National Center for Education Statistics

U.S. Department of Education
Office of Educational Research and Improvement
NCES 2002–030

Projections of Education Statistics to 2012

Thirty-first Edition

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October 2002

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October 2002

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Suggested Citation

U.S. Department of Education, National Center for Education Statistics. *Projections of Education Statistics to 2012,* (NCES 2002–030), by Debra E. Gerald and William J. Hussar. Washington, DC: 2002.

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Foreword

Projections of Education Statistics to 2012 is the 31st report in a series begun in 1964. This report provides revisions of projections shown in *Projections of Education Statistics to 2011* and includes statistics on elementary and secondary schools and degree-granting institutions. Included are projections of enrollments and graduates to the year 2012. Projections of teachers and expenditures are not included in this edition, but they are available in *Projections of Education Statistics to 2011*.

In addition, the report includes projections of public elementary and secondary school enrollment and public high school graduates to the year 2012 at the state level. These projections were produced by the National Center for Education Statistics (NCES) to provide researchers, policy analysts, and others with state-level projections developed using a consistent methodology. They are not intended to supplant detailed projections prepared in individual states.

Assumptions regarding the population and the economy are the key factors underlying the projections of education statistics. The projections do not reflect changes in national, state, or local education policies that may affect enrollment levels.

This report contains a methodology section describing models and assumptions used to develop the national and state projections. The enrollment models use enrollment data and population estimates and projections from NCES and the U.S. Census Bureau. The models are based on the mathematical projection of past data patterns into the future. The models also use projections of economic variables from the company DRI-WEFA, Inc., an economic forecasting service.

The population projections are not based on the 2000 census data. Projections of national population data based on the 2000 census are not scheduled for release until fall 2002. The projections presented in this report reflect revisions influenced by the 1990 census, incorporation of the 2000 estimates, and the latest assumptions for the fertility rate, internal migration, net immigration, and mortality rate. For further information, see appendix A.

Most of the projections of education statistics include three alternatives, based on different assumptions about demographic and economic growth paths. Although the first alternative set of projections (middle alternative) in each table is deemed to represent the most likely projections, the low and high alternatives provide a reasonable range of outcomes.

In the forecast summary, highlights for key education statistics are presented. A summary of the projections is available in a pocket-sized booklet, *Pocket Projections to 2012*.

Valena W. Plisko, Associate Commissioner
Early Childhood, International, and Crosscutting Studies Division
August 2002

Acknowledgments

Projections of Education Statistics to 2012 was produced by the National Center for Education Statistics (NCES) in the Early Childhood, International, and Crosscutting Studies Division under the general direction of Thomas D. Snyder, Director of the Annual Reports Program. The report was prepared by Debra E. Gerald, mathematical statistician, and William J. Hussar, financial economist.

Debra E. Gerald and William J. Hussar prepared the following: elementary and secondary enrollment (chapter 1); enrollment in degree-granting institutions (chapter 2); high school graduates (chapter 3); earned degrees conferred (chapter 4); and the appendixes explaining the methodologies used to develop these projections. Tabithia Bailey and Geoffrey Greene of DRI-WEFA Inc., implemented the projection models. Anindita Sen and Emily Dill of the Education Statistics Services Institute (ESSI) updated the models' databases and prepared the tables, figures, mean absolute percentage errors, data sources, and glossary.

The technical review was done by Shelley K. Burns of NCES and David C. Miller of ESSI. Ellen Harkavy, Jason Sellers, and Molly Soule of ESSI assisted in the technical review of this report. The adjudication was conducted by Bruce Taylor, adjudicator of NCES. Valuable assistance was also provided by the following reviewers: W. Vance Grant of the National Library of Education, Office of Educational Research and Improvement; Joseph W. McTighe of the Council for American Private Education; Ching-li Wang of the U.S. Census Bureau; and Stephen Broughman, Frank Johnson, and Frank Morgan of NCES.

The cover was designed by Heather Block of ESSI.

Highlights

Changes Between 2000 and 2012

Public and private elementary and secondary enrollment—1 percent increase.
Total public and private elementary and secondary enrollment is projected to increase from 53.2 million in 2000 to 53.9 million in 2005. Then total enrollment is projected to decrease to 53.5 million in 2010, followed by an increase to 53.7 million in 2012, resulting in an overall increase of 1 percent from 2000 (table 1).

Public and private K–8 enrollment—less than 1 percent decrease.
Total public and private K–8 enrollment is projected to remain around 38.4 million between 2000 and 2002. Then total K–8 enrollment is projected to decrease to 37.7 million in 2008, followed by an increase to 38.3 million in 2012, resulting in an overall decrease of less than 1 percent from 2000 (table 1).

Public and private 9–12 enrollment—4 percent increase.
Total public and private 9–12 enrollment is projected to increase from 14.8 million in 2000 to 16.1 million in 2007. Then total 9–12 enrollment is projected to decrease to 15.4 million in 2012, resulting in an overall increase of 4 percent from 2000 (table 1).

Public school enrollment in selected grades 10, 11, and 12—more than 4 percent increase.
Between 2000 and 2012, public school enrollment in grade 10 is projected to increase by 4 percent. Over the same period, enrollments in grades 11 and 12 are expected to increase 5 and 8 percent, respectively (table 3).

Public school enrollment in selected grades 1, 8, and 9—less than 4 percent increase.
Between 2000 and 2012, public school enrollment in grade 1 is projected to increase 2 percent. Over the same period, enrollments in grades 8 and 9 are projected to increase 2 and 3 percent, respectively (table 3).

Public school enrollment in the Western region—9 percent increase.
Between 2000 and 2012, public elementary and secondary enrollment is projected to increase 9 percent in the West and 1 percent in the South. Over the same period, in the Northeast and Midwest, enrollment is projected to decrease 5 and 4 percent, respectively (table 5).

Enrollment in degree-granting institutions—15 percent increase.
Enrollment in degree-granting postsecondary institutions is projected to increase from 15.3 million in 2000 to 17.7 million by 2012, an increase of 15 percent. A 12 percent increase is projected under the low alternative and a 19 percent increase is projected under the high alternative (table 10).

High school graduates—9 percent increase.
Graduates from public and private high schools are projected to increase from 2.8 million in 1999–2000 to 3.1 million by 2011–12, an increase of 9 percent. This increase reflects the projected rise in the 18-year-old population (table 23).

Public high school graduates in the Western region—17 percent increase.
Between 1999–2000 and 2011–12, the number of public high school graduates is projected to increase 17 percent in the West and 11 percent in the South. Graduates in the Northeast and the Midwest are projected to increase 8 and 1 percent, respectively, over the same period (table 25).

Bachelor's degrees—16 percent increase.
The number of bachelor's degrees is expected to increase from 1,237,875 in 1999–2000 to 1,437,000 by 2011–12, an increase of 16 percent (table 27).

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Introduction

Guide to this Edition

This edition of *Projections of Education Statistics to 2012* provides projections for key education statistics, including enrollment and graduates in elementary and secondary schools and degree-granting institutions. Elementary and secondary teachers and expenditures of public schools are excluded from this edition, but they do appear in *Projections of Education Statistics to 2011*. The tables, figures, and text contain national data on enrollment and graduates for the past 14 years and projections to the year 2012. The tables, figures, and text contain state-level data on projections of enrollment in public elementary and secondary schools and public high school graduates to the year 2012. Similar methodologies were used to obtain a uniform set of projections for the 50 states and the District of Columbia. These projections are further adjusted to agree with the national projections of public elementary and secondary school enrollment and public high school graduates appearing in this report. These projections reflect 2000 population estimates and population projections based on the 1990 census, but are not adjusted for the 1990 net undercount of 4 to 5 million. The population projections are not based on the 2000 census data. Projections of national population data are not scheduled for release until fall 2002. Appendix A describes the methodology and assumptions used to develop the projections. Appendix B contains tables of supplementary data. Data sources are presented in appendix C. Appendix D is a glossary of terms.

Limitations of Projections

Projections of time series usually differ from the final reported data due to errors from many sources. This is because of the inherent nature of the statistical universe from which the basic data are obtained and the properties of projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. These alternatives are not statistical confidence limits, but instead represent judgments made by the authors as to reasonable upper and lower bounds. The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades K–12 for lead times of 1, 2, 5, and 10 years were 0.2, 0.5, 1.1, and 2.7 percent, respectively. On the other hand, mean absolute percentage errors for doctor's degrees for lead times of 1, 2, and 5 years were 2.6, 3.4, and 3.0 percent, respectively. For more information on mean absolute percentage errors, see table A2, page 79.

Alternative projections are presented for enrollment and earned degrees conferred in degree-granting institutions.

Chapter 1

Elementary and Secondary Enrollment

National

Public and private elementary and secondary school enrollments peaked at a record level of 53.2 million in fall 2000. The record 2000 enrollment reflects a 14 percent increase since fall 1990. Further small enrollment increases are expected between 2000 and 2005, followed by small enrollment declines between 2005 and 2010. Between 2010 and 2012, enrollment is projected to increase again (table 1). The primary reason for the continuing increase over the first 5 years is the rise in the number of annual births between 1977 and 1990—sometimes referred to as the "baby boom echo" (appendix table B1 and figure 1). After declines and a period of stability from 1991 to 1997, the number of births has begun rising again. After a decrease in 2001, the 3- to 5-year-old population is projected to increase 6 percent between 2002 and 2012 (appendix table B2 and figure 2). An increase in the 5- to 13-year-old population from 2000 to 2002 and a decrease from 2003 to 2008, followed by an increase from 2009 to 2012, are expected to cause rises in K–8 enrollment through 2002 and decreases through 2008 and then increases to 2012. Between 2000 and 2012, elementary enrollment is projected to remain at the high levels evident in the late 1990s (figure 4). Increases in the 14- to 17-year-old population through 2007 and decreases through 2012 will continue to influence growth in grades 9 through 12 enrollment through 2007. Between 2000 and 2012, enrollment in grades 9–12 is projected to exceed enrollment in the late 1990s.

Enrollment, by Grade Group

Enrollment in grades K–8 increased from 34.0 million in 1990 to approximately 38.4 million in 2000, an increase of 13 percent. After small increases through 2002, K–8 enrollment is projected to decrease slowly through 2008 to 37.7 million. Thereafter, elementary enrollment is expected to begin increasing again, rising to 38.3 million by 2012 (table 1 and figure 4).

Enrollment in grades 9–12 has risen from 12.5 million in 1990 to about 14.8 million in 2000, an increase of 18 percent. Thereafter, enrollment in grades 9–12 is projected to rise to 16.1 million in 2007, before decreasing slightly to 15.4 million by 2012, an increase of 4 percent from 2000. In the year 2005, enrollment in grades 9–12 is projected to reach an all-time record of 15.9 million, surpassing the previous high of 15.7 million in fall 1976.

Enrollment, by Control of School

Enrollment in public elementary and secondary schools increased from 41.2 million in 1990 to 47.2 million in 2000, an increase of 15 percent (figure 5). Enrollment in public schools is projected to rise to 47.9 million in 2006, decrease to 47.6 million in 2010, before increasing again to 47.7 million in 2012 (table 2).

Since 1990, enrollment in private elementary and secondary schools has fluctuated between 5.2 million and 6.0 million. In fall 2000, an estimated 5.9 million students were enrolled in private elementary and secondary schools. Over the projection period, enrollment in private schools is projected to be between 5.9 and 6.0 million (table 2).

Public School Enrollment, by Selected Grade

Between 2000 and 2012, public school enrollment in grades K–12 is projected to increase 1 percent. In grades 1, 4, 8, and 12, projections of public school enrollment will vary over the projection period (table 3 and figure 6). Enrollment in grade 1 is projected to decrease from 2000 to 2002 and then increase through 2012. Enrollment in grade 4 is expected to decrease through 2005 and then increase through 2012. Enrollment in grade 8 is projected to increase to 2004 and then generally decrease to 2012. Enrollment in grade 12 is expected to increase through 2008 and then decrease

to 2012.

Methodology

Enrollment rates for the school-age populations are nearly 100 percent for elementary grades and junior-high grades and close to 90 percent for high school grades. Thus, the historical and projected patterns of decline and growth in enrollment for grades K-8 and grades 9-12 are strongly correlated with changes in the sizes of the 5- to 13-year-old population and the 14- to 17-year-old population. Projections of enrollments in public and private elementary and secondary schools are based on projected grade progression rates. The grade progression rates for grades 2 through 10 are all close to 100 percent. Rates for grades 6-7 and grades 8-9 are significantly over 100 percent. Traditionally, these are the grades in which large numbers of elementary students transfer to public or private secondary schools. The progression rates for grades 10 to 11 and 11 to 12 are about 90 percent. The grade progression rates are assumed to be constant over the projection period. The grade progression rate method assumes that past trends in factors affecting private school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. This method implicitly includes the net effect of such factors as internal migration, dropouts, deaths, nonpromotion, and transfers to and from public schools. The projections do not assume changes in policies or consumer attitudes that may affect enrollment levels.

Projections of public elementary and secondary enrollment that have been produced over the last 19 years are more accurate than projections of public high school graduates that NCES has published over the same time period. For more information, see table A2, page 79.

State Level

Public elementary and secondary school enrollment is projected to increase 1 percent between 2000 and the year 2012, but growth will vary widely across the nation (table 4 and figure 7). Enrollment will increase in the Western and Southern regions, where public school enrollment is expected to increase 9 percent and 1 percent, respectively. A decrease of 5 percent is projected for the Northeastern region, while a decrease of 4 percent is expected in the Midwestern region (table 5 and figure 8).

Public School Enrollment

Over the projection period, public school enrollment is expected to vary across states. All of the states in the Northeast are expected to show enrollment decreases. The largest decreases will occur in Connecticut (7 percent) and Massachusetts (7 percent). A decrease of 2 percent is expected in New Hampshire.

In the Midwest, public school enrollment will decrease in all states except South Dakota between 2000 and 2012. An increase of 1 percent is projected for South Dakota. The largest decreases are projected for Iowa (6 percent), Michigan (7 percent), and North Dakota (6 percent).

Public school enrollment increases are projected for 5 of the 17 Southern states between 2000 and 2012. The largest increases are projected for Georgia (5 percent), Texas (8 percent), and Virginia (5 percent). The largest decreases in enrollment are expected for the District of Columbia (7 percent), Oklahoma (7 percent), and West Virginia (8 percent).

All of the 13 states in the West are expected to show increases in public school enrollment between 2000 and 2012. The largest increases are expected in Alaska (15 percent), Hawaii (16 percent), and Idaho (17 percent).

Public Elementary Enrollment

Between 2000 and 2012, public elementary school enrollment in kindergarten through grade 8 (K-8) is expected to decrease by 0.4 percent. However, public school elementary enrollment is projected to increase in 19 states (table 6 and figure 9). These expected increases in elementary enrollment are a reflection of internal migration, immigration and the relatively high level of births in the 1990s, rather than changes in the attendance rates of young children. The NCES projections do not account for enrollment increases that may be caused by changing state and local policies about the provision of prekindergarten and kindergarten programs. Expansion of these programs could lead to higher enrollments at the elementary school level.

Public school elementary enrollment is expected to show a decrease of 7 percent in the Northeast between 2000 and 2012 (table 7 and figure 10). All states are expected to show decreases. The largest decreases are projected for Connecticut (11 percent), and Massachusetts (10 percent). The smallest decreases are expected for New Hampshire (3 percent) and Vermont (3 percent).

A decrease of 4 percent in public school

elementary enrollment has been projected for the Midwestern region between 2000 and 2012. Eight of the 12 states in this region are projected to show decreases. The largest decreases are expected in Michigan (9 percent) and Ohio (6 percent). The largest increase is projected for South Dakota (7 percent).

A decrease of less than 0.5 percent is expected for the Southern region between 2000 and 2012. Fourteen of the 17 states are projected to show decreases. The largest decreases are projected for North Carolina (7 percent) and West Virginia (8 percent). The largest increase is projected for Texas (7 percent).

Public school elementary enrollment in the Western states is projected to increase by 8 percent between 2000 and 2012. All of the states are projected to show increases except Nevada, which is expected to decrease by 2 percent. Over the projection period, the largest enrollment increases are expected for Hawaii (19 percent), Idaho (19 percent), and Wyoming (22 percent).

Public High School Enrollment

Between 2000 and 2012, enrollment in public high schools (grades 9 through 12) is expected to increase by 5 percent (table 8 and figure 11). Over the projection period, enrollment increases are projected in all of the regions except the Midwest.

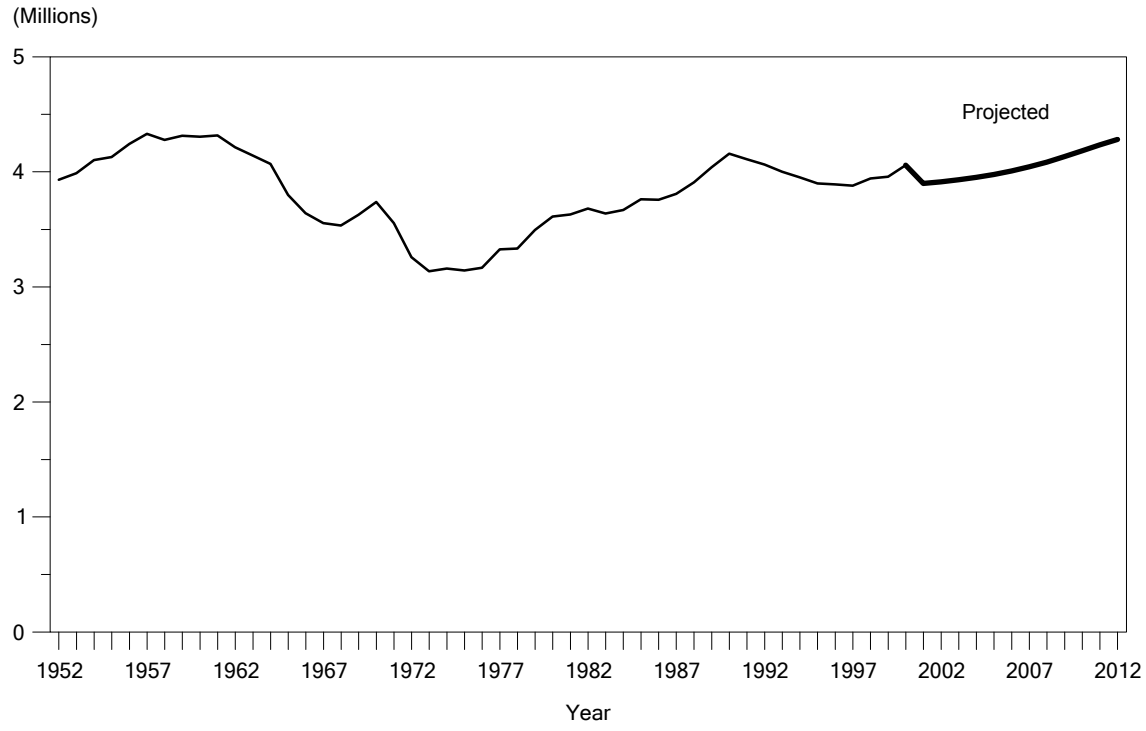
The Northeast public high school enrollment is projected to increase by 2 percent between 2000 and 2012 (table 9 and figure 12). The largest increase is expected in New Jersey (12 percent). The largest decreases are projected for Maine (10 percent) and Vermont (10 percent).

The Midwestern region is expected to show a decrease of 2 percent in public high school enrollment between 2000 and 2012. The largest decreases are projected in North Dakota (19 percent) and South Dakota (11 percent).

Between 2000 and 2012, public high school enrollment in the South is projected to increase by 6 percent. Over the projection period, the largest increases are expected in Georgia (13 percent) and Virginia (14 percent). The largest decrease is projected for the District of Columbia (23 percent).

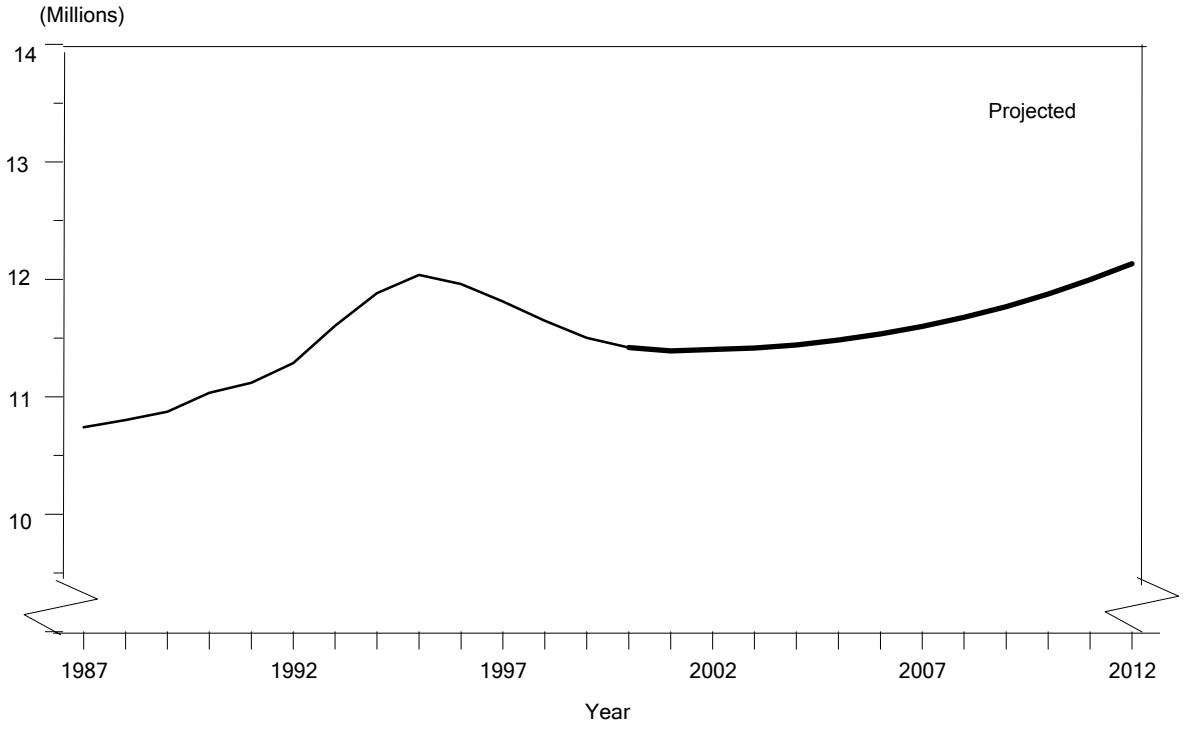
The Western region's public high school enrollment is expected to increase by 11 percent between 2000 and 2012. Over the projection period, the largest increases are projected for Arizona (20 percent) and Nevada (34 percent). The largest decrease is expected for Wyoming (8 percent).

Figure 1.–Annual number of births, with projections: 1952 to 2012



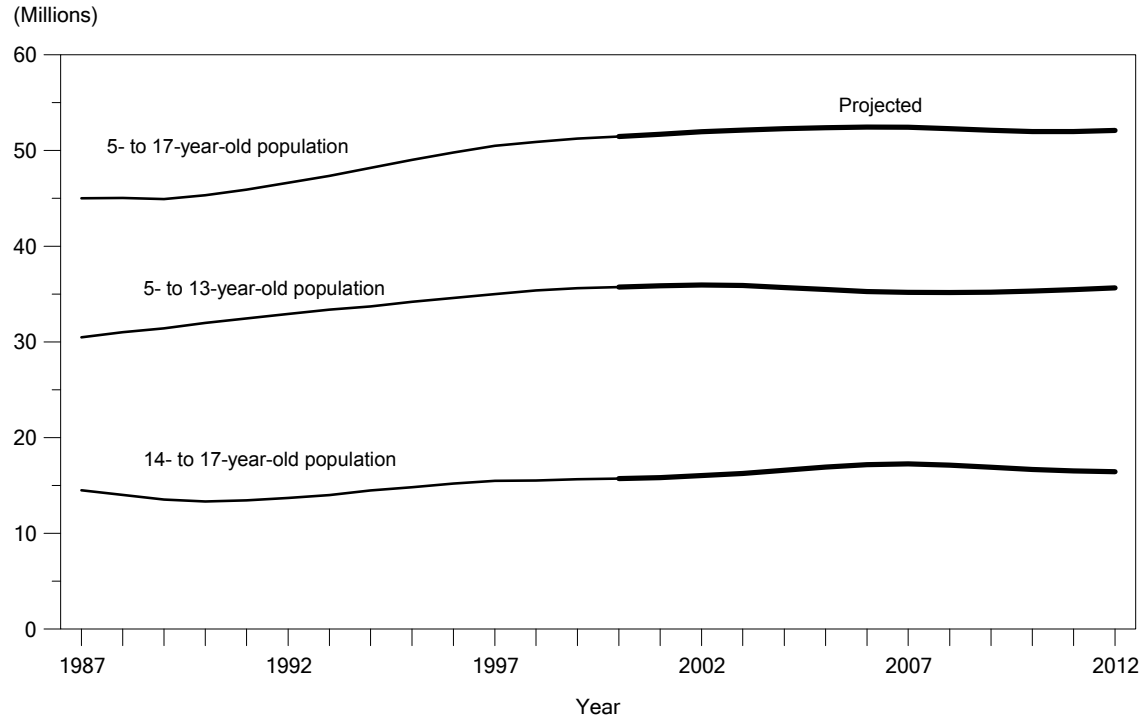
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates,"December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 2.–Three- to five-year-old population, with projections: 1987 to 2012



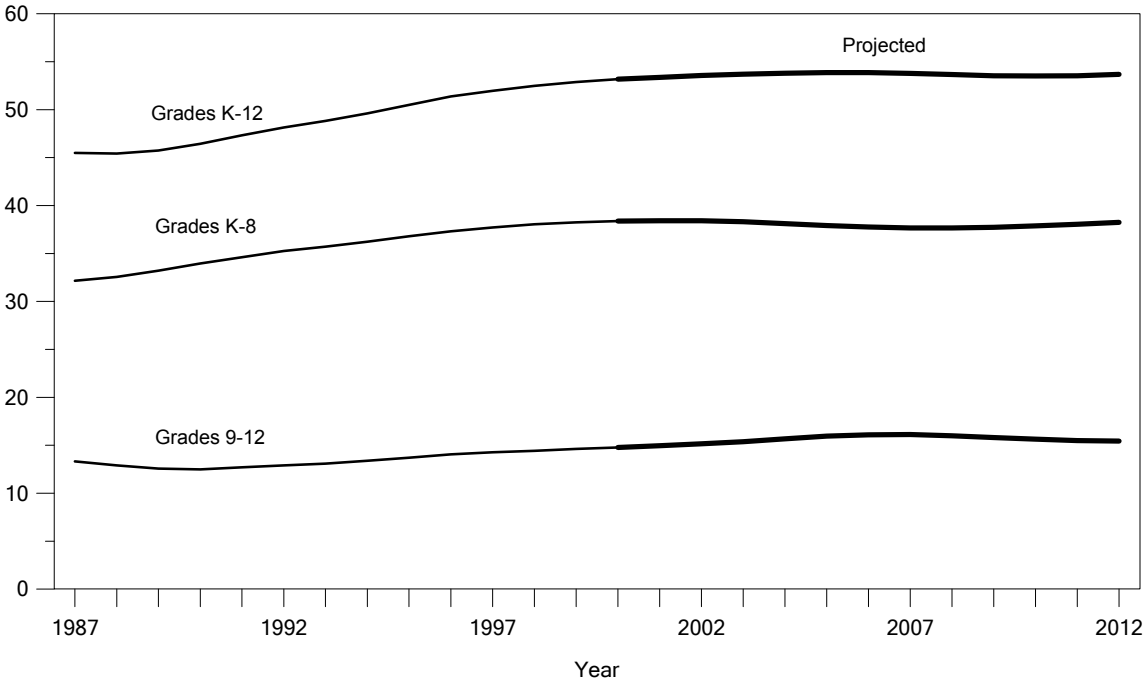
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 3.–School-age populations, with projections: 1987 to 2012



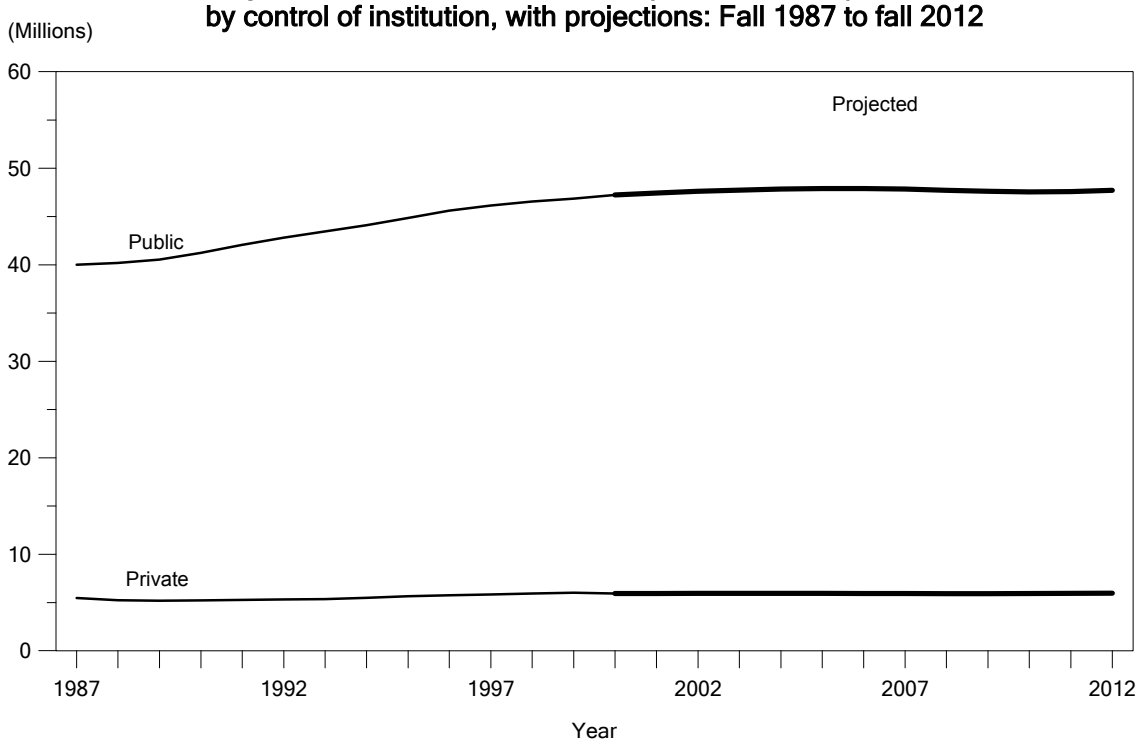
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 4.–Enrollment in elementary and secondary schools, by grade level, with projections: Fall 1987 to fall 2012



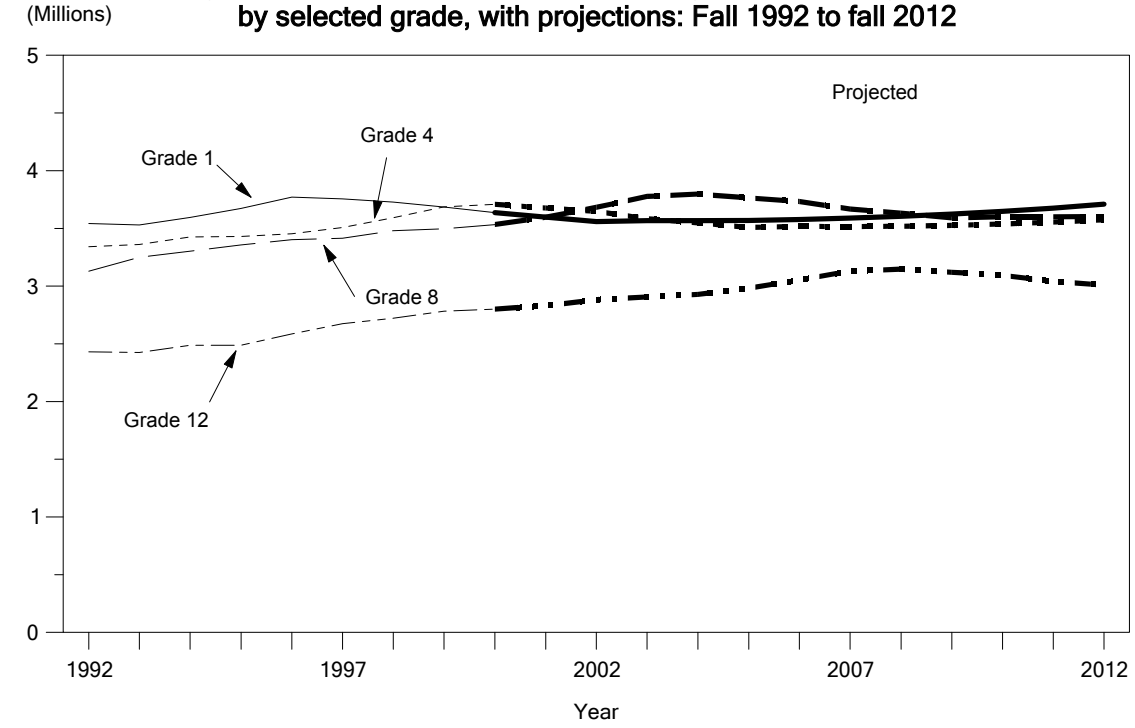
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.

Figure 5.–Enrollment in elementary and secondary schools, by control of institution, with projections: Fall 1987 to fall 2012



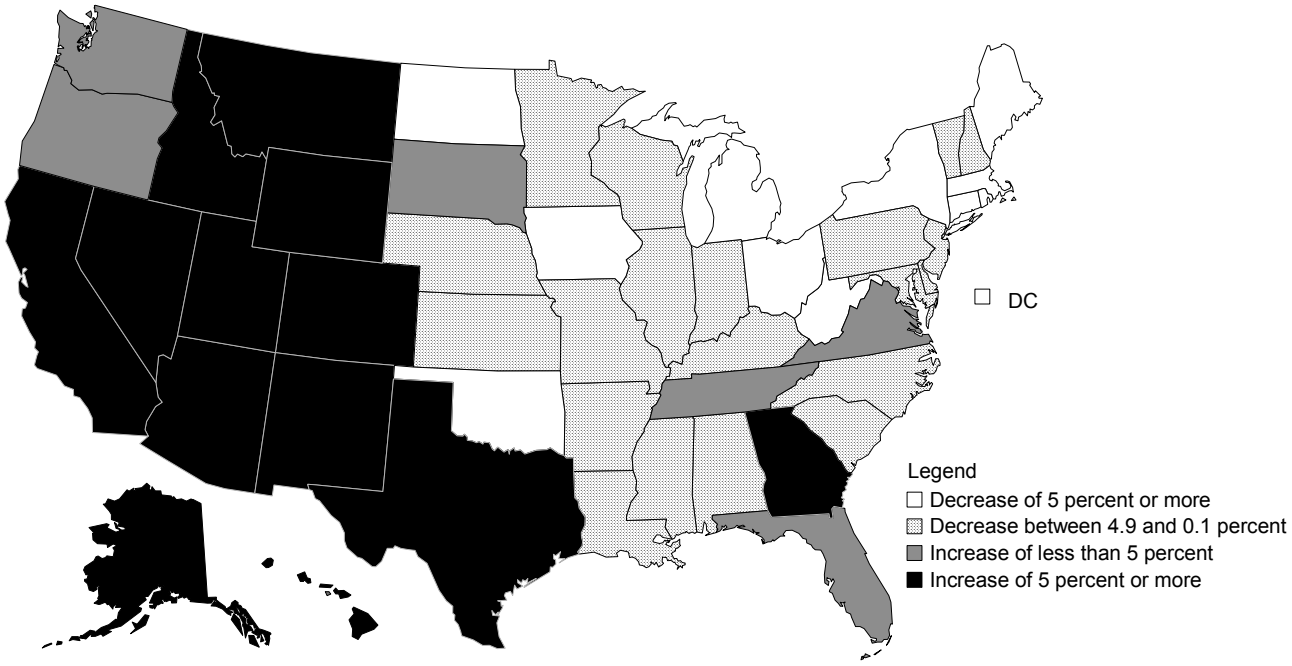
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.

Figure 6.–Enrollment in public elementary and secondary schools, by selected grade, with projections: Fall 1992 to fall 2012



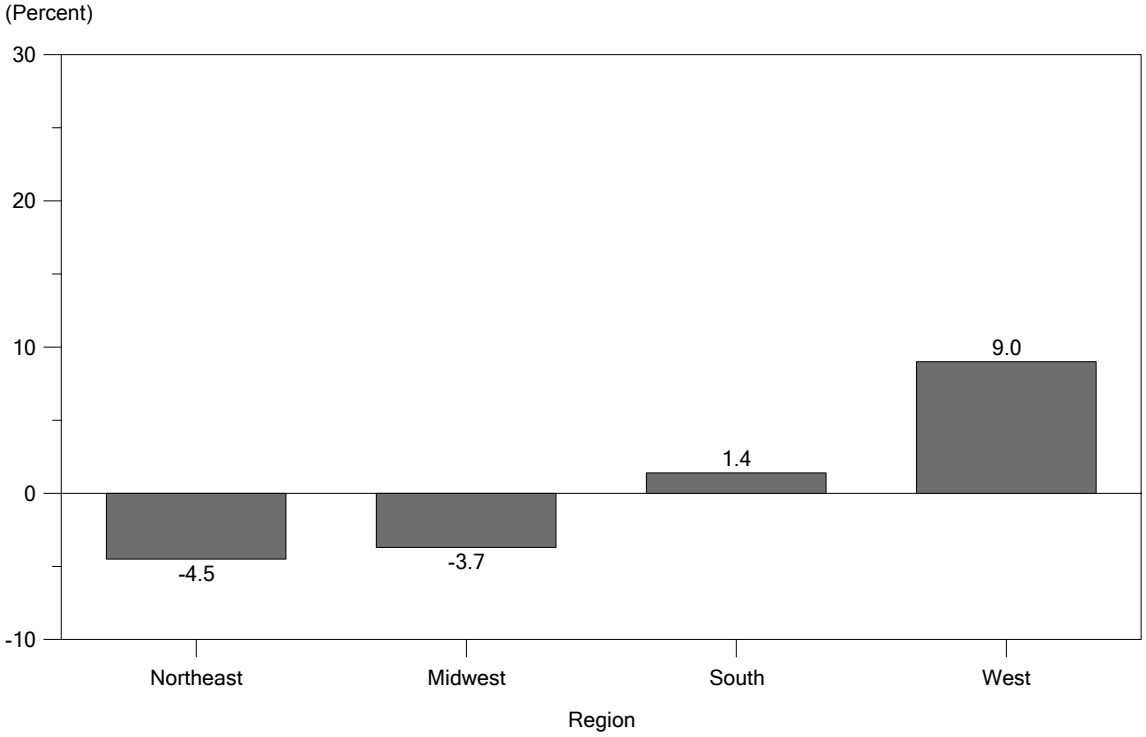
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; and Common Core of Data Surveys; and National Elementary and Secondary Enrollment Model.

Figure 7.—Percent change in grades K-12 enrollment in public schools, by state: Fall 2000 to fall 2012



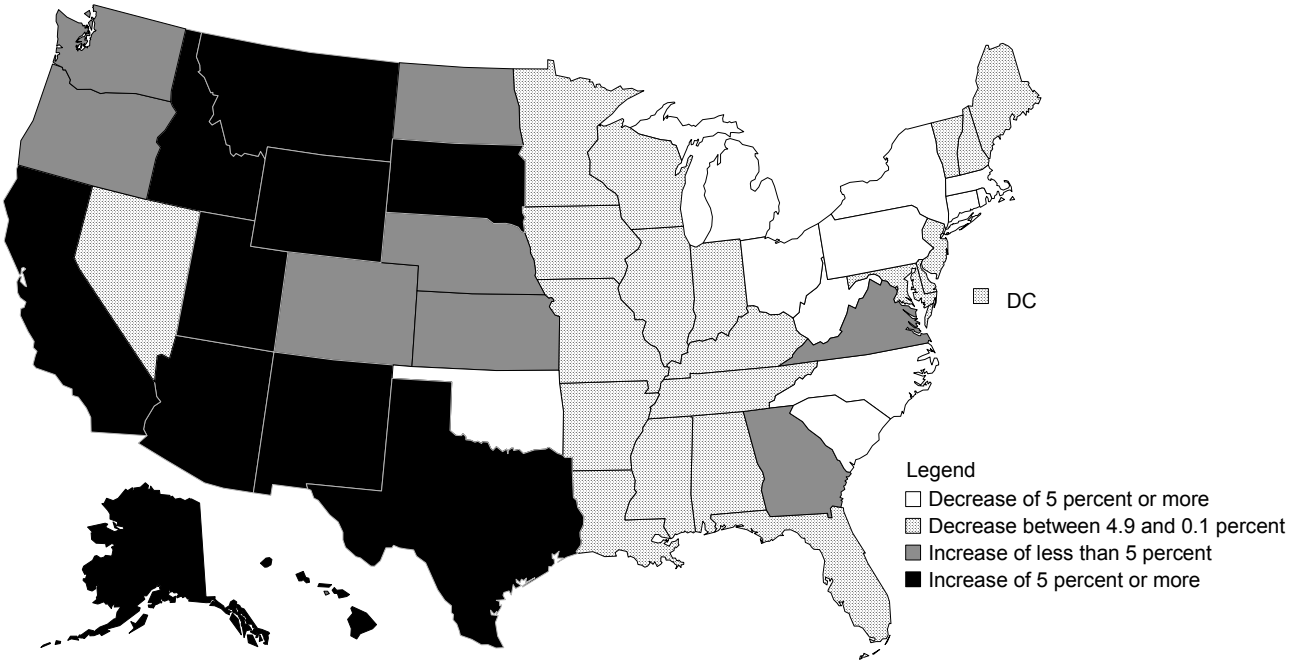
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 8.–Percent change in public K-12 enrollment, by region: Fall 2000 to fall 2012



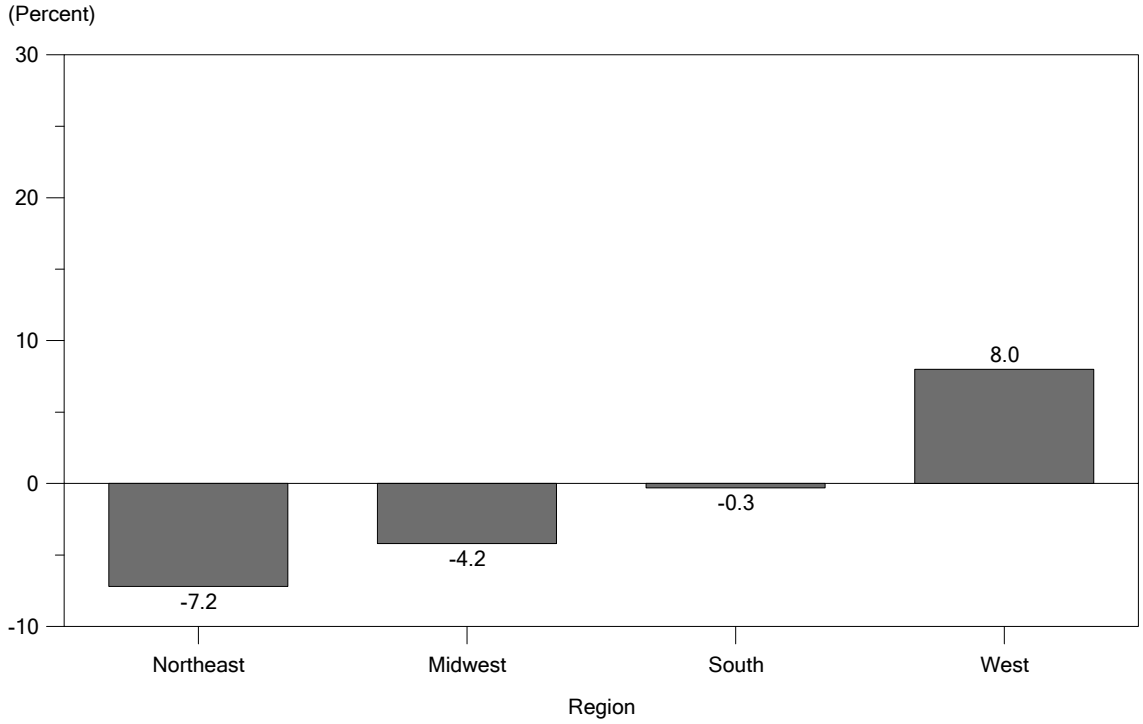
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 9.—Percent change in grades K-8 enrollment in public schools, by state: Fall 2000 to fall 2012



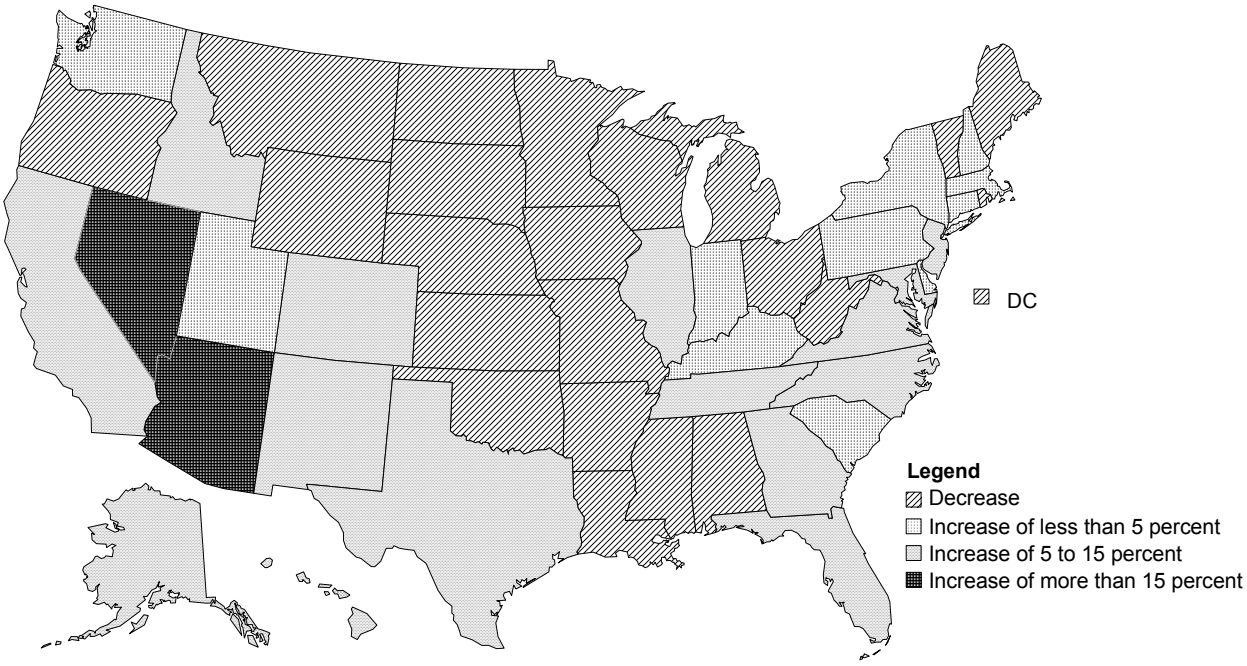
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 10.–Percent change in public K-8 enrollment, by region: Fall 2000 to fall 2012



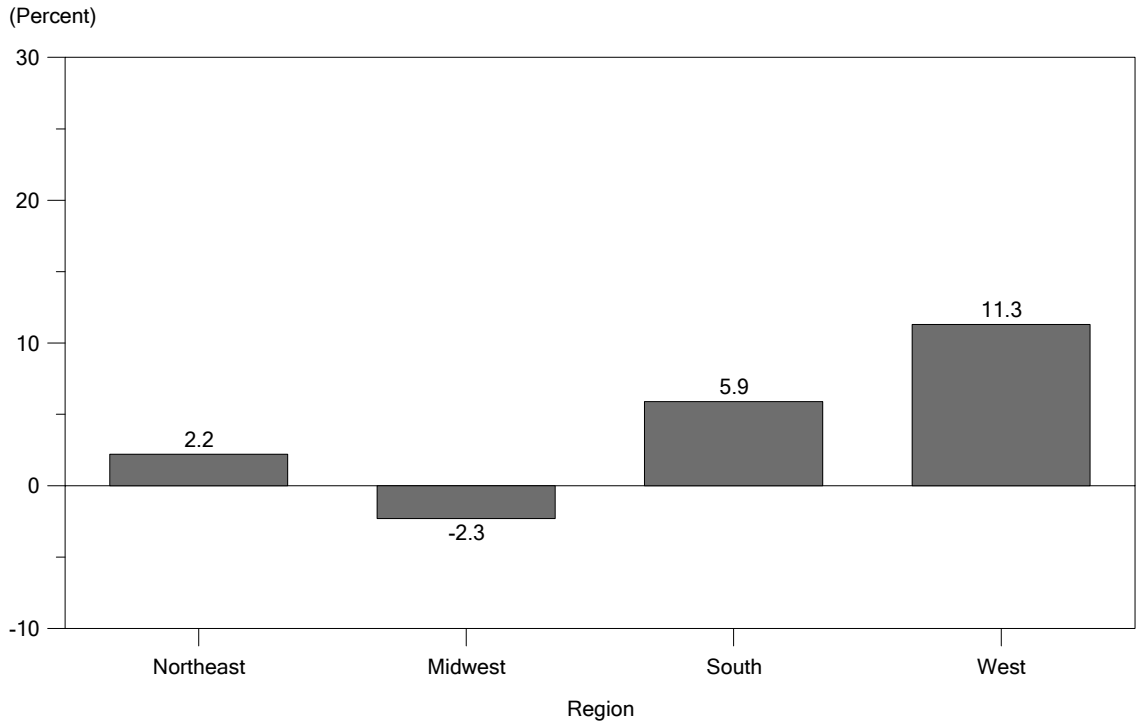
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 11.—Percent change in grades 9-12 enrollment in public schools, by state: Fall 2000 to fall 2012



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 12.–Percent change in public 9-12 enrollment, by region: Fall 2000 to fall 2012



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Table 1.—Enrollment in grades K–8 and 9–12 of elementary and secondary schools, by control of institution, with projections: Fall 1987 to fall 2012

(In thousands)

Year	Total			Public			Private		
	K–12[1]	K–8[1]	9–12	K–12[1]	K–8[1]	9–12	K–12[1]	K–8[1]	9–12
1987 [2]	45,487	32,165	13,323	40,008	27,933	12,076	5,479	4,232	1,247
1988 [2]	45,430	32,537	12,893	40,188	28,501	11,687	5,242	4,036	1,206
1989 [3]	45,741	33,187	12,554	40,543	29,152	11,390	5,198	4,035	1,163
1990 [4]	46,451	33,962	12,488	41,217	29,878	11,338	5,234	4,084	1,150
1991 [3]	47,322	34,619	12,703	42,047	30,506	11,541	5,275	4,113	1,162
1992 [4]	48,145	35,264	12,882	42,823	31,088	11,735	5,322	4,175	1,147
1993 [3]	48,813	35,719	13,093	43,465	31,504	11,961	5,348	4,215	1,132
1994 [4]	49,609	36,233	13,376	44,111	31,898	12,213	5,498	4,335	1,163
1995 [3]	50,502	36,806	13,697	44,840	32,341	12,500	5,662	4,465	1,197
1996 [4]	51,375	37,316	14,060	45,611	32,764	12,847	5,764	4,551	1,213
1997 [3]	51,968	37,696	14,272	46,127	33,073	13,054	5,841	4,623	1,218
1998 [4]	52,476	38,048	14,427	46,539	33,346	13,193	5,937	4,702	1,235
1999 [3]	52,875	38,254	14,623	46,857	33,489	13,369	6,018	4,765	1,254
2000 [4]	53,167	38,387	14,780	47,223	33,709	13,514	5,944	4,678	1,266
Projected									
2001	53,369	38,414	14,954	47,424	33,746	13,678	5,944	4,668	1,276
2002	53,566	38,416	15,150	47,613	33,756	13,857	5,953	4,660	1,292
2003	53,700	38,320	15,380	47,746	33,677	14,069	5,954	4,644	1,310
2004	53,800	38,120	15,680	47,846	33,500	14,346	5,954	4,620	1,334
2005	53,866	37,917	15,948	47,912	33,315	14,597	5,954	4,603	1,351
2006	53,862	37,765	16,097	47,912	33,174	14,739	5,950	4,592	1,358
2007	53,789	37,666	16,123	47,847	33,078	14,768	5,942	4,588	1,355
2008	53,652	37,661	15,991	47,719	33,069	14,649	5,933	4,592	1,341
2009	53,538	37,726	15,812	47,607	33,122	14,485	5,931	4,604	1,327
2010	53,498	37,869	15,629	47,561	33,244	14,317	5,937	4,625	1,313
2011	53,538	38,039	15,500	47,586	33,389	14,197	5,952	4,649	1,303
2012	53,692	38,258	15,434	47,715	33,578	14,137	5,977	4,680	1,297

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[3] Private school numbers are from the Private School Universe Survey.

[4] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools;* Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 2.—Enrollment in elementary and secondary schools, by organizational level and control of institution, with projections: Fall 1987 to fall 2012

(In thousands)

Year	Total			Public			Private		
	K–12[1]	Elementary	Secondary	K–12[1]	Elementary	Secondary	K–12[1]	Elementary	Secondary
1987 [2]	45,487	29,447	16,040	40,008	25,215	14,793	5,479	4,232	1,247
1988 [2]	45,430	29,776	15,654	40,188	25,740	14,448	5,242	4,036	1,206
1989 [3]	45,741	30,443	15,298	40,543	26,408	14,135	5,198	4,035	1,163
1990 [4]	46,451	31,134	15,317	41,217	27,050	14,167	5,234	4,084	1,150
1991 [3]	47,322	31,708	15,614	42,047	27,595	14,452	5,275	4,113	1,162
1992 [4]	48,145	32,280	15,865	42,823	28,105	14,718	5,322	4,175	1,147
1993 [3]	48,813	32,741	16,071	43,465	28,526	14,939	5,348	4,215	1,132
1994 [4]	49,609	33,285	16,324	44,111	28,950	15,161	5,498	4,335	1,163
1995 [3]	50,502	33,894	16,608	44,840	29,429	15,411	5,662	4,465	1,197
1996 [4]	51,375	34,486	16,889	45,611	29,935	15,676	5,764	4,551	1,213
1997 [3]	51,968	34,897	17,071	46,127	30,274	15,853	5,841	4,623	1,218
1998 [4]	52,476	35,246	17,230	46,539	30,544	15,995	5,937	4,702	1,235
1999 [3]	52,875	35,518	17,358	46,857	30,753	16,104	6,018	4,765	1,254
2000 [4]	53,167	35,671	17,496	47,223	30,993	16,230	5,944	4,678	1,266
Projected									
2001	53,369	35,540	17,829	47,424	30,872	16,553	5,944	4,668	1,276
2002	53,566	35,471	18,095	47,613	30,810	16,803	5,953	4,660	1,292
2003	53,700	35,330	18,370	47,746	30,687	17,059	5,954	4,644	1,310
2004	53,800	35,135	18,665	47,846	30,516	17,330	5,954	4,620	1,334
2005	53,866	34,957	18,908	47,912	30,355	17,557	5,954	4,603	1,351
2006	53,862	34,843	19,019	47,912	30,251	17,661	5,950	4,592	1,358
2007	53,789	34,784	19,005	47,847	30,197	17,650	5,942	4,588	1,355
2008	53,652	34,810	18,842	47,719	30,218	17,501	5,933	4,592	1,341
2009	53,538	34,886	18,652	47,607	30,282	17,324	5,931	4,604	1,327
2010	53,498	35,026	18,472	47,561	30,402	17,159	5,937	4,625	1,313
2011	53,538	35,196	18,342	47,586	30,547	17,040	5,952	4,649	1,303
2012	53,692	35,411	18,281	47,715	30,732	16,984	5,977	4,680	1,297

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[3] Private school numbers are from the Private School Universe Survey.

[4] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. For private schools, it was assumed that numbers for elementary are the same as those in table 1 for grades K–8, and numbers for secondary are the same as those in table 1 for grades 9–12. Designation of grades as elementary or secondary varies from school to school. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools;* Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, various years; and National Elementary and Secondary Enrollment Model.
(This table was prepared May 2002.)

Table 3.—Enrollment in public elementary and secondary schools, by grade, with projections: Fall 1992 to fall 2012

(In thousands)

Year	Total	Kinder-garten[1]	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Elementary Unclassified	Secondary Unclassified
1992	42,823	3,817	3,542	3,431	3,361	3,342	3,325	3,303	3,299	3,129	3,352	3,027	2,656	2,431	539	269
1993	43,465	3,922	3,529	3,429	3,437	3,361	3,350	3,356	3,355	3,249	3,487	3,050	2,751	2,424	515	248
1994	44,111	4,047	3,593	3,440	3,439	3,426	3,372	3,381	3,404	3,302	3,604	3,131	2,748	2,488	494	242
1995	44,840	4,173	3,671	3,507	3,445	3,431	3,438	3,395	3,422	3,356	3,704	3,237	2,826	2,487	502	245
1996	45,611	4,203	3,770	3,600	3,524	3,454	3,453	3,494	3,464	3,403	3,801	3,323	2,930	2,586	401	206
1997	46,127	4,199	3,755	3,689	3,597	3,507	3,458	3,492	3,520	3,415	3,819	3,376	2,972	2,673	442	214
1998	46,539	4,172	3,727	3,681	3,696	3,592	3,520	3,497	3,530	3,480	3,856	3,382	3,021	2,722	451	212
1999	46,857	4,148	3,684	3,656	3,691	3,686	3,604	3,564	3,541	3,497	3,935	3,415	3,034	2,782	418	203
2000	47,223	4,177	3,635	3,633	3,673	3,708	3,703	3,658	3,624	3,532	3,958	3,487	3,080	2,799	366	189
Projected																
2001	47,424	4,062	3,598	3,569	3,644	3,676	3,722	3,752	3,710	3,597	3,988	3,516	3,136	2,830	417	208
2002	47,613	4,071	3,559	3,533	3,580	3,646	3,690	3,771	3,805	3,683	4,061	3,542	3,162	2,882	418	211
2003	47,746	4,071	3,568	3,495	3,544	3,582	3,660	3,738	3,825	3,777	4,158	3,607	3,186	2,905	417	213
2004	47,846	4,072	3,567	3,503	3,505	3,547	3,596	3,709	3,792	3,796	4,264	3,693	3,244	2,927	415	218
2005	47,912	4,083	3,568	3,502	3,514	3,508	3,560	3,643	3,761	3,763	4,286	3,787	3,321	2,980	412	222
2006	47,912	4,098	3,577	3,504	3,513	3,516	3,521	3,607	3,695	3,733	4,249	3,807	3,406	3,052	410	225
2007	47,847	4,116	3,589	3,512	3,514	3,515	3,529	3,568	3,658	3,667	4,215	3,773	3,424	3,130	409	227
2008	47,719	4,138	3,605	3,524	3,523	3,517	3,528	3,576	3,618	3,631	4,141	3,743	3,394	3,146	408	225
2009	47,607	4,165	3,625	3,540	3,535	3,525	3,530	3,575	3,627	3,591	4,099	3,678	3,367	3,118	409	223
2010	47,561	4,198	3,648	3,559	3,550	3,537	3,539	3,577	3,626	3,600	4,055	3,641	3,308	3,094	410	220
2011	47,586	4,235	3,675	3,582	3,570	3,553	3,551	3,585	3,628	3,599	4,064	3,601	3,275	3,039	412	218
2012	47,715	4,280	3,710	3,608	3,593	3,572	3,566	3,598	3,636	3,601	4,063	3,610	3,239	3,009	414	216

[1] Includes most kindergarten and some nursery school enrollment.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools;* Common Core of Data surveys; and National Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 4.—Enrollment in grades K–12 in public elementary and secondary schools, by region and state, with projections: Fall 1994 to fall 2012

(In thousands)

Region and state	Actual							Projected		
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	44,111	44,840	45,611	46,127	46,539	46,857	47,223	47,424	47,613	47,746
Northeast	7,760	7,894	8,006	8,085	8,145	8,196	8,217	8,270	8,291	8,289
Connecticut	507	518	527	535	545	554	562	563	564	563
Maine	213	214	214	213	211	209	207	207	205	204
Massachusetts	894	915	934	949	962	971	975	979	981	980
New Hampshire	189	194	198	202	205	207	208	208	209	209
New Jersey	1,174	1,197	1,228	1,250	1,269	1,289	1,308	1,330	1,342	1,348
New York	2,766	2,813	2,843	2,862	2,877	2,888	2,882	2,891	2,895	2,891
Pennsylvania	1,765	1,788	1,804	1,815	1,816	1,817	1,814	1,833	1,837	1,837
Rhode Island	147	150	151	153	155	156	157	157	157	157
Vermont	105	106	106	106	105	105	102	102	101	100
Midwest	10,386	10,512	10,638	10,704	10,722	10,726	10,753	10,722	10,712	10,684
Illinois	1,916	1,944	1,973	1,998	2,012	2,028	2,049	2,064	2,072	2,077
Indiana	969	977	983	987	989	989	989	990	991	992
Iowa	500	502	503	501	498	497	495	491	489	486
Kansas	461	463	466	469	472	472	471	468	466	463
Michigan	1,615	1,641	1,686	1,703	1,720	1,726	1,743	1,720	1,717	1,710
Minnesota	822	835	847	854	856	854	854	850	847	842
Missouri	879	890	901	911	913	914	913	911	909	907
Nebraska	287	290	292	293	291	288	286	285	284	283
North Dakota	119	119	120	119	115	113	109	108	106	104
Ohio	1,814	1,836	1,845	1,847	1,842	1,837	1,835	1,831	1,828	1,822
South Dakota	143	145	143	142	132	131	129	129	127	126
Wisconsin	861	870	879	882	880	878	879	877	875	871
South	15,851	16,118	16,373	16,563	16,713	16,842	17,008	17,090	17,166	17,231
Alabama	737	746	748	749	748	741	740	742	741	740
Arkansas	448	453	457	456	452	451	450	449	447	446
Delaware	107	108	111	112	113	113	115	115	116	116
District of Columbia	80	80	79	77	72	77	69	68	66	65
Florida	2,111	2,176	2,242	2,294	2,338	2,381	2,435	2,444	2,462	2,482
Georgia	1,271	1,311	1,347	1,376	1,401	1,423	1,445	1,459	1,473	1,485
Kentucky	658	660	656	669	656	648	666	668	670	671
Louisiana	798	797	793	777	769	757	743	746	739	734
Maryland	791	806	819	831	842	847	853	862	866	868
Mississippi	506	506	504	505	502	501	498	499	499	498
North Carolina	1,157	1,183	1,210	1,236	1,255	1,276	1,294	1,300	1,308	1,313
Oklahoma	610	616	621	624	628	627	623	610	604	599
South Carolina	649	646	653	659	665	667	677	677	680	681
Tennessee	881	894	905	893	905	916	909	916	920	924
Texas	3,677	3,748	3,829	3,892	3,945	3,992	4,060	4,076	4,104	4,128
Virginia	1,061	1,080	1,096	1,111	1,124	1,134	1,145	1,176	1,190	1,199
West Virginia	311	307	304	301	298	292	286	284	282	280
West	10,114	10,316	10,594	10,775	10,959	11,094	11,246	11,342	11,444	11,542
Alaska	127	128	130	132	135	134	133	135	136	137
Arizona	737	744	799	814	848	853	878	890	903	915
California	5,407	5,536	5,686	5,804	5,926	6,039	6,142	6,201	6,267	6,326
Colorado	641	656	673	687	699	708	725	729	736	742
Hawaii	184	187	188	190	188	186	184	188	190	191
Idaho	240	243	245	244	245	245	245	249	251	254
Montana	164	166	165	162	160	158	155	156	155	155
Nevada	251	265	282	297	311	326	341	346	355	365
New Mexico	327	330	333	332	329	324	320	325	327	328
Oregon	522	528	538	541	543	545	546	546	546	546
Utah	475	477	482	483	481	480	482	481	482	485
Washington	938	957	975	991	998	1,004	1,005	1,006	1,007	1,009
Wyoming	100	100	99	97	95	92	90	90	89	89

Table 4.—Enrollment in grades K–12 in public elementary and secondary schools, by region and state, with projections: Fall 1994 to fall 2012—Continued

(In thousands)

Region and state	Projected								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	47,846	47,912	47,912	47,847	47,719	47,607	47,561	47,586	47,715
Northeast	8,276	8,244	8,192	8,124	8,046	7,974	7,916	7,870	7,849
Connecticut	561	557	552	547	540	534	529	525	521
Maine	202	200	198	197	196	195	195	195	196
Massachusetts	977	971	963	952	939	929	919	912	910
New Hampshire	209	208	208	207	205	205	204	204	205
New Jersey	1,352	1,353	1,349	1,342	1,333	1,324	1,317	1,310	1,308
New York	2,887	2,875	2,854	2,830	2,801	2,775	2,754	2,737	2,727
Pennsylvania	1,833	1,826	1,814	1,800	1,783	1,766	1,753	1,743	1,737
Rhode Island	156	156	154	153	151	150	149	148	147
Vermont	100	99	98	98	97	97	97	97	97
Midwest	10,659	10,636	10,603	10,556	10,491	10,433	10,391	10,363	10,360
Illinois	2,080	2,083	2,081	2,076	2,065	2,052	2,044	2,035	2,030
Indiana	994	996	994	990	985	979	974	970	968
Iowa	483	482	480	478	475	472	469	467	467
Kansas	462	461	461	460	460	460	461	463	466
Michigan	1,705	1,696	1,687	1,674	1,656	1,641	1,630	1,621	1,616
Minnesota	837	834	830	826	821	819	817	817	820
Missouri	905	904	902	898	894	890	886	885	887
Nebraska	282	282	282	282	281	282	282	284	286
North Dakota	103	102	101	101	101	101	101	102	103
Ohio	1,815	1,808	1,799	1,788	1,774	1,761	1,750	1,741	1,736
South Dakota	126	125	126	126	126	127	128	129	130
Wisconsin	867	863	861	857	853	850	849	849	852
South	17,277	17,310	17,325	17,311	17,284	17,246	17,220	17,221	17,251
Alabama	740	739	738	736	732	729	727	725	726
Arkansas	445	444	443	441	438	435	433	432	431
Delaware	116	116	116	116	116	115	115	114	114
District of Columbia	64	63	63	62	62	62	62	63	64
Florida	2,484	2,488	2,485	2,477	2,469	2,456	2,445	2,441	2,441
Georgia	1,497	1,505	1,510	1,513	1,511	1,511	1,511	1,513	1,517
Kentucky	672	673	674	674	672	668	665	660	655
Louisiana	734	729	726	723	725	721	721	721	723
Maryland	869	867	865	861	857	852	851	850	852
Mississippi	498	498	498	497	494	492	489	487	485
North Carolina	1,316	1,315	1,310	1,301	1,291	1,279	1,268	1,259	1,252
Oklahoma	594	591	588	584	581	579	578	578	580
South Carolina	681	680	679	675	673	668	665	662	661
Tennessee	928	930	931	929	926	923	921	920	922
Texas	4,155	4,182	4,210	4,236	4,258	4,280	4,302	4,331	4,366
Virginia	1,206	1,211	1,215	1,214	1,210	1,207	1,203	1,201	1,201
West Virginia	278	277	275	273	271	268	266	264	262
West	11,634	11,721	11,792	11,855	11,898	11,954	12,033	12,132	12,256
Alaska	138	139	141	142	143	145	147	150	153
Arizona	926	936	944	949	952	954	955	958	960
California	6,385	6,435	6,474	6,509	6,533	6,567	6,622	6,685	6,768
Colorado	747	752	756	759	760	762	763	764	767
Hawaii	193	195	197	199	201	203	207	210	214
Idaho	258	261	265	268	271	275	279	283	287
Montana	154	155	155	156	157	158	160	161	164
Nevada	370	375	379	380	379	377	374	371	368
New Mexico	331	334	337	340	344	349	354	360	366
Oregon	546	546	547	546	546	546	547	549	553
Utah	488	493	497	502	507	512	516	522	528
Washington	1,009	1,010	1,012	1,012	1,011	1,012	1,014	1,019	1,028
Wyoming	89	90	90	92	93	94	96	98	101

NOTE: Some data have been revised from previously published figures. Includes most kindergarten and some nursery school enrollment. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 5.—Percent change in grades K–12 enrollment in public schools, by region and state, with projections: Fall 1994 to fall 2012

Region and state	Actual	Projected		
	1994 to 2000	2000 to 2006	2006 to 2012	2000 to 2012
United States	7.1	1.5	-0.4	1.0
Northeast	5.9	-0.3	-4.2	-4.5
Connecticut	10.9	-1.7	-5.6	-7.2
Maine	-2.6	-4.2	-1.4	-5.5
Massachusetts	9.1	-1.2	-5.5	-6.7
New Hampshire	10.1	-0.3	-1.5	-1.8
New Jersey	11.4	3.2	-3.1	-0.0
New York	4.2	-1.0	-4.5	-5.4
Pennsylvania	2.8	0.0	-4.2	-4.2
Rhode Island	6.7	-1.9	-4.6	-6.4
Vermont	-2.4	-3.7	-1.2	-4.8
Midwest	3.5	-1.4	-2.3	-3.7
Illinois	6.9	1.6	-2.5	-0.9
Indiana	2.1	0.5	-2.6	-2.1
Iowa	-1.1	-3.0	-2.8	-5.7
Kansas	2.1	-2.1	1.1	-1.0
Michigan	8.0	-3.3	-4.2	-7.3
Minnesota	4.0	-2.8	-1.2	-4.0
Missouri	3.9	-1.2	-1.6	-2.8
Nebraska	-0.3	-1.6	1.4	-0.2
North Dakota	-8.5	-7.1	1.1	-6.1
Ohio	1.1	-1.9	-3.5	-5.4
South Dakota	-10.4	-2.4	3.4	1.0
Wisconsin	2.2	-2.1	-1.1	-3.1
South	7.3	1.9	-0.4	1.4
Alabama	0.5	-0.3	-1.6	-2.0
Arkansas	0.5	-1.5	-2.8	-4.3
Delaware	7.4	1.2	-2.2	-1.0
District of Columbia	-14.3	-8.7	2.1	-6.8
Florida	15.3	2.1	-1.8	0.3
Georgia	13.7	4.5	0.4	5.0
Kentucky	1.2	1.2	-2.8	-1.7
Louisiana	-6.9	-2.3	-0.4	-2.7
Maryland	7.8	1.4	-1.5	-0.1
Mississippi	-1.6	0.0	-2.5	-2.5
North Carolina	11.8	1.3	-4.4	-3.2
Oklahoma	2.2	-5.7	-1.2	-6.9
South Carolina	4.4	0.2	-2.6	-2.4
Tennessee	3.2	2.4	-1.0	1.3
Texas	10.4	3.7	3.7	7.5
Virginia	7.9	6.1	-1.2	4.9
West Virginia	-7.8	-3.9	-4.6	-8.4
West	11.2	4.9	3.9	9.0
Alaska	5.0	5.4	9.0	14.9
Arizona	19.0	7.5	1.8	9.4
California	13.6	5.4	4.5	10.2
Colorado	13.1	4.3	1.5	5.9
Hawaii	0.3	6.8	8.9	16.3
Idaho	1.9	8.0	8.4	17.0
Montana	-5.8	0.3	5.4	5.7
Nevada	35.9	11.1	-2.9	7.9
New Mexico	-2.1	5.2	8.7	14.3
Oregon	4.7	0.1	1.1	1.2
Utah	1.5	3.3	6.1	9.6
Washington	7.1	0.7	1.6	2.3
Wyoming	-10.3	0.6	11.4	12.1

NOTE: Calculations are based on unrounded numbers. Includes most kindergarten and some nursery school enrollment. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 6.—Enrollment in grades K–8 in public schools, by region and state, with projections: Fall 1994 to fall 2012

(In thousands)

Region and state	Actual							Projected		
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	31,898	32,341	32,764	33,073	33,346	33,489	33,709	33,746	33,756	33,677
Northeast	5,568	5,659	5,729	5,774	5,820	5,841	5,826	5,828	5,798	5,748
Connecticut	376	384	389	394	399	404	406	402	399	394
Maine	156	156	156	153	151	149	146	145	144	142
Massachusetts	659	675	688	696	705	706	703	699	695	686
New Hampshire	139	142	144	145	147	147	147	146	145	145
New Jersey	862	880	903	921	936	954	953	960	959	953
New York	1,949	1,980	2,000	2,011	2,028	2,034	2,029	2,029	2,017	1,999
Pennsylvania	1,244	1,257	1,264	1,266	1,267	1,262	1,258	1,264	1,258	1,249
Rhode Island	108	110	110	112	112	114	114	113	112	111
Vermont	76	75	75	74	73	72	70	70	70	69
Midwest	7,387	7,448	7,504	7,554	7,565	7,551	7,557	7,526	7,505	7,465
Illinois	1,368	1,390	1,412	1,438	1,452	1,462	1,474	1,477	1,477	1,474
Indiana	679	684	689	693	697	699	703	706	706	703
Iowa	346	344	342	338	337	336	334	332	331	329
Kansas	329	329	328	328	327	326	323	322	321	320
Michigan	1,170	1,192	1,212	1,236	1,245	1,245	1,256	1,234	1,229	1,219
Minnesota	581	586	589	588	587	580	578	574	570	565
Missouri	628	636	643	650	651	649	645	643	642	639
Nebraska	203	203	203	202	200	197	195	196	195	195
North Dakota	83	82	82	80	77	75	72	72	71	71
Ohio	1,295	1,297	1,299	1,299	1,301	1,296	1,294	1,290	1,285	1,276
South Dakota	102	101	99	98	91	90	88	89	88	88
Wisconsin	601	603	605	604	601	596	595	591	588	585
South	11,604	11,772	11,911	12,022	12,127	12,191	12,315	12,331	12,348	12,331
Alabama	535	539	540	541	542	539	539	541	541	540
Arkansas	319	322	324	322	319	318	318	318	318	316
Delaware	77	77	78	79	80	80	81	81	81	81
District of Columbia	62	62	61	60	57	60	54	53	53	51
Florida	1,570	1,614	1,653	1,680	1,704	1,725	1,760	1,752	1,750	1,741
Georgia	935	966	991	1,011	1,029	1,044	1,060	1,066	1,072	1,074
Kentucky	467	468	466	474	464	459	472	473	475	476
Louisiana	584	580	575	564	558	548	547	544	541	537
Maryland	581	590	597	602	607	607	609	611	610	607
Mississippi	367	366	364	365	365	365	364	367	368	367
North Carolina	847	871	886	906	921	935	945	945	943	936
Oklahoma	443	446	445	445	448	447	445	434	431	427
South Carolina	469	463	468	473	478	484	493	489	488	485
Tennessee	641	651	657	653	665	664	668	673	676	675
Texas	2,721	2,757	2,800	2,832	2,868	2,896	2,943	2,943	2,959	2,973
Virginia	774	788	796	807	815	817	816	839	845	846
West Virginia	213	211	209	207	206	203	201	200	200	198
West	7,340	7,462	7,620	7,723	7,834	7,904	8,012	8,061	8,105	8,133
Alaska	94	93	94	96	97	96	94	96	97	97
Arizona	543	549	588	596	623	624	641	647	654	658
California	3,956	4,041	4,129	4,196	4,270	4,337	4,409	4,434	4,457	4,470
Colorado	470	479	487	494	501	507	517	517	520	522
Hawaii	134	136	136	136	135	133	132	136	137	139
Idaho	169	170	169	169	169	169	170	174	176	179
Montana	117	116	115	112	110	107	105	106	107	107
Nevada	185	196	208	219	229	240	251	252	255	256
New Mexico	229	229	230	236	232	229	225	230	232	234
Oregon	372	376	380	381	380	378	379	379	379	377
Utah	328	328	328	329	329	329	333	334	336	339
Washington	673	680	687	694	696	695	694	694	694	692
Wyoming	70	69	67	66	64	62	60	61	61	62

Table 6.—Enrollment in grades K–8 in public schools, by region and state, with projections: Fall 1994 to fall 2012—Continued

(In thousands)

Region and state	Projected								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	33,500	33,315	33,174	33,078	33,069	33,122	33,244	33,389	33,578
Northeast	5,680	5,613	5,553	5,502	5,473	5,451	5,429	5,413	5,405
Connecticut	388	382	376	371	366	365	364	363	364
Maine	141	140	139	139	140	141	141	141	140
Massachusetts	676	666	656	648	646	644	640	637	635
New Hampshire	143	143	142	142	142	143	143	142	142
New Jersey	944	936	927	919	914	911	910	909	911
New York	1,975	1,950	1,929	1,910	1,897	1,885	1,877	1,870	1,868
Pennsylvania	1,235	1,221	1,209	1,199	1,194	1,189	1,183	1,177	1,173
Rhode Island	109	108	106	105	105	105	104	104	104
Vermont	69	68	68	69	69	69	69	69	68
Midwest	7,400	7,338	7,289	7,250	7,235	7,226	7,225	7,228	7,237
Illinois	1,462	1,449	1,439	1,428	1,418	1,412	1,413	1,415	1,418
Indiana	699	693	689	685	682	680	679	678	677
Iowa	326	323	320	319	318	318	318	318	318
Kansas	319	318	318	319	321	322	323	325	327
Michigan	1,202	1,188	1,176	1,166	1,159	1,156	1,152	1,149	1,147
Minnesota	560	556	553	552	552	554	556	559	562
Missouri	634	629	623	621	622	623	624	625	627
Nebraska	194	194	194	195	196	197	198	199	200
North Dakota	70	70	70	71	71	72	72	72	73
Ohio	1,264	1,251	1,241	1,231	1,226	1,222	1,219	1,216	1,214
South Dakota	88	89	89	90	92	92	93	93	94
Wisconsin	581	578	575	575	576	577	578	579	581
South	12,292	12,232	12,179	12,140	12,123	12,124	12,169	12,219	12,281
Alabama	536	533	531	529	529	527	526	525	525
Arkansas	313	310	308	307	306	305	304	304	303
Delaware	81	81	80	80	79	79	79	78	78
District of Columbia	50	49	49	48	49	50	51	51	53
Florida	1,730	1,716	1,702	1,689	1,677	1,678	1,687	1,697	1,710
Georgia	1,071	1,070	1,068	1,066	1,066	1,066	1,070	1,075	1,080
Kentucky	475	473	471	467	462	459	457	455	453
Louisiana	540	534	531	530	531	531	533	535	537
Maryland	602	597	594	592	592	591	592	592	594
Mississippi	365	363	361	359	359	356	355	354	353
North Carolina	927	917	906	895	885	880	879	878	879
Oklahoma	422	418	414	413	413	415	417	420	423
South Carolina	485	481	476	472	471	470	469	468	468
Tennessee	672	668	665	664	665	663	664	664	664
Texas	2,982	2,990	2,997	3,006	3,020	3,039	3,074	3,110	3,149
Virginia	842	838	833	830	828	824	824	824	826
West Virginia	197	195	193	192	191	190	188	186	185
West	8,128	8,132	8,153	8,186	8,238	8,320	8,420	8,531	8,656
Alaska	98	99	100	102	104	106	108	110	112
Arizona	659	659	658	658	656	658	664	670	677
California	4,460	4,456	4,468	4,481	4,508	4,566	4,631	4,707	4,796
Colorado	523	523	523	523	524	526	529	533	536
Hawaii	140	141	143	146	149	151	153	155	158
Idaho	181	184	187	190	194	196	198	200	202
Montana	107	108	109	111	114	115	115	116	117
Nevada	256	254	251	248	244	243	245	246	247
New Mexico	236	239	242	247	252	255	259	262	266
Oregon	375	374	373	374	376	378	381	384	386
Utah	342	345	348	353	357	360	365	369	373
Washington	689	687	685	687	691	696	701	708	715
Wyoming	63	64	65	67	69	70	71	72	74

NOTE: Some data have been revised from previously published figures. Includes most kindergarten and some nursery school enrollment. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 7.—Percent change in grades K–8 enrollment in public schools, by region and state, with projections: Fall 1994 to fall 2012

Region and state	Actual	Projected		
	1994 to 2000	2000 to 2006	2006 to 2012	2000 to 2012
United States	5.7	-1.6	1.2	-0.4
Northeast	4.6	-4.7	-2.7	-7.2
Connecticut	8.2	-7.4	-3.3	-10.5
Maine	-6.5	-4.4	0.8	-3.6
Massachusetts	6.7	-6.6	-3.2	-9.6
New Hampshire	6.0	-3.6	0.3	-3.3
New Jersey	10.5	-2.7	-1.8	-4.4
New York	4.1	-5.0	-3.2	-8.0
Pennsylvania	1.1	-3.9	-3.0	-6.8
Rhode Island	5.2	-6.3	-2.2	-8.4
Vermont	-7.0	-2.7	0.1	-2.6
Midwest	2.3	-3.5	-0.7	-4.2
Illinois	7.7	-2.4	-1.5	-3.8
Indiana	3.6	-2.1	-1.7	-3.8
Iowa	-3.5	-4.0	-0.7	-4.7
Kansas	-1.8	-1.6	2.8	1.2
Michigan	7.3	-6.4	-2.4	-8.6
Minnesota	-0.6	-4.3	1.6	-2.8
Missouri	2.6	-3.3	0.6	-2.7
Nebraska	-3.7	-0.7	3.0	2.3
North Dakota	-13.2	-3.0	3.5	0.4
Ohio	-0.1	-4.1	-2.2	-6.2
South Dakota	-13.7	1.8	4.6	6.5
Wisconsin	-1.1	-3.2	0.9	-2.4
South	6.1	-1.1	0.8	-0.3
Alabama	0.7	-1.5	-1.1	-2.6
Arkansas	-0.4	-3.1	-1.5	-4.6
Delaware	5.2	-0.6	-2.6	-3.1
District of Columbia	-13.6	-9.5	8.1	-2.2
Florida	12.1	-3.3	0.5	-2.8
Georgia	13.4	0.7	1.2	1.9
Kentucky	1.0	-0.1	-3.9	-4.0
Louisiana	-6.4	-2.8	1.1	-1.7
Maryland	4.9	-2.5	0.1	-2.4
Mississippi	-0.8	-0.8	-2.3	-3.1
North Carolina	11.6	-4.2	-3.0	-7.1
Oklahoma	0.6	-6.9	2.1	-5.0
South Carolina	5.2	-3.5	-1.7	-5.1
Tennessee	4.3	-0.5	0.0	-0.6
Texas	8.2	1.8	5.1	7.0
Virginia	5.4	2.1	-0.9	1.2
West Virginia	-5.5	-4.1	-4.3	-8.2
West	9.2	1.8	6.2	8.0
Alaska	0.8	5.4	12.0	18.1
Arizona	18.0	2.7	2.8	5.6
California	11.5	1.3	7.3	8.8
Colorado	10.0	1.2	2.6	3.8
Hawaii	-1.0	8.4	9.9	19.1
Idaho	0.9	9.6	8.1	18.5
Montana	-9.9	4.0	6.6	10.8
Nevada	35.3	0.3	-1.9	-1.6
New Mexico	-1.9	7.7	9.7	18.1
Oregon	2.0	-1.6	3.5	1.9
Utah	1.5	4.4	7.1	11.9
Washington	3.2	-1.3	4.3	2.9
Wyoming	-14.2	8.0	13.2	22.2

NOTE: Calculations are based on unrounded numbers. Includes most kindergarten and some nursery school enrollment. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 8.—Enrollment in grades 9–12 in public schools, by region and state, with projections: Fall 1994 to fall 2012

(In thousands)

Region and state	Actual							Projected		
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
United States	12,213	12,500	12,847	13,054	13,193	13,369	13,514	13,678	13,857	14,069
Northeast	2,192	2,235	2,277	2,311	2,326	2,355	2,391	2,442	2,493	2,541
Connecticut	131	134	138	141	145	150	156	161	165	169
Maine	57	58	58	59	60	60	61	61	61	61
Massachusetts	235	240	246	253	258	265	273	279	286	293
New Hampshire	50	52	54	56	58	60	61	63	64	65
New Jersey	312	317	325	329	333	335	355	370	383	396
New York	817	833	843	851	849	854	853	862	878	892
Pennsylvania	521	531	541	549	549	555	556	569	579	589
Rhode Island	40	40	41	42	42	43	44	44	45	46
Vermont	29	30	31	32	32	32	32	32	31	31
Midwest	2,999	3,064	3,134	3,151	3,156	3,175	3,196	3,197	3,207	3,219
Illinois	548	553	561	560	560	565	575	587	595	603
Indiana	290	293	294	294	292	289	286	284	285	289
Iowa	155	158	161	163	162	161	161	159	158	157
Kansas	132	134	138	141	145	146	147	145	144	143
Michigan	445	450	473	467	475	481	488	486	488	491
Minnesota	240	249	258	266	270	274	277	276	277	276
Missouri	250	254	257	261	263	265	268	267	268	268
Nebraska	84	87	89	91	91	91	91	90	89	88
North Dakota	36	37	38	38	38	38	37	36	35	34
Ohio	519	539	546	548	541	540	541	541	543	546
South Dakota	42	43	44	45	42	41	41	40	39	38
Wisconsin	259	267	274	278	279	281	285	286	286	286
South	4,247	4,346	4,462	4,541	4,586	4,650	4,693	4,759	4,818	4,901
Alabama	201	207	208	208	206	202	201	201	200	200
Arkansas	128	131	133	134	133	133	132	131	130	130
Delaware	30	31	33	33	33	33	34	34	35	35
District of Columbia	18	18	18	17	15	17	15	15	14	14
Florida	542	563	589	614	634	656	675	693	712	741
Georgia	336	345	356	365	372	379	385	393	401	411
Kentucky	191	192	190	195	191	190	194	195	195	195
Louisiana	214	217	218	213	210	209	197	201	198	196
Maryland	210	215	222	229	235	239	244	251	256	261
Mississippi	139	140	140	140	137	135	134	132	131	131
North Carolina	309	312	324	330	334	341	348	356	365	377
Oklahoma	167	171	175	179	181	180	178	175	173	172
South Carolina	180	182	185	187	187	183	184	188	192	196
Tennessee	241	243	248	240	241	252	241	242	244	249
Texas	957	991	1,029	1,059	1,077	1,096	1,117	1,132	1,145	1,154
Virginia	286	292	300	304	309	317	329	337	345	353
West Virginia	98	96	95	94	92	88	85	83	83	82
West	2,775	2,854	2,974	3,051	3,125	3,189	3,234	3,281	3,339	3,409
Alaska	33	34	36	36	38	39	39	39	40	40
Arizona	195	195	211	218	226	229	237	242	249	257
California	1,452	1,495	1,557	1,608	1,656	1,702	1,733	1,767	1,810	1,856
Colorado	171	177	186	193	198	202	208	212	216	220
Hawaii	50	52	51	53	53	53	52	52	52	53
Idaho	72	74	76	76	76	77	75	74	74	75
Montana	48	49	50	50	50	50	50	49	48	47
Nevada	65	69	74	78	82	86	90	94	100	109
New Mexico	98	100	103	96	96	96	95	96	95	94
Oregon	150	152	158	160	163	167	167	167	167	169
Utah	146	149	154	154	153	151	148	146	146	145
Washington	265	277	287	297	302	309	310	312	313	316
Wyoming	30	31	32	32	31	30	30	29	28	27

Table 8.—Enrollment in grades 9–12 in public schools, by region and state, with projections: Fall 1994 to fall 2012—Continued

(In thousands)

Region and state	Projected								
	2004	2005	2006	2007	2008	2009	2010	2011	2012
United States	14,346	14,597	14,739	14,768	14,649	14,485	14,317	14,197	14,137
Northeast	2,596	2,631	2,639	2,622	2,573	2,523	2,487	2,458	2,444
Connecticut	173	175	176	176	174	170	165	161	158
Maine	61	60	59	58	56	54	54	54	55
Massachusetts	301	305	307	304	293	285	279	275	275
New Hampshire	66	66	66	65	63	62	62	62	62
New Jersey	407	417	422	422	419	413	407	401	397
New York	912	925	926	919	904	889	877	867	860
Pennsylvania	598	605	606	602	589	577	571	566	565
Rhode Island	47	48	48	47	47	45	44	44	43
Vermont	31	30	30	29	28	27	28	28	29
Midwest	3,259	3,298	3,314	3,306	3,256	3,206	3,166	3,136	3,123
Illinois	618	633	641	648	647	640	631	620	611
Indiana	296	302	306	306	303	299	296	293	291
Iowa	158	159	160	159	156	153	151	149	149
Kansas	143	143	142	141	139	139	138	138	139
Michigan	502	509	511	508	497	485	478	472	469
Minnesota	278	278	277	274	269	265	261	259	258
Missouri	271	274	278	277	272	266	261	259	260
Nebraska	88	88	87	87	85	84	84	85	86
North Dakota	33	32	31	30	29	29	29	29	30
Ohio	551	557	559	557	548	539	531	525	523
South Dakota	37	37	36	35	34	34	35	35	36
Wisconsin	286	286	285	283	277	273	271	270	271
South	4,985	5,079	5,146	5,171	5,161	5,122	5,051	5,002	4,970
Alabama	204	206	207	207	203	203	201	200	201
Arkansas	132	134	135	134	131	130	128	128	127
Delaware	35	35	36	36	36	36	36	36	35
District of Columbia	14	14	14	14	13	12	12	12	12
Florida	754	772	783	788	792	777	758	744	731
Georgia	425	435	442	446	445	445	441	438	436
Kentucky	196	200	203	207	210	209	208	205	202
Louisiana	194	195	195	193	194	190	188	186	186
Maryland	266	271	271	269	265	261	259	258	258
Mississippi	133	135	137	137	135	135	134	133	133
North Carolina	389	398	404	406	405	399	389	381	373
Oklahoma	172	172	173	172	168	164	160	158	157
South Carolina	196	200	203	202	202	198	196	194	193
Tennessee	256	262	266	266	261	259	257	256	257
Texas	1,173	1,192	1,212	1,230	1,238	1,241	1,228	1,220	1,216
Virginia	364	374	382	384	383	382	379	377	375
West Virginia	82	82	82	81	79	78	78	78	78
West	3,506	3,589	3,640	3,669	3,659	3,634	3,613	3,601	3,600
Alaska	41	41	41	40	39	39	39	40	42
Arizona	267	277	286	292	296	296	291	288	284
California	1,925	1,979	2,005	2,028	2,025	2,001	1,991	1,979	1,972
Colorado	224	229	233	236	237	236	233	232	231
Hawaii	54	54	53	53	51	52	54	55	57
Idaho	76	77	78	78	77	79	81	82	85
Montana	47	46	46	45	43	44	44	45	47
Nevada	114	121	127	132	135	134	130	125	121
New Mexico	95	95	95	94	91	93	95	97	101
Oregon	171	173	174	172	169	167	166	166	166
Utah	146	148	149	150	150	151	152	153	155
Washington	320	323	326	325	320	316	313	312	313
Wyoming	26	26	26	25	24	24	25	26	27

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Table 9.—Percent change in grades 9–12 enrollment in public schools, by region and state, with projections: Fall 1994 to fall 2012

Region and state	Actual	Projected		
	1994 to 2000	2000 to 2006	2006 to 2012	2000 to 2012
United States	10.7	9.1	-4.1	4.6
Northeast	9.1	10.4	-7.4	2.2
Connecticut	18.7	13.1	-10.4	1.3
Maine	8.2	-3.6	-6.7	-10.1
Massachusetts	15.9	12.5	-10.3	1.0
New Hampshire	21.5	7.4	-5.3	1.8
New Jersey	13.9	18.8	-5.9	11.7
New York	4.4	8.5	-7.1	0.8
Pennsylvania	6.8	8.8	-6.8	1.5
Rhode Island	10.7	9.6	-9.8	-1.1
Vermont	9.6	-5.8	-4.2	-9.8
Midwest	6.6	3.7	-5.8	-2.3
Illinois	4.9	11.6	-4.7	6.4
Indiana	-1.4	6.8	-4.6	1.9
Iowa	4.3	-0.7	-7.0	-7.7
Kansas	12.0	-3.3	-2.7	-5.9
Michigan	9.7	4.7	-8.2	-3.9
Minnesota	15.1	0.1	-6.7	-6.6
Missouri	7.1	3.8	-6.7	-3.1
Nebraska	7.9	-3.6	-2.2	-5.7
North Dakota	2.5	-15.2	-4.3	-18.8
Ohio	4.3	3.2	-6.4	-3.4
South Dakota	-2.2	-11.5	0.5	-11.0
Wisconsin	9.8	0.3	-5.0	-4.8
South	10.5	9.6	-3.4	5.9
Alabama	0.0	2.7	-3.0	-0.4
Arkansas	2.8	2.3	-5.6	-3.5
Delaware	12.9	5.5	-1.2	4.2
District of Columbia	-16.8	-5.9	-18.1	-22.9
Florida	24.6	16.1	-6.6	8.4
Georgia	14.5	14.9	-1.4	13.3
Kentucky	1.9	4.3	-0.4	3.9
Louisiana	-8.2	-0.9	-4.5	-5.3
Maryland	16.1	11.1	-4.9	5.7
Mississippi	-3.7	2.2	-3.1	-0.9
North Carolina	12.6	16.2	-7.7	7.3
Oklahoma	6.3	-2.6	-9.4	-11.7
South Carolina	2.4	10.0	-4.7	4.8
Tennessee	0.1	10.5	-3.5	6.6
Texas	16.7	8.6	0.3	8.9
Virginia	14.9	16.0	-1.8	13.9
West Virginia	-12.8	-3.5	-5.5	-8.8
West	16.6	12.5	-1.1	11.3
Alaska	16.7	5.4	1.6	7.1
Arizona	21.9	20.5	-0.7	19.6
California	19.4	15.7	-1.7	13.8
Colorado	21.8	12.2	-0.8	11.2
Hawaii	3.9	2.7	6.2	9.1
Idaho	4.4	4.3	8.9	13.6
Montana	4.3	-7.6	2.8	-5.1
Nevada	37.6	41.3	-4.9	34.4
New Mexico	-2.7	-0.7	6.1	5.3
Oregon	11.3	4.0	-4.3	-0.4
Utah	1.5	0.7	3.7	4.4
Washington	17.0	5.2	-4.1	0.8
Wyoming	-1.3	-14.4	7.0	-8.4

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A2.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared May 2002.)

Chapter 2

Enrollment in Degree-Granting Institutions

Overall enrollment in degree-granting institutions* is expected to rise between 2000 and 2012. Changes in age-specific enrollment rates and college-age populations will affect enrollment levels over the next 12 years (figures 13 and 14). The most important factor in the projected rise of college enrollment is the projected increase of 15 percent in the traditional college-age population of 18- to 24-year-olds from 2000 to 2012 (appendix table B4). The 25- to 29-year-old population is projected to decrease by 2 percent between 2000 and 2002, and then increase by 15 percent between 2002 and 2012, for a net increase of 13 percent. The 30- to 34-year-old population is expected to decrease by 7 percent between 2000 and 2007 and then increase 10 percent by 2012. The 35- to 44-year-old population is expected to decrease by 13 percent between 2000 and 2012. The increases in the younger population are expected to more than offset the loss of students from the older populations, thereby contributing to the increases in college enrollment over the projection period. The enrollment projections do not take into account such factors as the cost of a college education, the economic value of an education, and the impact of distance learning due to technological changes. These factors may produce changes in enrollment levels. Projections of college enrollment that have been produced over the past 6 years are more accurate than projections of doctor's degrees, but less accurate than projections of public elementary and secondary enrollment that NCES has published over the same time period. For more information, see table A2, page 79.

Total College Enrollment

For the nation, college enrollment increased from 13.8 million in 1990 to 14.5 million in 1992. Then it decreased to 14.3 million in 1995. Thereafter, it increased to 15.3 million in 2000 (table 10 and figure 15). Under the middle alternative, college enrollment is projected to rise to 17.7 million by 2012, an increase of 15 percent from 2000.

Under the low alternative, college enrollment is projected to increase from 15.3 million in 2000 to 17.1 million by 2012, an increase of 12 percent over the projection period.

Under the high alternative, college enrollment is expected to increase from 15.3 million in 2000 to 18.2 million by 2012, an increase of 19 percent over the projection period.

Enrollment, by Sex of Student

Women played a major role in the increase of enrollment between 1990 and 2000. The enrollment of women in college increased from 7.5 million in 1990 to 8.6 million in 2000, a 14 percent increase over the period (figure 17). Under the middle alternative, enrollment of women is expected to increase to 10.1 million by 2012, an increase of 18 percent from 2000. As a share of total college enrollment, women were 56 percent of all college students in 2000 compared with 55 percent in 1990. Women's share of college enrollment is projected to be 57 percent by 2012.

The enrollment of men in college increased from 6.3 million in 1990 to 6.5 million in 1992, before decreasing to 6.3 million in 1995. Thereafter, it increased to 6.7 million in 2000. Under the middle alternative, enrollment of men is expected to increase to 7.5 million by 2012, a 12 percent increase from 2000.

Enrollment, by Attendance Status

Full-time enrollment increased from 7.8 million in 1990 to 9.0 million in 2000, an increase of 15 percent (figure 19). Under the middle alternative, full-time enrollment is expected to increase another 19 percent to 10.7 million by 2012.

Part-time enrollment increased from 6.0 million in 1990 to 6.3 million in 1992. Then it decreased to 5.9 million in 1998, before increasing to 6.3 million in

* This term applies mainly to those institutions that provide study beyond secondary school and that offer programs terminating in an associate, baccalaureate, or higher degree.

2000. Under the middle alternative, part-time enrollment is expected to increase to 6.9 million by 2012, an increase of 10 percent over the projection period.

Enrollment, by Age

The alternative projections of enrollment in degree-granting institutions by age, sex, and attendance status are shown in table 11 (middle alternative), table 12 (low alternative), and table 13 (high alternative). Projections of college attendance rates appear in appendix table A1.1. These projections are based on age-specific enrollment data from the U.S. Census Bureau and enrollment data from NCES.

Under the middle alternative, the period from 1992 to 2012 will be one of change in the age distribution of college students. In contrast to recent patterns, younger students are expected to become more prevalent on college campuses. The enrollment of students who are 18 to 24 years old increased from 8.2 million in 1992 to 9.2 million in 2000, an increase of 12 percent (table 11 and figure 31). This number is expected to increase to 10.7 million by 2012, an increase of 17 percent from 2000. As a result, the proportion of students who are 18 to 24 years old, which increased from 57 percent in 1992 to 60 percent in 2000, is projected to be 61 percent by 2012.

The enrollment of students who are 25 years and over decreased from 6.1 million in 1992 to 6.0 million in 2000, a decrease of 2 percent. This number is projected to be 6.7 million in 2012, an increase of 12 percent. The proportion of students 25 years old and over decreased from 42 percent in 1992 to 39 percent in 2000. This proportion is projected to decrease slightly to 38 percent by 2012.

Enrollment, by Control of Institution

Enrollment in public institutions grew from 10.8 million in 1990 to 11.4 million in 1992, and then decreased to 11.1 million in 1995 followed by a rise to 11.8 million in 2000, for a net increase of 8 percent over the period (table 10 and figure 21). Under the middle alternative, public enrollment is expected to increase to 13.5 million by 2012, an increase of 15 percent over the projection period.

Enrollment in private institutions, which include not-for-profit and for-profit institutions, increased from 3.0 million in 1990 to 3.6 million in 2000, an increase of 20 percent over the period. Under the middle alternative, private enrollment is expected to increase to 4.1 million by 2012, an increase of 16 percent over the projection period.

Enrollment, by Type and Control of Institution

Enrollment in public 4-year institutions increased from 5.8 million in 1990 to 6.1 million in 2000, an increase of 4 percent over the period (table 15). Under the middle alternative, this enrollment is expected to rise to 7.2 million by 2012, a 19 percent increase from 2000.

Enrollment in public 2-year institutions rose from 5.0 million in 1990 to 5.7 million in 2000, an increase of 14 percent over the period (table 16). Under the middle alternative, enrollment in public 2-year institutions is expected to rise to 6.3 million by 2012, an 11 percent increase over the projection period.

Enrollment in private 4-year institutions increased from 2.7 million in 1990 to 3.3 million in 2000, an increase of 21 percent over the period (table 17). Under the middle alternative, this enrollment is expected to rise to 3.8 million by 2012, a 16 percent increase over the projection period.

Enrollment in private 2-year institutions increased from 244,000 in 1990 to 251,000 in 2000, an increase of 3 percent over the period (table 18). Under the middle alternative, enrollment in private 2-year institutions is expected to rise to 301,000 by 2012, a 20 percent increase over the projection period.

Enrollment, by Level

Undergraduate enrollment increased from 12.0 million in 1990 to 13.2 million in 2000, a 10 percent increase over the period (table 19 and figure 25). Under the middle alternative, undergraduate enrollment is expected to increase to 15.3 million by 2012, a 16 percent increase over the projection period.

Graduate enrollment rose from 1.6 million in 1990 to 1.9 million in 2000, a 17-percent increase over the period (table 20 and figure 27). Under the middle alternative, graduate enrollment is expected to increase to 2.1 million by 2012, a 12 percent increase over the projection period.

First-professional enrollment increased from 273,000 in 1990 to 307,000 in 2000, a 12 percent increase over the period (table 21 and figure 27). Under the middle alternative, first-professional enrollment is expected to increase to 347,000 by 2012. This represents a 13 percent increase from 2000.

Full-Time-Equivalent Enrollment

Full-time-equivalent enrollment increased from 10.0 million in 1990 to 11.3 million in 2000, a 13 percent increase over the period (table 22 and figure 29). Under the middle alternative, full-time-equivalent enrollment is expected to increase to 13.2 million by 2012, a 17 percent increase over the projection period.

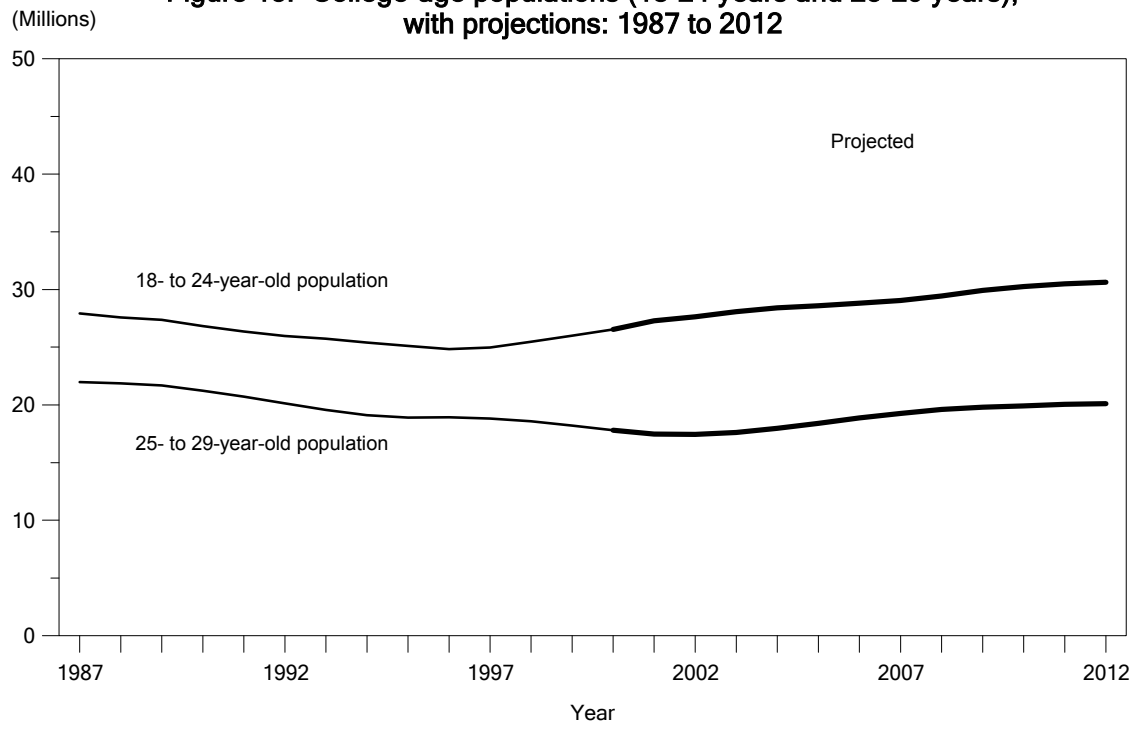
Alternative Projections

College enrollment projections were based on projected enrollment rates, by age and sex, which were then applied to population projections by age and sex developed by the U.S. Census Bureau. The middle series population projections, which assume middle fertility and yearly net migration, were used.

Three sets of projections are presented for enrollment in degree-granting institutions to indicate a range of possible outcomes. Each set of projections is based on alternative assumptions. The middle alternative is based on the base scenario of the economy developed by the company DRI-WEFA Inc., for the projections of disposable income and unemployment rates. Under the middle alternative, the higher education enrollment model interprets the college enrollment decision as a static, short-term economic decision, i.e., potential consumers for higher education weigh the economic costs before making a decision to study or work. Thus, the model assumes that a representative student gives greater importance to current earnings potential over lifetime earning potential. The model has two explanatory variables, the unemployment rate and real disposable income. The unemployment rate serves as a proxy for the attractiveness of the current working environment. A weak labor market increases the attractiveness of a college education. Real disposable income captures a student's ability to afford the costs of attending college. These relationships are assumed through 2012. For more information, see appendix A, section A.1.

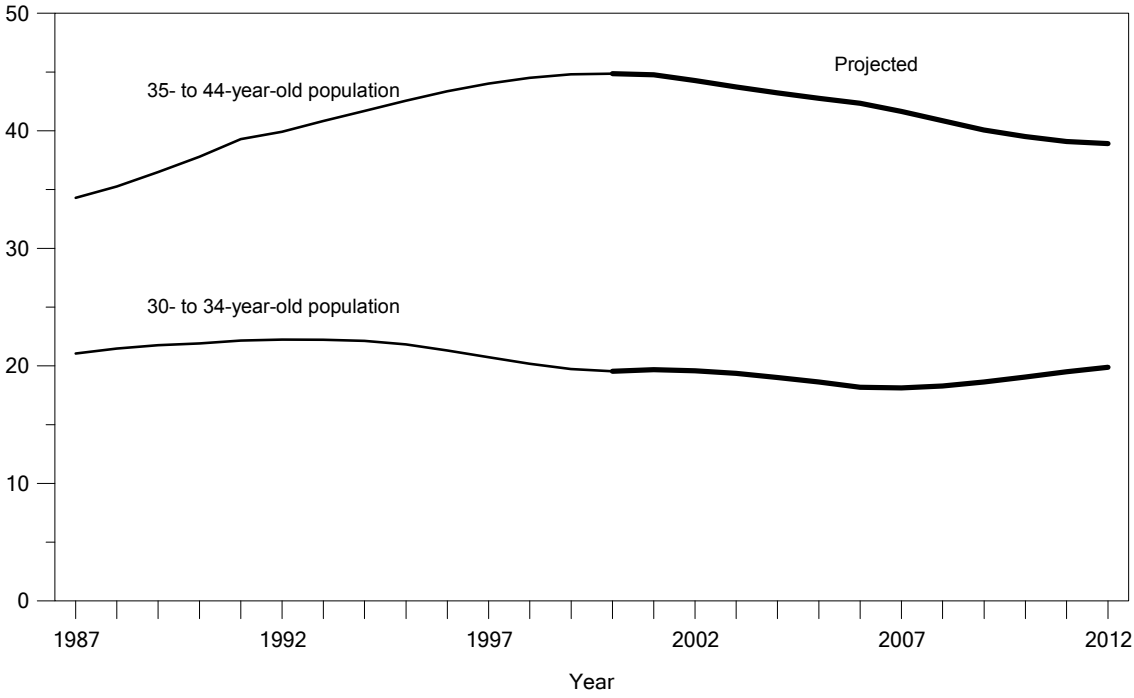
The low and high alternatives incorporate past errors of projections of college enrollment to provide other possible outcomes.

Figure 13.–College-age populations (18-24 years and 25-29 years), with projections: 1987 to 2012



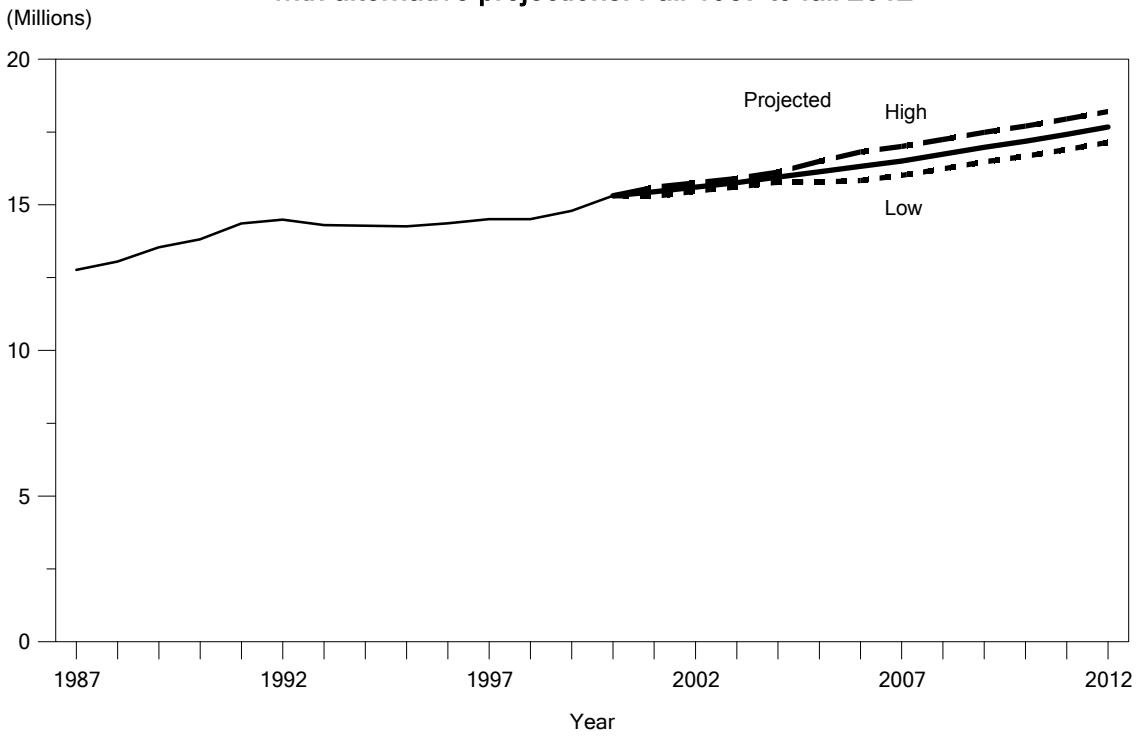
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 14.–College-age populations (30-34 years and 35-44 years), with projections: 1987 to 2012



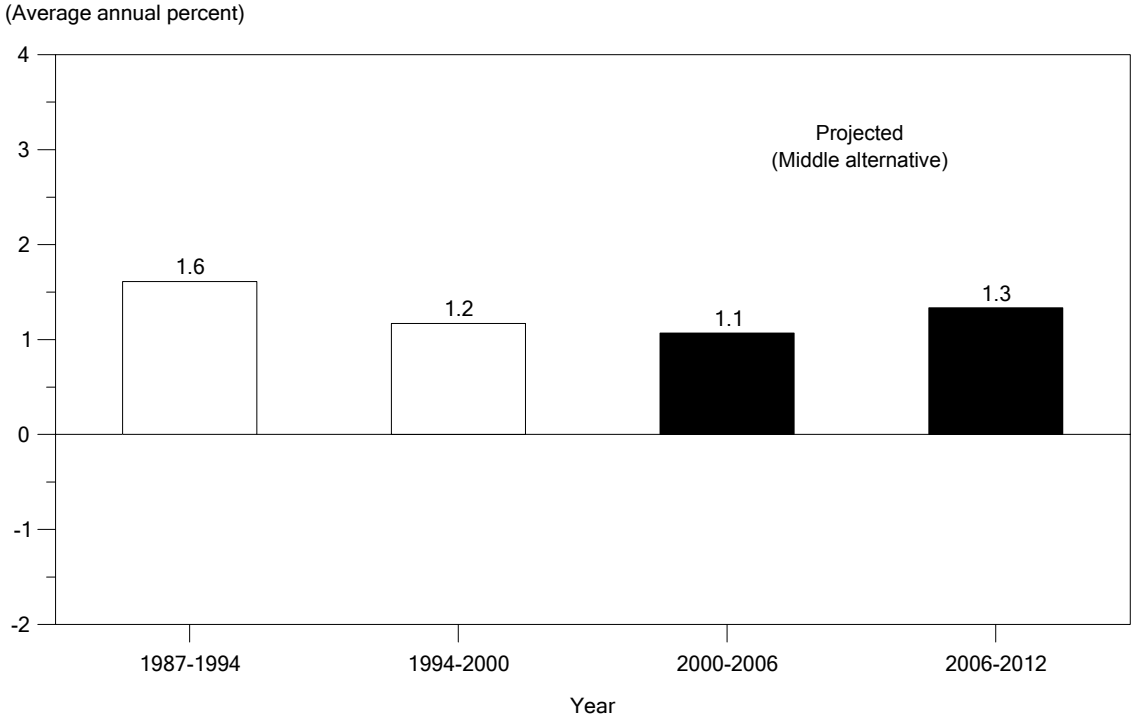
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 15.–Enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



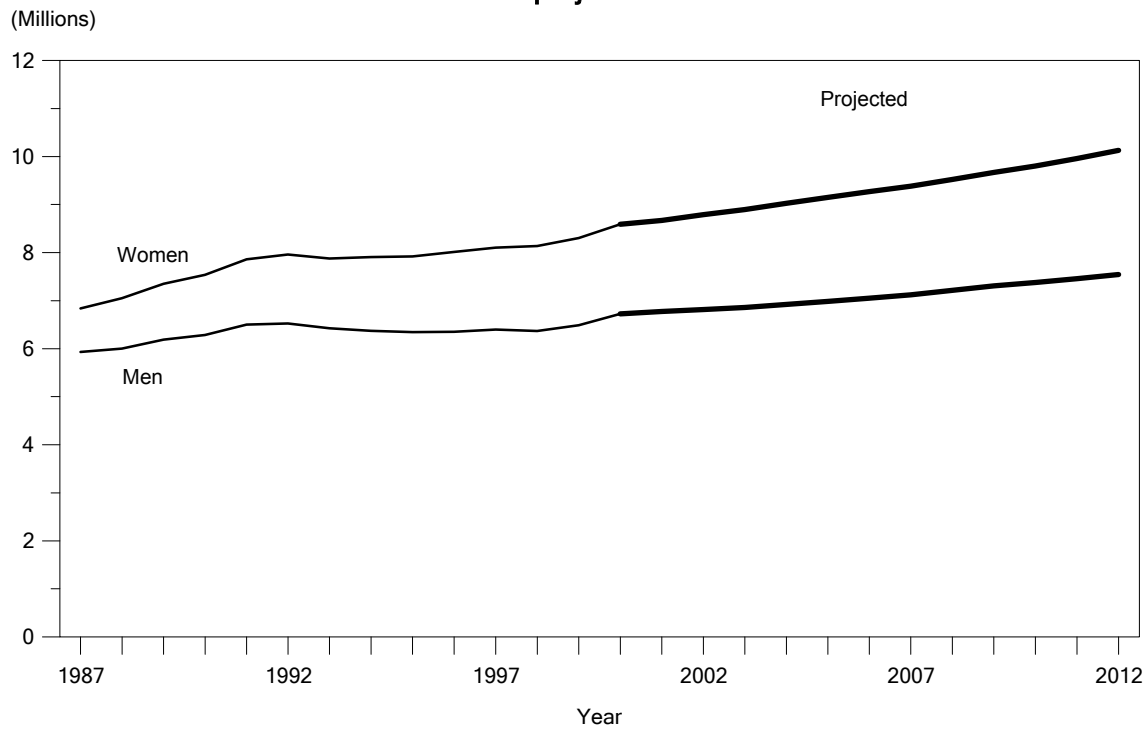
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 16.–Average annual growth rates for total enrollment in degree-granting institutions: Fall 1987 to fall 2012



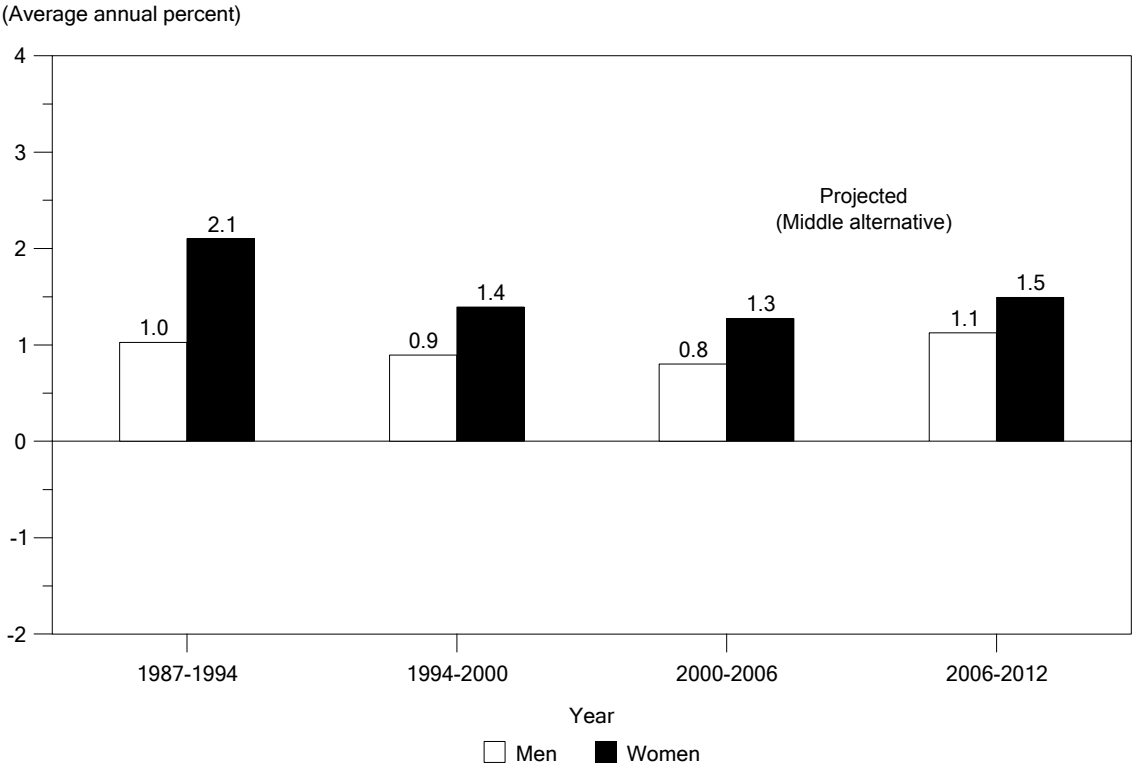
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 17.–Enrollment in degree-granting institutions, by sex, with middle alternative projections: Fall 1987 to fall 2012



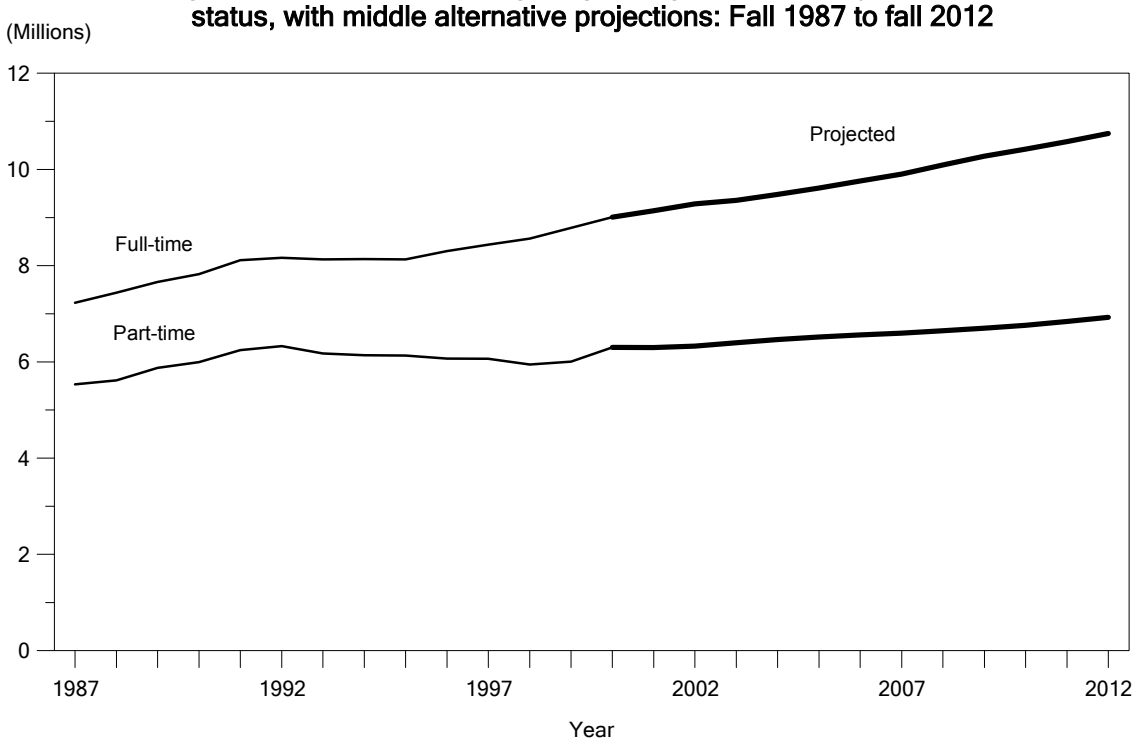
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 18.–Average annual growth rates for total enrollment in degree-granting institutions, by sex: Fall 1987 to fall 2012



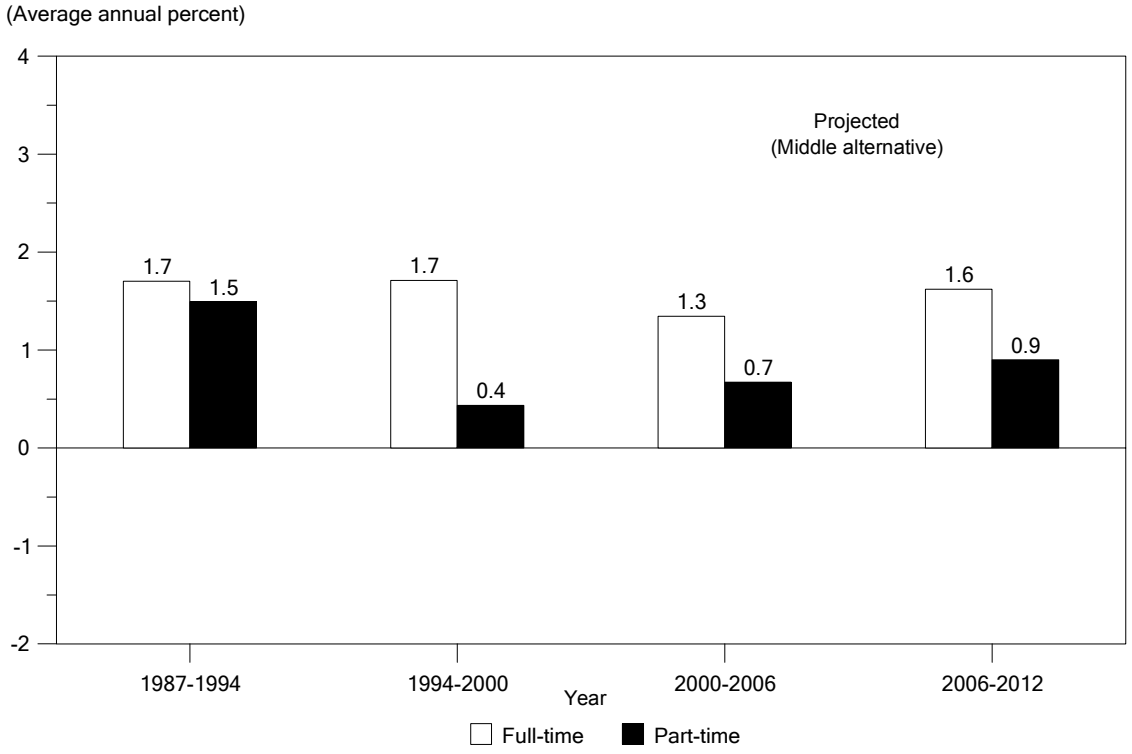
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 19.–Enrollment in degree-granting institutions, by attendance status, with middle alternative projections: Fall 1987 to fall 2012



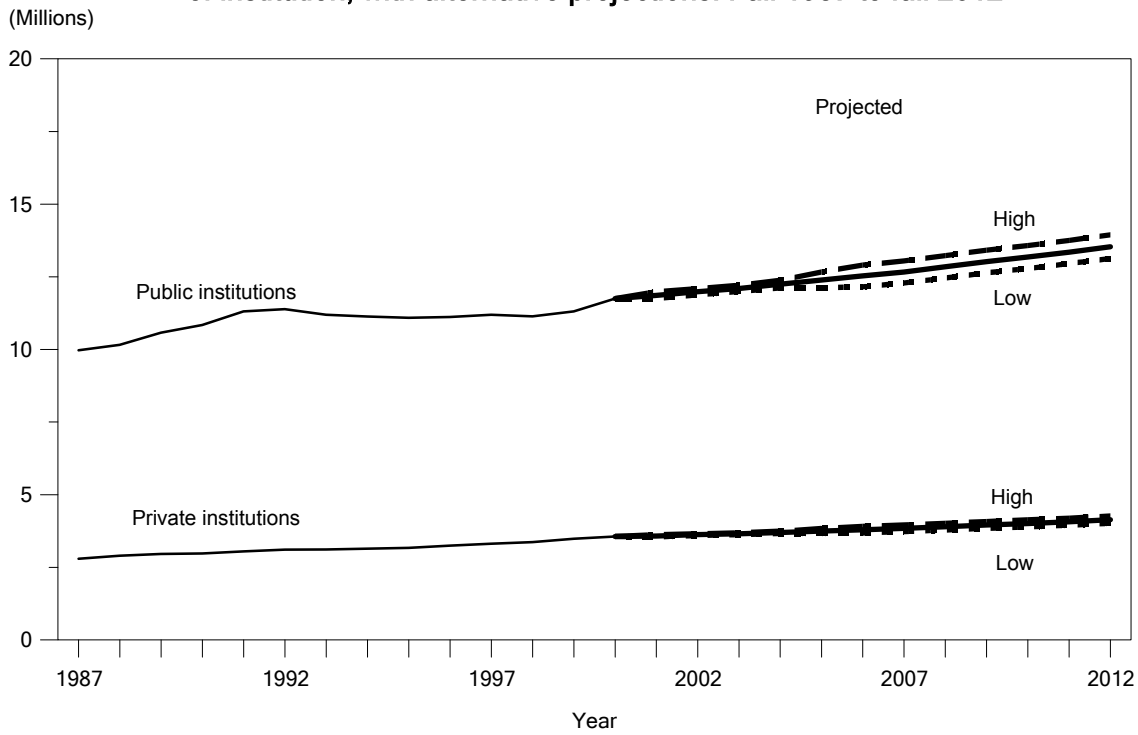
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 20.–Average annual rates of change for total enrollment in degree-granting institutions, by attendance status: Fall 1987 to fall 2012



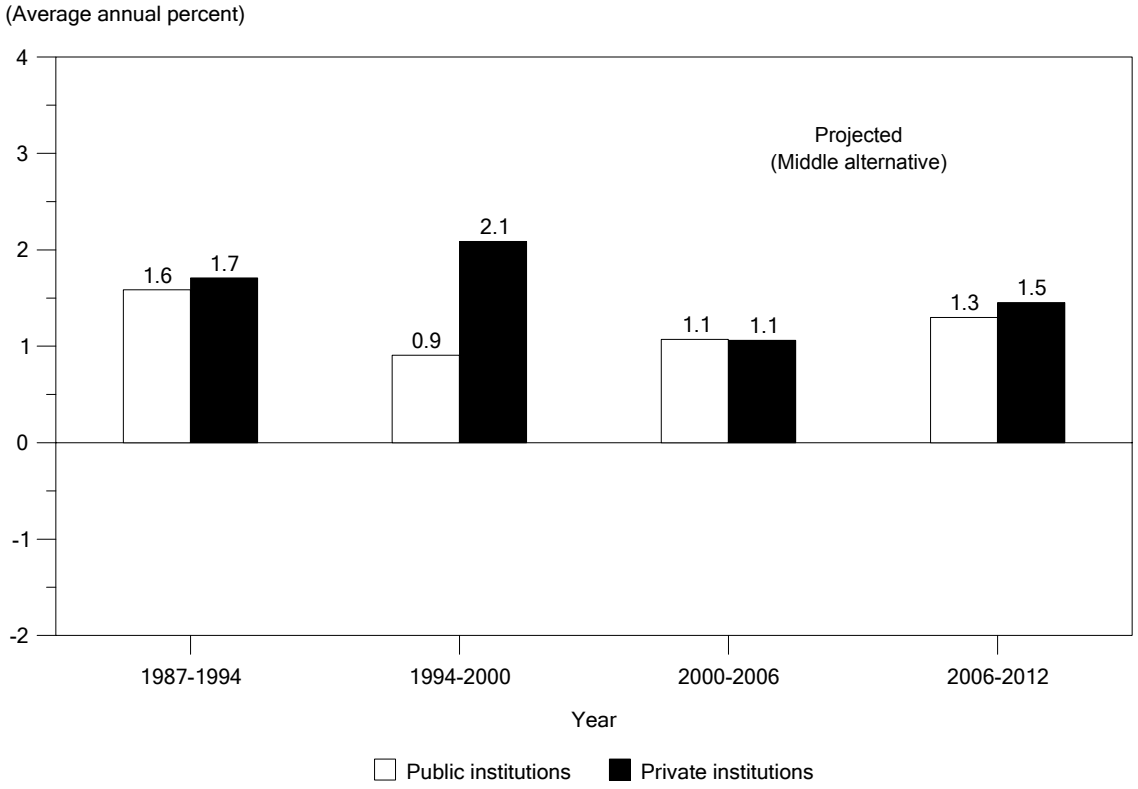
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 21.–Enrollment in degree-granting institutions, by control of institution, with alternative projections: Fall 1987 to fall 2012



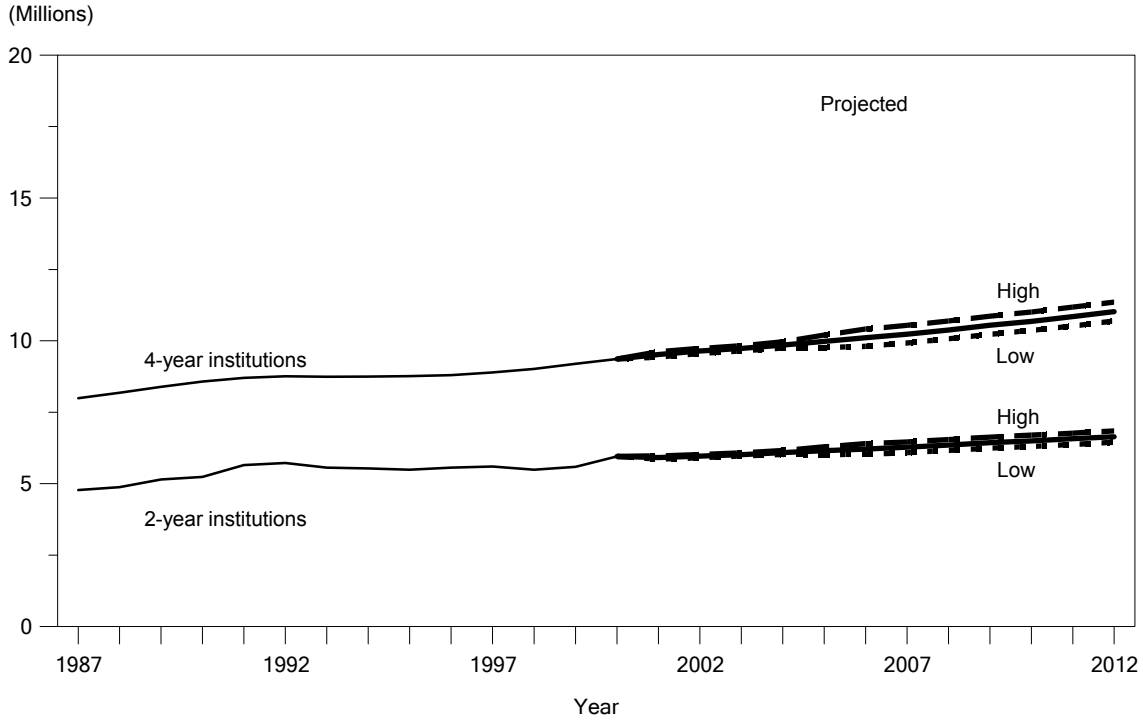
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 22.–Average annual growth rates for total enrollment in degree-granting institutions, by control of institution: Fall 1987 to fall 2012



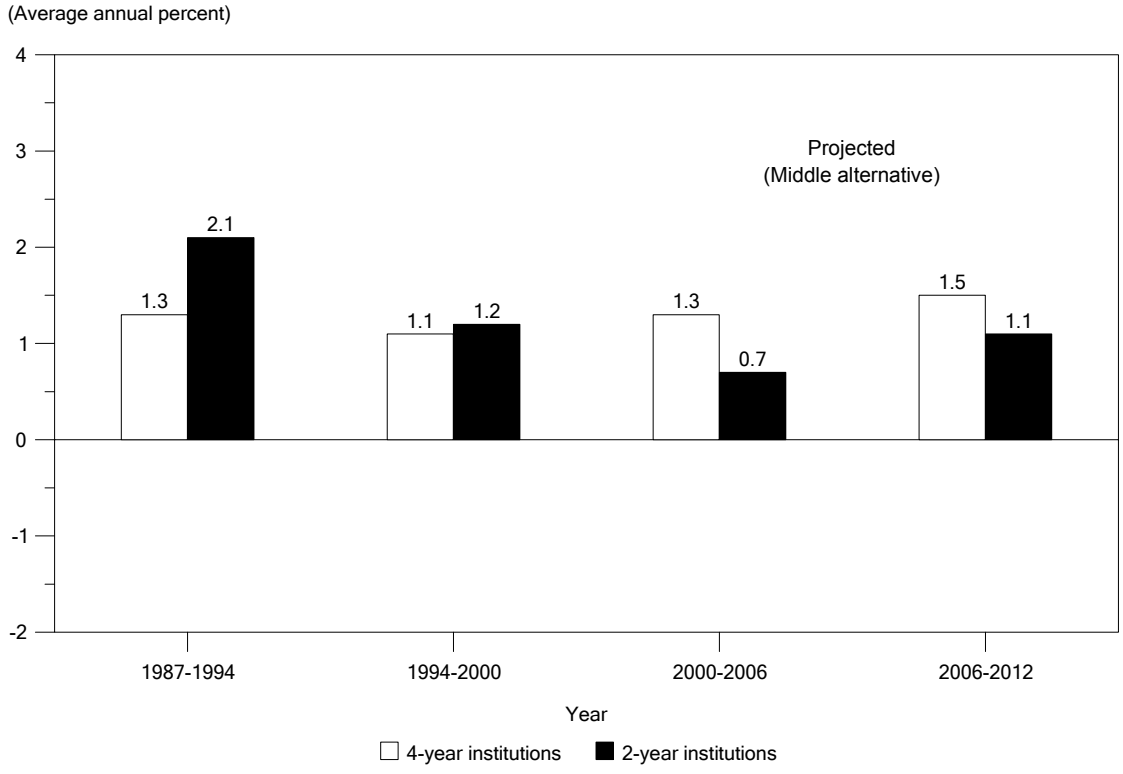
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 23.—Enrollment in degree-granting institutions, by type of institution, with alternative projections: Fall 1987 to fall 2012



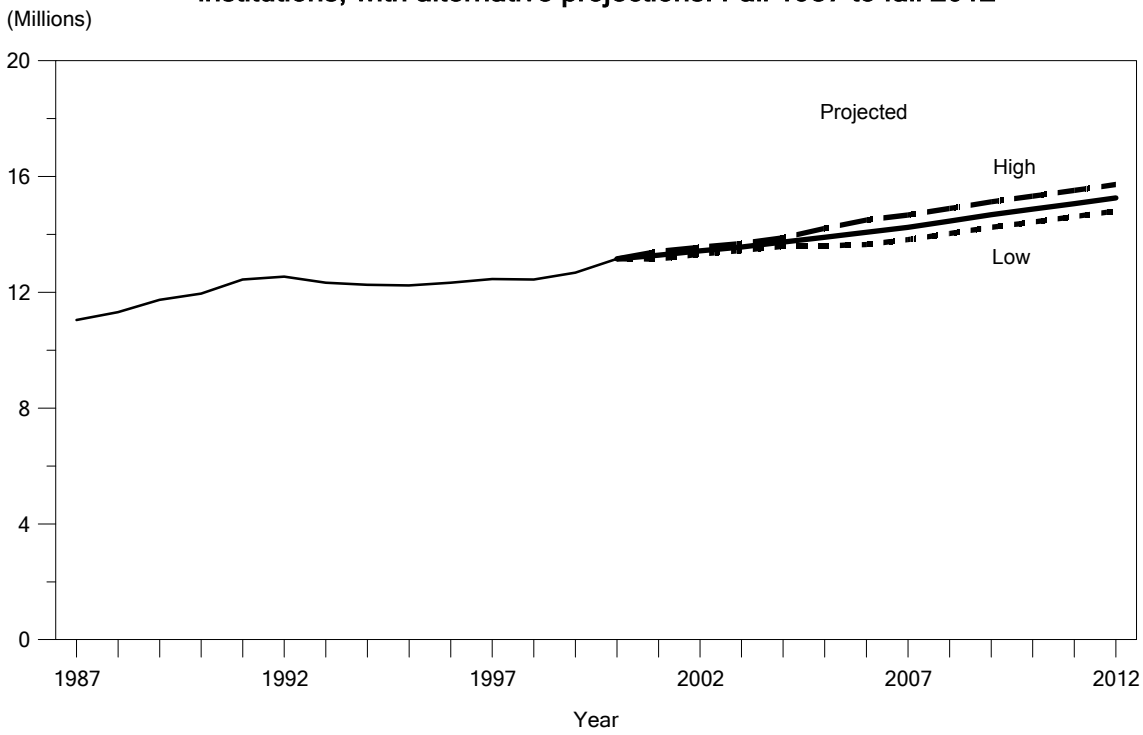
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 24.—Average annual growth rates for total enrollment in degree-granting institutions, by type of institution: Fall 1987 to fall 2012



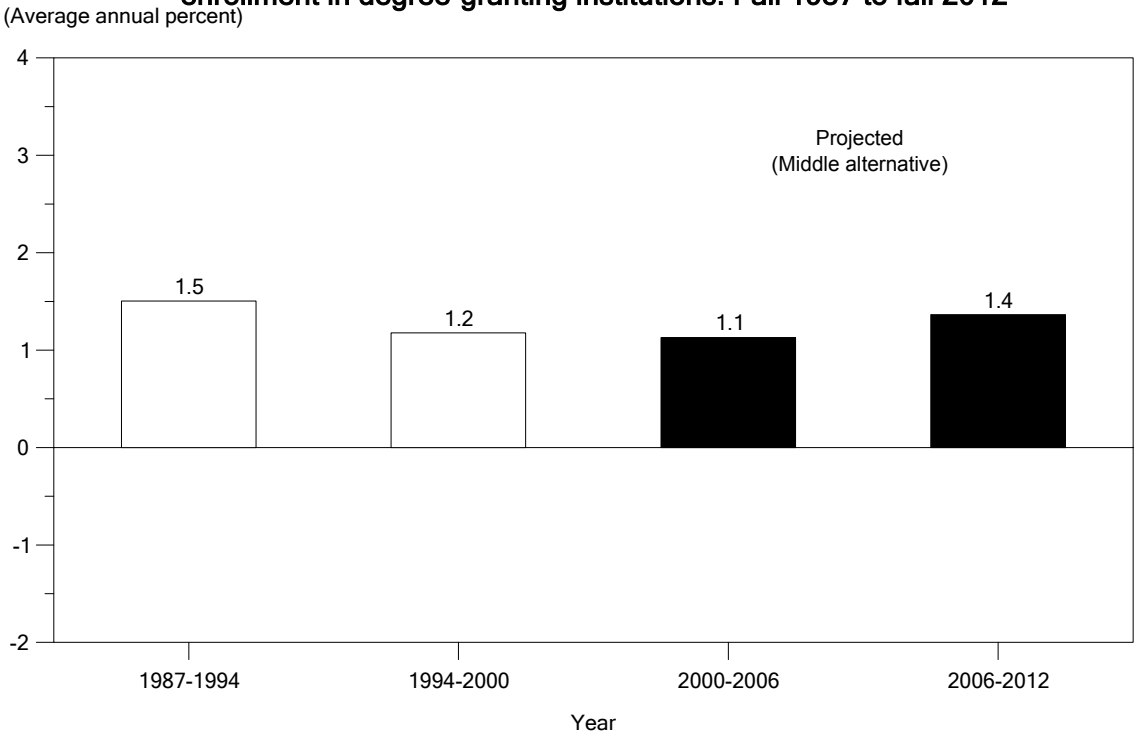
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 25.—Undergraduate enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



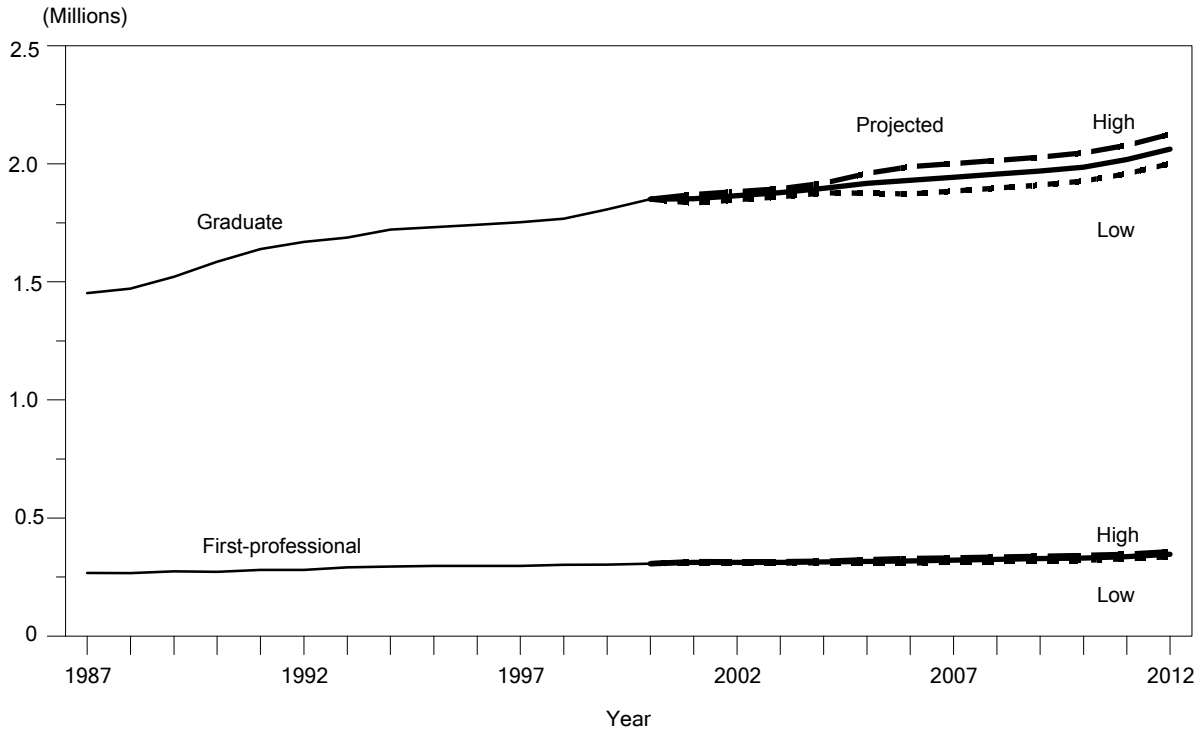
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 26.—Average annual growth rates for undergraduate enrollment in degree-granting institutions: Fall 1987 to fall 2012



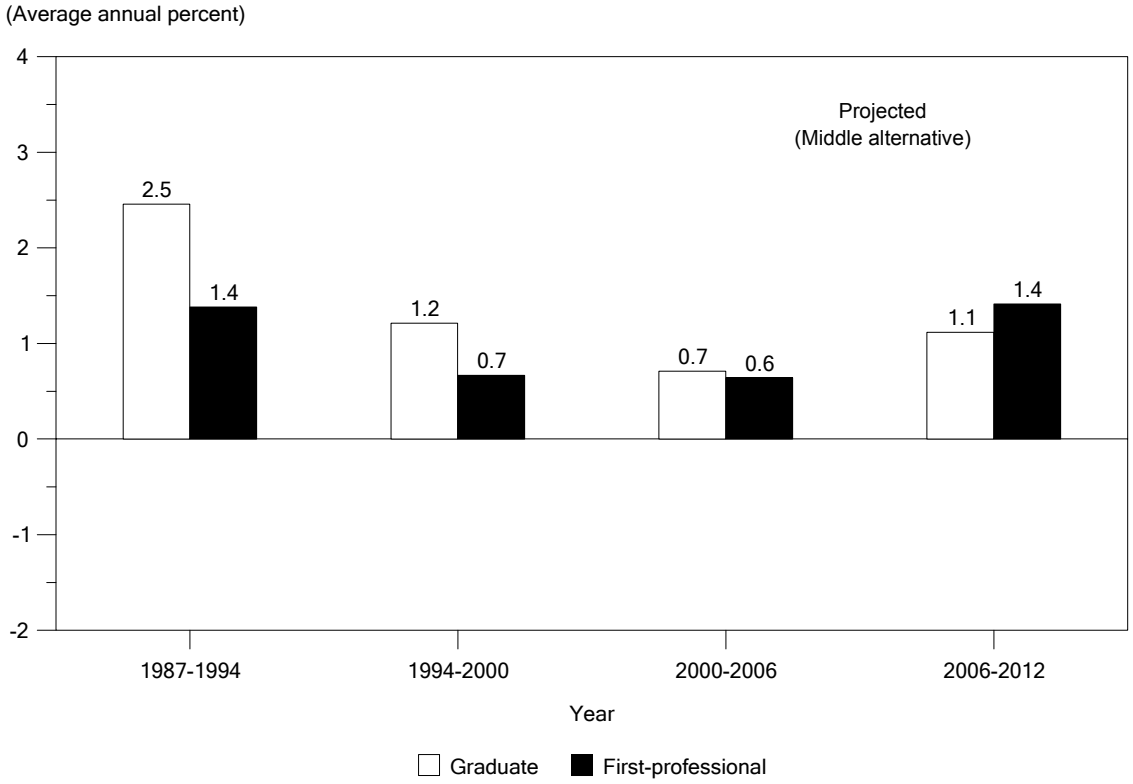
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 27.—Postbaccalaureate enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



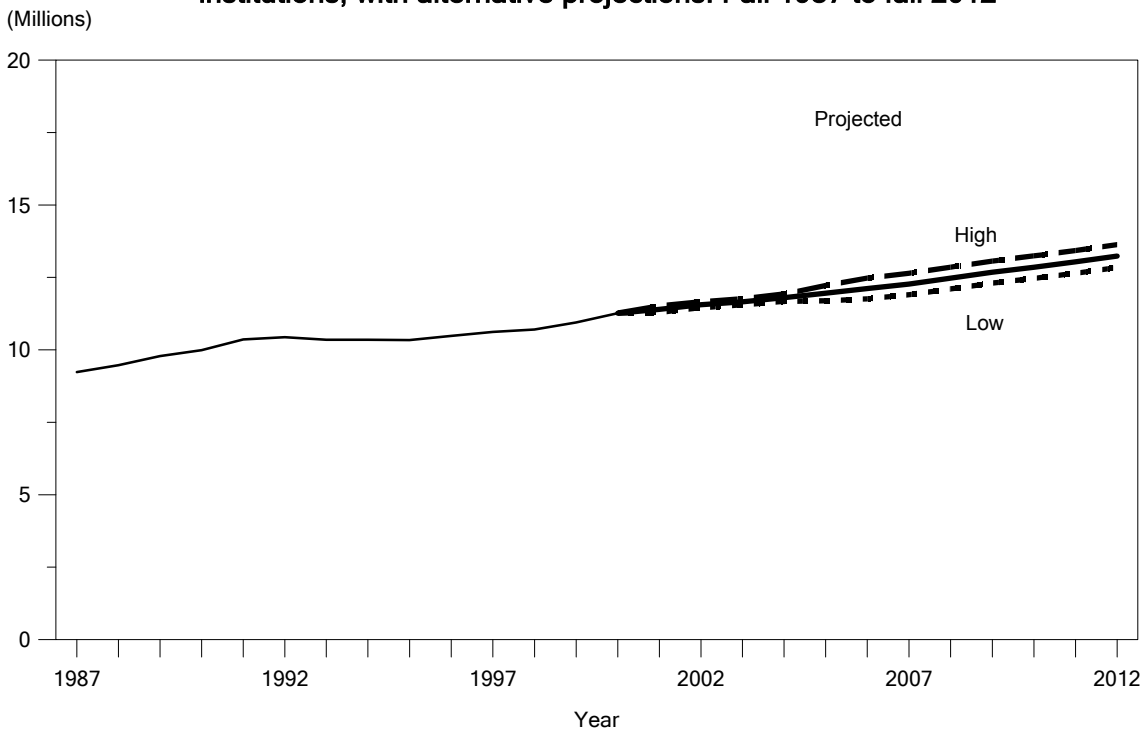
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 28.—Average annual growth rates for postbaccalaureate enrollment in degree-granting institutions: Fall 1987 to fall 2012



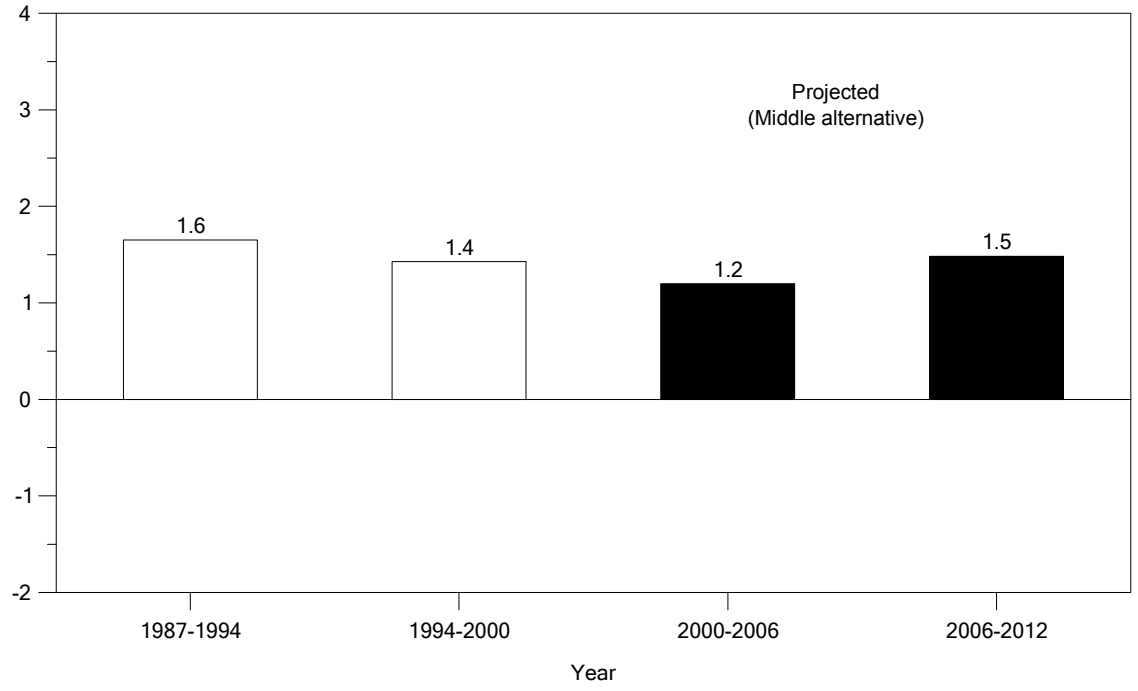
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 29.–Full-time-equivalent enrollment in degree-granting institutions, with alternative projections: Fall 1987 to fall 2012



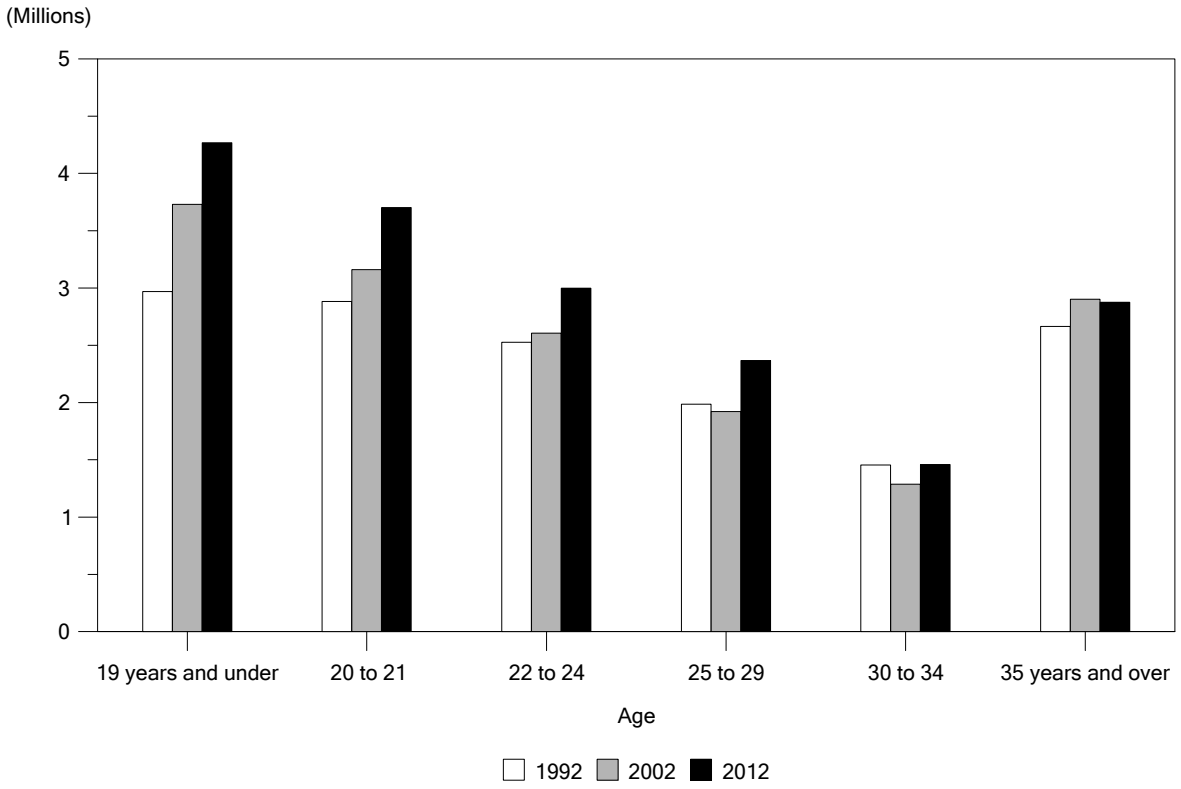
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 30.–Average annual growth rates for full-time-equivalent enrollment in degree-granting institutions: Fall 1987 to fall 2012



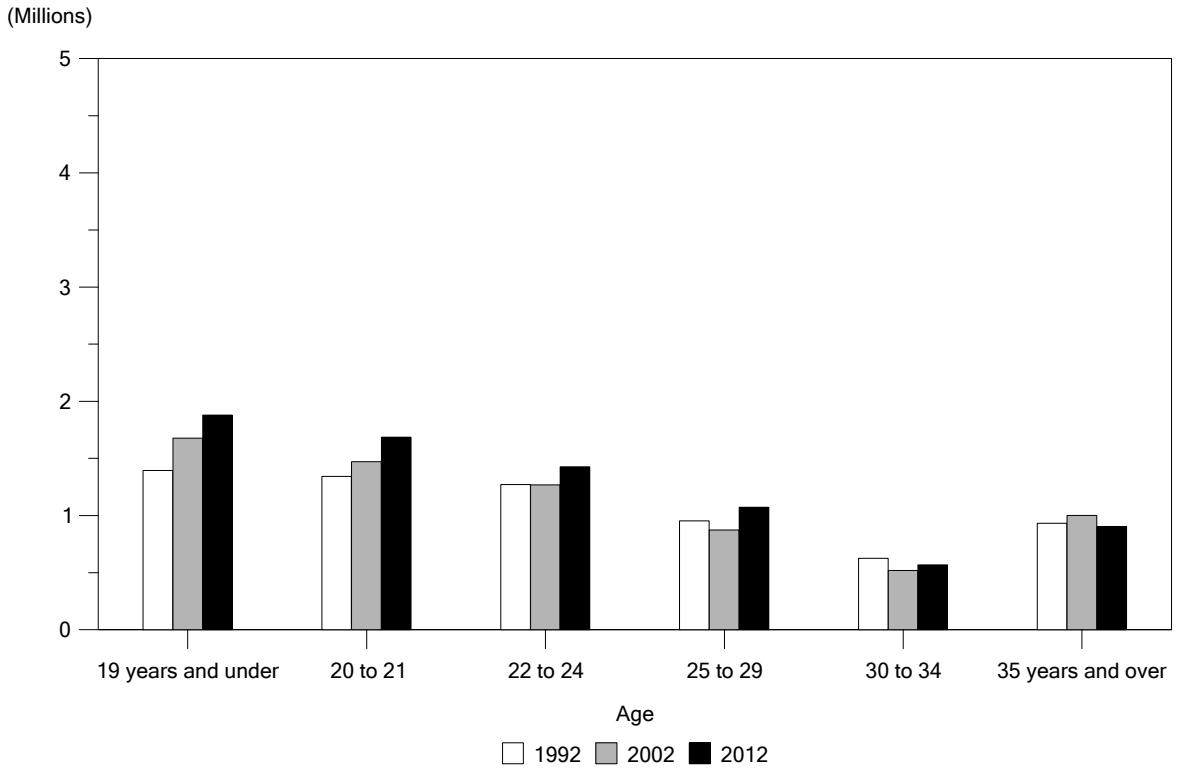
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 31.—Enrollment in degree-granting institutions, by age group, with middle alternative projections: Fall 1992, 2002, and 2012



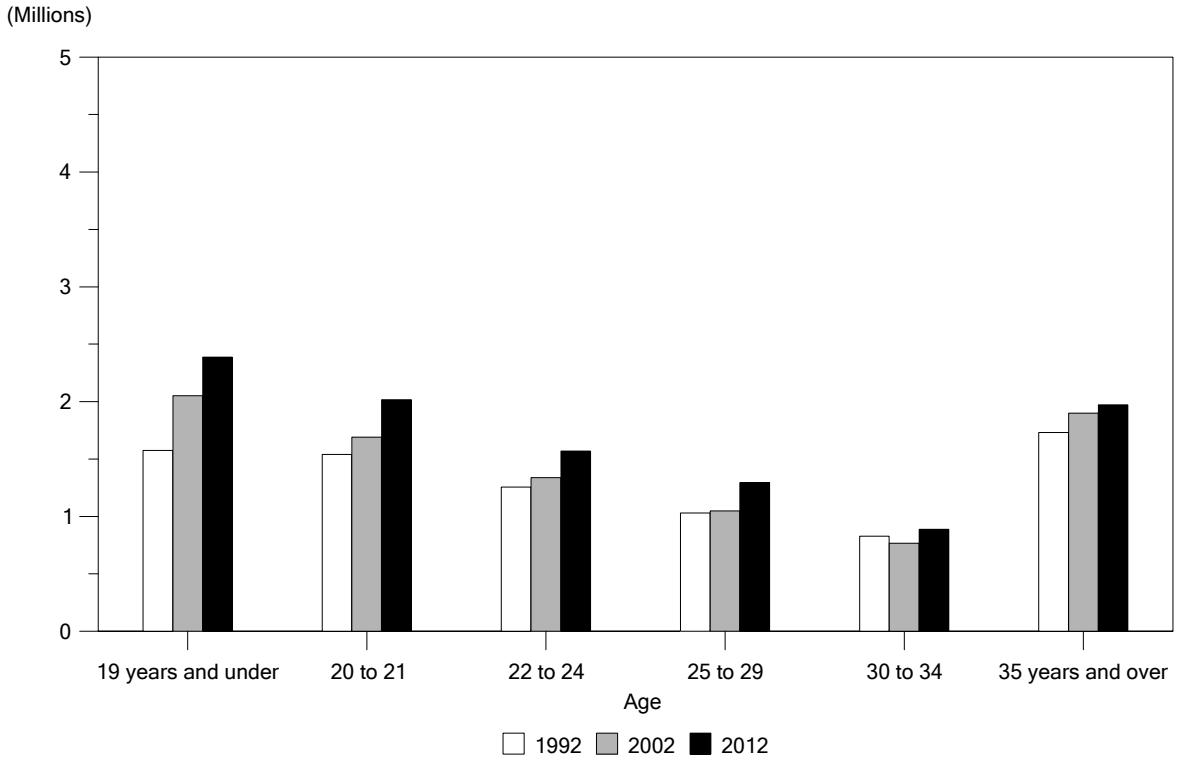
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 32.–Enrollment of men in degree-granting institutions, by age group, with middle alternative projections: Fall 1992, 2002, and 2012



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Figure 33.–Enrollment of women in degree-granting institutions, by age group, with middle alternative projections: Fall 1992, 2002, and 2012



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model.

Table 10.—Total enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1987	12,767	5,932	6,835	7,231	5,536	9,973	2,793
1988	13,055	6,002	7,053	7,437	5,618	10,161	2,894
1989	13,539	6,190	7,349	7,661	5,878	10,578	2,961
1990	13,819	6,284	7,535	7,821	5,998	10,845	2,974
1991	14,359	6,502	7,857	8,115	6,244	11,310	3,049
1992	14,486	6,524	7,963	8,161	6,325	11,385	3,102
1993	14,305	6,427	7,877	8,128	6,177	11,189	3,116
1994	14,279	6,372	7,907	8,138	6,141	11,134	3,145
1995	14,262	6,343	7,919	8,129	6,133	11,092	3,169
1996	14,368	6,353	8,015	8,303	6,065	11,120	3,247
1997	14,502	6,396	8,106	8,438	6,064	11,196	3,306
1998	14,507	6,369	8,138	8,563	5,944	11,138	3,369
1999	14,791	6,491	8,301	8,786	6,005	11,309	3,482
2000	15,312	6,722	8,591	9,010	6,303	11,753	3,560
Middle alternative projections							
2001	15,442	6,772	8,670	9,141	6,300	11,864	3,578
2002	15,608	6,817	8,791	9,281	6,327	11,986	3,622
2003	15,756	6,860	8,896	9,358	6,398	12,101	3,655
2004	15,947	6,919	9,027	9,481	6,465	12,247	3,699
2005	16,135	6,985	9,150	9,615	6,519	12,388	3,746
2006	16,321	7,052	9,269	9,761	6,561	12,528	3,793
2007	16,503	7,124	9,380	9,904	6,600	12,665	3,839
2008	16,738	7,216	9,522	10,089	6,649	12,842	3,896
2009	16,978	7,309	9,669	10,276	6,702	13,023	3,955
2010	17,185	7,380	9,805	10,422	6,763	13,179	4,007
2011	17,418	7,460	9,958	10,580	6,838	13,351	4,068
2012	17,673	7,542	10,131	10,749	6,924	13,537	4,136
Low alternative projections							
2001	15,288	6,704	8,583	9,050	6,237	11,745	3,542
2002	15,468	6,756	8,712	9,197	6,270	11,878	3,589
2003	15,614	6,798	8,816	9,274	6,340	11,992	3,622
2004	15,772	6,843	8,928	9,377	6,394	12,112	3,658
2005	15,780	6,831	8,949	9,403	6,376	12,115	3,664
2006	15,831	6,840	8,991	9,468	6,364	12,152	3,679
2007	16,008	6,910	9,099	9,607	6,402	12,285	3,724
2008	16,236	7,000	9,236	9,786	6,450	12,457	3,779
2009	16,469	7,090	9,379	9,968	6,501	12,632	3,836
2010	16,669	7,159	9,511	10,109	6,560	12,784	3,887
2011	16,895	7,236	9,659	10,263	6,633	12,950	3,946
2012	17,143	7,316	9,827	10,427	6,716	13,131	4,012
High alternative projections							
2001	15,596	6,840	8,757	9,232	6,363	11,983	3,614
2002	15,748	6,878	8,870	9,365	6,384	12,094	3,655
2003	15,898	6,922	8,976	9,442	6,456	12,210	3,688
2004	16,122	6,995	9,126	9,585	6,536	12,382	3,740
2005	16,490	7,139	9,351	9,827	6,662	12,661	3,828
2006	16,811	7,264	9,547	10,054	6,758	12,904	3,907
2007	16,998	7,338	9,661	10,201	6,798	13,045	3,954
2008	17,240	7,432	9,808	10,392	6,848	13,227	4,013
2009	17,487	7,528	9,959	10,584	6,903	13,414	4,074
2010	17,701	7,601	10,099	10,735	6,966	13,574	4,127
2011	17,941	7,684	10,257	10,897	7,043	13,752	4,190
2012	18,203	7,768	10,435	11,071	7,132	13,943	4,260

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures.
(For more details, see appendix E of *Projections of Education Statistics to 2011.)*

Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 11.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with middle alternative projections: Fall 1987 to fall 2012

(In thousands)

Sex, age, and attendance status	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Men and women, total	**12,767**	**13,055**	**13,539**	**13,819**	**14,359**	**14,486**	**14,305**	**14,279**	**14,262**	**14,368**	**14,502**	**14,507**	**14,791**	**15,312**
14 to 17 years old	264	179	185	177	125	186	127	138	148	231	171	119	143	145
18 to 19 years old	3,012	2,940	3,041	2,950	2,864	2,784	2,840	2,787	2,894	3,038	3,061	3,382	3,414	3,531
20 to 21 years old	2,651	2,667	2,550	2,761	2,920	2,883	2,674	2,724	2,705	2,659	2,875	2,811	2,985	3,045
22 to 24 years old	1,979	2,068	2,185	2,144	2,306	2,527	2,570	2,482	2,411	2,324	2,475	2,377	2,435	2,617
25 to 29 years old	1,745	1,740	1,979	1,982	2,072	1,985	2,002	1,985	2,120	2,128	1,999	1,991	1,870	1,960
30 to 34 years old	1,223	1,283	1,305	1,322	1,415	1,456	1,345	1,414	1,236	1,196	1,109	1,195	1,144	1,265
35 years old and over	1,892	2,179	2,293	2,484	2,656	2,665	2,747	2,750	2,747	2,791	2,814	2,632	2,800	2,749
Men, total	**5,932**	**6,002**	**6,190**	**6,284**	**6,502**	**6,524**	**6,427**	**6,372**	**6,343**	**6,353**	**6,396**	**6,369**	**6,491**	**6,722**
14 to 17 years old	127	58	77	87	50	89	54	62	61	92	56	45	71	63
18 to 19 years old	1,427	1,343	1,433	1,421	1,299	1,305	1,288	1,302	1,338	1,354	1,414	1,535	1,540	1,583
20 to 21 years old	1,318	1,332	1,261	1,368	1,387	1,342	1,284	1,264	1,282	1,228	1,374	1,374	1,390	1,382
22 to 24 years old	995	1,130	1,084	1,107	1,232	1,272	1,344	1,238	1,153	1,177	1,200	1,127	1,091	1,293
25 to 29 years old	920	844	993	940	1,049	955	903	936	962	991	972	908	875	862
30 to 34 years old	520	588	562	537	614	627	584	601	561	477	443	463	515	527
35 years old and over	625	707	782	824	870	933	970	969	986	1,033	938	917	1,008	1,012
Women, total	**6,835**	**7,053**	**7,349**	**7,535**	**7,857**	**7,963**	**7,877**	**7,907**	**7,919**	**8,015**	**8,106**	**8,138**	**8,301**	**8,591**
14 to 17 years old	136	121	108	90	76	97	73	75	87	139	115	74	72	82
18 to 19 years old	1,585	1,596	1,608	1,529	1,565	1,479	1,552	1,485	1,557	1,684	1,647	1,847	1,873	1,948
20 to 21 years old	1,333	1,336	1,290	1,392	1,533	1,541	1,391	1,461	1,424	1,430	1,501	1,437	1,595	1,663
22 to 24 years old	984	937	1,101	1,037	1,074	1,255	1,226	1,243	1,258	1,147	1,275	1,250	1,344	1,324
25 to 29 years old	825	896	986	1,043	1,022	1,030	1,098	1,049	1,159	1,137	1,027	1,083	995	1,099
30 to 34 years old	703	695	743	784	800	828	761	812	675	719	666	732	629	738
35 years old and over	1,268	1,472	1,511	1,659	1,786	1,732	1,777	1,781	1,760	1,758	1,877	1,715	1,793	1,736
Full-time, total	**7,231**	**7,437**	**7,661**	**7,821**	**8,115**	**8,161**	**8,128**	**8,138**	**8,129**	**8,303**	**8,438**	**8,563**	**8,786**	**9,010**
14 to 17 years old	146	150	154	144	117	179	92	118	123	166	123	93	129	125
18 to 19 years old	2,568	2,528	2,671	2,548	2,466	2,382	2,370	2,321	2,387	2,553	2,534	2,794	2,847	2,932
20 to 21 years old	2,060	2,108	2,064	2,151	2,342	2,267	2,148	2,178	2,109	2,117	2,275	2,271	2,361	2,401
22 to 24 years old	1,185	1,243	1,300	1,350	1,467	1,594	1,612	1,551	1,517	1,598	1,606	1,564	1,662	1,653
25 to 29 years old	650	670	667	770	830	731	839	869	908	911	897	890	854	878
30 to 34 years old	278	350	332	387	382	409	424	440	430	383	377	367	338	422
35 years old and over	344	389	474	471	513	598	643	660	653	575	626	584	596	599
Men, full-time	**3,611**	**3,662**	**3,740**	**3,808**	**3,929**	**3,926**	**3,891**	**3,855**	**3,807**	**3,851**	**3,890**	**3,934**	**4,026**	**4,111**
14 to 17 years old	70	51	60	71	41	86	37	51	54	72	48	39	63	51
18 to 19 years old	1,228	1,171	1,289	1,230	1,141	1,130	1,079	1,081	1,091	1,126	1,154	1,240	1,271	1,250
20 to 21 years old	1,039	1,032	1,017	1,055	1,103	1,084	1,003	1,029	999	969	1,074	1,129	1,124	1,106
22 to 24 years old	649	723	696	742	817	854	896	811	789	858	770	777	788	839
25 to 29 years old	353	383	366	401	465	378	443	457	454	444	475	424	417	415
30 to 34 years old	139	158	151	156	174	174	180	193	183	143	160	141	147	195
35 years old and over	132	145	162	152	187	220	253	232	238	240	210	184	215	256
Women, full-time	**3,620**	**3,775**	**3,921**	**4,013**	**4,186**	**4,235**	**4,237**	**4,283**	**4,321**	**4,452**	**4,548**	**4,630**	**4,761**	**4,899**
14 to 17 years old	76	99	93	73	76	93	55	67	69	95	75	54	66	74
18 to 19 years old	1,341	1,357	1,383	1,318	1,325	1,253	1,291	1,240	1,296	1,426	1,380	1,555	1,576	1,682
20 to 21 years old	1,021	1,076	1,047	1,096	1,239	1,183	1,145	1,149	1,111	1,148	1,201	1,142	1,236	1,296
22 to 24 years old	536	520	604	608	650	739	716	740	729	740	836	787	874	814
25 to 29 years old	296	287	301	369	364	353	396	412	455	467	422	466	437	463
30 to 34 years old	139	192	182	231	208	235	244	247	247	240	217	226	190	227
35 years old and over	211	244	311	319	325	377	390	428	415	336	416	400	381	343
Part-time, total	**5,536**	**5,618**	**5,878**	**5,998**	**6,244**	**6,325**	**6,177**	**6,141**	**6,133**	**6,065**	**6,064**	**5,944**	**6,005**	**6,303**
14 to 17 years old	117	29	32	32	9	7	35	19	25	65	48	26	14	20
18 to 19 years old	444	412	370	402	399	402	470	466	507	485	526	588	566	599
20 to 21 years old	591	559	487	610	578	616	526	546	596	542	600	540	624	644
22 to 24 years old	794	825	885	794	840	933	958	930	894	727	869	813	772	964
25 to 29 years old	1,096	1,070	1,312	1,213	1,242	1,254	1,163	1,116	1,212	1,217	1,101	1,101	1,016	1,083
30 to 34 years old	945	933	973	935	1,033	1,046	921	973	805	813	732	828	807	843
35 years old and over	1,549	1,790	1,819	2,012	2,143	2,068	2,104	2,091	2,093	2,216	2,188	2,048	2,205	2,150
Men, part-time	**2,321**	**2,340**	**2,450**	**2,476**	**2,572**	**2,597**	**2,537**	**2,517**	**2,535**	**2,502**	**2,506**	**2,436**	**2,465**	**2,611**
14 to 17 years old	57	7	17	16	9	4	17	11	7	20	9	5	8	11
18 to 19 years old	199	172	144	191	158	176	210	220	246	228	260	296	270	333
20 to 21 years old	279	300	244	313	285	258	281	235	283	260	300	245	266	276
22 to 24 years old	346	408	388	365	415	417	448	427	365	319	430	350	302	454
25 to 29 years old	567	461	627	539	584	577	460	479	508	547	497	485	458	447
30 to 34 years old	381	431	411	381	440	453	404	408	378	334	283	322	368	332
35 years old and over	492	561	619	672	682	713	717	737	748	793	728	733	792	757
Women, part-time	**3,214**	**3,278**	**3,428**	**3,521**	**3,671**	**3,728**	**3,640**	**3,624**	**3,598**	**3,563**	**3,559**	**3,508**	**3,540**	**3,692**
14 to 17 years old	61	22	15	17	0	3	18	8	18	45	39	21	6	9
18 to 19 years old	244	240	226	211	241	226	261	245	261	257	267	292	297	266
20 to 21 years old	312	260	243	297	294	358	245	311	313	282	300	295	359	368
22 to 24 years old	448	417	497	429	425	516	510	504	529	407	439	463	470	510
25 to 29 years old	528	609	685	674	658	677	702	637	704	670	605	617	558	636
30 to 34 years old	564	503	562	554	593	593	517	565	427	479	449	506	439	511
35 years old and over	1,056	1,229	1,200	1,340	1,461	1,355	1,386	1,354	1,345	1,423	1,460	1,315	1,412	1,393

Table 11.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with middle alternative projections: Fall 1987 to fall 2012—Continued

(In thousands)

Sex, age, and attendance status	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Men and women, total	**15,442**	**15,608**	**15,756**	**15,947**	**16,135**	**16,321**	**16,503**	**16,738**	**16,978**	**17,185**	**17,418**	**17,673**
14 to 17 years old	162	178	187	194	202	210	220	223	224	222	223	225
18 to 19 years old	3,511	3,552	3,575	3,670	3,710	3,764	3,847	3,974	4,075	4,088	4,066	4,043
20 to 21 years old	3,118	3,161	3,203	3,189	3,234	3,304	3,330	3,372	3,445	3,561	3,661	3,702
22 to 24 years old	2,578	2,605	2,634	2,679	2,703	2,704	2,727	2,751	2,786	2,819	2,884	2,999
25 to 29 years old	1,925	1,923	1,948	1,998	2,062	2,128	2,183	2,232	2,264	2,288	2,326	2,368
30 to 34 years old	1,280	1,287	1,289	1,283	1,275	1,258	1,265	1,287	1,320	1,361	1,409	1,460
35 years old and over	2,868	2,902	2,920	2,934	2,948	2,953	2,931	2,899	2,864	2,846	2,849	2,877
Men, total	**6,772**	**6,817**	**6,860**	**6,919**	**6,985**	**7,052**	**7,124**	**7,216**	**7,309**	**7,380**	**7,460**	**7,542**
14 to 17 years old	77	87	94	97	101	104	109	110	109	108	107	107
18 to 19 years old	1,594	1,592	1,603	1,639	1,654	1,673	1,707	1,760	1,801	1,801	1,787	1,773
20 to 21 years old	1,444	1,472	1,490	1,480	1,498	1,529	1,539	1,554	1,584	1,634	1,674	1,686
22 to 24 years old	1,256	1,268	1,277	1,297	1,307	1,306	1,317	1,326	1,340	1,352	1,379	1,428
25 to 29 years old	865	875	890	915	946	977	1,002	1,024	1,037	1,045	1,059	1,074
30 to 34 years old	523	521	517	512	507	499	501	509	521	536	553	570
35 years old and over	1,013	1,002	990	980	972	964	950	933	916	905	901	904
Women, total	**8,670**	**8,791**	**8,896**	**9,027**	**9,150**	**9,269**	**9,380**	**9,522**	**9,669**	**9,805**	**9,958**	**10,131**
14 to 17 years old	85	90	94	97	101	106	111	114	115	114	116	118
18 to 19 years old	1,917	1,960	1,972	2,031	2,056	2,091	2,140	2,214	2,274	2,288	2,279	2,270
20 to 21 years old	1,674	1,689	1,714	1,708	1,735	1,775	1,791	1,818	1,860	1,927	1,987	2,016
22 to 24 years old	1,323	1,338	1,356	1,382	1,396	1,398	1,411	1,425	1,446	1,467	1,505	1,570
25 to 29 years old	1,060	1,048	1,058	1,083	1,117	1,152	1,181	1,209	1,227	1,243	1,267	1,294
30 to 34 years old	757	766	772	771	768	759	764	778	799	825	856	889
35 years old and over	1,855	1,900	1,930	1,955	1,976	1,989	1,982	1,966	1,948	1,941	1,948	1,973
Full-time, total	**9,141**	**9,281**	**9,358**	**9,481**	**9,615**	**9,761**	**9,904**	**10,089**	**10,276**	**10,422**	**10,580**	**10,749**
14 to 17 years old	134	149	157	164	171	178	187	190	191	189	190	192
18 to 19 years old	2,925	2,987	3,016	3,109	3,155	3,211	3,289	3,403	3,494	3,508	3,494	3,482
20 to 21 years old	2,494	2,547	2,589	2,583	2,627	2,688	2,713	2,749	2,810	2,906	2,992	3,032
22 to 24 years old	1,675	1,705	1,721	1,750	1,767	1,768	1,783	1,798	1,820	1,841	1,887	1,970
25 to 29 years old	850	837	835	848	873	900	921	940	952	961	980	1,005
30 to 34 years old	414	411	406	402	399	394	395	401	411	423	440	459
35 years old and over	649	645	633	626	624	623	616	607	598	593	597	609
Men, full-time	**4,220**	**4,258**	**4,278**	**4,313**	**4,361**	**4,416**	**4,472**	**4,544**	**4,615**	**4,663**	**4,717**	**4,772**
14 to 17 years old	61	71	77	81	84	87	91	92	91	90	89	89
18 to 19 years old	1,304	1,313	1,328	1,362	1,380	1,401	1,433	1,480	1,516	1,517	1,507	1,498
20 to 21 years old	1,171	1,197	1,211	1,202	1,218	1,243	1,251	1,263	1,287	1,326	1,360	1,371
22 to 24 years old	851	865	869	880	886	885	892	898	906	913	932	968
25 to 29 years old	411	410	410	416	429	442	452	460	465	467	474	483
30 to 34 years old	182	176	171	167	165	162	162	164	167	171	177	183
35 years old and over	240	226	213	204	199	196	191	186	182	178	177	179
Women, full-time	**4,922**	**5,023**	**5,079**	**5,168**	**5,254**	**5,345**	**5,432**	**5,546**	**5,661**	**5,759**	**5,863**	**5,977**
14 to 17 years old	73	77	80	83	87	91	96	98	99	99	100	103
18 to 19 years old	1,621	1,675	1,688	1,747	1,774	1,810	1,856	1,923	1,978	1,991	1,987	1,984
20 to 21 years old	1,323	1,350	1,378	1,380	1,409	1,445	1,462	1,486	1,523	1,579	1,632	1,661
22 to 24 years old	824	840	853	870	881	882	891	900	914	928	955	1,002
25 to 29 years old	439	428	426	432	445	458	469	480	487	494	506	522
30 to 34 years old	233	235	235	235	234	232	233	237	244	252	263	276
35 years old and over	409	419	420	421	425	427	425	421	417	415	419	430
Part-time, total	**6,300**	**6,327**	**6,398**	**6,465**	**6,519**	**6,561**	**6,600**	**6,649**	**6,702**	**6,763**	**6,838**	**6,924**
14 to 17 years old	28	29	30	30	31	32	33	34	33	33	33	33
18 to 19 years old	586	565	559	560	555	553	558	571	581	580	571	560
20 to 21 years old	624	614	614	606	607	615	617	623	635	655	670	670
22 to 24 years old	903	901	912	929	936	937	944	952	966	978	997	1,028
25 to 29 years old	1,075	1,086	1,113	1,150	1,189	1,229	1,262	1,292	1,312	1,327	1,346	1,364
30 to 34 years old	866	876	883	881	876	864	870	886	909	938	970	1,001
35 years old and over	2,219	2,257	2,287	2,309	2,324	2,330	2,315	2,292	2,266	2,253	2,252	2,268
Men, part-time	**2,552**	**2,559**	**2,582**	**2,606**	**2,624**	**2,637**	**2,652**	**2,672**	**2,694**	**2,717**	**2,743**	**2,771**
14 to 17 years old	17	16	16	17	17	17	18	18	18	18	18	17
18 to 19 years old	289	280	275	276	273	272	274	280	285	284	280	275
20 to 21 years old	273	274	279	278	281	286	288	291	297	307	314	314
22 to 24 years old	405	403	409	417	420	421	424	428	434	439	447	460
25 to 29 years old	455	465	481	499	517	535	550	563	572	578	585	591
30 to 34 years old	341	345	346	345	342	337	339	345	354	365	376	387
35 years old and over	773	776	777	775	773	769	759	747	734	727	723	725
Women, part-time	**3,748**	**3,768**	**3,816**	**3,859**	**3,896**	**3,924**	**3,948**	**3,977**	**4,008**	**4,046**	**4,095**	**4,154**
14 to 17 years old	11	13	13	14	14	15	15	15	15	15	15	15
18 to 19 years old	296	285	284	284	282	281	284	291	296	296	292	286
20 to 21 years old	351	340	336	328	326	330	329	332	338	348	355	356
22 to 24 years old	498	498	504	512	516	516	520	524	532	539	550	568
25 to 29 years old	621	621	633	651	672	694	712	729	740	749	761	772
30 to 34 years old	524	531	536	537	534	527	531	541	555	573	593	613
35 years old and over	1,446	1,481	1,510	1,533	1,551	1,562	1,557	1,545	1,531	1,526	1,528	1,543

NOTE: Detail may not sum to totals due to rounding. Some data have been revised from previously published figures.
Data by age are based on the distribution by age from the Bureau of the Census. Mean absolute percentage errors of selected education statistics can be found in table A2.
Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)*

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; Enrollment in Degree-Granting Institutions Model; and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* "Social and Economic Characteristics of Students," various years. (This table was prepared May 2002.)

Table 12.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with low alternative projections: Fall 1992, 1997, 2000, 2007, and 2012

(In thousands)

Sex, age, and attendance status	1992	1997	2000	2007	2012
Men and women, total	**14,486**	**14,502**	**15,312**	**16,008**	**17,142**
14 to 17 years old	186	171	145	213	218
18 to 19 years old	2,784	3,061	3,531	3,732	3,921
20 to 21 years old	2,883	2,875	3,045	3,230	3,591
22 to 24 years old	2,527	2,475	2,617	2,646	2,909
25 to 29 years old	1,985	1,999	1,960	2,117	2,297
30 to 34 years old	1,456	1,109	1,265	1,227	1,416
35 years old and over	2,665	2,814	2,749	2,843	2,791
Men, total	**6,524**	**6,396**	**6,722**	**6,910**	**7,316**
14 to 17 years old	89	56	63	105	104
18 to 19 years old	1,305	1,414	1,583	1,656	1,720
20 to 21 years old	1,342	1,374	1,382	1,492	1,635
22 to 24 years old	1,272	1,200	1,293	1,277	1,385
25 to 29 years old	955	972	862	972	1,042
30 to 34 years old	627	443	527	486	553
35 years old and over	933	938	1,012	921	877
Women, total	**7,963**	**8,106**	**8,591**	**9,098**	**9,826**
14 to 17 years old	97	115	82	108	114
18 to 19 years old	1,479	1,647	1,948	2,076	2,202
20 to 21 years old	1,541	1,501	1,663	1,738	1,956
22 to 24 years old	1,255	1,275	1,324	1,369	1,523
25 to 29 years old	1,030	1,027	1,099	1,145	1,255
30 to 34 years old	828	666	738	741	863
35 years old and over	1,732	1,877	1,736	1,922	1,914
Full-time, total	**8,161**	**8,438**	**9,010**	**9,607**	**10,427**
14 to 17 years old	179	123	125	181	186
18 to 19 years old	2,382	2,534	2,932	3,190	3,378
20 to 21 years old	2,267	2,275	2,401	2,631	2,941
22 to 24 years old	1,594	1,606	1,653	1,730	1,911
25 to 29 years old	731	897	878	893	975
30 to 34 years old	409	377	422	384	445
35 years old and over	598	626	599	597	591
Men, full-time	**3,926**	**3,890**	**4,111**	**4,337**	**4,630**
14 to 17 years old	86	48	51	88	87
18 to 19 years old	1,130	1,154	1,250	1,390	1,453
20 to 21 years old	1,084	1,074	1,106	1,213	1,330
22 to 24 years old	854	770	839	866	939
25 to 29 years old	378	475	415	438	468
30 to 34 years old	174	160	195	157	178
35 years old and over	220	210	256	185	174
Women, full-time	**4,235**	**4,548**	**4,899**	**5,269**	**5,798**
14 to 17 years old	93	75	74	93	100
18 to 19 years old	1,253	1,380	1,682	1,800	1,924
20 to 21 years old	1,183	1,201	1,296	1,418	1,611
22 to 24 years old	739	836	814	864	972
25 to 29 years old	353	422	463	455	506
30 to 34 years old	235	217	227	226	268
35 years old and over	377	416	343	412	417
Part-time, total	**6,325**	**6,064**	**6,303**	**6,402**	**6,718**
14 to 17 years old	7	48	20	32	32
18 to 19 years old	402	526	599	541	544
20 to 21 years old	616	600	644	599	650
22 to 24 years old	933	869	964	916	998
25 to 29 years old	1,254	1,101	1,083	1,224	1,323
30 to 34 years old	1,046	732	843	844	971
35 years old and over	2,068	2,188	2,150	2,246	2,200
Men, part-time	**2,597**	**2,506**	**2,611**	**2,572**	**2,687**
14 to 17 years old	4	9	11	17	17
18 to 19 years old	176	260	333	266	266
20 to 21 years old	258	300	276	279	305
22 to 24 years old	417	430	454	412	446
25 to 29 years old	577	497	447	534	574
30 to 34 years old	453	283	332	329	376
35 years old and over	713	728	757	736	704
Women, part-time	**3,728**	**3,559**	**3,692**	**3,830**	**4,029**
14 to 17 years old	3	39	9	15	15
18 to 19 years old	226	267	266	276	277
20 to 21 years old	358	300	368	320	345
22 to 24 years old	516	439	510	504	551
25 to 29 years old	677	605	636	690	749
30 to 34 years old	593	449	511	515	595
35 years old and over	1,355	1,460	1,393	1,510	1,497

NOTE: Some data have been revised from previously published figures. Data for 2007 and 2012 are projected. Data by age are based on the distribution by age from the Bureau of the Census. (For more details, see appendix E of *Projections of Education Statistics to 2011.)*

Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; Enrollment in Degree-Granting Institutions Model; and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* "Social and Economic Characteristics of Students," various years. (This table was prepared May 2002.)

Table 13.—Total enrollment in all degree-granting institutions, by sex, age, and attendance status, with high alternative projections: Fall 1992, 1997, 2000, 2007, and 2012

(In thousands)

Sex, age, and attendance status	1992	1997	2000	2007	2012
Men and women, total	**14,486**	**14,502**	**15,312**	**16,999**	**18,203**
14 to 17 years old	186	171	145	227	231
18 to 19 years old	2,784	3,061	3,531	3,963	4,164
20 to 21 years old	2,883	2,875	3,045	3,430	3,813
22 to 24 years old	2,527	2,475	2,617	2,809	3,089
25 to 29 years old	1,985	1,999	1,960	2,248	2,439
30 to 34 years old	1,456	1,109	1,265	1,303	1,503
35 years old and over	2,665	2,814	2,749	3,019	2,964
Men, total	**6,524**	**6,396**	**6,722**	**7,339**	**7,769**
14 to 17 years old	89	56	63	112	110
18 to 19 years old	1,305	1,414	1,583	1,758	1,826
20 to 21 years old	1,342	1,374	1,382	1,585	1,736
22 to 24 years old	1,272	1,200	1,293	1,356	1,471
25 to 29 years old	955	972	862	1,032	1,106
30 to 34 years old	627	443	527	516	587
35 years old and over	933	938	1,012	978	932
Women, total	**7,963**	**8,106**	**8,591**	**9,661**	**10,434**
14 to 17 years old	97	115	82	115	121
18 to 19 years old	1,479	1,647	1,948	2,204	2,338
20 to 21 years old	1,541	1,501	1,663	1,845	2,077
22 to 24 years old	1,255	1,275	1,324	1,453	1,618
25 to 29 years old	1,030	1,027	1,099	1,216	1,333
30 to 34 years old	828	666	738	787	916
35 years old and over	1,732	1,877	1,736	2,041	2,032
Full-time, total	**8,161**	**8,438**	**9,010**	**10,201**	**11,071**
14 to 17 years old	179	123	125	192	198
18 to 19 years old	2,382	2,534	2,932	3,388	3,587
20 to 21 years old	2,267	2,275	2,401	2,794	3,123
22 to 24 years old	1,594	1,606	1,653	1,837	2,029
25 to 29 years old	731	897	878	949	1,035
30 to 34 years old	409	377	422	407	473
35 years old and over	598	626	599	634	627
Men, full-time	**3,926**	**3,890**	**4,111**	**4,606**	**4,915**
14 to 17 years old	86	48	51	94	92
18 to 19 years old	1,130	1,154	1,250	1,476	1,543
20 to 21 years old	1,084	1,074	1,106	1,288	1,412
22 to 24 years old	854	770	839	919	997
25 to 29 years old	378	475	415	465	497
30 to 34 years old	174	160	195	167	189
35 years old and over	220	210	256	197	184
Women, full-time	**4,235**	**4,548**	**4,899**	**5,595**	**6,156**
14 to 17 years old	93	75	74	99	106
18 to 19 years old	1,253	1,380	1,682	1,911	2,043
20 to 21 years old	1,183	1,201	1,296	1,506	1,710
22 to 24 years old	739	836	814	918	1,032
25 to 29 years old	353	422	463	483	538
30 to 34 years old	235	217	227	240	284
35 years old and over	377	416	343	437	443
Part-time, total	**6,325**	**6,064**	**6,303**	**6,798**	**7,132**
14 to 17 years old	7	48	20	34	34
18 to 19 years old	402	526	599	575	577
20 to 21 years old	616	600	644	636	690
22 to 24 years old	933	869	964	972	1,059
25 to 29 years old	1,254	1,101	1,083	1,299	1,405
30 to 34 years old	1,046	732	843	896	1,031
35 years old and over	2,068	2,188	2,150	2,385	2,336
Men, part-time	**2,597**	**2,506**	**2,611**	**2,731**	**2,854**
14 to 17 years old	4	9	11	18	18
18 to 19 years old	176	260	333	282	283
20 to 21 years old	258	300	276	296	324
22 to 24 years old	417	430	454	437	474
25 to 29 years old	577	497	447	567	609
30 to 34 years old	453	283	332	349	399
35 years old and over	713	728	757	781	747
Women, part-time	**3,728**	**3,559**	**3,692**	**4,066**	**4,278**
14 to 17 years old	3	39	9	16	16
18 to 19 years old	226	267	266	293	294
20 to 21 years old	358	300	368	339	367
22 to 24 years old	516	439	510	535	585
25 to 29 years old	677	605	636	733	795
30 to 34 years old	593	449	511	547	632
35 years old and over	1,355	1,460	1,393	1,604	1,589

NOTE: Some data have been revised from previously published figures. Data for 2007 and 2012 are projected. Data by age are based on the distribution by age from the Bureau of the Census. (For more details, see appendix E of *Projections of Education Statistics to 2011.)*

Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; Enrollment in Degree-Granting Institutions Model; and U.S. Department of Commerce, Bureau of the Census, *Current Population Reports,* "Social and Economic Characteristics of Students," various years. (This table was prepared May 2002.)

Table 14.—Total enrollment in all degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1987	12,767	3,611	2,321	3,620	3,214
1988	13,055	3,662	2,340	3,775	3,278
1989	13,539	3,740	2,450	3,921	3,428
1990	13,819	3,808	2,476	4,013	3,521
1991	14,359	3,929	2,572	4,186	3,671
1992	14,486	3,926	2,597	4,235	3,728
1993	14,305	3,891	2,537	4,237	3,640
1994	14,279	3,855	2,517	4,283	3,624
1995	14,262	3,807	2,535	4,321	3,598
1996	14,368	3,851	2,502	4,452	3,563
1997	14,502	3,890	2,506	4,548	3,559
1998	14,507	3,934	2,436	4,630	3,508
1999	14,791	4,026	2,465	4,761	3,540
2000	15,312	4,111	2,611	4,899	3,692
Middle alternative projections					
2001	15,442	4,220	2,552	4,922	3,748
2002	15,608	4,258	2,559	5,023	3,768
2003	15,756	4,278	2,582	5,079	3,816
2004	15,947	4,313	2,606	5,168	3,859
2005	16,135	4,361	2,624	5,254	3,896
2006	16,321	4,416	2,637	5,345	3,924
2007	16,503	4,472	2,652	5,432	3,948
2008	16,738	4,544	2,672	5,546	3,977
2009	16,978	4,615	2,694	5,661	4,008
2010	17,185	4,663	2,717	5,759	4,046
2011	17,418	4,717	2,743	5,863	4,095
2012	17,673	4,772	2,771	5,977	4,154
Low alternative projections					
2001	15,288	4,178	2,526	4,873	3,711
2002	15,468	4,220	2,536	4,978	3,734
2003	15,614	4,239	2,559	5,033	3,782
2004	15,772	4,266	2,577	5,111	3,817
2005	15,780	4,265	2,566	5,138	3,810
2006	15,831	4,284	2,558	5,185	3,806
2007	16,008	4,338	2,572	5,269	3,830
2008	16,236	4,408	2,592	5,380	3,858
2009	16,469	4,477	2,613	5,491	3,888
2010	16,669	4,523	2,635	5,586	3,925
2011	16,895	4,575	2,661	5,687	3,972
2012	17,143	4,629	2,688	5,798	4,029
High alternative projections					
2001	15,596	4,262	2,578	4,971	3,785
2002	15,748	4,296	2,582	5,068	3,802
2003	15,898	4,317	2,605	5,125	3,850
2004	16,122	4,360	2,635	5,225	3,901
2005	16,490	4,457	2,682	5,370	3,982
2006	16,811	4,548	2,716	5,505	4,042
2007	16,998	4,606	2,732	5,595	4,066
2008	17,240	4,680	2,752	5,712	4,096
2009	17,487	4,753	2,775	5,831	4,128
2010	17,701	4,803	2,799	5,932	4,167
2011	17,941	4,859	2,825	6,039	4,218
2012	18,203	4,915	2,854	6,156	4,279

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures.

(For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 15.—Total enrollment in public 4–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1987	5,432	1,882	723	1,854	973
1988	5,546	1,910	722	1,932	982
1989	5,694	1,938	743	1,997	1,017
1990	5,848	1,982	764	2,051	1,050
1991	5,905	2,006	765	2,083	1,051
1992	5,900	2,005	760	2,090	1,045
1993	5,852	1,989	750	2,085	1,027
1994	5,825	1,966	738	2,100	1,022
1995	5,815	1,951	720	2,134	1,009
1996	5,806	1,943	703	2,163	997
1997	5,835	1,951	687	2,214	984
1998	5,892	1,959	685	2,260	988
1999	5,970	1,984	686	2,309	991
2000	6,055	2,009	683	2,363	1,001
Middle alternative projections					
2001	6,206	2,086	695	2,389	1,036
2002	6,287	2,105	699	2,438	1,045
2003	6,347	2,115	707	2,466	1,060
2004	6,426	2,131	714	2,508	1,073
2005	6,509	2,155	719	2,550	1,085
2006	6,592	2,181	723	2,595	1,093
2007	6,672	2,208	727	2,637	1,100
2008	6,773	2,242	732	2,691	1,108
2009	6,878	2,277	737	2,748	1,117
2010	6,972	2,303	744	2,797	1,128
2011	7,078	2,333	752	2,850	1,143
2012	7,192	2,363	762	2,906	1,161
Low alternative projections					
2001	6,144	2,065	688	2,365	1,026
2002	6,230	2,086	693	2,416	1,036
2003	6,290	2,096	701	2,444	1,050
2004	6,355	2,108	706	2,480	1,061
2005	6,366	2,108	703	2,494	1,061
2006	6,394	2,116	701	2,517	1,060
2007	6,472	2,142	705	2,558	1,067
2008	6,570	2,175	710	2,610	1,075
2009	6,672	2,209	715	2,666	1,083
2010	6,763	2,234	722	2,713	1,094
2011	6,866	2,263	729	2,765	1,109
2012	6,976	2,292	739	2,819	1,126
High alternative projections					
2001	6,268	2,107	702	2,413	1,046
2002	6,344	2,124	705	2,460	1,054
2003	6,404	2,134	713	2,488	1,070
2004	6,497	2,154	722	2,536	1,085
2005	6,652	2,202	735	2,606	1,109
2006	6,790	2,246	745	2,673	1,126
2007	6,872	2,274	749	2,716	1,133
2008	6,976	2,309	754	2,772	1,141
2009	7,084	2,345	759	2,830	1,151
2010	7,181	2,372	766	2,881	1,162
2011	7,290	2,403	775	2,936	1,177
2012	7,408	2,434	785	2,993	1,196

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 16.—Total enrollment in public 2–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1987	4,541	744	1,225	787	1,785
1988	4,615	746	1,231	822	1,817
1989	4,884	793	1,302	881	1,907
1990	4,996	811	1,318	906	1,962
1991	5,405	882	1,414	1,004	2,105
1992	5,485	878	1,431	1,037	2,138
1993	5,337	859	1,386	1,030	2,063
1994	5,308	848	1,379	1,038	2,044
1995	5,278	819	1,417	1,022	2,020
1996	5,314	833	1,423	1,039	2,019
1997	5,361	842	1,444	1,049	2,026
1998	5,246	841	1,383	1,040	1,981
1999	5,339	868	1,404	1,063	2,005
2000	5,697	891	1,549	1,109	2,148
Middle alternative projections					
2001	5,657	916	1,477	1,118	2,146
2002	5,699	926	1,477	1,143	2,153
2003	5,754	932	1,489	1,155	2,178
2004	5,821	943	1,502	1,177	2,199
2005	5,879	954	1,512	1,196	2,218
2006	5,936	966	1,519	1,217	2,233
2007	5,993	981	1,529	1,238	2,246
2008	6,069	999	1,541	1,265	2,263
2009	6,145	1,016	1,555	1,292	2,282
2010	6,207	1,024	1,568	1,312	2,303
2011	6,273	1,031	1,581	1,332	2,329
2012	6,345	1,038	1,595	1,355	2,358
Low alternative projections					
2001	5,600	907	1,462	1,107	2,125
2002	5,648	918	1,464	1,133	2,134
2003	5,702	924	1,476	1,145	2,158
2004	5,757	933	1,485	1,164	2,175
2005	5,750	933	1,479	1,170	2,169
2006	5,758	937	1,473	1,180	2,166
2007	5,813	952	1,483	1,201	2,179
2008	5,887	969	1,495	1,227	2,195
2009	5,961	986	1,508	1,253	2,214
2010	6,021	993	1,521	1,273	2,234
2011	6,085	1,000	1,534	1,292	2,259
2012	6,155	1,007	1,547	1,314	2,287
High alternative projections					
2001	5,714	925	1,492	1,129	2,167
2002	5,750	934	1,490	1,153	2,172
2003	5,806	940	1,502	1,165	2,198
2004	5,885	953	1,519	1,190	2,223
2005	6,008	975	1,545	1,222	2,267
2006	6,114	995	1,565	1,254	2,300
2007	6,173	1,010	1,575	1,275	2,313
2008	6,251	1,029	1,587	1,303	2,331
2009	6,329	1,046	1,602	1,331	2,350
2010	6,393	1,055	1,615	1,351	2,372
2011	6,461	1,062	1,628	1,372	2,399
2012	6,535	1,069	1,643	1,396	2,429

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 17.—Total enrollment in private 4–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1987	2,558	909	346	878	426
1988	2,634	933	347	918	436
1989	2,693	933	360	938	463
1990	2,730	944	361	959	466
1991	2,802	962	367	990	483
1992	2,864	970	375	1,016	503
1993	2,887	973	369	1,037	508
1994	2,924	978	367	1,063	516
1995	2,955	978	364	1,089	523
1996	2,998	991	356	1,133	518
1997	3,061	1,008	360	1,170	523
1998	3,126	1,038	353	1,220	514
1999	3,229	1,073	360	1,276	519
2000	3,308	1,107	365	1,315	522
Middle alternative projections					
2001	3,319	1,115	364	1,300	540
2002	3,360	1,124	367	1,325	544
2003	3,390	1,127	370	1,340	552
2004	3,430	1,135	374	1,362	560
2005	3,474	1,147	377	1,385	566
2006	3,517	1,160	378	1,408	570
2007	3,558	1,174	380	1,430	574
2008	3,610	1,191	382	1,459	578
2009	3,664	1,209	385	1,489	582
2010	3,713	1,222	388	1,515	588
2011	3,770	1,239	392	1,544	595
2012	3,835	1,256	397	1,577	605
Low alternative projections					
2001	3,286	1,104	360	1,287	535
2002	3,330	1,114	364	1,313	539
2003	3,359	1,117	367	1,328	547
2004	3,392	1,123	370	1,347	554
2005	3,398	1,122	369	1,355	554
2006	3,411	1,125	367	1,366	553
2007	3,451	1,139	369	1,387	557
2008	3,502	1,155	371	1,415	561
2009	3,554	1,173	373	1,444	565
2010	3,602	1,185	376	1,470	570
2011	3,657	1,202	380	1,498	577
2012	3,720	1,218	385	1,530	587
High alternative projections					
2001	3,352	1,126	368	1,313	545
2002	3,390	1,134	370	1,337	549
2003	3,421	1,137	373	1,352	557
2004	3,468	1,147	378	1,377	566
2005	3,550	1,172	385	1,415	578
2006	3,623	1,195	389	1,450	587
2007	3,665	1,209	391	1,473	591
2008	3,718	1,227	393	1,503	595
2009	3,774	1,245	397	1,534	599
2010	3,824	1,259	400	1,560	606
2011	3,883	1,276	404	1,590	613
2012	3,950	1,294	409	1,624	623

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 18.—Total enrollment in private 2–year degree-granting institutions, by sex and attendance status, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1987	235	76	28	102	29
1988	260	73	40	103	44
1989	267	76	45	105	41
1990	244	71	34	96	43
1991	247	80	27	109	32
1992	238	74	30	91	43
1993	229	70	31	85	43
1994	221	64	33	82	43
1995	215	60	33	77	45
1996	249	84	19	117	29
1997	245	89	14	115	26
1998	243	95	14	109	25
1999	253	101	15	112	25
2000	251	105	13	112	21
Middle alternative projections					
2001	259	102	16	115	26
2002	263	103	16	117	26
2003	265	104	16	119	27
2004	269	105	16	121	27
2005	273	106	16	123	27
2006	276	108	16	125	27
2007	280	109	17	127	27
2008	286	111	17	130	28
2009	291	113	17	133	28
2010	294	114	17	135	28
2011	297	115	17	137	28
2012	301	116	17	139	29
Low alternative projections					
2001	256	101	16	114	26
2002	261	102	16	116	26
2003	263	103	16	118	27
2004	266	104	16	120	27
2005	267	104	16	120	26
2006	268	105	16	121	26
2007	272	106	16	123	26
2008	277	108	16	126	27
2009	282	110	16	129	27
2010	285	111	16	131	27
2011	288	112	16	133	27
2012	292	113	16	135	28
High alternative projections					
2001	262	103	16	116	26
2002	265	104	16	118	26
2003	267	105	16	120	27
2004	272	106	16	122	27
2005	279	108	16	126	28
2006	284	111	16	129	28
2007	288	112	18	131	28
2008	295	114	18	134	29
2009	300	116	18	137	29
2010	303	117	18	139	29
2011	306	118	18	141	29
2012	310	119	18	143	30

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 19.—Total undergraduate enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1987	11,046	5,069	5,978	6,463	4,584	8,919	2,128
1988	11,317	5,137	6,179	6,642	4,674	9,103	2,213
1989	11,743	5,311	6,431	6,841	4,901	9,488	2,255
1990	11,959	5,380	6,579	6,976	4,983	9,710	2,250
1991	12,439	5,571	6,868	7,222	5,217	10,148	2,291
1992	12,537	5,582	6,954	7,243	5,293	10,216	2,320
1993	12,324	5,484	6,840	7,179	5,145	10,012	2,312
1994	12,263	5,423	6,840	7,169	5,094	9,945	2,317
1995	12,232	5,402	6,831	7,146	5,087	9,904	2,328
1996	12,327	5,421	6,907	7,299	5,029	9,935	2,392
1997	12,451	5,469	6,982	7,419	5,032	10,007	2,443
1998	12,437	5,446	6,991	7,539	4,898	9,950	2,487
1999	12,681	5,560	7,122	7,735	4,947	10,110	2,571
2000	13,155	5,778	7,377	7,923	5,232	10,539	2,616
Middle alternative projections							
2001	13,278	5,818	7,459	8,060	5,217	10,629	2,648
2002	13,432	5,864	7,567	8,201	5,230	10,744	2,688
2003	13,566	5,910	7,657	8,281	5,286	10,851	2,716
2004	13,736	5,965	7,772	8,398	5,339	10,985	2,752
2005	13,901	6,024	7,877	8,520	5,381	11,112	2,789
2006	14,072	6,088	7,984	8,657	5,415	11,243	2,829
2007	14,238	6,154	8,084	8,789	5,449	11,371	2,867
2008	14,457	6,241	8,217	8,965	5,493	11,539	2,918
2009	14,681	6,328	8,352	9,139	5,541	11,711	2,970
2010	14,868	6,394	8,474	9,273	5,595	11,855	3,013
2011	15,063	6,460	8,602	9,407	5,655	12,006	3,057
2012	15,263	6,523	8,740	9,539	5,724	12,162	3,101
Low alternative projections							
2001	13,145	5,760	7,384	7,979	5,165	10,523	2,622
2002	13,311	5,811	7,499	8,127	5,183	10,647	2,664
2003	13,444	5,857	7,588	8,206	5,238	10,753	2,692
2004	13,585	5,899	7,687	8,306	5,280	10,864	2,722
2005	13,595	5,891	7,704	8,333	5,263	10,868	2,728
2006	13,650	5,905	7,744	8,397	5,253	10,906	2,744
2007	13,811	5,969	7,841	8,525	5,286	11,030	2,781
2008	14,023	6,054	7,970	8,696	5,328	11,193	2,830
2009	14,241	6,138	8,101	8,865	5,375	11,360	2,881
2010	14,422	6,202	8,220	8,995	5,427	11,499	2,923
2011	14,611	6,266	8,344	9,125	5,485	11,646	2,965
2012	14,805	6,327	8,478	9,253	5,552	11,797	3,008
High alternative projections							
2001	13,411	5,876	7,534	8,141	5,269	10,735	2,674
2002	13,553	5,917	7,635	8,275	5,277	10,841	2,712
2003	13,688	5,963	7,726	8,356	5,334	10,949	2,740
2004	13,887	6,031	7,857	8,490	5,398	11,106	2,782
2005	14,207	6,157	8,050	8,707	5,499	11,356	2,850
2006	14,494	6,271	8,224	8,917	5,577	11,580	2,914
2007	14,665	6,339	8,327	9,053	5,612	11,712	2,953
2008	14,891	6,428	8,464	9,234	5,658	11,885	3,006
2009	15,121	6,518	8,603	9,413	5,707	12,062	3,059
2010	15,314	6,586	8,728	9,551	5,763	12,211	3,103
2011	15,515	6,654	8,860	9,689	5,825	12,366	3,149
2012	15,721	6,719	9,002	9,825	5,896	12,527	3,194

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 20.—Total graduate enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1987	1,452	694	758	527	925	945	507
1988	1,472	697	775	553	919	949	522
1989	1,522	710	811	572	949	978	544
1990	1,586	737	849	599	987	1,023	563
1991	1,639	760	878	641	997	1,050	589
1992	1,669	772	896	665	1,003	1,058	611
1993	1,688	771	918	689	1,000	1,064	625
1994	1,721	776	945	706	1,015	1,075	647
1995	1,732	768	964	717	1,015	1,074	659
1996	1,742	759	983	737	1,005	1,069	674
1997	1,753	758	996	753	1,001	1,070	683
1998	1,768	754	1,013	753	1,014	1,067	701
1999	1,807	766	1,041	781	1,026	1,077	730
2000	1,850	779	1,071	813	1,037	1,089	761
Middle alternative projections							
2001	1,852	782	1,070	801	1,051	1,109	743
2002	1,865	782	1,082	801	1,063	1,117	748
2003	1,878	782	1,095	799	1,078	1,125	753
2004	1,897	786	1,112	805	1,093	1,137	760
2005	1,917	790	1,126	813	1,103	1,149	768
2006	1,930	793	1,136	819	1,110	1,157	773
2007	1,943	797	1,146	827	1,116	1,165	778
2008	1,956	801	1,154	835	1,120	1,172	784
2009	1,969	805	1,164	844	1,125	1,180	789
2010	1,986	811	1,176	853	1,134	1,190	796
2011	2,018	821	1,197	871	1,147	1,209	809
2012	2,063	836	1,226	898	1,164	1,236	827
Low alternative projections							
2001	1,833	774	1,059	793	1,040	1,098	736
2002	1,848	775	1,072	794	1,053	1,107	741
2003	1,861	775	1,085	792	1,068	1,115	746
2004	1,876	777	1,100	796	1,081	1,124	752
2005	1,875	773	1,101	795	1,079	1,124	751
2006	1,872	769	1,102	794	1,077	1,122	750
2007	1,885	773	1,112	802	1,083	1,130	755
2008	1,897	777	1,119	810	1,086	1,137	760
2009	1,910	781	1,129	819	1,091	1,145	765
2010	1,926	787	1,141	827	1,100	1,154	772
2011	1,957	796	1,161	845	1,113	1,173	785
2012	2,001	811	1,189	871	1,129	1,199	802
High alternative projections							
2001	1,871	790	1,081	809	1,062	1,120	750
2002	1,882	789	1,092	808	1,073	1,127	755
2003	1,895	789	1,105	806	1,088	1,135	760
2004	1,918	795	1,124	814	1,105	1,150	768
2005	1,959	807	1,151	831	1,127	1,174	785
2006	1,988	817	1,170	844	1,143	1,192	796
2007	2,001	821	1,180	852	1,149	1,200	801
2008	2,015	825	1,189	860	1,154	1,207	808
2009	2,028	829	1,199	869	1,159	1,215	813
2010	2,046	835	1,211	879	1,168	1,226	820
2011	2,079	846	1,233	897	1,181	1,245	833
2012	2,125	861	1,263	925	1,199	1,273	852

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 21.—Total first-professional enrollment in all degree-granting institutions, by sex, attendance status, and control of institution, with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1987	268	170	98	242	26	110	158
1988	267	167	100	241	26	109	158
1989	274	169	105	248	26	113	162
1990	273	167	107	246	28	112	162
1991	281	170	111	252	29	111	169
1992	281	169	112	252	29	111	170
1993	292	173	120	260	33	114	179
1994	295	174	120	263	31	114	181
1995	298	174	123	266	31	115	183
1996	298	173	125	267	31	117	182
1997	298	169	129	267	31	118	180
1998	302	168	134	271	31	121	182
1999	303	166	138	271	33	123	180
2000	307	163	143	273	33	124	183
Middle alternative projections							
2001	312	172	140	279	33	125	187
2002	312	170	142	278	34	125	187
2003	312	169	143	278	34	125	187
2004	314	169	145	280	34	126	188
2005	317	170	147	283	34	127	190
2006	319	171	148	285	34	128	191
2007	322	172	149	287	34	129	193
2008	325	173	151	290	34	130	194
2009	328	174	153	292	35	132	196
2010	331	176	155	295	36	133	198
2011	337	179	159	302	36	136	202
2012	347	183	164	311	36	140	207
Low alternative projections							
2001	309	170	139	276	33	124	185
2002	309	168	141	275	34	124	185
2003	309	167	142	275	34	124	185
2004	311	167	143	277	34	125	186
2005	310	166	144	277	33	124	186
2006	309	166	144	276	33	124	185
2007	312	167	145	278	33	125	187
2008	315	168	146	281	33	126	188
2009	318	169	148	283	34	128	190
2010	321	171	150	286	35	129	192
2011	327	174	154	293	35	132	196
2012	337	178	159	302	35	136	201
High alternative projections							
2001	315	174	141	282	33	126	189
2002	315	172	143	281	34	126	189
2003	315	171	144	281	34	126	189
2004	317	171	147	283	34	127	190
2005	324	174	150	289	35	130	194
2006	329	176	152	294	35	132	197
2007	332	177	153	296	35	133	199
2008	335	178	156	299	35	134	200
2009	338	179	158	301	36	136	202
2010	341	181	160	304	37	137	204
2011	347	184	164	311	37	140	208
2012	357	188	169	320	37	144	213

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Table 22.—Total full-time-equivalent enrollment in all degree-granting institutions, by control and type of institution with alternative projections: Fall 1987 to fall 2012

(In thousands)

Year	Total	Public		Private	
		4-year	2-year	4-year	2-year
1987	9,229	4,396	2,542	2,091	201
1988	9,466	4,505	2,591	2,160	209
1989	9,783	4,620	2,752	2,195	216
1990	9,985	4,740	2,818	2,230	197
1991	10,363	4,796	3,067	2,287	212
1992	10,438	4,798	3,114	2,332	194
1993	10,353	4,765	3,046	2,356	184
1994	10,349	4,749	3,035	2,390	176
1995	10,337	4,757	2,994	2,418	168
1996	10,482	4,768	3,028	2,467	219
1997	10,615	4,813	3,056	2,525	220
1998	10,699	4,870	3,011	2,599	220
1999	10,944	4,944	3,075	2,694	229
2000	11,267	5,026	3,241	2,769	231
Middle alternative projections					
2001	11,402	5,148	3,251	2,770	234
2002	11,552	5,221	3,288	2,806	237
2003	11,654	5,268	3,318	2,829	239
2004	11,802	5,333	3,362	2,863	243
2005	11,956	5,406	3,402	2,901	246
2006	12,116	5,482	3,443	2,941	250
2007	12,273	5,555	3,486	2,979	254
2008	12,476	5,648	3,542	3,027	259
2009	12,682	5,745	3,596	3,077	264
2010	12,850	5,827	3,635	3,120	267
2011	13,035	5,919	3,676	3,170	270
2012	13,235	6,016	3,719	3,226	273
Low alternative projections					
2001	11,288	5,097	3,218	2,742	232
2002	11,448	5,174	3,258	2,781	235
2003	11,549	5,221	3,288	2,804	237
2004	11,672	5,274	3,325	2,832	240
2005	11,693	5,287	3,327	2,837	241
2006	11,753	5,318	3,340	2,853	243
2007	11,905	5,388	3,381	2,890	246
2008	12,102	5,479	3,436	2,936	251
2009	12,302	5,573	3,488	2,985	256
2010	12,465	5,652	3,526	3,026	259
2011	12,644	5,741	3,566	3,075	262
2012	12,838	5,836	3,607	3,129	265
High alternative projections					
2001	11,516	5,199	3,284	2,798	236
2002	11,656	5,268	3,318	2,831	239
2003	11,759	5,315	3,348	2,854	241
2004	11,932	5,392	3,399	2,894	246
2005	12,219	5,525	3,477	2,965	251
2006	12,479	5,646	3,546	3,029	258
2007	12,641	5,722	3,591	3,068	262
2008	12,850	5,817	3,648	3,118	267
2009	13,062	5,917	3,704	3,169	272
2010	13,236	6,002	3,744	3,214	275
2011	13,426	6,097	3,786	3,265	278
2012	13,632	6,196	3,831	3,323	281

NOTE: Some data have been revised from previously published figures. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011.)* Detail may not sum to totals due to rounding.

Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

Chapter 3

High School Graduates

National

The number of high school graduates is projected to increase 9 percent from 1999–2000 to 2011–12. Increases in the number of graduates are expected for both public and private schools. The significant rise in the number of graduates reflects the increase in the 18-year-old population over the projection period, rather than changes in the graduation rates of 12th-graders (table 23 and figure 34).

However, projections of graduates could be impacted by changes in policies affecting graduation requirements. Projections of public high school graduates that have been produced over the past 19 years are less accurate than projections of public elementary and secondary enrollment, but more accurate than projections of earned degrees by level. For more information, see table A2, page 79.

Total High School Graduates

A high school graduate is defined as an individual who has received formal recognition from school authorities, by the granting of a diploma, for completing a prescribed course of studies at the secondary school level. This definition does not include other high school completers, high school equivalency recipients, or other diploma recipients.

The number of high school graduates from public and private schools increased from 2.6 million in 1986–87 to 2.8 million in 1987–88 (table 23 and figure 35). Then it decreased to 2.5 million in 1993–94, before increasing to 2.8 million in 1999–2000. The total number of high school graduates is projected to rise to 3.1 million by 2011–12, an increase of 9 percent from 1999–2000.

High School Graduates, by Control of Institution

The number of graduates of public high schools increased from 2.4 million in 1986–87 to 2.5 million in 1987–88 (table 23 and figure 36). Then it decreased to 2.2 million in 1993–94, before rising to 2.5 million in 1999–2000. Over the projection period, public high school graduates are projected to increase to 2.8 million by 2011–12, an increase of 9 percent from 1999–2000.

The number of graduates of private high schools is projected to increase from an estimated 277,000 in 1999–2000 to 294,000 by 2011–12, an increase of 6 percent.

State Level

The expected 9 percent national increase in public high school graduates plays out differently in each state, with 26 states showing increases ranging from 0.3 percent to 71 percent, and 25 states showing decreases ranging from 0.3 percent to 41 percent (table 25 and figure 38). Projected trends in the number of public high school graduates by state could be impacted by changes in policies affecting graduation requirements.

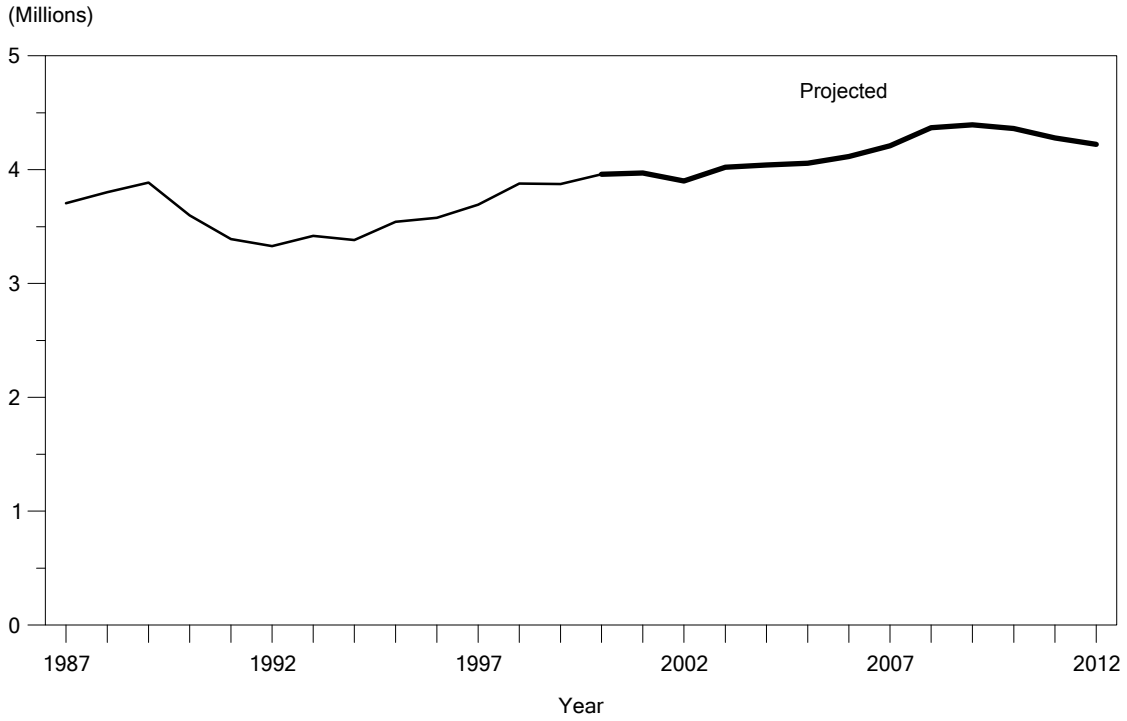
The number of public high school graduates in the Northeast is expected to increase 8 percent between 1999–2000 and 2011–12 (table 25 and figure 39). The largest increases are expected in Connecticut (16 percent) and New Jersey (26 percent). Decreases are projected for Maine (12 percent) and Vermont (16 percent).

The number of public high school graduates in the Midwest is expected to increase by 1 percent between 1999–2000 and 2011–12. The largest increase is expected in Illinois (17 percent). Large decreases are projected for North Dakota (29 percent) and South Dakota (26 percent).

Between 1999–2000 and 2011–12, the number of public high school graduates in the South is projected to increase by 11 percent. The largest increases are expected in Florida (27 percent), North Carolina (22 percent), and Virginia (24 percent). The largest decrease is projected for the District of Columbia (41 percent).

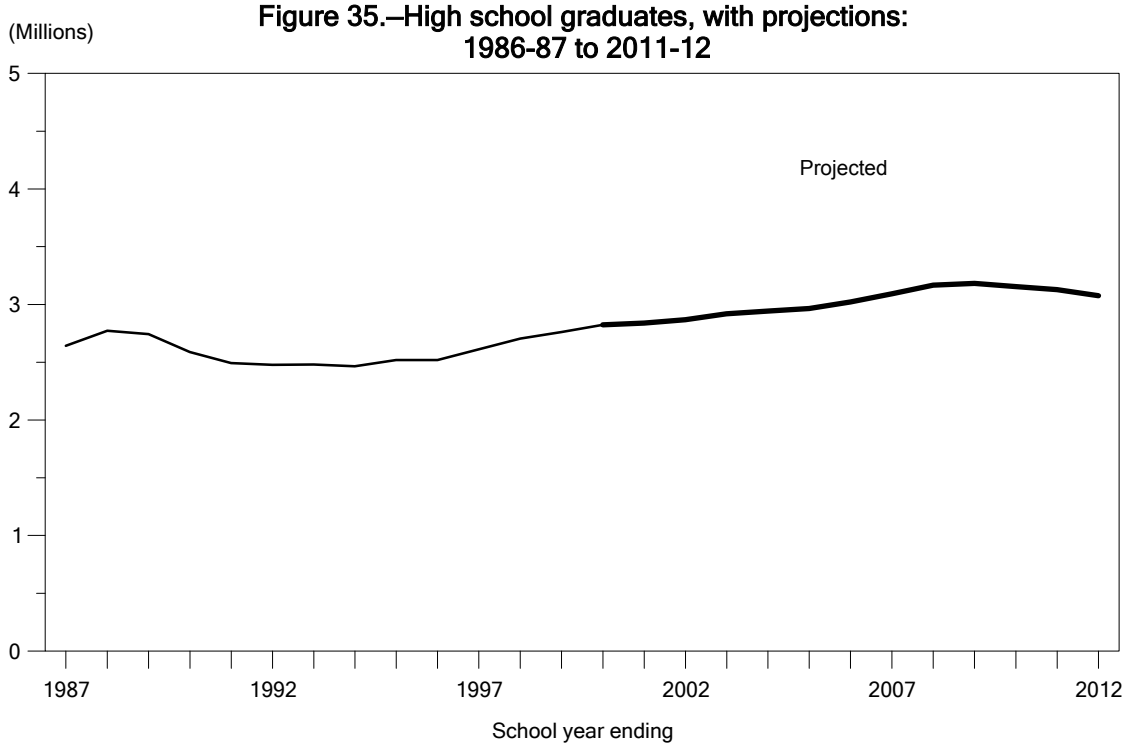
The number of high school graduates in the West is expected to increase, rising by 17 percent. The largest increases are expected in Arizona (38 percent) and Nevada (71 percent). The largest decreases are projected for Montana (19 percent) and Wyoming (28 percent).

Figure 34.–Eighteen-year-old population, with projections: 1987 to 2012



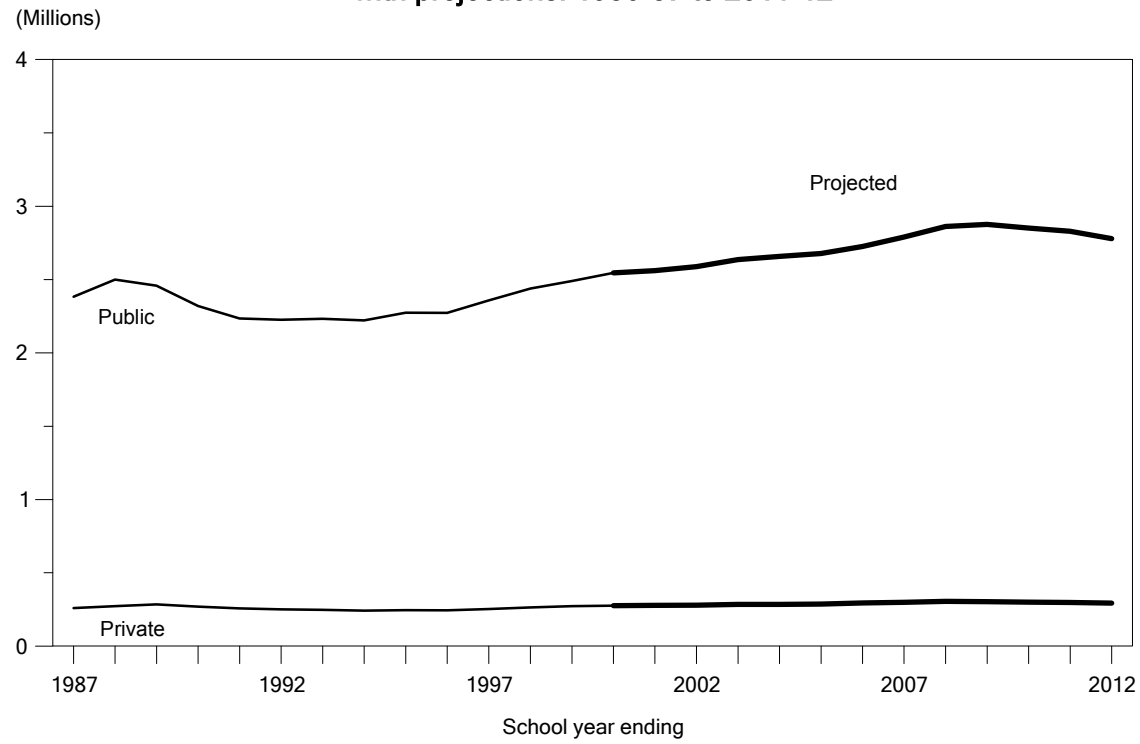
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 35.–High school graduates, with projections: 1986-87 to 2011-12



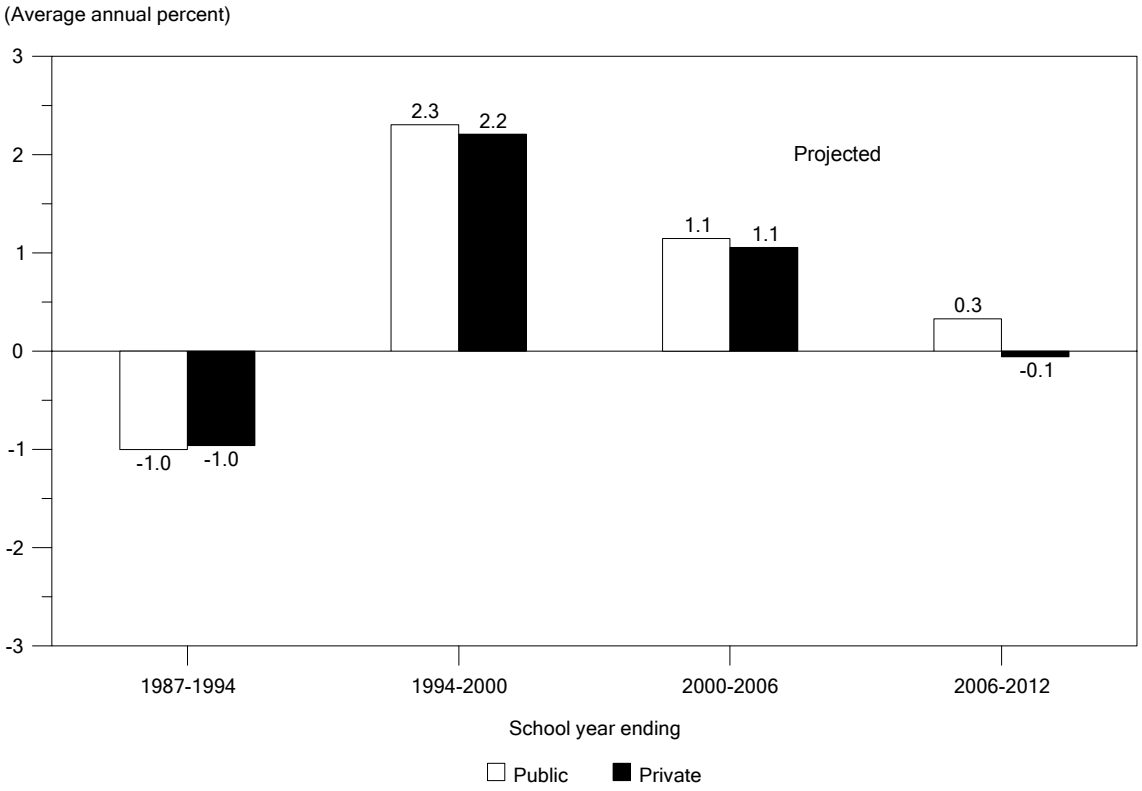
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics, Early Estimates*; and National Elementary and Secondary High School Graduates Model.

Figure 36.–High school graduates, by control of institution, with projections: 1986-87 to 2011-12



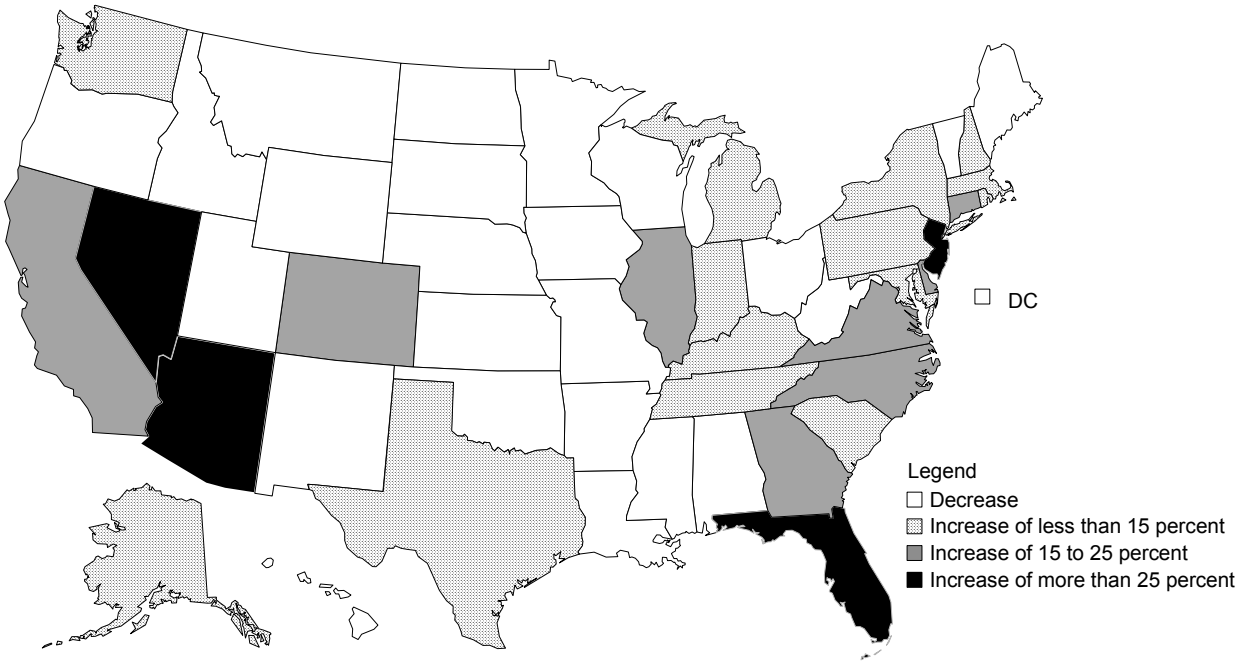
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary High School Graduates Model.

Figure 37.–Average annual rates of change for high school graduates: 1986-87 to 2011-12



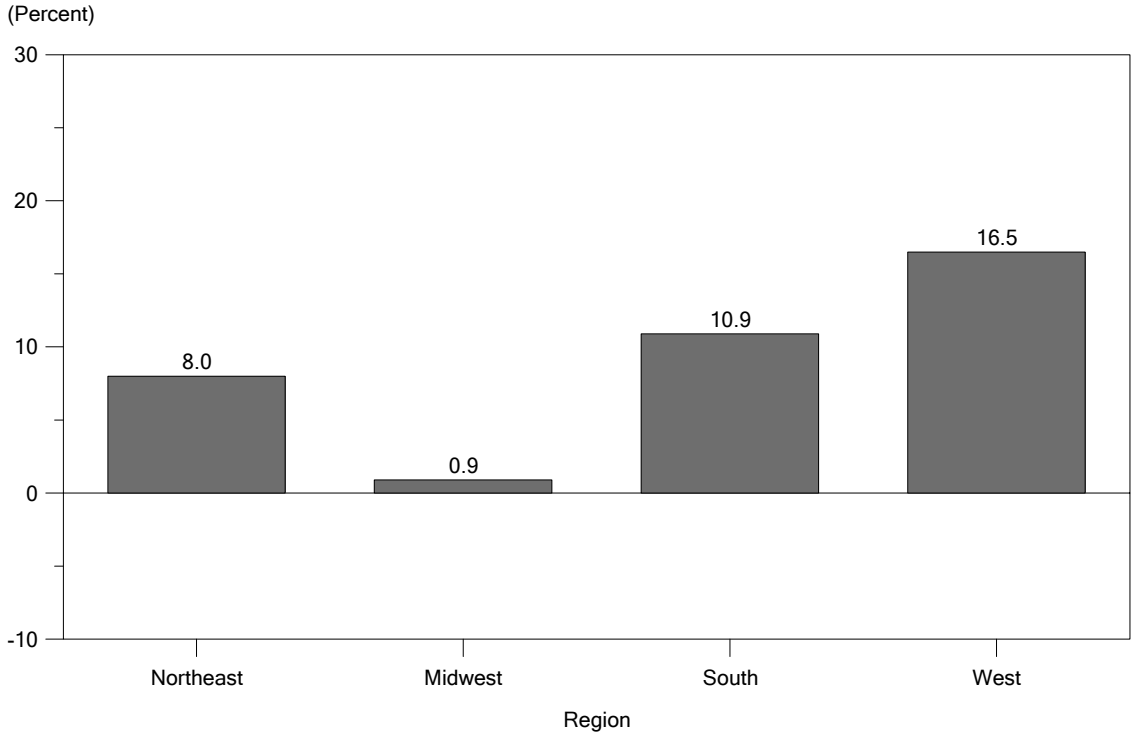
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary High School Graduates Model.

Figure 38.—Percent change in number of public high school graduates, by state: 1999-2000 to 2011-12



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public High School Graduates Model.

Figure 39.–Percent change in number of public high school graduates, by region: 1999-2000 to 2011-12



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public High School Graduates Model.

Table 23.—High school graduates, by control of institution, with projections: 1986–87 to 2011–12

(In thousands)

School year	Total	Public	Private
1987 [1]	2,643	2,383	260
1988 [1]	2,773	2,500	273
1989 [2]	2,744	2,459	285
1990 [3]	2,589	2,320	269
1991 [2]	2,493	2,235	258
1992 [3]	2,478	2,226	252
1993 [2]	2,481	2,233	247
1994 [3]	2,464	2,221	243
1995 [2]	2,519	2,274	246
1996 [3]	2,518	2,273	245
1997 [2]	2,612	2,358	254
1998 [3]	2,704	2,439	265
1999 [2]	2,762	2,489	273
2000 [3]	2,824	2,546	277
		Projected	
2001	2,839	2,561	279
2002	2,869	2,589	280
2003	2,920	2,636	285
2004	2,942	2,657	285
2005	2,965	2,677	288
2006	3,021	2,726	295
2007	3,092	2,791	300
2008	3,168	2,862	306
2009	3,181	2,877	304
2010	3,153	2,852	301
2011	3,127	2,829	298
2012	3,074	2,780	294

[1] Private school numbers are interpolated based on data from the 1985 Private School Survey.

[2] Private school numbers are from the Private School Universe Survey.

[3] Private school numbers are interpolated based on data from the Private School Universe Survey.

NOTE: Some data have been revised from previously published figures. Prior to 1989–90, numbers for private high school graduates were estimated by NCES. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools;* Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, 1995–96; *Public and Private Elementary and Secondary Education Statistics, Early Estimates;* and National High School Graduates Model. (This table was prepared May 2002.)

Table 24.—High school graduates in public schools, by region and state, with projections: 1993–94 to 2011–12

Region and state	Actual							Projected		
	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99	1999–2000	2000–01	2001–02	2002–03
United States	2,220,849	2,273,541	2,273,109	2,358,403	2,439,050	2,488,605	2,546,102	2,560,110	2,588,620	2,635,630
Northeast	408,755	413,417	417,843	432,280	430,450	437,156	453,754	459,270	464,950	480,100
Connecticut	26,330	26,445	26,319	27,029	27,885	28,284	31,562	31,260	32,960	33,730
Maine	11,384	11,501	11,795	12,019	12,171	11,988	12,148	12,410	12,590	12,780
Massachusetts	47,453	47,679	47,993	49,008	50,452	51,465	52,950	54,400	55,940	57,960
New Hampshire	9,933	10,145	10,094	10,487	10,843	11,251	11,829	12,110	12,250	12,900
New Jersey	66,125	67,403	67,704	70,028	65,106	67,410	74,423	75,940	79,510	83,970
New York	132,708	132,401	134,401	140,861	138,531	139,426	141,731	142,330	140,880	145,330
Pennsylvania	101,958	104,146	105,981	108,817	110,919	112,632	113,959	115,420	115,030	117,870
Rhode Island	7,450	7,826	7,689	7,850	8,074	8,179	8,477	8,560	8,860	8,850
Vermont	5,414	5,871	5,867	6,181	6,469	6,521	6,675	6,840	6,930	6,710
Midwest	578,914	596,753	592,775	614,217	640,857	645,322	640,338	643,930	644,820	660,200
Illinois	102,126	105,164	104,626	110,170	114,611	112,556	111,835	111,610	116,110	119,520
Indiana	54,650	56,058	56,330	57,463	58,899	58,964	57,023	57,130	56,430	56,450
Iowa	30,247	31,268	31,689	32,986	34,189	34,378	33,926	33,970	33,680	34,280
Kansas	25,319	26,125	25,786	26,648	27,856	28,685	29,102	29,850	29,630	29,850
Michigan	83,385	84,628	85,530	89,695	92,732	94,125	89,986	91,390	92,370	95,580
Minnesota	47,514	49,354	50,481	48,193	54,628	56,964	57,372	58,500	58,230	60,020
Missouri	46,566	48,862	49,011	50,543	52,095	52,531	52,848	54,370	53,900	54,960
Nebraska	17,072	17,969	18,014	18,636	19,719	20,550	20,149	19,880	20,130	20,260
North Dakota	7,522	7,817	8,027	8,025	8,170	8,388	8,606	8,400	8,080	8,110
Ohio	107,700	109,418	102,098	107,422	111,211	111,112	111,668	110,530	108,420	111,540
South Dakota	8,442	8,355	8,532	9,247	9,140	8,757	9,278	8,810	8,830	8,570
Wisconsin	48,371	51,735	52,651	55,189	57,607	58,312	58,545	59,490	59,010	61,060
South	748,079	770,737	766,273	789,143	821,372	835,286	861,498	856,550	872,040	881,390
Alabama	34,447	36,268	35,043	35,611	38,089	36,244	37,819	36,660	36,860	36,520
Arkansas	24,990	24,636	25,094	25,146	26,855	26,896	27,335	26,760	26,700	26,620
Delaware	5,230	5,234	5,609	5,953	6,439	6,484	6,108	6,680	6,420	6,550
District of Columbia	3,207	2,974	2,696	2,853	2,777	2,675	2,695	2,670	2,470	2,240
Florida	88,032	89,827	89,242	95,082	98,498	102,386	106,708	109,020	113,560	108,720
Georgia	56,356	56,660	56,271	58,996	58,525	59,227	62,563	62,250	65,210	65,930
Kentucky	38,454	37,626	36,641	36,941	37,270	37,048	36,830	37,620	38,070	37,920
Louisiana	34,822	36,480	36,467	36,495	38,030	37,802	38,430	37,840	37,580	37,120
Maryland	39,091	41,387	41,785	42,856	44,555	46,214	47,849	48,410	49,710	51,120
Mississippi	23,379	23,837	23,032	23,388	24,502	24,198	24,232	23,970	23,600	23,250
North Carolina	57,738	59,540	57,014	57,886	59,292	60,081	62,140	63,330	64,610	66,110
Oklahoma	31,872	33,319	33,060	33,536	35,213	36,556	37,646	36,940	36,250	35,900
South Carolina	30,603	30,680	30,182	30,829	31,373	31,495	31,617	29,360	30,510	31,240
Tennessee	40,643	43,556	43,792	41,617	39,866	40,823	41,568	39,750	39,710	40,230
Texas	163,191	170,322	171,844	181,794	197,186	203,393	212,925	210,690	215,700	222,690
Virginia	56,140	58,260	58,166	60,587	62,738	63,875	65,596	66,310	67,940	72,050
West Virginia	19,884	20,131	20,335	19,573	20,164	19,889	19,437	18,290	17,140	17,180
West	485,101	492,634	496,218	522,763	546,371	567,866	590,512	600,360	606,810	613,940
Alaska	5,747	5,765	5,945	6,133	6,462	6,810	6,615	6,750	6,940	7,000
Arizona	31,799	30,989	30,008	34,082	36,361	35,728	38,304	39,550	40,020	42,000
California	253,083	255,200	259,071	269,071	282,897	299,221	309,866	320,100	323,720	330,790
Colorado	31,867	32,409	32,608	34,231	35,794	36,958	38,924	40,090	40,780	41,620
Hawaii	9,369	9,407	9,387	8,929	9,670	9,714	10,437	9,780	9,980	9,610
Idaho	13,281	14,198	14,667	15,407	15,523	15,716	16,170	15,740	15,750	15,480
Montana	9,601	10,134	10,139	10,322	10,656	10,925	10,903	10,700	10,710	10,750
Nevada	9,485	10,038	10,374	12,425	13,052	13,892	14,551	14,910	15,600	13,740
New Mexico	14,892	14,928	15,402	15,700	16,529	17,317	18,031	17,790	17,590	17,380
Oregon	26,338	26,713	26,570	27,720	27,754	28,245	30,151	30,030	30,280	30,610
Utah	26,407	27,670	26,293	30,753	31,567	31,574	32,501	31,160	30,540	30,160
Washington	47,235	49,294	49,862	51,609	53,679	55,418	57,597	57,520	58,630	58,820
Wyoming	5,997	5,889	5,892	6,381	6,427	6,348	6,462	6,240	6,270	5,980

Table 24.—High school graduates in public schools, by region and state, with projections: 1993–94 to 2011–12—Continued

Region and state	Projected								
	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12
United States	2,657,370	2,677,350	2,726,120	2,791,210	2,862,430	2,877,190	2,852,240	2,829,460	2,779,740
Northeast	483,780	492,800	506,300	518,510	527,190	524,130	516,390	508,250	490,070
Connecticut	34,590	35,600	36,510	37,310	38,100	37,570	37,570	37,250	36,670
Maine	12,900	12,520	12,650	12,570	12,440	12,120	11,920	11,390	10,750
Massachusetts	58,580	60,140	61,570	64,020	65,030	64,090	63,300	62,170	56,690
New Hampshire	12,990	13,250	13,260	13,550	13,800	13,440	13,430	12,910	12,500
New Jersey	86,360	87,760	91,710	95,800	96,890	97,270	96,560	96,260	93,910
New York	142,200	145,890	150,700	153,110	156,200	155,460	152,610	149,880	146,370
Pennsylvania	120,470	121,930	124,060	125,870	128,460	128,170	125,410	123,320	118,320
Rhode Island	9,010	9,130	9,370	9,700	9,800	9,740	9,570	9,290	9,280
Vermont	6,680	6,580	6,470	6,580	6,470	6,270	6,020	5,780	5,580
Midwest	654,550	649,230	654,670	667,290	684,610	682,800	672,340	663,600	646,320
Illinois	120,030	120,110	122,820	125,630	131,470	133,290	130,430	131,750	130,660
Indiana	55,360	55,220	57,290	59,290	60,320	60,950	60,160	59,680	58,220
Iowa	33,770	32,430	32,800	33,450	34,260	34,000	33,600	32,910	31,790
Kansas	29,470	28,910	28,820	28,770	29,310	28,850	28,630	27,980	27,530
Michigan	93,940	94,680	94,580	97,440	102,040	100,140	97,690	96,150	93,580
Minnesota	59,480	58,290	59,170	59,420	60,440	58,870	58,290	57,320	55,830
Missouri	54,570	53,990	54,350	55,350	56,330	57,080	57,620	55,010	52,610
Nebraska	19,850	19,290	19,140	19,270	19,850	19,300	18,960	18,620	18,240
North Dakota	7,820	7,430	7,380	7,140	6,970	6,830	6,580	6,400	6,100
Ohio	111,150	110,070	110,950	113,080	114,880	115,450	113,430	112,290	108,220
South Dakota	8,390	8,130	7,860	7,870	7,790	7,520	7,460	7,230	6,870
Wisconsin	60,720	60,680	59,510	60,580	60,950	60,520	59,490	58,260	56,670
South	893,950	903,970	915,400	940,440	955,590	974,490	972,210	966,490	955,380
Alabama	35,590	36,090	36,080	36,840	37,890	37,720	37,140	36,950	35,500
Arkansas	26,300	25,770	26,010	26,840	27,470	27,450	27,050	26,070	25,780
Delaware	6,780	6,750	6,960	6,830	6,850	7,030	7,180	7,270	7,100
District of Columbia	2,120	1,800	1,740	2,070	2,050	2,050	1,850	1,780	1,600
Florida	124,300	121,660	126,430	130,430	132,360	135,090	135,170	134,490	135,580
Georgia	66,550	68,170	69,980	72,780	75,630	75,680	75,730	76,110	74,990
Kentucky	39,010	37,980	38,300	38,390	39,540	40,540	40,670	41,750	42,200
Louisiana	31,140	38,460	35,350	35,360	31,410	37,320	35,200	34,520	33,320
Maryland	52,090	53,320	54,360	55,580	56,130	57,090	55,150	54,380	53,000
Mississippi	22,920	22,550	22,590	23,240	24,040	24,110	23,980	23,720	22,780
North Carolina	66,970	68,930	71,400	74,600	76,030	76,580	77,040	76,110	75,970
Oklahoma	35,780	35,070	34,730	35,050	35,400	35,410	35,300	34,140	32,800
South Carolina	31,540	32,330	32,820	34,090	31,930	34,670	34,590	34,140	32,840
Tennessee	40,060	40,570	40,950	42,980	44,440	44,930	44,290	43,110	41,710
Texas	221,590	224,030	226,370	229,580	235,360	239,160	242,650	244,310	243,560
Virginia	73,980	73,760	74,920	78,970	82,170	82,690	82,640	81,630	81,030
West Virginia	17,230	16,730	16,410	16,810	16,890	16,970	16,580	16,010	15,620
West	625,090	631,350	649,750	664,970	695,040	695,770	691,300	691,120	687,970
Alaska	7,160	7,090	7,230	7,310	7,430	7,330	7,370	6,780	6,700
Arizona	42,720	43,190	45,000	46,790	49,550	50,460	51,440	51,280	52,910
California	333,960	343,080	356,120	364,900	384,850	384,660	378,840	384,380	382,500
Colorado	43,280	43,210	43,990	44,860	46,430	47,040	47,730	47,390	47,140
Hawaii	9,840	9,860	9,890	10,000	10,420	10,140	9,750	9,490	9,410
Idaho	15,080	15,370	15,820	15,820	16,390	16,220	16,260	16,120	15,810
Montana	10,550	10,260	10,110	9,960	10,080	9,770	9,720	9,170	8,810
Nevada	18,960	18,070	19,320	20,570	22,260	23,020	23,800	24,080	24,900
New Mexico	17,270	17,000	16,830	17,030	17,250	17,250	16,900	16,480	15,730
Oregon	30,530	30,200	30,550	31,490	31,860	31,920	31,360	30,340	30,050
Utah	29,680	29,180	30,010	29,850	30,570	30,640	30,970	30,170	30,590
Washington	60,240	59,310	59,450	61,130	62,600	62,120	62,140	60,590	58,780
Wyoming	5,820	5,530	5,430	5,260	5,350	5,200	5,020	4,850	4,640

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public High School Graduates Model. (This table was prepared May 2002.)

Table 25.—Percent change in number of public high school graduates, by region and state, with projections: 1993–94 to 2011–12

Region and state	Actual	Projected		
	1993–94 to 1999–2000	1999–2000 to 2006–07	2006–07 to 2011–12	1999–2000 to 2011–12
United States	14.6	7.1	2.0	9.2
Northeast	11.0	11.6	-3.2	8.0
Connecticut	19.9	15.7	0.5	16.2
Maine	6.7	4.1	-15.0	-11.5
Massachusetts	11.6	16.3	-7.9	7.1
New Hampshire	19.1	12.1	-5.7	5.7
New Jersey	12.5	23.2	2.4	26.2
New York	6.8	6.3	-2.9	3.3
Pennsylvania	11.8	8.9	-4.6	3.8
Rhode Island	13.8	10.5	-1.0	9.5
Vermont	23.3	-3.1	-13.8	-16.4
Midwest	10.6	2.2	-1.3	0.9
Illinois	9.5	9.8	6.4	16.8
Indiana	4.3	0.5	1.6	2.1
Iowa	12.2	-3.3	-3.1	-6.3
Kansas	14.9	-1.0	-4.4	-5.4
Michigan	7.9	5.1	-1.1	4.0
Minnesota	20.7	3.1	-5.6	-2.7
Missouri	13.5	2.8	-3.2	-0.4
Nebraska	18.0	-5.0	-4.7	-9.5
North Dakota	14.4	-14.3	-17.4	-29.2
Ohio	3.7	-0.6	-2.5	-3.1
South Dakota	9.9	-15.3	-12.6	-26.0
Wisconsin	21.0	1.6	-4.8	-3.2
South	15.2	6.3	4.4	10.9
Alabama	9.8	-4.6	-1.6	-6.1
Arkansas	9.4	-4.8	-0.9	-5.7
Delaware	16.8	14.0	1.9	16.2
District of Columbia	-16.0	-35.5	-8.0	-40.7
Florida	21.2	18.5	7.2	27.1
Georgia	11.0	11.9	7.2	19.9
Kentucky	-4.2	4.0	10.2	14.6
Louisiana	10.4	-8.0	-5.7	-13.3
Maryland	22.4	13.6	-2.5	10.8
Mississippi	3.6	-6.8	0.9	-6.0
North Carolina	7.6	14.9	6.4	22.3
Oklahoma	18.1	-7.7	-5.6	-12.9
South Carolina	3.3	3.8	0.1	3.9
Tennessee	2.3	-1.5	1.8	0.3
Texas	30.5	6.3	7.6	14.4
Virginia	16.8	14.2	8.2	23.5
West Virginia	-2.2	-15.6	-4.8	-19.6
West	21.7	10.0	5.9	16.5
Alaska	15.1	9.4	-7.3	1.3
Arizona	20.5	17.5	17.6	38.1
California	22.4	14.9	7.4	23.4
Colorado	22.1	13.0	7.2	21.1
Hawaii	11.4	-5.2	-4.9	-9.9
Idaho	21.8	-2.2	-0.1	-2.2
Montana	13.6	-7.3	-12.9	-19.2
Nevada	53.4	32.7	28.9	71.1
New Mexico	21.1	-6.7	-6.5	-12.7
Oregon	14.5	1.3	-1.6	-0.3
Utah	23.1	-7.7	1.9	-5.9
Washington	21.9	3.2	-1.1	2.1
Wyoming	7.8	-15.9	-14.7	-28.3

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A2.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public High School Graduates Model. (This table was prepared May 2002.)

Chapter 4

Earned Degrees Conferred

Historical growth in enrollment in degree-granting institutions has led to a substantial increase in the number of earned degrees conferred. Just as the unprecedented rise in female enrollment contributed to the increased number of college students, so too has it boosted the number of degrees conferred. Between 1986–87 and 1999–2000, the number of degrees awarded to women rose at all levels. In 1999–2000, women earned the majority of associate's, bachelor's, and master's degrees, 44 percent of doctor's degrees, and 45 percent of first-professional degrees. By 2011–12, the number of degrees awarded are expected to increase across all levels.

Projections of earned degrees by level and sex were based primarily on college-age populations and college enrollment by level and by attendance status. Factors that affect future levels of earned degrees, such as choice of degree and demand for occupations, were not included in the projection models. NCES projections of earned degrees by level that have been produced over the last 6 years are less accurate than projections of public elementary and secondary enrollment. For more information, see table A2, page 79.

Associate's Degrees

Between 1986–87 and 1999–2000, the number of associate's degrees increased from 436,304 to 564,933 (table 26 and figure 40). It is projected to increase to 669,000 by 2011–12, an increase of 18 percent from 1999–2000. The number of associate's degrees awarded to men decreased from 190,839 in 1986–87 to 186,316 in 1988–89, before rising to 224,721 in 1999–2000. This number is projected to increase to 238,000 by 2011–12. The number of associate's degrees awarded to women decreased from 245,465 in 1986–87 to 245,038 in 1987–88. Then it increased to 340,212 in 1999–2000, an increase of 39 percent from 1986–87. This number is projected to increase to 431,000 by 2011–12, an increase of 27 percent from 1999–2000.

Bachelor's Degrees

The number of bachelor's degrees increased from 991,264 in 1986–87 to 1,237,875 in 1999–2000, an increase of 25 percent (table 27 and figure 41). This number is expected to increase to 1,437,000 by 2011–12, an increase of 16 percent from 1999–2000. The number of bachelor's degrees awarded to men decreased from 480,782 in 1986–87 to 477,203 in 1987–88. It increased to 532,881 in 1992–93. Then this number decreased to 518,746 in 1998–99. In 1999–2000, this number increased to 530,367. This number is expected to increase to 587,000 by 2011–12, an increase of 11 percent from 1999–2000. The number of bachelor's degrees awarded to women increased from 510,482 in 1986–87 to 707,508 in 1999–2000, an increase of 39 percent. This number is expected to increase to 850,000 by 2011–12, an increase of 20 percent from 1999–2000.

Master's Degrees

The number of master's degrees increased from 289,349 in 1986–87 to 457,056 in 1999–2000, an increase of 58 percent (table 28 and figure 42). This number is expected to increase to 475,000 in 2000–01 and then decrease to 467,000 in 2003–04. Thereafter, it will increase to 501,000 in 2011–12. The number of master's degrees awarded to men increased from 141,269 in 1986–87 to 191,792 in 1999–2000. This number is projected to increase to 202,000 in 2000–01 and then decrease to 197,000 by 2005–06. This number is expected to increase to 204,000 by 2011–12. The number of master's degrees awarded to women increased from 148,080 in 1986–87 to 265,264 in 1999–2000. This number is expected to increase to 297,000 in 2011–12.

Doctor's Degrees

The number of doctor's degrees increased from 34,041 in 1986–87 to 46,010 in 1997–98. Then this number decreased to 44,077 in 1998–99, followed by an increase to 44,808 in 1999–2000 (table 29 and figure 43). This number is expected to decrease to

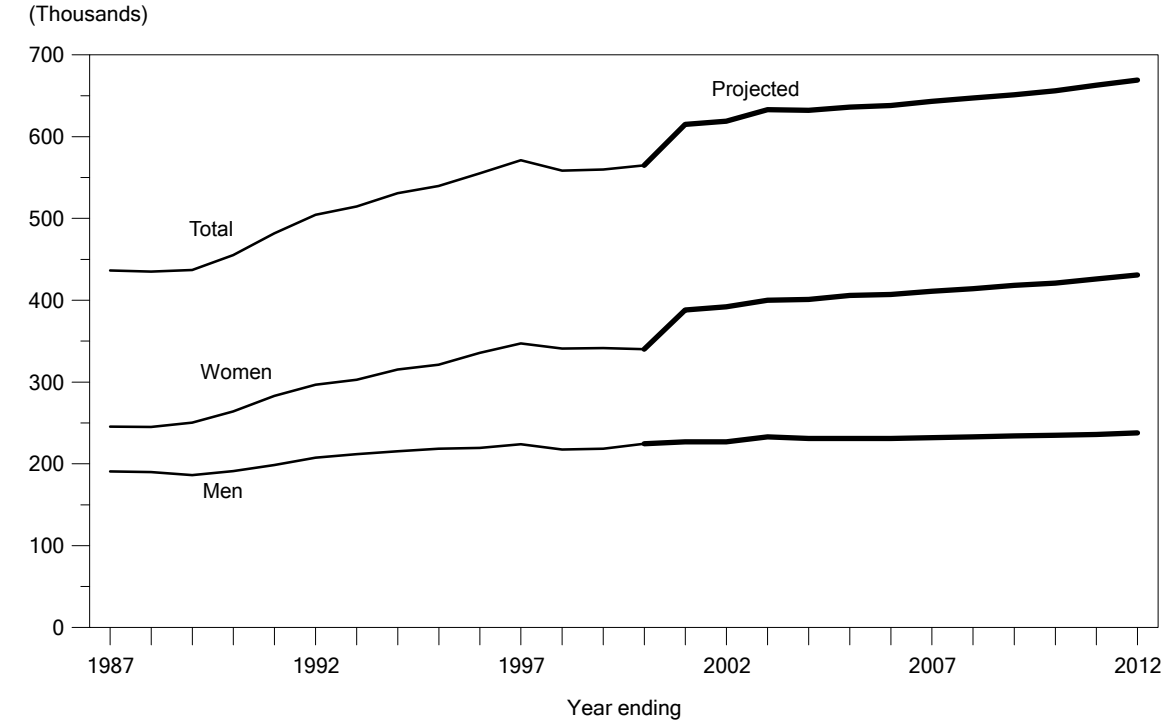
44,900 in 2001–02 and then increase to 46,800 in 2011–12. The number of doctor's degrees awarded to men increased from 22,061 in 1986–87 to 27,146 in 1996–97. Then this number decreased to 25,028 in 1999–2000. This number is expected to decrease to 24,800 in 2000–01 and then increase to 26,000 by 2011–12. The number of doctor's degrees awarded to women rose from 11,980 in 1986–87 to 19,780 in 1999–2000, an increase of 65 percent. The number of doctor's degrees awarded to women is projected to be 20,800 by 2011–12. The share of doctor's degrees awarded to women, which was 35 percent in 1986–87 and 44 percent in 1999–2000, is projected to remain at 44 percent in 2011–12.

First-Professional Degrees

A first-professional degree is one that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 years of work to complete the degree program, including both prior required college work and the professional program itself. These degrees include fields such as dentistry, medicine, pharmacy, law, and theological professions.

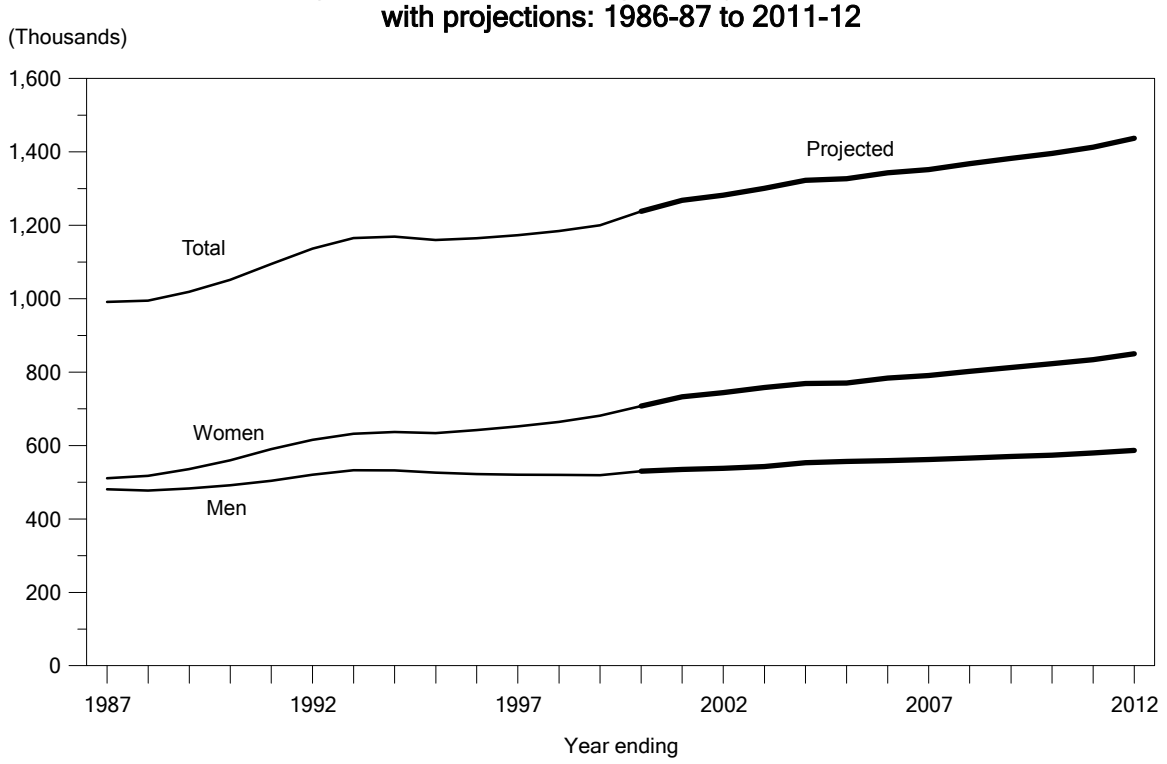
The number of first-professional degrees awarded decreased from 71,617 in 1986–87 to 70,735 in 1987–88. This number increased to 78,730 in 1996–97 and then decreased to 78,439 in 1998–99. Thereafter, it increased to 80,057 in 1999–2000 (table 30 and figure 44). This number is expected to increase to 86,400 by 2011–12. The number of first-professional degrees awarded to men decreased from 46,523 in 1986–87 to 43,846 in 1990–91. Then it increased to 45,153 in 1992–93 and then decreased to 44,239 in 1999–2000. This number is projected to decrease to 43,600 in 2006–07 and then increase to 44,800 by 2011–12. The number of first-professional degrees awarded to women increased from 25,094 in 1986–87 to 35,818 in 1999–2000, an increase of 43 percent. This number is expected to increase to 41,600 by 2011–12, an increase of 16 percent from 1999–2000. The women's proportion of first-professional degrees rose from 35 percent in 1986–87 to 45 percent in 1999–2000. By 2011–12, this proportion is expected to rise to 48 percent.

Figure 40.–Associate's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



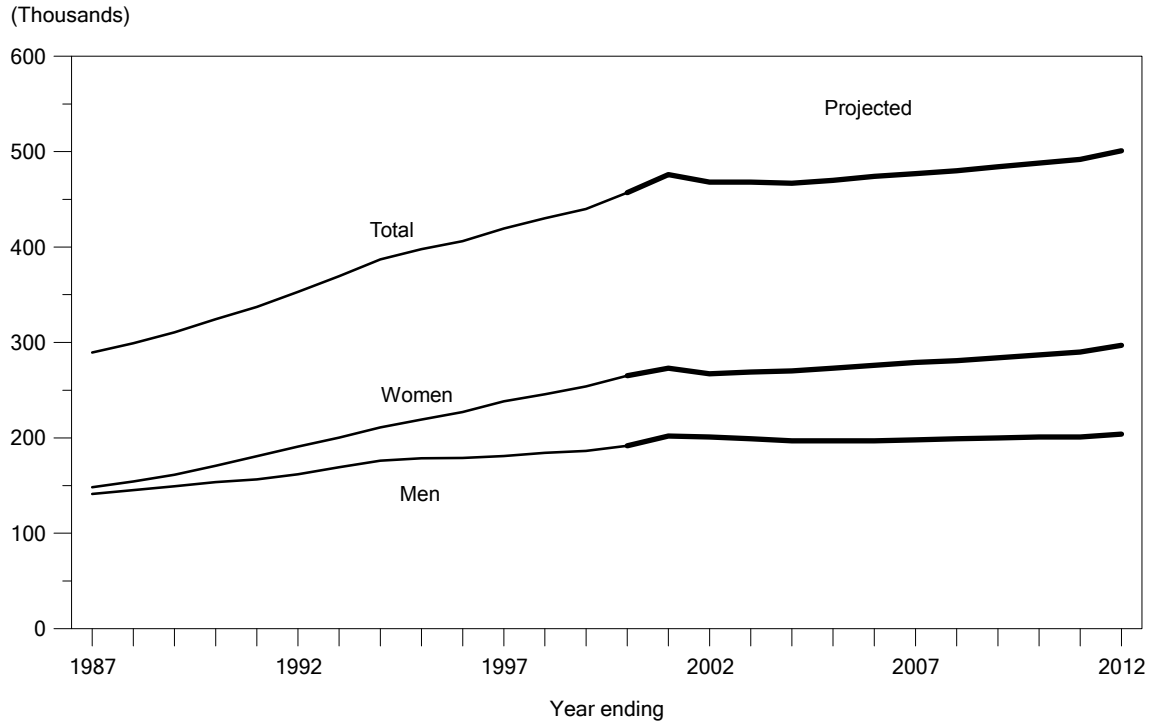
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 41.–Bachelor's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



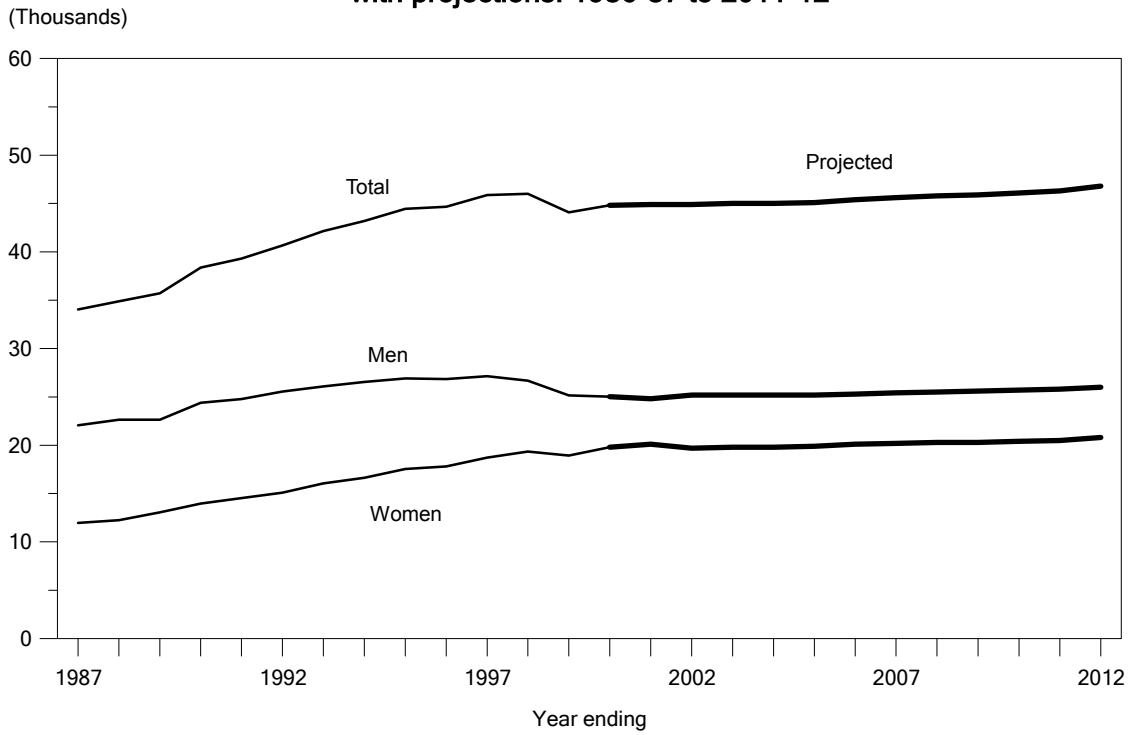
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 42.–Master's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



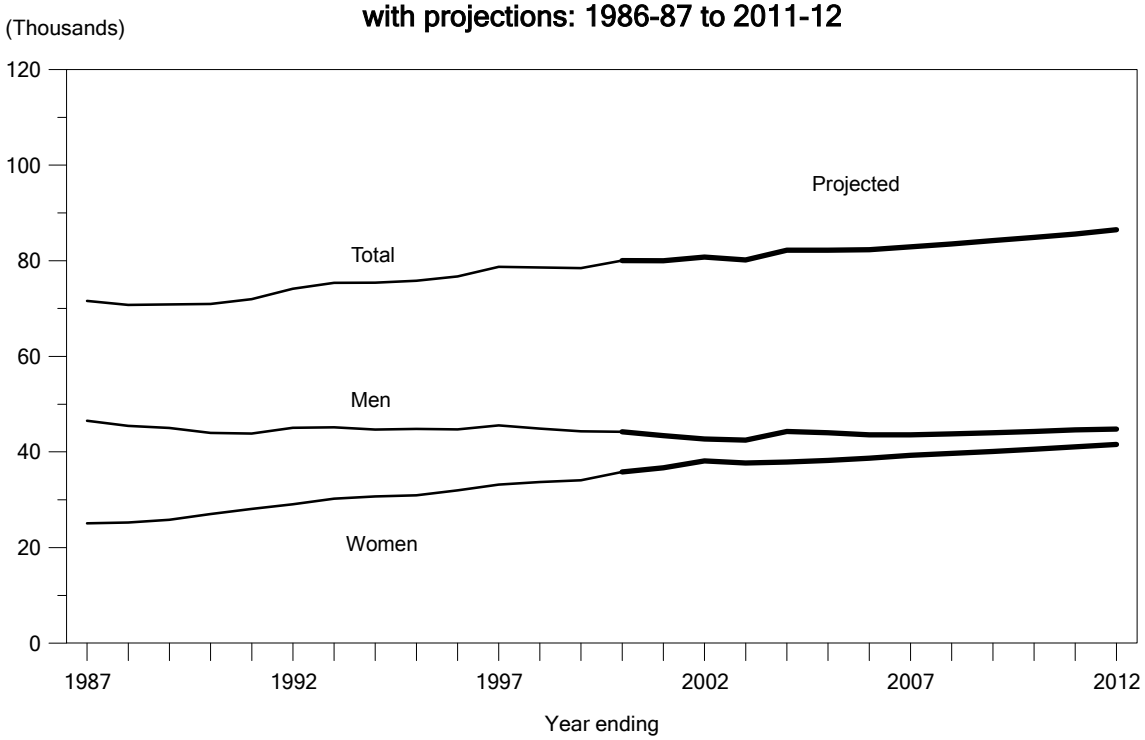
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 43.–Doctor's degrees, by sex of recipient, with projections: 1986-87 to 2011-12



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 44.—First-professional degrees, by sex of recipient, with projections: 1986-87 to 2011-12



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Table 26.—Associate's degrees, by sex of recipient, with projections: 1986–87 to 2011–12

Year ending	Total	Men	Women
1987	436,304	190,839	245,465
1988	435,085	190,047	245,038
1989	436,764	186,316	250,448
1990	455,102	191,195	263,907
1991	481,720	198,634	283,086
1992	504,231	207,481	296,750
1993	514,756	211,964	302,792
1994	530,632	215,261	315,371
1995	539,691	218,352	321,339
1996	555,216	219,514	335,702
1997	571,226	223,948	347,278
1998	558,555	217,613	340,942
1999	559,954	218,417	341,537
2000	564,933	224,721	340,212
Middle alternative projections			
2001	615,000	227,000	388,000
2002	619,000	227,000	392,000
2003	633,000	233,000	400,000
2004	632,000	231,000	401,000
2005	637,000	231,000	406,000
2006	638,000	231,000	407,000
2007	643,000	232,000	411,000
2008	647,000	233,000	414,000
2009	652,000	234,000	418,000
2010	656,000	235,000	421,000
2011	662,000	236,000	426,000
2012	669,000	238,000	431,000
Low alternative projections			
2001	605,000	223,000	382,000
2002	599,000	220,000	379,000
2003	595,000	219,000	376,000
2004	596,000	218,000	378,000
2005	596,000	216,000	380,000
2006	597,000	216,000	381,000
2007	602,000	217,000	385,000
2008	606,000	218,000	388,000
2009	610,000	219,000	391,000
2010	614,000	220,000	394,000
2011	620,000	221,000	399,000
2012	627,000	223,000	404,000
High alternative projections			
2001	624,000	230,000	394,000
2002	640,000	235,000	405,000
2003	671,000	247,000	424,000
2004	668,000	244,000	424,000
2005	677,000	245,000	432,000
2006	679,000	246,000	433,000
2007	684,000	247,000	437,000
2008	689,000	248,000	441,000
2009	694,000	249,000	445,000
2010	698,000	250,000	448,000
2011	705,000	251,000	454,000
2012	712,000	253,000	459,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

Table 27.—Bachelor's degrees, by sex of recipient, with projections: 1986–87 to 2011–12

Year ending	Total	Men	Women
1987	991,264	480,782	510,482
1988	994,829	477,203	517,626
1989	1,018,755	483,346	535,409
1990	1,051,344	491,696	559,648
1991	1,094,538	504,045	590,493
1992	1,136,553	520,811	615,742
1993	1,165,178	532,881	632,297
1994	1,169,275	532,422	636,853
1995	1,160,134	526,131	634,003
1996	1,164,792	522,454	642,338
1997	1,172,879	520,515	652,364
1998	1,184,406	519,956	664,450
1999	1,200,303	518,746	681,557
2000	1,237,875	530,367	707,508
Middle alternative projections			
2001	1,268,000	535,000	733,000
2002	1,282,000	538,000	744,000
2003	1,301,000	543,000	758,000
2004	1,322,000	553,000	769,000
2005	1,327,000	557,000	770,000
2006	1,343,000	559,000	784,000
2007	1,353,000	562,000	791,000
2008	1,368,000	566,000	802,000
2009	1,382,000	570,000	812,000
2010	1,397,000	574,000	823,000
2011	1,414,000	580,000	834,000
2012	1,437,000	587,000	850,000
Low alternative projections			
2001	1,255,000	530,000	725,000
2002	1,259,000	529,000	730,000
2003	1,284,000	536,000	748,000
2004	1,289,000	540,000	749,000
2005	1,313,000	551,000	762,000
2006	1,329,000	553,000	776,000
2007	1,339,000	556,000	783,000
2008	1,354,000	560,000	794,000
2009	1,368,000	564,000	804,000
2010	1,382,000	568,000	814,000
2011	1,399,000	574,000	825,000
2012	1,423,000	581,000	842,000
High alternative projections			
2001	1,291,000	545,000	746,000
2002	1,298,000	545,000	753,000
2003	1,334,000	557,000	777,000
2004	1,335,000	559,000	776,000
2005	1,340,000	562,000	778,000
2006	1,356,000	564,000	792,000
2007	1,365,000	567,000	798,000
2008	1,381,000	571,000	810,000
2009	1,396,000	576,000	820,000
2010	1,410,000	579,000	831,000
2011	1,428,000	586,000	842,000
2012	1,437,000	587,000	850,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

Table 28.—Master's degrees, by sex of recipient, with projections: 1986–87 to 2011–12

Year ending	Total	Men	Women
1987	289,349	141,269	148,080
1988	299,317	145,163	154,154
1989	310,621	149,354	161,267
1990	324,301	153,653	170,648
1991	337,168	156,482	180,686
1992	352,838	161,842	190,996
1993	369,585	169,258	200,327
1994	387,070	176,085	210,985
1995	397,629	178,598	219,031
1996	406,301	179,081	227,220
1997	419,401	180,947	238,454
1998	430,164	184,375	245,789
1999	439,986	186,148	253,838
2000	457,056	191,792	265,264
Middle alternative projections			
2001	475,000	202,000	273,000
2002	468,000	201,000	267,000
2003	468,000	199,000	269,000
2004	467,000	197,000	270,000
2005	470,000	197,000	273,000
2006	473,000	197,000	276,000
2007	477,000	198,000	279,000
2008	480,000	199,000	281,000
2009	484,000	200,000	284,000
2010	488,000	201,000	287,000
2011	491,000	201,000	290,000
2012	501,000	204,000	297,000
Low alternative projections			
2001	471,000	200,000	271,000
2002	451,000	194,000	257,000
2003	455,000	194,000	261,000
2004	457,000	193,000	264,000
2005	460,000	193,000	267,000
2006	463,000	193,000	270,000
2007	467,000	194,000	273,000
2008	470,000	195,000	275,000
2009	473,000	195,000	278,000
2010	477,000	196,000	281,000
2011	481,000	197,000	284,000
2012	491,000	200,000	291,000
High alternative projections			
2001	480,000	204,000	276,000
2002	486,000	209,000	277,000
2003	481,000	205,000	276,000
2004	477,000	201,000	276,000
2005	480,000	201,000	279,000
2006	483,000	201,000	282,000
2007	487,000	202,000	285,000
2008	490,000	203,000	287,000
2009	494,000	204,000	290,000
2010	498,000	205,000	293,000
2011	503,000	206,000	297,000
2012	511,000	208,000	303,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

Table 29.—Doctor's degrees, by sex of recipient, with projections: 1986–87 to 2011–12

Year ending	Total	Men	Women
1987	34,041	22,061	11,980
1988	34,870	22,615	12,255
1989	35,720	22,648	13,072
1990	38,371	24,401	13,970
1991	39,294	24,756	14,538
1992	40,659	25,557	15,102
1993	42,132	26,073	16,059
1994	43,185	26,552	16,633
1995	44,446	26,916	17,530
1996	44,652	26,841	17,811
1997	45,876	27,146	18,730
1998	46,010	26,664	19,346
1999	44,077	25,146	18,931
2000	44,808	25,028	19,780
Middle alternative projections			
2001	44,900	24,800	20,100
2002	44,900	25,200	19,700
2003	45,000	25,200	19,800
2004	45,000	25,200	19,800
2005	45,100	25,200	19,900
2006	45,400	25,300	20,100
2007	45,600	25,400	20,200
2008	45,800	25,500	20,300
2009	45,900	25,600	20,300
2010	46,100	25,700	20,400
2011	46,300	25,800	20,500
2012	46,800	26,000	20,800
Low alternative projections			
2001	44,000	24,300	19,700
2002	43,700	24,500	19,200
2003	43,800	24,600	19,200
2004	43,500	24,400	19,100
2005	43,500	24,300	19,200
2006	43,800	24,400	19,400
2007	44,000	24,500	19,500
2008	44,100	24,600	19,500
2009	44,200	24,700	19,500
2010	44,400	24,800	19,600
2011	44,700	25,000	19,700
2012	45,100	25,100	20,000
High alternative projections			
2001	45,700	25,200	20,500
2002	46,100	25,800	20,300
2003	46,300	25,900	20,400
2004	46,700	26,100	20,600
2005	46,800	26,100	20,700
2006	46,900	26,100	20,800
2007	47,100	26,200	20,900
2008	47,300	26,300	21,000
2009	47,500	26,500	21,000
2010	47,700	26,600	21,100
2011	47,900	26,700	21,200
2012	48,400	26,800	21,600

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

Table 30.—First-professional degrees, by sex of recipient, with projections: 1986–87 to 2011–12

Year ending	Total	Men	Women
1987	71,617	46,523	25,094
1988	70,735	45,484	25,251
1989	70,856	45,046	25,810
1990	70,988	43,961	27,027
1991	71,948	43,846	28,102
1992	74,146	45,071	29,075
1993	75,387	45,153	30,234
1994	75,418	44,707	30,711
1995	75,800	44,853	30,947
1996	76,734	44,748	31,986
1997	78,730	45,564	33,166
1998	78,598	44,911	33,687
1999	78,439	44,339	34,100
2000	80,057	44,239	35,818
Middle alternative projections			
2001	80,100	43,400	36,700
2002	80,800	42,700	38,100
2003	80,200	42,500	37,700
2004	82,200	44,300	37,900
2005	82,200	44,000	38,200
2006	82,300	43,600	38,700
2007	82,900	43,600	39,300
2008	83,500	43,800	39,700
2009	84,100	44,000	40,100
2010	84,900	44,300	40,600
2011	85,700	44,600	41,100
2012	86,400	44,800	41,600
Low alternative projections			
2001	78,800	42,700	36,100
2002	79,600	42,100	37,500
2003	79,100	41,900	37,200
2004	79,100	42,600	36,500
2005	79,000	42,300	36,700
2006	79,100	41,900	37,200
2007	79,800	42,000	37,800
2008	80,400	42,200	38,200
2009	81,000	42,400	38,600
2010	81,600	42,600	39,000
2011	82,400	42,900	39,500
2012	83,100	43,100	40,000
High alternative projections			
2001	81,300	44,100	37,200
2002	82,000	43,300	38,700
2003	81,300	43,100	38,200
2004	85,300	45,900	39,400
2005	85,200	45,600	39,600
2006	85,500	45,300	40,200
2007	86,100	45,300	40,800
2008	86,700	45,500	41,200
2009	87,400	45,700	41,700
2010	88,100	46,000	42,100
2011	88,900	46,300	42,600
2012	89,700	46,500	43,200

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. Mean absolute percentage errors of selected education statistics can be found in table A2.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared May 2002.)

Technical Appendixes

Appendix A
Projection Methodology

The general procedure for *Projections* was to express the variable to be projected as a percent of a "base" variable. These percents were then projected and applied to projections of the "base" variable. For example, the number of 18-year-old college students was expressed as a percent of the 18-year-old population for each year from 1972 through 2000. This enrollment rate was then projected through the year 2012 and applied to projections of the 18-year-old population from the U.S. Census Bureau.

Enrollment projections are based primarily on population projections. Projections of high school graduates and earned degrees conferred are based primarily on enrollment projections.

Exponential smoothing and multiple linear regression are the two major projection techniques used in this publication. Single exponential smoothing is used when the historical data have a basically horizontal pattern. On the other hand, double exponential smoothing is used when the time series is expected to change linearly with time. In general, exponential smoothing places more weight on recent observations than on earlier ones. The weights for observations decrease exponentially as one moves further into the past. As a result, the older data have less influence on these projections. The rate at which the weights of older observations decrease is determined by the smoothing constant selected.

$$P = \alpha X_t + \alpha(1-\alpha)X_{t-1} + \alpha(1-\alpha)^2 X_{t-2} + \alpha(1-\alpha)^3 X_{t-3} + ...$$

Where:

P = projected value

α = smoothing constant ($0 < \alpha < 1$)

X_t = observation for time t

This equation illustrates that the projection is a weighted average based on exponentially decreasing weights. For a high smoothing constant, weights for earlier observations decrease rapidly. For a low smoothing constant, decreases are more moderate. Projections of enrollments and public high school graduates are based on a smoothing constant of α = 0.4.

The farther apart the observations are spaced in time, the more likely it is that there are changes in the underlying social, political, and economic structure. Since the observations are on an annual basis, major shifts in the underlying process are more likely in the time span of just a few observations than if the observations were available on a monthly or weekly basis. As a result, the underlying process for annual models tends to be less stable from one observation to the next. Another reason for using high smoothing constants for some time series is that most of the observations are fairly accurate, because most observations are population values rather than sample estimates. Therefore, large shifts tend to indicate actual changes in the process rather than noise in the data.

Multiple linear regression is also used in making projections of college enrollment and earned degrees conferred. This technique is used when it is believed that a strong relationship exists between the variable being projected (the dependent variable) and independent variables. However, this technique is used only when accurate data and reliable projections of the independent variables are available.

The functional form primarily used is the multiplicative model. When used with two independent variables, this model takes the form:

$$Y = aX_1^{b_1} X_2^{b_2}$$

This equation can easily be transformed into the linear form by taking the natural log (ln) of both sides of the equation:

$$\ln Y = \ln(a) + b_1 \ln X_1 + b_2 \ln X_2$$

The multiplicative model has a number of advantages. Research has found that it is a reasonable way to represent human behavior. Constant elasticities are assumed, which means that a 1 percent change in lnX will lead to a given percent change in lnY. This

percent change is equal to b_1. And the multiplicative model lends itself easily to "a priori" analysis because the researcher does not have to worry about units of measurement when specifying relationships. In fact, the multiplicative model is considered the standard in economic analyses. For additional information, see *Long-Range Forecasting: From Crystal Ball to Computer* by J. Scott Armstrong (John Wiley and Sons, 1978, pp. 180–181).

Caveats

Because projections are subject to errors from many sources, alternative projections are shown for some statistical series. These alternatives are not statistical confidence intervals, but instead represent outcomes based on alternative growth patterns. Alternative projections were developed for college enrollment and earned degrees conferred.

Assumptions

All projections are based on underlying assumptions, and these assumptions determine projection results to a large extent. It is important that users of projections understand the assumptions to determine the acceptability of projected time series for their purposes. Descriptions of the primary assumptions upon which the projections of time series are based are presented in table A1, page 78.

For most projections, low, middle, and high alternatives are shown. These alternatives reveal the level of uncertainty involved in making projections, and they also point out the sensitivity of projections to the assumptions on which they are based.

Many of the projections in this publication are demographically based on U.S. Census Bureau middle series projections of the population by age, but are not adjusted for the 1990 net undercount of 4 to 5 million. The population projections developed by the U.S. Census Bureau reflect the incorporation of the 2000 estimates which are still based on the 1990 census and the middle series assumptions for the fertility rate, internal migration, net immigration, and a declining mortality rate. For a discussion on the intercensal population estimates, see appendix C, page 112.

These middle series population projections are based on the estimated population as of January 1, 1999 and the estimated base population as of April 1, 1990. The future fertility rate assumption, which determines projections of the number of births, is one key assumption in making population projections.

The middle series population projections assume an ultimate complete cohort fertility rate of 2.13 births per woman by the year 2012. Yearly net migration is assumed to decrease from 980,425 in 2001 to 719,797 by 2010. Then it is projected to increase to 728,293 in 2012. This assumption plays a major role in determining population projections for the age groups enrolled in nursery school, kindergarten, and elementary grades. The effects of the fertility rate assumption are more pronounced toward the end of the projection period, while the immigration assumptions affect all years.

For enrollments in secondary grades and college, the fertility assumption is of no consequence, since all students enrolled at these levels were already born when the population projections were made. For projections of enrollments in elementary schools, only middle series population projections were considered. Projections of high school graduates are based on projections of the percent of grade 12 enrollment that are high school graduates. Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees are based on projections of college-age populations and college enrollment, by sex, attendance status and level enrolled by student, and by type of institution. Projections of college enrollment are also based on disposable income per capita and unemployment rates. Projections of disposable income per capita and unemployment rates were obtained from the company DRI•WEFA, Inc. Therefore, many additional assumptions made in projecting disposable income per capita and unemployment rates apply to projections based on projections of these variables.

Limitations of Projections

Projections of time series usually differ from the final reported data due to errors from many sources. This is because of the inherent nature of the statistical universe from which the basic data are obtained and the properties of projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. These alternatives are not statistical confidence limits, but instead represent judgments made by the authors as to reasonable upper and lower bounds. The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades K–12 for lead times of 1, 2, 5, and 10 years were 0.2, 0.5, 1.1, and 2.7 percent, respectively. On the other hand, mean absolute percentage errors for doctor's

degrees for lead times of 1, 2, and 5 years were 2.6, 3.4, and 3.0 percent respectively. For more information on mean absolute percentage errors, see table A2, page 79.

Table A1.—Summary of forecast assumptions to 2012

Variables	Middle alternative	Low alternative	High alternative
Demographic Assumptions			
Population	Projections are consistent with the Census Bureau middle series estimates, which assume a fertility rate of 2.13 births per woman by the year 2012, a yearly net migration ranging from 719,800 to 980,400 per year, and a further reduction in the mortality rate.	Same as middle alternative	Same as middle alternative
18- to 24-year-old population	Average annual growth rate of 1.2%	Same as middle alternative	Same as middle alternative
25- to 29-year-old population	Average annual growth rate of 1.0%	Same as middle alternative	Same as middle alternative
30- to 34-year-old population	Average annual growth rate of 0.1%	Same as middle alternative	Same as middle alternative
35- to 44-year-old population	Average annual decline of 1.2%	Same as middle alternative	Same as middle alternative
Undergraduate enrollment	Average annual growth rate of 1.2%	Average annual growth rate of 1.0%	Average annual growth rate of 1.5%
Graduate enrollment	Average annual growth rate of 0.9%	Average annual growth rate of 0.7%	Average annual growth rate of 1.2%
First-professional enrollment	Average annual growth rate of 1.0%	Average annual growth rate of 0.8%	Average annual growth rate of 1.3%
Economic Assumptions			
Disposable income per capita in constant dollars	Annual percent changes range between 0.5% and 4.5% with an annual compound growth rate of 2.5%	Same as middle alternative	Same as middle alternative
Inflation rate	Inflation rate ranges between 1.6% and 3.2%	Inflation rate ranges between 1.6% and 3.5%	Inflation rate ranges between 2.0% and 2.6%
Unemployment Rate (Men)			
Age 18 to 19	Remains between 12.6% and 16.8%	Same as middle alternative	Same as middle alternative
Age 20 to 24	Remains between 8.2% and 11.6%	Same as middle alternative	Same as middle alternative
Age 25 and over	Remains between 3.5% and 5.1%	Same as middle alternative	Same as middle alternative
Unemployment Rate (Women)			
Age 18 to 19	Remains between 10.8% and 13.0%	Same as middle alternative	Same as middle alternative
Age 20 to 24	Remains between 8.0% and 9.6%	Same as middle alternative	Same as middle alternative
Age 25 and over	Remains between 3.0% and 4.0%	Same as middle alternative	Same as middle alternative

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports* , Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000; and DRI•WEFA, "U.S. Quarterly Model" (This table was prepared May 2002.)

Table A2.—Mean absolute percentage errors (MAPEs) by lead time for selected statistics in all public elementary and secondary schools and degree-granting institutions

Statistics	Lead time (years)									
	1	2	3	4	5	6	7	8	9	10
Public elementary and secondary schools[1]										
K-12 enrollment	0.2	0.5	0.7	0.9	1.1	1.4	1.7	2.0	2.4	2.7
K-8 enrollment	0.3	0.5	0.8	0.9	1.2	1.6	2.1	2.8	3.4	4.0
9-12 enrollment	0.6	0.8	0.9	1.2	1.4	1.7	2.2	2.5	2.7	2.9
High school graduates	0.7	0.9	1.4	1.9	1.6	1.8	2.5	3.5	3.8	4.2
Degree-granting institutions[2]										
Total enrollment	1.2	0.8	1.0	1.2	2.4	3.1	1.2	(3)	(3)	(3)
Men	1.3	1.5	2.0	2.7	3.7	4.8	3.9	(3)	(3)	(3)
Women	1.7	1.8	1.4	0.8	1.4	1.8	0.9	(3)	(3)	(3)
4-year	1.1	1.4	1.3	1.9	2.6	2.8	2.4	(3)	(3)	(3)
2-year	2.2	1.9	1.9	2.1	2.9	3.6	0.8	(3)	(3)	(3)
Associate's degrees	2.4	3.3	3.9	5.8	6.6	6.1	4.8	(3)	(3)	(3)
Bachelor's degrees	1.0	2.1	2.2	3.5	4.1	4.4	3.8	(3)	(3)	(3)
Master's degrees	1.2	4.3	6.8	6.7	5.5	5.2	6.4	(3)	(3)	(3)
Doctor's degrees	2.6	3.4	1.9	3.3	3.0	1.6	3.1	(3)	(3)	(3)
First-professional degrees	1.6	1.6	1.8	4.5	5.9	7.3	5.1	(3)	(3)	(3)

[1]MAPEs for enrollments and high school graduates were calculated using the last 19 editions of the *Projections of Education Statistics*.

[2]MAPEs for enrollments and earned degrees were calculated using the last 6 editions of the *Projections of Education Statistcs.*

[3]Not all actual values were available to calculate a MAPE of this lead time.

NOTE: Mean absolute percentage error is the average value of the absolute values of errors expressed in percentage terms. Calculations were made using unrounded numbers. Some data have been revised from previously published numbers.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics,* various issues.

(This table was prepared May 2002.)

A1. Enrollment

National

Enrollment projections were based on projected enrollment rates, by age and sex, which were applied to population projections by age and sex developed by the U.S. Census Bureau. These enrollment rates were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes on a person's decision to enter college. The enrollment rates were then used in the Education Forecasting Model (EDMOD), which consists of age-specific rates by sex and by enrollment levels.

Education Forecasting Model

The first stage of EDMOD is an age-specific enrollment model in which enrollment rates are projected and applied to age-specific population projections. This stage, which is used separately for each sex, includes the following categories: (1) full-time college enrollment and (2) part-time college enrollment. Within an enrollment category, where applicable, enrollment rates were projected by individual ages 16 through 24 and for the age groups 25 to 29, 30 to 34, and 35 years and over.

Enrollments by age and age groups from the U.S. Census Bureau were adjusted to NCES totals to compute enrollment rates for 1972 through 2000. Different assumptions were made to produce low, middle, and high alternative projections of enrollment rates to the year 2012.

College Full-Time and Part-Time Enrollment

Projections of full-time and part-time college enrollments were considered only for ages 16 and over. College enrollment is negligible for earlier ages. Full-time and part-time enrollments are modeled as two distinct groups. Three alternative projections were made using various economic assumptions. Table A1.1 shows enrollment rates for 2000 and middle alternative projected enrollment rates for 2007 and 2012. Table A1.2 shows the equations used to project enrollment rates for men by attendance status. Table A1.3 shows the equations used to project enrollment rates for women by attendance status.

Enrollment in Public Elementary and Secondary Schools, by Grade Group and Organizational Level

The second stage of EDMOD projects public enrollment in elementary and secondary schools by grade group and by organizational level. Public enrollments by age were based on enrollment rate projections for nursery and kindergarten, grade 1, elementary ungraded and special, secondary ungraded and special, and postgraduate enrollment. Grade progression rate projections were used for grades 2 through 12. Table A1.4 shows the public school enrollment rates and table A1.5 shows the public school grade progression rates for 2000 and projections for 2007 and 2012. The projected rates in tables A1.4 and A1.5 were used to compute the projections of enrollments in elementary and secondary schools, by grade, shown in table 1.

College Enrollment, by Sex, Attendance Status, and Level Enrolled; and by Type and Control of Institution

The third stage of EDMOD projects enrollments in institutions of higher education, by sex, attendance status, and level enrolled by student and by type and control of institution. For each age group, the percent of total enrollment by age, attendance status, level enrolled, and type of institution was projected. These projections for 2007 and 2012 are shown in tables A1.6 and A1.7, along with actual values for 2000. For all projections, it was assumed that there was no enrollment in 2-year institutions at the postbaccalaureate level (graduate and first-professional).

The projected rates in tables A1.6 and A1.7 were then adjusted to agree with the projected age-specific enrollment rates in the first stage of EDMOD. The adjusted rates were then applied to the projected enrollments by age group, sex, and attendance status from the first stage of EDMOD to obtain projections by age group, sex, attendance status, level enrolled, and type of institution.

For each enrollment category—sex, attendance status, level enrolled, and type of institution—public enrollment was projected as a percent of total

enrollment. Projections for 2007 and 2012 are shown in table A1.8, along with actual percents for 2000. The projected rates were then applied to the projected enrollments in each enrollment category to obtain projections by control of institution.

For each category by sex, enrollment level, and type and control of institution, graduate enrollment was projected as a percent of postbaccalaureate enrollment. Actual rates for 2000 and projections for 2007 and 2012 are shown in table A1.9. The projected rates in table A1.9 were then applied to projections of postbaccalaureate enrollment to obtain graduate and first-professional enrollment projections by sex, attendance status, and type and control of institution.

Full-Time-Equivalent Enrollment, by Type and Control of Institution and by Level Enrolled

The fourth stage of EDMOD projects full-time-equivalent enrollment, by type and control of institution and by level enrolled. For each enrollment category by level enrolled and by type and control of institution, the full-time-equivalent of part-time enrollment was projected as a percent of part-time enrollment. Actual percents for 2000 and projections for 2007 and 2012 are shown in table A1.10.

These projected percents were applied to projections of enrollment by level enrolled and by type and control of institution from the third stage of EDMOD. The projections were added to projections of full-time enrollment (from the previous stage) to obtain projections of full-time-equivalent enrollment.

Projection Accuracy

An analysis of projection errors from the past 19 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out for projections of public school enrollment in grades K–12 were 0.2, 0.5, 1.1, and 2.7 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.2 percent of the actual value, on the average. For projections of public school enrollment in grades K–8, the MAPEs for lead times of 1, 2, 5, and 10 years were 0.3, 0.5, 1.2, and 4.0 percent, respectively, while those for projections of public school enrollment in grades 9–12 were 0.6, 0.8, 1.4, and 2.9 percent for the same lead times.

For projections of total enrollment in degree-granting institutions, an analysis of projection errors based on the past 6 editions of *Projections of Education Statistics* indicates that the MAPEs for lead times of 1, 2, and 5 years were 1.2, 0.8, and 2.4 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 1.2 percent of the actual value, on the average. For more information on mean absolute percentage errors, see table A2, page 79.

Basic Methodology

The notation and equations that follow describe the basic models used to project public elementary and secondary enrollment.

Public Elementary and Secondary Enrollment

Let:

i = Subscript denoting age

j = Subscript denoting grade

t = Subscript denoting time

K_t = Enrollment at the nursery and kindergarten level

G_{jt} = Enrollment in grade j

G_{1t} = Enrollment in grade 1

E_t = Enrollment in elementary special and ungraded programs

S_t = Enrollment in secondary special and ungraded programs

PG_t = Enrollment in postgraduate programs

P_{it} = Population age i

RK_t = Enrollment rate for nursery and kindergarten

RG_{1t} = Enrollment rate for grade 1

RE_t = Enrollment rate for elementary special and ungraded programs

RS_t = Enrollment rate for secondary special and ungraded programs

RPG_t = Enrollment rate for postgraduate programs

EG_t = Total enrollment in elementary grades (K-8)

SG_t = Total enrollment in secondary grades (9-12)

R_{jt} = Progression rate for grade j: the proportion that enrollment in grade j in year t is of enrollment in grade j - 1 in year t-1.

Then:

$$EG_t = K_t + E_t + \sum_{j=1}^{8} G_{jt}$$

$$SG_t = S_t + PG_t + \sum_{j=9}^{12} G_{gt}$$

Where:

$$K_t = RK_t(P_{5t})$$

$$G_{jt} = R_{jt}\left(G_{j-1,t-1}\right)$$

$$E_t = RE_t\left(\sum_{j=5}^{13} P_{it}\right)$$

$$G_{1t} = RG_{it}(P_{6t})$$

$$S_t = RS_t\left(\sum_{i=14}^{17} P_{it}\right)$$

$$PG_t = RPG_t(P_{18t})$$

Higher Education Enrollment

For institutions of higher education, projections were computed separately by sex and attendance status of student. The notation and equations are:

Let:

i = Subscript denoting age except:
i = 25: ages 25-29

i = 26: ages 30-34

i = 27: ages 35 and over for enrollment (35-44 for population)

t = Subscript denoting year

E_{it} = Enrollment of students age i

P_{it} = Population age i

R_{it} = Enrollment rate for students age i

T_{it} = Total enrollment for particular subset of students: full-time men, full-time women, part-time men, part-time women

Then:

$$T_{it} = \sum_{i=16}^{27} E_{it}$$

Where:

$$E_{it} = R_{it}(P_{it})$$

Methodological Tables

Tables A1.11 and A1.12 give the rates used to calculate projections of enrollments and basic assumptions underlying enrollment projections.

Private School Enrollment

This edition is the second report that contains projected trends in elementary and secondary enrollment by grade level in private schools produced using the grade progression rate method.

Private school enrollment data from the National Center for Education Statistics' Private School Universe Survey for 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, and 1999–2000 were used to develop these projections. In addition, population estimates for 1989 to 1999 and population projections for 2000 to 2012 from the U.S. Census were used to develop the projections.

The grade progression rate method was used to project private elementary and secondary school

enrollment. The grade progression rate method starts with 6-year-olds entering first grade and then follows their progress through private elementary and secondary schools. The method requires calculating the ratio of the number of children in one year who "survive" the year and enroll in the next grade the following year.

Projections of enrollment in private elementary and secondary schools were developed using primarily the grade progression rate method. Kindergarten and first grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the U.S. Census Bureau.

Enrollments in grades 2 through 12 are based on projected grade progression rates. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years. Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and special enrollments and secondary ungraded and special enrollments are projected to remain constant at their 1999 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (kindergarten through 12) and ungraded and special classes were summed.

The grade progression rate method assumes that past trends in factors affecting private school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from public schools.

Mean absolute percentage errors (MAPEs) of the projection accuracy of private school enrollment were not developed because these projections were prepared for the first time using a new data source and methodology. As additional data becomes available MAPEs can then be calculated.

State Level

For the 50 States and the District of Columbia, this edition contains projected trends in elementary and secondary enrollment by grade level in public schools from 2001 to the year 2012. This is the eighth report on state-level projections for public school elementary and secondary education statistics.

Public school enrollment data from the National Center for Education Statistics' Common Core of Data survey for 1970 to 2000 were used to develop these projections. This survey does not collect data on enrollment for private schools. In addition, population estimates for 1970 to 2000 and population projections for 2001 to 2012 from the U.S. Census Bureau were used to develop the projections.

Table A1.11 describes the number of years, projection methods, and smoothing constants used to project enrollments in public schools. Also included in table A1.11 is the procedure for choosing the different smoothing constants for the time series models.

Projections of enrollment in public elementary and secondary schools by state were developed using primarily the grade progression rate method. Kindergarten and first grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the U.S. Census Bureau.

Enrollments in grades 2 through 12 are based on projected grade progression rates in each state. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years. Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and special enrollments and secondary ungraded and special enrollments are projected to remain constant at their 2000 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (kindergarten through 12) and ungraded and special classes were summed.

The grade progression rate method assumes that past trends in factors affecting public school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. Therefore, this method has limitations when applied to states with unusual changes in migration rates. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from private schools.

Adjustment to National Projections

The sum of the projections of state enrollments was adjusted to equal the national projections of public school K–12, K–8, and 9–12 enrollments shown in table 1. For details on the methods used to develop the national projections for this statistic, see the section on national enrollment projections in this appendix.

Table A1.1.—College enrollment rates, by age, sex, and attendance status, with middle alternative projections: Fall 2000, 2007, and 2012

Age, sex, and attendance status	Actual	Projected	
	2000	2007	2012
Men			
Full-time			
16 years old	0.4	0.3	0.3
17 years old	1.8	3.5	3.6
18 years old	26.8	31.3	32.0
19 years old	33.5	33.8	34.6
20 years old	29.8	29.9	30.5
21 years old	24.6	27.5	28.0
22 years old	22.2	19.5	19.7
23 years old	14.2	13.7	14.0
24 years old	10.2	10.6	10.8
25 to 29 years old	4.7	4.7	4.8
30 to 34 years old	2.0	1.8	1.9
35 to 44 years old	1.1	0.9	0.9
Part-time			
16 years old	0.0	0.1	0.1
17 years old	0.5	0.7	0.7
18 years old	7.1	4.9	5.0
19 years old	9.0	7.5	7.1
20 years old	7.5	6.8	6.9
21 years old	6.1	6.4	6.5
22 years old	7.8	8.5	8.7
23 years old	7.5	6.7	6.8
24 years old	10.2	5.6	5.8
25 to 29 years old	5.0	5.7	5.9
30 to 34 years old	3.4	3.8	3.9
35 to 44 years old	3.4	3.7	3.8
Women			
Full-time			
16 years old	0.5	0.3	0.3
17 years old	3.3	4.1	4.6
18 years old	40.9	44.3	46.4
19 years old	44.6	44.4	46.5
20 years old	35.9	37.5	39.4
21 years old	31.2	33.3	35.2
22 years old	21.0	19.6	20.5
23 years old	14.4	14.5	15.3
24 years old	11.3	11.4	12.1
25 to 29 years old	5.2	4.9	5.2
30 to 34 years old	2.3	2.5	2.7
35 to 44 years old	1.5	2.0	2.2
Part-time			
16 years old	0.0	0.0	0.0
17 years old	0.4	0.7	0.7
18 years old	4.2	6.2	6.2
19 years old	9.2	7.4	7.2
20 years old	8.3	7.9	8.0
21 years old	10.8	8.1	8.0
22 years old	8.0	10.4	10.7
23 years old	11.2	8.6	8.8
24 years old	10.3	7.5	7.7
25 to 29 years old	7.1	7.4	7.7
30 to 34 years old	5.2	5.8	6.1
35 to 44 years old	6.2	7.4	7.8

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

Table A1.2.—Equations for full-time and part-time college enrollment rates of men

Independent variable	Coefficient	Standard error	T-statistic	R^2	F-statistic
Full-time					
Constant	-5.30	0.19	-28.4	0.99	883.4
Dummy18	2.62	0.12	21.1		
Dummy19	2.77	0.12	22.4		
Dummy20	2.60	0.14	19.1		
Dummy21	2.47	0.13	19.2		
Dummy22	2.03	0.17	12.2		
Dummy23	1.59	0.14	11.0		
Dummy24	1.28	0.16	7.8		
Dummy25-29	0.46	0.16	2.9		
Dummy30-34	-0.54	0.14	-4.0		
Dummy35-44	-1.25	0.18	-6.9		
LNURM	0.07	0.03	2.0		
LNCPIMA	0.35	0.03	12.5		
Rho17	0.51	0.19	2.7		
Rho18	0.62	0.16	3.8		
Rho19	0.35	0.19	1.9		
Rho20	0.46	0.18	2.5		
Rho21	0.38	0.18	2.1		
Rho22	0.63	0.16	3.9		
Rho23	0.41	0.19	2.2		
Rho24	0.72	0.14	5.1		
Rho25-29	0.64	0.13	5.1		
Rho30-34	0.37	0.13	2.9		
Rho35-44	0.70	0.12	6.1		
Part-time					
Constant	-6.41	0.20	-32.0	0.92	127.7
Dummy18	2.38	0.09	25.6		
Dummy19	2.76	0.24	11.3		
Dummy20	2.71	0.08	32.3		
Dummy21	2.61	0.10	25.7		
Dummy22	2.80	0.09	30.3		
Dummy23	2.46	0.09	26.2		
Dummy24	2.24	0.12	18.9		
Dummy25-29	2.20	0.11	19.8		
Dummy30-34	1.75	0.16	10.7		
Dummy35-44	1.69	0.09	18.2		
LNCPIMA	0.25	0.03	7.5		
Rho17	-0.27	0.20	-1.4		
Rho18	0.01	0.22	0.0		
Rho19	0.85	0.13	6.6		
Rho20	0.29	0.20	1.5		
Rho21	0.56	0.17	3.3		
Rho22	0.23	0.20	1.2		
Rho23	-0.05	0.20	-0.2		
Rho24	0.44	0.23	1.9		
Rho25-29	0.70	0.12	6.0		
Rho30-34	0.82	0.10	8.5		
Rho35-44	0.62	0.10	5.9		

R^2 = Coefficient of determination.

F-Statistic = Obtained statistic for the F value.

Where:

Dummy(age) = 1 for each age and 0 otherwise.

Rho(age) = Autocorrelation coefficient for each age.

LNURM = Log unemployment rate.

LNCPIMA = Log of four-period weighted average of per capita real disposable income.

NOTE: The regression method used to estimate the full-time and part-time equations was pooled least squares with first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 2000. The number of observations is 286. For additional information, see *The Modern Forecaster* by Hans Levenbach and James P. Cleary (Van Nostrand Reinhold Company Inc., New York, 1984, pp. 354-373).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.

(This table was prepared May 2002.)

Table A1.3.—Equations for full-time and part-time college enrollment rates of women

Independent variable	Coefficient	Standard error	T-statistic	R^2	F-statistic
Full-time					
Constant	-8.37	0.48	-17.5	0.99	1001
Dummy18	2.96	0.45	6.5		
Dummy19	2.99	0.44	6.7		
Dummy20	2.73	0.45	6.1		
Dummy21	2.55	0.44	5.8		
Dummy22	1.81	0.44	4.1		
Dummy23	1.42	0.45	3.2		
Dummy24	1.13	0.43	2.6		
Dummy25-29	0.24	0.48	0.5		
Dummy30-34	-0.44	0.45	-1.0		
Dummy35-44	-0.65	0.46	-1.4		
LNURM	0.07	0.06	1.1		
LNCPIMA	0.92	0.04	21.5		
Rho17	0.90	0.10	9.4		
Rho18	0.64	0.15	4.3		
Rho19	-0.40	0.19	-2.1		
Rho20	0.04	0.20	0.2		
Rho21	0.43	0.18	2.3		
Rho22	0.76	0.12	6.3		
Rho23	0.74	0.13	5.9		
Rho24	0.68	0.14	4.8		
Rho25-29	0.70	0.15	4.5		
Rho30-34	0.17	0.20	0.8		
Rho35-44	0.13	0.21	0.7		
Part-time					
Constant	-7.72	0.49	-15.9	0.78	40.6
Dummy18	2.86	0.45	6.3		
Dummy19	3.01	0.50	6.0		
Dummy20	3.01	0.47	6.4		
Dummy21	2.93	0.51	5.7		
Dummy22	3.03	0.46	6.5		
Dummy23	2.74	0.47	5.9		
Dummy24	2.55	0.47	5.4		
Dummy25-29	2.46	0.45	5.4		
Dummy30-34	2.20	0.49	4.5		
Dummy35-44	2.46	0.46	5.4		
LNCPIMA	0.47	0.03	14.6		
Rho17	0.38	0.19	2.0		
Rho18	0.33	0.22	1.5		
Rho19	0.75	0.15	5.0		
Rho20	0.27	0.20	1.4		
Rho21	0.69	0.17	4.0		
Rho22	0.30	0.21	1.5		
Rho23	0.48	0.20	2.4		
Rho24	0.61	0.19	3.2		
Rho25-29	0.42	0.18	2.3		
Rho30-34	0.82	0.12	7.0		
Rho35-44	0.75	0.15	4.9		

R^2 = Coefficient of determination.

F-Statistic = Obtained statistic for the F value.

Where:

Dummy(age) = 1 for each age and 0 otherwise.

Rho(age) = Autocorrelation coefficient for each age.

LNURM = Log unemployment rate.

LNCPIMA = Log of four-period weighted average of per capita real disposable income.

NOTE: The regression method used to estimate the full-time and part-time equations was pooled least squares with first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 2000. The number of observations is 286. For additional information, see *The Modern Forecaster* by Hans Levenbach and James P. Cleary (Van Nostrand Reinhold Company Inc., New York, 1984, pp. 354-373).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.

(This table was prepared May 2002.)

Table A1.4.—Enrollment rates in public schools, by grade level: Fall 2000, 2007, and 2012

Grade level	Population base age	2000	Projected	
			2007	2012
Kindergarten	5	108.5	106.6	106.6
Grade 1	6	93.5	93.4	93.4
Elementary ungraded and special education	5-13	1.0	1.2	1.2
Secondary ungraded and special education	14-17	1.1	1.3	1.3
Postgraduate	18	0.2	0.2	0.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared May 2002.)

Table A1.5.—Public school grade progression rates: Fall 2000, 2007, and 2012

Grade	2000	Projected	
		2007	2012
1 to 2	98.6	98.2	98.2
2 to 3	100.5	100.3	100.3
3 to 4	100.5	100.1	100.1
4 to 5	100.4	100.4	100.4
5 to 6	101.5	101.3	101.3
6 to 7	101.7	101.4	101.4
7 to 8	99.7	99.2	99.2
8 to 9	113.2	112.9	112.9
9 to 10	88.6	88.8	88.8
10 to 11	90.2	89.9	89.9
11 to 12	92.3	91.9	91.9

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared May 2002.)

Table A1.6.—Full-time enrollment, by level enrolled and type of institution, as a percent of total enrollment, for each age and sex classification: Fall 2000, 2007, and 2012

Age	Men			Women		
	2000	2007	2012	2000	2007	2012
			Undergraduate, 4-year institutions			
16 to 17 years old	38.1	53.0	53.0	68.8	67.7	67.7
18 to 19 years old	61.8	64.1	64.1	70.4	68.8	68.8
20 to 21 years old	78.2	77.4	77.4	74.7	76.8	76.8
22 to 24 years old	66.7	64.9	64.9	56.6	59.2	59.2
25 to 29 years old	49.1	46.4	46.4	43.2	46.0	46.0
30 to 34 years old	39.7	38.4	38.4	50.2	43.6	43.6
35 years and over	38.0	35.4	35.4	39.5	40.4	40.4
			Undergraduate, 2-year institutions			
16 to 17 years old	57.8	44.6	44.6	30.2	31.5	31.5
18 to 19 years old	37.0	35.0	35.0	29.2	30.5	30.5
20 to 21 years old	18.4	20.2	20.2	23.9	21.3	21.3
22 to 24 years old	16.1	16.3	16.3	18.0	17.8	17.8
25 to 29 years old	15.6	16.2	16.2	21.3	20.9	20.9
30 to 34 years old	10.6	14.3	14.3	20.7	30.1	30.1
35 years and over	30.9	27.9	27.9	31.1	30.5	30.5
			Postbaccalaureate, 4-year institutions			
16 to 17 years old	4.2	2.5	2.5	1.1	0.8	0.8
18 to 19 years old	1.2	0.9	0.9	0.4	0.6	0.6
20 to 21 years old	3.4	2.4	2.4	1.5	1.9	1.9
22 to 24 years old	17.2	18.9	18.9	25.4	23.0	23.0
25 to 29 years old	35.2	37.4	37.4	35.4	33.1	33.1
30 to 34 years old	49.8	47.3	47.3	29.2	26.3	26.3
35 years and over	31.0	36.7	36.7	29.4	29.0	29.0

NOTE: Projections shown for 2007and 2012 were adjusted to add to 100 percent before computing projections shown in tables 10 through 22.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

Table A1.7.—Part-time enrollment, by level enrolled and type of institution, as a percent of total enrollment, for each age and sex classification: Fall 2000, 2007, and 2012

Age	Men			Women		
	2000	2007	2012	2000	2007	2012
Undergraduate, 4-year institutions						
16 to 17 years old	0.0	0.7	0.7	0.0	4.6	4.6
18 to 19 years old	12.8	16.7	16.7	16.0	18.8	18.8
20 to 21 years old	36.3	30.5	30.5	24.7	27.3	27.3
22 to 24 years old	31.3	31.6	31.6	34.3	33.8	33.8
25 to 29 years old	29.9	27.9	27.9	24.9	25.4	25.4
30 to 34 years old	26.3	26.9	26.9	25.0	25.7	25.7
35 years and over	16.0	20.5	20.5	20.1	20.9	20.9
Undergraduate, 2-year institutions						
16 to 17 years old	100.0	98.7	98.7	100.0	94.8	94.8
18 to 19 years old	86.3	82.6	82.6	84.0	81.0	81.0
20 to 21 years old	62.9	68.9	68.9	74.8	71.7	71.7
22 to 24 years old	60.8	60.1	60.1	53.1	54.4	54.4
25 to 29 years old	51.7	52.7	52.7	51.4	51.1	51.1
30 to 34 years old	47.4	46.6	46.6	51.3	52.5	52.5
35 years and over	56.2	52.7	52.7	57.5	55.8	55.8
Postbaccalaureate, 4-year institutions						
16 to 17 years old	0.0	0.7	0.7	0.0	0.6	0.6
18 to 19 years old	0.8	0.7	0.7	0.0	0.2	0.2
20 to 21 years old	0.7	0.6	0.6	0.5	1.0	1.0
22 to 24 years old	7.9	8.3	8.3	12.6	11.7	11.7
25 to 29 years old	18.5	19.4	19.4	23.7	23.5	23.5
30 to 34 years old	26.3	26.5	26.5	23.7	21.8	21.8
35 years and over	27.8	26.8	26.8	22.4	23.3	23.3

NOTE: Projections shown for 2007 and 2012 were adjusted to add to 100 percent before computing projections shown in tables 10 through 22.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

Table A1.8.—Public college enrollment as a percent of total enrollment, by attendance status, sex, level enrolled, and type of institution: Fall 2000, 2007, and 2012

Enrollment category	Men			Women		
	2000	2007	2012	2000	2007	2012
Full-time, undergraduate, 4-year institutions	67.0	67.6	67.6	66.2	66.6	66.6
Part-time, undergraduate, 4-year institutions	71.0	71.4	71.4	68.6	68.2	68.2
Full-time, undergraduate, 2-year institutions	89.5	90.0	90.0	90.8	90.7	90.7
Part-time, undergraduate, 2-year institutions	99.1	98.9	98.9	99.0	98.8	98.8
Full-time, postbaccalaureate, 4-year institutions	52.2	53.0	53.0	53.5	54.6	54.6
Part-time, postbaccalaureate, 4-year institutions	56.5	57.0	57.0	61.8	62.4	62.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

Table A1.9.—Graduate enrollment as a percent of total postbaccalaureate enrollment, by sex, attendance status, and type and control of institution: Fall 2000, 2007, and 2012

Enrollment category	Men			Women		
	2000	2007	2012	2000	2007	2012
Full-time, 4-year, public	78.0	77.8	77.8	80.8	81.0	81.0
Part-time, 4-year, public	98.7	98.8	98.8	99.2	99.3	99.3
Full-time, 4-year, private	65.9	63.8	63.8	73.2	72.2	72.2
Part-time, 4-year, private	91.6	91.4	91.4	95.4	95.4	95.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

Table A1.10.—Full-time-equivalent of part-time enrollment as a percent of part-time enrollment, by level enrolled and by type and control of institution: Fall 2000, 2007, and 2012

Enrollment category	2000	2007	2012
Public, 4-year, undergraduate	40.4	40.4	40.4
Public, 2-year, undergraduate	33.6	33.6	33.6
Private, 4-year, undergraduate	39.3	39.3	39.3
Private, 2-year, undergraduate	39.7	39.7	39.7
Public, 4-year, graduate	36.2	36.2	36.2
Private, 4-year, graduate	38.2	38.2	38.2
Public, 4-year, first-professional	60.0	60.1	60.1
Private, 4-year, first-professional	54.5	54.6	54.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model.
(This table was prepared May 2002.)

Table A1.11—Number of years, projection methods, and smoothing constants used to project public school enrollments and high school graduates, by state

Projected state variable	Number of years (1970-2000)	Projection method	Smoothing constant	Choice of smoothing constant
Grade progression rates	31	Single exponential smoothing	0.4	Empirical research
Graduates/grade 12 enrollment	31	Single exponential smoothing	0.4	Empirical research

SOURCE: U.S. Department of Education, National Center for Education Statistics, State Public Elementary and Secondary Enrollment Model, and State Public High School Graduates Model. (This table was prepared May 2002.)

Table A1.12.—Enrollment (assumptions)

Variables	Assumptions	Alternatives	Tables
Elementary and Secondary enrollment	Age-specific enrollment rates will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1, 2
	Public enrollment rates and public grade retention rates will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1, 2
	The percentage of 7th and 8th grade public students enrolled in school organized as secondary schools will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1, 2
College enrollment, by age			
Full-time	Age-specific enrollment rates by sex are a function of dummy variables by age, middle alternative log of four-period weighted average of real disposable income per capita, and middle alternative log unemployment rate by age group.	Middle	10 14-19
Part-time	Age-specific enrollment rates by sex are a function of dummy variables by age and the middle alternative log of four-period weighted average of real disposable income per capita.	Middle	10 14-19
College enrollment, by sex, attendance status, level enrolled, and type of institution	For each group and for each attendance status separately, percent of total enrollment by sex, level enrolled, and type of institution will follow past trends through 2012. For each age group and attendance status category, the sum of the percentages must equal 100 percent.	High, middle, and low	10 14-19
College enrollment, by control of institution	For each enrollment category, by sex, attendance status, and level enrolled, and by type of institution, public enrollment as a percent of total enrollment will remain constant at levels consistent with the most recent rates.	High, middle, and low	10 14-19
Graduate enrollment	For each enrollment category, by sex and attendance status of student, and by type and control of institution, graduate enrollment as a percent of postbaccalaureate enrollment will remain constant at levels consistent with the most recent rates.	High, middle, and low	20
Full-time-equivalent of part-time enrollment	For each enrollment category, by type and control of institution and level enrolled, the percent that full-time-equivalent of part-time enrollment is of part-time enrollment will remain constant at levels consistent with the most recent rates.	High, middle, and low	22

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model and Enrollment in Degree-Granting Institutions Model. (This table was prepared May 2002.)

A2. High School Graduates

National

Projections of public high school graduates were developed in the following manner. The number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1972 to 2000. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. (This percent does not make any specific assumptions regarding the dropout rate. The effect of the 12th grade dropout proportion is reflected implicitly in the graduate proportion.) The grade 12 enrollment was projected based on grade progression rates. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting graduation ratios, such as dropouts, migration, and public or private transfers, will continue over the projection period. In addition to student behaviors, the projected number of graduates could be impacted by changes in policies affecting graduation requirements.

The number of private high school graduates was expressed as a percent of grade 12 enrollment in private schools for 1989 to 1999. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in private schools. (This percent does not make any specific assumptions regarding the dropout rate. The effect of the 12th grade dropout proportion is reflected implicitly in the graduate proportion.) The grade 12 enrollment was projected based on grade progression rates. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting graduation ratios, such as dropouts, migration, and public or private transfers, will continue over the projection period. In addition to student behaviors, the projected number of graduates could be impacted by changes in policies affecting graduation requirements.

Projection Accuracy

An analysis of projections from models used in the past 19 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of public high school graduates were 0.7 percent for 1 year ahead, 0.9 percent for 2 years ahead, 1.6 percent for 5 years ahead, and 4.2 percent for 10 years ahead. For the 1-year-ahead prediction, this means that one would expect the projection to be within 0.7 percent of the actual value, on the average. For more information on the mean absolute percentage errors, see table A2, page 79.

State-Level

This edition contains projections of high school graduates from public schools by state from 2000–01 to 2011–12. Public school graduate data from the National Center for Education Statistics' Common Core of Data survey for 1969–70 to 1999–2000 were used to develop these projections. This survey does not collect graduate data for private schools.

Projections of public high school graduates by state were developed in the following manner. For each state, the number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1970 to 2000. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. Projections of grade 12 enrollment were developed based on the grade progression rates discussed in section A1, Enrollment. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting public high school graduates will continue over the projection period.

A3. Earned Degrees Conferred

Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees by sex were based on demographic models that relate degree awards to college-age populations and college enrollment by level enrolled and attendance status.

Associate's Degrees

Associate's degree projections by sex were based on undergraduate enrollment by attendance status in 2-year institutions. Results of the regression analysis used to project associate's degrees by sex are shown in table A3.1.

Bachelor's Degrees

Bachelor's degree projections by sex were based on the 18- to 24-year-old population and undergraduate enrollment by attendance status in 4-year institutions. Results of the regression analysis used to project bachelor's degrees by sex are shown in table A3.1.

Master's Degrees

Master's degree projections by sex were based on full-time graduate enrollment by sex. Results of the regression analysis used to project master' degrees by sex are shown in table A3.1.

Doctor's Degrees

Doctor's degree projections for men were based on full-time male graduate enrollment and the unemployment rate. Doctor's degree projections for women were based on the 35- to 44-year-old population of women and full-time female graduate enrollment. The results of the regression analysis used to project doctor's degrees by sex are shown in table A3.1.

First-Professional Degrees

First-professional degree projections by sex were based on first-professional enrollment by attendance status in 4-year institutions. Results of the regression analysis used to project first-professional degrees by sex are shown in table A3.1.

Methodological Tables

These tables describe equations used to calculate projections (table A3.1), and basic assumptions underlying projections (table A3.2).

Projection Accuracy

An analysis of projection errors from similar models used in the past 6 editions *of Projections of Education Statistics* indicates that mean absolute percentage errors (MAPEs) for associate's degrees were 2.4 percent for 1 year out, 3.3 percent for 2 years out, and 6.6 percent for 5 years out. For the 1-year-out prediction, this means that one would expect the projection to be within 2.4 percent of the actual value, on average. MAPEs for bachelor's degree projections were 1.0 percent for 1 year out, 2.1 percent for 2 years out, and 4.1 percent for 5 years out. MAPEs for master's degrees were 1.2, 4.3, and 5.5, respectively. For doctor's degrees, the MAPEs were 2.6, 3.4, and 3.0 percent, respectively. For first-professional degrees, the MAPEs were 1.6, 1.6, and 5.9 percent, respectively. For more information on the mean absolute percentage errors, see table A2, page 79.

Table A3.1.—Equations for earned degrees conferred

Dependent Variable	Equation	R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Associate's degrees Men	ASSOCM = 107,075 + 54.9UGFT2M + 39.2UGPT2M (1.5) (2.4)	0.83	1.6	AR1	0.70 (4.3)	1970-71 to 1999-2000
Associate's degrees Women	ASSOCW = 85,571 + 185.3UGFT2W (6.2)	0.99	1.4	AR1	0.98 (36.6)	1970-71 to 1999-2000
Bachelor's degrees Men	BACHM = 239,629 - 11.0P1824M + 174.9UGFT4M (-3.7) (6.1)	0.89	1.6	AR1	0.61 (3.8)	1970-71 to 1999-2000
Bachelor's degrees Women	BACHW = 204,060 - 16.7P1824W + 246.1UGFT4W (-3.1) (17.5)	0.99	1.1	AR1	0.78 (5.8)	1970-71 to 1999-2000
Master's degrees Men	MASTM = 29,237 + 427.8GFTM (4.9)	0.94	1.3	AR1	0.90 (12.1)	1970-71 to 1999-2000
Master's degrees Women	MASTW = 35,951 + 548.2GFTW (14.0)	0.99	1.1	AR1	0.92 (14.5)	1972-73 to 1999-2000
Doctor's degrees Men	DOCM = 18,863 + 22.7GFTM1 - 904.1RUC (1.3) (-0.1)	0.89	1.1	AR1	0.96 (21.8)	1970-71 to 1999-2000
Doctor's degrees Women	DOCW = - 1,479 + 0.3P3544W + 33.4GFTW (2.2) (5.3)	0.99	2.1	AR1	0.70 (3.6)	1972-73 to 1999-2000
First-professional degrees Men	FPROM = 10,581 + 227.5FPFTM (7.1)	0.88	1.9	AR1	0.50 (2.6)	1970-71 to 1999-2000
First-professional degrees Women	FPROW = - 1,174 + 285.1FPFTW + 221.5FPPTW (23.1) (2.1)	0.99	1.5	OLS		1971-72 to 1999-2000

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods*, New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. OLS indicates Ordinary Least Squares. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics,* New York: John Wiley and Sons, 1985, pages 315-318.

Where:

ASSOCM = Number of associate's degrees awarded to men
ASSOCW = Number of associate's degrees awarded to women
BACHM = Number of bachelor's degress awarded to men
BACHW = Number of bachelor's degress awarded to women
MASTM = Number of master's degrees awarded to men
MASTW = Number of master's degrees awarded to women
DOCM = Number of doctor's degress awarded to men
DOCW = Number of doctor's degress awarded to women
FPROM = Number of first-professional degrees awarded to men
FPROW = Number of first-professional degrees awarded to women
UGFT2M = Full-time male undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
UGPT2M = Part-time male undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
UGFT2W = Full-time female undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
P1824M = Population of 18- to 24-year-old men, in thousands
P1824W = Population of 18- to 24-year-old women, in thousands
UGFT4M = Full-time male undergraduate enrollment in 4-year institutions, lagged 2 years, in thousands
UGFT4W = Full-time female undergraduate enrollment in 4-year institutions, lagged 3 years, in thousands
GFTM = Full-time male graduate enrollment, in thousands
GFTW = Full-time female graduate enrollment, in thousands
P3544W = Population of 35- to 44-year-old women, in thousands
GFTM1 = Full-time male graduate enrollment lagged one year, in thousands
GFTW = Full-time female graduate enrollment, in thousands
RUC = Unemployment rate
FPFTM = Full-time male first-professional enrollment lagged 2 years, in thousands
FPFTW = Full-time female first-professional enrollment lagged 1 year, in thousands
FPPTW = Part-time female first-professional enrollment lagged 2 years, in thousands

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Earned Degrees Conferred Model.

(This table was prepared May 2002.)

Table A3.2.—Earned degrees conferred (assumptions)

Variables	Assumptions	Alternatives	Tables
Associate's degrees			
Men	The number of associate's degrees awarded to men is a linear function of full- and part-time male undergraduate enrollment in 2-year institutions lagged 2 years. This relationship will continue through 2011-12.	Middle	26
Women	The number of associate's degrees awarded to women is a linear function of full-time female undergraduate enrollment in 2-year institutions lagged 2 years. This relationship will continue through 2011-12.	Middle	26
Bachelor's degrees			
Men	The number of bachelor's degrees awarded to men is a linear function of full-time male undergraduate enrollment in 4-year institutions lagged 2 years and the male 18- to 24-year-old population. This relationship will continue through 2011-12.	Middle	27
Women	The number of bachelor's degrees awarded to women is a linear function of full-time female undergraduate enrollment in 4-year institutions lagged 3 years and the female 18- to 24-year-old population. This relationship will continue through 2011-12.	Middle	27
Master's degrees			
Men	The number of master's degrees awarded to men is a linear function of full-time male graduate enrollment. This relationship will continue through 2011-12.	Middle	28
Women	The number of master's degrees awarded to women is a linear function of full-time female graduate enrollment. This relationship will continue through 2011-12.	Middle	28
Doctor's degrees			
Men	The number of doctor's degrees awarded to men is a linear function of full-time male graduate enrollment lagged one year and the unemployment rate. This relationship will continue through 2011-12.	Middle	29
Women	The number of doctor's degrees awarded to women is a linear function of the 35- to 44-year-old population and full-time female graduate enrollment. This relationship will continue through 2011-12.	Middle	29
First-professional degrees			
Men	The number of first-professional degrees awarded to men is a linear function of full-time male first-professional enrollment lagged 2 years. This relationship will continue through 2011-12.	Middle	30
Women	The number of first-professional degrees awarded to women is a linear function of full-time female first-professional enrollment lagged 1 year and part-time female first-professional enrollment lagged 2 years. This relationship will continue through 2011-12.	Middle	30

SOURCE: U.S. Department of Education, National Center for Education Statistics, Earned Degrees Conferred Model.
(This table was prepared May 2002.)

Appendix B

Supplementary Tables

Table B1.—Annual number of births (U.S. Census projections, Middle Series): 1952 to 2012

(In thousands)

Calendar Year	Number of Births
1952	3,933
1953	3,989
1954	4,102
1955	4,128
1956	4,244
1957	4,332
1958	4,279
1959	4,313
1960	4,307
1961	4,317
1962	4,213
1963	4,142
1964	4,070
1965	3,801
1966	3,642
1967	3,555
1968	3,535
1969	3,626
1970	3,739
1971	3,556
1972	3,258
1973	3,137
1974	3,160
1975	3,144
1976	3,168
1977	3,327
1978	3,333
1979	3,494
1980	3,612
1981	3,629
1982	3,681
1983	3,639
1984	3,669
1985	3,761
1986	3,757
1987	3,809
1988	3,910
1989	4,041
1990	4,158
1991	4,111
1992	4,065
1993	4,000
1994	3,953
1995	3,900
1996	3,891
1997	3,881
1998	3,942
1999	3,959
2000	4,059
Projected	
2001	3,932
2002	3,953
2003	3,978
2004	4,009
2005	4,045
2006	4,086
2007	4,133
2008	4,183
2009	4,234
2010	4,283
2011	4,328
2012	4,370

NOTE: Some data have been revised from previously published figures
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates for the 1990s," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000; and U.S. Department of Health and Human Services, National Center for Health Statistics (NCHS) Annual Summary of Births, Marriages, Divorces, and Deaths: United States various years, *National Vital Statistics Reports;* and unpublished tabulations.
(This table was prepared May 2002.)

Table B2.—Preprimary school-age populations (U.S. Census projections, Middle Series): 1987 to 2012

(In thousands)

Year (July 1)	3 years old	4 years old	5 years old	3 to 5 years old
1987	3,508	3,623	3,610	10,741
1988	3,619	3,556	3,627	10,802
1989	3,646	3,669	3,559	10,874
1990	3,658	3,697	3,679	11,034
1991	3,714	3,710	3,695	11,120
1992	3,808	3,769	3,710	11,287
1993	3,965	3,867	3,773	11,605
1994	3,990	4,024	3,868	11,882
1995	3,964	4,050	4,024	12,038
1996	3,888	4,023	4,050	11,961
1997	3,839	3,949	4,025	11,812
1998	3,799	3,897	3,950	11,647
1999	3,755	3,853	3,895	11,502
2000	3,761	3,808	3,851	11,420
Projected				
2001	3,762	3,819	3,811	11,392
2002	3,765	3,818	3,820	11,403
2003	3,775	3,821	3,819	11,415
2004	3,789	3,830	3,821	11,440
2005	3,807	3,845	3,832	11,484
2006	3,827	3,862	3,845	11,535
2007	3,853	3,884	3,863	11,599
2008	3,883	3,909	3,884	11,677
2009	3,919	3,940	3,909	11,767
2010	3,960	3,976	3,939	11,874
2011	4,006	4,017	3,975	11,997
2012	4,053	4,063	4,016	12,133

NOTE: Some data have been revised from previously published figures. Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports* , Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared May 2002.)

Table B3.—School-age populations (U.S. Census projections, Middle Series), ages 5, 6, 5 to 13, and 14 to 17 years: 1987 to 2012

(In thousands)

Year (July 1)	5 years old	6 years old	5 to 13 years old	14 to 17 years old
1987	3,610	3,568	30,501	14,503
1988	3,627	3,611	31,030	14,023
1989	3,559	3,625	31,412	13,535
1990	3,679	3,561	32,002	13,322
1991	3,695	3,674	32,469	13,451
1992	3,710	3,694	32,943	13,702
1993	3,773	3,712	33,382	13,990
1994	3,868	3,771	33,712	14,491
1995	4,024	3,865	34,196	14,827
1996	4,050	4,020	34,604	15,212
1997	4,025	4,048	35,004	15,500
1998	3,950	4,022	35,397	15,519
1999	3,895	3,944	35,605	15,653
2000	3,851	3,889	35,751	15,725
		Projected		
2001	3,811	3,851	35,885	15,821
2002	3,820	3,809	35,941	16,047
2003	3,819	3,818	35,904	16,247
2004	3,821	3,817	35,697	16,580
2005	3,832	3,819	35,473	16,931
2006	3,845	3,828	35,281	17,188
2007	3,863	3,841	35,186	17,268
2008	3,884	3,858	35,164	17,132
2009	3,909	3,879	35,207	16,915
2010	3,939	3,904	35,322	16,681
2011	3,975	3,933	35,463	16,536
2012	4,016	3,970	35,656	16,443

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports* , Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared May 2002.)

Table B4.—College-age populations (U.S. Census projections, Middle Series), ages 18, 18 to 24, 25 to 29, 30 to 34, and 35 to 44 years: 1987 to 2012

(In thousands)

Year (July 1)	18 years old	18 to 24 years old	25 to 29 years old	30 to 34 years old	35 to 44 years old
1987	3,704	27,931	21,982	21,058	34,299
1988	3,803	27,584	21,869	21,470	35,258
1989	3,888	27,378	21,690	21,759	36,494
1990	3,599	26,835	21,236	21,913	37,776
1991	3,391	26,352	20,713	22,157	39,291
1992	3,328	25,975	20,140	22,240	39,906
1993	3,419	25,740	19,570	22,227	40,814
1994	3,381	25,396	19,107	22,133	41,693
1995	3,541	25,113	18,905	21,826	42,555
1996	3,578	24,844	18,932	21,313	43,365
1997	3,693	24,980	18,820	20,739	44,014
1998	3,879	25,474	18,576	20,168	44,499
1999	3,875	26,011	18,209	19,727	44,812
2000	3,961	26,542	17,816	19,547	44,865
Projected					
2001	3,971	27,282	17,482	19,683	44,746
2002	3,901	27,643	17,444	19,580	44,277
2003	4,022	28,077	17,622	19,360	43,718
2004	4,042	28,416	17,974	19,011	43,221
2005	4,058	28,593	18,409	18,627	42,769
2006	4,117	28,817	18,875	18,175	42,337
2007	4,211	29,054	19,265	18,124	41,652
2008	4,369	29,441	19,618	18,292	40,859
2009	4,395	29,926	19,801	18,625	40,065
2010	4,363	30,256	19,907	19,046	39,495
2011	4,280	30,478	20,040	19,497	39,088
2012	4,223	30,625	20,107	19,880	38,911

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports* , Series P-25, Nos. 1092, 1095, and "National Population Estimates," December 2001, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared May 2002.)

Table B5.—Disposable income per capita, with alternative projections: Fiscal year 1986–87 to 2011–12

Year ending	Disposable income per capita[1]
1987	$20,430
1988	20,989
1989	21,581
1990	21,831
1991	21,821
1992	21,964
1993	22,234
1994	22,416
1995	22,886
1996	23,154
1997	23,587
1998	24,388
1999	25,153
2000	25,568
Middle alternative projections	
2001	25,694
2002	26,916
2003	27,286
2004	28,028
2005	28,636
2006	29,096
2007	29,462
2008	29,998
2009	30,680
2010	31,411
2011	32,193
2012	33,003
Low alternative projections	
2001	25,694
2002	26,906
2003	27,126
2004	27,769
2005	28,323
2006	28,638
2007	28,899
2008	29,371
2009	29,864
2010	30,440
2011	31,148
2012	31,828
High alternative projections	
2001	25,694
2002	26,935
2003	27,472
2004	28,370
2005	29,172
2006	29,858
2007	30,462
2008	31,275
2009	32,282
2010	33,355
2011	34,451
2012	35,449

[1]In 2000–01 dollars based on the price deflator for personal consumption expenditures, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: DRI•WEFA, "U.S. Quarterly Model." (This table was prepared May 2002.)

Appendix C

Data Sources

Sources and Comparability of Data

The information in this report was obtained from many sources, including federal and state agencies, private research organizations, and professional associations. The data were collected by many methods, including surveys of a universe (such as all colleges) or of a sample, and compilations of administrative records. Care should be used when comparing data from different sources. Differences in procedures, such as timing, phrasing of questions, and interviewer training, mean that the results from the different sources are not strictly comparable. More extensive documentation of one survey's procedures than of another's does not imply more problems with the data, only that more information is available.

Accuracy of Data

The accuracy of any statistic is determined by the joint effects of "sampling" and "nonsampling" errors. Estimates based on a sample will differ from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. Besides sampling errors, both surveys, universe and sample, are subject to errors of design, reporting, processing, and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

Sampling Errors

The standard error is the primary measure of sampling variability. It provides a specific range—with a stated confidence—within which a given estimate would lie if a complete census had been conducted. The chances that a complete census would differ from the sample by less than the standard error are about 68 out of 100. The chances that the difference would be less than 1.65 times the standard error are about 90 out of 100. The chances that the difference would be less than 1.96 times the standard error are about 95 out of 100. The chances that it would be less than 2.58 times as large are about 99 out of 100.

The standard error can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates that are uncorrelated is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate "a" and sample estimate "b" is:

$$se_{a-b} = (se_a^2 + se_b^2)^{1/2}$$

Note that most of the standard errors in subsequent sections and in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

Nonsampling Errors

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors are of two kinds—random and nonrandom. Random nonsampling errors may arise when respondents or interviewers interpret questions differently, when respondents must estimate values, or when coders, keyers, and other processors handle answers differently. Nonrandom nonsampling errors result from total nonresponse (no usable data obtained for a sampled unit), partial or item nonresponse (only a portion of a response may be usable), inability or unwillingness on the part of respondents to provide information, difficulty interpreting questions, mistakes in recording or keying data, errors of collection or processing, and overcoverage or undercoverage of the target universe. Random nonresponse errors usually, but not always, result in an understatement of sampling errors and thus an overstatement of the precision of survey estimates. Because estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both total and partial. Imputations are usually made separately within various groups of sample members that have similar survey characteristics. Imputation for item nonresponse is an acceptable value which is substituted for missing or inconsistent data in a data set.

Although the magnitude of nonsampling errors in the data used in this *Projections of Education Statistics* is frequently unknown, idiosyncrasies that have been identified are noted on the appropriate tables.

Federal Agency Sources

National Center for Education Statistics (NCES)

Common Core of Data

NCES uses the Common Core of Data (CCD) survey to acquire and maintain statistical data from each of the 50 states, the District of Columbia, the Bureau of Indian Affairs, Department of Defense Dependents' Schools (overseas) and the outlying areas. Information about staff and students is collected annually at the school, local education agency or school district (LEA), and state levels. Information about revenues and expenditures is also collected at the state and LEA levels.

Data are collected for a particular school year (October 1 through September 30) via survey instruments sent to the state education agencies during the school year. States have 1 year in which to modify the data originally submitted.

Since the CCD is a universe survey, the CCD information presented in this edition of the *Projections of Education Statistics* is not subject to sampling errors. However, nonsampling errors could come from two sources—nonreturn and inaccurate reporting. Almost all of the states submit the six CCD survey instruments each year, but submissions are sometimes incomplete or too late for publication.

Understandably, when 58 education agencies compile and submit data for approximately 90,000 public schools and 16,000 local school districts, misreporting can occur. Typically, this results from varying interpretations of NCES definitions and differing recordkeeping systems. NCES attempts to minimize these errors by working closely with the state education agencies through the National Forum on Education Statistics.

The state education agencies report data to NCES from data collected and edited in their regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that those items will also be available for the subsequent CCD survey. Over time, this has meant fewer missing data cells in each state's response, reducing the need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared state summary forms are returned to the state education agencies for verification. States are also given an opportunity to revise their state-level aggregates from the previous survey cycle.

Further information on CCD may be obtained from:

John Sietsema
Elementary/Secondary and Library Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
John.Sietsema@ed.gov
http://nces.ed.gov/ccd/

Private School Universe Survey

The purposes of Private School Survey (PSS) data collection activities are to build an accurate and complete list of private schools to serve as a sampling frame for NCES sample surveys of private schools; and to report data on the total number of private schools, teachers, and students in the survey universe. The PSS is conducted every 2 years, with collections in 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, and 1999–2000 school years. The next survey will be in the 2001–02 school year.

The PSS produces data similar to that of the CCD for the public schools, and can be used for public-private comparisons. The data are useful for a variety of policy and research-relevant issues, such as the growth of religiously affiliated schools, the number of private high school graduates, the length of the school year for various private schools, and the number of private school students and teachers.

The target population for the universe survey consists of all private schools in the United States that meet NCES criteria of a school (e.g., private school is an institution which provides instruction for any of grades K through 12, has one or more teachers to give instruction, is not administered by a public agency, and is not operated in a private home). The survey universe is composed of schools identified from a

variety of sources. The main source is a list frame, initially developed for the 1989–90 PSS. The list is updated regularly, matching it with lists provided by nationwide private school associations, state departments of education, and other national guides and sources that list private schools. The other source is an area frame search in approximately 120 geographic areas, conducted by the Bureau of the Census.

Further information on PSS may be obtained from:

Steve Broughman
Elementary/Secondary and Libraries Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Stephen.Broughman@ed.gov
http://nces.ed.gov/surveys/pss/

Integrated Postsecondary Education Data System

The Integrated Postsecondary Education Data System (IPEDS) surveys approximately 10,000 postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. This survey, which began in 1986, replaced the Higher Education General Information Survey (HEGIS).

IPEDS consists of several integrated components that obtain information on who provides postsecondary education (institutions), who participates in it and completes it (students), what programs are offered and what programs are completed, and both the human and financial resources involved in the provision of institutionally based postsecondary education. Specifically, these components include: Institutional Characteristics, including instructional activity; Fall Enrollment, including age and residence; Completions; Finance; Staff; Salaries of Full-Time Instructional Faculty; and Graduation Rate.

The degree-granting institutions portion of this survey is a census of colleges awarding associate's or higher degrees and that were eligible to participate in Title IV financial aid programs. Prior to 1993, data from the technical and vocational institutions were collected through a sample survey. Beginning in 1993, all data are gathered in a census of all postsecondary institutions. The tabulations on "Institutional Characteristics" developed for this edition of the *Projections of Education Statistics* are based on lists of all institutions and are not subject to sampling errors.

The definition of institutions generally thought of as offering college and university education has been changed in recent years. The old standard for higher education institutions included those institutions that had courses that led to an associate degree or higher, or were accepted for credit towards those degrees. The higher education institutions were accredited by an agency or association that was recognized by the U.S. Department of Education or recognized directly by the Secretary of Education. The current category includes institutions which award associate or higher level degrees that are eligible to participate in Title IV federal financial aid programs. Tables that contain any data according to this standard are titled as "degree-granting" institutions. The impact of this change has generally not been large. For example, tables on faculty salaries and benefits were only affected to a very small extent. Also, degrees awarded at the bachelor's level or higher were not heavily affected. Most of the data on public 4-year colleges has been affected only to a minimal extent. The impact on enrollment in public 2-year colleges was noticeable in certain states, but relatively small at the national level. The largest impact has been on private 2-year college enrollment. Overall, enrollment for all institutions was about one-half of a percent higher for degree-granting institutions compared to the total for higher education institutions.

Prior to the establishment of IPEDS in 1986, HEGIS acquired and maintained statistical data on the characteristics and operations of institutions of higher education. Implemented in 1966, HEGIS was an annual universe survey of institutions accredited at the college level by an agency recognized by the Secretary of the U.S. Department of Education. These institutions were listed in NCES' *Education Directory, Colleges and Universities*.

HEGIS surveys solicited information concerning institutional characteristics, faculty salaries, finances, enrollment, and degrees. Since these surveys were distributed to all higher education institutions, the data presented are not subject to sampling error. However, they are subject to nonsampling error, the sources of which varied with the survey instrument. Information concerning the nonsampling error of the enrollment and degrees surveys draws extensively on the *HEGIS Post-Survey Validation Study* conducted in 1979.

Further information on IPEDS may be obtained from:

Susan Broyles
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Susan.Broyles@ed.gov
http://nces.ed.gov/ipeds/

Institutional Characteristics This survey provides the basis for the universe of institutions presented in the *Directory of Postsecondary Institutions*. The survey collects basic information necessary to classify the institutions, including control, level, and kinds of programs; information on tuition, fees, and room and board charges; and unduplicated full-year enrollment counts and instructional activity. The overall response rate was 96.6 percent for 1998.

Further information may be obtained from:

Patricia Brown
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Patricia.Brown@ed.gov
http://nces.ed.gov/ipeds/

Fall Enrollment This survey has been part of the HEGIS and IPEDS series since 1966. The enrollment survey response rate is relatively high. The 1998 overall response rate was 91.8 percent for degree-granting institutions. Major sources of nonsampling error for this survey, as identified in the 1979 report, were classification problems, the unavailability of needed data, interpretation of definitions, the survey due date, and operational errors. Of these, the classification of students appears to have been the main source of error. Institutions had problems in correctly classifying first-time freshmen and other first-time students for both full-time and part-time categories. These problems occurred most often at 2-year institutions (private and public) and private 4-year institutions. In the 1977–78 HEGIS validation studies, the classification problem led to an estimated overcount of 11,000 full-time students and an undercount of 19,000 part-time students. Although the ratio of error to the grand total was quite small (less than 1 percent), the percentage of errors was as high as 5 percent for detailed student levels and even higher at certain aggregation levels.

Beginning in fall 1986, the survey system was redesigned with the introduction of IPEDS (see above). The survey allows (in alternating years) for the collection of age and residence data.

Further information may be obtained from:

Frank Morgan
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Frank.Morgan@ed.gov
http://nces.ed.gov/ipeds/

Completions This survey was part of the HEGIS series throughout its existence. However, the degree classification taxonomy was revised in 1970–71, 1982–83, and 1991–92. Collection of degree data has been maintained through the IPEDS system.

Though information from survey years 1970–71 through 1981–82 is directly comparable, care must be taken if information before or after that period is included in any comparison. The "Degrees-conferred" trend tables arranged by the 1991–92 classification are included in the *Projections of Education Statistics* to provide consistent data from 1970–71 to the most recent year. Data in this edition on associate's and other formal awards below the baccalaureate level, by field of study, cannot be made comparable with figures prior to 1982–83. The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. Historically, the return rate has been high, with the degree-granting institutions response rate for the 1999–2000 survey at 96.7 percent. Because of the high return rate for degree-granting institutions, nonsampling error caused by imputation is also minimal. The overall response rate that includes the non-degree granting institutions was 84.4 percent in 1999–2000.

The major sources of nonsampling error for this survey were differences between the NCES program taxonomy and taxonomies used by the colleges, classification of double majors, operational problems, and survey timing. In the 1979 HEGIS validation study, these sources of nonsampling error contributed to an error rate of 0.3 percent overreporting of bachelor's degrees and 1.3 percent overreporting of master's degrees. The differences, however, varied greatly among fields. Over 50 percent of the fields selected for the validation study had no errors identified. Categories of fields that had large differences were business and management, education, engineering, letters, and psychology. It was also shown that differences in proportion to the published figures were less than 1 percent for most of the selected fields that had some errors. Exceptions to these were: master's and Ph.D. programs in labor and industrial relations (20 percent and 8 percent); bachelor's and master's programs in art education (3 percent and 4 percent); bachelor's and Ph.D. programs in business and

commerce, and in distributive education (5 percent and 9 percent); master's programs in philosophy (8 percent); and Ph.D. programs in psychology (11 percent).

Further information on IPEDS Completions surveys may be obtained from:

Frank Morgan
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Frank.Morgan@ed.gov
http://nces.ed.gov/ipeds/

Bureau of the Census

Current Population Survey

Current estimates of school enrollment rates, as well as social and economic characteristics of students, are based on data collected in the Census Bureau's monthly household survey of about 50,000 dwelling units. The monthly Current Population Survey (CPS) sample consists of 729 areas comprising 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. The samples are initially selected based on the decennial census files and are periodically updated to reflect new housing construction.

The monthly CPS deals primarily with labor force data for the civilian noninstitutional population (i.e., excluding military personnel and their families living on post and inmates of institutions). In addition, in October of each year, supplemental questions are asked about highest grade completed, level and grade of current enrollment, attendance status, number and type of courses, degree or certificate objective, and type of organization offering instruction for each member of the household. In March of each year, supplemental questions on income are asked. The responses to these questions are combined with answers to two questions on educational attainment: highest grade of school ever attended, and whether that grade was completed.

The estimation procedure employed for monthly CPS data involves inflating weighted sample results to independent estimates of characteristics of the civilian noninstitutional population in the United States by age, sex, and race. These independent estimates are based on statistics from decennial censuses; statistics on births, deaths, immigration, and emigration; and statistics on the population in the armed services. Generalized standard error tables are provided in the *Current Population Reports*. The data are subject to both nonsampling and sampling errors.

Further information on CPS may be obtained from:

Education and Social Stratification Branch
Population Division
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
http://www.bls.census.gov/cps/cpsmain.htm

School Enrollment Each October, the Current Population Survey (CPS) includes supplemental questions on the enrollment status of the population 3 years old and over, in addition to the monthly basic survey on labor force participation. The main sources of nonsampling variability in the responses to the supplement are those inherent in the survey instrument. The question of current enrollment may not be answered accurately for various reasons. Some respondents may not know current grade information for every student in the household, a problem especially for households with members in college or in nursery school. Confusion over college credits or hours taken by a student may make it difficult to determine the year in which the student is enrolled. Problems may occur with the definition of nursery school (a group or class organized to provide educational experiences for children), where respondents' interpretations of "educational experiences" vary.

The 2000 CPS sample was selected from the 1990 Decennial Census files with coverage in all 50 states and the District of Columbia. The sample is continually updated to account for new residential construction. The United States was divided into 2,007 geographic areas. In most states, a geographic area consists of a county or several contiguous counties. In some areas of New England and Hawaii, minor civil divisions are used instead of counties. A total of 754 geographic areas were selected for the sample. About 50,000 occupied households are eligible for interview every month. Interviewers are unable to obtain interviews at about 3,200 of these units. This occurs when the occupants are not found at home after repeated calls or are unavailable for some other reason. For the October 2000 basic CPS, the nonresponse rate was 6.8 percent. For the school enrollment supplement, the nonresponse rate was an additional 3.1 percent for a total school supplement nonresponse rate of 9.7 percent.

Further information on CPS "School Enrollment"

may be obtained from:

Education and Social Stratification Branch
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
http://www.census.gov/population/www/socdemo/school.html

State population projections. These state population projections were prepared using a cohort-component method by which each component of population change—births, deaths, state-to-state migration flows, international in-migration, and international out-migration—was projected separately for each birth cohort by sex, race, and Hispanic origin. The basic framework was the same as in past Census Bureau projections.

Detailed components necessary to create the projections were obtained from vital statistics, administrative records, census data, and national projections.

The cohort-component method is based on the traditional demographic accounting system:

$P_1 = P_0 + B - D + DIM - DOM + IIM - IOM$

where:

P_1 = population at the end of the period

P_0 = population at the beginning of the period

B = births during the period

D = deaths during the period

DIM = domestic in-migration during the period

DOM = domestic out-migration during the period

IIM = international in-migration during the period

IOM = international out-migration during the period

To generate population projections with this model, the Census Bureau created separate data sets for each of these components. In general, the assumptions concerning the future levels of fertility, mortality, and international migration are consistent with the assumptions developed for the national population projections of the Census Bureau.

Once the data for each component were developed, it was a relatively straightforward process to apply the cohort-component method and produce the projections. For each projection year the base population for each state was disaggregated into eight race and Hispanic categories (non-Hispanic White; non-Hispanic Black; non-Hispanic American Indian, Eskimo, and Aleut; non-Hispanic Asian and Pacific Islander; Hispanic white; Hispanic black; Hispanic American Indian, Eskimo, and Aleut; and Hispanic Asian and Pacific Islander), by sex, and single year of age (ages 0 to 85+). The next step was to survive each age-sex-race-ethnic group forward 1 year using the pertinent survival rate. The internal redistribution of the population was accomplished by applying the appropriate state-to-state migration rates to the survived population in each state. The projected out-migrants were subtracted from the state of origin and added to the state of destination (as in-migrants). Next, the appropriate number of immigrants from abroad was added to each group. The population under age 1 was created by applying the appropriate age-race-ethnic-specific birth rates to females of childbearing age. The number of births by sex and race/ethnicity were survived forward and exposed to the appropriate migration rate to yield the population under age 1. The final results of the projection process were adjusted to be consistent with the national population projections by single years of age, sex, race, and Hispanic origin. The entire process was then repeated for each year of the projection.

More information is available in the Census Bureau Population Paper Listing 47 (PPL-47) and Current Population Report P25-1130. These reports may be obtained from:

Statistical Information Staff
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
(301) 763-3030
http://www.census.gov

National population projections. The method used to produce projections of the United States population for future reference dates from a current base population reflects three fundamental principles. First, the projections are demographic. Future populations are derived from a base population through the projection of population change by its major demographic components, births, deaths, and migration. Second, the projection of the demographic components of change is driven by the composition of the population by age, sex, race, Hispanic origin, and nativity, and the way these variables determine the propensity to bear children, die, migrate to or from the United States. Third, the definition of the population with respect to who is included and the characteristics

of included people remains the same throughout the projection period. We refer to these definitions collectively throughout the work as the "population universe." This concept embraces such issues as the inclusion or exclusion of people uncounted by a census, the rule defining residency in the United States, and the way we classify people by age, race, and Hispanic origin.

For more information, see "Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100," Population Division Working Paper No. 38. This report is available on the Internet at http://www.census.gov.

Other Sources

DRI•WEFA, Inc.

DRI•WEFA Inc. provides an information system that includes more than 125 databases: simulation and planning models; regular publications and special studies; data retrieval and management systems; and access to experts on economic, financial, industrial, and market activities. One service is the DRI U.S. Annual Model Forecast Data Bank, which contains annual projections of the U.S. economic and financial conditions, including forecasts for the federal government, incomes, population, prices and wages, and state and local governments, over a long-term (10 to 25-year) forecast period.

Additional information is available from:

DRI•WEFA, Inc.
24 Hartwell Avenue
Lexington, MA 02421-3158

Appendix D

Glossary

Data Terms

Associate's degree: A degree granted for the successful completion of a subbaccalaureate program of studies, usually requiring at least 2 years (or the equivalent) of full-time college-level study. This term includes degrees granted in a cooperative or work-study program.

Average daily attendance (ADA): The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered as days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Bachelor's degree: A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or the equivalent) of full-time college-level study. This term includes degrees granted in a cooperative or work-study program.

Cohort: A group of individuals that have a statistical factor in common, for example, year of birth.

College: A postsecondary school that offers a general or liberal arts education, usually leading to an associate, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included in this term.

Current Population Survey: See Appendix C, Data Sources.

Degree-granting institutions: Postsecondary institutions that are eligible for Title IV federal financial aid programs and that grant an associate's or higher degree. For an institution to be eligible to participate in Title IV financial aid programs it must offer a program of at least 300 clock hours in length, have accreditation recognized by the U.S. Department of Education, have been in business for at least 2 years, and have signed a participation agreement with the Department.

Disposable income: Current income received by persons less their contributions for social insurance, personal tax, and nontax payments. It is the income available to persons for spending and saving. Nontax payments include passport fees, fines and penalties, donations, and tuitions and fees paid to schools and hospitals operated mainly by the government. See also *personal income*.

Doctor's degree: An earned degree carrying the title of doctor. The Doctor of Philosophy degree (Ph.D.) is the highest academic degree and requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctorates are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.), musical arts (D.M.A.), business administration (D.B.A.), and engineering (D.Eng. or D.E.S.). Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary and secondary schools: As used in this publication, includes only regular schools, that is, schools that are part of state and local school systems and also most private elementary and secondary schools, both religiously affiliated and nonsectarian. Schools not included in this term are

subcollegiate departments of institutions of higher education, American residential schools for exceptional children, federal schools for Indians, and federal schools on military posts and other federal installations.

Enrollment: The number of students registered in a given school unit at a given time, generally in the fall of a year.

First-professional degree: A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 academic years of work to complete the degree program, including both prior required college work and the professional program itself. By NCES definition, first-professional degrees are awarded in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatry (D.P.M.), veterinary medicine (D.V.M.), chiropractic (D.C. or D.C.M.), law (LL.B. or J.D.), and theological professions (M.Div. or M.H.L.).

First-professional enrollment: The number of students enrolled in a professional school or program that requires at least 2 years of academic college work for entrance and a total of at least 6 years for a degree. By NCES definition, first-professional enrollment includes only students in certain programs. (See *first-professional degree* for a list of programs.)

Full-time enrollment: The number of students enrolled in higher education courses with total credit load equal to at least 75 percent of the normal full-time course load.

Full-time-equivalent (FTE) enrollment: For institutions of higher education, enrollment of full-time students, plus the full-time equivalent of part-time students as reported by institutions. In the absence of an equivalent reported by an institution, the FTE enrollment is estimated by adding one-third of part-time enrollment to full-time enrollment.

Full-time worker: In educational institutions, an employee whose position requires being on the job on school days throughout the school year at least the number of hours the schools are in session; for higher education, a member of an educational institution's staff who is employed full time.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

Graduate enrollment: The number of students who hold the bachelor's or first-professional degree, or the equivalent, and who are working toward a master's or doctor's degree. First-professional students are counted separately. These enrollment data measure those students who are registered at a particular time during the fall. At some institutions, graduate enrollment also includes students who are in postbaccalaureate classes but not in degree programs.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, and 12 (in a 6-3-3 plan), or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

Higher education: Study beyond secondary school at an institution that offers programs terminating in an associate, baccalaureate, or higher degree.

Higher education institutions (traditional classifications):

> **4-year institution:** An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a bachelor's degree. A university is a postsecondary institution that typically includes one or more graduate professional schools.
>
> **2-year institution:** An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate degree or is principally creditable toward a baccalaureate.

See also *degree-granting institutions* and *postsecondary education*.

Master's degree: A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the Master of Arts degree (M.A.) and the Master of Science degree (M.S.), is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an

M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, or an M.P.A. in public administration. A third type of master's degree is awarded in professional fields for study beyond the first-professional degree, for example, the Master of Laws (LL.M.) and Master of Science in various medical specializations.

Part-time enrollment: The number of students enrolled in higher education courses with a total credit load of less than 75 percent of the normal full-time credit load.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits, military pensions, and so forth, but excludes transfers among persons.

Postbaccalaureate enrollment: The number of graduate and first-professional students working toward advanced degrees and students enrolled in graduate-level classes but not enrolled in degree programs. See also *graduate enrollment* and *first-professional enrollment*.

Postsecondary education: The provision of formal instructional programs with a curriculum designed primarily for students who have completed the requirements for a high school diploma or equivalent. This includes programs of an academic, vocational, and continuing professional education purpose, and excludes avocational and adult basic education programs.

Private institution: A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government; that is usually supported primarily by other than public funds; and the operation of whose program rests with other than publicly elected or appointed officials.

Public school or institution: A school or institution controlled and operated by publicly elected or appointed officials and generally deriving its primary support from public funds.

School: A division of the school system consisting of students in one or more grades or other identifiable groups and organized to give instruction of a defined type. One school may share a building with another school or one school may be housed in several buildings.

Secondary instructional level: The general level of instruction provided for pupils in secondary schools (generally covering grades 7 through 12 or 9 through 12) and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance.

Secondary school: A school including any span of grades beginning with the next grade following an elementary or middle school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Senior high school: A secondary school offering the final years of high school work necessary for graduation.

Student: An individual for whom instruction is provided in an educational program under the jurisdiction of a school, school system, or other educational institution. No distinction is made between the terms "student" and "pupil," although "student" may refer to one receiving instruction at any level while "pupil" refers only to one attending school at the elementary or secondary level. The term "student" is used to include individuals at all instructional levels. A student may receive instruction in a school facility or in another location, such as at home or in a hospital. Instruction may be provided by direct student-teacher interaction or by some other approved medium, such as television, radio, telephone, or correspondence.

Unclassified students: Students who are not candidates for a degree or other formal award, although they are taking higher education courses for credit in regular classes with other students.

Undergraduate students: Students registered at an institution of higher education who are working in a program leading to a baccalaureate or other formal award below the baccalaureate, such as an associate’s degree.

Statistical Terms

Autocorrelation: Correlation of the error terms from different observations of the same variable. Also called *serial correlation*.

Degrees of freedom: The number of free or linearly independent sample observations used in the calculation of a statistic. In a time series regression with t time period and k independent variables including a constant term, there would be t minus k degrees of freedom.

Dependent variable: A mathematical variable whose value is determined by that of one or more other variables in a function. In regression analysis, when a random variable, y, is expressed as a function of variables x_1, x_2,..., plus a stochastic term, then y is known as the "dependent variable."

Double exponential smoothing: A method that takes a single smoothed average component of demand and smoothes it a second time to allow for estimation of a trend effect.

Durbin-Watson statistic: A statistic testing the independence of errors in least squares regression against the alternative of first-order serial correlation. The statistic is a simple linear transformation of the first-order serial correlation of residuals and, although its distribution is unknown, it is tested by bounding statistics that follow R. L. Anderson's distribution.

Econometrics: The quantitative examination of economic trends and relationships using statistical techniques, and the development, examination, and refinement of those techniques.

Estimate: A numerical value obtained from a statistical sample and assigned to a population parameter. The particular value yielded by an estimator in a given set of circumstances or the rule by which such particular values are calculated.

Estimating equation: An equation involving observed quantities and an unknown that serves to estimate the latter.

Estimation: Estimation is concerned with inference about the numerical value of unknown population values from incomplete data, such as a sample. If a single figure is calculated for each unknown parameter, the process is called point estimation. If an interval is calculated within which the parameter is likely, in some sense, to lie, the process is called interval estimation.

Exogenous variable: Variables for which the values are determined outside the model but which influence the model.

Exponential smoothing: A method used in time series to smooth or to predict a series. There are various forms, but all are based on the supposition that more remote history has less importance than more recent history.

First-order serial correlation: When errors in one time period are correlated directly with errors in the ensuing time period. Also called *autocorrelation*.

Forecast: An estimate of the future based on rational study and analysis of available pertinent data, as opposed to subjective prediction.

Forecast horizon: The number of time periods into the future which are forecasted. Forecasts for next year are said to have a 1-year forecast horizon.

Forecasting: Assessing the magnitude which a quantity will assume at some future point in time, as distinct from "estimation," which attempts to assess the magnitude of an already existent quantity.

Function: A mathematical correspondence that assigns exactly one element of one set to each element of the same or another set. A variable that depends on and varies with another.

Functional form: A mathematical statement of the relationship among the variables in a model.

Independent variable: In regression analysis, when a random variable, y, is expressed as a function of variables x_1, x_2,..., plus a stochastic term, the x's are known as "independent variables."

Interpolation: See *linear interpolation*.

Linear interpolation: A method that allows the prediction of an unknown value if any two particular values on the same scale are known and the rate of change is assumed constant.

Lag: An event occurring at time $t + k$ ($k > 0$) is said to lag behind an event occurring at time t, the extent of the lag being k. An event occurring k time periods before another may be regarded as having a negative lag.

Maximum likelihood estimation: A method of estimating a parameter or parameters of a population by that value (or values) that maximizes (or maximize) the likelihood of a sample.

Mean absolute percentage error (MAPE): The average value of the absolute value of errors expressed in percentage terms.

Model: A system of postulates, data, and inferences presented as a mathematical description of a phenomenon such as an actual system or process. The actual phenomenon is represented by the model in order to explain it, to predict it, and to control it.

Ordinary least squares (OLS): The estimator that minimizes the sum of squared residuals.

Parameter: A quantity that describes a statistical population.

Projection: In relation to a time series, an estimate of future values based on a current trend.

R^2: The coefficient of determination; the square of the correlation coefficient between the dependent variable and its OLS estimate.

$\bar{R}^2$ (also called the adjusted R^2): The coefficient of determination adjusted for the degrees of freedom.

Regression analysis: A statistical technique for investigating and modeling the relationship between variables.

Rho: A measure of the correlation coefficient between errors in time period t and time period t minus 1.

Serial correlation: Correlation of the error terms from different observations of the same variable. Also called *autocorrelation*.

Standard error of estimate: An expression for the standard deviation of the observed values about a regression line. An estimate of the variation likely to be encountered in making predictions from the regression equation.

Time series: A set of ordered observations on a quantitative characteristic of an individual or collective phenomenon taken at different points in time. Usually the observations are successive and equally spaced in time.

Time series analysis: The branch of quantitative forecasting in which data for one variable are examined for patterns of trend, seasonality, and cycle.

Variable: A quantity that may assume any one of a set of values.