

National Center for Education Statistics projections are based on the assumption that the trend toward smaller numbers of pupils per teacher will continue, indicating that annual decreases in the number of K-12 teachers will probably not exceed 1.3 percent of the number of teachers employed in the previous year (Table 2). However, NCES projections of the numbers of higher education faculty show decreases of at least 1.6 percent in 1984, 1985, and 1986.

Variations Among States

These national population trends probably will not be observed exactly in any one state, school system, or higher education institution. States and localities differ widely in birth rates, population mobility, rates of changes in these factors, and related demographic characteristics. The relative severity of potential enrollment declines among the states can be estimated by combining the rates of recent change in the number of children born, the number of persons aged 5-17, the projected number of high school graduates, and projected numbers of persons aged 5-14 and 15-24 (see Tables 3 and 4). However, the outcomes of these different sources of estimates are not entirely consistent for some states.

The American Council on Education has reviewed the population shifts and migration trends of 18-year-olds enrolled in higher education and projects that the states most likely to lose freshmen students between 1975 and 1985 are Arkansas, Connecticut, Illinois, Minnesota, New Jersey, New York, North Dakota, Ohio, and Pennsylvania. The states most likely to have more freshmen students during this period are Arizona, Colorado, Delaware, Florida, Idaho, and Utah.

Recent projections of high school graduates in each of the 50 states by the Western Interstate Commission for Higher Education provide an estimate of school enrollment trends that takes into account the combined effects of population change, student mortality, school holding power, transfers to and from private schools, migration, nonpromotion, and use of ungraded groupings of students. The number of high school graduates indicates both K-12 enrollment trends and trends in potential higher education enrollment. (Columns 7 and 8 of Table 3).

Recent trends in the number of annual births (columns 2, 3, and 4 of Table 3) give the most recent and simplest summary of long-term trends in the numbers of age 5-24 persons in the states. The effects of difference in the rates of mobility among the states reduce somewhat the accuracy of projections using the number of births alone.

The total number born in 1980 is higher (by 13.7 percent) than in 1975, but it is still smaller than the number born in 1970 (by 3.5 percent) and in 1960 (by 15.8 percent). The states differ widely in the severity and pattern of declines in the number of annual births between 1962 and 1975. Therefore, the projected population and graduation statistics reflect different patterns in the severity of the first and second wave of declines in the numbers born occurring between 1962 and 1968 and between 1971 and 1976.

Because the numbers born in most states decreased during the first five years of the 1970's and increased during the past five years, the influence of the recent increases will not significantly change the total numbers in the age 5-17 population until the late 1980's (although the proportions in the age 5-11 and 12-17 subgroups will change significantly).

For the few states that experienced growth in the number of births throughout the 1970's (Arizona, California, Idaho, Utah, and Wyoming) the numbers in the age 5-17 span will grow steadily through the 1980's and 1990's. The number of births in 1980 also exceeds the number born in 1960 in the above states plus Alaska, Colorado, Florida, Hawaii, Nevada, Oregon, Texas, and Washington. This means that in these 13 states, barring severe loss through migration and, or a change in recent trends in the annual number of births, the age 5-17 population is very likely to rise to new record levels in the mid 1990's.

States in the Southwest and Rocky Mountain regions are expected to experience early and continuing growth of potential enrollments. States in the Far West region have a similar outlook, although the percentage increases are not likely to be as significant in California, Hawaii, and Washington as in most other states in these three regions.

States in the New England, Mideast, and Great Lakes regions face an outlook for later and fairly insignificant increases in potential enrollment if they increase at all. For example, the number of births in 1980 continues to be smaller than in 1975 and in 1970 in Connecticut, New York, and the District of Columbia. On the other hand, the trend in number of births in New Hampshire is more like that of states in the highest growth category than it is like the states surrounding it.

The outlook for states in the remaining two regions, Southeast and Plains, is one of potential enrollment changes that tend to parallel the national average or fall between the two extreme groups identified above. However, Florida and Louisiana in the Southeast, and North Dakota and South Dakota in the Plains regions have patterns typical of states in the highest growth regions. On the other hand, North Carolina and Virginia in the Southeast have patterns typical of states in the lowest growth regions.

Variations Within States

Although two persons in three (67.5 percent) live in a metropolitan area, the population growth rate in these areas since 1970 has decreased from being more than to being less than that in nonmetropolitan areas. The average annual percent change in total metropolitan population between 1970 and 1978 was 0.5 percent compared with 1.5 percent between 1960 and 1970. Between 1970 and 1978 the average annual percent increase in metropolitan population outside of central cities was 1.5 percent, down from 2.4 percent between 1960 and 1970. On the other hand, between 1970 and 1978 in the central cities of metropolitan areas the average annual change in total population was minus 0.6 percent compared with plus 0.6 percent during the 1960's. Between 1970 and 1978 the average annual percent increase in nonmetropolitan areas was 1.4 percent, up from the 0.7 percent observed between 1960 and 1970.

The total population growth between 1970 and 1978 was greater in metropolitan areas outside of central cities (9.1 million) than in nonmetropolitan areas (7.7 million), while the central cities of metropolitan areas lost 3.2 million persons.

The metropolitan population growth rate is greater in areas with less than 500,000 persons than in the larger centers, and the growth rate is greater among areas in the South and West than it is in the Northeast and North Central regions.

Population declines are more likely among suburbs within 10 miles and beyond 20 miles from the

border of central cities than among those located 10 to 20 miles away. Also, suburban population loss is more likely among suburbs of cities reaching a population of 50,000 before 1850 than among those reaching this population level after 1940.

In nonmetropolitan areas, the counties with highest numerical growth are those adjacent to metropolitan areas, those with 10 percent or more net immigration of persons aged 60 or older, those with 30 percent or more of the population employed in manufacturing, and those where a senior state college is located. Counties that are entirely rural had a population increase of 6.1 percent between 1970 and 1974 compared with a population decrease of 4.3 percent between 1960 and 1970.

Data from the 1980 census show that 81 percent of the nation's 3,137 counties gained population between 1970 and 1980. Never before have so many counties gained population, and not since 1900 have so few counties lost population during the decade between census enumerations.

Although birth rates and population migration factors of individual school districts probably do not parallel the estimates for the states in which they are located, knowledge of national, regional, and state conditions may be useful in evaluating the significance and stability of local trends.

Teacher Layoffs

The number of teaching positions opened annually through attrition (deaths, retirements, transfers to nonteaching assignments, entry into other occupations, personal or family responsibilities, etc.) has been between 6 and 9 percent of the staff in grades K-12 and between 5 and 6 percent of the staff in higher education. However, these rates may have fallen to record low levels in recent years. Reentry of experienced teachers normally has reduced the net loss to 4 to 5 percent of K-12 teachers and to about 3 percent of higher education faculty. Therefore, barring a significant further reduction in these attrition rates, the enrollment declines in most school systems should not require the *forced* separation of K-12 teachers (some positions opened by attrition simply would not need to be filled). However, severe staff reductions will probably continue or begin in the school systems and higher education institutions (particularly those located in the Northeast, Mideast, and Great Lakes states) continuously experiencing significant enrollment declines for several years.

The lower faculty attrition rates in higher education (as well as the somewhat smaller span in the age of students in many institutions) make staff reductions more likely at this level than in K-12 schools. However, enrollment declines in higher education may not be as severe as the reduction in the age 18-24 population as a result of increased efforts to raise the retention rates of present first-time students, increase the enrollment rates of persons in minority and economically disadvantaged subgroups, and enroll larger proportions of persons over age 24.

Teacher Supply and Demand

For at least the next 8 years, most teaching vacancies at all levels will be created by the need to replace those leaving active teaching service. Population projections indicate that the number of elementary school teachers will decrease each year for two more years and then, beginning about 1984, additional teachers will be needed for the projected increase in the numbers of elementary school students. This increase will return the total number of elementary school teachers to the previous record level (1977) in 1985 and then establish new records each year for at least 10 years. The number of secondary school teachers will decline each year throughout the 1980's. As a result, a fairly stable number of teaching job openings will occur annually for two more years, followed by some increases in the number of elementary school teachers that will return the total number of public school teachers to 1978 levels by 1988.

More higher education graduates enter teaching than any other occupation. (Employment in K-12 teaching was reported by 15 percent of the employed 1977 bachelor's-degree graduates and by 36 percent of the employed 1975 master's-degree graduates. Employment in educational institutions was reported by 54 percent of all of the employed 1973 doctorate recipients.) The number of graduates receiving the bachelor's degree is expected to peak in 1982, master's degree, in 1983. The number of doctor's-degree graduates is projected to remain at present levels until 1983 and then decline to near the 1970 level by 1989.

As a result, beginning in 1983 the proportion of graduates prepared to enter elementary school assignments who will obtain teaching employment is likely to increase each year, and by 1985 (depending upon the availability of qualified persons unable to enter elementary teaching assignments in recent years) the annual numbers completing preparation to teach in elementary schools will need to increase.

Annual increases in the number of teaching positions over the previous year are likely in the elementary grades beginning about 1984, in secondary grades, about 1990, and in higher education, about 1995 (see Tables 1 and 2). However, the age 5-13 population will not rise again to the 1977 level until 1990; the age 14-17 population will not return to 1977 levels during the rest of this century; and the age 18-21 population will drop back to the 1977 level about 1982 and remain below that level until after the year 2000.

With an expectation of continuing decreases in the pupil-teacher ratio, NCES projects that the number of public elmentary school teachers will decline from its high of 1,185,000 teachers in 1977 to a low of 1,135,000 in 1982 and then climb back to 1,175,000 teachers in 1985 (near the 1975 level) before experiencing additional increases of 40,000 to 54,000 teachers each year from 1986 through 1988.

Therefore, the number of additional teachers needed for expanded school and college enrollments over the next 10 years is *not* likely to create significant new annual demands for graduates expecting to enter this field, with the exception of elementary school jobs beginning in the mid-1980's.

Despite recent significant reductions in the proportions of higher education graduates preparing to enter teaching, more qualified new graduates are seeking teaching jobs in 1981 than there are jobs available at all levels – kindergarten through graduate school. This overall imbalance, in existence for at least the past nine years, is likely to continue for two more years before moderating during the subsequent four years as the total numbers of college graduates decrease to the levels of the late 1960's.

However, if recent declines in the attractiveness of teachers' salaries and working conditions are not reversed, several assignments now experiencing shortages will have very severe shortages, and the annual overall surplus in elementary-secondary schools may end within two years. As the number of *attractive* jobs for beginning elementary school teachers increases significantly in the mid-1980's, a teacher shortage is not imminent because larger proportions of graduates may be prepared to teach, a larger proportion of those prepared to teach will seek employment as teachers, and many teachers laid off or reassigned when the number of jobs declined may be asked to return to teaching. If the percent of all bachelor's and first-professional-degree graduates who prepare to teach returned to the 1968 level, at least 200,000 additional prospective beginning teachers would be available annually.

In summary, a shortage of qualified teachers is very possible in the late 1980's (particularly for elementary school teachers and teachers of mathematics, sciences, special education, industrial arts, and agriculture) *unless* improvements can be made soon in the attractiveness of teaching as a career.

Private School Enrollment

The U.S. Bureau of the Census reports that the numbers enrolled in private schools and colleges (kindergarten through graduate school) represent a slightly higher proportion of total enrollments in fall 1979 (12.4 percent) than they did between 1971 and 1976 (11.8 to 12.2 percent), slightly lower than in 1977 and 1978 (12.5 and 13.0 percent), and much lower than between 1965 and 1970 (13.0 to 16.2 percent). Enrollment in private institutions in 1979 is reported for 11.2 percent of those enrolled in elementary schools, 7.4 percent in secondary schools; and 22.9 percent in higher education.

NCES reports that the proportion of K-12 students attending private schools declined from 11.4 percent in fall 1968 to 10.5 percent in fall 1978, and will rise to 12.5 percent by fall 1988.

Guidelines for Local Association Planning

Local associations differ widely in the extent, timing, and length of time they are likely to be involved in potential declines in enrollment. Most will face enrollment declines for the next four years while some, particularly those in higher education, will have to deal with an outlook for declines over a longer period. Some face enrollment growth soon at all levels, while the outlook for most is one of growth only in elementary school enrollments within this decade.

Most local associations will need to deal with the effects, if not the actual occurrence, of reduced enrollments. One of these effects is likely to be reduced flexibility in programs and curriculum as school systems and institutions come under increasing financial constraints. (Taxpayers find it difficult to understand how costs can continue to rise even when enrollments remain stable or fall.)

Another likely effect is lower teacher mobility resulting from fewer vacant teaching positions both inside and outside the local school system or institution. In fact, the percentage of teachers who taught in a different school system the preceding year fell from 6.9 percent in 1966 to 2.5 percent in 1976. This tends to impair teacher morale because there are fewer opportunities to move to more satisfying assignments. This condition is exacerbated by the continuing prediction of an oversupply of persons

seeking jobs normally filled by college graduates, which further limits the opportunities to leave unattractive teaching assignments for outside employment.

Guidelines that every local association should consider in responding to the impact of population changes—whether they bring increases, stabilization, or declines in potential enrollment—are listed below largely in K-12 terms, but the concepts are equally applicable to higher education.

Study local conditions. Keep up-to-date on changes in total population, enrollments in lower grades, total school enrollments, number of births, private school enrollments, and estimates of the potential numbers of high school graduates in your school district and/or institution's primary service area. Well-organized school systems and higher education institutions maintain this information to project their enrollments for support of immediate and long-term planning for budgets and buildings. Studying this local information along with the state and regional estimates summarized in this Research Memo will help the local association assess the pattern of enrollment changes (i.e., likelihood, timing, extent, duration, and levels affected at any point in time).

Guard against regressive attitudes. Be alert to the possibility that stagnation, restriction, regression to lower standards, and insecurity may result from low-growth or negative-growth trends in enrollment-age population. These trends are accompanied by high unemployment and underemployment, significant shifts in other segments of the economy, and severe financial constraints on state and local governments. Also, enrollment growth accompanied by inadequate financial and/or community support can engender these responses. These attitudes cause problems because they affect teachers as well as the general public.

The local association must stimulate positive thinking, point to actions needed to improve the quality of the schools, cite the opportunities afforded by the potentially adequate supply of qualified personnel to alleviate deficiencies in education and other public services, and publicize innovative approaches to solving educational problems.

Increase the effectiveness of association communications. Success in maintaining and improving the quality of education depends on how well teachers and the public are kept informed on local conditions, issues, and desirable alternatives. The local association should disseminate the information needed by members and the public to make the decisions needed to achieve association objectives.

Update goals for improving the quality of schools and of teaching. Because qualified personnel are available to support immediate improvements in most educational services, the local association should review and update its goals for improving the quality of schools and of teaching. Accrediting agencies, leading scholars, professional associations, and learned societies have all issued suggested standards.

The following personnel-related areas may also be ripe for immediate improvements:

Scope of offerings

- Are students who have difficulties in the typical academic classroom offered alternative instructional programs?
- Does the school district offer a sufficient array of vocational, technical, fine arts, and practical studies?
- Are students who have learning handicaps given specialized instruction?
- Are preschool-age children being prepared for an effective response to the first-grade classroom?
- Are the basic literacy needs of the local adult population being met?
- Are the educational needs (vocational and recreational) of the local adult population being met?
- What changes are needed in curriculum, services, teaching practices, etc., to raise the proportion of freshmen staying through to graduation?
- What changes are needed to promote the enrollment of larger proportions of college-age minority group persons now having a below-average rate of college participation?
- Should higher education enrollment opportunities be further enlarged for persons beyond the age of traditional college attendance (i.e., those with some or no college experience and/or those who have graduated from college)?

Student services

- Do certified nonteaching professional personnel screen students who have learning difficulties and advise the school as to how to improve these students' performance?
- Does the school district provide enough counselors, librarians, and health services personnel?

- Do remedial specialists provide individualized instruction for students who require more attention than can be made available in the regular classroom?

Instructional setting

- Are class sizes at levels most conducive to effective instruction?
- Is the teacher work load within reasonable limits for the most effective instruction?

Staff development

- Does the school district provide teachers with enough released time for professional growth (attending professional meetings, visiting those with similar assignments, consulting with supervisory and specialized professional personnel, etc.)?
- Does the school district provide teachers with long-term leave to enroll in advanced or specialized courses, engage in work-related experiences, prepare instructional materials, serve as resource persons in evaluation and planning, participate in college and university evaluations and planning, etc.?
- Does the retirement plan provide teachers with incentives to retire when they reach the age of early or normal retirement?

TABLE 1.–NUMBER OF PERSONS IN SELECTED AGE GROUPS PROJECTED TO THE YEAR 2000

Year (July)	Ages 5-13		Ages 14-17		Ages 5-17		Ages 18-21	
	Number (000)	Percent change	Number (000)	Percent change	Number (000)	Percent change	Number (000)	Percent change
1	2	3	4	5	6	7	8	9
1968	36,804	0.5	15,173	3.0	51,977	1.2	14,529	5.8
1969	36,836	0.1	15,560	2.6	52,396	0.8	14,426	−0.7
1970	36,636	−0.5	15,910	2.2	52,546	0.3	14,707	1.9
1971	36,105	−1.4	16,281	2.3	52,386	−0.3	15,019	2.1
1972	35,458	−1.8	16,557	1.7	52,015	−0.7	15,437	2.8
1973	34,737	−2.0	16,748	1.2	51,485	−0.1	15,795	2.3
1974	34,072	−2.0	16,880	0.8	50,952	−0.1	16,110	2.0
1975	33,440	−1.9	16,934	0.3	50,374	−1.1	16,484	2.3
1976	32,962	−1.4	16,893	−0.2	49,855	−1.0	16,767	1.7
1977	32,227	−2.2	16,783	−0.7	49,010	−1.7	16,956	1.1
1978	31,384	−2.6	16,648	−0.8	48,032	−2.0	17,106	0.9
1979	30,641	−2.4	16,272	−2.3	46,913	−2.3	17,156	0.3
1980	30,197	−1.4	15,763	−3.1	45,960	−2.0	17,117	−0.2
1981	29,804	−1.3	15,219	−3.5	45,023	−2.0	17,018	−0.6
1982	29,543	−0.9	14,656	−3.7	44,199	−1.8	16,874	−0.8
1983	29,334	−0.7	14,309	−2.4	43,643	−1.3	16,499	−2.2
1984	29,175	−0.5	14,261	−0.3	43,436	−0.5	15,989	−3.1
1985	29,098	−0.3	14,392	0.9	43,490	0.1	15,442	−3.4
1986	29,475	1.3	14,295	−0.7	43,770	0.6	14,873	−3.7
1987	30,142	2.3	13,965	−2.3	44,107	0.8	14,521	−2.4
1988	30,945	2.7	13,480	−3.5	44,425	0.7	14,470	−0.4
1989	31,715	2.5	12,996	−3.6	44,711	0.6	14,601	0.9
1990	32,568	2.7	12,771	−1.7	45,339	1.4	14,507	−0.6
1991	33,382	2.5	12,791	0.2	46,173	1.8	14,179	−2.3
1992	34,113	2.2	12,982	1.5	47,095	2.0	13,685	−3.5
1993	34,712	1.8	13,228	1.9	47,940	1.8	13,198	−3.6
1994	35,140	1.2	13,681	3.4	48,821	1.8	12,972	−1.7
1995	35,392	0.7	14,226	4.0	49,618	1.6	12,995	0.2
1996	35,513	0.3	14,778	3.9	50,291	1.4	13,184	1.5
1997	35,531	0.1	15,262	3.3	50,793	1.0	13,432	1.9
1998	35,457	−0.2	15,631	2.4	51,088	0.6	13,887	3.7
1999	35,303	−0.4	15,879	1.6	51,182	0.2	14,435	3.9
2000	35,080	−0.6	16,045	1.0	51,125	−0.1	14,990	3.8

SOURCES:

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1976–2000 U.S. Department of Commerce, Bureau of the Census. *Projections of the Population of the United States: 1977 to 2050.* Current Population Reports, Series P-25, No. 704. Washington, D.C.: Government Printing Office, 1977. 87 pp.

Estimates are as of July 1 of the listed year and include Armed Forces overseas. Projections are Series II.

TABLE 2.—CLASSROOM TEACHERS IN GRADES K-12 AND FULL-TIME FACULTY HAVING RANK OF INSTRUCTOR OR ABOVE IN ALL INSTITUTIONS OF HIGHER EDUCATION, 1970 TO 1988

Year (fall)	Total teachers K-12		Public school teachers, K-12		Higher education faculty*	
	Number (000)	Percent change	Number (000)	Percent change	Number (000)	Percent change
1	2	3	4	5	6	7
1970	2,288	2.1	2,055	2.1	369	5.4
1971	2,293	0.2	2,063	0.4	379	2.7
1972	2,332	1.7	2,103	1.9	380	0.3
1973	2,371	1.7	2,138	1.7	389	2.4
1974	2,404	1.4	2,165	1.3	406	4.4
1975	2,444	1.7	2,196	1.4	440	8.4
1976	2,449	0.2	2,186	−0.5	434	−1.4
1977	2,470	0.9	2,209	1.1	447	3.0
1978	2,460	−0.4	2,199	−0.5	445	−0.4
1979	2,437	−0.9	2,169	−1.4	451	1.3
1980	2,413	−1.0	2,141	−1.3	453	0.4
1981	2,386	−1.1	2,114	−1.3	454	0.2
1982	2,357	−1.3	2,091	−1.1	452	−0.4
1983	2,360	0.1	2,084	−0.3	447	−1.1
1984	2,370	0.4	2,090	0.3	440	−1.6
1985	2,393	1.0	2,108	0.9	432	−1.8
1986	2,426	1.4	2,135	1.3	424	−1.9
1987	2,463	1.5	2,164	1.4	419	−1.2
1988	2,501	1.5	2,194	1.4	416	−0.7

SOURCE.

U.S. Department of Health, Education, and Welfare, Office of Education, National Center for Education Statistics. *Projections of Education Statistics to 1988-89* Washington, D.C.: Government Printing Office. For 1979 and subsequent years intermediate alternative projections are listed.

*Includes full-time instructional staff with rank of instructor or above in all institutions of higher education.

TABLE 3.—TRENDS IN THE NUMBER OF LIVE BIRTHS AND IN THE AGE 5-17 POPULATION

State and region	Live births, 1980			Population aged 5-17 in 1979		Projected high school graduates in 1989	
	Number	Percent change from 1975	Percent change from 1970	Number (000)	Percent change from 1974	Number	Percent change from 1979
1	2	3	4	5	6	7	8
NEW ENGLAND	157,319	5.8	-21.5	2,574	-11.3	126,969	-22.4
Connecticut	34,069	4 5	-31 7	645	-12 5	28,528	-26 9
Maine	16,095	9 0	-8 2	241	-6.6	14,057	-9.9
Massachusetts	73,355	5.2	-23 6	1,193	-13,0	58,647	-25 5
New Hampshire	13,648	23 3	70	193	-2.5	11,655	-1 3
Rhode Island	12,512	14 2	-22 7	193	-9,2	8,103	-30 1
Vermont	7,640	18 7	5 4	109	6 0	5,979	12 9
MIDEAST	564,226	2.5	-22.1	8,753	-12.1	393,237	-27.2
Delaware	9,544	13 4	-6 7	125	-13 2	6,683	-32 0
District of Columbia	13,835	-9.8	-28.2	129	-14.6	3,280	42 3
Maryland	52,284	14 1	-13 9	893	-13 0	50,056	-19 4
New Jersey	91,047	2 3	-21 7	1,548	-11.6	73,485	24 7
New York	232,491	-2 2	-27 1	3,663	-11 8	144,700	31 0
Pennsylvania	161,025	7 4	16.6	2,395	12.3	115,033	25 9
SOUTHEAST	827,845	13.1	-0.2	10,758	-5.4	557,296	-6.7
Alabama	62,814	9 2	-6.6	841	-5 4	44,113	7.0
Arkansas	36,863	9 6	6 4	471	-4 5	27,437	-2 5
Florida	131,923	25.5	15 9	1,660	-5 4	84,821	-4 7
Georgia	95,980	17 8	0 1	1,160	-5 1	60,293	6 7
Kentucky	60,778	8 6	0 4	770	-5 6	37,941	10 2
Louisiana	79,202	16 2	9 5	952	-5 5	46,851	-1 6
Mississippi	47,538	9 5	-0 3	591	-4.2	24,754	-12 1
North Carolina	85,123	5 3	-13 8	1,214	-5.8	64,656	-10 1
South Carolina	49,805	10 3	-2 1	672	-4 7	36,977	-2 3
Tennessee	73,500	11 8	-2.9	933	-4 5	48,311	-0 2
Virginia	75,042	11 4	-8 0	1,097	-7 7	59,615	-12 6
West Virginia	29,277	5 0	-0 6	397	-3 9	21,527	8 7
GREAT LAKES	661,320	9.1	-11.8	9,079	-10.5	450,963	-21.2
Illinois	186,578	11 8	-8 2	2,426	-10 2	106,777	-23 3
Indiana	87,906	6.6	-9 5	1,201	-8 9	65,178	-16 9
Michigan	143,007	7 7	-15 8	2,086	-10.4	104,156	-21 1
Ohio	169,359	6 6	-16 5	2,339	-11.1	120,670	-20 4
Wisconsin	74,470	14 6	-3 4	1,027	-11 5	54,182	-24 0
PLAINS	289,654	16.8	-0.7	3,613	-10.9	199,048	-21.6
Iowa	48,050	15 0	-2 7	619	-11 8	33,219	-24 7
Kansas	39,330	21 5	-8 6	475	-10 0	25,318	-20.1
Minnesota	68,848	21 3	-0 5	883	-11 5	51,676	-24 1
Missouri	79,623	12.5	-5 5	1,009	-10 0	63,787	-16.9
Nebraska	27,851	16 5	-6 2	333	-10 7	18,881	-19 6
North Dakota	12,939	14 8	12 2	144	-11 7	7,788	-27 3
South Dakota	13,013	16 9	12 3	150	-12.3	8,379	-25 0
SOUTHWEST	395,232	21.1	19.9	4,397	-0.9	267,796	-3.5
Arizona	50,173	27 3	-34 5	538	-0 7	30,982	-6 8
New Mexico	25,661	23 1	-17 3	294	-4 5	14,975	-20 9
Oklahoma	50,681	22.7	-16 7	594	-3 7	38,018	-4 3
Texas	268,717	19 6	-18 3	2,971		183,821	-7,6
ROCKY MOUNTAIN	136,949	27.6	33.1	1,387	-1.6	91,770	-2.6
Colorado	50,279	23 8	-17 6	583	-5 0	36,267	-2 7
Idaho	19,495	22 9	-40 3	203	0 0	14,151	-5 7
Montana	13,928	17 9	-12 0	173	-8 5	10,408	-13 3
Utah	43,708	34 9	-59 3	331	-5 8	23,644	-14 4
Wyoming	9,539	-44.8	-50 6	97	-7 8	7,300	-19 6
FAR WEST	554,387	27.6	-12.2	6,360	-4.7	322,724	-12.5
Alaska	9,368	26 7	-26 5	103	-6 2	5,441	-0 7
California	401,616	26.5	-10 3	4,583	-5 7	220,142	-15 6
Hawaii	18,277	16 0	-10.2	198	-5 3	9,712	-15 3
Nevada	13,156	48 8	-45 9	152	-6 3	9,494	-8 3
Oregon	43,998	28 2	-21 7	509	-2 7	29,943	-2.9
Washington	67,972	34 8	-11.4	815	-3 1	47,992	-6.9
50 states and D C	3,586,932	13 7	-3.5	46,921	-7 9	2,409,803	-15.3

SOURCES

U S Department of Health, Education, and Welfare. Public Health Service. National Center for Health Statistics "Births, Marriages, Divorces, and Deaths for 1979." *Monthly Vital Statistics Report* 28 12: March 14, 1980

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U S Department of Commerce, Bureau of the Census *Estimates of the Population of States, by Age July 1, 1971 to 1977* Current Population Reports, Series P-25, No 734, Washington, D.C : Government Printing Office, November 1978, 19 pp.

Estimates of the Population of States, by Age July 1, 1971 to 1979. Current Population Reports, Series P-25, No 875 January 1980, 14 pp.

Western Interstate Commission for Higher Education *High School Graduates, Projections for the Fifty States* Boulder, Colorado, November 1979 39 pp

*Less than 0.1 percent.

TABLE 4.-PROJECTED POPULATION AGE 5-14 AND 15-24 FOR 1980 WITH PERCENT CHANGE FROM 1975 TO 1980 AND FROM 1975 TO 1985

State and region	Population age 5-14			Population age 15-24		
	Projected 1980			Projected 1980		
	Number (thousands)	Percent change from 1975	Percent change from 1975 to projected 1985	Number (thousands)	Percent change from 1975	Percent change from 1975 to projected 1985
1	2	3	4	5	6	7
NEW ENGLAND	1,846.2	-14.4	-20.2	2,341.4	4.5	-2.4
Connecticut	452	-17.6	-25.4	574.2	2.9	-6.0
Maine	174	-9 2	-11.5	204.0	5.6	0.2
Massachusetts	861.3	-15.3	-21 7	1,141.7	5.1	-1.9
New Hampshire	135.1	-9.2	-11 6	158.5	8.3	5 1
Rhode Island	144.0	-10.2	-14.2	171 8	1.8	-2 3
Vermont	78.4	-10.8	-14.4	91.2	2.6	-3.0
MIDEAST	6,310.1	-14.5	-21.1	7,677.4	-1.5	-7.1
Delaware	91.9	-13.6	-17.3	119.6	4.2	-5.3
District of Columbia	95.6	-13.9	-22.8	138.1	0.6	-9 0
Maryland	664.1	-12.8	-16.9	856.8	7 7	2.3
New Jersey	1126 8	-13 4	-18.7	1,318.0	4 4	-2.7
New York	2,626.7	-15 1	-22.9	3,178.7	1.1	-7.4
Pennsylvania	1,705 0	-14 9	-21.5	2,066.2	-1.9	-13 0
SOUTHEAST	7,952.5	-5.7	-6.2	9,458.4	4.8	-0.3
Alabama	603.4	-8.1	-10 5	694.7	1.3	-7 3
Arkansas	348.1	-5.9	-6.7	386.1	3 2	-3.6
Florida	1,297.0	0.1	5.5	1,625.7	15.4	14 8
Georgia	886.0	-3 3	-3 2	1,008.5	6.1	6.3
Kentucky	560.2	-7 2	-8.3	661.8	2.9	-4.4
Louisiana	671.6	-10 0	-13 8	776	1.9	-6.2
Mississippi	425.5	-6.2	-8 0	463.4	1.0	-7.5
North Carolina	907	-5.7	-7 3	1,091.3	2.2	-2.9
South Carolina	501.9	-4.4	-4.2	595.5	2.6	-2.3
Tennessee	667.4	-7.8	-10.1	785.7	2.1	-5
Virginia	801.4	-8.8	-10 4	1,068.1	6.2	0.8
West Virginia	282.5	-6.8	-9.5	301.2	-4 4	-13.7
GREAT LAKES	6,486.6	-13.1	-17.9	7,811.7	0.3	-10.0
Illinois	1,741.0	-12.6	-16.7	2,114.0	1.9	-8.4
Indiana	854.2	-12.2	-16 8	1,004.7	-0 3	-10 1
Michigan	1,497.8	-12 7	-17 4	1,785.9	-0 2	-10.1
Ohio	1,671.3	-13.4	-18.8	1,983.7	-2.4	-13.7
Wisconsin	722.3	-15.5	-20.6	924.0	4.1	-5.1
PLAINS	2,541.8	-14.0	-17.9	3,216.0	1.3	-9.6
Iowa	435.0	-15.3	-21 1	527.1	0	-10.5
Kansas	335.4	-12.5	-15.6	435.9	-0.9	-11.8
Minnesota	615.3	-16.1	-21.2	786.3	2.5	-8.0
Missouri	712.5	-12.7	-15.7	898.0	1.9	-9.0
Nebraska	238.6	-12.0	-13.6	305.3	3.3	-6.8
North Dakota	99.2	-14.3	-17.1	130.8	0.8	-12.6
South Dakota	105.8	-13.6	-16 2	132.6	-1.3	-15.2
SOUTHWEST	3,212.1	-3.1	-0.5	3,746.9	6.2	1.3
Arizona	417.5	8.4	10.8	482.5	14.5	14.4
New Mexico	212.8	-6 6	-5.2	255.8	9.0	1 5
Oklahoma	428.8	-5 4	-4.4	506.7	1.9	-5.6
Texas	2,153.0	-3.5	-1.3	501.9	5.3	0.5
ROCKY MOUNTAIN	1,014.8	-2.8	0.3	1,248.4	8.0	2.6
Colorado	428.5	-5.3	-2.6	578.0	10.1	5.3
Idaho	149.2	-1.0	2.2	165.9	6.3	1.6
Montana	122.6	-10.0	-10.1	151.1	4.2	-6.3
Utah	250.3	5.4	11.9	275.0	7.1	3.4
Wyoming	64.2	-4.9	-4.0	78.4	7.1	0.3
FAR WEST	4,531.7	-9.0	-10.3	5,734.5	4.9	-1.1
Alaska	77.4	-0.1	2.7	102.3	20.4	21.4
California	3,281.1	-9.5	-10.8	4,200.4	4.6	-1.6
Hawaii	147.5	-5.5	-4.4	202.1	29.5	24.0
Nevada	105.8	-2.4	-1.3	124.9	17 3	18.1
Oregon	361.2	-6.7	-6.8	427.1	1 8	-4.3
Washington	558.7	-10.9	-14.0	677.7	-0.9	-8.1
50 states and D.C.	33,895.8	-10.2	-13.0	41,234.7	3.2	-4.2

SOURCE:
U.S. Department of Commerce, Bureau of the Census. *Illustrative Projections of State Populations by Age, Race, and Sex: 1975 to 2000.* Current Population Reports, Series P-25, No. 796. Washington, D.C., Government Printing Office, 1979. Series II-B projections are listed, these incorporate the 1970-75 interstate migration trends.