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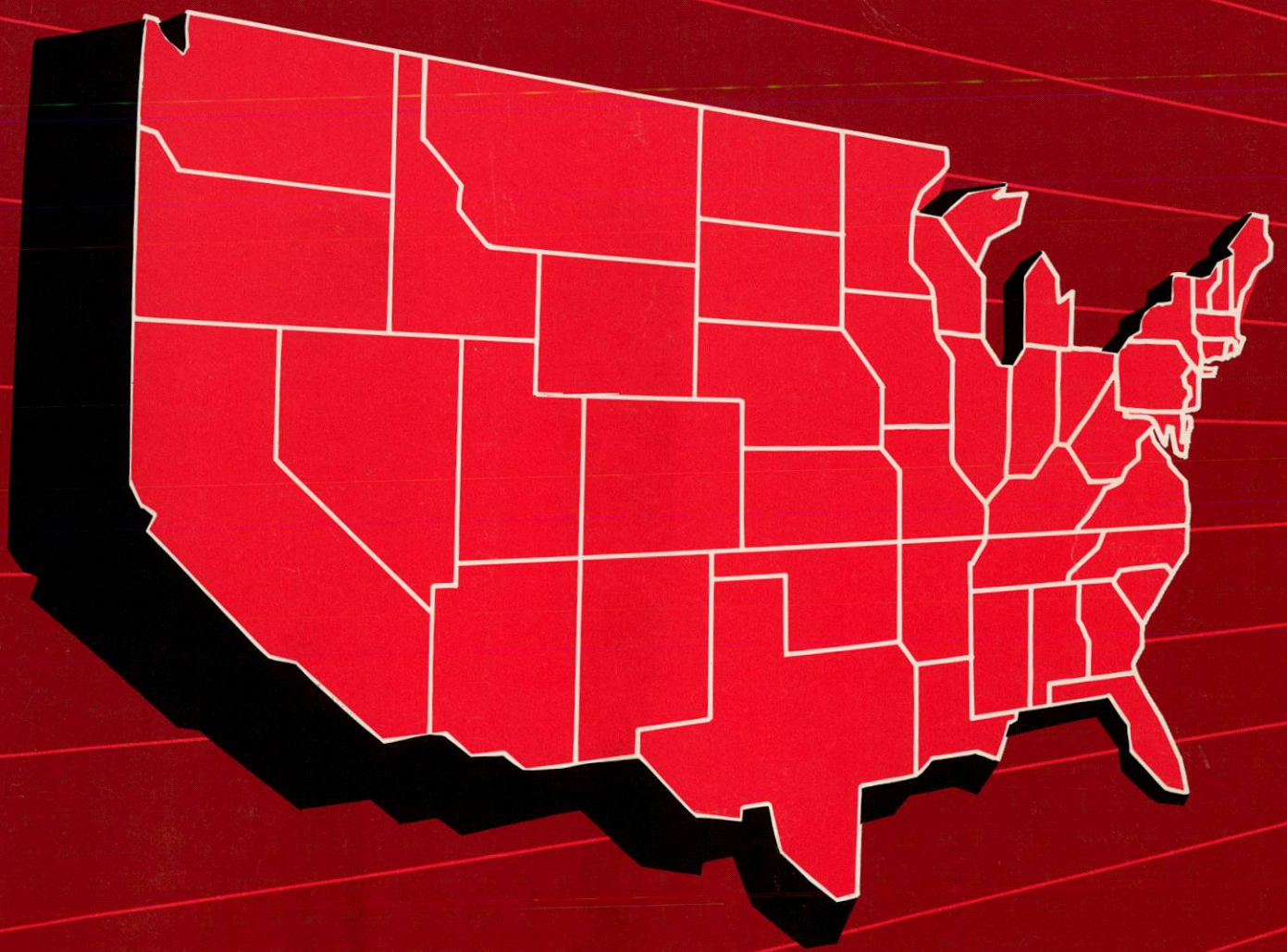
High School Graduates: Projections for the Fifty States

(1982-2000)



—a joint publication of—

Western Interstate Commission for Higher Education

Teachers Insurance and Annuity Association

The College Board

High School Graduates: Projections for the Fifty States
(1982-2000)

By
William R. McConnell
Norman Kaufman

JAN 20 1984

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WICHE Western Interstate Commission for Higher Education

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The College Board

WICHE, the Western Interstate Commission for Higher Education, is a nonprofit regional organization. It helps the thirteen member states to work together to provide high-quality, cost-effective programs to meet the education and manpower needs of the West. Member states are Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming. Through its Information Clearinghouse, WICHE provides information to assist higher education and governmental policy makers in the West.

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Foreword

This report provides new information to the higher education community as it addresses the uncertainties surrounding enrollment planning during the next fifteen years or so. The "roller coaster" pattern in the numbers of high school graduates in all the states poses difficult problems for institutional and statewide planners as they seek rational, consistent policies to deal with recruitment, financing, capital improvements, curriculum development, and other critical issues. Although the high school graduate population represents only one segment of the total student body in our colleges and universities, it traditionally has been a principal source of enrollments. For this reason alone, reliable projections of demographic changes are significant data for those charged with responsibility for making decisions about the future of postsecondary education.

These projections of high school graduates have been updated, refined, and expanded from those developed in 1979 by William R. McConnell, a senior program director at the Western Interstate Commission for Higher Education (WICHE). He had almost completed work on the new projections at the time of his death in July 1983. This publication stands as a memorial to his many contributions to higher education planning and resource sharing, especially in the western region.

Norman Kaufman, director of WICHE's Information Clearinghouse, completed McConnell's work on the projections and prepared the narrative analysis. Louise Lawrence, administrative secretary in the Student Exchange Program, provided able assistance to both men in compiling the historical data and presenting the projections in various formats.

WICHE gratefully acknowledges the enthusiastic support of its co-publishers, the College Board and the Teachers Insurance and Annuity Association, and the additional financial assistance of the Lilly Endowment, Inc. They are among the increasing number of organizations to recognize the importance of identifying and understanding demographic patterns of high school graduates who continue to comprise the primary clientele of most colleges and universities.

WICHE also expresses its appreciation to the many individuals in state agencies and educational organizations who supplied data, answered questions, and commented on compilations and projections.

Boulder, Colorado
December 1983

Phillip Sirotkin
Executive Director
Western Interstate Commission
for Higher Education

Introduction

The publication in 1979 of *High School Graduates: Projections for the Fifty States* provided the first comprehensive examination of the effects of declining birth rates and interstate migration on the numbers of public high school graduates in the fifty states. Although the higher education community was aware of the dimensions of the overall downturn in births, little was known, at the time, about how those effects would differ by state and region. The 1979 report provided valuable information for higher education planning because it translated demographic trends—births and interstate migration—into tangible measures directly related to college enrollments, namely, high school graduates. While many institutions serve large numbers of adults, returning students, and citizens of other countries, the curricular and recruitment efforts of an overwhelming number of institutions are oriented toward serving this traditional college-age clientele (i.e., 18-21 year olds).

This updated and expanded report provides new information for planners at colleges and universities, as well as for individuals concerned with state or local policies regarding higher education. The projections of high school graduates by state, region, or nation gives the planner or analyst a glimpse—albeit a fairly simple and quantitative one—of the trends that will affect student demand for a college education. In the past, it was relatively easy to extrapolate college enrollment rates and to apply them to successive cohorts of recent high school graduates (or the population aged 18-19 years) and to project college enrollments from the calculations. Today such projections must be more sophisticated, but they still rely on high school graduates as a major component. Thus, the projections presented in this report serve to focus attention both on policy concerns and on practical matters of student recruitment.

The projections in this report are based on the methods devised in the 1979 study. Data on grade-by-grade school enrollments and graduates were provided by the education agency in each state. The projections were made by the authors based on a careful analysis of the trends in each state. The methodology is described in a later section of the report. These projections cover both public and nonpublic graduates for twenty-two states and only public graduates for twenty-eight states and the District of Columbia.

Projections, including those presented here, are not predictions. They are, at root, contingent statements about the future. These statements are based on assumptions about net migration, grade-to-grade student progression, and retention from grade twelve through to graduation. Any changes in the assumptions about these factors will result in changes in the projected numbers of graduates. Likewise, differences between the projections and actual occurrences can be traced to differences between the assumptions made about the future and the actual experience. The reader should attempt to compare these projections with actual data on the numbers of high school graduates in future years.

The Western Interstate Commission for Higher Education will maintain a database of historical data and will attempt to issue occasional reports on or updates of the projections presented in this report. Copies of each state's historical data, projection table, and a line graph of the projections are available from WICHE. A compendium, which includes data on public and private enrollments (where they are available), is available for each of the four regions. Each regional compendium is available at a cost of $15 (postpaid) and includes separate tables on all of the states in that region. Please specify the region or regions desired. A complete set of four compendiums is available for $50. Data for individual states are available at a cost of $2 per state. Complete copies of the data are available on diskette for an IBM Personal Computer and may be obtained by special arrangement.

Projections of High School Graduates for the Fifty States and the District of Columbia

The projections of high school graduates presented here for each of the fifty states and the District of Columbia cover the period 1982 through 1999 or 2000 (depending on the availability of data on resident live births for 1982). The projections for twenty-two states are based on the combined numbers of graduates of public and nonpublic schools. The projections for the remaining twenty-eight states and the District of Columbia are for public high school graduates only, because reliable, consistent data on nonpublic enrollments and graduates were unavailable for those states. Table 1 lists the basis for the projections by state.

Readers attempting to compare the actual numbers of graduates projected in this study with the numbers projected in the earlier (1979) study should note the basis of the projections—public schools only or combined public and nonpublic schools—in the two studies. The authors attempted to obtain and use consistent and comparable data on public and nonpublic school enrollments and graduates, but found that the data on the latter were not available in a majority of states. Combined public and nonpublic data were used as a basis for projections when they were available because data on public graduates only do not always reflect changes in the birthrate, net migration, or shifts to nonpublic schools. For states in which data on public enrollments only are availiable, shifts to or from nonpublic schools are indistinguishable from migration.

Overview

There are notable similarities among most of the states in some regions and notable contrasts among the various regions. For this reason, the discussion will proceed from general regional comparisons to more detailed state differences. With only a few exceptions noted later, the projections follow a common pattern:

- a decrease from the 1981 level to a low point in the 1984-87 period;
- an increase, in some cases very slight, to 1988 or 1989;
- a decrease to another low point in the 1990-94 period;
- for some states, an increase to the year 1999 or 2000, the last year of the projection; for others, an increase followed by a period of leveling off to the year 1999 or 2000.

These differences among states and regions in the period 1995-2000 result largely from differences in births between 1977 and 1982. Figures 1 and 2 show these patterns for the United States and for the four regions listed in Table 2. States are grouped into the Northeast, North-central, Southeast-Southcentral, and Western regions. These groupings follow the 1979 report, which revealed within-region similarities in the patterns of projected graduates. Nevertheless, there still are considerable within-region variations.

Table 1

Basis for Projections of High School Graduates

Combined Public and Nonpublic Graduates	Public Graduates Only
California	Alabama
Connecticut	Alaska
Delaware	Arizona
Florida	Arkansas
Hawaii	Colorado
Illinois	District of Columbia
Indiana	Georgia
Kentucky	Idaho
Louisiana	Iowa
Maryland	Kansas
Minnesota	Maine
Nebraska	Massachusetts
Nevada	Michigan
New Mexico	Mississippi
New York	Missouri
North Dakota	Montana
Ohio	New Hampshire
Pennsylvania	New Jersey
South Carolina	North Carolina
Washington	Oklahoma
West Virginia	Oregon
Wisconsin	Rhode Island
	South Dakota
	Tennessee
	Texas
	Utah
	Vermont
	Virginia
	Wyoming

Figures 3-6 show the pattern for each state in terms of the percentage change from the 1981 actual number of graduates. Each region's display also shows the nationwide pattern, which is based on the sum of the state totals, and the pattern for each region.

Every state and region shows a decrease in projected high school graduates between 1981 and some point in the 1984-87 period. For the District of Columbia, this point occurs in 1989. Most of the decreases are in the range of 10-20 percent and nearly one-fifth of the states are projected to experience declines greater than 20 percent. Several states in the West and Southeast-Southcentral regions are projected to experience declines of less than 10 percent in the 1984-87 period. In addition, these states will reach their low point earlier, in 1984 or 1985.

The projections for all states show a brief rebound in 1988 or 1989. In the West and Southeast-Southcentral regions, the number of high school graduates will approach the 1981 level. The 1988

Table 2

States Included in Each Region

Northeast Region	Northcentral Region
Connecticut	Illinois
Delaware	Indiana
District of Columbia	Iowa
Maine	Kansas
Maryland	Michigan
Massachusetts	Minnesota
New Hampshire	Missouri
New Jersey	Nebraska
New York	North Dakota
Pennsylvania	Ohio
Rhode Island	South Dakota
Vermont	Wisconsin
Southeast-Southcentral Region	**Western Region**
Alabama	Alaska
Arkansas	Arizona
Florida	California
Georgia	Colorado
Kentucky	Hawaii
Louisiana	Idaho
Mississippi	Montana
North Carolina	Nevada
Oklahoma	New Mexico
South Carolina	Oregon
Tennessee	Utah
Texas	Washington
Virginia	Wyoming
West Virginia	

Figure 1

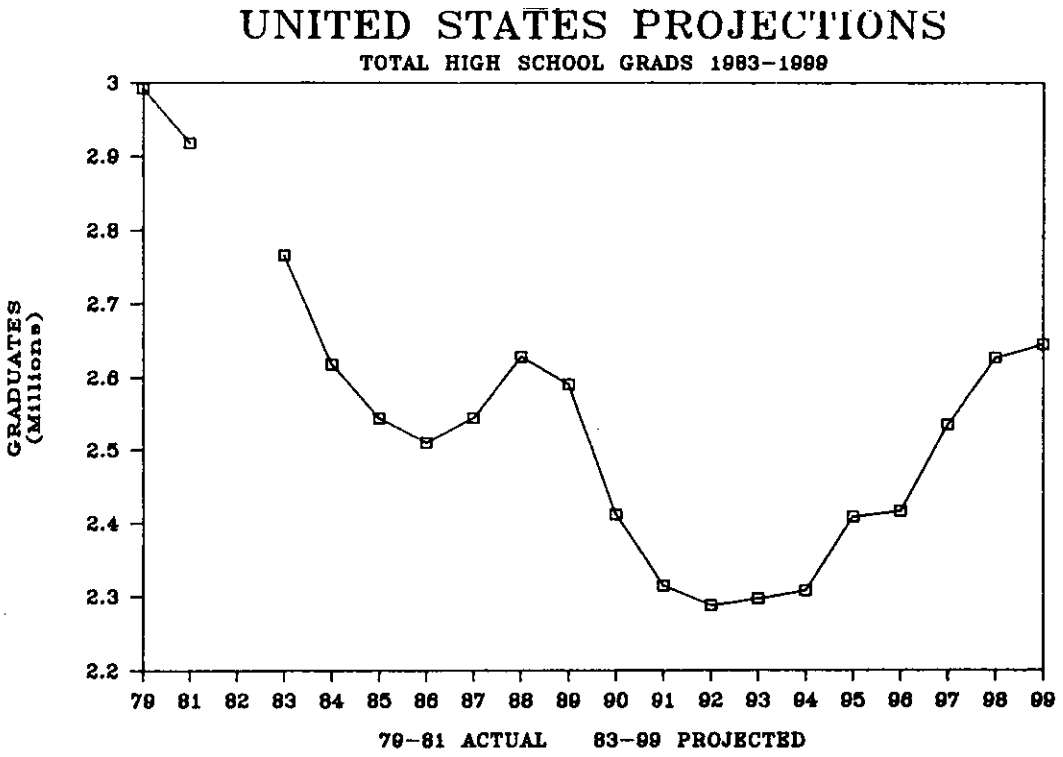
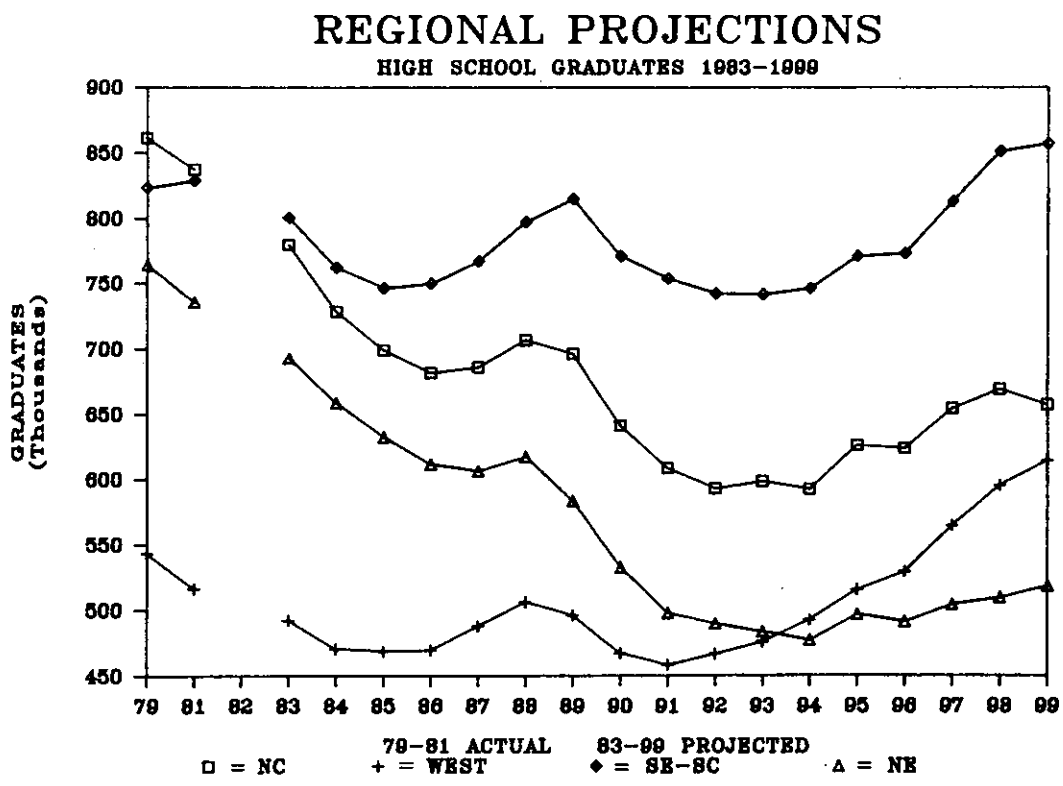


Figure 2



or 1989 projections for several states in both regions exceed the actual 1981 figures. Both the Northeast and Northcentral regions show weaker recoveries in the 1988-1989 period than the other two regions. The numbers of graduates in both regions are projected to fall 16 percent below the 1981 level, up slightly from their low points in 1986 and 1987. Again, there are noticeable differences among states, ranging from 3 percent below the 1981 total in Vermont to −42 percent in the District of Columbia. (See Figures 3-6.)

The period from 1990 to 1994 marks the low point for all four regions. The Northeast (Figure 3) reaches a 1994 low that is 35 percent below the 1981 level. The projected low point nationally comes in 1992, some 22 percent below the 1981 level. The range of low points in the Northeast region extends from −22 percent in Vermont in 1993 to −49 percent in the District of Columbia in 1994.

The Northcentral region (Figure 4) also reaches a low point in 1994, 29 percent below the number of graduates in 1981. Several states reach their lowest points earlier: Nebraska in 1990, South Dakota in 1991, and five states in 1992. Projected declines in the 1990-1994 period range from 21 percent below 1981 in Kansas to −37 percent in Michigan.

The low points in the West and the Southeast-Southcentral regions are projected to occur in 1991 and 1993, respectively. Both regions should experience lows that are about 11 percent below their 1981 levels. There will be considerable variations among the states in each of these two regions. With the exception of Texas, Oklahoma, and Florida, the projected lows for states in the Southeast-Southcentral region (Figure 5) are considerably below the lows reached in the 1984-87 period. In Texas, Oklahoma, and Florida, the downturns are less pronounced, and in Texas the 1991 low point is still 6 percent above 1981. A similar pattern emerges in the West (Figure 6), where Alaska, Utah, and Wyoming are projected to increase rather steadily their number of graduates above the 1981 level and where the low points of the early 1990's downturn in Idaho and Nevada will be higher than the low points in the 1984-87 period. The Western region's 1991 low point occurs the earliest of the four regions.

All four regions are projected to recover from their 1991-1994 low points, but at differing rates. By 1998, the Northcentral region is expected to have recovered to a level 20 percent below 1981, only to slip back to 22 percent below in 1999. Individual states show differing patterns, due to variations in their patterns of births in the period 1976 to 1982. In Kansas and North Dakota, for example, projected graduates for 2000 are, respectively, only 4 percent and 7 percent below their 1981 levels. In contrast, projections for Indiana in 2000 are 26 percent below 1981, up 2 percentage points from 1992.

Most of the states in the Northeast are projected to experience only a slight recovery through 1999. The region as a whole is projected to see a 1999 level of high school graduates that is 30 percent below the actual level in 1981. Only Vermont and the District of Columbia vary greatly from the pattern, with Vermont projected to experience a sharp increase in graduates and the federal district projected to post further declines.

The Southeast-Southcentral region is projected to increase from its 1993 low to a 1999 level that is 3 percent above 1981. However, only Florida, Louisiana, Oklahoma, and Texas are projected to exceed their respective 1981 numbers of graduates, while the remaining states will stay below their 1981 levels. West Virginia will continue its decline through the year 2000.

The West will see the sharpest upturn in the projected numbers of high school graduates. By 1999, the region is projected to exceed its 1981 level by 19 percent. Alaska, Arizona, Colorado, Idaho, Nevada, Utah, and Wyoming are projected to experience greater than average gains. Only Hawaii and Montana are projected to see their numbers of high school graduates remain below their 1981 levels.

These variations among states and regions, as well as within regions, are important to educational planning. Based on experience gained from the 1979 study, the overall trends and patterns depicted in the projections are expected to be sufficiently close to actual experience for many planning purposes although precise year-to-year percentage changes or absolute numbers of graduates will deviate from the projections.

This suggests that the policies and practices employed by states and by institutions to deal with the initial 1984-1987 downturn should vary in type as well as in degree of comprehensiveness.

In the absence of long-range projections, which establish basic trends, the somewhat cyclical pattern of ups and downs could be misinterpreted and lead to the selection of inappropriate policies or responses.

Racial and Ethnic Minorities

One of the original aims of this study was to project separately the numbers of high school graduates in racial and ethnic minority groups. A lack of data in most states makes this type of analysis and projection impossible. A limited analysis of enrollments and grade progression in several states tends to corroborate the findings of other studies that reveal high rates of attrition for minorities in secondary schools. Efforts to improve these retention rates for minorities will undoubtedly affect the overall rates of graduation projected in this study.

Underlying Factors

The principal factors underlying the patterns of projected high school graduates are the historical pattern of annual births in each state, interstate migration—past and projected for the future—and the rates of persistence of students in the later years of high school.

Births. The annual numbers of births in each state establish a basic pattern for the relative sizes of successive age groups in the population. The effects of this pattern on the population over time will be modified by other factors, especially migration. However, only very heavy net in-migration or out-migration over time is likely to alter significantly the basic pattern of increases or decreases in age-group sizes, which were established by the pattern of births.

Figure 7 shows the pattern of annual births from 1970 to 1981 for each of the four regions and for the nationwide sum of the regions. With 1970 as the base year of 1.000, the divergence of the regional lines is striking. Although all four regions experienced an upswing in the numbers of births from 1976 on, the upswing in the Western region began earlier (1972) and did not decline in 1980-1981, as did the other regions. This general upswing in births is reflected in the increases in the numbers of high school graduates after 1995.

Migration. Interstate migration affects the projections in two ways. As noted earlier, sustained net migration (either in or out) generally will be reflected in an increase or decrease in the annual number of births. These changes, in turn, are reflected in first-grade enrollments six years later. Heavy migration will also affect enrollments in the primary grades and is noted in the grade-to-grade progression data for grades two through six. For most states, the projections incorporate slight adjustments for migration but do not alter significantly the magnitude or direction of most state-by-state projections. For several states, however, the magnitude of net in-migration or out-migration appears to contribute to the net increase or decrease in the numbers of high school graduates. Illinois, Indiana, and Michigan, for example, appear to be so affected by net out-migration that their projections of high school graduates could not be projected from the pattern of births alone. Similarly, the following eight states—all in the West or South—appear to have experienced heavy net in-migration, which further influences their patterns of grade-to-grade enrollment changes: Alaska, Arizona, Florida, Georgia, Nevada, Oklahoma, Texas, and Wyoming.

Another way to infer the effects of migration is to compare enrollments in grades 2-5 for a given year with enrollments in grades 3-6 in the following year. If net migration were zero, one would expect enrollments in grades 3-6 to be only slightly lower than the previous year's total

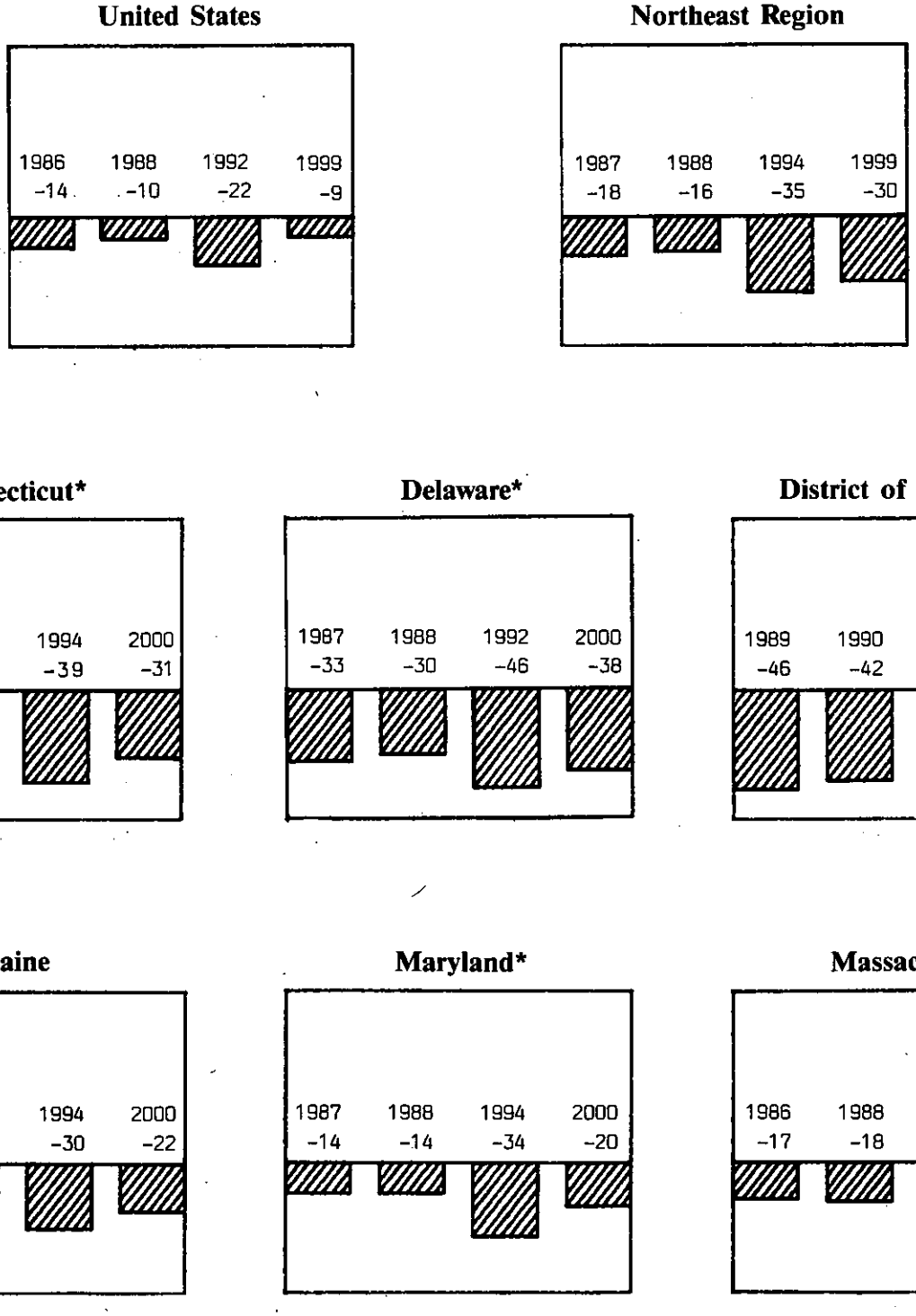
for grades 2-5 (because of non-promotions and mortality, which is negligible). It is beyond the scope of the current project to quantify explicitly this inferred measure of migration, although the raw grade-by-grade enrollment data necessary to do so for each state are available from WICHE upon request.

Persistence in High School. During the later high school years, there almost always will be a substantial decrease in the enrollment of a given cohort as it moves from tenth grade through to graduation from high school. In most states, the proportion of graduates to tenth graders is approximately 70-75 percent, largely attributed to dropouts once the age of compulsory attendance is passed. Any significant deviations from these historical ratios will cause the projections to vary from the actual numbers of graduates in future years.

Figure 3

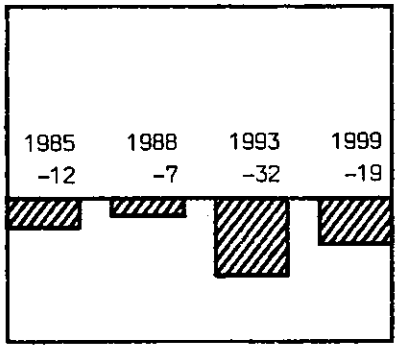
Pattern of Projected High School Graduates 1981 - 2000, Northeast States

Percentage Change from 1981

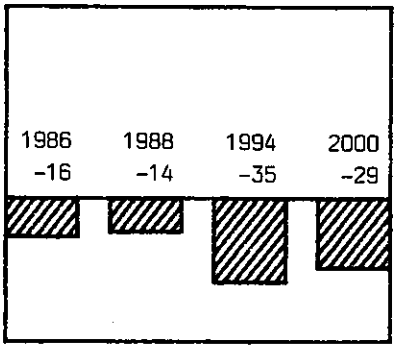


*Includes nonpublic schools

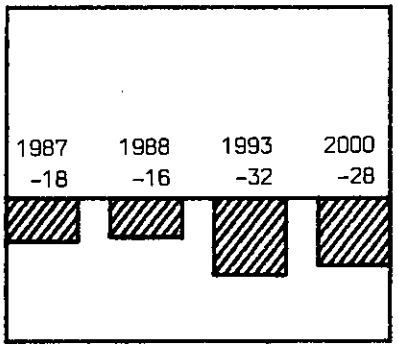
New Hampshire



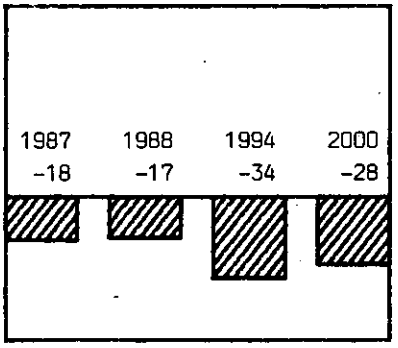
New Jersey



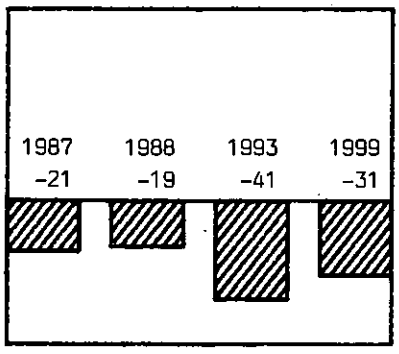
New York*



Pennsylvania*



Rhode Island



Vermont

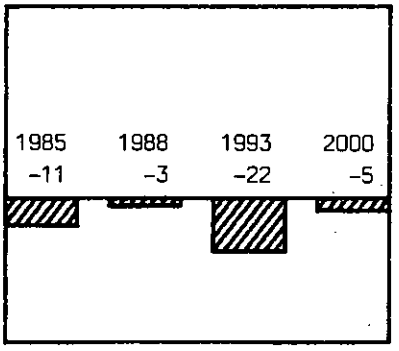
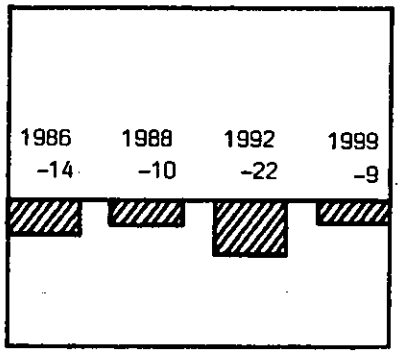


Figure 4

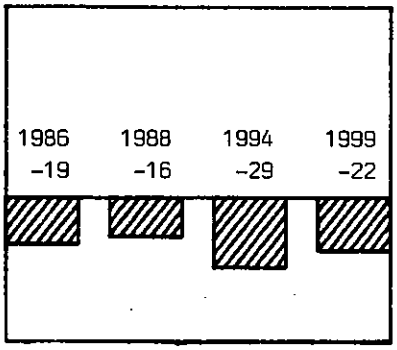
Pattern of Projected High School Graduates 1981 - 2000, Northcentral States

Percentage Change from 1981

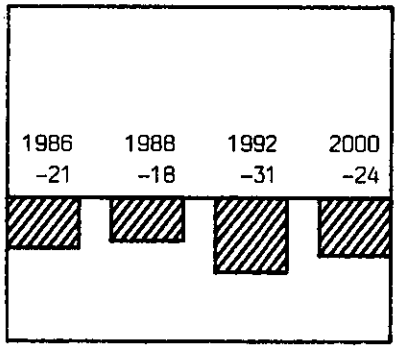
United States



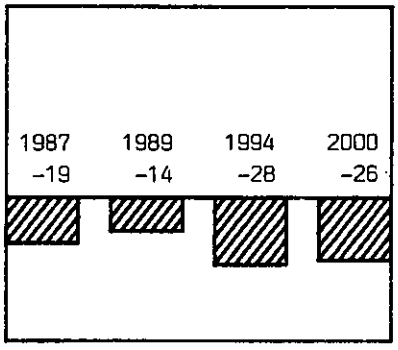
Northcentral Region



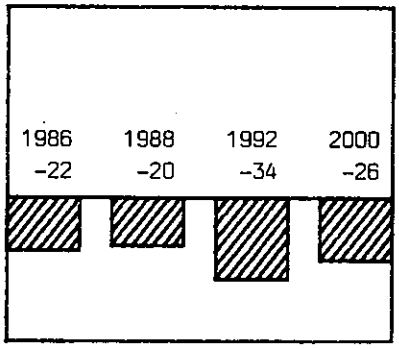
Illinois*



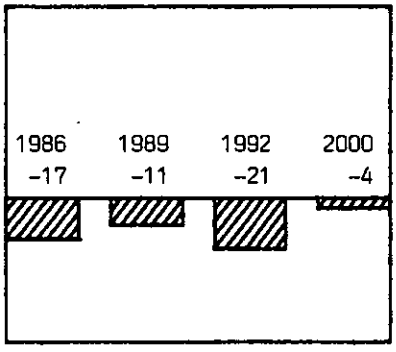
Indiana*



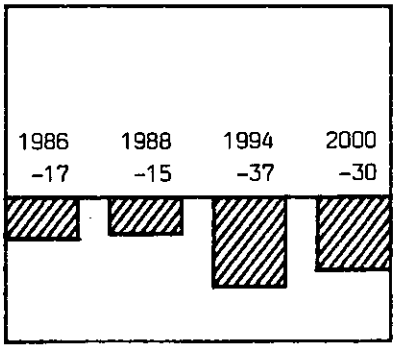
Iowa



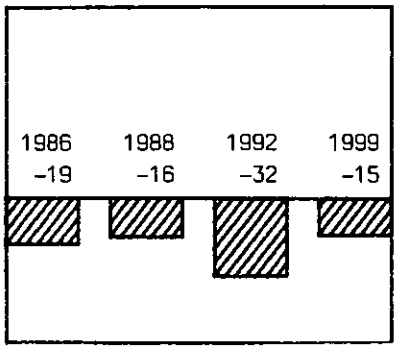
Kansas



Michigan

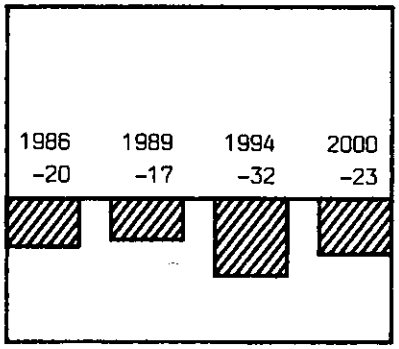


Minnesota*

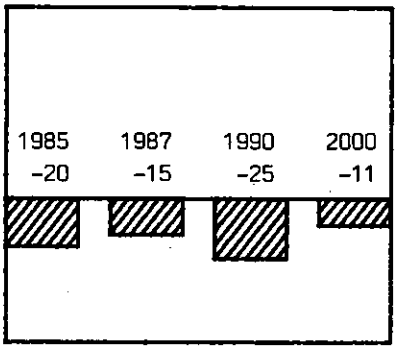


*Includes nonpublic schools

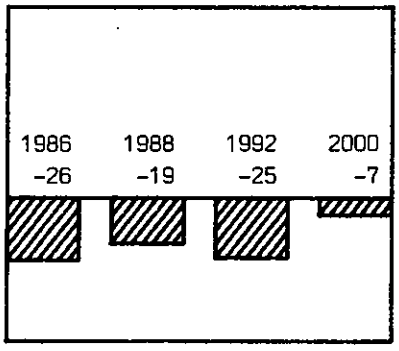
Missouri



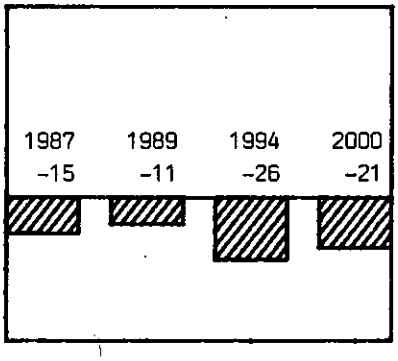
Nebraska*



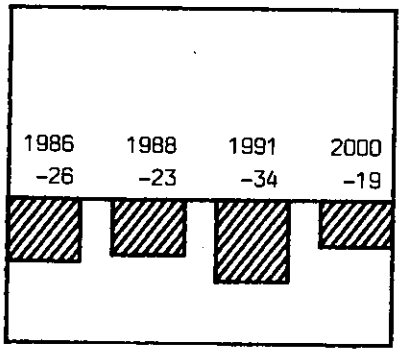
North Dakota*



Ohio*



South Dakota



Wisconsin*

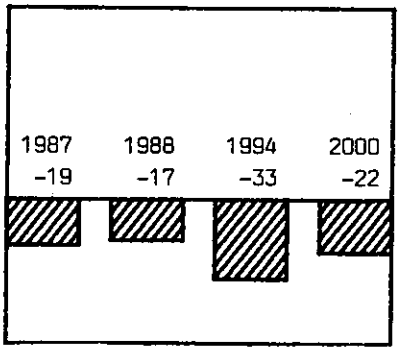
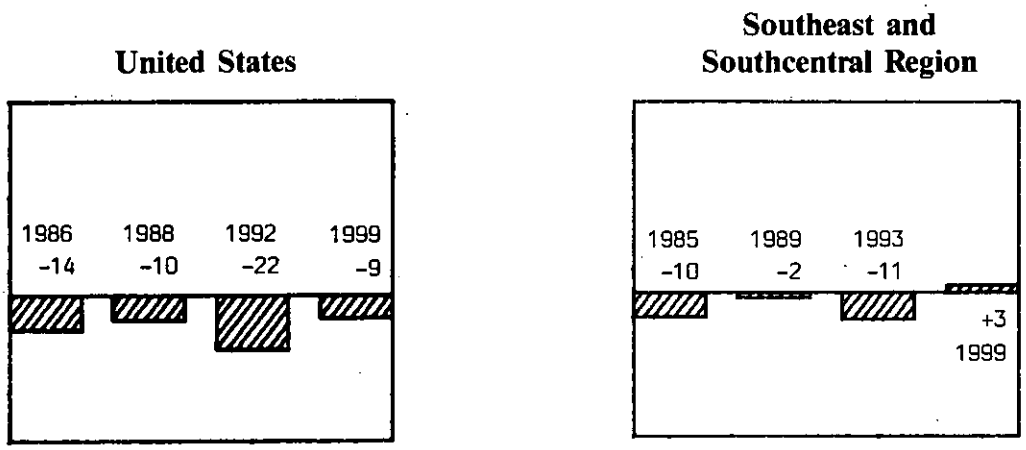
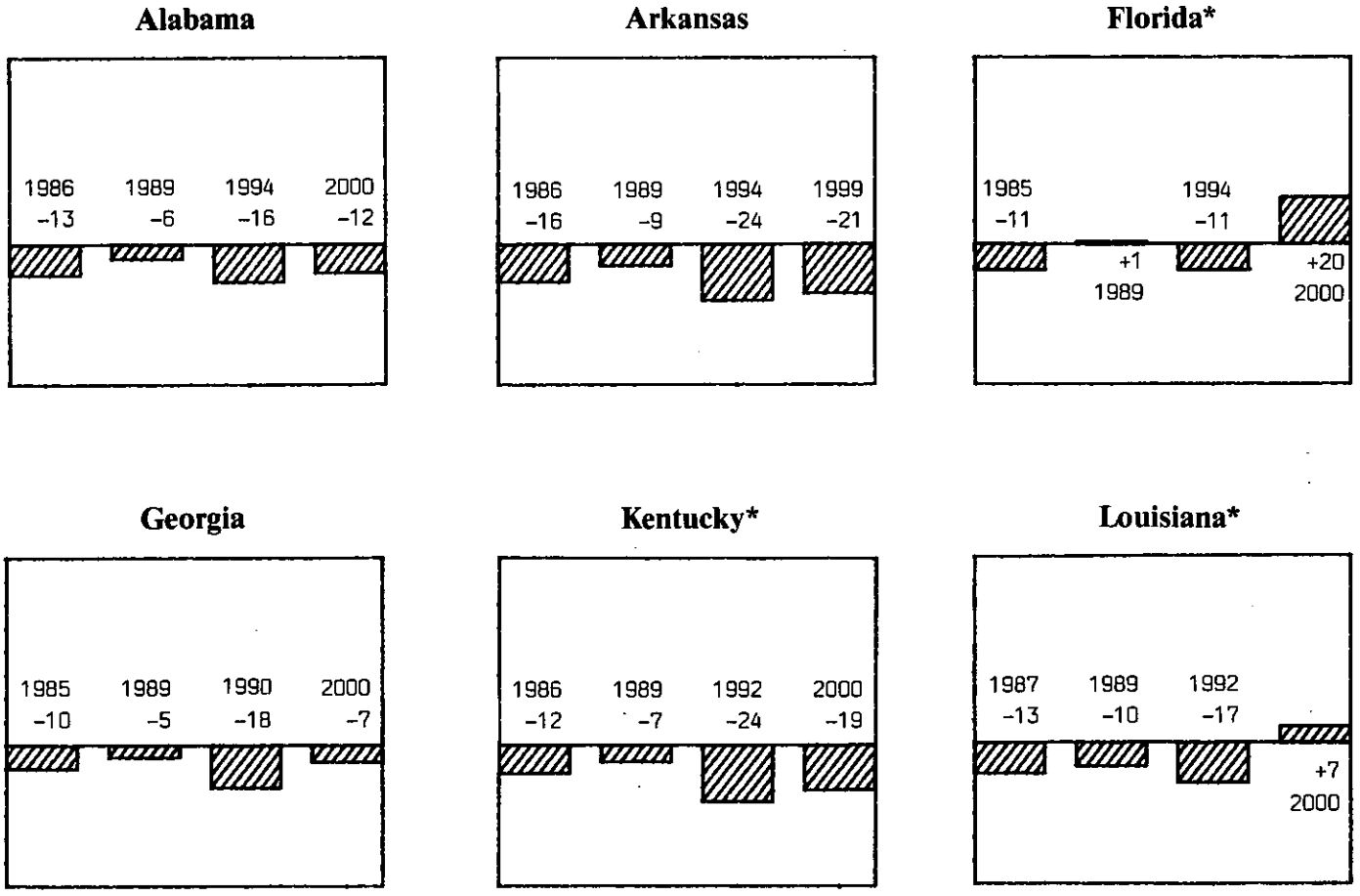


Figure 5

Pattern of Projected High School Graduates 1981 - 2000, Southeast and Southcentral States

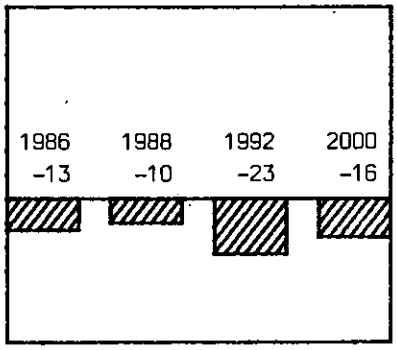
Percentage Change from 1981



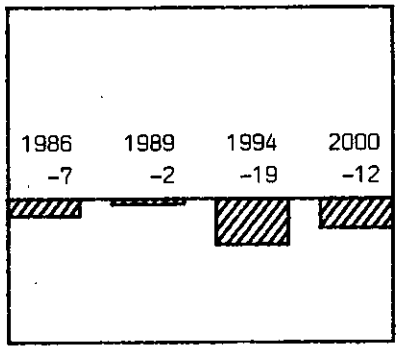


*Includes nonpublic schools

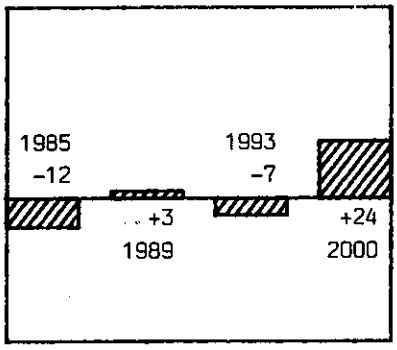
Mississippi



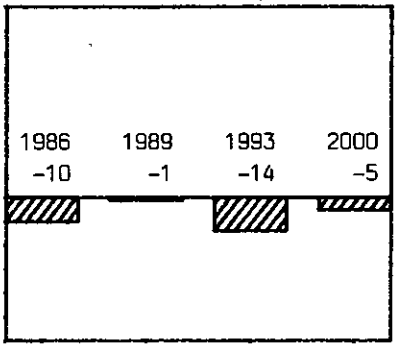
North Carolina



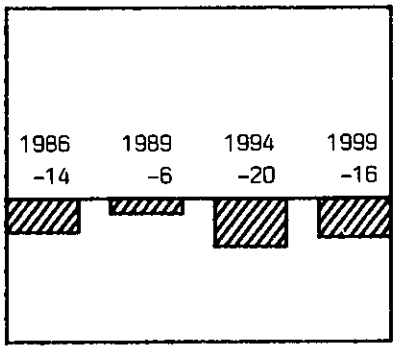
Oklahoma



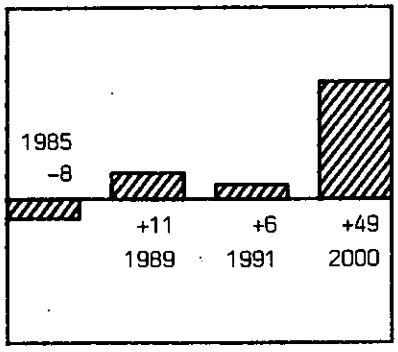
South Carolina*



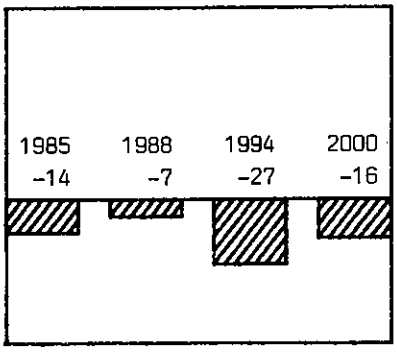
Tennessee



Texas



Virginia



West Virginia*

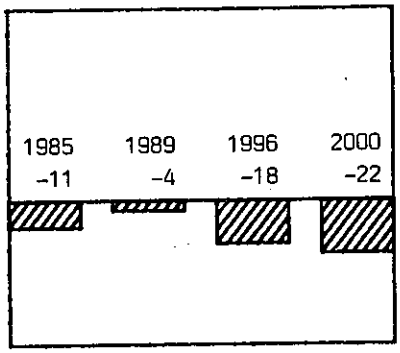
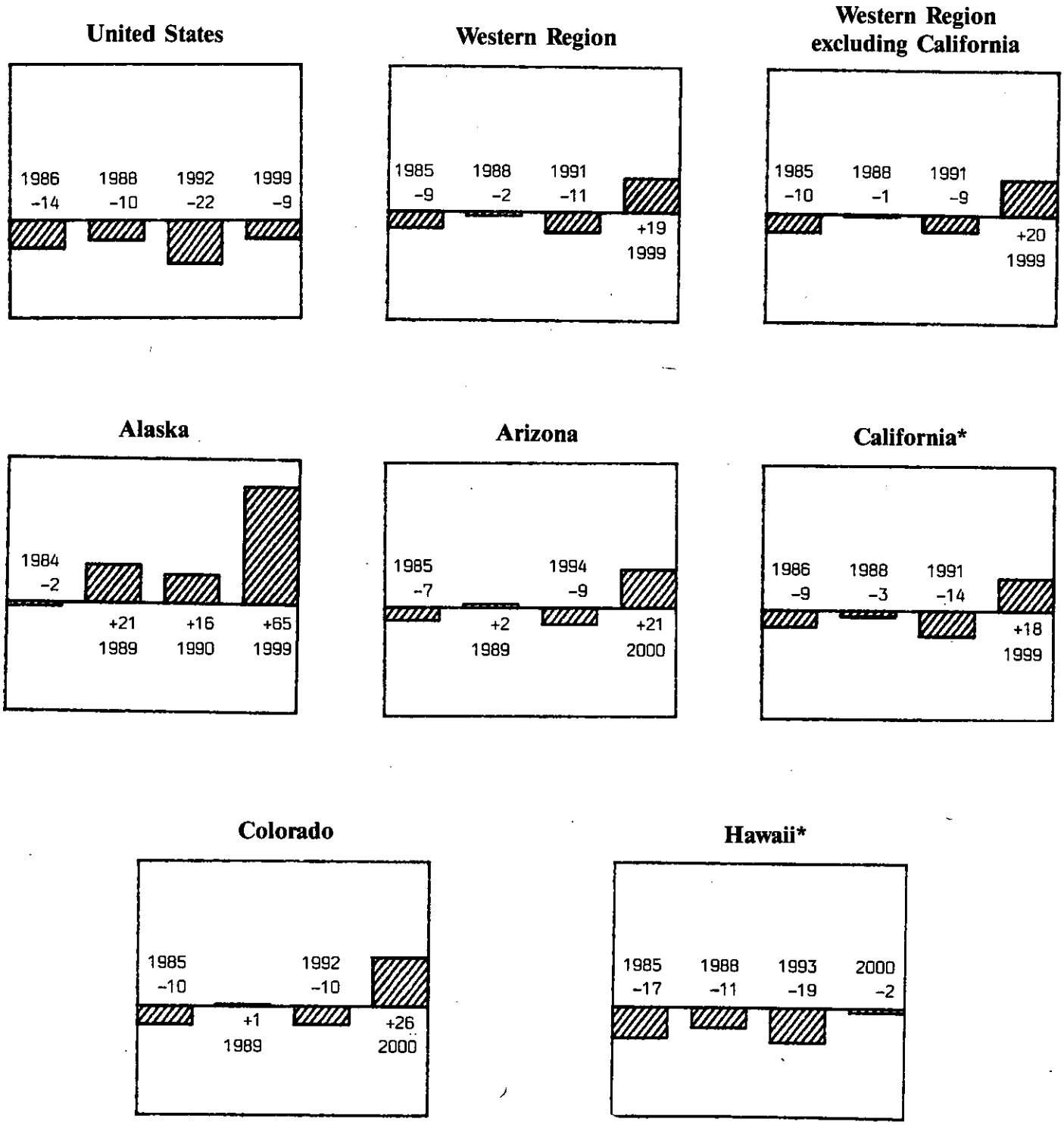


Figure 6

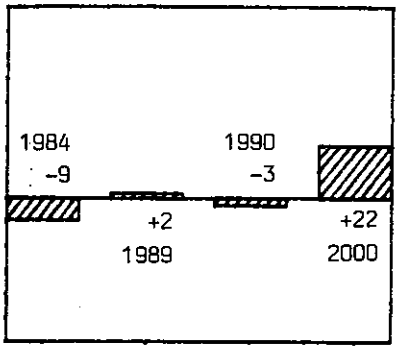
Pattern of Projected High School Graduates 1981 - 2000, Western States

Percentage Change from 1981

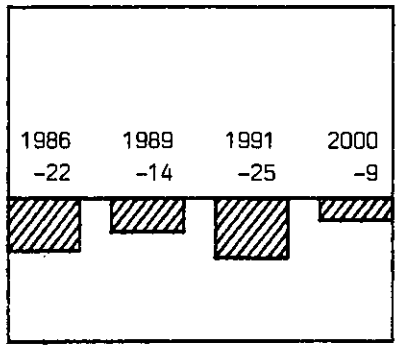


*Includes nonpublic schools

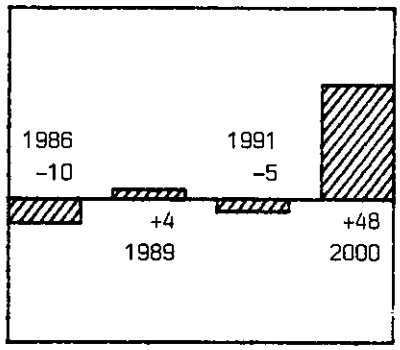
Idaho



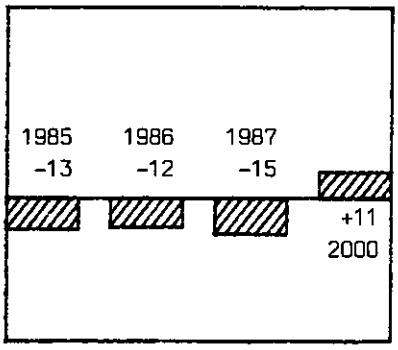
Montana



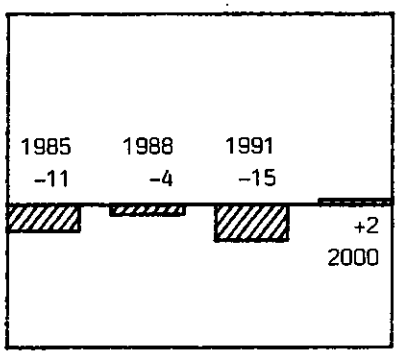
Nevada*



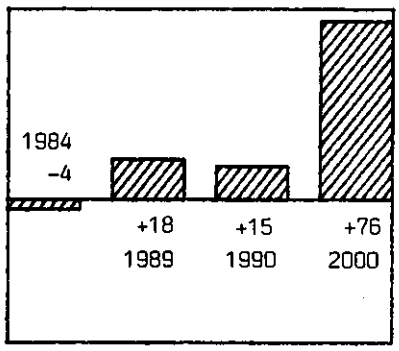
New Mexico*



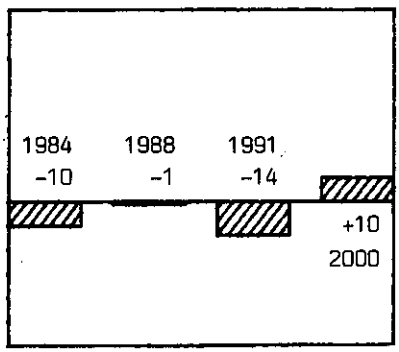
Oregon



Utah



Washington*



Wyoming

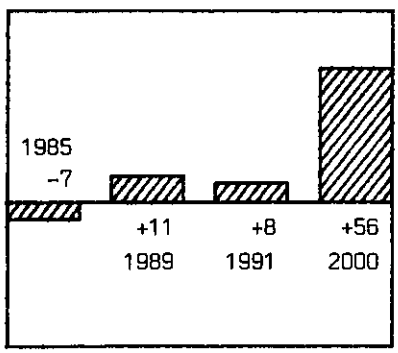
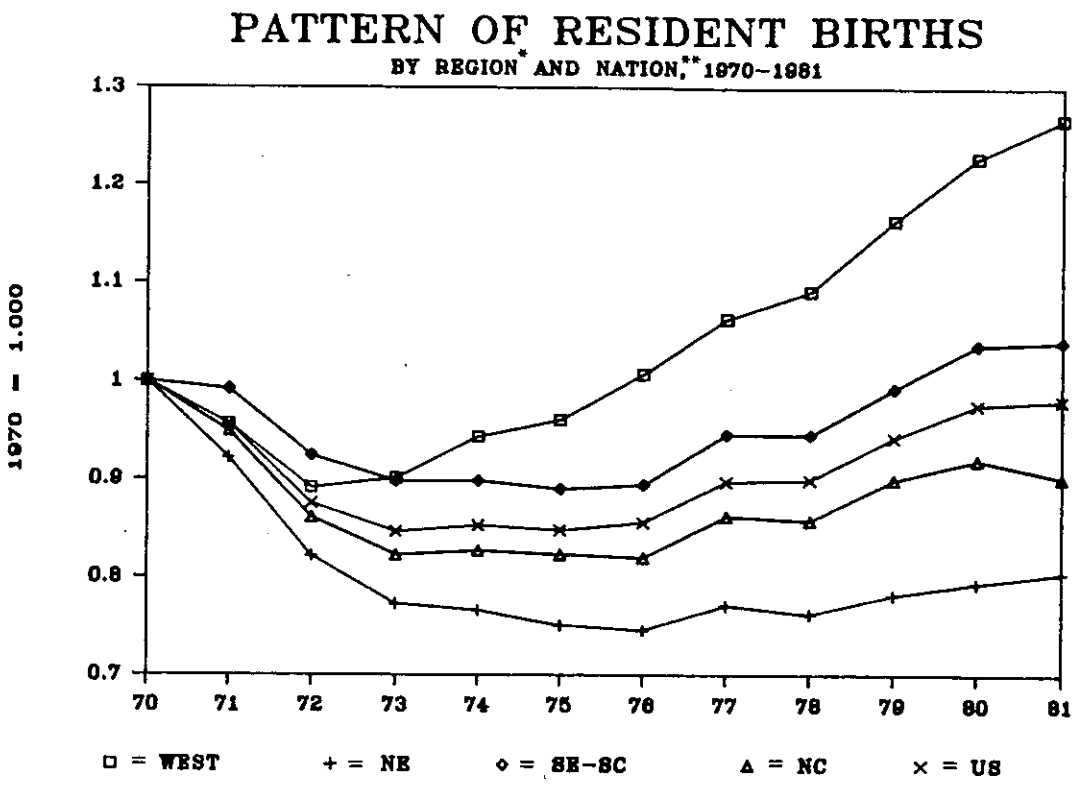


Figure 7



*States included in each region:

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming (13).

Northeast: Connecticut, Delaware, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont (12).

Southeast-Southcentral: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia (14).

Northcentral: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin (12).

**U.S. total is the sum of the four regional totals.

Annual Projections of High School Graduates for Each State

Table 3 presents the annual number of graduates for each state: actual numbers reported by each state for the years 1975-76 through 1981-82 and projections for the years 1982-83 through 1999-2000. The designation under each state indicates whether the projections are for public high school graduates only or for graduates of public and nonpublic schools combined.

Annual High School Graduates*
Fifty States and the District of Columbia
Actuals 1975-1982, Projected 1983-2000

YEAR	ALABAMA (Pub.)	ALASKA (Pub.)	ARIZONA (Pub.)	ARKANSAS (Pub.)	CALIFORNIA (Com.)	COLORADO (Pub.)
1975-76	46,695	4,223	28,646	27,029	306,301	35,555
1976-77	46,765	4,527	29,855	27,628	299,136	36,647
1977-78	46,509	4,850	30,814	28,064	300,693	37,371
1978-79	47,137	5,068	30,059	28,302	293,376	37,233
1979-80	45,190	5,223	28,633	29,052	281,319	36,804
1980-81	44,894	5,358	28,416	29,414	271,474	35,993
1981-82	45,409	5,477	28,049	29,710	276,454	35,494
1982-83	44,352	5,558	28,161	28,071	257,816	34,640
1983-84	39,107	5,463	26,765	26,183	248,156	32,572
1984-85	37,384	5,561	26,430	25,428	248,030	32,069
1985-86	37,231	5,517	26,441	24,823	246,509	32,941
1986-87	38,340	6,042	27,528	25,276	256,343	34,237
1987-88	39,882	6,602	28,937	25,856	264,018	35,951
1988-89	41,258	6,803	29,056	26,660	254,801	36,032
1989-90	39,194	6,413	27,523	25,678	239,213	33,564
1990-91	37,731	6,584	26,351	24,910	234,235	32,341
1991-92	37,854	6,653	26,086	24,945	240,150	32,046
1992-93	36,970	6,715	26,137	22,336	244,731	33,148
1993-94	35,632	7,105	25,744	22,295	253,249	33,696
1994-95	40,514	7,337	27,231	23,424	265,383	35,559
1995-96	39,324	7,750	28,032	22,591	271,932	36,390
1996-97	40,885	7,995	30,305	23,557	289,517	38,964
1997-98	41,481	8,311	32,583	24,150	307,484	41,059
1998-99	40,233	8,829	33,606	23,308	320,997	43,031
1999-00	39,447		34,262			45,246

*The designation under each state tells whether the figures presented are for public graduates only or for public and non-public graduates combined.

N/A = Not Available

YEAR	CON-NECTICUT (Com.)	DELAWARE (Com.)	DISTRICT OF COLUMBIA (Pub.)	FLORIDA (Com.)	GEORGIA (Pub.)	HAWAII (Com.)
1975-76	46,573	9,771	5,041	90,385	61,059	13,486
1976-77	46,442	9,737	5,395	96,906	62,234	13,930
1977-78	46,002	9,847	5,132	99,373	62,201	13,873
1978-79	45,913	9,830	5,758	97,312	62,211	14,097
1979-80	43,710	10,354	5,124	97,607	62,708	14,013
1980-81	44,598	10,894	4,848	99,511	62,963	14,610
1981-82	N/A	N/A	4,521	98,773	64,473	13,948
1982-83	42,755	8,883	4,532	94,699	63,092	12,539
1983-84	39,928	7,786	3,870	92,175	58,943	12,612
1984-85	37,797	7,506	3,772	88,612	56,378	12,147
1985-86	36,387	7,365	3,521	89,412	56,956	12,171
1986-87	36,925	7,278	3,270	92,873	56,695	12,772
1987-88	36,899	7,575	3,119	98,548	59,587	13,067
1988-89	34,397	7,286	2,638	100,253	59,822	12,685
1989-90	30,546	6,680	2,802	96,522	51,833	12,010
1990-91	28,534	6,203	2,627	93,502	55,164	11,853
1991-92	27,938	5,920	2,613	93,120	54,201	11,810
1992-93	27,405	6,115	2,483	90,639	53,665	11,784
1993-94	27,351	6,036	2,462	88,579	52,298	12,253
1994-95	27,890	6,369	2,517	91,792	55,007	12,882
1995-96	28,255	6,420	2,386	93,848	54,929	12,809
1996-97	29,424	6,597	2,394	100,287	57,170	13,424
1997-98	29,501	6,881	2,357	109,117	60,061	14,096
1998-99	30,477	6,745	2,376	114,671	58,501	14,355
1999-00	30,611	6,805	2,388	119,621	58,862	14,376

YEAR	IDAHO (Pub.)	ILLINOIS (Com.)	INDIANA (Com.)	IOWA (Pub.)	KANSAS (Pub.)	KENTUCKY (Com.)
1975-76	12,835	164,093	82,755	41,685	32,212	45,454
1976-77	12,382	164,159	83,690	43,416	33,216	45,576
1977-78	13,395	162,226	82,301	43,726	32,307	45,758
1978-79	13,457	160,669	81,708	44,164	32,132	45,488
1979-80	13,246	154,716	79,842	43,151	30,890	45,219
1980-81	12,931	156,981	80,783	42,355	29,397	46,297
1981-82	12,554	156,802	76,032	41,509	28,298	46,643
1982-83	12,390	144,475	76,363	38,829	28,145	44,137
1983-84	11,734	133,214	70,168	35,869	26,027	42,717
1984-85	11,853	127,246	67,172	34,171	25,032	41,446
1985-86	11,802	123,386	65,193	32,850	24,372	40,511
1986-87	12,209	125,198	65,172	33,179	25,386	40,817
1987-88	13,025	129,220	68,008	33,926	26,141	41,997
1988-89	13,128	125,714	69,363	33,309	26,251	42,827
1989-90	12,585	116,555	64,614	30,558	24,462	40,542
1990-91	12,634	111,278	61,483	28,236	23,600	37,491
1991-92	13,231	109,086	59,067	27,932	23,328	35,165
1992-93	13,385	109,620	60,059	29,102	24,061	37,140
1993-94	14,022	112,656	58,544	28,522	24,314	36,852
1994-95	15,169	114,716	60,272	31,407	25,598	38,971
1995-96	15,606	112,935	59,000	31,169	25,427	37,981
1996-97	16,061	119,273	61,655	32,711	27,050	39,192
1997-98	16,239	123,001	62,591	33,434	28,280	39,640
1998-99	15,714	119,735	59,923	32,120	28,639	38,084
1999-00	15,789	118,871	59,384	31,279	28,329	37,585

YEAR	LOUISIANA (Com.)	MAINE (Pub.)	MARYLAND (Com.)	MASSA-CHUSETTS (Pub.)	MICHIGAN (Pub.)	MINNESOTA (Com.)
1975-76	55,777	15,200	62,068	79,300	135,162	70,600
1976-77	56,974	15,205	61,766	79,400	135,337	72,283
1977-78	56,033	15,364	62,571	78,409	132,759	72,604
1978-79	55,724	15,402	61,943	76,630	130,588	71,339
1979-80	54,931	15,445	61,367	76,872	124,316	70,358
1980-81	54,571	15,554	60,893	75,934	124,372	68,443
1981-82	54,428	15,186	61,578	74,299	121,030	66,429
1982-83	48,408	14,799	58,817	71,594	114,984	61,612
1983-84	48,908	13,870	56,228	67,715	108,778	58,070
1984-85	49,052	13,498	54,320	65,647	105,892	55,759
1985-86	47,773	13,041	53,661	63,399	102,678	55,156
1986-87	47,666	13,235	52,370	62,150	102,863	56,145
1987-88	48,877	13,377	52,497	61,926	106,208	57,320
1988-89	48,880	13,572	49,592	58,126	102,696	55,661
1989-90	46,988	12,393	45,046	51,994	92,998	50,562
1990-91	46,324	11,722	41,356	47,845	87,448	47,435
1991-92	45,417	11,292	40,816	46,078	83,268	46,861
1992-93	47,051	11,366	40,664	44,634	81,154	48,504
1993-94	48,363	10,918	40,338	44,130	78,773	48,066
1994-95	52,033	11,790	42,848	45,348	87,100	51,195
1995-96	51,923	11,548	42,500	45,807	87,343	52,633
1996-97	54,942	11,922	44,581	47,172	90,898	55,476
1997-98	56,976	11,951	45,922	48,525	91,345	57,615
1998-99	57,013	12,018	47,266	49,420	88,461	58,302
1999-00	58,349	12,156	48,888		86,807	

YEAR	MISSIS-SIPPI (Pub.)	MISSOURI (Pub.)	MONTANA (Pub.)	NEBRASKA (Com.)	NEVADA (Com.)	NEW HAMPSHIRE (Pub.)
1975-76	26,733	63,942	12,136	24,792	7,814	11,380
1976-77	27,639	64,471	12,328	25,561	8,273	11,635
1977-78	27,665	64,564	12,184	25,688	8,503	11,748
1978-79	28,168	64,163	12,068	25,652	8,591	11,883
1979-80	27,586	62,265	12,135	24,803	8,773	11,722
1980-81	28,083	60,340	11,634	23,729	9,375	11,938
1981-82	28,023	59,872	11,162	23,516	9,599	11,763
1982-83	27,446	56,420	10,557	22,197	9,343	11,415
1983-84	25,755	52,349	9,783	20,472	8,713	11,096
1984-85	24,532	49,737	9,365	19,418	8,578	10,536
1985-86	24,302	48,034	9,110	18,826	8,421	10,568
1986-87	24,802	49,037	9,494	19,302	9,006	10,687
1987-88	25,256	49,795	9,746	19,840	9,527	11,054
1988-89	24,476	50,211	9,952	19,967	9,740	11,033
1989-90	23,256	46,046	9,022	19,023	9,108	10,145
1990-91	22,394	43,838	8,742	17,799	8,867	9,147
1991-92	21,662	42,539	8,763	17,940	8,877	9,130
1992-93	22,821	42,750	9,005	18,608	9,111	8,086
1993-94	23,216	41,251	9,249	17,899	9,849	8,105
1994-95	23,787	44,229	9,672	19,632	10,099	8,658
1995-96	23,182	44,045	9,847	19,589	10,758	8,882
1996-97	23,989	46,107	10,220	20,444	11,925	9,199
1997-98	24,983	47,642	10,329	21,330	12,782	9,835
1998-99	24,151	46,533	10,403	21,197	13,566	9,672
1999-00	23,575	46,466	10,569	21,033	13,907	

YEAR	NEW JERSEY (Pub.)	NEW MEXICO (Com.)	NEW YORK (Com.)	NORTH CAROLINA (Pub.)	NORTH DAKOTA (Com.)	OHIO (Com.)
1975-76	97,083	18,407	248,758	70,498	10,771	157,583
1976-77	97,494	18,617	246,945	71,146	10,991	156,220
1977-78	97,079	19,079	243,924	70,953	11,548	152,002
1978-79	97,643	19,455	240,054	72,464	11,220	150,651
1979-80	94,564	19,043	235,937	70,862	10,797	144,169
1980-81	94,157	18,693	230,237	70,168	10,730	154,489
1981-82	93,750	18,344	226,856	71,210	10,226	154,597
1982-83	89,677	17,657	214,406	68,724	9,557	147,885
1983-84	85,032	16,442	206,490	66,060	9,037	139,655
1984-85	81,316	16,323	198,416	65,866	8,417	135,776
1985-86	79,195	16,381	189,638	65,377	7,909	132,604
1986-87	79,371	15,940	188,510	65,803	8,170	131,817
1987-88	80,775	15,998	194,171	68,315	8,702	136,569
1988-89	76,250	16,000	179,923	68,776	8,558	137,426
1989-90	68,648	16,048	166,220	64,633	8,244	127,124
1990-91	64,454	16,074	157,040	61,845	8,218	119,202
1991-92	63,437	16,100	156,633	60,140	8,062	115,208
1992-93	62,009	16,293	156,588	58,424	8,352	116,787
1993-94	61,255	16,616	157,221	56,857	8,407	114,563
1994-95	63,847	17,414	159,820	60,617	9,005	120,258
1995-96	63,554	18,022	155,531	59,073	8,924	119,968
1996-97	65,131	18,711	156,557	60,020	9,345	124,354
1997-98	65,652	20,044	159,314	60,846	9,433	125,856
1998-99	65,494	20,026	161,207	60,579	9,757	124,533
1999-00	66,869	20,816	166,187	61,582	9,952	122,666

YEAR	OKLAHOMA (Pub.)	OREGON (Pub.)	PENN-SYLVANIA (Com.)	RHODE ISLAND (Pub.)	SOUTH CAROLINA (Com.)	SOUTH DAKOTA (Pub.)
1975-76	37,663	30,561	190,093	10,831	N/A	11,340
1976-77	38,577	30,258	186,936	10,796	N/A	11,293
1977-78	39,005	29,998	183,132	10,884	N/A	11,349
1978-79	39,225	30,228	181,480	11,243	40,087	11,092
1979-80	39,305	29,939	170,646	10,864	40,175	10,689
1980-81	38,823	29,354	169,075	10,719	40,074	10,431
1981-82	38,347	28,780	167,541	10,585	40,381	9,864
1982-83	35,923	28,194	159,463	10,274	39,703	9,162
1983-84	34,527	26,612	150,864	9,543	38,255	8,443
1984-85	34,272	26,129	144,747	9,254	36,886	7,921
1985-86	35,006	26,188	140,011	8,783	36,218	7,722
1986-87	36,828	27,261	138,189	8,483	36,818	7,744
1987-88	38,248	28,326	141,142	8,702	38,058	8,066
1988-89	39,805	27,384	136,016	8,258	39,851	8,031
1989-90	38,029	25,580	124,876	7,365	37,221	7,442
1990-91	37,070	24,869	116,294	6,782	35,983	6,892
1991-92	37,415	24,924	113,241	6,637	35,379	7,105
1992-93	35,939	25,703	112,153	6,294	34,511	7,449
1993-94	39,457	26,330	111,248	6,390	34,981	7,570
1994-95	37,353	27,350	114,954	6,920	36,588	7,942
1995-96	37,710	28,443	113,472	6,859	36,374	8,030
1996-97	40,278	30,341	118,039	7,065	37,129	8,536
1997-98	42,791	31,455	118,891	7,247	38,100	8,723
1998-99	44,069	31,370	120,022	7,404	37,980	8,373
1999-00	48,284	29,938	121,093		37,839	8,448

YEAR	TENNESSEE (Pub.)	TEXAS (Pub.)	UTAH (Pub.)	VERMONT (Pub.)	VIRGINIA (Pub.)	WASHINGTON (Com.)
1975-76	N/A	159,855	19,782	6,595	66,278	53,305
1976-77	N/A	163,574	19,743	6,684	67,373	53,297
1977-78	47,710	167,968	20,228	6,773	66,270	53,349
1978-79	47,587	168,518	20,045	6,721	67,027	53,537
1979-80	50,033	171,445	20,035	6,733	66,539	52,904
1980-81	51,021	171,665	19,886	6,513	67,147	52,392
1981-82	51,646	172,099	19,400	6,450	67,809	51,938
1982-83	48,890	168,897	19,689	6,242	64,620	49,953
1983-84	46,560	159,108	19,123	6,128	59,968	46,893
1984-85	45,373	158,652	19,782	5,792	58,011	46,942
1985-86	44,037	165,516	19,894	5,890	58,978	48,483
1986-87	45,138	172,179	20,928	6,013	59,360	49,889
1987-88	46,671	181,276	22,654	6,309	62,647	52,043
1988-89	47,915	190,342	23,449	6,089	59,639	50,714
1989-90	45,201	184,515	22,811	5,650	54,398	46,462
1990-91	43,419	182,539	24,262	5,220	51,519	44,953
1991-92	42,354	182,706	25,653	5,101	49,923	45,371
1992-93	41,056	189,690	26,759	5,091	49,358	46,121
1993-94	40,945	195,301	29,542	5,214	48,838	47,495
1994-95	42,621	196,339	32,033	5,384	51,451	47,270
1995-96	42,515	202,979	32,755	5,449	50,830	48,483
1996-97	43,704	218,121	34,668	5,781	53,290	53,149
1997-98	44,201	234,567	35,265	6,003	54,346	56,022
1998-99	42,888	241,537	34,843	6,136	54,938	57,590
1999-00		255,370	35,055	6,192	56,200	57,402

YEAR	WEST VIRGINIA (Com.)	WISCONSIN (Com.)	WYOMING (Pub.)	U.S. TOTAL
1975-76	25,577	76,807	5,757	2,916,246
1976-77	25,485	79,117	5,861	2,932,920
1977-78	24,750	78,088	6,074	2,972,697
1978-79	24,319	78,159	5,982	2,992,802
1979-80	24,376	76,233	6,072	2,928,734
1980-81	24,300	75,692	6,161	2,918,310
1981-82	24,352	74,246	5,999	2,845,451
1982-83	24,077	70,172	5,972	2,766,167
1983-84	22,565	66,432	5,758	2,618,523
1984-85	21,661	62,860	5,710	2,544,477
1985-86	21,985	62,576	5,763	2,510,512
1986-87	22,299	61,253	6,293	2,544,583
1987-88	22,802	63,013	6,672	2,628,940
1988-89	23,415	59,852	6,838	2,590,718
1989-90	22,111	54,568	6,732	2,411,755
1990-91	21,441	52,586	6,636	2,314,974
1991-92	20,691	51,421	6,775	2,288,063
1992-93	20,606	51,898	7,087	2,297,415
1993-94	20,167	50,642	7,294	2,308,099
1994-95	20,594	54,636	7,899	2,408,721
1995-96	19,860	54,656	8,069	2,416,395
1996-97	20,392	58,351	8,833	2,535,132
1997-98	20,195	59,590	9,258	2,627,302
1998-99	19,078	59,228	9,428	2,645,824
1999-00	18,950	59,242	9,598	2,156,288

Methodology

1. Building on the base of data acquired and developed in the course of completing its 1979 study, WICHE contacted education officials in each state to acquire data for the years 1978-79 through 1982-83.

2. The agency that compiles elementary and secondary enrollment statistics in each state was asked to provide uniform data on the following:

   a. Fall enrollment for public and nonpublic schools.

   b. Fall enrollment by racial and ethnic category for public and nonpublic schools.

   c. Numbers of high school graduates by racial and ethnic category for public and nonpublic schools.

   d. Any authoritative projections of high school graduates.

3. Useable data on nonpublic enrollments and graduates were received from twenty-two states, and the projections reported reflect these combined totals. Useable data on grade-by-grade enrollments for racial and ethnic groups were received from only four states, although another nine states did supply these data in some form.

4. The grade-by-grade enrollment data and numbers of high school graduates were entered into a microcomputer file and historical enrollments and grade-to-grade progression ratios were computed. Table 4 is an example of this worksheet for the state of Illinois. The grade-by-grade enrollment figures are shown by school year and grade. The numbers between each row and column entry are the ratios of enrollment in one grade to the enrollment in the next grade the following year (e.g., ratio of grade one in 1978-79 to grade two in 1979-80 in the example given is 0.965, and so on). The second and third columns list the number of resident live births six years prior to the school year listed. Column four depicts the ratio of first grade enrollments to births six years earlier. The farthest right column depicts the number of graduates in June of the school year.

5. Table 5 shows the projection table, which is produced when ratios are specified for each of the transitions for births to first grade enrollment, grade-to-grade enrollments from grades one through twelve, and grade twelve to the number of graduates.

6. The projection technique used is the grade-progression method. Using the historical data, the ratio of enrollment in first grade to number of resident live births six years earlier is calculated for each first grade group. The ratio of second-grade enrollment one year to first-grade enrollment the previous year is calculated for each second grade group. Similarly, a column of ratios is calculated for each move from grade to grade through twelfth grade. The ratio of high school graduates to enrollment in twelfth grade is calculated for each high school graduate group. These ratios reflect the combined effect of:

a. **migration**—in the case of these statewide data, the net migration into or out of the state of individuals of the particular age or grade level involved.

b. **dropouts**—especially in the later years of secondary school.

c. **nonpromotion**—there is a tendency for a substantial proportion of first-grade students to be retained in first grade a second year, affecting both the ratio of first grade to births and the ratio of second grade to first grade. Lesser impact of this factor may occur at other grade levels.

d. **transfers from or to nonpublic schools**—in these public school data, transfers from nonpublic schools affect the ratios, especially between sixth and seventh grade or between eighth and ninth grade, depending on the grade structure of the nonpublic schools. A general closing of nonpublic schools or a general shift to nonpublic schools would affect the ratios generally.

e. **shifting of students** from regular grade groups to ungraded or special education groups cause special difficulties in interpreting the grade progression ratios.

f. **mortality** (which is insignificant in the projections).

7. The key step in the projection process is the selection of: (1) the particular ratios to be used for each move from grade to grade; (2) the ratios to be used to translate the known birth figures into projected first-grade enrollments; and (3) the ratio between twelfth-grade enrollments and graduates. In the projections presented in this report, the selection of these ratios was done by case-by-case examination, rather than using a particular average from a specific period of the recent past. After careful study of the historical ratios, a judgment was made as to the appropriate ratio to use in each case.

In most cases, constant ratios selected for purposes of long-range projections were used. Variances in the short range between these projections and actual enrollments or graduates should be assessed carefully before concluding that the numbers projected for the longer range are invalid.

EXAMPLE

Table 4

Illinois—Births, Enrollment by Grade, and High School Graduates Showing Progression Ratios—Public/Nonpublic Combined Fall Enrollment

SCHOOL YEAR	BIRTHS YEAR	BIRTHS NUMBER	RATIO FIRST GRADE/ BIRTHS	GRADES 1	2	3	4	5	6	7	8	9	10	11	12	RATIO GRADS/ 12TH GRADE	GRADS
1965-66	1959	239,871	1.028	246,648	235,151	233,310	214,178	216,133	210,245	202,348	197,560	192,239	176,612	169,449	144,917	0.775	112,319
				0.963	1.017	0.967	0.997	0.993	0.998	0.985	0.996	0.970	0.939	0.903			
1966-67	1960	238,760	1.032	246,298	237,605	239,060	225,499	213,461	214,656	209,805	199,379	196,682	186,438	165,904	152,985	0.926	141,737
				0.961	1.034	0.938	0.992	0.994	0.992	0.982	0.992	0.963	0.936	0.906			
1967-68	1961	237,051	1.030	244,267	236,747	245,735	224,236	223,716	212,186	212,888	205,954	197,783	189,461	174,495	150,300	0.771	115,867
				0.949	1.028	0.920	0.987	0.978	0.983	0.971	0.991	0.968	0.946	0.911			
1968-69	1962	230,484	1.013	233,498	231,930	243,386	226,154	221,418	218,729	208,488	206,610	204,026	191,356	179,188	159,002	0.954	151,662
				0.965	1.041	0.931	0.996	0.986	0.996	0.983	1.016	0.973	0.946	0.909			
1969-70	1963	224,787	1.010	227,121	225,385	241,358	226,565	225,339	218,382	217,767	204,984	209,923	198,583	180,947	162,870	0.928	151,204
				0.974	1.039	0.946	1.004	1.004	1.008	0.993	1.022	0.965	0.938	0.899			
1970-71	1964	222,259	1.004	223,083	221,273	234,147	228,276	227,584	226,347	220,196	216,185	209,508	202,501	186,239	162,610	0.944	153,530
				0.953	1.014	0.932	0.983	0.983	0.985	0.981	1.013	0.970	0.925	0.900			
1971-72	1965	208,063	0.988	205,612	212,547	224,265	218,324	224,353	223,827	222,938	216,015	218,955	203,174	187,217	167,624	0.963	161,361
				0.955	1.007	0.943	0.982	0.984	0.984	0.974	1.019	0.960	0.916	0.894			
1972-73	1966	201,284	0.953	191,861	196,432	214,006	211,372	214,447	220,743	220,192	217,146	220,101	210,255	186,189	167,285	0.951	159,154
				0.957	1.008	0.959	0.989	0.991	0.994	0.983	1.019	0.954	0.915	0.884			
1973-74	1967	195,644	0.932	182,401	183,524	198,080	205,180	208,973	212,621	219,345	216,530	221,328	210,000	192,402	164,520	0.974	160,205
				0.992	1.010	0.982	1.003	0.994	0.992	0.977	1.095	0.977	0.916	0.888			
1974-75	1968	193,261	0.944	182,397	180,854	185,429	194,607	205,789	207,740	210,913	214,320	237,034	216,277	192,313	170,775	0.946	161,498
				0.967	0.979	0.987	0.984	0.983	0.990	0.977	1.084	0.902	0.889	0.879			
1975-76	1969	195,699	0.943	184,596	176,358	177,125	182,990	191,518	202,390	205,602	206,128	232,219	213,844	192,302	169,014	0.971	164,093
				0.980	0.999	1.002	0.999	1.003	1.007	0.992	1.095	0.937	0.918	0.900			
1976-77	1970	205,203	0.945	193,978	180,835	176,121	177,394	182,739	192,039	203,825	203,994	225,676	217,580	196,353	172,995	0.949	164,159
				0.968	0.989	0.989	0.995	0.998	0.997	0.975	1.079	0.919	0.894	0.882			
1977-78	1971	195,311	0.974	190,193	187,787	178,872	174,220	176,437	182,375	191,483	198,830	220,158	207,290	194,583	173,153	0.937	162,226
				0.959	0.977	0.978	0.981	0.981	0.984	0.969	1.084	0.913	0.902	0.878			
1978-79	1972	177,848	0.969	172,314	182,390	183,493	174,927	170,951	173,131	179,398	185,511	215,626	200,925	186,958	170,832	0.941	160,669
				0.965	0.979	0.983	0.986	0.984	0.992	0.976	1.079	0.918	0.903	0.883			
1979-80	1973	168,992	0.983	166,176	166,224	178,506	180,298	172,451	168,163	171,784	175,157	200,088	197,933	181,458	165,079	0.937	154,716
				0.952	0.984	0.988	0.988	0.989	0.998	0.979	1.097	0.917	0.898	0.901			
1980-81	1974	168,991	0.955	161,433	158,201	163,577	176,333	178,142	170,487	167,746	168,224	192,148	183,548	177,697	163,421	0.961	156,981
				0.955	1.004	0.993	0.983	0.996	0.992	0.978	1.043	0.898	0.902	0.905			
1981-82	1975	169,248	0.999	169,134	154,092	158,786	162,468	173,312	177,367	169,069	164,108	175,375	172,612	165,528	160,872	0.975	156,802
				0.922	0.997	0.978	0.988	0.989	0.985	0.979	1.034	0.948	0.907	0.924			
1982-83	1976	170,181	0.981	167,008	156,006	153,694	155,214	160,462	171,340	174,710	165,548	169,678	166,237	156,630	152,684		

NOTE: The numbers between each row and column entry are the ratios of enrollment in one grade to the enrollment in the next grade of the following year (e.g., ratio of grade one in 1978-79 to grade two in 1979-80 is 0.965).

Table 5

Projections—Illinois Combined Schools
Fall Enrollment

EXAMPLE

SCHOOL YEAR	BIRTHS YEAR	BIRTHS NUMBER	RATIO FIRST GRADE/ BIRTHS	GRADES 1	2	3	4	5	6	7	8	9	10	11	12	RATIO GRADS/ 12TH GRADE	GRADS
1982-83	1976	170,181	0.981	167,008	156,006	153,694	155,214	160,462	171,340	174,710	165,548	169,678	166,237	156,630	152,884	0.945	144,475
					0.960	0.990	0.990	0.987	0.990	0.992	0.978	1.040	0.950	0.900	0.900		
1983-84	1977	177,148	0.960	170,062	160,328	154,446	152,157	153,196	158,857	169,969	170,866	172,170	161,194	149,613	140,967	0.945	133,214
1984-85	1978	174,397		167,421	163,260	158,724	152,901	150,179	151,664	157,587	166,230	177,701	163,561	145,075	134,652		127,246
1985-86	1979	164,184		176,817	160,724	161,627	157,137	150,914	148,677	150,451	154,120	172,879	168,816	147,205	130,567		123,386
1986-87	1980	189,941		182,343	169,744	159,117	160,011	155,094	149,405	147,488	147,141	160,284	164,235	151,934	132,485		125,198
1987-88	1981	184,897		177,501	175,050	168,047	157,526	157,931	153,543	148,209	144,243	153,027	152,270	147,812	136,741		129,220
1988-89	1982	183,564		176,221	170,401	173,299	166,366	155,478	156,351	152,315	144,949	150,013	145,375	137,043	133,031		125,714
1989-90	1983				169,173	168,697	171,566	164,203	153,923	155,100	148,964	150,747	142,512	130,838	123,339		116,555
1990-91	1984					167,481	167,010	169,336	162,561	152,692	151,688	154,923	143,209	128,261	117,754		111,278
1991-92	1985						165,806	164,839	167,642	161,261	149,333	157,756	147,177	128,888	115,435		109,086
1992-93	1986							163,651	163,191	166,301	157,713	155,306	149,868	132,459	116,000		109,620
1993-94	1987								162,014	161,885	162,643	164,022	147,541	134,881	119,213		112,656
1994-95	1988									160,718	158,324	169,148	155,820	132,787	121,393		114,716
1995-96	1989										157,182	164,657	160,691	140,238	119,508		112,935
1996-97	1990											163,469	156,424	144,622	126,215		119,273
1997-98	1991												155,296	140,781	130,160		123,001
1998-99	1992													139,766	126,703		119,735
1999-00	1993														125,790		118,871