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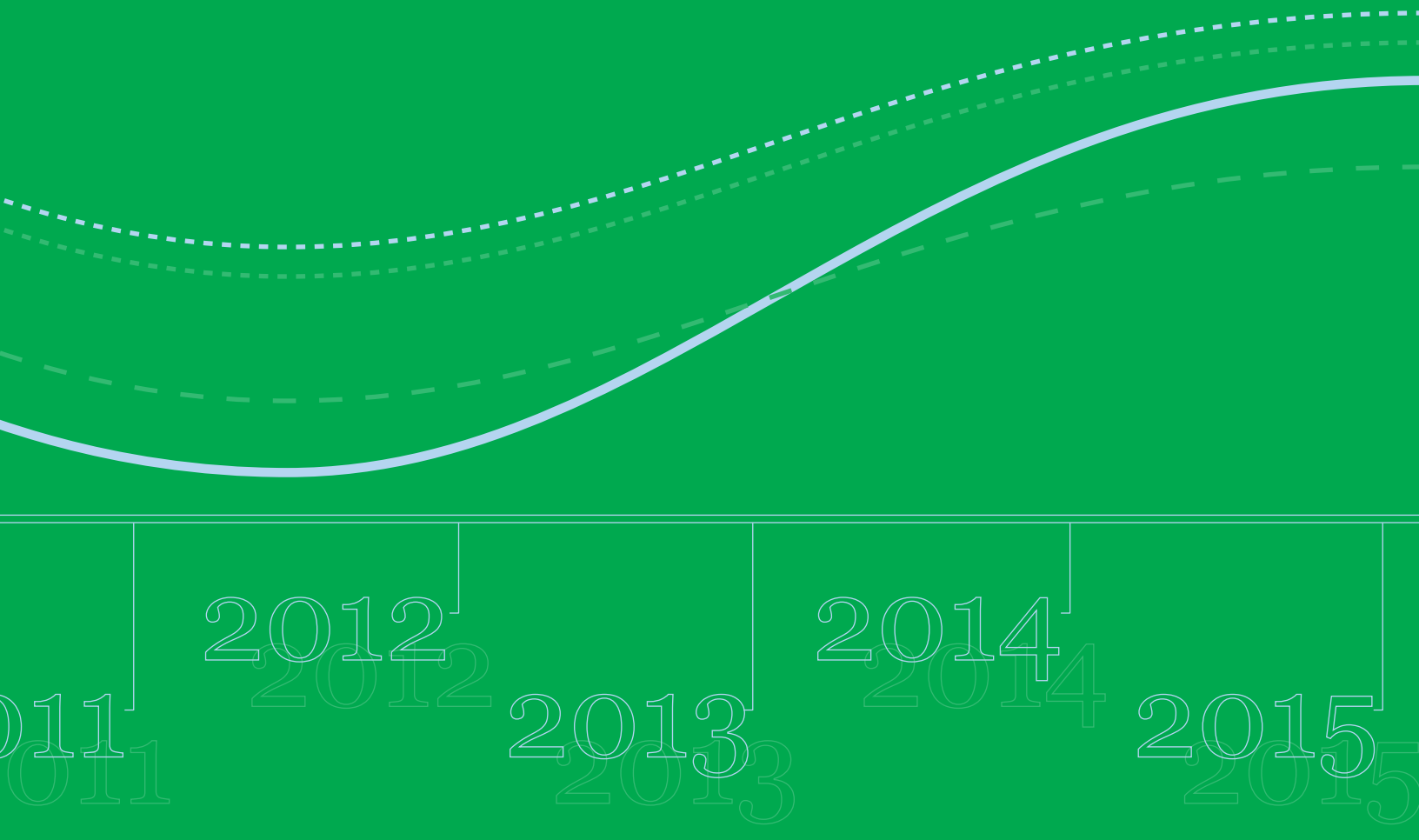
NCES 2006–084

Projections of Education Statistics to 2015

Thirty-fourth Edition



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September 2006

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Foreword

Projections of Education Statistics to 2015 is the 34th report in a series begun in 1964. This report provides revisions of projections shown in *Projections of Education Statistics to 2014*. It includes statistics on elementary and secondary schools and degree-granting institutions. Included are projections of enrollment, graduates, teachers, and expenditures to the year 2015. In addition to projections at the national level, the report includes projections of public elementary and secondary school enrollment and public high school graduates to the year 2015 at the state level.

The projections in this report 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.

This is the first edition of the Projections of Education Statistics to include projections of enrollment at degree-granting institutions by race/ethnicity. Unlike the last two editions of this series, this edition does not contain projections for expenditures at degree-granting institutions. Due to the changes in the accounting standards used to report financial data for both public and private institutions over the last ten years, there are not yet enough data to produce projections.

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

Appendix A of this report outlines the projection methodology, describing the 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 Global Insight, Inc., an economic forecasting service.

The projections presented in this report are based on the 2000 census and 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 projections) in each table is deemed to represent the most likely projections, the low and high alternatives provide a range of outcomes.

Val Plisko, Associate Commissioner
Early Childhood, International, and
Crosscutting Studies Division

September 2006

Acknowledgments

Projections of Education Statistics to 2015 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 William J. Hussar of NCES and Tabitha M. Bailey of Global Insight, Inc. They were supported by Maria Kulikova and Oreoluwa Alao of Global Insight, Inc.

Many people have contributed to the development of the *Projections of Education Statistics to 2015*. Michael Stock of MacroSys Research and Technology and Heather Block, Michael Rollins, and Mary Ann Fox of the American Institutes for Research (AIR) coordinated the production and design. The cover was designed by Kalle Medhurst of MacroSys Research and Technology.

The technical review was done by Bruce Taylor. Monika Arntz, LaTisha Jones, Akemi Kinukawa, Stephen Mistler, Aparna Sundaram, and Zeyu Xu assisted in the technical review of this report. Valuable assistance was also provided by the following reviewers: Frank Johnson, Paula Knepper, Frank Morgan, and Lisa Bridges.

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List of Abbreviations

ADA	average daily attendance
BLS	Bureau of Labor Statistics
CCD	Common Core of Data
CPI	Consumer Price Index
EDMOD	Education Forecasting Model
FTE	full-time-equivalent
IPEDS	Integrated Postsecondary Education Data System
MAPE	mean absolute percentage error
NCES	National Center for Education Statistics

About This Report

Guide to This Edition

This edition of *Projections of Education Statistics* provides projections for key education statistics, including enrollment, graduates, teachers, and expenditures in elementary and secondary schools and degree-granting institutions. Included are national data on enrollment and graduates for the past 15 years and projections to the year 2015, as well as state-level data on enrollment in public elementary and secondary schools and public high school graduates to the year 2015. This is the first edition of *Projections* to include projections of enrollments in degree-granting institutions by race/ethnicity.

State-level data on enrollment and graduates in private schools are not included. Further research and model development are needed to develop reliable projections of private school enrollment and graduates by state. Projections also exclude the number of students who are homeschooled because national data are available for a limited time period.

Similar methodologies were used to obtain a uniform set of projections for each of 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 contained in this report.

The summary of projections provides highlights of the national and state data, while the reference tables and figures present more detail. While rounded numbers are presented in the tables, percentages are based on unrounded numbers.

Appendix A describes the methodology and assumptions used to develop the projections, appendix B presents supplementary tables, appendix C describes data sources, and 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, such as the properties of the 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 author 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 PK–12 for lead times of 1, 2, 5, and 10 years were 0.3, 0.5, 1.2, and 2.5 percent, respectively. In contrast, mean absolute percentage errors for bachelor's degrees for lead times of 1, 2, 5, and 10 years were 0.9, 2.0, 5.7, and 9.7 percent, respectively. For more information on mean absolute percentage errors, see table A-2 in appendix A.

Alternative projections are presented for enrollment in degree-granting institutions, earned degrees conferred, elementary and secondary teachers, and expenditures of public educational institutions.

Summary of Projections

Section 1. Elementary and Secondary Enrollment

Introduction

Total public and private elementary and secondary school enrollment reached a record 55 million in fall 2003, representing an 18 percent increase since fall 1990. Between 2003 and 2015, a further increase of 6 percent is expected, with increases projected in both public and private schools. Increases are expected in the South and West, and decreases are expected in the Northeast and Midwest.

Factors affecting the projections

The projected changes in enrollment reflect factors such as internal migration, legal and illegal immigration, the relatively high level of births in the 1990s, and resultant changes in the population (reference figure 1), rather than changes in attendance rates.

Factors that were not considered

The projections do not assume changes in policies or attitudes that may affect enrollment levels. For example, they do not account for changing state and local policies on prekindergarten and kindergarten programs. Expansion of these programs could lead to higher enrollments at the elementary school level. Projections also exclude the number of students who are homeschooled because national data are available for only a limited time period.

National

After increasing by about one-fifth between 1990 and 2003, elementary and secondary enrollments in both public and private schools are expected to increase at slower rates between 2003 and 2015. Small enrollment increases are expected at both the PK–8 and 9–12 grade spans (figures A and B; reference figures 2 and 3 and table 1).

Total enrollment

Total elementary and secondary enrollment

- increased 18 percent between 1990 and 2003; and
- is projected to increase an additional 6 percent between 2003 and 2015.

Enrollment in grades PK–8

Enrollment in prekindergarten through grade 8

- increased 16 percent between 1990 and 2003; and
- is projected to increase an additional 7 percent between 2003 and 2015.

Enrollment in grades 9–12

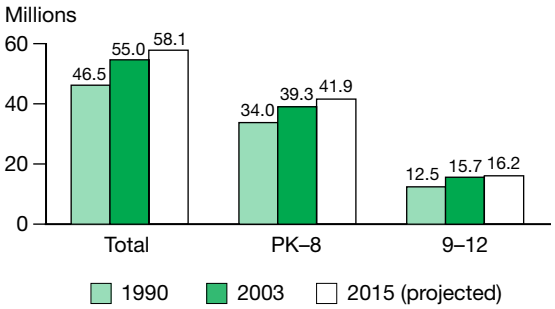
Enrollment in grades 9–12

- increased 26 percent between 1990 and 2003; and
- is projected to increase an additional 3 percent between 2003 and 2015.

The grade progression rate method

The method used to project school enrollments assumes that future trends in factors affecting enrollments will be consistent with past patterns. It implicitly includes the net effect of factors such as dropouts, deaths, nonpromotion, and transfers to and from public schools. See appendix A for more details.

Figure A. Actual and projected numbers for elementary and secondary enrollment, total and by grade level: Selected years, 1990–2015



NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe Survey, various years; and National Elementary and Secondary School Enrollment Model. (See reference table 1.)

Public elementary and secondary enrollment

Enrollment in public elementary and secondary schools

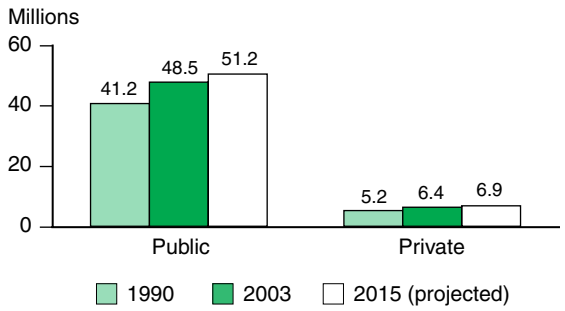
- increased 18 percent between 1990 and 2003; and
- is projected to increase an additional 6 percent between 2003 and 2015.

Private elementary and secondary enrollment

Enrollment in private elementary and secondary schools

- increased 23 percent between 1990 and 2003; and
- is projected to increase an additional 7 percent between 2003 and 2015.

Figure B. Actual and projected numbers for elementary and secondary enrollment, by control of school: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe Survey, various years; and National Elementary and Secondary School Enrollment Model. (See reference table 1.)

State and Regional (Public School Data)

Between 2003 and 2015, enrollment in public elementary and secondary schools is expected to increase in 32 states and decrease in 18 states and the District of Columbia (tables A and B; reference figures 5–7 and tables 4–9). In the regions, public school enrollment during the same period is expected to increase in the South and West, and decrease in the Northeast and Midwest.

States

The expected 6 percent national increase in public school enrollment between 2003 and 2015 plays out differently for most states.

- Increases are projected for 32 states, with
  - increases of more than 15 percent projected for 7 states;
  - increases between 5 and 15 percent projected for 8 states; and
  - increases of less than 5 percent projected for 17 states.

Table A. Projected percent increases in public elementary and secondary school enrollment, by state: 2003 through 2015

State	Percent increase	State	Percent increase
Nevada	35.7	Alaska	4.8
Arizona	31.8	Nebraska	4.1
Texas	22.6	Oregon	3.2
Georgia	19.0	California	2.9
Idaho	17.9	Minnesota	2.7
Utah	17.4	Oklahoma	2.7
Florida	16.9	Kentucky	2.6
North Carolina	14.7	Indiana	2.3
Colorado	12.7	Missouri	2.3
Delaware	11.0	New Jersey	2.1
Hawaii	10.6	Mississippi	1.2
Virginia	9.9	Iowa	1.2
Tennessee	8.1	Louisiana	1.0
Arkansas	6.4	Illinois	0.3
Maryland	5.3	Washington	0.2
South Carolina	4.9	Kansas	#

#Rounds to zero.
SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (See reference table 5.)

- Decreases are projected for 18 states and the District of Columbia, with
  - decreases of 5 percent or more projected for 7 states and the District of Columbia; and
  - decreases between 4.99 and 0.1 percent projected for 11 states.

Regions

Between 2003 and 2015, public elementary and secondary enrollment is projected to

- increase 13 percent in the South;
- increase 8 percent in the West;
- decrease 1 percent in the Midwest; and
- decrease 5 percent in the Northeast.

Table B. Projected percent decreases in public elementary and secondary school enrollment, by state: 2003 through 2015

State	Percent decrease	State	Percent decrease
Vermont	-12.8	West Virginia	-3.8
North Dakota	-12.6	Wyoming	-3.8
District of Columbia	-8.7	Ohio	-3.6
New York	-7.9	New Hampshire	-3.6
Maine	-6.3	South Dakota	-1.3
Pennsylvania	-5.7	Montana	-1.2
Connecticut	-5.3	Alabama	-0.6
Rhode Island	-5.1	Wisconsin	-0.4
Massachusetts	-4.1	New Mexico	-0.3
Michigan	-4.0		

SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (See reference table 5.)

Accuracy of Projections

An analysis of projection errors from the past 21 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 PK–12 were 0.3, 0.5, 1.2, and 2.5 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.3 percent of the actual value, on average. For projections of public school enrollment in grades PK–8, the MAPEs for lead times of 1, 2, 5, and 10 years out were 0.4, 0.6, 1.2, and 3.5 percent, respectively, while the MAPEs for projections of public school enrollment in grades 9–12 were 0.4, 0.7, 1.3, and 2.3 percent, respectively, for the same lead times.

Projections of public elementary and secondary enrollment produced by the National Center for Education Statistics (NCES) over the last 22 years have been more accurate than projections of public high school graduates produced by NCES over the same period. For more information, see table A-2 in appendix A.

Section 2. Enrollment in Degree-Granting Institutions

Introduction

Total enrollment in degree-granting institutions is expected to increase between 2004 and 2015. Degree-granting institutions provide study beyond secondary school and offer programs terminating in an associate's, baccalaureate, or higher degree. Differential growth is expected by student characteristics such as age, sex, and attendance status (part-time or full-time). Enrollment is expected to increase in both public and private degree-granting institutions.

Factors affecting the projections

Changes in age-specific enrollment rates and college-age populations will affect enrollment levels between 2004 and 2015. The most important factor is the expected increase in the traditional college-age population of 18- to 24-year-olds.

Factors that were not considered

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. The racial/ethnic backgrounds of nonresident aliens are not known.

Three alternative sets of projections

Middle, low, and high sets of projections were made for total enrollment in degree-granting institutions and for enrollment by age, sex, attendance status, level (undergraduate, graduate, or first-professional), and control of institution.

Assumptions underlying the projections

The middle alternative uses a base-line scenario of the economy for projections of disposable income and unemployment rates. The low and high alternatives are based on the low and high scenarios of the economy, respectively, to provide other possible outcomes. For more information, see appendix A.

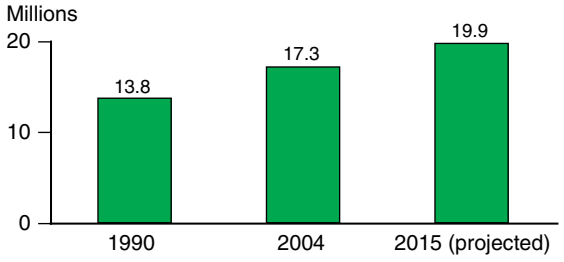
Total Enrollment

Total enrollment in degree-granting institutions increased 25 percent from 1990 to 2004 (figure C; reference figure 10 and table 10).

Between 2004 and 2015, total enrollment is projected to increase

- 15 percent, to 19.9 million, in the middle alternative projections;
- 13 percent, to 19.5 million, in the low alternative projections; and
- 18 percent, to 20.3 million, in the high alternative projections.

Figure C. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; and Enrollment in Degree-Granting Institutions Model. (See reference table 10.)

Enrollment by Selected Characteristics and Control of Institution

Enrollment by age of student

Between 2004 and 2015, in the middle alternative projections, enrollment (figure D; reference figures 11–13 and tables 11–13) is projected to increase

- 13 percent for students who are 18 to 24 years old; and
- 7 percent for students who are 35 years old and over.

Enrollment by sex of student

Between 2004 and 2015, in the middle alternative projections, enrollment (figure D; reference figure 14 and tables 10–21) is projected to increase

- 10 percent for men; and
- 18 percent for women.

Enrollment by attendance status

Between 2004 and 2015, in the middle alternative projections, enrollment (figure D; reference figure 15 and tables 10–21) is projected to increase

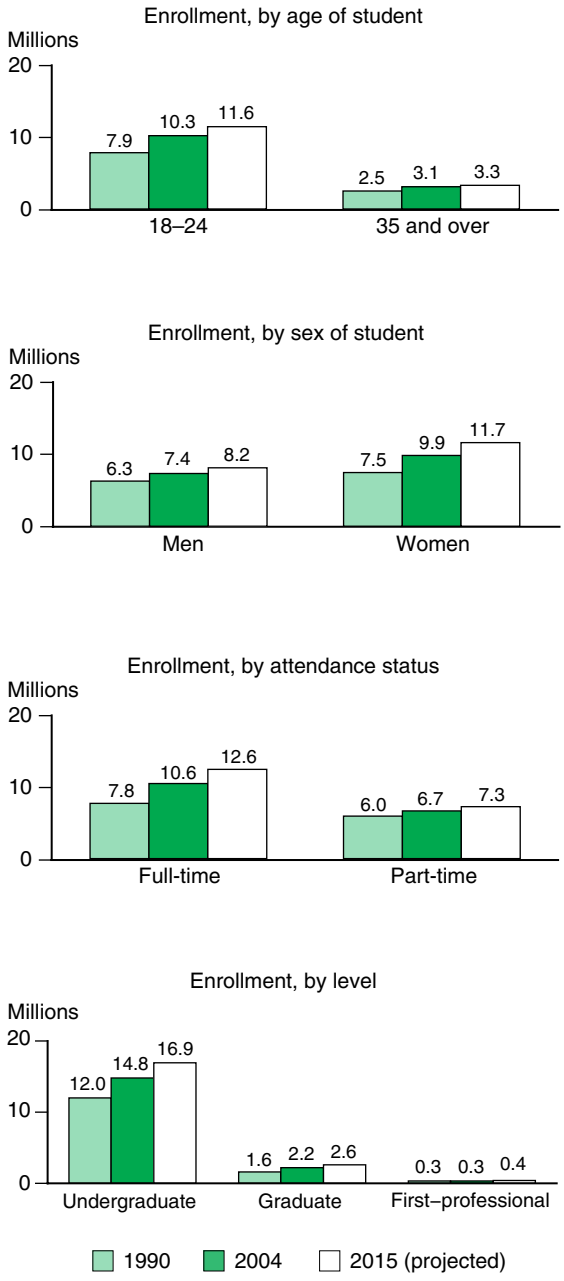
- 18 percent for full-time students; and
- 10 percent for part-time students.

Enrollment by level

Between 2004 and 2015, in the middle alternative projections, enrollment (figure D; reference figures 18 and 19 and tables 19–21) is projected to increase

- 14 percent for undergraduate students;
- 19 percent for graduate students; and
- 31 percent for first-professional students (see page 14 for a definition of first-professional).

Figure D. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions, by selected characteristics: Selected years, 1990–2015



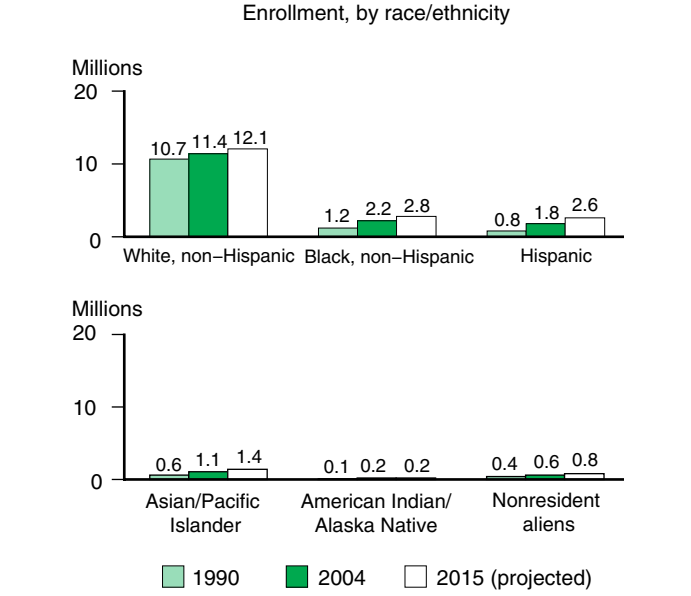
See notes at end of figure (on next page).

Enrollment by race/ethnicity

Between 2004 and 2015, enrollment (figure D, reference figure 20 and table 22) is projected to increase

- 6 percent for students who are White, non-Hispanic;
- 27 percent for students who are Black, non-Hispanic;
- 42 percent for students who are Hispanic;
- 28 percent for students who are Asian or Pacific Islanders;
- 30 percent for students who are American Indian or Alaska Native; and
- 34 percent for students who are nonresident aliens.

Figure D. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions, by selected characteristics: Selected years, 1990–2015 —Continued



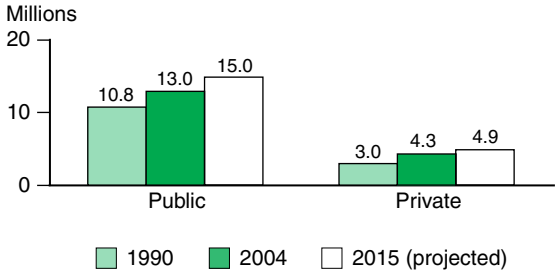
SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; and Enrollment in Degree-Granting Institutions Model. (See reference tables 10 and 22.)

Enrollment in public and private institutions

Between 2004 and 2015, in the middle alternative projections, enrollment (figure E; reference figure 16 and tables 10 and 15–22) is projected to increase

- 15 percent in public institutions; and
- 14 percent in private institutions.

Figure E. Actual and middle alternative projected numbers for total enrollment in degree-granting institutions, by control of institution: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Fall Enrollment Survey," various years; and Enrollment in Degree-Granting Institutions Model. (See reference table 10.)

Accuracy of Projections

For projections of total enrollment in degree-granting institutions, an analysis of projection errors based on the past seven editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, and 5 years out were 1.5, 2.4, and 4.6 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 1.5 percent of the actual value, on average.

NCES projections of college enrollment produced over the past 8 years have been more accurate than projections of master's degrees but less accurate than projections of public elementary and secondary enrollment produced over the same period. For more information, see table A-2 in appendix A.

Section 3. High School Graduates

Introduction

Between 2002–03 and 2015–16, the number of high school graduates is projected to increase nationally by 6 percent. Increases are expected in the West and South and decreases are expected in the Northeast and Midwest. Both public and private schools are expected to have increases in high school graduates.

Factors affecting the projections

Projected increases in the number of graduates reflect changes in the 18-year-old population over the projection period, rather than changes in the graduation rates of 12th-graders. However, projections of graduates could be impacted by changes in policies affecting graduation requirements.

Definition

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 study. This definition does not include other high school completers or high school equivalency recipients.

National

Total number of high school graduates

The total number of high school graduates (figure F; reference figure 22 and table 24)

- increased 21 percent between 1990–91 and 2002–03; and
- is projected to increase an additional 6 percent between 2002–03 and 2015–16.

Public high school graduates

The number of public high school graduates

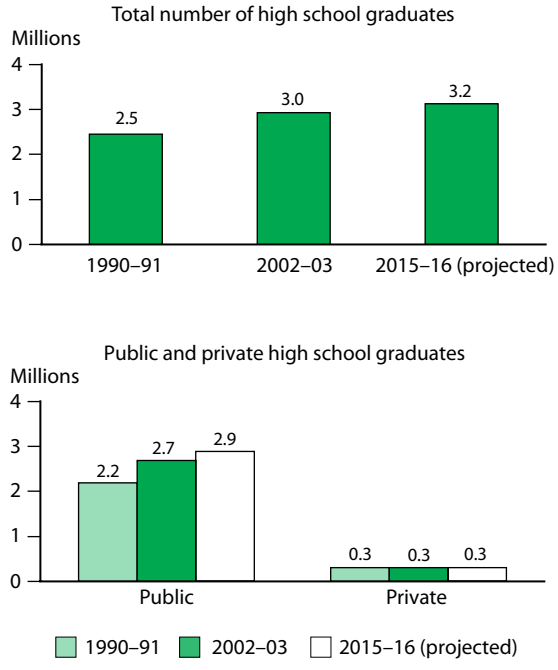
- increased 22 percent between 1990–91 and 2002–03; and
- is projected to increase an additional 5 percent between 2002–03 and 2015–16.

Private high school graduates

The number of private high school graduates

- increased 14 percent between 1990–91 and 2002–03; and
- is projected to increase an additional 8 percent between 2002–03 and 2015–16.

Figure F. Actual and projected numbers for high school graduates, total and by control of school: Selected years, 1990–91 to 2015–16



SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe Survey, various years; and National High School Graduates Model. (See reference table 24.)

State and Regional (Public School Data)

Between 2002–03 and 2013–14, the number of public high school graduates is expected to increase in 20 states and decrease in 30 states and the District of Columbia (table C; reference figure 23 and tables 25 and 26). In the regions, number of public high school graduates is expected to increase in the West and South, and decrease in the Northeast and Midwest.

States

The expected 5 percent national increase in public high school graduates between 2002–03 and 2015–16 plays out differently among the states.

- Increases are projected for 20 states with
  - increases of more than 15 percent projected for 7 states;
  - increases between 5 and 15 percent projected for 8 states; and
  - increases of less than 5 percent projected for 5 states.
- Decreases are projected for 30 states and the District of Columbia.
  - decreases of 5 percent or more projected for 19 states and the District of Columbia; and
  - decreases between 4.99 and 0.1 percent projected for 11 states.

Regions

Between 2002–03 and 2015–16, the number of public high school graduates is projected to

- increase 14 percent in the West;
- increase 10 percent in the South;
- decrease 1 percent in the Northeast; and
- decrease 4 percent in the Midwest.

Table C. Projected percent changes in the number of public high school graduates, by state: 2002–03 through 2015–16

State	Percent increase	State	Percent decrease
Arizona	71.5	Arkansas	-0.2
Nevada	67.5	Washington	-0.4
Florida	21.1	New Mexico	-0.4
Georgia	20.4	Michigan	-1.3
North Carolina	18.4	Massachusetts	-2.6
New Jersey	18.0	Kentucky	-3.0
Texas	15.5	Missouri	-3.6
Colorado	12.9	Ohio	-3.8
Utah	12.2	Alabama	-3.9
California	10.9	Oregon	-4.3
Virginia	9.0	Pennsylvania	-4.8
Idaho	8.7	Mississippi	-5.1
Indiana	7.6	Oklahoma	-6.4
South Carolina	6.9	New York	-6.5
Delaware	5.1	Hawaii	-7.1
Illinois	4.9	Alaska	-7.7
Tennessee	3.4	Nebraska	-8.2
Connecticut	3.1	New Hampshire	-9.5
Maryland	2.7	Kansas	-9.5
Rhode Island	1.8	Wisconsin	-10.4
		Iowa	-10.8
		Louisiana	-10.8
		Minnesota	-11.7
		West Virginia	-11.9
		District of Columbia	-12.7
		Maine	-13.8
		South Dakota	-21.1
		Montana	-21.8
		Vermont	-21.9
		Wyoming	-22.4
		North Dakota	-28.4

SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys and State Public High School Graduates Model. (See reference table 26.)

Accuracy of Projections

For NCES projections of public high school graduates produced over the last 15 years, the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out were 0.8, 0.9, 1.4, and 3.9, respectively. NCES projections of public high school graduates have been 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 A-2 in appendix A.

Section 4. Degrees Conferred

Introduction

Continuing growth in enrollment in degree-granting institutions, with particularly large increases among women, has led to a substantial increase in the number of degrees conferred. Increases in the number of degrees conferred are expected to continue between 2003–04 and 2015–16.

Three alternative sets of projections

Middle, low, and high sets of projections were developed for the total number of degrees conferred at each level—associate's, bachelor's, master's, doctor's, and first-professional—as well as for the number conferred at each level, by sex of recipient.

About the projections

Projections of degrees by level and sex were based primarily on college-age populations and college enrollment by level and attendance status. Some factors that may affect future numbers of degrees, such as choice of degree and demand for occupations, were not included in the projection models.

Degrees, by Level of Degree and Sex of Recipient

Between 1990–91 and 2003–04, the number and proportion of degrees awarded to women rose at all levels. In 2003–04, women earned the majority of associate's, bachelor's, and master's degrees; 48 percent of doctor's degrees; and 49 percent of first-professional degrees. Between 2003–04 and 2015–16, continued increases are expected in the number of degrees awarded to women at all levels (figure G; reference figures 24–28 and tables 27–31).

Associate's degrees

Between 2003–04 and 2015–16, in the middle alternative projections, the number of associate's degrees is projected to

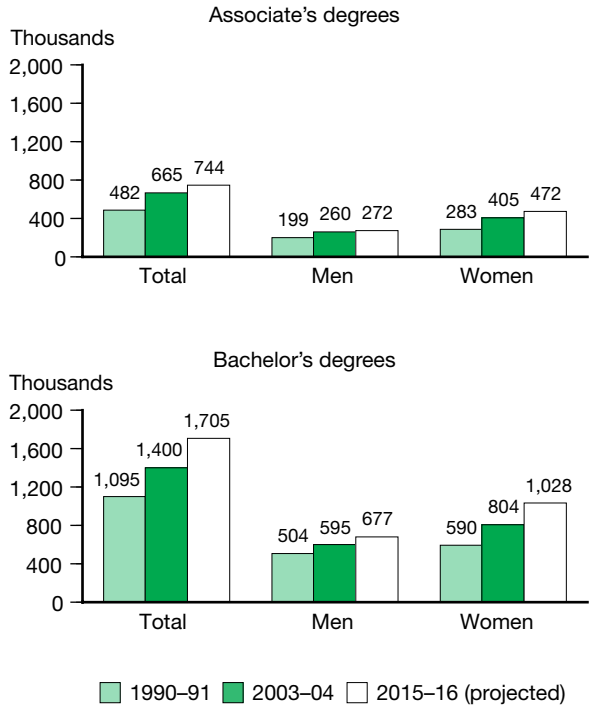
- increase 12 percent overall;
- increase 5 percent for men; and
- increase 16 percent for women.

Bachelor's degrees

Between 2003–04 and 2015–16, in the middle alternative projections, the number of bachelor's degrees is projected to

- increase 22 percent overall;
- increase 14 percent for men; and
- increase 28 percent for women.

Figure G. Actual and middle alternative projected numbers for degrees conferred, by level and sex of recipient: Selected years, 1990–91 to 2015–16



See notes at end of figure (on next page).

Master's degrees

Between 2003–04 and 2015–16, in the middle alternative projections, the number of master's degrees is projected to

- increase 35 percent overall;
- increase 28 percent for men; and
- increase 41 percent for women.

Doctor's degrees

Between 2003–04 and 2015–16, in the middle alternative projections, the number of doctor's degrees is projected to

- increase 21 percent overall;
- increase 12 percent for men; and
- increase 31 percent for women.

Beginning in 2013–14, women are projected to receive more doctor's degrees than men in each set of alternative projections.

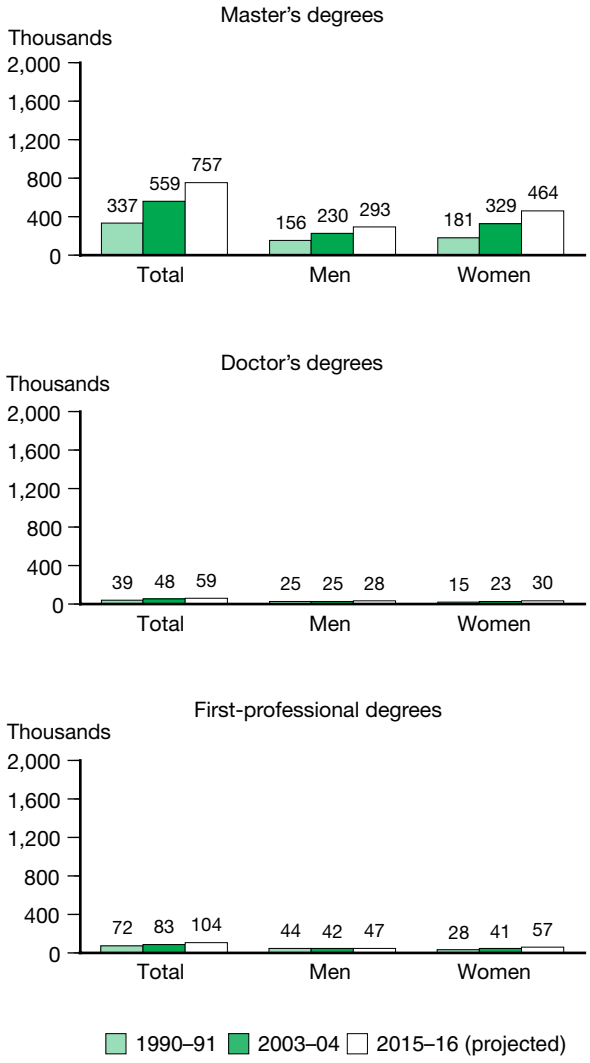
First-professional degrees

Between 2003–04 and 2015–16, in the middle alternative projections, the number of first-professional degrees is projected to

- increase 25 percent overall;
- increase 12 percent for men; and
- increase 38 percent for women.

Beginning in 2004–05, women are projected to receive more first professional degrees than men in each set of alternative projections.

Figure G. Actual and middle alternative projected numbers for degrees conferred, by level and sex of recipient: Selected years, 1990–91 to 2015–16—Continued



NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Dept. of Education, NCES, Integrated Postsecondary Education Data System (IPEDS), "Completions Survey," various years; and Degrees Conferred Model. (See reference tables 27 through 31.)

Definition

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 required for a bachelor's degree. A first-professional degree is based on a program requiring at least 2 academic years of work beyond the bachelor's degree. Degree fields include dentistry, medicine, law, and theological professions.

Accuracy of Projections

An analysis of projection errors from the past nine editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for associate's degree projections were 2.3 percent for 1 year out, 2.9 percent for 2 years out, 5.6 percent for 5 years out, and 12.4 percent for 10 years out. The MAPEs for bachelor's degree projections were 0.9, 2.0, 5.7, and 9.7 percent, respectively, for lead times of 1, 2, 5, and 10 years out. The MAPEs for master's degrees were 1.6, 4.1, 11.3, and 17.4 percent, respectively. For doctor's degrees, the MAPEs were 2.6, 3.5, 2.5, and 2.6 percent, respectively. For first-professional degrees, the MAPEs were 1.3, 1.3, 5.5, and 10.0 percent, respectively.

NCES projections of degrees by level produced over the last 9 years have been less accurate than NCES projections of public elementary and secondary enrollment produced over the same period. For more information on the MAPEs of different NCES projection series, see table A-2 in appendix A.

Section 5. Elementary and Secondary Teachers

Introduction

Between 2003 and 2015, the number of teachers in elementary and secondary schools is projected to rise. The numbers of both public and private school teachers are projected to grow.

Factors affecting the projections

The projected increase in the number of elementary and secondary teachers is related to levels of enrollments and to education revenue receipts from state sources per capita.

Three alternative sets of projections

Middle, low, and high sets of projections were produced for the number of teachers and the pupil/teacher ratio, by control of school (public or private).

Factors that were not considered

The projections do not take into account possible changes in the number of teachers due to the effects of government policies.

Assumptions underlying the projections

In order to provide a range of possible outcomes of the number of public school teachers, the alternative projections make varying economic assumptions about the growth of assistance by state governments to local governments.

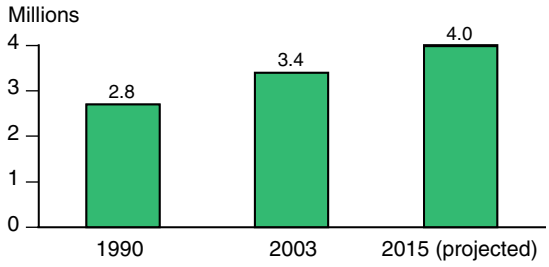
Teachers in Elementary and Secondary Schools

Total elementary and secondary teachers

The total number of elementary and secondary teachers (figure H; reference figure 29 and table 32)

- increased 25 percent between 1990 and 2003; and
- is projected to increase an additional 17 percent between 2003 and 2015 in the middle alternative projections.

Figure H. Actual and middle alternative projected numbers for elementary and secondary teachers: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe survey, various years; and Elementary and Secondary Teacher Model. (See reference table 32.)

Public school teachers

The number of teachers in public elementary and secondary schools (figure I; reference figure 29 and table 32)

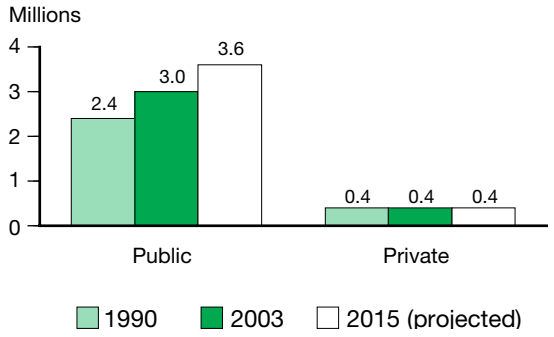
- increased 27 percent between 1990 and 2003; and
- is projected to increase an additional 16 percent between 2003 and 2015 in the middle alternative projections.

Private school teachers

The number of teachers in private elementary and secondary schools

- increased 12 percent between 1990 and 2003; and
- is projected to increase an additional 7 percent between 2003 and 2015 in the middle alternative projections.

Figure I. Actual and middle alternative projected numbers for elementary and secondary teachers, by control of school: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe Survey, various years; and Elementary and Secondary Teacher Model. (See reference table 32.)

Pupil/Teacher Ratios

Total elementary and secondary teachers

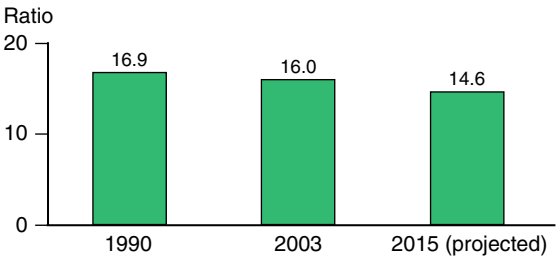
The pupil/teacher ratio in elementary and secondary schools (figure J; table 33)

- decreased from 16.9 to 16.0 between 1990 and 2003; and
- is projected to be 14.6 in 2015 in the middle alternative projections.

About pupil/teacher ratios

The overall elementary and secondary pupil/teacher ratio and pupil/teacher ratios for public and private schools were computed based on elementary and secondary enrollment and the number of classroom teachers by control of school.

Figure J. Actual and middle alternative projected numbers for the pupil/teacher ratio in elementary and secondary schools: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe Survey, various years; and Elementary and Secondary Teacher Model. (See reference table 33.)

Public school teachers

The pupil/teacher ratio in public elementary and secondary schools (figure K; reference figure 30 and table 33)

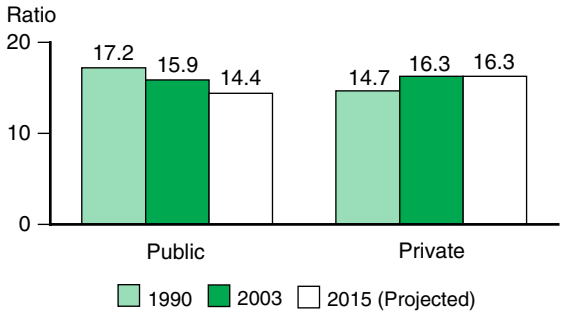
- decreased from 17.2 to 15.9 between 1990 and 2003; and
- is projected to be 14.4 in 2015 in the middle alternative projections.

Private school teachers

The pupil/teacher ratio in private elementary and secondary schools (figure K; reference figure 30 and table 33)

- increased from 14.7 to 16.3 between 1990 and 2003; and
- is projected to be 16.3 in 2015 in the middle alternative projections.

Figure K. Actual and middle alternative projected numbers for the pupil/teacher ratio in elementary and secondary schools, by control of school: Selected years, 1990–2015



SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data surveys, various years; Private School Universe Survey, various years; and Elementary and Secondary Teacher Model. (See reference table 33.)

Accuracy of Projections

An analysis of projection errors from the past 15 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of classroom teachers in public elementary and secondary schools were 1.0 percent for 1 year out, 1.6 percent for 2 years out, 2.7 percent for 5 years out, and 5.6 percent for 10 years out. NCES projections of public elementary and secondary teachers produced over the last 15 years have been less accurate than NCES projections of public elementary and secondary enrollment produced over the same period. For more information on the MAPEs of different NCES projection series, see table A-2 in appendix A.

Section 6. Expenditures of Public Elementary and Secondary Schools

Introduction

Current expenditures and average annual teacher salaries in public elementary and secondary schools are both projected to increase in constant dollars between school years 2002–03 and 2015–16, with current expenditures projected to increase more rapidly.

Three alternative sets of projections

Middle, low, and high sets of projections were made for total current expenditures, current expenditures per pupil, and teacher salaries.

Assumptions underlying the projections

Each set of projections is based on alternative assumptions concerning economic growth and assistance by state governments to local governments. For more details, see appendix A.

Current Expenditures

Between 2002–03 and 2015–16, increases are expected in the current expenditures and current expenditures per pupil of public elementary and secondary schools (figure L; reference figures 31 and 32 and tables 34 and 35).

Current expenditures

Current expenditures in constant 2003–04 dollars increased 41 percent from 1990–91 to 2002–03.

From 2002–03 to 2015–16, current expenditures in constant 2003–04 dollars are projected to increase

- 43 percent, to $565 billion, in the middle alternative projections;
- 38 percent, to $546 billion, in the low alternative projections; and
- 51 percent, to $599 billion, in the high alternative projections.

Current expenditures per pupil

Current expenditures per pupil in Fall enrollment in constant 2003–04 dollars increased 21 percent from 1990–91 to 2002–03.

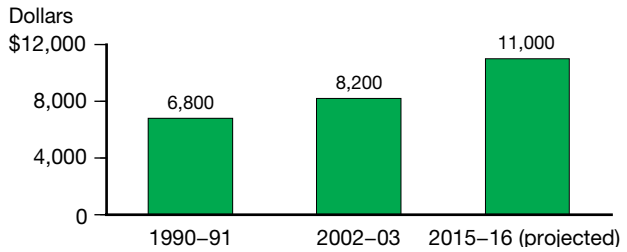
From 2002–03 to 2015–16, current expenditures in constant 2003–04 dollars per pupil in fall enrollment are projected to increase

- 34 percent, to $11,000, in the middle alternative projections;
- 30 percent, to $10,700, in the low alternative projections; and
- 42 percent, to $11,700, in the high alternative projections.

Other factors that may affect the projections

Many factors that may affect future school expenditures and teacher salaries were not considered in the production of these projections. Such factors include policy initiatives, as well as potential changes in the distribution of elementary and secondary teachers as older teachers retire and are replaced by younger teachers.

Figure L. Actual and middle alternative projected numbers for current expenditures per pupil in elementary and secondary schools in 2003–04 dollars: Selected years, 1990–91 through 2015–16



NOTE: Data were placed in constant 2003-04 dollars using the Consumer Price Index for all urban consumers (BLS, U.S. Dept. of Labor).
SOURCE: U.S. Dept. of Education, NCES, The NCES Common Core of Data, "National Public Education Finance Survey," various years; National Elementary and Secondary Enrollment Model; and Elementary and Secondary School Current Expenditures Model. (See reference table 34.)

Teacher Salaries

Teacher salaries are projected to increase between 2004–05 and 2015–16 (reference figure 33 and table 36).

Teacher salaries in constant 2003–04 dollars

- increased 1 percent between 1990–91 and 2004–05; and
- are projected to increase an additional 5 percent between 2004–05 and 2015–16 in the middle alternative projections.

Constant versus current dollars

Throughout this section, projections of current expenditures and teacher salaries are presented in constant 2003–04 dollars. The reference tables, later in this report, present these data both in constant 2003–04 dollars and in current dollars. The projections were developed in constant dollars and then placed in current dollars using projections for the Consumer Price Index (CPI) (table B-6 in appendix B). Three alternative sets of projections for the CPI were used, one with each set of projections (low, middle, and high).

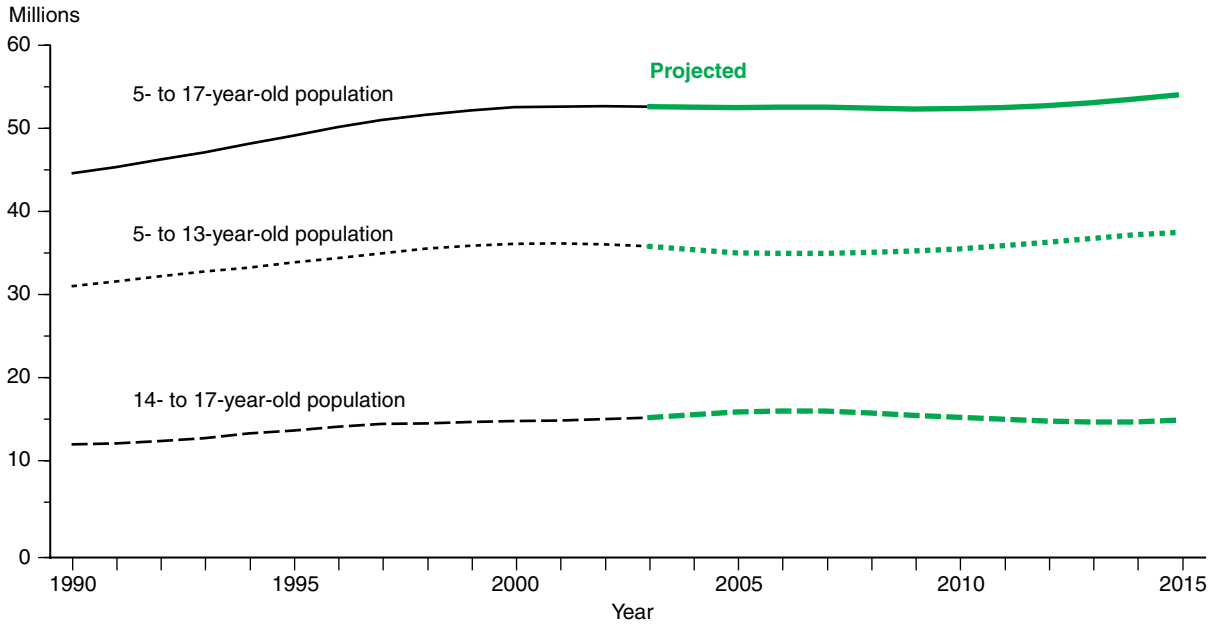
Accuracy of Projections

Historically, the average difference between the actual values and the projections of current expenditures, current expenditures per pupil, and teacher salaries has been about 2 percent for projections that are 2 or 3 years out from the year of the last actual data. Projections for years that are further out from the last year with actual data tend to be less accurate. The average difference between the actual values and projections 7 or more years out from the last year with actual data generally has been over 4 percent for current expenditures and current expenditures per pupil, and over 8 percent for teacher salaries.

Long-term projections that are economically based, such as projections of current expenditures and teacher salaries, are generally less accurate than long-term demographic projections, such as projections of elementary and secondary enrollment. Recent NCES projections of current expenditures generally have been less accurate than recent NCES projections of public elementary and secondary enrollment, but more accurate than projections of teacher salaries. Projections of teacher salaries generally have been less accurate than projections of public elementary and secondary enrollment, and similar in accuracy to projections of first-professional degrees. See appendix A for further discussion of the accuracy of recent projections of current expenditures and teacher salaries, and see table A-2 in appendix A for the mean absolute percentage errors (MAPEs) of these projections.

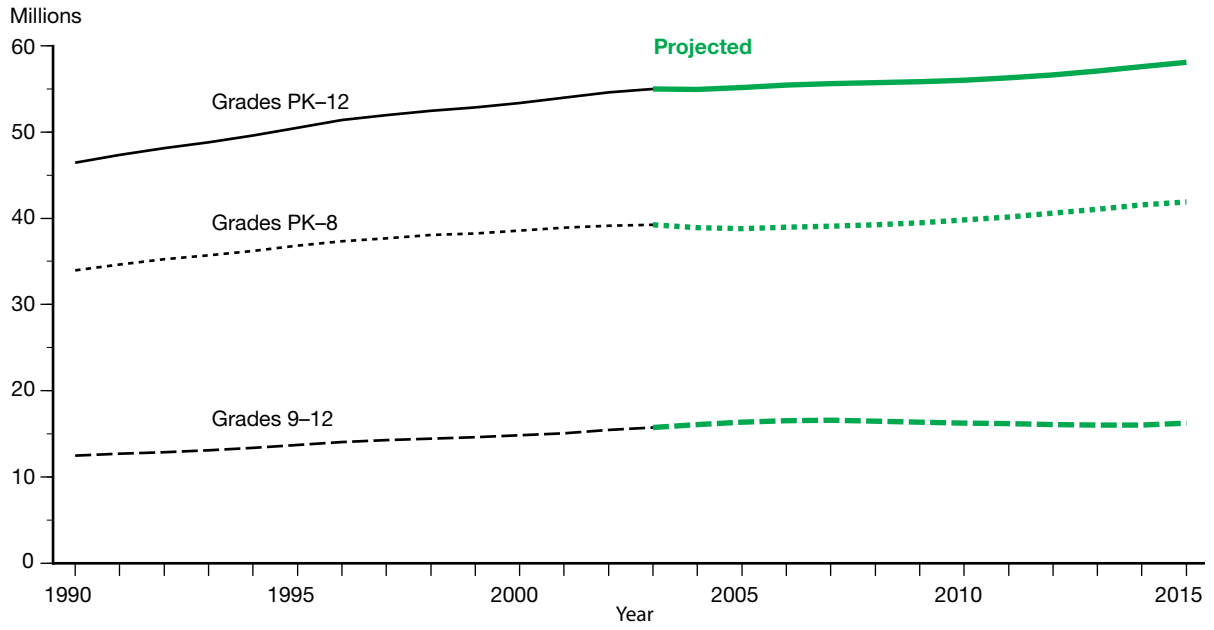
Reference Figures and Tables

Figure 1. Actual and projected numbers for school-age populations, by age range: 1990 through 2015



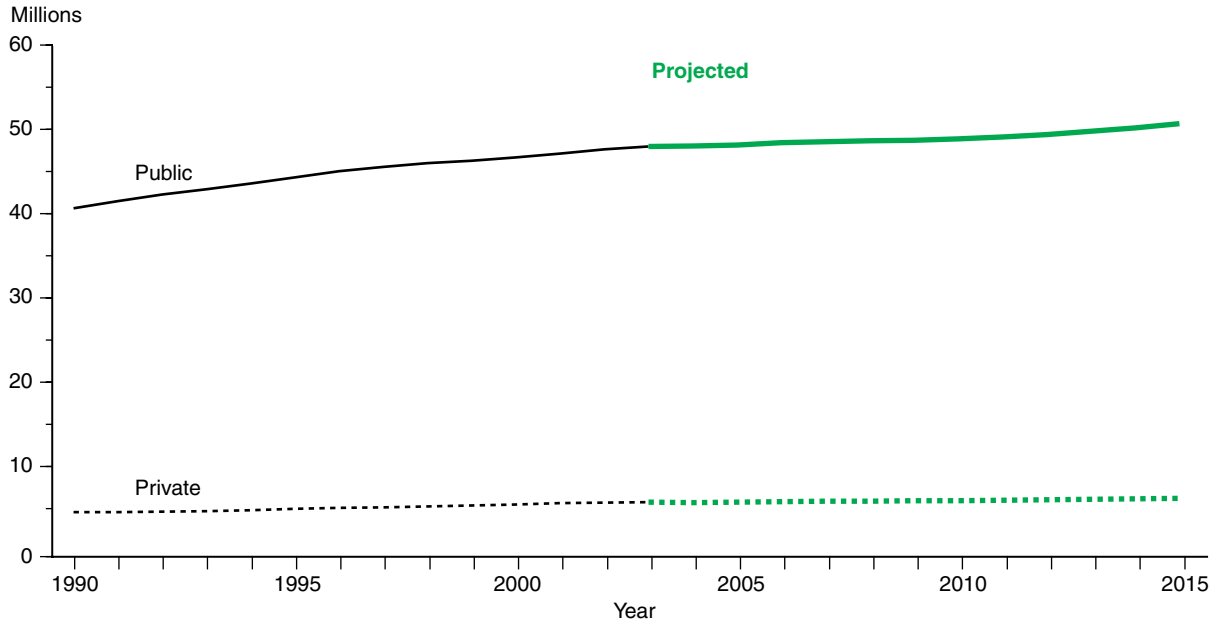
SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September 2004).

Figure 2. Actual and projected numbers for enrollment in elementary and secondary schools, by grade level: Fall 1990 through fall 2015



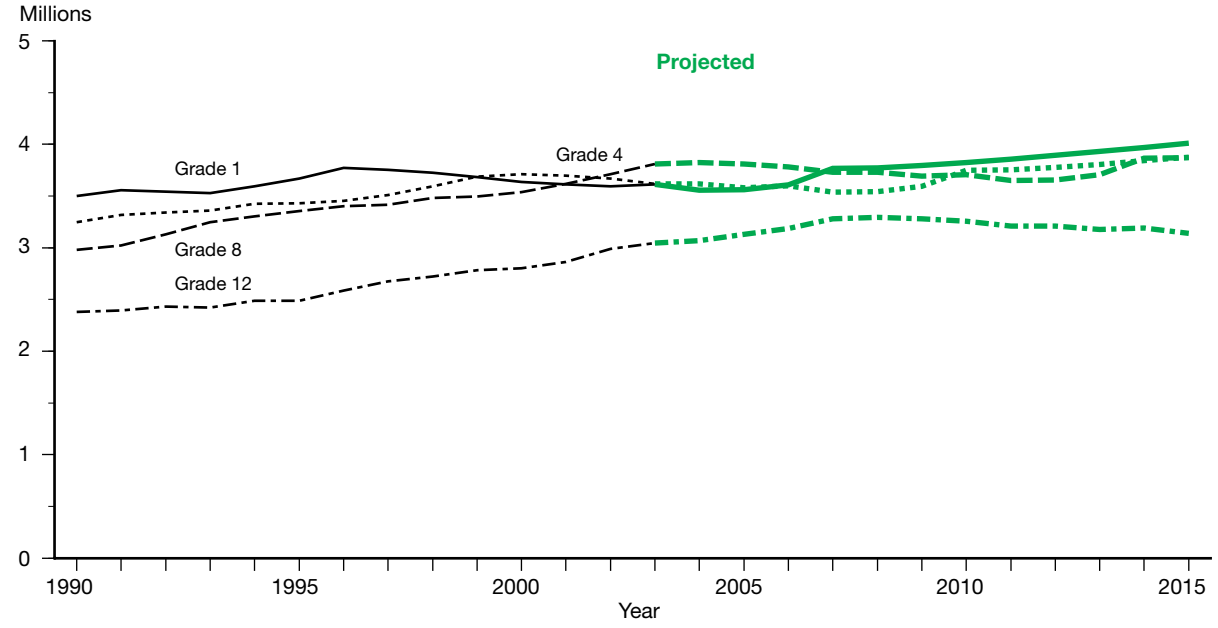
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years, 1990–91 through 2001–02; and National Elementary and Secondary Enrollment Model, 1972–2003.

Figure 3. Actual and projected numbers for enrollment in elementary and secondary schools, by control of school: Fall 1990 through fall 2015



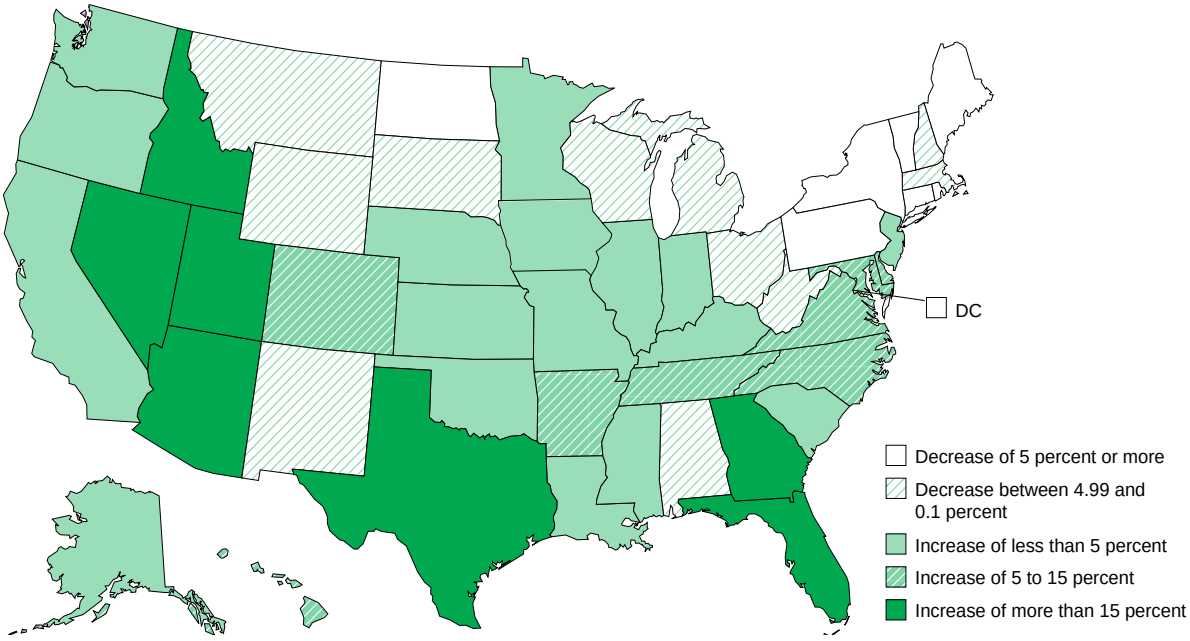
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years, 1990–91 through 2001–02; and National Elementary and Secondary School Model, 1972–2003.

Figure 4. Actual and projected numbers for enrollment in elementary and secondary schools, by selected grades: Fall 1990 through fall 2015



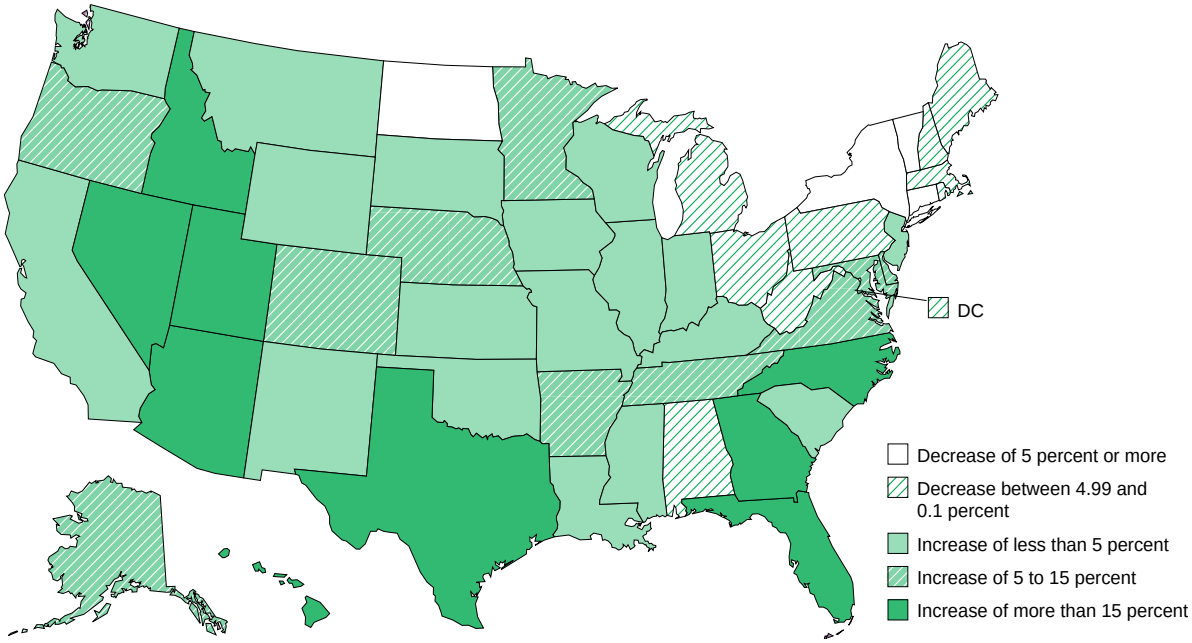
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; and National Elementary and Secondary School Model, 1972–2003.

Figure 5. Projected percentage change in grades PK–12 enrollment in public schools, by state: Fall 2003 through fall 2015



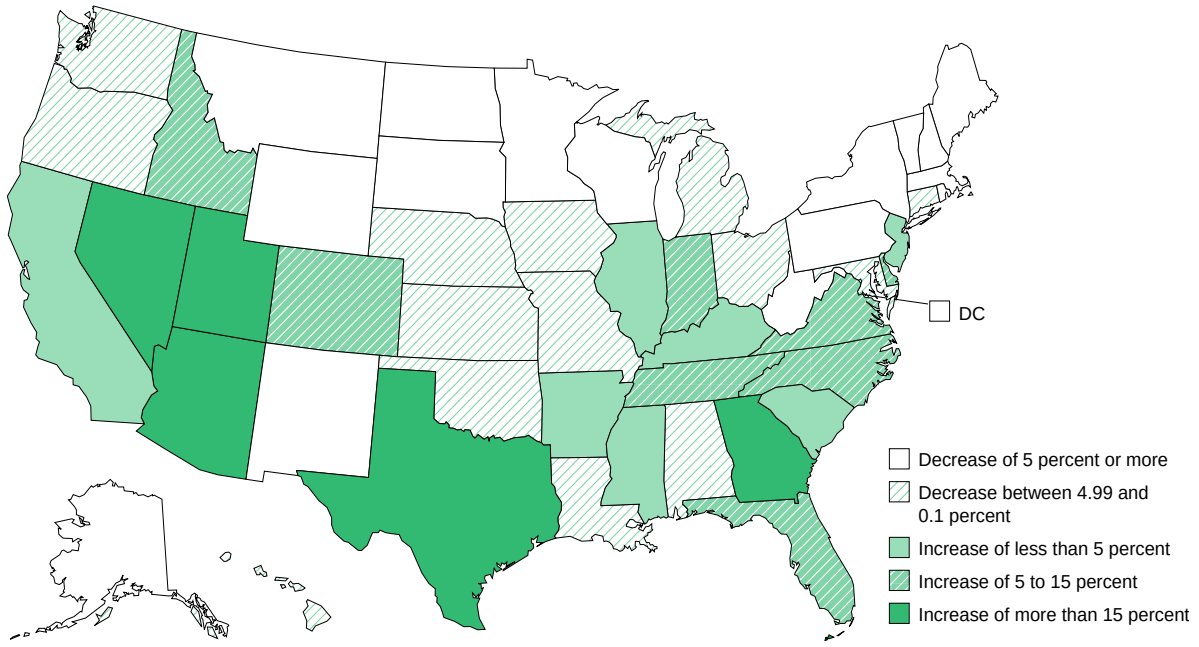
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2003–04; and State Public Elementary and Secondary Enrollment Model, 1980–2003.

Figure 6. Projected percentage change in grades PK–8 enrollment in public schools, by state: Fall 2003 through fall 2015



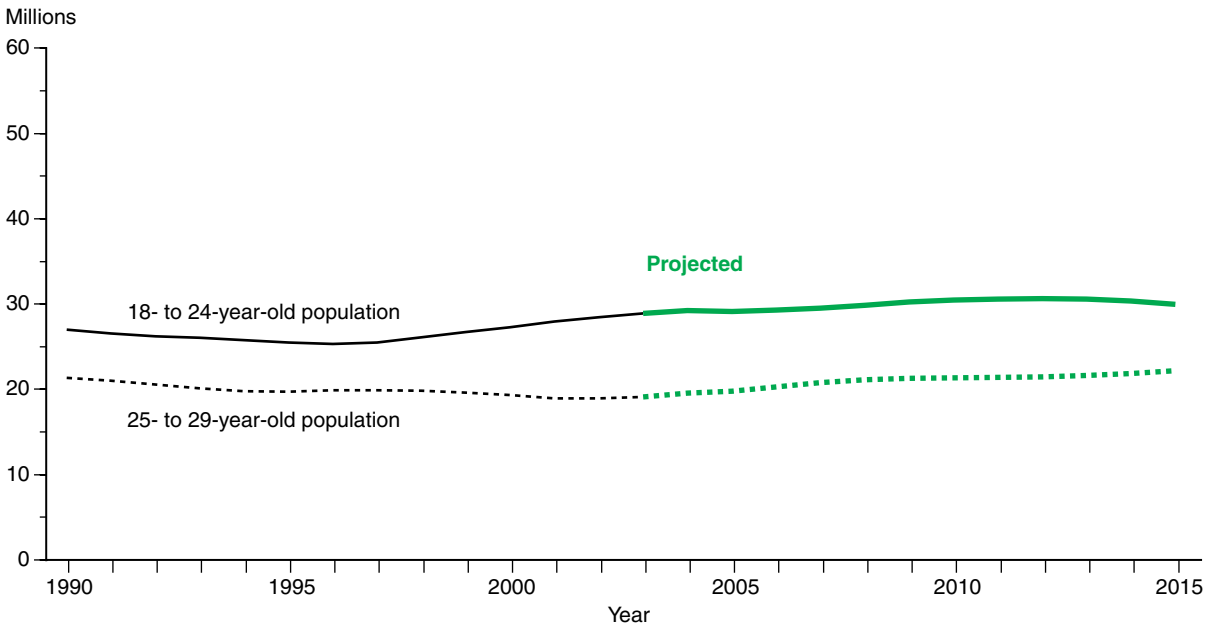
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2003–04; and State Public Elementary and Secondary Enrollment Model, 1980–2003.

Figure 7. Projected percentage change in grades 9–12 enrollment in public schools, by state: Fall 2003 through fall 2015



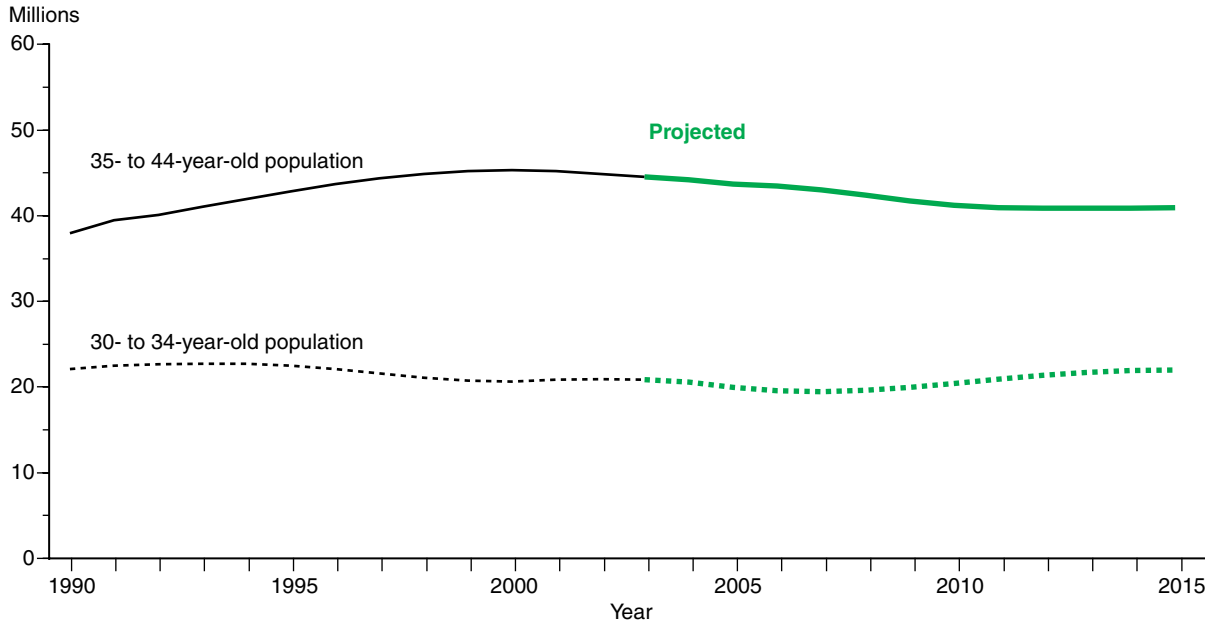
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2003–04; and State Public Elementary and Secondary Enrollment Model, 1980–2003.

Figure 8. Actual and projected numbers for 18–24 year olds and 25–29 year olds: 1990 through 2015



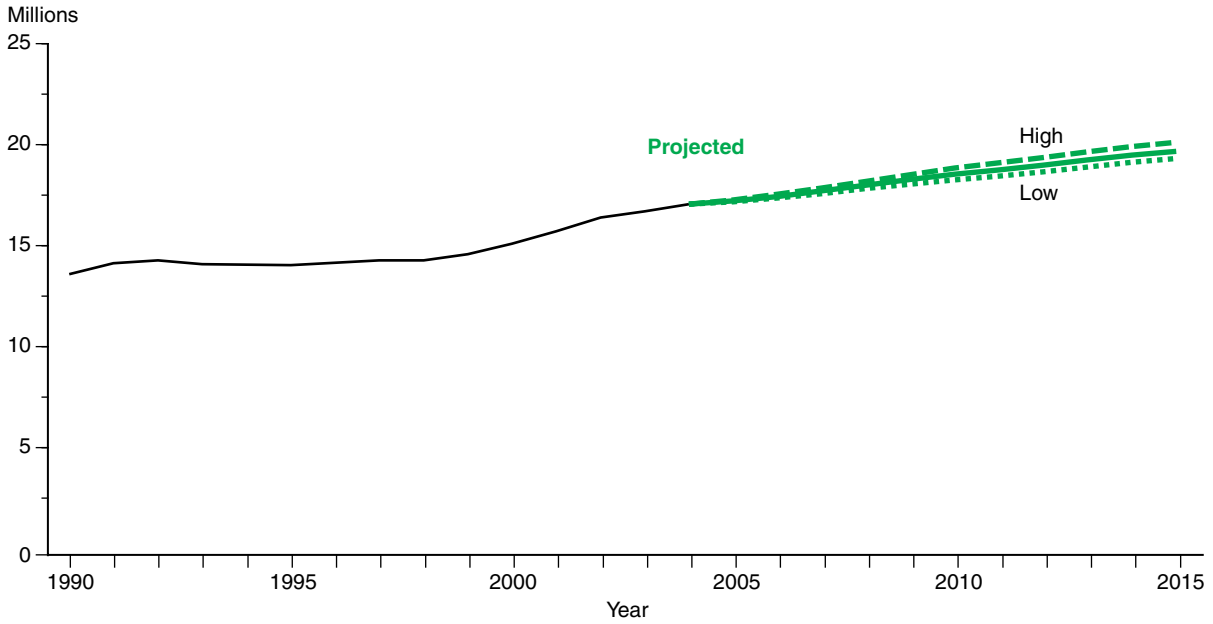
SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September, 2004).

Figure 9. Actual and projected numbers for 30–34 year olds and 35–44 year olds: 1990 through 2015



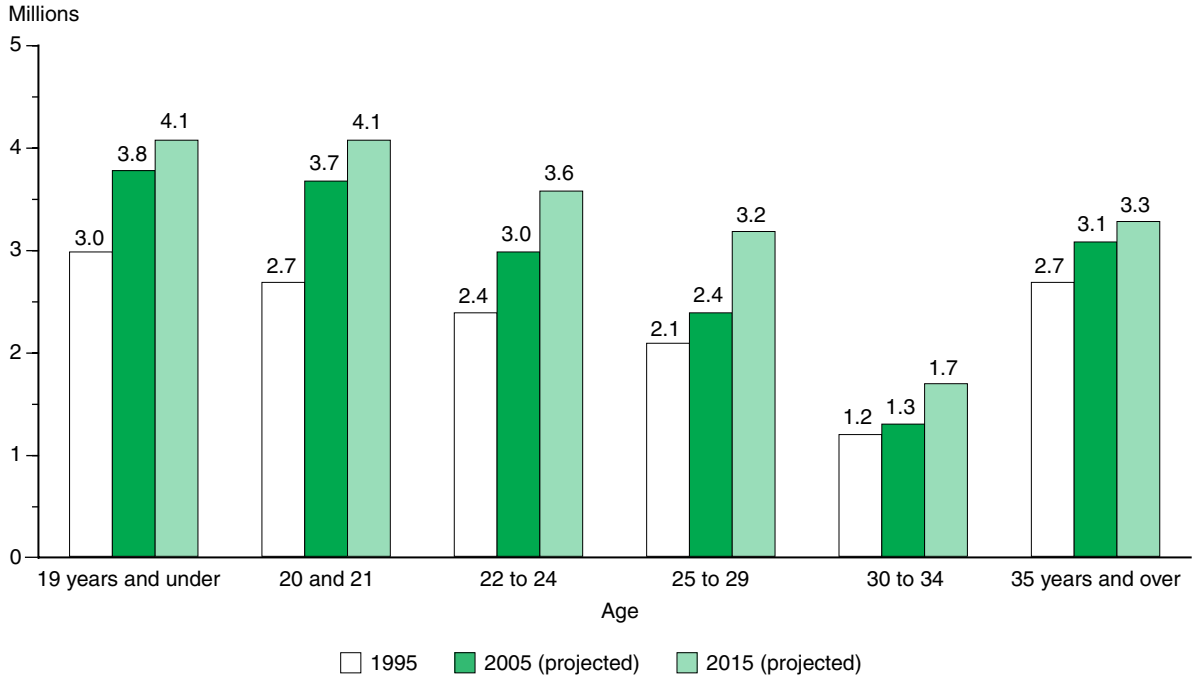
SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September, 2004).

Figure 10. Actual and alternative projected numbers for enrollment in degree-granting postsecondary institutions: Fall 1990 through fall 2015



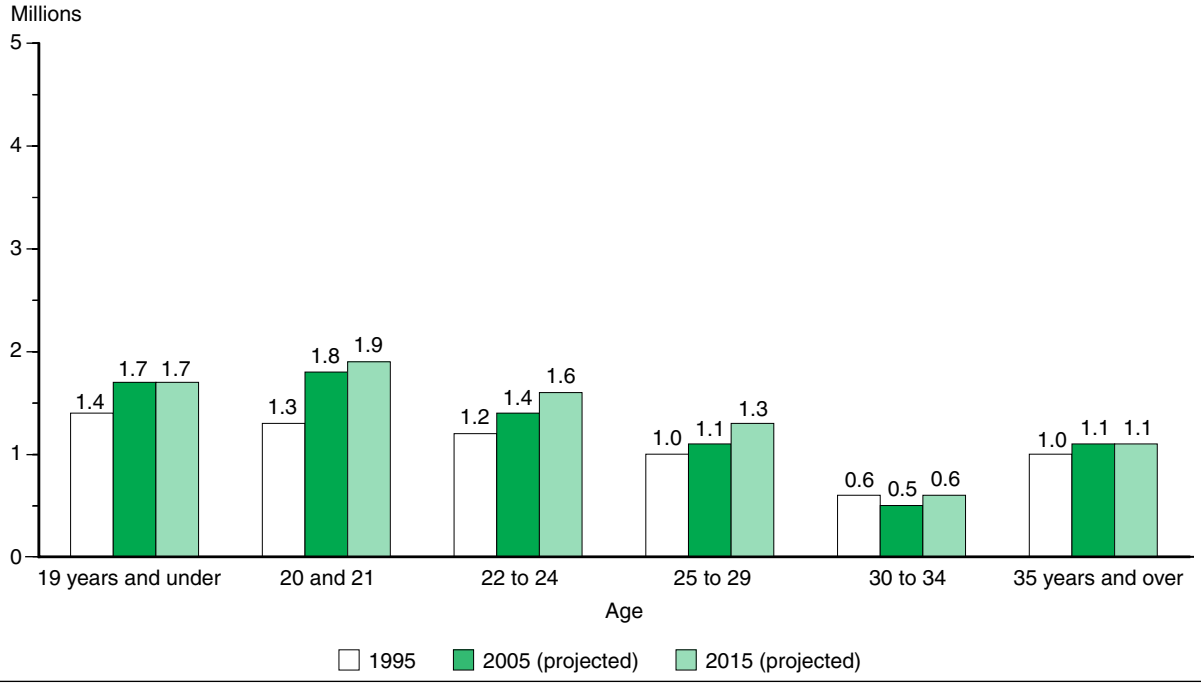
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 11. Actual and middle alternative projected numbers for enrollment in degree-granting postsecondary institutions, by age group: Fall 1995, 2005, and 2015



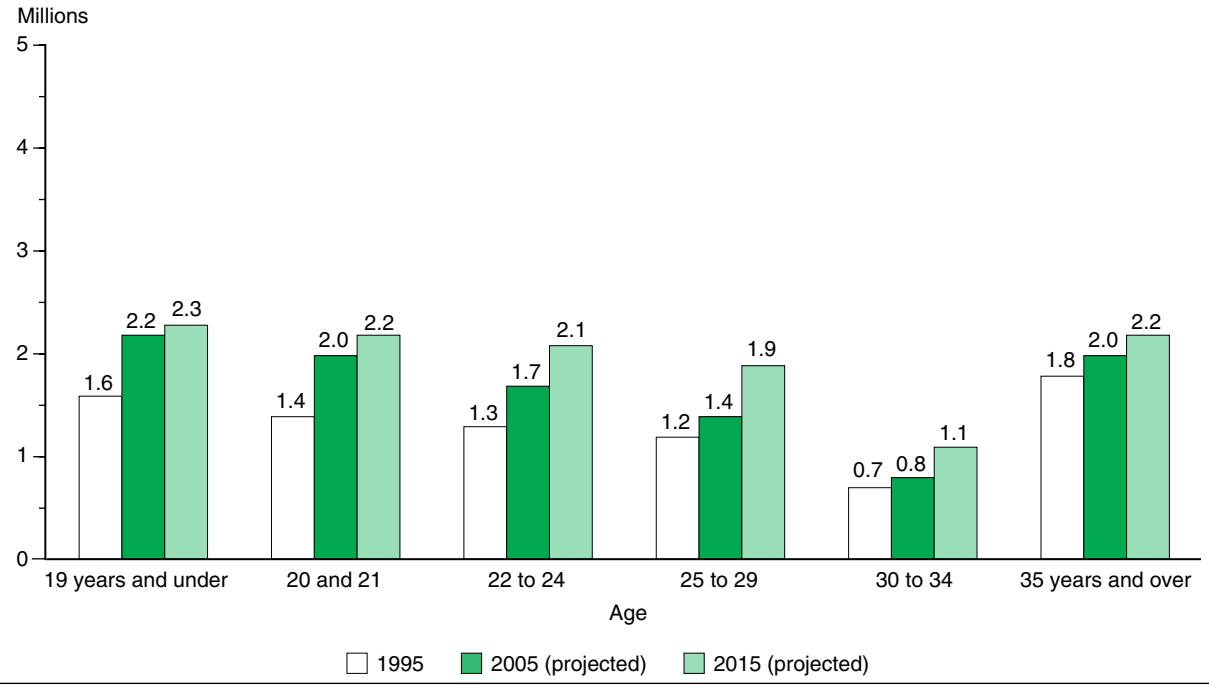
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 95); Enrollment in Degree-Granting Institutions Model, 1980–2004; and U.S. Department of Commerce, Census Bureau, *Current Population Reports*, "Social and Economic Characteristics of Students," various years.

Figure 12. Actual and middle alternative projected numbers for enrollment of men in degree-granting postsecondary institutions, by age group: Fall 1995, 2005, and 2015



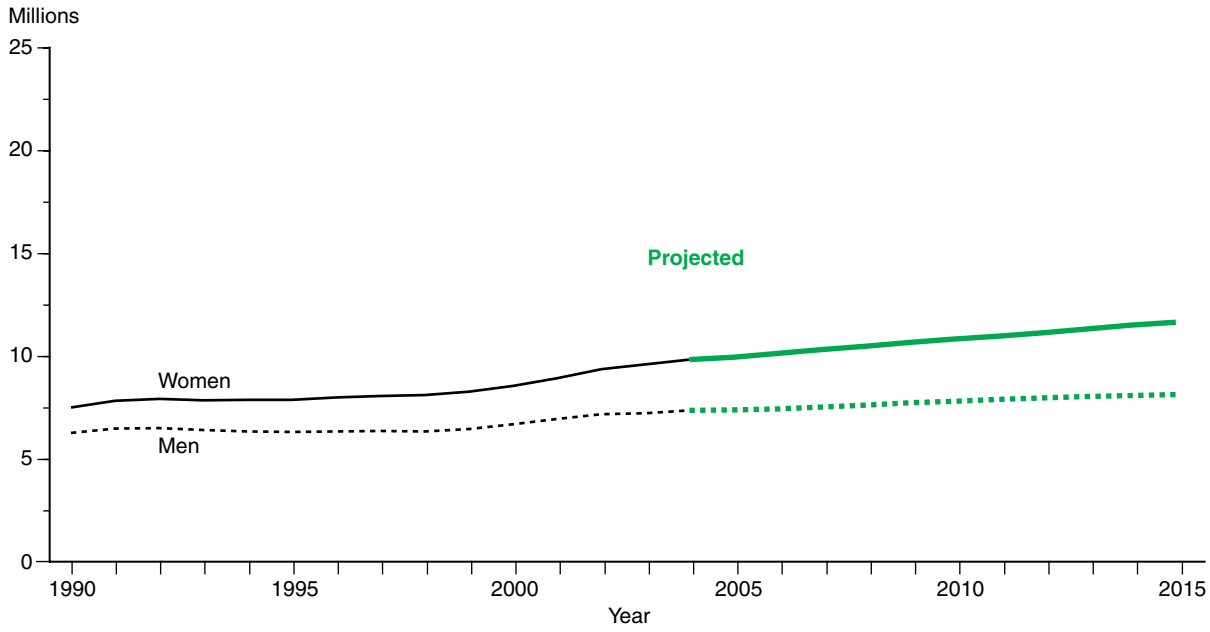
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 95); Enrollment in Degree-Granting Institutions Model, 1980–2004; and U.S. Department of Commerce, Census Bureau, *Current Population Reports*, "Social and Economic Characteristics of Students," various years.

Figure 13. Actual and middle alternative projected numbers for enrollment of women in degree-granting postsecondary institutions, by age group: Fall 1995, 2005, and 2015



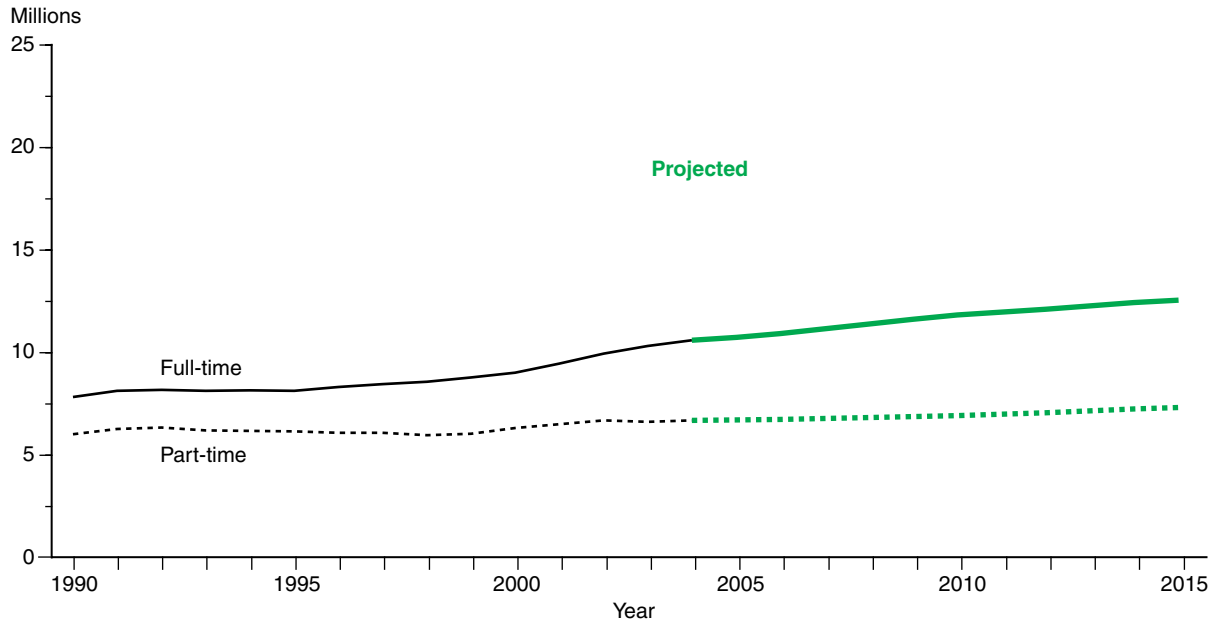
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 95); Enrollment in Degree-Granting Institutions Model, 1980–2004; and U.S. Department of Commerce, Census Bureau, *Current Population Reports*, "Social and Economic Characteristics of Students," various years.

Figure 14. Actual and middle alternative projected numbers for enrollment in degree-granting postsecondary institutions, by sex: Fall 1990 through fall 2015



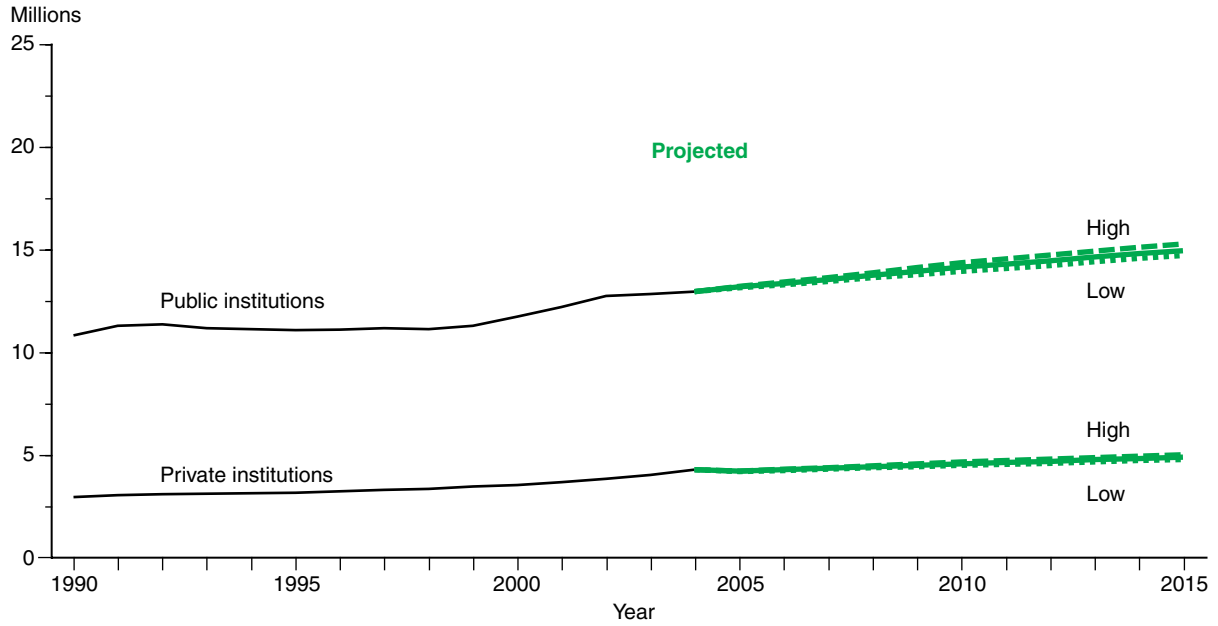
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 15. Actual and middle alternative projected numbers for enrollment in degree-granting postsecondary institutions, by attendance status: Fall 1990 through fall 2015



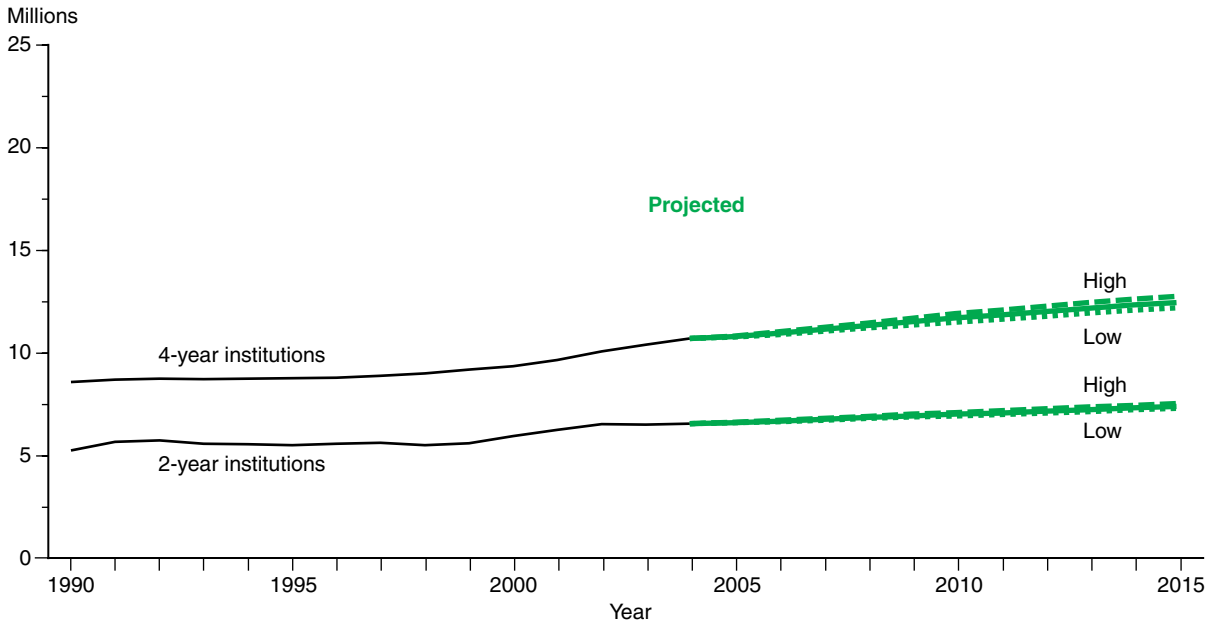
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 16. Actual and alternative projected numbers for enrollment in degree-granting postsecondary institutions, by control of institution: Fall 1990 through fall 2015



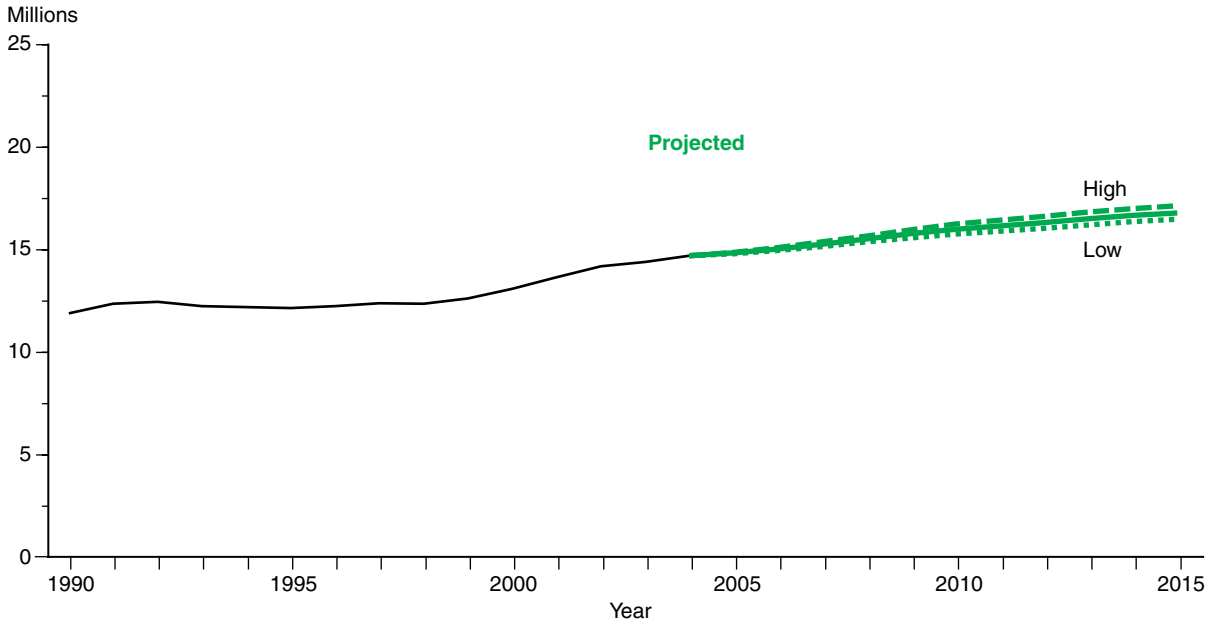
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 17. Actual and alternative projected numbers for enrollment in degree-granting postsecondary institutions, by type of institution: Fall 1990 through fall 2015



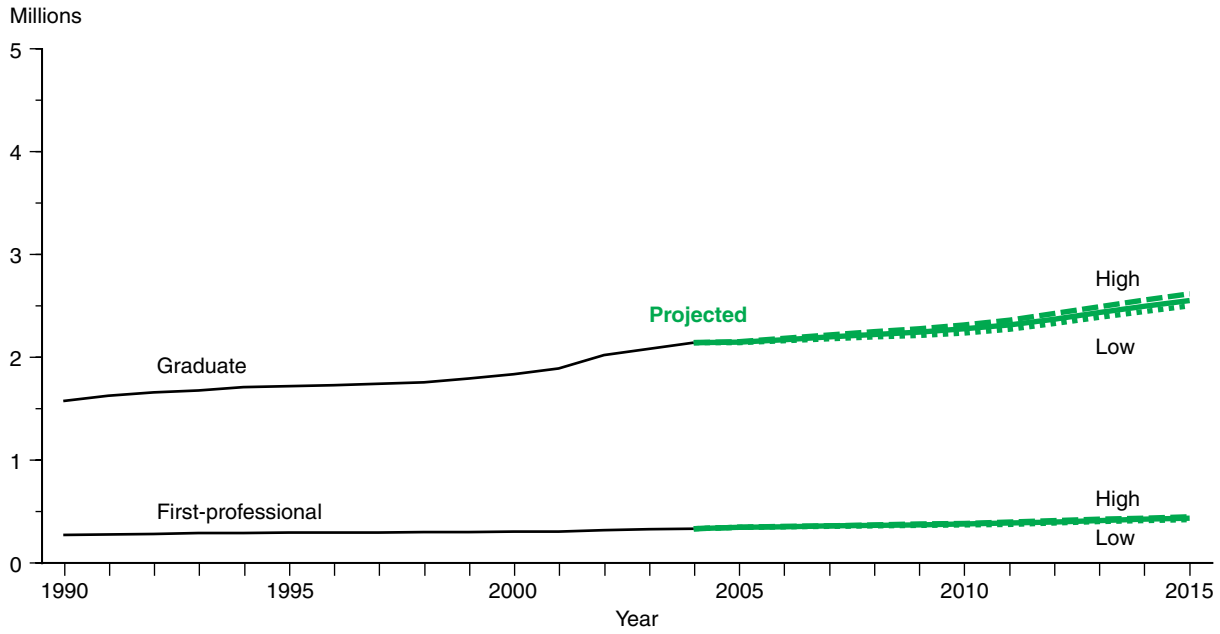
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 18. Actual and alternative projected numbers for undergraduate enrollment in degree-granting postsecondary institutions: Fall 1990 through fall 2015



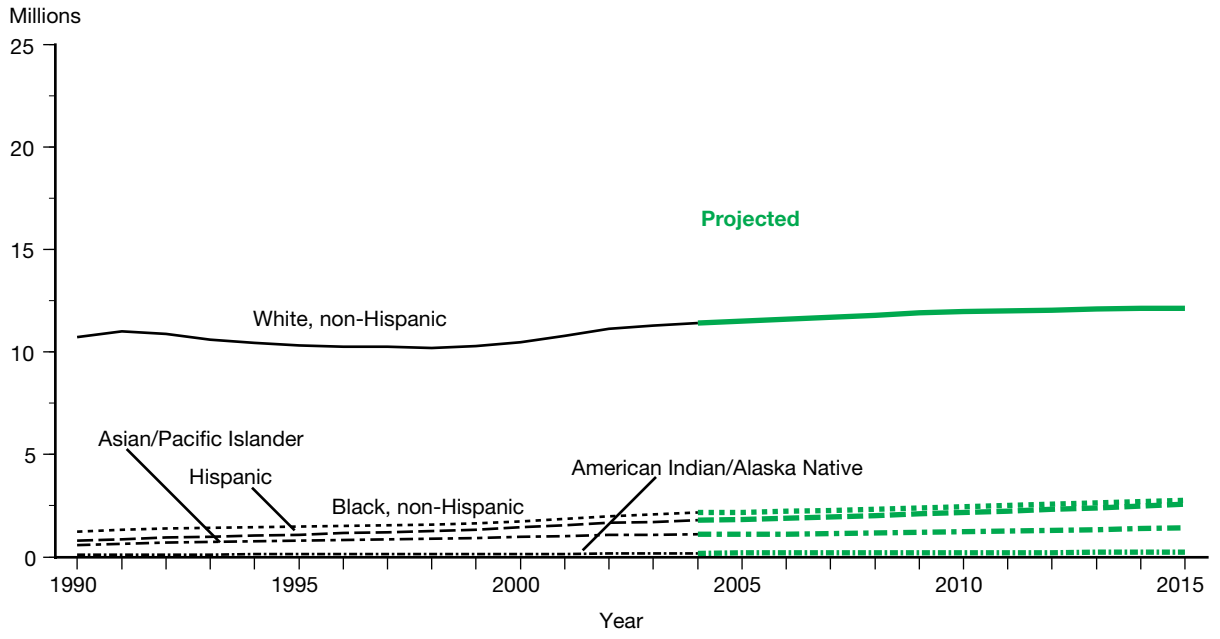
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 19. Actual and alternative projected numbers for postbaccalaureate enrollment in degree-granting postsecondary institutions: Fall 1990 through fall 2015



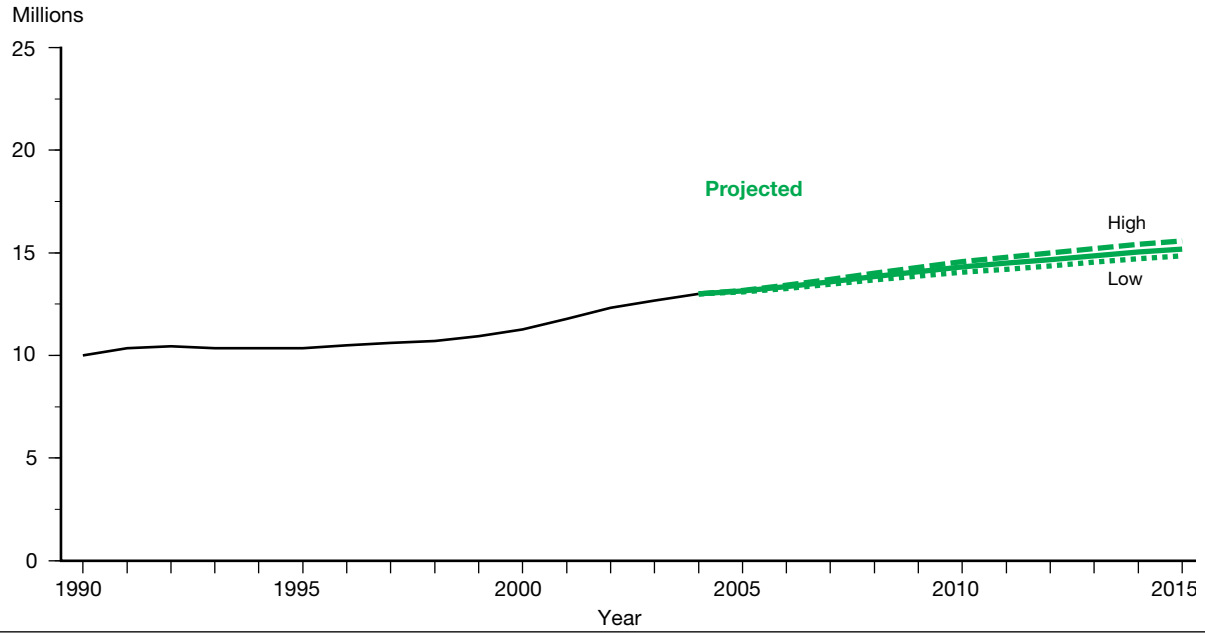
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 20. Actual and projected numbers for enrollment in degree-granting postsecondary institutions, by race/ethnicity: Fall 1990 through fall 2015



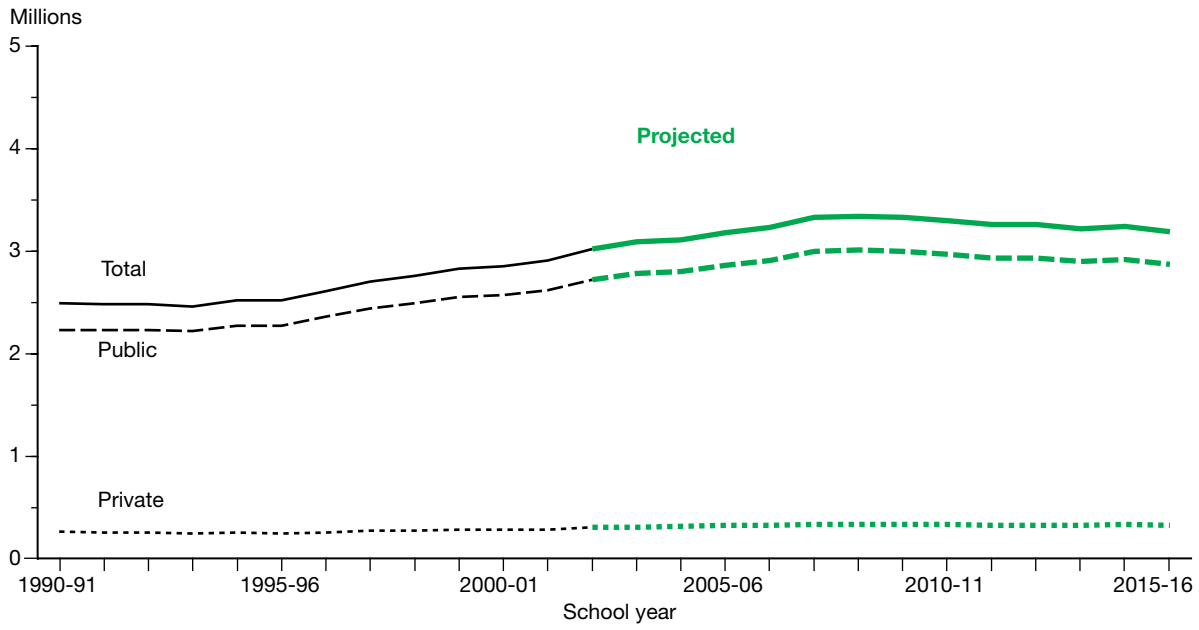
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF: 90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004.

Figure 21. Actual and alternative projected numbers for full-time-equivalent enrollment in degree-granting postsecondary institutions: Fall 1990 through fall 2015



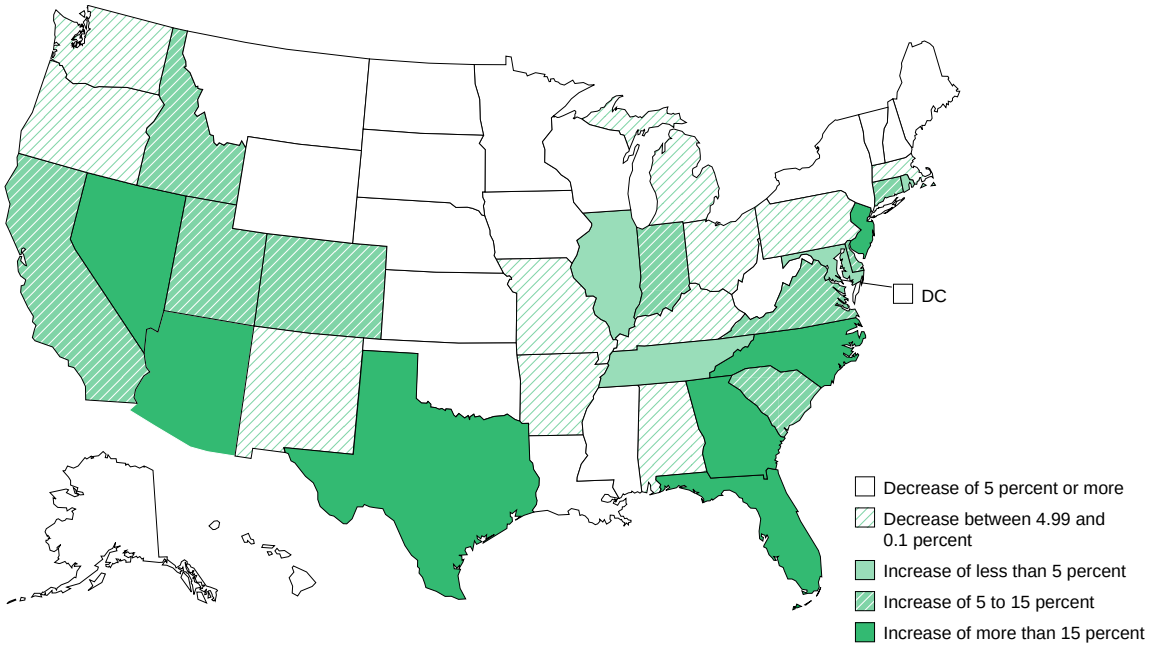
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004.

Figure 22. Actual and projected numbers for high school graduates, by control of school: 1990–91 through 2015–16



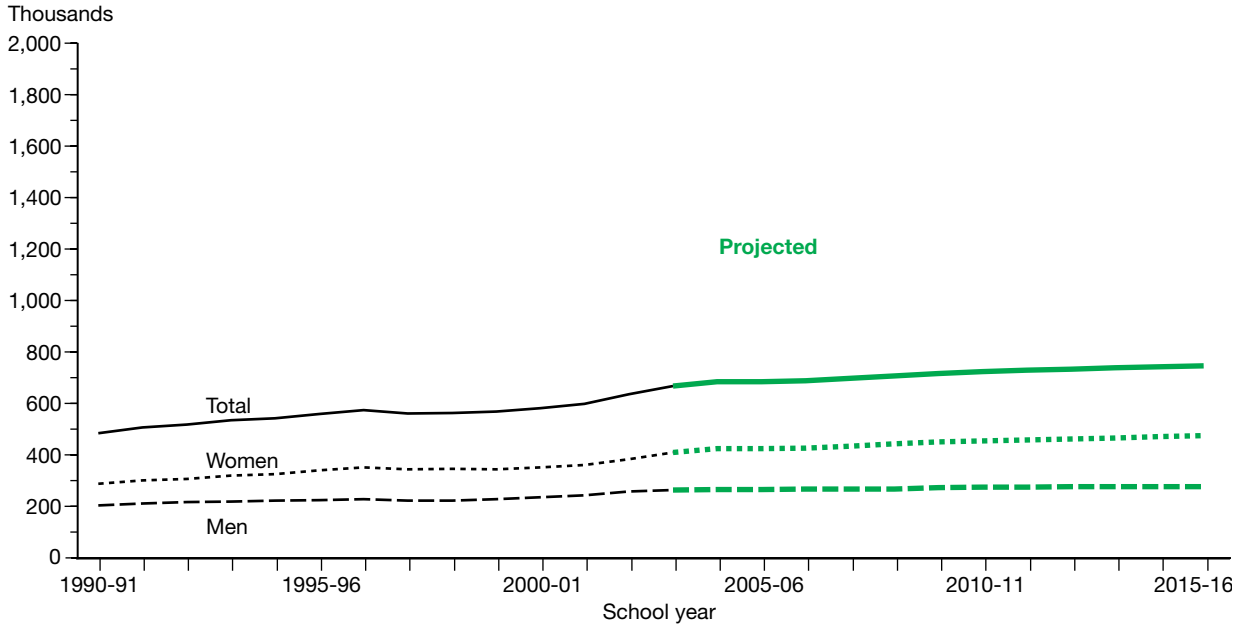
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1991–92 through 2003–04; Private School Universe Survey (PSS), selected years, 1991–92 through 2001–02; Private School Survey Early Estimates, various years; and National Elementary and Secondary High School Graduates Enrollment Model, 1972–73 through 2002–03.

Figure 23. Projected percentage change in public high school graduates, by state: 2002–03 through 2015–16



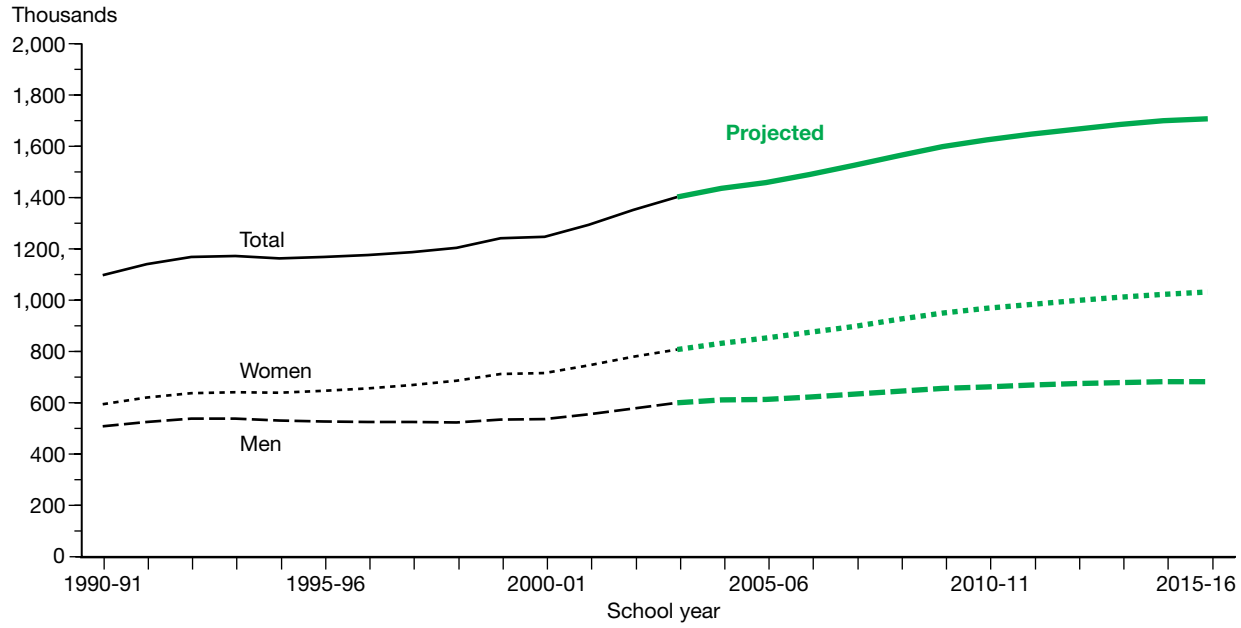
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2003–04; and State Public High School Graduates Model, 1980–81 through 2002–03.

Figure 24. Actual and middle alternative projected numbers for associate's degrees, by sex of recipient: 1990–91 through 2015–16



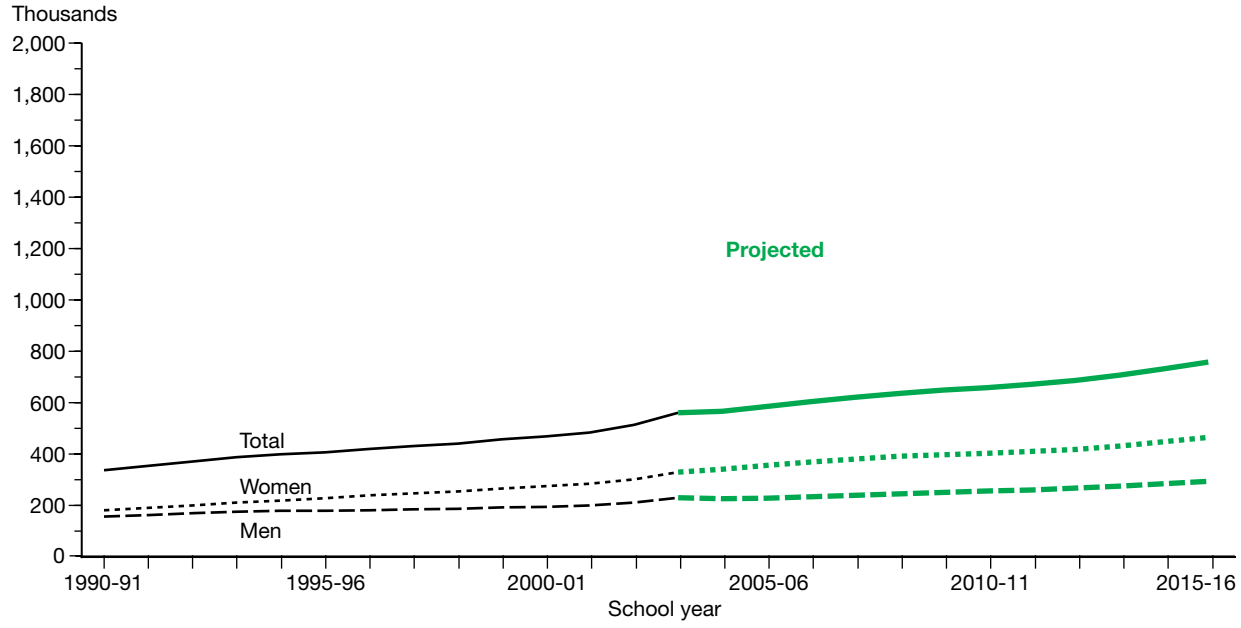
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04.

Figure 25. Actual and middle alternative projected numbers for bachelor's degrees, by sex of recipient: 1990–91 through 2015–16



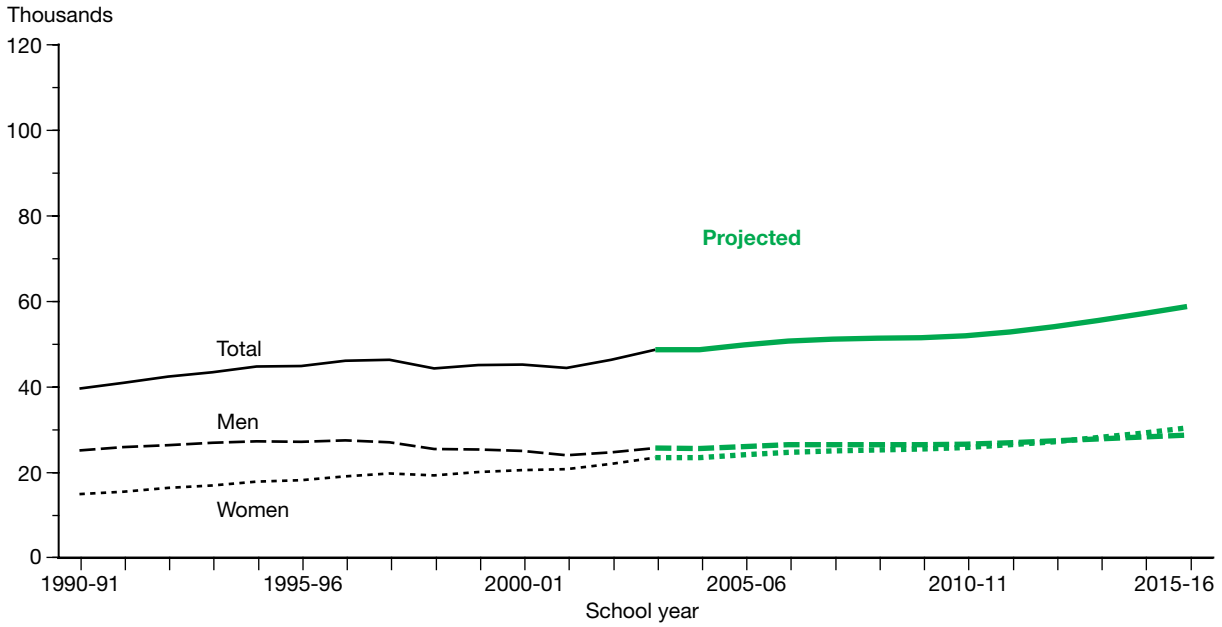
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04.

Figure 26. Actual and middle alternative projected numbers for master's degrees, by sex of recipient: 1990–91 through 2015–16



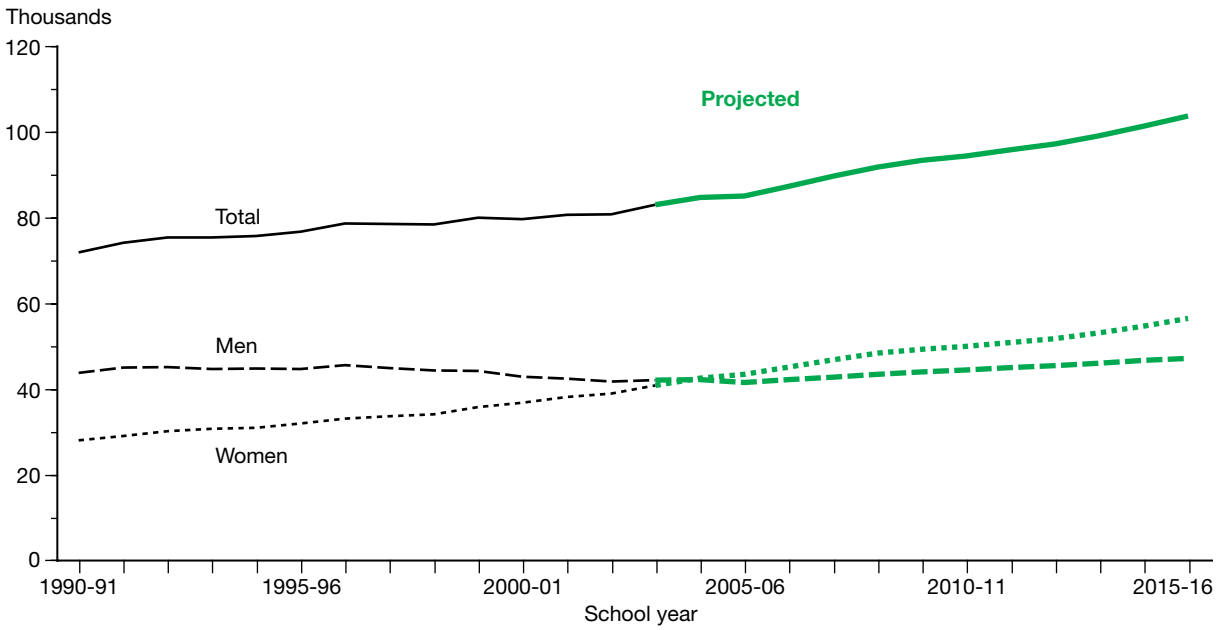
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04.

Figure 27. Actual and middle alternative projected numbers for doctor's degrees, by sex of recipient: 1990–91 through 2015–16



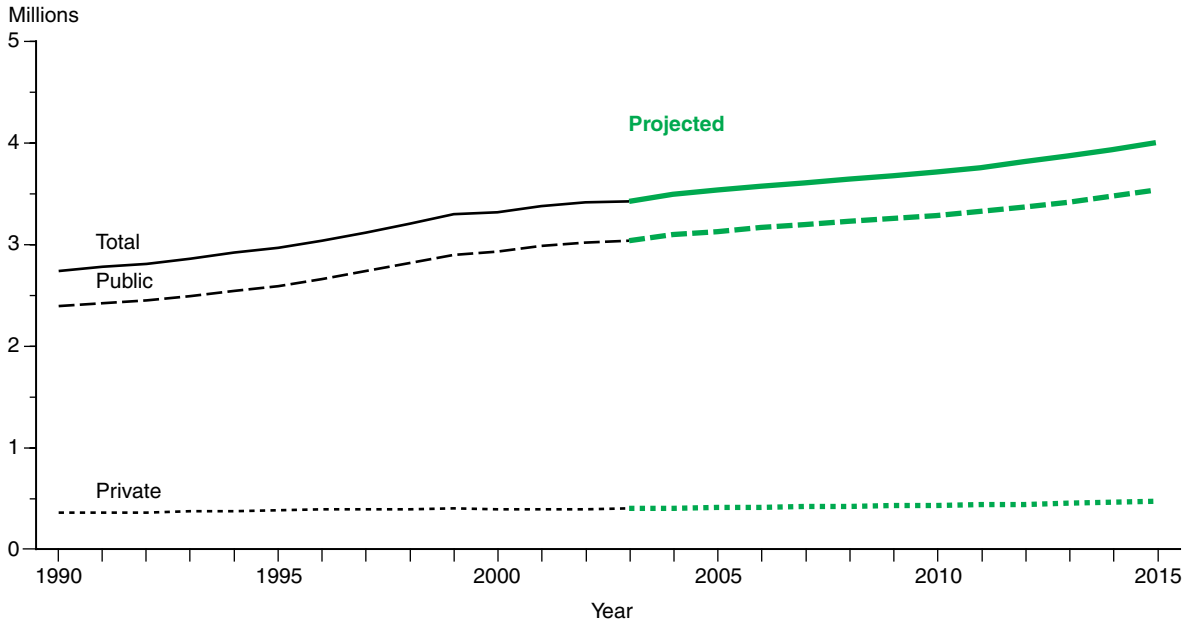
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04.

Figure 28. Actual and middle alternative projected numbers for first-professional degrees, by sex of recipient: 1990–91 through 2015–16



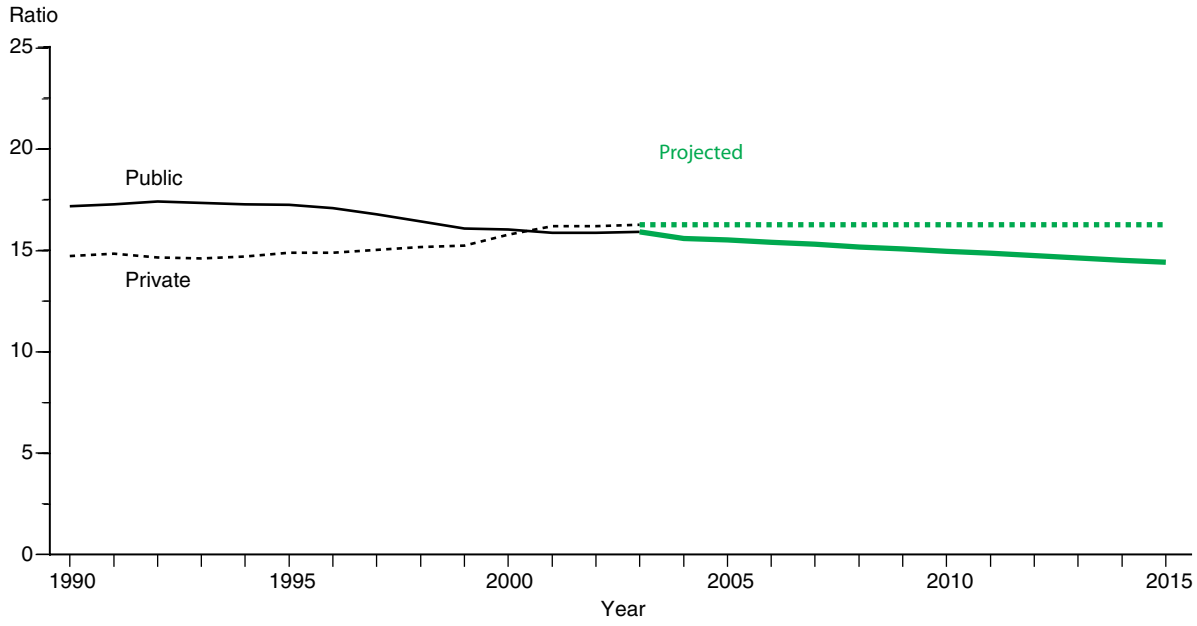
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04.

Figure 29. Actual and middle alternative projected numbers for elementary and secondary teachers, by control of school: Fall 1990 through fall 2015



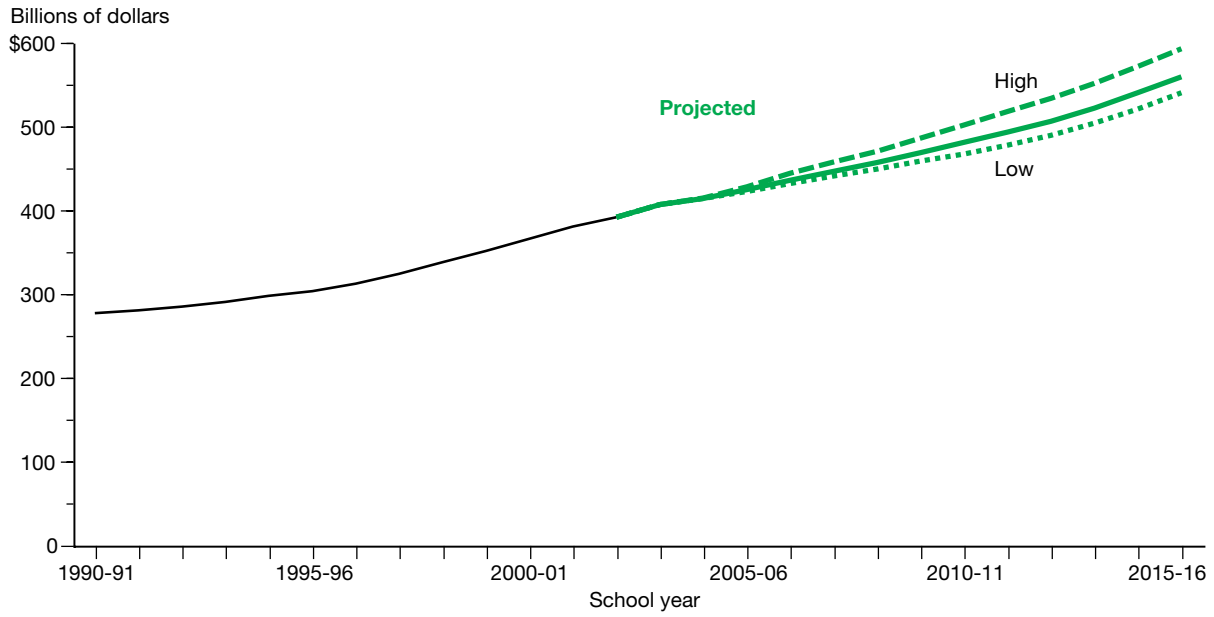
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years, 1991–92 through 2001–02; and Elementary and Secondary Teacher Model, 1968–2002.

Figure 30. Actual and middle alternative projected numbers for the pupil/teacher ratios in elementary and secondary schools, by control of school: Fall 1990 through fall 2015



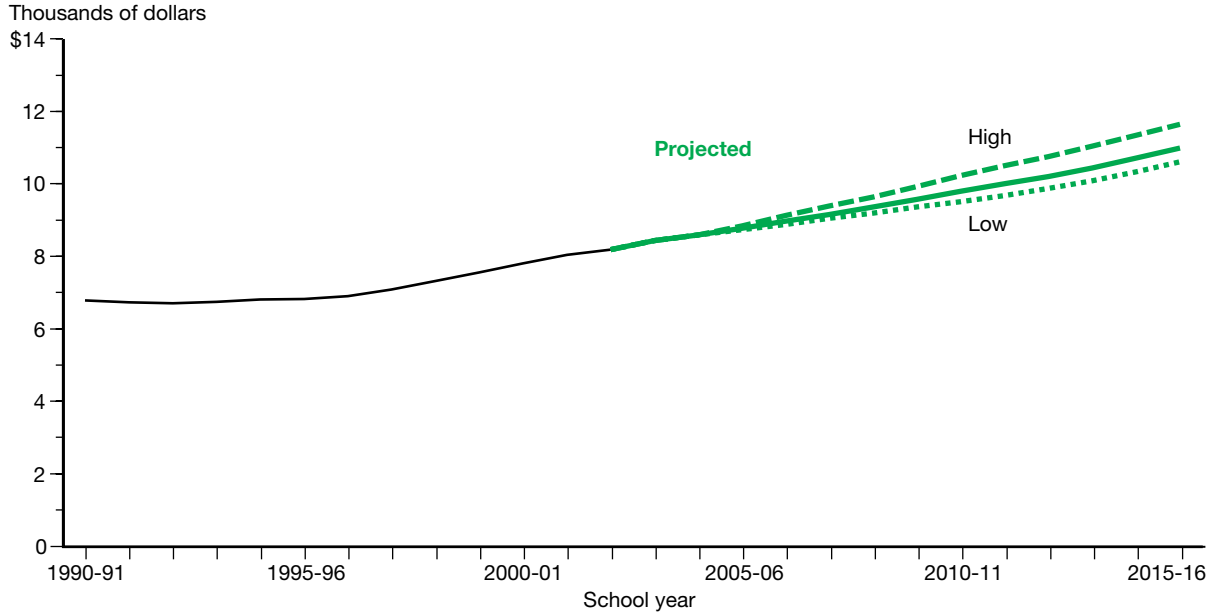
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years, 1990–91 through 2001–02; and Elementary and Secondary Teacher Model, 1968–2002.

Figure 31. Actual and alternative projected numbers for current expenditures for public elementary and secondary schools (in constant 2003–04 dollars): 1990–91 through 2015–16



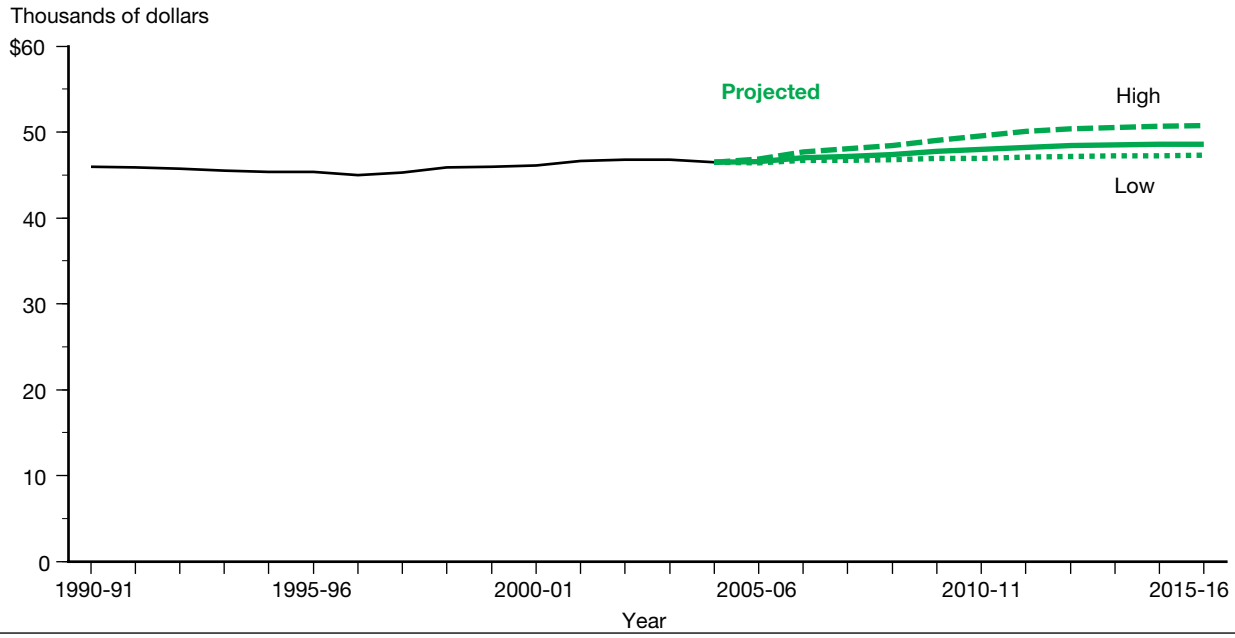
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), National Public Education Financial Survey," 1990–91 through 2002–03, and Elementary and Secondary School Current Expenditures Model, 1969–70 through 2002–03.

Figure 32. Actual and alternative projected numbers for current expenditures per pupil in fall enrollment in public elementary and secondary schools (in constant 2003–04 dollars): 1990–91 through 2015–16



SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; "National Public Education Financial Survey," 1990–91 through 2002–03; National Elementary and Secondary Enrollment Model, 1972–2003; and Elementary and Secondary School Current Expenditures Model, 1969–70 through 2002–03.

Figure 33. Estimated and alternative projected numbers for average annual salaries of elementary and secondary teachers in public schools (in constant 2003–04 dollars): 1990–91 through 2015–16



SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Salary Model, 1970–71 through 2002–03; and *Ranking and Estimates: Rankings of the States 2004 and Estimates of School Statistics 2005*, National Education Association.

Table 1. Actual and projected numbers for enrollment in grades PK–12, PK–8, and 9–12 in elementary and secondary schools, by control of school: Fall 1990 through fall 2015

[In thousands]

	Total			Public			Private		
Year	**PK–12[1]**	**PK–8[1]**	**9–12**	**PK–12**	**PK–8**	**9–12**	**PK–12[1]**	**PK–8[1]**	**9–12**
Actual									
1990	46,451	33,962	12,488	41,217	29,878	11,338	5,234	4,084	1,150
1991 [2]	47,322	34,619	12,703	42,047	30,506	11,541	5,275	4,113	1,162
1992 [2]	48,145	35,264	12,882	42,823	31,088	11,735	5,322	4,175	1,147
1993 [2]	48,812	35,719	13,093	43,465	31,504	11,961	5,348	4,215	1,132
1994 [2]	49,610	36,233	13,376	44,111	31,898	12,213	5,498	4,335	1,163
1995	50,503	36,806	13,697	44,840	32,341	12,500	5,662	4,465	1,197
1996 [2]	51,375	37,316	14,060	45,611	32,764	12,847	5,764	4,551	1,213
1997	51,968	37,696	14,272	46,127	33,073	13,054	5,841	4,623	1,218
1998 [2]	52,475	38,048	14,427	46,539	33,346	13,193	5,937	4,702	1,235
1999	52,875	38,253	14,622	46,857	33,488	13,369	6,018	4,765	1,254
2000 [2]	53,357	38,556	14,802	47,204	33,688	13,515	6,154	4,867	1,287
2001	53,992	38,931	15,061	47,672	33,938	13,734	6,320	4,993	1,326
2002 [2]	54,576	39,150	15,426	48,183	34,116	14,067	6,393	5,034	1,359
2003 [2]	54,989	39,267	15,722	48,541	34,202	14,338	6,448	5,065	1,383
Projected									
2004	54,964	38,915	16,049	48,560	33,925	14,634	6,404	4,990	1,414
2005	55,148	38,820	16,328	48,710	33,823	14,887	6,438	4,997	1,441
2006	55,460	38,961	16,498	48,948	33,906	15,042	6,512	5,055	1,456
2007	55,628	39,064	16,564	49,091	33,990	15,101	6,536	5,074	1,463
2008	55,726	39,259	16,467	49,167	34,154	15,013	6,559	5,105	1,454
2009	55,852	39,489	16,363	49,267	34,350	14,917	6,585	5,139	1,446
2010	56,034	39,799	16,234	49,415	34,618	14,797	6,619	5,181	1,437
2011	56,296	40,131	16,165	49,637	34,907	14,730	6,659	5,224	1,435
2012	56,647	40,577	16,071	49,938	35,297	14,641	6,709	5,280	1,429
2013	57,058	41,065	15,993	50,294	35,724	14,569	6,765	5,341	1,424
2014	57,561	41,543	16,018	50,735	36,142	14,593	6,826	5,401	1,425
2015	58,107	41,887	16,220	51,220	36,439	14,780	6,888	5,448	1,440

[1] Includes private nursery and prekindergarten enrollment in schools that offer first or higher grades.

[2] Private school numbers are estimated 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 because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years 1990–91 through 2001–02; and National Elementary and Secondary Enrollment Model, 1972–2003. (This table was prepared November 2005.)

Table 2. Actual and projected numbers for enrollment in elementary and secondary schools, by organizational level and control of school: Fall 1990 through fall 2015

[In thousands]

	Total			Public			Private		
Year	PK–12[1]	Elementary	Secondary	PK–12	Elementary	Secondary	PK–12[1]	Elementary	Secondary
Actual									
1990	46,451	31,134	15,317	41,217	27,050	14,167	5,234	4,084	1,150
1991 [2]	47,322	31,604	15,719	42,047	27,490	14,557	5,275	4,113	1,162
1992 [2]	48,145	32,125	16,020	42,823	27,950	14,874	5,322	4,175	1,147
1993 [2]	48,812	32,484	16,328	43,465	28,269	15,196	5,348	4,215	1,132
1994 [2]	49,610	32,620	16,990	44,111	28,285	15,827	5,498	4,335	1,163
1995	50,503	33,080	17,423	44,840	28,614	16,226	5,662	4,465	1,197
1996 [2]	51,375	33,293	18,083	45,611	28,741	16,870	5,764	4,551	1,213
1997	51,968	33,732	18,237	46,127	29,109	17,018	5,841	4,623	1,218
1998 [2]	52,475	33,959	18,516	46,539	29,257	17,281	5,937	4,702	1,235
1999	52,875	34,183	18,692	46,857	29,419	17,439	6,018	4,765	1,254
2000 [2]	53,357	34,371	18,986	47,204	29,504	17,700	6,154	4,867	1,287
2001	53,992	34,736	19,255	47,672	29,743	17,929	6,320	4,993	1,326
2002 [2]	54,576	34,858	19,718	48,183	29,824	18,359	6,393	5,034	1,359
2003 [2]	54,989	34,944	20,045	48,541	29,879	18,662	6,448	5,065	1,383
Projected									
2004	54,964	34,556	20,408	48,560	29,566	18,994	6,404	4,990	1,414
2005	55,148	34,485	20,662	48,710	29,488	19,222	6,438	4,997	1,441
2006	55,460	34,673	20,787	48,948	29,617	19,331	6,512	5,055	1,456
2007	55,628	34,806	20,822	49,091	29,732	19,359	6,536	5,074	1,463
2008	55,726	35,024	20,702	49,167	29,919	19,248	6,559	5,105	1,454
2009	55,852	35,266	20,586	49,267	30,126	19,140	6,585	5,139	1,446
2010	56,034	35,600	20,434	49,415	30,419	18,996	6,619	5,181	1,437
2011	56,296	35,962	20,334	49,637	30,739	18,898	6,659	5,224	1,435
2012	56,647	36,376	20,271	49,938	31,096	18,842	6,709	5,280	1,429
2013	57,058	36,744	20,315	50,294	31,403	18,891	6,765	5,341	1,424
2014	57,561	37,128	20,433	50,735	31,727	19,008	6,826	5,401	1,425
2015	58,107	37,455	20,652	51,220	32,007	19,213	6,888	5,448	1,440

[1] Includes private nursery and prekindergarten enrollment in schools that offer first or higher grades.
[2] Private school numbers are estimated 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 PK–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 because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years 1990–91 through 2001–02; and National Elementary and Secondary Enrollment Model, 1972–2003. (This table was prepared November 2005.)

Table 3. Actual and projected numbers for enrollment in public elementary and secondary schools, by grade: Fall 1990 to fall 2015

[In thousands]

		Grade															
Year	Total	PK	K	1	2	3	4	5	6	7	8	9	10	11	12	Elementary unclassified	Secondary unclassified
Actual																	
1990. . .	41,217	303	3,306	3,499	3,327	3,297	3,248	3,197	3,110	3,067	2,979	3,169	2,896	2,612	2,381	543	282
1991. . .	42,047	375	3,311	3,556	3,360	3,334	3,315	3,268	3,239	3,181	3,020	3,313	2,915	2,645	2,392	545	275
1992. . .	42,823	505	3,313	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	545	3,377	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	603	3,444	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	637	3,536	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	670	3,532	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	695	3,503	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	729	3,443	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	751	3,397	3,684	3,656	3,691	3,686	3,604	3,564	3,541	3,497	3,935	3,415	3,034	2,782	417	203
2000. . .	47,204	776	3,382	3,636	3,634	3,676	3,711	3,707	3,663	3,629	3,538	3,963	3,491	3,083	2,803	336	175
2001. . .	47,672	865	3,379	3,614	3,593	3,653	3,695	3,727	3,769	3,720	3,616	4,012	3,528	3,174	2,863	306	157
2002. . .	48,183	915	3,434	3,594	3,565	3,623	3,669	3,711	3,788	3,821	3,709	4,105	3,584	3,229	2,990	287	160
2003. . .	48,541	950	3,503	3,613	3,544	3,611	3,619	3,685	3,772	3,841	3,809	4,191	3,675	3,277	3,047	256	149
Projected																	
2004. . .	48,560	875	3,417	3,555	3,561	3,574	3,617	3,635	3,743	3,826	3,825	4,311	3,741	3,347	3,067	299	169
2005. . .	48,710	889	3,472	3,560	3,503	3,591	3,580	3,632	3,692	3,797	3,811	4,329	3,848	3,407	3,132	295	172
2006. . .	48,948	928	3,622	3,610	3,509	3,534	3,597	3,595	3,690	3,745	3,781	4,313	3,864	3,504	3,188	295	173
2007. . .	49,091	929	3,627	3,766	3,558	3,539	3,539	3,612	3,652	3,743	3,730	4,279	3,850	3,519	3,279	295	174
2008. . .	49,167	935	3,651	3,770	3,711	3,588	3,545	3,555	3,670	3,705	3,728	4,221	3,820	3,506	3,293	296	173
2009. . .	49,267	942	3,679	3,795	3,716	3,743	3,594	3,560	3,611	3,722	3,690	4,219	3,768	3,479	3,280	297	171
2010. . .	49,415	951	3,711	3,823	3,740	3,748	3,749	3,610	3,616	3,663	3,707	4,176	3,766	3,432	3,255	299	168
2011. . .	49,637	959	3,746	3,857	3,768	3,773	3,754	3,765	3,667	3,668	3,648	4,196	3,728	3,429	3,211	302	166
2012. . .	49,938	969	3,782	3,892	3,801	3,801	3,779	3,770	3,825	3,719	3,653	4,128	3,745	3,395	3,209	306	164
2013. . .	50,294	979	3,820	3,930	3,836	3,834	3,807	3,795	3,830	3,880	3,705	4,135	3,685	3,411	3,176	309	163
2014. . .	50,735	989	3,860	3,970	3,873	3,870	3,840	3,823	3,855	3,885	3,865	4,192	3,691	3,356	3,191	313	162
2015. . .	51,220	999	3,899	4,011	3,913	3,907	3,876	3,857	3,884	3,910	3,869	4,373	3,742	3,361	3,140	315	163

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics: The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1991–2004; and National Elementary and Secondary Enrollment Model, 1972–2003. (This table was prepared November 2005.)

Table 4. Actual and projected numbers for enrollment in grades PK–12 in public elementary and secondary schools, by region and state: Fall 1997 through fall 2015

[In thousands]

	Actual							Projected		
Region and state	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
United States	**46,127**	**46,539**	**46,857**	**47,204**	**47,672**	**48,183**	**48,541**	**48,560**	**48,710**	**48,948**
Northeast	8,085	8,145	8,196	8,222	8,250	8,297	8,292	8,252	8,222	8,187
Connecticut	535	545	554	562	570	570	577	575	575	573
Maine	213	211	209	207	206	204	202	199	198	196
Massachusetts	949	962	971	975	973	983	980	972	970	967
New Hampshire	202	205	207	208	207	208	207	205	203	201
New Jersey	1,250	1,269	1,289	1,313	1,342	1,367	1,381	1,393	1,398	1,401
New York	2,862	2,877	2,888	2,882	2,872	2,888	2,865	2,841	2,821	2,804
Pennsylvania	1,815	1,816	1,817	1,814	1,822	1,817	1,821	1,811	1,803	1,793
Rhode Island	153	155	156	157	158	159	159	160	159	158
Vermont	106	105	105	102	101	100	99	97	95	94
Midwest	10,704	10,722	10,726	10,730	10,745	10,819	10,809	10,752	10,774	10,774
Illinois	1,998	2,012	2,028	2,049	2,071	2,084	2,101	2,097	2,100	2,107
Indiana	987	989	989	989	996	1,004	1,011	1,019	1,025	1,030
Iowa	501	498	497	495	486	482	481	478	483	483
Kansas	469	472	472	471	470	471	470	463	464	463
Michigan	1,703	1,720	1,726	1,721	1,731	1,785	1,758	1,753	1,754	1,751
Minnesota	854	856	854	854	851	847	843	831	833	832
Missouri	911	913	914	913	910	906	906	905	908	909
Nebraska	293	291	288	286	285	285	286	283	284	285
North Dakota	119	115	113	109	106	104	102	100	98	96
Ohio	1,847	1,842	1,837	1,835	1,831	1,838	1,845	1,832	1,833	1,828
South Dakota	142	132	131	129	128	130	126	124	123	122
Wisconsin	882	880	878	879	879	881	880	868	869	867
South	16,563	16,713	16,842	17,007	17,237	17,471	17,673	17,734	17,858	18,052
Alabama	749	748	741	740	737	739	731	734	735	736
Arkansas	456	452	451	450	450	451	455	454	457	459
Delaware	112	113	113	115	116	116	118	118	120	121
District of Columbia	77	72	77	69	75	76	78	77	74	74
Florida	2,294	2,338	2,381	2,435	2,500	2,540	2,588	2,618	2,622	2,654
Georgia	1,376	1,401	1,423	1,445	1,471	1,496	1,523	1,537	1,556	1,585
Kentucky	669	656	648	666	654	661	664	659	664	667
Louisiana	777	769	757	743	731	730	728	721	721	721
Maryland	831	842	847	853	861	867	869	870	870	873
Mississippi	505	502	501	498	494	493	494	491	492	494
North Carolina	1,236	1,255	1,276	1,294	1,315	1,336	1,360	1,374	1,385	1,404
Oklahoma	624	628	627	623	622	625	626	617	618	618
South Carolina	659	665	667	677	676	694	699	697	702	707
Tennessee	893	905	916	909	925	928	937	936	947	954
Texas	3,892	3,945	3,992	4,060	4,163	4,260	4,332	4,354	4,409	4,488
Virginia	1,111	1,124	1,134	1,145	1,163	1,177	1,192	1,201	1,208	1,220
West Virginia	301	298	292	286	283	282	281	277	277	277
West	10,775	10,959	11,093	11,244	11,440	11,596	11,766	11,821	11,857	11,934
Alaska	132	135	134	133	134	134	134	133	133	132
Arizona	814	848	853	878	922	938	1,012	1,040	1,061	1,089
California	5,804	5,926	6,039	6,141	6,248	6,354	6,414	6,437	6,428	6,451
Colorado	687	699	708	725	742	752	758	762	766	775
Hawaii	190	188	186	184	185	184	184	182	181	182
Idaho	244	245	245	245	247	249	252	253	257	261
Montana	162	160	158	155	152	150	148	145	145	144
Nevada	297	311	326	341	357	369	385	401	413	424
New Mexico	332	329	324	320	320	320	323	321	319	318
Oregon	541	543	545	546	551	554	551	548	548	547
Utah	483	481	480	481	485	489	496	499	507	514
Washington	991	998	1,004	1,005	1,009	1,015	1,021	1,016	1,015	1,014
Wyoming	97	95	92	90	88	88	87	85	84	83

See notes at end of table.

Table 4. Actual and projected numbers for enrollment in grades PK–12 in public elementary and secondary schools, by region and state: Fall 1997 through fall 2015—Continued

[In thousands]

	Projected—Continued								
Region and state	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
United States	**49,091**	**49,167**	**49,267**	**49,415**	**49,637**	**49,938**	**50,294**	**50,735**	**51,220**
Northeast	8,136	8,071	8,006	7,949	7,904	7,875	7,861	7,863	7,879
Connecticut	570	565	561	557	553	551	549	547	547
Maine	194	192	190	188	188	187	188	188	189
Massachusetts	962	956	951	946	942	940	939	939	940
New Hampshire	199	198	196	195	195	196	197	198	200
New Jersey	1,403	1,404	1,403	1,403	1,402	1,403	1,404	1,407	1,410
New York	2,779	2,748	2,716	2,688	2,664	2,647	2,637	2,633	2,637
Pennsylvania	1,781	1,764	1,747	1,733	1,722	1,715	1,712	1,713	1,718
Rhode Island	156	155	153	152	151	151	151	151	151
Vermont	92	90	88	87	86	86	86	86	86
Midwest	10,748	10,702	10,659	10,631	10,619	10,626	10,654	10,696	10,744
Illinois	2,107	2,105	2,100	2,097	2,096	2,093	2,094	2,099	2,107
Indiana	1,032	1,031	1,029	1,029	1,028	1,030	1,031	1,032	1,035
Iowa	482	481	480	479	479	480	483	485	487
Kansas	462	461	460	460	461	463	465	468	471
Michigan	1,740	1,722	1,706	1,694	1,685	1,680	1,679	1,682	1,687
Minnesota	830	827	826	827	830	836	844	855	866
Missouri	908	907	905	903	905	909	915	921	927
Nebraska	285	286	286	288	289	291	293	295	297
North Dakota	94	93	92	91	90	90	90	89	89
Ohio	1,819	1,808	1,796	1,787	1,779	1,775	1,774	1,776	1,778
South Dakota	122	121	121	121	121	121	122	123	124
Wisconsin	865	861	857	856	856	859	864	870	877
South	18,210	18,366	18,533	18,705	18,908	19,143	19,378	19,647	19,918
Alabama	735	731	729	726	725	724	725	726	727
Arkansas	461	463	465	467	471	474	478	481	484
Delaware	122	123	124	124	125	126	127	129	131
District of Columbia	72	70	71	71	70	70	70	70	71
Florida	2,684	2,709	2,749	2,783	2,823	2,880	2,916	2,969	3,024
Georgia	1,610	1,631	1,651	1,673	1,697	1,723	1,751	1,781	1,811
Kentucky	668	670	670	671	673	675	677	680	681
Louisiana	720	722	722	722	723	725	728	732	735
Maryland	872	871	870	871	875	881	890	902	915
Mississippi	495	496	495	495	495	496	497	498	499
North Carolina	1,417	1,430	1,443	1,456	1,474	1,492	1,513	1,536	1,560
Oklahoma	619	620	622	623	626	630	634	639	643
South Carolina	708	711	712	714	716	720	724	729	734
Tennessee	958	962	965	969	975	983	992	1,002	1,013
Texas	4,567	4,649	4,733	4,820	4,912	5,006	5,105	5,208	5,310
Virginia	1,227	1,233	1,238	1,245	1,254	1,265	1,278	1,293	1,310
West Virginia	275	275	274	273	273	272	271	271	271
West	11,997	12,028	12,070	12,130	12,206	12,295	12,400	12,529	12,678
Alaska	132	131	131	131	132	133	135	138	140
Arizona	1,113	1,139	1,164	1,191	1,219	1,247	1,276	1,304	1,334
California	6,465	6,456	6,450	6,455	6,463	6,477	6,500	6,542	6,599
Colorado	784	791	797	804	813	823	833	843	854
Hawaii	183	184	186	188	190	193	196	199	203
Idaho	264	267	270	273	278	282	288	292	297
Montana	143	142	141	141	141	142	144	145	147
Nevada	436	446	456	466	477	488	499	510	523
New Mexico	317	315	314	314	315	316	318	320	322
Oregon	546	544	543	544	547	551	556	562	569
Utah	522	529	536	543	552	560	568	576	582
Washington	1,010	1,004	999	996	996	1,000	1,006	1,014	1,023
Wyoming	83	82	82	82	82	83	83	84	84

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1997–98 through 2003–04; and State Elementary and Secondary Enrollment Model, 1980–2003. (This table was prepared November 2005.)

Table 5. Actual and projected percentage changes in PK–12 enrollment in public schools, by region and state: Selected years, fall 1997 through fall 2015

Region and state	Actual 1997-2003	Projected		
		2003-2009	2009-2015	2003-2015
United States	**5.2**	**1.5**	**4.0**	**5.5**
Northeast	2.6	-3.5	-1.6	-5.0
Connecticut	7.9	-2.8	-2.6	-5.3
Maine	-4.9	-6.0	-0.3	-6.3
Massachusetts	3.3	-3.0	-1.1	-4.1
New Hampshire	2.9	-5.3	1.8	-3.6
New Jersey	10.4	1.6	0.5	2.1
New York	0.1	-5.2	-2.9	-7.9
Pennsylvania	0.3	-4.1	-1.7	-5.7
Rhode Island	3.9	-3.8	-1.3	-5.1
Vermont	-6.5	-10.9	-2.1	-12.8
Midwest	1.0	-1.4	0.8	-0.6
Illinois	5.1	0.0	0.3	0.3
Indiana	2.5	1.8	0.6	2.3
Iowa	-4.0	-0.3	1.5	1.2
Kansas	0.4	-2.2	2.3	#
Michigan	3.2	-2.9	-1.1	-4.0
Minnesota	-1.3	-1.9	4.8	2.7
Missouri	-0.5	-0.1	2.4	2.3
Nebraska	-2.4	0.3	3.7	4.1
North Dakota	-13.8	-10.2	-2.7	-12.6
Ohio	-0.1	-2.7	-1.0	-3.6
South Dakota	-11.9	-3.8	2.6	-1.3
Wisconsin	-0.2	-2.6	2.3	-0.4
South	6.7	4.9	7.5	12.7
Alabama	-2.4	-0.4	-0.2	-0.6
Arkansas	-0.4	2.3	4.1	6.4
Delaware	5.1	5.0	5.7	11.0
District of Columbia	1.2	-8.8	-1.3	-8.7
Florida	12.8	6.2	10.0	16.9
Georgia	10.7	8.4	9.7	19.0
Kentucky	-0.8	1.0	1.6	2.6
Louisiana	-6.3	-0.8	1.8	1.0
Maryland	4.6	0.1	5.2	5.3
Mississippi	-2.2	0.4	0.8	1.2
North Carolina	10.0	6.1	8.1	14.7
Oklahoma	0.4	-0.7	3.4	2.7
South Carolina	6.1	1.8	3.0	4.9
Tennessee	4.9	3.0	4.9	8.1
Texas	11.3	9.3	12.2	22.6
Virginia	7.3	3.9	5.8	9.9
West Virginia	-6.7	-2.6	-1.2	-3.8
West	9.2	2.6	5.0	7.8
Alaska	1.4	-2.5	7.5	4.8
Arizona	24.3	15.1	14.6	31.8
California	10.5	0.6	2.3	2.9
Colorado	10.3	5.2	7.1	12.7
Hawaii	-3.3	1.1	9.4	10.6
Idaho	3.2	7.1	10.1	17.9
Montana	-8.6	-4.9	3.9	-1.2
Nevada	29.9	18.4	14.6	35.7
New Mexico	-2.6	-2.7	2.5	-0.3
Oregon	1.8	-1.5	4.8	3.2
Utah	2.7	8.1	8.7	17.4
Washington	3.0	-2.2	2.4	0.2
Wyoming	-9.9	-6.1	2.4	-3.8

Rounds to zero.

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," selected years, 1997–98 through 2003–04; and State Elementary and Secondary Enrollment Model, 1980–2003. (This table was prepared November 2005.)

Table 6. Actual and projected numbers for enrollment in grades PK–8 in public elementary and secondary schools, by region and state: Fall 1997 through fall 2015

[In thousands]

	Actual							Projected		
Region and state	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
United States	**33,073**	**33,346**	**33,488**	**33,688**	**33,938**	**34,116**	**34,202**	**33,925**	**33,823**	**33,906**
Northeast	5,774	5,820	5,841	5,841	5,824	5,810	5,752	5,659	5,597	5,550
Connecticut	394	399	404	406	410	406	408	401	400	396
Maine	153	151	149	146	144	142	139	137	136	134
Massachusetts	696	705	706	703	699	701	692	678	674	671
New Hampshire	145	147	147	147	144	144	142	138	137	135
New Jersey	921	936	954	968	972	979	979	975	970	968
New York	2,011	2,028	2,034	2,029	2,017	2,017	1,979	1,939	1,906	1,885
Pennsylvania	1,266	1,267	1,262	1,258	1,255	1,242	1,236	1,217	1,203	1,191
Rhode Island	112	112	114	114	113	113	111	110	109	107
Vermont	74	73	72	70	69	68	67	64	64	63
Midwest	7,554	7,565	7,551	7,523	7,517	7,535	7,502	7,401	7,383	7,364
Illinois	1,438	1,452	1,462	1,474	1,484	1,488	1,493	1,476	1,466	1,466
Indiana	693	697	699	703	711	714	717	717	715	717
Iowa	338	337	336	334	330	326	327	322	325	324
Kansas	328	327	326	323	322	322	323	316	317	316
Michigan	1,236	1,245	1,245	1,222	1,223	1,254	1,229	1,209	1,202	1,194
Minnesota	588	587	580	578	573	568	564	554	556	557
Missouri	650	651	649	645	643	635	632	628	627	624
Nebraska	202	200	197	195	195	195	195	192	193	194
North Dakota	80	77	75	72	70	69	68	66	65	63
Ohio	1,299	1,301	1,296	1,294	1,287	1,284	1,278	1,258	1,253	1,248
South Dakota	98	91	90	88	87	89	86	85	85	84
Wisconsin	604	601	596	595	592	592	590	578	579	577
South	12,022	12,127	12,191	12,314	12,454	12,573	12,675	12,640	12,670	12,800
Alabama	541	542	539	539	536	533	525	523	522	523
Arkansas	322	319	318	318	318	319	322	319	320	321
Delaware	79	80	80	81	81	82	83	82	83	84
District of Columbia	60	57	60	54	58	59	59	57	53	52
Florida	1,680	1,704	1,725	1,760	1,797	1,809	1,832	1,844	1,832	1,854
Georgia	1,011	1,029	1,044	1,060	1,075	1,089	1,103	1,105	1,114	1,136
Kentucky	474	464	459	471	473	477	478	472	474	475
Louisiana	564	558	548	547	537	537	536	530	528	526
Maryland	602	607	607	609	611	610	606	600	596	596
Mississippi	365	365	365	364	362	360	361	357	357	357
North Carolina	906	921	935	945	956	964	974	977	980	992
Oklahoma	445	448	447	445	446	449	450	441	442	441
South Carolina	473	478	484	493	487	500	501	499	499	501
Tennessee	653	665	664	668	675	673	675	669	674	678
Texas	2,832	2,868	2,896	2,943	3,016	3,080	3,133	3,134	3,168	3,230
Virginia	807	815	817	816	826	832	837	836	834	839
West Virginia	207	206	203	201	200	200	199	195	194	193
West	7,723	7,834	7,904	8,010	8,143	8,198	8,273	8,226	8,172	8,192
Alaska	96	97	96	94	95	94	94	92	91	91
Arizona	596	623	624	641	672	660	704	716	724	740
California	4,196	4,270	4,337	4,408	4,479	4,526	4,540	4,496	4,432	4,421
Colorado	494	501	507	517	529	534	536	538	539	545
Hawaii	136	135	133	132	132	131	130	127	126	127
Idaho	169	169	169	170	171	173	175	176	179	181
Montana	112	110	107	105	103	101	100	97	98	97
Nevada	219	229	240	251	262	271	281	288	292	298
New Mexico	236	232	229	225	225	224	226	223	220	219
Oregon	381	380	378	379	382	382	378	375	373	372
Utah	329	329	329	333	338	343	349	351	357	363
Washington	694	696	695	694	696	697	699	690	686	682
Wyoming	66	64	62	60	59	60	60	57	57	57

See notes at end of table.

Table 6. Actual and projected numbers for enrollment in grades PK–8 in public elementary and secondary schools, by region and state: Fall 1997 through fall 2015—Continued

[In thousands]

Region and state	Projected—Continued								
	2007	2008	2009	2010	2011	2012	2013	2014	2015
United States	**33,990**	**34,154**	**34,350**	**34,618**	**34,907**	**35,297**	**35,724**	**36,142**	**36,439**
Northeast	5,509	5,476	5,453	5,442	5,442	5,458	5,474	5,494	5,501
Connecticut	393	391	388	385	383	383	382	382	382
Maine	133	132	132	132	132	133	133	134	135
Massachusetts	669	669	668	668	668	670	671	672	670
New Hampshire	135	134	134	135	136	137	139	140	142
New Jersey	968	969	970	972	974	978	982	986	990
New York	1,864	1,847	1,834	1,827	1,826	1,829	1,835	1,841	1,839
Pennsylvania	1,179	1,169	1,162	1,159	1,159	1,163	1,167	1,172	1,176
Rhode Island	106	105	105	104	104	104	105	105	106
Vermont	61	60	60	59	59	60	60	60	61
Midwest	7,343	7,331	7,336	7,355	7,382	7,429	7,460	7,492	7,511
Illinois	1,464	1,459	1,457	1,460	1,463	1,471	1,481	1,490	1,493
Indiana	716	717	717	717	717	718	720	721	720
Iowa	324	324	326	328	330	333	333	333	333
Kansas	317	317	319	321	323	326	327	329	330
Michigan	1,185	1,175	1,169	1,167	1,167	1,169	1,171	1,173	1,174
Minnesota	557	559	563	568	575	584	590	597	603
Missouri	623	626	630	634	639	645	649	653	656
Nebraska	195	197	198	200	202	205	206	208	208
North Dakota	62	62	62	62	62	62	62	62	63
Ohio	1,239	1,235	1,232	1,233	1,234	1,238	1,239	1,240	1,238
South Dakota	84	84	85	86	86	88	88	88	89
Wisconsin	577	576	578	581	584	591	595	599	603
South	12,922	13,103	13,274	13,474	13,661	13,878	14,109	14,321	14,464
Alabama	521	520	521	522	523	525	525	524	522
Arkansas	324	327	331	334	337	340	342	344	345
Delaware	84	85	86	87	88	89	90	91	92
District of Columbia	50	49	51	52	53	54	55	57	57
Florida	1,874	1,920	1,940	1,974	2,004	2,040	2,093	2,145	2,184
Georgia	1,155	1,176	1,196	1,220	1,241	1,264	1,287	1,308	1,319
Kentucky	476	480	483	486	488	491	491	491	490
Louisiana	525	528	531	536	540	545	548	551	551
Maryland	596	598	602	608	615	625	635	646	654
Mississippi	357	358	360	363	365	368	368	368	366
North Carolina	1,005	1,017	1,032	1,048	1,064	1,079	1,096	1,112	1,123
Oklahoma	443	447	451	456	460	464	467	470	472
South Carolina	502	505	508	511	514	518	522	525	526
Tennessee	681	687	693	701	709	719	725	731	735
Texas	3,292	3,363	3,437	3,513	3,586	3,671	3,762	3,845	3,909
Virginia	844	850	859	868	879	892	905	918	927
West Virginia	193	193	194	195	195	196	196	195	194
West	8,216	8,243	8,286	8,348	8,423	8,532	8,682	8,836	8,963
Alaska	91	90	91	92	93	95	98	100	102
Arizona	757	774	792	809	828	848	873	899	921
California	4,407	4,392	4,387	4,397	4,417	4,461	4,539	4,620	4,683
Colorado	552	559	567	574	582	589	598	606	610
Hawaii	128	130	133	136	140	144	147	151	152
Idaho	184	187	190	193	197	201	204	207	210
Montana	97	97	98	98	100	102	102	103	104
Nevada	305	312	319	325	332	340	349	359	368
New Mexico	218	217	218	219	221	223	225	228	230
Oregon	373	374	375	378	381	385	390	396	401
Utah	370	377	383	389	395	400	404	408	411
Washington	679	677	676	678	680	684	691	700	709
Wyoming	57	57	58	58	59	60	60	60	60

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1997–98 through 2003–04; and State Elementary and Secondary Enrollment Model, 1980–2003. (This table was prepared November 2005.)

Table 7. Actual and projected percentage changes in PK–8 enrollment in public schools, by region and state: Selected years, fall 1997 through fall 2015

Region and state	Actual 1997-2003	Projected		
		2003-2009	2009-2015	2003-2015
United States	**3.4**	**0.4**	**6.1**	**6.5**
Northeast	-0.4	-5.2	0.9	-4.4
Connecticut	3.4	-4.8	-1.5	-6.3
Maine	-9.2	-5.4	2.1	-3.4
Massachusetts	-0.6	-3.5	0.4	-3.1
New Hampshire	-2.2	-5.4	5.6	-0.1
New Jersey	6.2	-0.9	2.0	1.1
New York	-1.6	-7.3	0.3	-7.0
Pennsylvania	-2.4	-5.9	1.2	-4.8
Rhode Island	-0.5	-5.9	1.5	-4.5
Vermont	-9.4	-10.5	1.6	-9.0
Midwest	-0.7	-2.2	2.4	0.1
Illinois	3.8	-2.4	2.5	#
Indiana	3.5	#	0.5	0.5
Iowa	-3.4	-0.2	2.1	1.9
Kansas	-1.5	-1.2	3.5	2.2
Michigan	-0.6	-4.9	0.5	-4.5
Minnesota	-4.0	-0.2	7.2	7.0
Missouri	-2.7	-0.4	4.2	3.8
Nebraska	-3.1	1.5	5.0	6.6
North Dakota	-15.5	-9.0	1.4	-7.7
Ohio	-1.6	-3.6	0.4	-3.2
South Dakota	-12.2	-1.2	4.6	3.3
Wisconsin	-2.3	-2.0	4.3	2.2
South	5.4	4.7	9.0	14.1
Alabama	-2.9	-0.9	0.2	-0.7
Arkansas	-0.2	3.0	4.1	7.3
Delaware	5.2	3.3	7.3	10.8
District of Columbia	-0.8	-14.4	12.4	-3.7
Florida	9.0	5.9	12.6	19.2
Georgia	9.2	8.5	10.2	19.6
Kentucky	0.8	1.0	1.5	2.5
Louisiana	-4.8	-1.0	3.8	2.7
Maryland	0.7	-0.6	8.7	8.0
Mississippi	-1.1	-0.2	1.6	1.4
North Carolina	7.5	5.9	8.8	15.2
Oklahoma	1.2	0.2	4.7	4.9
South Carolina	5.9	1.4	3.5	5.0
Tennessee	3.4	2.7	6.0	8.8
Texas	10.6	9.7	13.7	24.8
Virginia	3.7	2.5	7.9	10.7
West Virginia	-3.9	-2.5	-0.2	-2.7
West	7.1	0.2	8.2	8.3
Alaska	-2.0	-2.9	12.6	9.4
Arizona	18.2	12.5	16.2	30.7
California	8.2	-3.4	6.8	3.1
Colorado	8.5	5.7	7.7	13.8
Hawaii	-4.6	2.2	14.3	16.8
Idaho	3.9	8.4	10.3	19.6
Montana	-10.5	-2.6	7.1	4.3
Nevada	28.3	13.5	15.7	31.2
New Mexico	-4.1	-3.5	5.6	1.9
Oregon	-0.8	-0.8	6.9	6.1
Utah	6.1	9.8	7.3	17.8
Washington	0.7	-3.3	4.9	1.4
Wyoming	-8.9	-3.6	4.6	0.8

Rounds to zero.

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," selected years, 1997–98 through 2003–04; and State Elementary and Secondary Enrollment Model, 1980–2003. (This table was prepared November 2005.)

Table 8. Actual and projected numbers for enrollment in grades 9–12 in public elementary and secondary schools, by region and state: Fall 1997 through fall 2015

[In thousands]

	Actual							Projected		
Region and state	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**
United States	**13,054**	**13,193**	**13,369**	**13,515**	**13,734**	**14,067**	**14,338**	**14,634**	**14,887**	**15,042**
Northeast	2,311	2,326	2,355	2,381	2,427	2,486	2,540	2,594	2,625	2,637
Connecticut	141	145	150	156	160	164	169	173	175	177
Maine	59	60	60	61	62	63	63	63	62	62
Massachusetts	253	258	265	273	274	282	288	294	296	296
New Hampshire	56	58	60	61	62	64	65	66	66	66
New Jersey	329	333	335	346	370	389	402	419	428	433
New York	851	849	854	853	855	871	886	902	915	918
Pennsylvania	549	549	555	556	567	575	586	595	601	602
Rhode Island	42	42	43	44	45	47	48	50	50	50
Vermont	32	32	32	32	32	32	32	32	32	31
Midwest	3,151	3,156	3,175	3,207	3,228	3,284	3,307	3,351	3,391	3,410
Illinois	560	560	565	575	587	597	608	621	634	641
Indiana	294	292	289	286	285	290	294	302	310	314
Iowa	163	162	161	161	156	156	154	157	158	159
Kansas	141	145	146	147	148	149	148	147	147	146
Michigan	467	475	481	498	508	531	528	543	553	558
Minnesota	266	270	274	277	278	279	279	277	277	276
Missouri	261	263	265	268	267	272	274	277	281	285
Nebraska	91	91	91	91	90	90	90	91	91	91
North Dakota	38	38	38	37	36	35	34	34	33	33
Ohio	548	541	540	541	544	554	567	573	579	580
South Dakota	45	42	41	41	41	41	40	39	38	38
Wisconsin	278	279	281	285	288	290	290	290	290	290
South	4,541	4,586	4,650	4,693	4,783	4,898	4,998	5,094	5,187	5,253
Alabama	208	206	202	201	202	206	206	211	213	214
Arkansas	134	133	133	132	132	132	133	135	137	138
Delaware	33	33	33	34	34	34	35	36	36	37
District of Columbia	17	15	17	15	17	17	19	20	21	21
Florida	614	634	656	675	703	731	755	774	789	800
Georgia	365	372	379	385	395	407	419	432	443	449
Kentucky	195	191	189	194	181	184	186	188	190	192
Louisiana	213	210	209	197	194	194	191	192	193	195
Maryland	229	235	239	244	250	256	263	269	274	277
Mississippi	140	137	135	134	132	132	133	134	136	137
North Carolina	330	334	341	348	359	372	386	397	405	411
Oklahoma	179	181	180	178	176	176	176	176	177	177
South Carolina	187	187	183	184	189	194	198	198	203	205
Tennessee	240	241	252	241	250	254	261	267	273	276
Texas	1,059	1,077	1,096	1,117	1,147	1,180	1,199	1,220	1,241	1,257
Virginia	304	309	317	329	337	346	355	365	374	381
West Virginia	94	92	88	85	83	82	82	82	83	83
West	3,051	3,125	3,189	3,234	3,297	3,398	3,493	3,595	3,684	3,743
Alaska	36	38	39	39	39	40	40	41	41	42
Arizona	218	226	229	237	251	277	308	323	337	349
California	1,608	1,656	1,702	1,733	1,769	1,828	1,874	1,941	1,996	2,030
Colorado	193	198	202	208	213	217	221	224	227	230
Hawaii	53	53	53	52	53	53	54	55	55	55
Idaho	76	76	76	75	75	75	77	78	79	80
Montana	50	50	50	50	49	49	48	48	47	47
Nevada	78	82	86	90	94	99	105	113	121	126
New Mexico	96	96	96	95	95	96	97	98	99	99
Oregon	160	163	167	167	170	172	173	174	175	175
Utah	154	153	151	148	147	147	147	148	150	151
Washington	297	302	309	310	313	318	322	326	329	332
Wyoming	32	31	30	30	29	28	28	27	27	27

Table 8. Actual and projected numbers for enrollment in grades 9–12 in public elementary and secondary schools, by region and state: Fall 1997 through fall 2015 —Continued

[In thousands]

	Projected—Continued								
Region and state	**2007**	**2008**	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
United States	**15,101**	**15,013**	**14,917**	**14,797**	**14,730**	**14,641**	**14,569**	**14,593**	**14,780**
Northeast	2,627	2,594	2,553	2,508	2,463	2,417	2,388	2,369	2,378
Connecticut	177	175	173	172	170	168	167	166	165
Maine	61	59	58	56	55	54	54	54	55
Massachusetts	293	287	283	278	274	270	268	267	270
New Hampshire	65	63	62	61	59	58	58	58	58
New Jersey	435	434	433	431	428	425	422	421	421
New York	914	901	882	861	839	817	801	792	798
Pennsylvania	602	595	585	574	563	551	544	541	542
Rhode Island	50	50	49	48	47	46	46	45	45
Vermont	30	30	29	28	27	26	26	26	26
Midwest	3,406	3,371	3,322	3,276	3,237	3,197	3,194	3,204	3,233
Illinois	643	646	643	637	632	622	613	609	614
Indiana	316	314	312	312	311	311	311	312	314
Iowa	159	156	153	151	150	148	150	152	154
Kansas	145	143	141	140	138	137	138	139	141
Michigan	556	548	537	527	518	511	509	509	512
Minnesota	273	268	264	259	256	252	254	258	262
Missouri	285	281	275	269	266	264	266	268	271
Nebraska	91	89	88	87	87	86	87	87	89
North Dakota	32	31	30	29	29	28	27	27	27
Ohio	580	573	564	555	545	537	535	536	540
South Dakota	37	37	36	35	34	34	34	35	35
Wisconsin	288	285	279	275	272	268	270	271	274
South	5,287	5,262	5,258	5,232	5,247	5,265	5,269	5,326	5,454
Alabama	214	211	208	204	202	200	200	202	205
Arkansas	137	135	134	133	134	134	136	137	139
Delaware	38	38	38	37	37	37	37	38	39
District of Columbia	22	21	20	19	18	16	15	14	14
Florida	811	789	809	809	819	840	823	824	840
Georgia	454	455	454	453	456	459	464	473	492
Kentucky	192	190	187	185	185	184	186	189	191
Louisiana	194	194	191	186	183	180	179	181	184
Maryland	276	273	268	263	260	257	256	256	261
Mississippi	138	137	135	133	130	128	129	130	133
North Carolina	412	414	411	408	410	413	417	424	437
Oklahoma	176	173	171	168	166	166	167	169	171
South Carolina	206	207	204	202	202	202	202	204	208
Tennessee	277	275	272	268	266	264	266	271	278
Texas	1,276	1,287	1,296	1,307	1,326	1,336	1,344	1,363	1,401
Virginia	383	383	380	377	375	373	373	376	384
West Virginia	83	82	80	78	77	76	75	76	77
West	3,781	3,785	3,784	3,782	3,782	3,763	3,718	3,693	3,715
Alaska	41	40	40	39	38	38	38	38	38
Arizona	356	365	372	382	392	399	403	405	413
California	2,059	2,064	2,063	2,058	2,047	2,015	1,961	1,922	1,916
Colorado	232	231	230	230	231	233	235	238	243
Hawaii	55	54	53	52	51	50	49	49	51
Idaho	80	80	80	80	81	82	83	85	87
Montana	46	45	44	42	42	41	41	41	42
Nevada	131	134	138	141	145	148	149	151	154
New Mexico	99	98	96	95	94	93	92	92	92
Oregon	173	170	168	166	165	165	166	166	168
Utah	152	152	153	154	157	160	164	168	172
Washington	332	327	323	319	317	316	315	315	314
Wyoming	26	25	25	24	24	23	24	24	24

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1997–98 through 2003–04; and State Elementary and Secondary Enrollment Model, 1980–2003. (This table was prepared November 2005.)

Table 9. Actual and projected percentage changes in 9–12 enrollment in public schools, by region and state: Selected years, fall 1997 through fall 2015

[In thousands]

Region and state	Actual 1997-2003	Projected		
		2003-2009	2009-2015	2003-2015
United States	**9.8**	**4.0**	**-0.9**	**3.1**
Northeast	9.9	0.5	-6.8	-6.4
Connecticut	20.3	2.1	-4.8	-2.9
Maine	6.0	-7.6	-5.8	-12.9
Massachusetts	14.2	-1.9	-4.6	-6.4
New Hampshire	16.0	-5.1	-6.2	-11.0
New Jersey	22.3	7.7	-2.9	4.6
New York	4.2	-0.5	-9.5	-9.9
Pennsylvania	6.7	-0.1	-7.3	-7.5
Rhode Island	15.9	1.0	-7.5	-6.5
Vermont	0.2	-11.8	-9.9	-20.5
Midwest	5.0	0.5	-2.7	-2.2
Illinois	8.6	5.6	-4.5	0.9
Indiana	0.1	6.1	0.7	6.8
Iowa	-5.1	-0.6	0.1	-0.5
Kansas	4.8	-4.4	-0.4	-4.7
Michigan	13.3	1.7	-4.6	-3.0
Minnesota	4.9	-5.5	-0.4	-5.9
Missouri	5.0	0.5	-1.6	-1.1
Nebraska	-1.0	-2.3	0.8	-1.5
North Dakota	-10.1	-12.3	-11.2	-22.2
Ohio	3.5	-0.6	-4.2	-4.7
South Dakota	-11.2	-9.5	-2.1	-11.4
Wisconsin	4.4	-3.9	-1.8	-5.6
South	10.1	5.2	3.7	9.1
Alabama	-1.1	1.0	-1.3	-0.3
Arkansas	-0.9	0.5	3.8	4.3
Delaware	4.8	8.9	2.3	11.3
District of Columbia	8.2	8.8	-30.7	-24.6
Florida	23.1	7.2	3.8	11.2
Georgia	14.8	8.3	8.4	17.4
Kentucky	-4.8	0.9	2.0	2.9
Louisiana	-10.3	-0.2	-3.8	-4.0
Maryland	15.1	1.9	-2.6	-0.8
Mississippi	-5.1	2.0	-1.4	0.6
North Carolina	17.2	6.3	6.4	13.1
Oklahoma	-1.7	-3.0	#	-3.0
South Carolina	6.4	3.0	1.7	4.8
Tennessee	9.1	4.0	2.2	6.2
Texas	13.2	8.0	8.2	16.9
Virginia	16.9	7.1	1.0	8.1
West Virginia	-12.7	-2.8	-3.8	-6.5
West	14.5	8.3	-1.8	6.4
Alaska	10.3	-1.7	-4.3	-6.0
Arizona	41.1	20.9	11.1	34.4
California	16.5	10.1	-7.1	2.3
Colorado	14.9	4.0	5.7	9.9
Hawaii	0.1	-1.6	-3.1	-4.7
Idaho	1.5	4.0	9.6	14.1
Montana	-4.3	-9.6	-3.3	-12.6
Nevada	34.5	31.6	12.1	47.5
New Mexico	1.0	-0.8	-4.6	-5.4
Oregon	8.1	-3.2	0.2	-3.1
Utah	-4.5	3.9	12.2	16.6
Washington	8.5	0.4	-2.8	-2.5
Wyoming	-12.1	-11.3	-2.7	-13.7

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," selected years, 1997–98 through 2003–04; and State Elementary and Secondary Enrollment Model, 1980–2003. (This table was prepared November 2005.)

Table 10. Actual and alternative projected numbers for total enrollment in all degree-granting postsecondary institutions, by sex, attendance status, and control of institution: Fall 1990 through fall 2015

[In thousands]

		Sex		Attendance status		Control	
Year	Total	Men	Women	Full-time	Part-time	Public	Private
Actual							
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	14,487	6,524	7,963	8,162	6,325	11,385	3,103
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	11,121	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
2001	15,928	6,961	8,967	9,448	6,480	12,233	3,695
2002	16,612	7,202	9,410	9,946	6,665	12,752	3,860
2003	16,900	7,256	9,645	10,312	6,589	12,857	4,043
2004	17,272	7,387	9,885	10,610	6,662	12,980	4,292
Middle alternative projections							
2005	17,429	7,423	10,005	10,743	6,686	13,202	4,226
2006	17,648	7,458	10,190	10,935	6,713	13,360	4,288
2007	17,916	7,552	10,365	11,159	6,757	13,555	4,361
2008	18,202	7,657	10,545	11,400	6,802	13,765	4,437
2009	18,480	7,760	10,720	11,626	6,854	13,968	4,511
2010	18,746	7,848	10,897	11,845	6,901	14,159	4,587
2011	18,956	7,928	11,028	11,986	6,969	14,311	4,645
2012	19,182	8,000	11,182	12,135	7,048	14,473	4,709
2013	19,439	8,069	11,370	12,299	7,140	14,659	4,780
2014	19,682	8,126	11,556	12,450	7,232	14,835	4,847
2015	19,874	8,161	11,712	12,566	7,307	14,974	4,900
Low alternative projections							
2005	17,381	7,411	9,969	10,701	6,680	13,168	4,212
2006	17,559	7,435	10,124	10,858	6,701	13,296	4,262
2007	17,785	7,517	10,268	11,043	6,742	13,462	4,323
2008	18,030	7,613	10,417	11,249	6,782	13,642	4,388
2009	18,246	7,700	10,547	11,419	6,827	13,803	4,444
2010	18,455	7,773	10,682	11,590	6,865	13,952	4,503
2011	18,642	7,848	10,794	11,712	6,930	14,088	4,554
2012	18,856	7,918	10,938	11,849	7,007	14,241	4,615
2013	19,096	7,983	11,114	12,000	7,097	14,415	4,681
2014	19,322	8,037	11,286	12,135	7,187	14,580	4,742
2015	19,514	8,074	11,441	12,250	7,264	14,719	4,795
High alternative projections							
2005	17,462	7,430	10,032	10,766	6,696	13,227	4,235
2006	17,743	7,479	10,265	11,006	6,737	13,430	4,313
2007	18,059	7,583	10,475	11,268	6,790	13,659	4,399
2008	18,385	7,699	10,685	11,543	6,842	13,897	4,488
2009	18,710	7,815	10,895	11,808	6,901	14,135	4,575
2010	19,035	7,918	11,117	12,077	6,958	14,368	4,667
2011	19,296	8,009	11,287	12,260	7,035	14,556	4,739
2012	19,557	8,091	11,467	12,439	7,119	14,744	4,814
2013	19,840	8,166	11,675	12,625	7,216	14,948	4,893
2014	20,099	8,228	11,871	12,789	7,310	15,136	4,964
2015	20,305	8,266	12,039	12,917	7,389	15,284	5,021

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 11. Actual and middle alternative projected numbers for total enrollment in all degree-granting postsecondary institutions, by sex, age, and attendance status: Fall 1990 through fall 2015

[In thousands]

Sex, age, and attendance status	Actual												
	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
Total enrollment	**13,819**	**14,359**	**14,487**	**14,305**	**14,279**	**14,262**	**14,368**	**14,502**	**14,507**	**14,791**	**15,312**	**15,928**	**16,612**
14 to 17 years old	177	125	186	127	138	148	231	171	119	143	145	133	202
18 and 19 years old	2,950	2,864	2,784	2,840	2,787	2,894	3,038	3,061	3,382	3,414	3,531	3,595	3,571
20 and 21 years old	2,761	2,920	2,883	2,674	2,724	2,705	2,659	2,875	2,811	2,989	3,045	3,408	3,366
22 to 24 years old	2,144	2,306	2,527	2,570	2,482	2,411	2,324	2,475	2,377	2,435	2,617	2,760	2,932
25 to 29 years old	1,982	2,072	1,985	2,002	1,985	2,120	2,128	1,999	1,991	1,870	1,960	2,014	2,102
30 to 34 years old	1,322	1,415	1,456	1,345	1,414	1,236	1,196	1,109	1,195	1,145	1,265	1,290	1,300
35 years old and over	2,484	2,656	2,665	2,747	2,750	2,747	2,791	2,814	2,632	2,796	2,749	2,727	3,139
Men	**6,284**	**6,502**	**6,524**	**6,427**	**6,372**	**6,343**	**6,353**	**6,396**	**6,369**	**6,491**	**6,722**	**6,961**	**7,202**
14 to 17 years old	87	50	89	54	62	61	92	56	45	72	63	54	82
18 and 19 years old	1,421	1,299	1,305	1,288	1,302	1,338	1,354	1,414	1,535	1,541	1,583	1,629	1,616
20 and 21 years old	1,368	1,387	1,342	1,284	1,264	1,282	1,228	1,374	1,374	1,392	1,382	1,591	1,562
22 to 24 years old	1,107	1,232	1,272	1,344	1,238	1,153	1,177	1,200	1,127	1,090	1,293	1,312	1,342
25 to 29 years old	940	1,049	955	903	936	962	991	972	908	874	862	905	890
30 to 34 years old	537	614	627	584	601	561	477	443	463	517	527	510	547
35 years old and over	824	870	933	970	969	986	1,033	938	917	1,005	1,012	961	1,164
Women	**7,535**	**7,857**	**7,963**	**7,877**	**7,907**	**7,919**	**8,015**	**8,106**	**8,138**	**8,301**	**8,591**	**8,967**	**9,410**
14 to 17 years old	90	76	97	73	75	87	139	115	74	72	82	79	121
18 and 19 years old	1,529	1,565	1,479	1,552	1,485	1,557	1,684	1,647	1,847	1,874	1,948	1,966	1,955
20 and 21 years old	1,392	1,533	1,541	1,391	1,461	1,424	1,430	1,501	1,437	1,597	1,663	1,817	1,804
22 to 24 years old	1,037	1,074	1,255	1,226	1,243	1,258	1,147	1,275	1,250	1,344	1,324	1,448	1,590
25 to 29 years old	1,043	1,022	1,030	1,098	1,049	1,159	1,137	1,027	1,083	995	1,099	1,110	1,212
30 to 34 years old	784	800	828	761	812	675	719	666	732	627	738	780	753
35 years old and over	1,659	1,786	1,732	1,777	1,781	1,760	1,758	1,877	1,715	1,791	1,736	1,767	1,976
Full-time, total	**7,821**	**8,115**	**8,162**	**8,128**	**8,138**	**8,129**	**8,303**	**8,438**	**8,563**	**8,786**	**9,010**	**9,448**	**9,946**
14 to 17 years old	144	117	179	92	118	123	166	123	93	129	125	122	161
18 and 19 years old	2,548	2,466	2,382	2,370	2,321	2,387	2,553	2,534	2,794	2,848	2,932	2,929	2,942
20 and 21 years old	2,151	2,342	2,267	2,148	2,178	2,109	2,117	2,275	2,271	2,362	2,401	2,662	2,759
22 to 24 years old	1,350	1,467	1,594	1,612	1,551	1,517	1,598	1,606	1,564	1,662	1,653	1,757	1,922
25 to 29 years old	770	830	731	839	869	908	911	897	890	854	878	883	1,013
30 to 34 years old	387	382	409	424	440	430	383	377	367	338	422	494	465
35 years old and over	471	513	598	643	660	653	575	626	584	593	599	602	684
Men	**3,808**	**3,929**	**3,927**	**3,891**	**3,855**	**3,807**	**3,851**	**3,890**	**3,934**	**4,026**	**4,111**	**4,300**	**4,501**
14 to 17 years old	71	41	86	37	51	54	72	48	39	63	51	43	65
18 and 19 years old	1,230	1,141	1,130	1,079	1,081	1,091	1,126	1,154	1,240	1,271	1,250	1,329	1,327
20 and 21 years old	1,055	1,103	1,084	1,003	1,029	999	969	1,074	1,129	1,125	1,106	1,249	1,275
22 to 24 years old	742	817	854	896	811	789	858	770	777	788	839	854	936
25 to 29 years old	401	465	378	443	457	454	444	475	424	416	415	397	467
30 to 34 years old	156	174	174	180	193	183	143	160	141	149	195	216	183
35 years old and over	152	187	220	253	232	238	240	210	184	213	256	212	247
Women	**4,013**	**4,186**	**4,235**	**4,237**	**4,283**	**4,321**	**4,452**	**4,548**	**4,630**	**4,761**	**4,899**	**5,148**	**5,445**
14 to 17 years old	73	76	93	55	67	69	95	75	54	66	74	78	96
18 and 19 years old	1,318	1,325	1,253	1,291	1,240	1,296	1,426	1,380	1,555	1,577	1,682	1,600	1,615
20 and 21 years old	1,096	1,239	1,183	1,145	1,149	1,111	1,148	1,201	1,142	1,237	1,296	1,413	1,484
22 to 24 years old	608	650	739	716	740	729	740	836	787	875	814	903	985
25 to 29 years old	369	364	353	396	412	455	467	422	466	437	463	486	546
30 to 34 years old	231	208	235	244	247	247	240	217	226	190	227	277	282
35 years old and over	319	325	377	390	428	415	336	416	400	380	343	390	437
Part-time, total	**5,998**	**6,244**	**6,325**	**6,177**	**6,141**	**6,133**	**6,065**	**6,064**	**5,944**	**6,005**	**6,303**	**6,480**	**6,665**
14 to 17 years old	32	9	7	35	19	25	65	48	26	14	20	11	41
18 and 19 years old	402	399	402	470	466	507	485	526	588	566	599	666	628
20 and 21 years old	610	578	616	526	546	596	542	600	540	627	644	746	607
22 to 24 years old	794	840	933	958	930	894	727	869	813	772	964	1,003	1,010
25 to 29 years old	1,213	1,242	1,254	1,163	1,116	1,212	1,217	1,101	1,101	1,016	1,083	1,132	1,088
30 to 34 years old	935	1,033	1,046	921	973	805	813	732	828	806	843	796	835
35 years old and over	2,012	2,143	2,068	2,104	2,091	2,093	2,216	2,188	2,048	2,203	2,150	2,126	2,456
Men	**2,476**	**2,572**	**2,597**	**2,537**	**2,517**	**2,535**	**2,502**	**2,506**	**2,436**	**2,465**	**2,611**	**2,661**	**2,701**
14 to 17 years old	16	9	4	17	11	7	20	9	5	8	11	11	17
18 and 19 years old	191	158	176	210	220	246	228	260	296	269	333	300	288
20 and 21 years old	313	285	258	281	235	283	260	300	245	267	276	342	287
22 to 24 years old	365	415	417	448	427	365	319	430	350	302	454	458	405
25 to 29 years old	539	584	577	460	479	508	547	497	485	458	447	508	423
30 to 34 years old	381	440	453	404	408	378	334	283	322	369	332	294	364
35 years old and over	672	682	713	717	737	748	793	728	733	791	757	749	917
Women	**3,521**	**3,671**	**3,728**	**3,640**	**3,624**	**3,598**	**3,563**	**3,559**	**3,508**	**3,540**	**3,692**	**3,820**	**3,964**
14 to 17 years old	17	0	3	18	8	18	45	39	21	6	9	1	24
18 and 19 years old	211	241	226	261	245	261	257	267	292	297	266	366	340
20 and 21 years old	297	294	358	245	311	313	282	300	295	360	368	404	320
22 to 24 years old	429	425	516	510	504	529	407	439	463	470	510	545	605
25 to 29 years old	674	658	677	702	637	704	670	605	617	558	636	624	666
30 to 34 years old	554	593	593	517	565	427	479	449	506	438	511	502	471
35 years old and over	1,340	1,461	1,355	1,386	1,354	1,345	1,423	1,460	1,315	1,411	1,393	1,377	1,539

See notes at end of table.

Table 11. Actual and middle alternative projected numbers for total enrollment in all degree-granting postsecondary institutions, by sex, age, and attendance status: Fall 1990 through fall 2015—Continued

[In thousands]

Sex, age, and attendance status	Actual		Projected (middle alternative)										
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total enrollment	**16,900**	**17,272**	**17,429**	**17,648**	**17,916**	**18,202**	**18,480**	**18,746**	**18,956**	**19,182**	**19,439**	**19,682**	**19,874**
14 to 17 years old	150	200	176	181	187	188	187	187	186	188	191	193	197
18 and 19 years old	3,475	3,578	3,644	3,700	3,796	3,912	3,995	3,991	3,944	3,905	3,882	3,875	3,853
20 and 21 years old	3,469	3,651	3,712	3,780	3,824	3,883	3,977	4,107	4,171	4,156	4,131	4,099	4,075
22 to 24 years old	3,480	3,036	3,036	3,049	3,093	3,139	3,185	3,249	3,325	3,446	3,550	3,613	3,631
25 to 29 years old	2,105	2,386	2,449	2,538	2,619	2,684	2,731	2,769	2,813	2,873	2,955	3,054	3,164
30 to 34 years old	1,368	1,329	1,310	1,294	1,298	1,319	1,353	1,398	1,455	1,512	1,569	1,618	1,658
35 years old and over	2,852	3,092	3,102	3,105	3,098	3,077	3,052	3,045	3,062	3,102	3,162	3,229	3,294
Men	**7,256**	**7,387**	**7,423**	**7,458**	**7,552**	**7,657**	**7,760**	**7,848**	**7,928**	**8,000**	**8,069**	**8,126**	**8,161**
14 to 17 years old	60	78	79	80	83	83	82	81	80	80	80	80	81
18 and 19 years old	1,556	1,551	1,575	1,587	1,624	1,670	1,702	1,694	1,678	1,666	1,657	1,655	1,646
20 and 21 years old	1,490	1,743	1,754	1,771	1,784	1,807	1,847	1,902	1,935	1,928	1,917	1,903	1,892
22 to 24 years old	1,604	1,380	1,369	1,366	1,380	1,393	1,406	1,428	1,458	1,506	1,542	1,559	1,558
25 to 29 years old	929	1,045	1,063	1,090	1,121	1,147	1,164	1,176	1,189	1,205	1,227	1,256	1,289
30 to 34 years old	592	518	508	497	498	505	516	531	550	568	585	598	608
35 years old and over	1,025	1,073	1,076	1,067	1,062	1,053	1,042	1,037	1,038	1,047	1,061	1,075	1,088
Women	**9,645**	**9,885**	**10,005**	**10,190**	**10,365**	**10,545**	**10,720**	**10,897**	**11,028**	**11,182**	**11,370**	**11,556**	**11,712**
14 to 17 years old	91	122	97	101	105	106	105	106	106	108	111	113	117
18 and 19 years old	1,919	2,027	2,069	2,114	2,172	2,242	2,293	2,297	2,266	2,239	2,224	2,220	2,208
20 and 21 years old	1,979	1,908	1,958	2,009	2,040	2,076	2,130	2,205	2,237	2,228	2,214	2,197	2,183
22 to 24 years old	1,876	1,657	1,667	1,683	1,713	1,746	1,778	1,821	1,867	1,940	2,007	2,054	2,073
25 to 29 years old	1,176	1,341	1,386	1,448	1,498	1,537	1,567	1,593	1,623	1,667	1,728	1,798	1,875
30 to 34 years old	776	812	802	797	801	814	836	867	906	944	984	1,020	1,051
35 years old and over	1,827	2,018	2,026	2,038	2,036	2,024	2,010	2,008	2,023	2,055	2,102	2,154	2,206
Full-time, total	**10,312**	**10,610**	**10,743**	**10,935**	**11,159**	**11,400**	**11,626**	**11,845**	**11,986**	**12,135**	**12,299**	**12,450**	**12,566**
14 to 17 years old	120	165	137	142	147	148	147	147	147	149	152	154	158
18 and 19 years old	2,949	3,028	3,088	3,142	3,228	3,331	3,405	3,407	3,365	3,333	3,314	3,310	3,292
20 and 21 years old	2,763	2,911	2,965	3,026	3,067	3,119	3,199	3,310	3,361	3,350	3,331	3,308	3,290
22 to 24 years old	2,141	2,074	2,079	2,096	2,134	2,171	2,206	2,259	2,318	2,412	2,492	2,542	2,563
25 to 29 years old	1,070	1,131	1,166	1,216	1,261	1,298	1,325	1,352	1,383	1,426	1,483	1,548	1,618
30 to 34 years old	511	490	486	484	488	499	514	535	562	591	621	649	673
35 years old and over	757	812	821	829	834	834	831	836	851	874	906	939	972
Men	**4,632**	**4,739**	**4,768**	**4,802**	**4,876**	**4,959**	**5,038**	**5,105**	**5,161**	**5,207**	**5,245**	**5,273**	**5,287**
14 to 17 years old	50	63	62	64	65	65	65	64	64	64	64	64	64
18 and 19 years old	1,306	1,313	1,332	1,343	1,375	1,415	1,443	1,436	1,424	1,415	1,409	1,408	1,401
20 and 21 years old	1,216	1,385	1,394	1,409	1,420	1,439	1,471	1,516	1,544	1,541	1,533	1,524	1,517
22 to 24 years old	1,040	960	954	952	963	974	983	1,000	1,023	1,059	1,085	1,097	1,097
25 to 29 years old	502	509	518	533	549	562	571	578	586	596	608	624	642
30 to 34 years old	242	201	197	194	194	197	202	208	216	224	232	238	242
35 years old and over	276	310	311	309	308	306	304	303	304	308	314	319	324
Women	**5,680**	**5,871**	**5,974**	**6,133**	**6,283**	**6,440**	**6,588**	**6,740**	**6,826**	**6,928**	**7,055**	**7,177**	**7,279**
14 to 17 years old	71	103	75	78	82	82	82	83	83	85	88	90	94
18 and 19 years old	1,643	1,716	1,756	1,799	1,853	1,916	1,962	1,970	1,941	1,917	1,906	1,902	1,891
20 and 21 years old	1,546	1,526	1,571	1,618	1,647	1,681	1,727	1,794	1,817	1,809	1,798	1,784	1,773
22 to 24 years old	1,101	1,113	1,125	1,144	1,170	1,197	1,223	1,260	1,296	1,353	1,407	1,445	1,466
25 to 29 years old	568	622	648	684	712	736	754	773	797	830	874	924	976
30 to 34 years old	270	289	288	290	294	301	312	326	346	367	390	411	431
35 years old and over	481	502	510	520	525	527	527	534	546	566	593	620	648
Part-time, total	**6,589**	**6,662**	**6,686**	**6,713**	**6,757**	**6,802**	**6,854**	**6,901**	**6,969**	**7,048**	**7,140**	**7,232**	**7,307**
14 to 17 years old	30	35	38	39	40	41	40	40	39	39	39	39	40
18 and 19 years old	526	549	556	558	568	581	591	585	579	573	567	565	561
20 and 21 years old	707	741	747	754	757	764	778	797	811	807	799	792	786
22 to 24 years old	1,339	963	957	953	959	967	979	990	1,006	1,034	1,058	1,071	1,069
25 to 29 years old	1,035	1,255	1,283	1,322	1,358	1,386	1,406	1,418	1,430	1,447	1,472	1,507	1,546
30 to 34 years old	857	839	824	810	810	820	839	863	893	921	948	969	985
35 years old and over	2,095	2,280	2,281	2,276	2,265	2,244	2,221	2,209	2,211	2,227	2,256	2,289	2,322
Men	**2,624**	**2,648**	**2,655**	**2,655**	**2,676**	**2,698**	**2,722**	**2,743**	**2,767**	**2,794**	**2,824**	**2,853**	**2,874**
14 to 17 years old	10	15	16	17	17	17	17	17	17	17	17	16	16
18 and 19 years old	250	239	243	244	249	255	260	258	254	251	248	247	244
20 and 21 years old	274	358	360	362	364	368	376	386	391	387	383	379	375
22 to 24 years old	565	419	415	414	416	419	423	428	435	447	457	463	461
25 to 29 years old	427	536	545	558	572	585	593	598	603	610	619	632	647
30 to 34 years old	350	317	311	304	304	307	314	323	334	343	353	360	366
35 years old and over	748	764	765	758	754	747	739	734	734	739	747	756	764
Women	**3,965**	**4,014**	**4,031**	**4,057**	**4,081**	**4,104**	**4,132**	**4,157**	**4,202**	**4,254**	**4,316**	**4,379**	**4,433**
14 to 17 years old	20	19	22	23	23	23	23	23	23	23	23	23	23
18 and 19 years old	276	311	313	315	319	326	331	327	325	322	319	318	316
20 and 21 years old	433	382	387	391	393	396	403	411	420	419	416	413	410
22 to 24 years old	774	543	541	540	543	548	555	562	572	587	601	608	607
25 to 29 years old	608	720	738	764	785	801	813	820	826	837	854	875	899
30 to 34 years old	507	523	513	507	507	513	525	540	560	578	595	609	620
35 years old and over	1,347	1,516	1,516	1,518	1,511	1,497	1,482	1,475	1,477	1,488	1,509	1,533	1,557

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A. 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, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; Enrollment in Degree-Granting Institutions Model, 1980–2004; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This table was prepared November 2005.)

Table 12. Actual and low alternative projected numbers for total enrollment in all degree-granting postsecondary institutions, by sex, age, and attendance status: Selected years, fall 1995 through fall 2015

[In thousands]

Sex, age, and attendance status	Actual			Projected (low alternative)	
	1995	2000	2004	2010	2015
Total enrollment	**14,262**	**15,312**	**17,272**	**18,455**	**19,514**
14 to 17 years old	148	145	200	183	192
18 and 19 years old	2,894	3,531	3,578	3,936	3,794
20 and 21 years old	2,705	3,045	3,651	4,051	4,013
22 to 24 years old	2,411	2,617	3,036	3,192	3,558
25 to 29 years old	2,120	1,960	2,386	2,721	3,098
30 to 34 years old	1,236	1,265	1,329	1,374	1,624
35 years old and over	2,747	2,749	3,092	2,999	3,234
Men	**6,343**	**6,722**	**7,387**	**7,773**	**8,074**
14 to 17 years old	61	63	78	80	80
18 and 19 years old	1,338	1,583	1,551	1,679	1,630
20 and 21 years old	1,282	1,382	1,743	1,886	1,875
22 to 24 years old	1,153	1,293	1,380	1,413	1,540
25 to 29 years old	962	862	1,045	1,164	1,273
30 to 34 years old	561	527	518	526	600
35 years old and over	986	1,012	1,073	1,026	1,076
Women	**7,919**	**8,591**	**9,885**	**10,682**	**11,441**
14 to 17 years old	87	82	122	103	113
18 and 19 years old	1,557	1,948	2,027	2,257	2,164
20 and 21 years old	1,424	1,663	1,908	2,165	2,139
22 to 24 years old	1,258	1,324	1,657	1,779	2,018
25 to 29 years old	1,159	1,099	1,341	1,557	1,825
30 to 34 years old	675	738	812	848	1,024
35 years old and over	1,760	1,736	2,018	1,972	2,158
Full-time, total	**8,129**	**9,010**	**10,610**	**11,590**	**12,250**
14 to 17 years old	123	125	165	143	153
18 and 19 years old	2,387	2,932	3,028	3,349	3,230
20 and 21 years old	2,109	2,401	2,911	3,252	3,225
22 to 24 years old	1,517	1,653	2,074	2,205	2,493
25 to 29 years old	908	878	1,131	1,313	1,565
30 to 34 years old	430	422	490	518	649
35 years old and over	653	599	812	810	936
Men	**3,807**	**4,111**	**4,739**	**5,046**	**5,218**
14 to 17 years old	54	51	63	63	63
18 and 19 years old	1,091	1,250	1,313	1,422	1,386
20 and 21 years old	999	1,106	1,385	1,501	1,500
22 to 24 years old	789	839	960	987	1,081
25 to 29 years old	454	415	509	569	631
30 to 34 years old	183	195	201	205	238
35 years old and over	238	256	310	298	318
Women	**4,321**	**4,899**	**5,871**	**6,545**	**7,032**
14 to 17 years old	69	74	103	80	90
18 and 19 years old	1,296	1,682	1,716	1,927	1,844
20 and 21 years old	1,111	1,296	1,526	1,751	1,725
22 to 24 years old	729	814	1,113	1,219	1,412
25 to 29 years old	455	463	622	743	933
30 to 34 years old	247	227	289	313	411
35 years old and over	415	343	502	512	618
Part-time, total	**6,133**	**6,303**	**6,662**	**6,865**	**7,264**
14 to 17 years old	25	20	35	39	39
18 and 19 years old	507	599	549	587	564
20 and 21 years old	596	644	741	799	789
22 to 24 years old	894	964	963	987	1,065
25 to 29 years old	1,212	1,083	1,255	1,408	1,534
30 to 34 years old	805	843	839	856	976
35 years old and over	2,093	2,150	2,280	2,189	2,298
Men	**2,535**	**2,611**	**2,648**	**2,728**	**2,855**
14 to 17 years old	7	11	15	17	16
18 and 19 years old	246	333	239	257	244
20 and 21 years old	283	276	358	385	375
22 to 24 years old	365	454	419	426	459
25 to 29 years old	508	447	536	594	642
30 to 34 years old	378	332	317	321	362
35 years old and over	748	757	764	729	758
Women	**3,598**	**3,692**	**4,014**	**4,137**	**4,409**
14 to 17 years old	18	9	19	23	23
18 and 19 years old	261	266	311	330	320
20 and 21 years old	313	368	382	414	414
22 to 24 years old	529	510	543	561	607
25 to 29 years old	704	636	720	814	892
30 to 34 years old	427	511	523	535	613
35 years old and over	1,345	1,393	1,516	1,461	1,540

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:95), Spring 2001 and Spring 2005; Enrollment in Degree-Granting Institutions Model, 1980–2004; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This table was prepared November 2005.)

Table 13. Actual and high alternative projected numbers for total enrollment in all degree-granting postsecondary institutions, by sex, age, and attendance status: Selected years, fall 1995 through fall 2015

[In thousands]

Sex, age, and attendance status	Actual			Projected (high alternative)	
	1995	2000	2004	2010	2015
Total enrollment	**14,262**	**15,312**	**17,272**	**19,035**	**20,305**
14 to 17 years old	148	145	200	191	203
18 and 19 years old	2,894	3,531	3,578	4,044	3,922
20 and 21 years old	2,705	3,045	3,651	4,159	4,146
22 to 24 years old	2,411	2,617	3,036	3,304	3,717
25 to 29 years old	2,120	1,960	2,386	2,819	3,244
30 to 34 years old	1,236	1,265	1,329	1,423	1,701
35 years old and over	2,747	2,749	3,092	3,095	3,372
Men	**6,343**	**6,722**	**7,387**	**7,918**	**8,266**
14 to 17 years old	61	63	78	82	82
18 and 19 years old	1,338	1,583	1,551	1,707	1,664
20 and 21 years old	1,282	1,382	1,743	1,916	1,912
22 to 24 years old	1,153	1,293	1,380	1,441	1,579
25 to 29 years old	962	862	1,045	1,188	1,308
30 to 34 years old	561	527	518	537	617
35 years old and over	986	1,012	1,073	1,047	1,104
Women	**7,919**	**8,591**	**9,885**	**11,117**	**12,039**
14 to 17 years old	87	82	122	109	121
18 and 19 years old	1,557	1,948	2,027	2,336	2,257
20 and 21 years old	1,424	1,663	1,908	2,243	2,234
22 to 24 years old	1,258	1,324	1,657	1,863	2,138
25 to 29 years old	1,159	1,099	1,341	1,630	1,937
30 to 34 years old	675	738	812	886	1,085
35 years old and over	1,760	1,736	2,018	2,048	2,268
Full-time, total	**8,129**	**9,010**	**10,610**	**12,077**	**12,917**
14 to 17 years old	123	125	165	150	163
18 and 19 years old	2,387	2,932	3,028	3,460	3,362
20 and 21 years old	2,109	2,401	2,911	3,362	3,360
22 to 24 years old	1,517	1,653	2,074	2,308	2,640
25 to 29 years old	908	878	1,131	1,386	1,678
30 to 34 years old	430	422	490	550	700
35 years old and over	653	599	812	861	1,013
Men	**3,807**	**4,111**	**4,739**	**5,154**	**5,363**
14 to 17 years old	54	51	63	65	65
18 and 19 years old	1,091	1,250	1,313	1,449	1,419
20 and 21 years old	999	1,106	1,385	1,528	1,535
22 to 24 years old	789	839	960	1,010	1,114
25 to 29 years old	454	415	509	585	654
30 to 34 years old	183	195	201	211	247
35 years old and over	238	256	310	307	330
Women	**4,321**	**4,899**	**5,871**	**6,922**	**7,554**
14 to 17 years old	69	74	103	86	98
18 and 19 years old	1,296	1,682	1,716	2,011	1,943
20 and 21 years old	1,111	1,296	1,526	1,833	1,825
22 to 24 years old	729	814	1,113	1,298	1,526
25 to 29 years old	455	463	622	801	1,025
30 to 34 years old	247	227	289	339	454
35 years old and over	415	343	502	554	683
Part-time, total	**6,133**	**6,303**	**6,662**	**6,958**	**7,389**
14 to 17 years old	25	20	35	40	40
18 and 19 years old	507	599	549	584	560
20 and 21 years old	596	644	741	797	786
22 to 24 years old	894	964	963	996	1,077
25 to 29 years old	1,212	1,083	1,255	1,432	1,566
30 to 34 years old	805	843	839	873	1,001
35 years old and over	2,093	2,150	2,280	2,235	2,359
Men	**2,535**	**2,611**	**2,648**	**2,763**	**2,903**
14 to 17 years old	7	11	15	17	17
18 and 19 years old	246	333	239	259	246
20 and 21 years old	283	276	358	387	377
22 to 24 years old	365	454	419	431	465
25 to 29 years old	508	447	536	603	654
30 to 34 years old	378	332	317	326	370
35 years old and over	748	757	764	740	774
Women	**3,598**	**3,692**	**4,014**	**4,195**	**4,485**
14 to 17 years old	18	9	19	23	23
18 and 19 years old	261	266	311	326	314
20 and 21 years old	313	368	382	410	408
22 to 24 years old	529	510	543	565	611
25 to 29 years old	704	636	720	829	912
30 to 34 years old	427	511	523	548	631
35 years old and over	1,345	1,393	1,516	1,494	1,585

NOTE: Detail may not sum to totals because of rounding. Some data have been revised from previously published figures. Data by age are based on the distribution by age from the Census Bureau. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:95), Spring 2001 and Spring 2005; Enrollment in Degree-Granting Institutions Model, 1980–2004; and U.S. Department of Commerce, Census Bureau, Current Population Reports, "Social and Economic Characteristics of Students," various years. (This table was prepared November 2005.)

Table 14. Actual and alternative projected numbers for enrollment in all degree-granting postsecondary institutions, by sex and attendance status: Fall 1990 through fall 2015

[In thousands]

		Men		Women	
Year	Total	Full-time	Part-time	Full-time	Part-time
Actual					
1990	13,819	3,808	2,476	4,013	3,521
1991	14,359	3,929	2,572	4,186	3,671
1992	14,487	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
2001	15,928	4,300	2,661	5,148	3,820
2002	16,612	4,501	2,701	5,445	3,964
2003	16,900	4,632	2,624	5,680	3,965
2004	17,272	4,739	2,648	5,871	4,014
Middle alternative projections					
2005	17,429	4,768	2,655	5,974	4,031
2006	17,648	4,802	2,655	6,133	4,057
2007	17,916	4,876	2,676	6,283	4,081
2008	18,202	4,959	2,698	6,440	4,104
2009	18,480	5,038	2,722	6,588	4,132
2010	18,746	5,105	2,743	6,740	4,157
2011	18,956	5,161	2,767	6,826	4,202
2012	19,182	5,207	2,794	6,928	4,254
2013	19,439	5,245	2,824	7,055	4,316
2014	19,682	5,273	2,853	7,177	4,379
2015	19,874	5,287	2,874	7,279	4,433
Low alternative projections					
2005	17,381	4,759	2,652	5,942	4,027
2006	17,559	4,784	2,650	6,074	4,050
2007	17,785	4,848	2,669	6,196	4,073
2008	18,030	4,924	2,689	6,325	4,092
2009	18,246	4,990	2,710	6,430	4,117
2010	18,455	5,046	2,728	6,545	4,137
2011	18,642	5,097	2,751	6,615	4,179
2012	18,856	5,141	2,776	6,708	4,230
2013	19,096	5,177	2,806	6,823	4,291
2014	19,322	5,203	2,834	6,932	4,354
2015	19,514	5,218	2,855	7,032	4,409
High alternative projections					
2005	17,462	4,772	2,658	5,994	4,038
2006	17,743	4,816	2,663	6,190	4,074
2007	18,059	4,897	2,687	6,372	4,104
2008	18,385	4,988	2,712	6,555	4,130
2009	18,710	5,076	2,738	6,732	4,163
2010	19,035	5,154	2,763	6,922	4,195
2011	19,296	5,218	2,791	7,042	4,244
2012	19,557	5,272	2,819	7,167	4,300
2013	19,840	5,315	2,851	7,310	4,364
2014	20,099	5,347	2,881	7,442	4,430
2015	20,305	5,363	2,903	7,554	4,485

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 15. Actual and alternative projected numbers for enrollment in public 4-year degree-granting postsecondary institutions, by sex and attendance status: Fall 1990 through fall 2015

[In thousands]

		Men		Women	
Year	**Total**	**Full-time**	**Part-time**	**Full-time**	**Part-time**
Actual					
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
2001	6,236	2,082	687	2,450	1,017
2002	6,482	2,167	706	2,557	1,052
2003	6,649	2,225	713	2,639	1,073
2004	6,737	2,260	717	2,684	1,076
Middle alternative projections					
2005	6,892	2,297	717	2,783	1,096
2006	6,990	2,313	717	2,857	1,104
2007	7,106	2,347	722	2,926	1,110
2008	7,230	2,387	727	2,999	1,116
2009	7,351	2,426	733	3,069	1,123
2010	7,472	2,461	739	3,142	1,131
2011	7,561	2,490	747	3,182	1,143
2012	7,655	2,513	755	3,227	1,159
2013	7,757	2,532	766	3,282	1,178
2014	7,851	2,545	776	3,334	1,197
2015	7,924	2,551	783	3,375	1,214
Low alternative projections					
2005	6,871	2,292	716	2,768	1,095
2006	6,950	2,304	715	2,830	1,102
2007	7,047	2,334	720	2,886	1,108
2008	7,153	2,370	725	2,946	1,112
2009	7,246	2,402	729	2,996	1,118
2010	7,343	2,432	734	3,053	1,124
2011	7,421	2,459	742	3,085	1,136
2012	7,509	2,481	750	3,126	1,151
2013	7,605	2,499	760	3,176	1,170
2014	7,691	2,511	770	3,222	1,189
2015	7,764	2,518	778	3,263	1,206
High alternative projections					
2005	6,906	2,298	718	2,792	1,098
2006	7,030	2,319	719	2,883	1,109
2007	7,166	2,358	725	2,967	1,117
2008	7,308	2,401	731	3,052	1,124
2009	7,450	2,444	738	3,135	1,133
2010	7,597	2,484	745	3,226	1,142
2011	7,708	2,517	753	3,282	1,156
2012	7,817	2,544	763	3,337	1,173
2013	7,931	2,565	773	3,399	1,193
2014	8,032	2,580	784	3,455	1,213
2015	8,110	2,587	792	3,501	1,230

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 16. Actual and alternative projected numbers for enrollment in public 2-year degree-granting postsecondary institutions, by sex and attendance status: Fall 1990 through fall 2015

[In thousands]

		Men		Women	
Year	Total	Full-time	Part-time	Full-time	Part-time
Actual					
1990	6,310	1,071	1,536	906	1,962
1991	6,370	1,079	1,537	1,004	2,105
1992	6,450	1,096	1,550	1,037	2,138
1993	6,535	1,116	1,564	1,030	2,063
1994	6,617	1,134	1,579	1,038	2,044
1995	6,686	1,145	1,591	1,022	2,020
1996	6,750	1,154	1,604	1,039	2,019
1997	6,819	1,161	1,616	1,049	2,026
1998	6,901	1,167	1,630	1,040	1,981
1999	6,984	1,172	1,643	1,063	2,005
2000	7,050	1,174	1,652	1,109	2,148
2001	15,928	4,300	2,661	1,194	2,245
2002	16,612	4,501	2,701	1,299	2,332
2003	16,900	4,632	2,624	1,343	2,291
2004	17,272	4,739	2,648	1,360	2,300
Middle alternative projections					
2005	6,310	1,071	1,536	1,392	2,310
2006	6,370	1,079	1,537	1,429	2,325
2007	6,450	1,096	1,550	1,464	2,339
2008	6,535	1,116	1,564	1,502	2,353
2009	6,617	1,134	1,579	1,535	2,369
2010	6,686	1,145	1,591	1,566	2,384
2011	6,750	1,154	1,604	1,584	2,408
2012	6,819	1,161	1,616	1,606	2,436
2013	6,901	1,167	1,630	1,637	2,468
2014	6,984	1,172	1,643	1,668	2,500
2015	7,050	1,174	1,652	1,696	2,528
Low alternative projections					
2005	6,297	1,069	1,535	1,385	2,309
2006	6,346	1,075	1,535	1,415	2,321
2007	6,415	1,090	1,546	1,444	2,335
2008	6,489	1,109	1,559	1,474	2,347
2009	6,557	1,123	1,573	1,498	2,363
2010	6,610	1,132	1,583	1,520	2,374
2011	6,666	1,140	1,595	1,534	2,398
2012	6,732	1,146	1,607	1,555	2,425
2013	6,811	1,152	1,620	1,582	2,456
2014	6,889	1,157	1,633	1,611	2,488
2015	6,955	1,159	1,642	1,637	2,516
High alternative projections					
2005	6,321	1,072	1,538	1,397	2,314
2006	6,400	1,082	1,542	1,442	2,334
2007	6,493	1,101	1,556	1,485	2,350
2008	6,589	1,123	1,572	1,529	2,366
2009	6,685	1,143	1,588	1,569	2,386
2010	6,771	1,156	1,603	1,609	2,403
2011	6,848	1,166	1,617	1,635	2,430
2012	6,927	1,175	1,630	1,663	2,459
2013	7,017	1,182	1,645	1,697	2,493
2014	7,104	1,188	1,659	1,731	2,526
2015	7,174	1,190	1,668	1,761	2,555

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 17. Actual and alternative projected numbers for enrollment in private 4-year degree-granting postsecondary institutions, by sex and attendance status: Fall 1990 through fall 2015

[In thousands]

		Men		Women	
Year	**Total**	**Full-time**	**Part-time**	**Full-time**	**Part-time**
Actual					
1990	2,730	944	361	959	466
1991	2,802	962	367	990	483
1992	2,865	970	375	1,017	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
2001	3,441	1,151	365	1,389	536
2002	3,601	1,199	377	1,468	557
2003	3,758	1,246	382	1,556	574
2004	3,990	1,313	400	1,670	607
Middle alternative projections					
2005	3,930	1,294	388	1,651	596
2006	3,987	1,304	388	1,695	600
2007	4,054	1,323	391	1,737	604
2008	4,124	1,345	393	1,780	607
2009	4,193	1,366	396	1,821	610
2010	4,263	1,386	399	1,865	614
2011	4,318	1,403	403	1,892	621
2012	4,379	1,418	408	1,923	629
2013	4,446	1,431	414	1,961	640
2014	4,508	1,440	420	1,997	651
2015	4,558	1,446	424	2,027	660
Low alternative projections					
2005	3,917	1,292	388	1,642	595
2006	3,963	1,299	387	1,679	599
2007	4,019	1,315	389	1,712	602
2008	4,079	1,335	392	1,748	604
2009	4,130	1,352	394	1,776	607
2010	4,186	1,369	397	1,810	610
2011	4,235	1,385	400	1,832	617
2012	4,292	1,400	405	1,862	625
2013	4,354	1,412	411	1,896	635
2014	4,411	1,421	416	1,929	646
2015	4,461	1,426	421	1,958	656
High alternative projections					
2005	3,938	1,295	389	1,657	597
2006	4,011	1,307	389	1,711	603
2007	4,090	1,329	392	1,761	607
2008	4,171	1,353	395	1,812	611
2009	4,252	1,376	399	1,861	615
2010	4,338	1,399	402	1,916	621
2011	4,406	1,419	407	1,952	628
2012	4,476	1,436	412	1,991	637
2013	4,550	1,450	418	2,033	648
2014	4,616	1,461	424	2,072	659
2015	4,670	1,467	429	2,105	669

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 18. Actual and alternative projected numbers for enrollment in private 2-year degree-granting postsecondary institutions, by sex and attendance status: Fall 1990 through fall 2015

[In thousands]

		Men		Women	
Year	Total	Full-time	Part-time	Full-time	Part-time
Actual					
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
2001	254	105	12	114	22
2002	259	101	13	122	23
2003	285	103	13	142	28
2004	302	101	13	156	31
Middle alternative projections					
2005	296	106	13	148	28
2006	301	107	13	152	28
2007	307	109	14	156	29
2008	313	111	14	160	29
2009	319	113	14	163	29
2010	323	114	14	167	29
2011	326	115	14	168	29
2012	330	115	14	171	30
2013	334	116	14	174	30
2014	339	116	14	177	31
2015	342	117	15	180	31
Low alternative projections					
2005	295	106	13	147	28
2006	299	107	13	151	28
2007	304	108	14	154	29
2008	309	110	14	157	29
2009	313	112	14	159	29
2010	317	112	14	162	29
2011	320	113	14	163	29
2012	323	114	14	165	30
2013	327	114	14	168	30
2014	331	115	14	171	30
2015	334	115	14	174	31
High alternative projections					
2005	297	106	14	149	28
2006	303	107	14	153	29
2007	310	109	14	158	29
2008	317	111	14	163	29
2009	323	113	14	167	29
2010	329	115	14	171	29
2011	334	116	14	174	30
2012	338	117	14	177	30
2013	343	117	14	181	30
2014	347	118	15	184	31
2015	351	118	15	187	31

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 19. Actual and alternative projected numbers for undergraduate enrollment in all degree-granting postsecondary institutions, by sex, attendance status, and control of institution: Fall 1990 through fall 2015

[In thousands]

		Sex		Attendance status		Control	
Year	Total	Men	Women	Full-time	Part-time	Public	Private
Actual							
1990	11,959	5,380	6,579	6,976	4,983	9,710	2,250
1991	12,439	5,571	6,868	7,221	5,218	10,148	2,291
1992	12,538	5,583	6,955	7,244	5,293	10,216	2,321
1993	12,324	5,484	6,840	7,179	5,144	10,012	2,312
1994	12,263	5,422	6,840	7,169	5,094	9,945	2,317
1995	12,232	5,401	6,831	7,145	5,086	9,904	2,328
1996	12,327	5,421	6,906	7,299	5,028	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	5,559	7,122	7,735	4,946	10,110	2,571
2000	13,155	5,778	7,377	7,923	5,232	10,539	2,616
2001	13,716	6,004	7,711	8,328	5,388	10,986	2,730
2002	14,257	6,192	8,065	8,734	5,523	11,433	2,824
2003	14,474	6,224	8,250	9,035	5,439	11,521	2,952
2004	14,781	6,340	8,441	9,284	5,496	11,651	3,130
Middle alternative projections							
2005	14,914	6,376	8,538	9,401	5,513	11,824	3,090
2006	15,105	6,408	8,697	9,569	5,536	11,967	3,139
2007	15,340	6,491	8,849	9,765	5,575	12,144	3,195
2008	15,595	6,587	9,009	9,980	5,616	12,337	3,258
2009	15,845	6,680	9,165	10,183	5,662	12,526	3,318
2010	16,073	6,757	9,316	10,370	5,702	12,697	3,376
2011	16,233	6,820	9,413	10,474	5,759	12,823	3,411
2012	16,392	6,871	9,521	10,572	5,820	12,949	3,443
2013	16,571	6,918	9,654	10,682	5,890	13,093	3,479
2014	16,740	6,955	9,785	10,781	5,959	13,230	3,510
2015	16,865	6,973	9,892	10,851	6,014	13,332	3,533
Low alternative projections							
2005	14,875	6,366	8,508	9,366	5,509	11,794	3,080
2006	15,031	6,389	8,642	9,504	5,527	11,911	3,120
2007	15,231	6,462	8,769	9,667	5,564	12,063	3,168
2008	15,452	6,549	8,903	9,852	5,600	12,230	3,222
2009	15,650	6,629	9,021	10,008	5,643	12,381	3,269
2010	15,831	6,694	9,137	10,155	5,676	12,516	3,315
2011	15,973	6,753	9,219	10,243	5,730	12,628	3,345
2012	16,121	6,802	9,319	10,332	5,789	12,746	3,375
2013	16,288	6,846	9,443	10,431	5,858	12,881	3,408
2014	16,444	6,881	9,564	10,518	5,926	13,008	3,436
2015	16,571	6,901	9,670	10,589	5,982	13,112	3,459
High alternative projections							
2005	14,942	6,381	8,561	9,421	5,521	11,846	3,096
2006	15,185	6,426	8,759	9,629	5,556	12,028	3,157
2007	15,458	6,518	8,941	9,858	5,601	12,235	3,223
2008	15,747	6,622	9,125	10,101	5,647	12,454	3,294
2009	16,036	6,726	9,310	10,337	5,699	12,672	3,364
2010	16,313	6,815	9,498	10,566	5,747	12,880	3,433
2011	16,515	6,888	9,627	10,706	5,810	13,037	3,478
2012	16,702	6,947	9,756	10,827	5,875	13,185	3,518
2013	16,902	6,998	9,904	10,954	5,948	13,344	3,558
2014	17,083	7,040	10,043	11,063	6,020	13,490	3,593
2015	17,219	7,060	10,159	11,142	6,077	13,601	3,617

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 20. Actual and alternative projected numbers for graduate enrollment in all degree-granting postsecondary institutions, by sex, attendance status, and control of institution: Fall 1990 through fall 2015

[In thousands]

		Sex		Attendance status		Control	
Year	Total	Men	Women	Full-time	Part-time	Public	Private
Actual							
1990	1,586	737	849	599	987	1,023	563
1991	1,639	761	878	642	997	1,050	589
1992	1,669	772	896	666	1,003	1,058	611
1993	1,688	771	917	688	1,000	1,064	625
1994	1,721	776	946	706	1,016	1,075	647
1995	1,732	767	965	717	1,015	1,074	659
1996	1,742	759	982	737	1,005	1,069	674
1997	1,753	758	996	752	1,001	1,070	683
1998	1,768	754	1,013	754	1,014	1,067	701
1999	1,807	766	1,041	781	1,026	1,077	730
2000	1,850	780	1,070	813	1,037	1,089	761
2001	1,904	796	1,108	843	1,061	1,119	784
2002	2,036	847	1,189	926	1,109	1,187	849
2003	2,097	865	1,232	981	1,117	1,201	896
2004	2,157	879	1,278	1,024	1,132	1,194	963
Middle alternative projections							
2005	2,165	873	1,292	1,026	1,139	1,236	929
2006	2,188	874	1,313	1,045	1,143	1,248	940
2007	2,215	883	1,332	1,067	1,148	1,263	952
2008	2,239	891	1,348	1,087	1,153	1,276	963
2009	2,262	898	1,364	1,105	1,157	1,289	973
2010	2,293	907	1,385	1,129	1,164	1,305	987
2011	2,333	920	1,413	1,158	1,176	1,328	1,005
2012	2,389	937	1,452	1,197	1,193	1,359	1,030
2013	2,453	955	1,498	1,239	1,214	1,395	1,059
2014	2,515	972	1,543	1,279	1,236	1,429	1,086
2015	2,571	986	1,585	1,315	1,256	1,460	1,111
Low alternative projections							
2005	2,158	871	1,287	1,021	1,137	1,232	926
2006	2,176	871	1,304	1,036	1,140	1,241	934
2007	2,197	878	1,319	1,053	1,144	1,253	944
2008	2,216	885	1,331	1,069	1,147	1,264	953
2009	2,231	890	1,340	1,080	1,150	1,271	959
2010	2,253	897	1,356	1,098	1,155	1,284	969
2011	2,290	910	1,380	1,124	1,166	1,304	986
2012	2,344	927	1,417	1,161	1,182	1,334	1,010
2013	2,405	944	1,461	1,201	1,203	1,368	1,037
2014	2,464	960	1,504	1,239	1,225	1,401	1,063
2015	2,519	974	1,545	1,273	1,245	1,432	1,087
High alternative projections							
2005	2,170	874	1,296	1,029	1,141	1,238	931
2006	2,201	877	1,324	1,053	1,148	1,256	946
2007	2,235	887	1,348	1,080	1,155	1,274	961
2008	2,265	896	1,368	1,104	1,161	1,291	974
2009	2,294	905	1,389	1,126	1,168	1,307	988
2010	2,333	916	1,417	1,157	1,176	1,328	1,005
2011	2,381	931	1,450	1,191	1,190	1,355	1,027
2012	2,443	950	1,493	1,234	1,208	1,389	1,054
2013	2,512	969	1,543	1,281	1,231	1,427	1,085
2014	2,577	986	1,591	1,323	1,254	1,463	1,113
2015	2,635	1,000	1,635	1,361	1,274	1,496	1,139

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 21. Actual and alternative projected numbers for first-professional enrollment in all degree-granting postsecondary institutions, by sex, attendance status, and control of institution: Fall 1990 through fall 2015

[In thousands]

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
Actual							
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	121	263	31	114	181
1995	298	174	124	266	31	115	183
1996	298	173	126	267	31	117	182
1997	298	170	129	267	31	118	180
1998	302	169	134	271	31	121	182
1999	303	165	138	271	33	123	180
2000	307	164	143	274	33	124	183
2001	309	161	148	277	32	128	181
2002	319	163	156	286	33	132	187
2003	329	166	163	296	33	135	195
2004	335	168	166	302	33	136	199
Middle alternative projections							
2005	349	174	175	315	34	143	206
2006	355	175	179	321	34	145	209
2007	361	178	183	327	34	148	213
2008	367	180	187	333	34	151	217
2009	373	182	191	339	34	153	220
2010	380	184	196	346	34	156	224
2011	389	188	201	354	35	160	229
2012	401	192	209	366	35	165	236
2013	414	196	218	378	36	171	243
2014	426	199	227	390	36	176	250
2015	437	202	235	400	37	181	257
Low alternative projections							
2005	348	174	173	314	34	142	205
2006	352	175	177	318	34	144	208
2007	357	177	180	323	34	146	211
2008	362	179	183	328	34	148	214
2009	365	180	185	331	34	150	216
2010	371	182	189	337	34	152	219
2011	379	185	194	345	34	156	223
2012	391	189	201	356	35	161	230
2013	403	193	210	367	35	166	237
2014	414	196	218	378	36	171	243
2015	425	199	226	388	37	175	250
High alternative projections							
2005	350	175	175	316	34	143	207
2006	357	176	181	323	34	146	211
2007	365	179	186	331	34	150	215
2008	372	181	191	338	34	153	219
2009	379	184	196	345	34	156	223
2010	388	186	202	354	35	160	229
2011	399	190	209	364	35	164	235
2012	412	195	218	377	36	170	242
2013	427	199	228	390	36	176	250
2014	440	203	237	403	37	182	258
2015	451	206	246	414	37	187	264

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 22. Actual and projected numbers for enrollment in all degree-granting postsecondary institutions, by race/ethnicity: Fall 1990 through fall 2015

[In thousands]

Year	Total	Race/ethnicity					
		White, non-Hispanic	Black, non-Hispani	Hispanic	Asian / Pacific Islander	American Indian/ Alaska Native	Nonresident alien[1]
Actual							
1990	13,819	10,722	1,247	782	572	103	391
1991	14,359	10,990	1,335	867	637	114	416
1992	14,487	10,875	1,393	955	697	119	448
1993	14,305	10,600	1,413	989	724	122	457
1994	14,279	10,427	1,449	1,046	774	127	456
1995	14,262	10,311	1,474	1,094	797	131	454
1996	14,368	10,264	1,506	1,166	828	138	466
1997	14,502	10,266	1,551	1,218	859	142	465
1998	14,507	10,179	1,583	1,257	900	144	444
1999	14,791	10,282	1,643	1,319	913	145	488
2000	15,312	10,462	1,730	1,462	978	151	529
2001	15,928	10,775	1,850	1,561	1,019	158	565
2002	16,612	11,140	1,979	1,662	1,074	166	591
2003	16,900	11,275	2,069	1,716	1,076	173	592
2004	17,272	11,423	2,165	1,810	1,109	176	590
Projected							
2005	17,429	11,508	2,179	1,842	1,099	194	607
2006	17,648	11,584	2,225	1,898	1,121	197	623
2007	17,916	11,688	2,279	1,959	1,149	200	641
2008	18,202	11,800	2,335	2,026	1,179	203	658
2009	18,480	11,896	2,396	2,097	1,210	206	676
2010	18,746	11,973	2,456	2,171	1,242	210	695
2011	18,956	12,006	2,509	2,244	1,272	213	712
2012	19,182	12,040	2,570	2,319	1,307	217	731
2013	19,439	12,085	2,637	2,401	1,343	221	752
2014	19,682	12,117	2,700	2,487	1,380	225	773
2015	19,874	12,113	2,755	2,569	1,415	229	793

[1]The racial/ethnic backgrounds of nonresident aliens are not known.

NOTE: Detail may not sum to totals because of rounding. Data for 1999 were imputed using alternative procedures. (For more details, see appendix E of *Projections of Education Statistics to 2011*.) Enrollment data in the "racial/ethnicity unknown" category of the IPEDS "Fall Enrollment Survey" have been prorated to the other racial/ethnicity categories at the institutional level. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 23. Actual and alternative projected numbers for full-time-equivalent enrollment in all degree-granting postsecondary institutions, by control and type of institution: Fall 1990 through fall 2015

[In thousands]

Year	Total	Public		Private	
		4-year	2-year	4-year	2-year
Actual					
1990	9,985	4,740	2,818	2,230	197
1991	10,363	4,796	3,067	2,288	212
1992	10,438	4,798	3,114	2,333	194
1993	10,353	4,766	3,046	2,357	184
1994	10,349	4,750	3,035	2,389	176
1995	10,337	4,757	2,994	2,418	168
1996	10,482	4,767	3,028	2,467	219
1997	10,615	4,814	3,056	2,525	220
1998	10,699	4,869	3,011	2,599	220
1999	10,944	4,945	3,075	2,694	229
2000	11,267	5,026	3,241	2,770	231
2001	11,766	5,194	3,445	2,894	233
2002	12,331	5,406	3,655	3,033	237
2003	12,674	5,558	3,679	3,177	261
2004	13,001	5,641	3,707	3,377	276
Middle alternative projections					
2005	13,141	5,784	3,755	3,332	271
2006	13,343	5,877	3,804	3,386	276
2007	13,583	5,985	3,866	3,449	281
2008	13,840	6,103	3,933	3,517	287
2009	14,085	6,216	3,994	3,581	293
2010	14,320	6,329	4,046	3,648	297
2011	14,487	6,406	4,084	3,696	300
2012	14,663	6,484	4,127	3,748	304
2013	14,861	6,569	4,179	3,805	308
2014	15,045	6,645	4,231	3,857	312
2015	15,189	6,702	4,273	3,898	315
Low alternative projections					
2005	13,097	5,763	3,744	3,320	270
2006	13,262	5,839	3,784	3,364	274
2007	13,462	5,930	3,837	3,416	279
2008	13,681	6,030	3,894	3,473	284
2009	13,868	6,117	3,942	3,522	288
2010	14,053	6,207	3,981	3,574	291
2011	14,198	6,274	4,014	3,616	294
2012	14,363	6,346	4,054	3,665	297
2013	14,546	6,425	4,103	3,718	300
2014	14,714	6,494	4,151	3,766	304
2015	14,857	6,551	4,192	3,806	307
High alternative projections					
2005	13,168	5,795	3,762	3,339	272
2006	13,423	5,912	3,825	3,408	277
2007	13,704	6,040	3,898	3,482	284
2008	13,997	6,173	3,973	3,559	291
2009	14,284	6,306	4,045	3,635	297
2010	14,573	6,444	4,110	3,716	303
2011	14,784	6,541	4,159	3,777	307
2012	14,993	6,633	4,210	3,838	311
2013	15,214	6,728	4,268	3,902	316
2014	15,412	6,811	4,324	3,958	320
2015	15,569	6,874	4,369	4,002	324

NOTE: Detail may not sum to totals because of rounding. 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*.) Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Fall Enrollment Survey" (IPEDS-EF:90–99), and Spring 2001 through Spring 2005; and Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table 24. Actual and projected numbers for high school graduates, by control of school: 1990–91 through 2015–16

[In thousands]

School year	Total	Public	Private
Actual			
1990–91	2,493	2,235	258
1991–02 [1]	2,478	2,226	252
1992–93	2,481	2,233	247
1993–94 [1]	2,464	2,221	243
1994–95	2,519	2,274	246
1995–96 [1]	2,518	2,273	245
1996–97	2,612	2,358	254
1997–98 [1]	2,704	2,439	265
1998–99	2,759	2,486	273
1999–2000 [1]	2,833	2,554	279
2000–01	2,848	2,569	279
2001–02 [1]	2,906	2,622	284
2002–03 [1]	3,015	2,720	295
Projected			
2003–04	3,087	2,783	304
2004–05	3,109	2,801	307
2005–06	3,176	2,861	315
2006–07	3,232	2,912	321
2007–09	3,326	2,995	330
2008–09	3,339	3,008	331
2009–10	3,326	2,996	330
2010–11	3,301	2,973	327
2011–12	3,256	2,933	323
2012–13	3,255	2,931	324
2013–14	3,224	2,901	322
2014–15	3,241	2,915	325
2015–16	3,187	2,868	318

[1]Private school numbers are estimated 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 because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1991–92 through 2003–04; Private School Universe Survey (PSS), selected years, 1991–92 through 2001–02; and National Elementary and Secondary High School Graduates Enrollment Model, 1972–73 through 2002–03. (This table was prepared November 2005.)

Table 25. Actual and projected numbers for high school graduates of public schools, by region and state: 1997–98 through 2015–16

	Actual						Projected			
Region and state	**1997–98**	**1998–99**	**1999–2000**	**2000–01**	**2001–02**	**2002–03**	**2003–04**	**2004–05**	**2005–06**	**2006–07**
United States	**2,439,050**	**2,485,630**	**2,553,844**	**2,568,956**	**2,621,534**	**2,719,947**	**2,782,790**	**2,801,190**	**2,860,730**	**2,911,720**
Northeast	430,450	437,156	453,814	457,638	461,479	477,241	496,420	502,190	512,810	522,430
Connecticut	27,885	28,284	31,562	30,388	32,327	33,667	35,030	35,750	36,320	37,330
Maine	12,171	11,988	12,211	12,654	12,593	12,947	13,570	13,330	13,460	13,270
Massachusetts	50,452	51,465	52,950	54,393	55,272	55,987	57,800	59,140	60,150	61,580
New Hampshire	10,843	11,251	11,829	12,294	12,452	13,210	13,450	13,770	13,770	14,060
New Jersey	65,106	67,410	74,420	76,130	77,664	81,391	86,040	89,310	94,160	98,110
New York	138,531	139,426	141,731	141,884	140,139	143,818	150,420	149,180	151,270	154,280
Pennsylvania	110,919	112,632	113,959	114,436	114,943	119,933	123,530	124,660	126,290	126,430
Rhode Island	8,074	8,179	8,477	8,603	9,006	9,318	9,380	9,900	10,230	10,380
Vermont	6,469	6,521	6,675	6,856	7,083	6,970	7,210	7,160	7,160	6,990
Midwest	640,857	645,322	648,020	644,770	651,640	673,248	681,430	677,770	684,950	696,090
Illinois	114,611	112,556	111,835	110,624	116,657	117,507	120,480	120,950	123,880	127,100
Indiana	58,899	58,964	57,012	56,172	56,722	57,897	57,200	57,420	59,850	61,060
Iowa	34,189	34,378	33,926	33,774	33,789	34,860	34,350	33,160	33,510	34,080
Kansas	27,856	28,685	29,102	29,360	29,541	29,963	30,110	29,700	29,530	29,430
Michigan	92,732	94,125	97,679	96,515	95,001	100,301	101,430	103,340	104,120	107,680
Minnesota	54,628	56,964	57,372	56,581	57,440	59,432	60,700	58,380	58,350	58,810
Missouri	52,095	52,531	52,848	54,138	54,487	56,925	57,710	57,030	57,100	58,160
Nebraska	19,719	20,550	20,149	19,658	19,910	20,161	20,230	19,710	19,560	19,980
North Dakota	8,170	8,388	8,606	8,445	8,114	8,169	7,780	7,600	7,520	7,500
Ohio	111,211	111,112	111,668	111,281	110,608	115,762	118,910	118,350	121,230	121,450
South Dakota	9,140	8,757	9,278	8,881	8,796	8,999	8,910	8,580	8,380	8,270
Wisconsin	57,607	58,312	58,545	59,341	60,575	63,272	63,620	63,550	61,950	62,550
South	821,372	835,286	861,498	866,693	890,643	930,476	942,350	951,170	973,270	989,470
Alabama	38,089	36,244	37,819	37,082	35,887	36,741	35,090	36,920	37,430	37,540
Arkansas	26,855	26,896	27,335	27,100	26,984	27,555	26,980	26,630	27,470	27,890
Delaware	6,439	6,484	6,108	6,614	6,482	6,817	6,840	6,830	6,690	7,100
District of Columbia	2,777	2,675	2,695	2,808	3,090	2,725	2,880	2,900	3,010	3,320
Florida	98,498	102,386	106,708	111,112	119,537	127,484	133,080	136,520	139,820	141,490
Georgia	58,525	59,227	62,563	62,499	65,983	66,890	70,000	71,110	73,710	74,370
Kentucky	37,270	37,048	36,830	36,957	36,337	37,654	37,260	36,850	36,950	37,240
Louisiana	38,030	37,802	38,430	38,314	37,905	37,610	37,170	35,870	35,400	36,280
Maryland	44,555	46,214	47,849	49,222	50,881	51,864	53,370	54,180	55,070	58,080
Mississippi	24,502	24,198	24,232	23,748	23,740	23,810	23,680	23,360	23,600	23,730
North Carolina	59,292	60,081	62,140	63,288	65,955	69,696	71,960	73,990	76,230	78,220
Oklahoma	35,213	36,556	37,646	37,458	36,852	36,694	36,670	36,290	36,100	36,510
South Carolina	31,373	31,495	31,617	30,026	31,302	32,482	33,310	32,640	34,040	35,260
Tennessee	39,866	40,823	41,568	40,642	40,894	44,113	44,280	44,570	45,620	47,120
Texas	197,186	203,393	212,925	215,316	225,167	238,111	239,860	240,990	250,310	248,770
Virginia	62,738	63,875	65,596	66,067	66,519	72,943	72,580	74,510	75,260	79,390
West Virginia	20,164	19,889	19,437	18,440	17,128	17,287	17,340	17,040	16,540	17,200
West	546,371	567,866	590,512	600,099	617,772	638,982	662,590	670,060	689,700	703,740
Alaska	6,462	6,810	6,615	6,812	6,945	7,297	7,120	7,190	7,480	7,360
Arizona	36,361	35,728	38,304	46,733	47,175	49,986	58,780	62,400	66,010	70,440
California	282,897	299,221	309,866	315,189	325,895	341,097	350,930	355,720	367,950	373,970
Colorado	35,794	36,958	38,924	39,241	40,760	42,379	44,470	44,070	44,810	44,990
Hawaii	9,670	9,714	10,437	10,102	10,452	10,013	10,240	10,450	10,270	10,550
Idaho	15,523	15,716	16,170	15,941	15,874	15,858	15,840	16,050	16,410	16,610
Montana	10,656	10,925	10,903	10,628	10,554	10,657	10,520	10,330	10,150	10,150
Nevada	13,052	13,892	14,551	15,127	16,270	16,378	15,990	17,870	19,680	20,840
New Mexico	16,529	17,317	18,031	18,199	18,094	16,923	18,080	17,830	17,660	18,260
Oregon	27,754	28,245	30,151	29,939	31,153	32,587	33,110	32,270	32,320	32,810
Utah	31,567	31,574	32,501	31,036	30,183	29,527	29,860	29,210	30,010	29,980
Washington	53,679	55,418	57,597	55,081	58,311	60,435	61,850	61,140	61,470	62,340
Wyoming	6,427	6,348	6,462	6,071	6,106	5,845	5,780	5,540	5,480	5,440

See notes at end of table.

Table 25. Actual and projected numbers for high school graduates of public schools, by region and state: 1997–98 through 2015–16—Continued

Region and state	Projected—Continued								
	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16
United States	**2,995,360**	**3,007,730**	**2,996,400**	**2,973,350**	**2,933,160**	**2,931,260**	**2,901,470**	**2,915,170**	**2,868,430**
Northeast	533,460	530,350	525,680	517,890	507,650	499,800	490,350	483,410	471,870
Connecticut	38,310	37,610	37,930	37,170	36,650	36,260	36,610	35,920	34,700
Maine	13,360	13,070	13,060	12,450	12,070	11,840	11,690	11,600	11,160
Massachusetts	62,410	61,260	60,700	59,010	57,850	57,660	56,320	56,190	54,550
New Hampshire	14,180	13,770	13,660	13,080	12,970	12,700	12,380	12,180	11,960
New Jersey	99,630	99,830	99,940	100,190	98,620	98,940	97,550	97,860	96,030
New York	158,340	157,500	155,240	152,880	149,240	145,080	141,120	137,470	134,400
Pennsylvania	129,540	129,970	128,200	126,570	123,780	121,630	119,150	116,820	114,150
Rhode Island	10,610	10,510	10,320	10,190	10,250	9,730	9,730	9,600	9,490
Vermont	7,090	6,830	6,630	6,360	6,220	5,980	5,800	5,760	5,440
Midwest	711,940	711,910	703,890	694,840	683,320	672,800	664,680	662,600	649,630
Illinois	129,970	131,750	130,510	129,570	131,830	129,290	126,530	125,770	123,260
Indiana	62,780	63,990	63,130	63,050	61,770	62,230	62,810	62,110	62,320
Iowa	34,860	34,680	34,400	33,760	32,850	32,170	32,350	32,330	31,100
Kansas	29,870	29,360	29,150	28,460	28,190	28,040	27,630	27,440	27,130
Michigan	112,010	111,270	109,210	107,270	105,320	103,350	100,860	100,450	98,970
Minnesota	59,580	58,020	57,500	56,670	55,130	54,260	53,530	53,880	52,460
Missouri	59,380	60,330	60,850	58,580	56,370	55,600	55,500	55,790	54,850
Nebraska	20,530	20,130	19,850	19,620	19,190	19,120	19,090	19,090	18,510
North Dakota	7,270	7,140	7,060	6,840	6,490	6,310	6,280	6,160	5,850
Ohio	123,800	123,910	121,840	122,130	118,210	116,480	113,970	113,830	111,400
South Dakota	8,330	8,000	8,110	7,880	7,600	7,350	7,370	7,320	7,100
Wisconsin	63,570	63,330	62,270	61,020	60,360	58,610	58,760	58,420	56,680
South	1,012,790	1,024,930	1,027,910	1,022,250	1,001,980	1,018,130	1,007,800	1,028,330	1,020,070
Alabama	38,690	38,530	38,140	37,900	36,970	36,330	35,500	35,990	35,300
Arkansas	28,420	28,470	28,210	27,220	27,260	27,060	27,660	27,980	27,500
Delaware	7,430	7,350	7,480	7,590	7,570	7,370	7,240	7,330	7,160
District of Columbia	3,370	3,340	3,410	3,400	3,200	2,800	2,700	2,490	2,380
Florida	146,430	148,080	148,710	150,020	135,180	157,110	149,400	155,260	154,420
Georgia	77,950	78,970	78,660	78,950	78,580	78,570	78,180	80,390	80,540
Kentucky	38,370	38,880	38,520	37,830	37,110	36,490	36,370	37,410	36,520
Louisiana	36,300	36,970	37,080	36,030	35,970	35,020	33,500	33,820	33,540
Maryland	58,140	58,470	58,300	56,870	55,830	54,910	53,790	53,960	53,240
Mississippi	24,310	24,660	24,700	24,520	23,910	23,450	22,820	22,560	22,590
North Carolina	80,200	80,900	81,560	79,850	81,030	79,190	79,450	80,990	82,540
Oklahoma	36,890	36,670	36,780	35,520	34,900	34,510	34,190	34,440	34,350
South Carolina	33,580	35,790	35,830	35,660	34,780	34,520	34,270	35,140	34,710
Tennessee	48,210	48,740	48,350	47,740	46,970	46,750	45,890	45,950	45,600
Texas	255,970	259,470	263,170	264,980	265,330	267,730	271,670	279,330	274,920
Virginia	81,300	82,230	81,970	81,520	81,000	80,100	79,570	79,680	79,530
West Virginia	17,230	17,420	17,060	16,640	16,370	16,200	15,620	15,600	15,220
West	737,160	740,540	738,920	738,370	740,210	740,530	738,630	740,840	726,860
Alaska	7,660	7,540	7,590	7,160	7,150	6,910	6,820	6,990	6,740
Arizona	71,990	73,950	75,970	76,550	79,240	80,470	83,800	85,040	85,720
California	398,270	399,470	396,120	399,690	401,490	399,490	393,460	391,890	378,360
Colorado	46,370	46,840	47,160	46,480	46,060	46,170	46,750	47,360	47,840
Hawaii	11,060	10,920	10,460	10,360	10,240	9,960	9,890	9,460	9,310
Idaho	16,860	16,970	17,180	16,870	16,740	16,870	17,520	17,460	17,240
Montana	10,220	9,860	9,900	9,350	9,160	8,910	8,890	8,620	8,340
Nevada	22,410	23,360	23,830	24,280	24,790	25,960	26,220	26,880	27,430
New Mexico	18,300	18,570	18,250	18,140	17,630	17,340	17,220	17,410	16,850
Oregon	33,490	33,300	32,480	31,550	31,150	31,320	31,340	30,980	31,200
Utah	30,610	30,720	31,020	30,290	30,760	31,580	32,010	32,900	33,130
Washington	64,450	63,730	63,720	62,620	60,940	60,950	60,020	61,140	60,180
Wyoming	5,480	5,330	5,240	5,040	4,870	4,610	4,700	4,710	4,540

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99 through 2003–04; and State Public High School Graduates Model, 1980–81 through 2002–03. (This table was prepared November 2005.)

Table 26. Actual and projected percentage changes in public high school graduates, by region and state: Selected years, 1997–98 through 2015–16

Region and state	Actual 1997–98 to 2002–03	Projected		
		2002–03 to 2009–10	2009–10 to 2015–16	2002–03 to 2015–16
United States	**11.5**	**10.2**	**-4.3**	**5.5**
Northeast	10.9	10.1	-10.2	-1.1
Connecticut	20.7	12.7	-8.5	3.1
Maine	6.4	0.9	-14.6	-13.8
Massachusetts	11.0	8.4	-10.1	-2.6
New Hampshire	21.8	3.4	-12.5	-9.5
New Jersey	25.0	22.8	-3.9	18.0
New York	3.8	7.9	-13.4	-6.5
Pennsylvania	8.1	6.9	-11.0	-4.8
Rhode Island	15.4	10.7	-8.1	1.8
Vermont	7.7	-4.9	-18.0	-21.9
Midwest	5.1	4.6	-7.7	-3.5
Illinois	2.5	11.1	-5.6	4.9
Indiana	-1.7	9.0	-1.3	7.6
Iowa	2.0	-1.3	-9.6	-10.8
Kansas	7.6	-2.7	-6.9	-9.5
Michigan	8.2	8.9	-9.4	-1.3
Minnesota	8.8	-3.3	-8.8	-11.7
Missouri	9.3	6.9	-9.9	-3.6
Nebraska	2.2	-1.5	-6.7	-8.2
North Dakota	#	-13.6	-17.1	-28.4
Ohio	4.1	5.3	-8.6	-3.8
South Dakota	-1.5	-9.9	-12.5	-21.1
Wisconsin	9.8	-1.6	-9.0	-10.4
South	13.3	10.5	-0.8	9.6
Alabama	-3.5	3.8	-7.4	-3.9
Arkansas	2.6	2.4	-2.5	-0.2
Delaware	5.9	9.7	-4.2	5.1
District of Columbia	-1.9	25.1	-30.2	-12.7
Florida	29.4	16.6	3.8	21.1
Georgia	14.3	17.6	3.8	20.4
Kentucky	1.0	2.3	-5.2	-3.0
Louisiana	-1.1	-1.4	-9.5	-10.8
Maryland	16.4	12.4	-8.7	2.7
Mississippi	-2.8	3.7	-8.5	-5.1
North Carolina	17.5	17.0	1.2	18.4
Oklahoma	4.2	0.2	-6.6	-6.4
South Carolina	3.5	10.3	-3.1	6.9
Tennessee	10.7	9.6	-5.7	3.4
Texas	20.8	10.5	4.5	15.5
Virginia	16.3	12.4	-3.0	9.0
West Virginia	-14.3	-1.3	-10.7	-11.9
West	17.0	15.6	-1.6	13.8
Alaska	12.9	4.0	-11.3	-7.7
Arizona	37.5	52.0	12.8	71.5
California	20.6	16.1	-4.5	10.9
Colorado	18.4	11.3	1.4	12.9
Hawaii	3.5	4.4	-11.0	-7.1
Idaho	2.2	8.3	0.4	8.7
Montana	#	-7.1	-15.8	-21.8
Nevada	25.5	45.5	15.1	67.5
New Mexico	2.4	7.9	-7.7	-0.4
Oregon	17.4	-0.3	-4.0	-4.3
Utah	-6.5	5.0	6.8	12.2
Washington	12.6	5.4	-5.6	-0.4
Wyoming	-9.1	-10.4	-13.4	-22.4

Rounds to zero.

NOTE: Calculations are based on unrounded numbers. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1998–99 and 2003–04; and State Public High School Graduates Model, 1980–81 through 2002–03. (This table was prepared November 2005.)

Table 27. Actual and alternative projected numbers for associate's degrees, by sex of recipient: 1990–91 through 2015–16

Year	Total	Men	Women
Actual			
1990–91	481,720	198,634	283,086
1991–92	504,231	207,481	296,750
1992–93	514,756	211,964	302,792
1993–94	530,632	215,261	315,371
1994–95	539,691	218,352	321,339
1995–96	555,216	219,514	335,702
1996–97	571,226	223,948	347,278
1997–98	558,555	217,613	340,942
1998–99	559,954	218,417	341,537
1999–2000	564,933	224,721	340,212
2000–01	578,865	231,645	347,220
2001–02	595,133	238,109	357,024
2002–03	632,912	253,060	379,852
2003–04	665,301	260,033	405,268
Middle alternative projections			
2004–05	682,000	262,000	420,000
2005–06	682,000	262,000	420,000
2006–07	686,000	263,000	423,000
2007–09	694,000	264,000	430,000
2008–09	704,000	264,000	440,000
2009–10	714,000	268,000	447,000
2010–11	721,000	270,000	451,000
2011–12	726,000	271,000	455,000
2012–13	730,000	272,000	458,000
2013–14	735,000	273,000	462,000
2014–15	740,000	273,000	467,000
2015–16	744,000	272,000	472,000
Low alternative projections			
2004–05	682,000	262,000	420,000
2005–06	682,000	262,000	420,000
2006–07	685,000	263,000	422,000
2007–09	691,000	263,000	428,000
2008–09	699,000	263,000	436,000
2009–10	709,000	267,000	442,000
2010–11	713,000	268,000	445,000
2011–12	716,000	269,000	447,000
2012–13	720,000	270,000	450,000
2013–14	723,000	271,000	453,000
2014–15	728,000	271,000	458,000
2015–16	732,000	270,000	462,000
High alternative projections			
2004–05	682,000	262,000	420,000
2005–06	682,000	262,000	420,000
2006–07	687,000	263,000	424,000
2007–09	697,000	264,000	433,000
2008–09	709,000	265,000	444,000
2009–10	721,000	269,000	452,000
2010–11	729,000	271,000	457,000
2011–12	736,000	273,000	463,000
2012–13	742,000	274,000	468,000
2013–14	748,000	275,000	473,000
2014–15	754,000	275,000	479,000
2015–16	758,000	274,000	484,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Table 28. Actual and alternative projected numbers for bachelor's degrees, by sex of recipient: 1990–91 through 2015–16

Year	Total	Men	Women
Actual			
1990–91	1,094,538	504,045	590,493
1991–92	1,136,553	520,811	615,742
1992–93	1,165,178	532,881	632,297
1993–94	1,169,275	532,422	636,853
1994–95	1,160,134	526,131	634,003
1995–96	1,164,792	522,454	642,338
1996–97	1,172,879	520,515	652,364
1997–98	1,184,406	519,956	664,450
1998–99	1,200,303	518,746	681,557
1999–2000	1,237,875	530,367	707,508
2000–01	1,244,171	531,840	712,331
2001–02	1,291,900	549,816	742,084
2002–03	1,348,503	573,079	775,424
2003–04	1,399,542	595,425	804,117
Middle alternative projections			
2004–05	1,433,000	606,000	827,000
2005–06	1,456,000	608,000	849,000
2006–07	1,488,000	618,000	870,000
2007–09	1,523,000	629,000	894,000
2008–09	1,561,000	640,000	921,000
2009–10	1,596,000	651,000	945,000
2010–11	1,622,000	658,000	964,000
2011–12	1,645,000	664,000	980,000
2012–13	1,665,000	670,000	995,000
2013–14	1,682,000	674,000	1,007,000
2014–15	1,697,000	677,000	1,019,000
2015–16	1,705,000	677,000	1,028,000
Low alternative projections			
2004–05	1,433,000	606,000	827,000
2005–06	1,456,000	608,000	849,000
2006–07	1,487,000	618,000	869,000
2007–09	1,519,000	628,000	891,000
2008–09	1,555,000	638,000	916,000
2009–10	1,587,000	648,000	939,000
2010–11	1,609,000	654,000	955,000
2011–12	1,628,000	660,000	969,000
2012–13	1,646,000	664,000	981,000
2013–14	1,660,000	668,000	992,000
2014–15	1,674,000	671,000	1,003,000
2015–16	1,682,000	670,000	1,011,000
High alternative projections			
2004–05	1,433,000	606,000	827,000
2005–06	1,456,000	608,000	849,000
2006–07	1,489,000	619,000	870,000
2007–09	1,526,000	630,000	897,000
2008–09	1,568,000	642,000	926,000
2009–10	1,606,000	653,000	953,000
2010–11	1,636,000	662,000	974,000
2011–12	1,662,000	669,000	993,000
2012–13	1,686,000	676,000	1,010,000
2013–14	1,706,000	681,000	1,025,000
2014–15	1,723,000	685,000	1,038,000
2015–16	1,733,000	685,000	1,048,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Table 29. Actual and alternative projected numbers for master's degrees, by sex of recipient: 1990–91 through 2015–16

Year	Total	Men	Women
Actual			
1990–91	337,168	156,482	180,686
1991–92	352,838	161,842	190,996
1992–93	369,585	169,258	200,327
1993–94	387,070	176,085	210,985
1994–95	397,629	178,598	219,031
1995–96	406,301	179,081	227,220
1996–97	419,401	180,947	238,454
1997–98	430,164	184,375	245,789
1998–99	439,986	186,148	253,838
1999–2000	457,056	191,792	265,264
2000–01	468,476	194,351	274,125
2001–02	482,118	199,120	282,998
2002–03	512,645	211,381	301,264
2003–04	558,940	229,545	329,395
Middle alternative projections			
2004–05	565,000	226,000	340,000
2005–06	584,000	228,000	356,000
2006–07	603,000	234,000	369,000
2007–09	619,000	239,000	380,000
2008–09	635,000	245,000	390,000
2009–10	647,000	251,000	397,000
2010–11	657,000	255,000	402,000
2011–12	670,000	260,000	409,000
2012–13	685,000	267,000	418,000
2013–14	705,000	275,000	431,000
2014–15	731,000	284,000	447,000
2015–16	757,000	293,000	464,000
Low alternative projections			
2004–05	565,000	226,000	340,000
2005–06	584,000	228,000	356,000
2006–07	601,000	234,000	368,000
2007–09	615,000	238,000	376,000
2008–09	628,000	244,000	384,000
2009–10	638,000	249,000	390,000
2010–11	644,000	252,000	392,000
2011–12	654,000	257,000	397,000
2012–13	667,000	263,000	404,000
2013–14	686,000	271,000	416,000
2014–15	711,000	280,000	431,000
2015–16	735,000	288,000	447,000
High alternative projections			
2004–05	565,000	226,000	340,000
2005–06	584,000	228,000	356,000
2006–07	605,000	234,000	370,000
2007–09	624,000	240,000	384,000
2008–09	642,000	247,000	396,000
2009–10	658,000	253,000	405,000
2010–11	669,000	257,000	412,000
2011–12	686,000	264,000	422,000
2012–13	704,000	271,000	433,000
2013–14	728,000	279,000	448,000
2014–15	755,000	289,000	466,000
2015–16	783,000	299,000	484,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Table 30. Actual and alternative projected numbers for doctor's degrees, by sex of recipient: 1990–91 through 2015–16

Year	Total	Men	Women
Actual			
1990–91	39,294	24,756	14,538
1991–92	40,659	25,557	15,102
1992–93	42,132	26,073	16,059
1993–94	43,185	26,552	16,633
1994–95	44,446	26,916	17,530
1995–96	44,652	26,841	17,811
1996–97	45,876	27,146	18,730
1997–98	46,010	26,664	19,346
1998–99	44,077	25,146	18,931
1999–2000	44,808	25,028	19,780
2000–01	44,904	24,728	20,176
2001–02	44,160	23,708	20,452
2002–03	46,024	24,341	21,683
2003–04	48,378	25,323	23,055
Middle alternative projections			
2004–05	48,400	25,300	23,100
2005–06	49,500	25,700	23,800
2006–07	50,500	26,100	24,400
2007–09	50,900	26,200	24,700
2008–09	51,100	26,100	24,900
2009–10	51,200	26,100	25,100
2010–11	51,700	26,300	25,500
2011–12	52,600	26,600	26,100
2012–13	53,800	27,000	26,800
2013–14	55,300	27,500	27,800
2014–15	56,900	28,000	28,900
2015–16	58,500	28,400	30,100
Low alternative projections			
2004–05	48,400	25,300	23,100
2005–06	49,500	25,700	23,800
2006–07	50,400	26,100	24,300
2007–09	50,800	26,100	24,600
2008–09	50,900	26,100	24,800
2009–10	50,900	26,000	24,900
2010–11	51,300	26,100	25,200
2011–12	52,100	26,400	25,700
2012–13	53,200	26,800	26,400
2013–14	54,600	27,200	27,300
2014–15	56,100	27,700	28,400
2015–16	57,700	28,100	29,600
High alternative projections			
2004–05	48,400	25,300	23,100
2005–06	49,500	25,700	23,800
2006–07	50,500	26,100	24,400
2007–09	51,000	26,200	24,800
2008–09	51,300	26,200	25,100
2009–10	51,500	26,200	25,300
2010–11	52,200	26,400	25,800
2011–12	53,200	26,700	26,400
2012–13	54,500	27,200	27,300
2013–14	56,100	27,700	28,300
2014–15	57,800	28,200	29,500
2015–16	59,500	28,700	30,800

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Table 31. Actual and alternative projected numbers for first-professional degrees, by sex of recipient: 1990–91 through 2015–16

Year	Total	Men	Women
Actual			
1990–91	71,948	43,846	28,102
1991–92	74,146	45,071	29,075
1992–93	75,387	45,153	30,234
1993–94	75,418	44,707	30,711
1994–95	75,800	44,853	30,947
1995–96	76,734	44,748	31,986
1996–97	78,730	45,564	33,166
1997–98	78,598	44,911	33,687
1998–99	78,439	44,339	34,100
1999–2000	80,057	44,239	35,818
2000–01	79,707	42,862	36,845
2001–02	80,698	42,507	38,191
2002–03	80,810	41,834	38,976
2003–04	83,041	42,169	40,872
Middle alternative projections			
2004–05	84,800	42,200	42,600
2005–06	85,100	41,600	43,500
2006–07	87,400	42,200	45,200
2007–09	89,700	42,800	46,900
2008–09	91,900	43,500	48,400
2009–10	93,400	44,000	49,300
2010–11	94,500	44,500	50,000
2011–12	95,900	45,000	50,900
2012–13	97,300	45,500	51,800
2013–14	99,200	46,100	53,100
2014–15	101,400	46,700	54,700
2015–16	103,800	47,200	56,500
Low alternative projections			
2004–05	84,800	42,200	42,600
2005–06	85,100	41,600	43,500
2006–07	87,300	42,200	45,100
2007–09	89,400	42,700	46,600
2008–09	91,300	43,400	47,900
2009–10	92,600	43,900	48,700
2010–11	93,400	44,300	49,100
2011–12	94,500	44,800	49,700
2012–13	95,700	45,300	50,400
2013–14	97,400	45,800	51,600
2014–15	99,600	46,400	53,100
2015–16	101,800	47,000	54,800
High alternative projections			
2004–05	84,800	42,200	42,600
2005–06	85,100	41,600	43,500
2006–07	87,500	42,200	45,300
2007–09	90,100	42,800	47,200
2008–09	92,500	43,500	48,900
2009–10	94,200	44,100	50,100
2010–11	95,600	44,600	51,000
2011–12	97,300	45,200	52,100
2012–13	99,100	45,700	53,300
2013–14	101,200	46,300	54,900
2014–15	103,600	47,000	56,700
2015–16	106,100	47,500	58,600

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System, "Completions Survey" (IPEDS-C: 91–99), and Fall 2000 through Fall 2004; and Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Table 32. Actual and alternative projected numbers for elementary and secondary teachers, by control of school: Fall 1990 through fall 2015

[In thousands]

Year	Total	Public	Private
Actual			
1990[1]	2,753	2,398	355
1991	2,787	2,432	355
1992[2]	2,822	2,459	363
1993	2,870	2,504	366
1994[1]	2,926	2,552	374
1995	2,978	2,598	380
1996[1]	3,054	2,667	387
1997	3,134	2,746	388
1998[1]	3,221	2,830	391
1999	3,306	2,911	395
2000[1]	3,331	2,941	390
2001	3,390	3,000	390
2002[1]	3,428	3,034	394
2003[1]	3,444	3,049	396
Middle alternative projections			
2004	3,504	3,111	393
2005	3,534	3,139	395
2006	3,575	3,176	400
2007	3,608	3,207	401
2008	3,639	3,237	403
2009	3,670	3,266	404
2010	3,706	3,299	406
2011	3,746	3,337	409
2012	3,796	3,384	412
2013	3,850	3,435	415
2014	3,911	3,492	419
2015	3,974	3,551	423
Low alternative projections			
2004	3,504	3,111	393
2005	3,531	3,136	395
2006	3,569	3,169	400
2007	3,599	3,198	401
2008	3,627	3,225	403
2009	3,654	3,250	404
2010	3,685	3,279	406
2011	3,725	3,316	409
2012	3,775	3,363	412
2013	3,829	3,414	415
2014	3,890	3,471	419
2015	3,955	3,532	423
High alternative projections			
2004	3,504	3,111	393
2005	3,539	3,144	395
2006	3,588	3,188	400
2007	3,626	3,224	401
2008	3,660	3,257	403
2009	3,695	3,291	404
2010	3,736	3,329	406
2011	3,781	3,372	409
2012	3,834	3,422	412
2013	3,890	3,475	415
2014	3,952	3,533	419
2015	4,016	3,593	423

[1]Private school numbers are estimated.

NOTE: Teachers reported in full-time equivalents. Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years, 1991–92 through 2001–02; and Elementary and Secondary Teacher Model, 1968–2002. (This table was prepared November 2005.)

Table 33. Actual and alternative projected numbers for the pupil/teacher ratios in elementary and secondary schools, by control of school: Fall 1991 through fall 2015

Year	Total	Public	Private
Actual			
1990[1]	16.9	17.2	14.7
1991	17.0	17.3	14.9
1992[1]	17.1	17.4	14.7
1993	17.0	17.4	14.6
1994[1]	17.0	17.3	14.7
1995	17.0	17.3	14.9
1996[1]	16.8	17.1	14.9
1997	16.6	16.8	15.1
1998[1]	16.3	16.4	15.2
1999	16.0	16.1	15.2
2000[1]	16.0	16.0	15.8
2001	15.9	15.9	16.2
2002[1]	15.9	15.9	16.2
2003[1]	16.0	15.9	16.3
Middle alternative projections			
2004	15.7	15.6	16.3
2005	15.6	15.5	16.3
2006	15.5	15.4	16.3
2007	15.4	15.3	16.3
2008	15.3	15.2	16.3
2009	15.2	15.1	16.3
2010	15.1	15.0	16.3
2011	15.0	14.9	16.3
2012	14.9	14.8	16.3
2013	14.8	14.6	16.3
2014	14.7	14.5	16.3
2015	14.6	14.4	16.3
Low alternative projections			
2004	15.7	15.6	16.3
2005	15.6	15.5	16.3
2006	15.5	15.4	16.3
2007	15.3	15.2	16.3
2008	15.2	15.1	16.3
2009	15.1	15.0	16.3
2010	15.0	14.8	16.3
2011	14.9	14.7	16.3
2012	14.8	14.6	16.3
2013	14.7	14.5	16.3
2014	14.6	14.4	16.3
2015	14.5	14.3	16.3
High alternative projections			
2004	15.7	15.6	16.3
2005	15.6	15.5	16.3
2006	15.5	15.4	16.3
2007	15.5	15.4	16.3
2008	15.4	15.2	16.3
2009	15.3	15.2	16.3
2010	15.2	15.1	16.3
2011	15.1	15.0	16.3
2012	15.0	14.9	16.3
2013	14.9	14.7	16.3
2014	14.8	14.6	16.3
2015	14.7	14.5	16.3

[1]Private school numbers are estimated.

NOTE: The pupil/teacher ratios were derived from tables 2 and 31. Teachers reported in full-time equivalents. Some data have been revised from previously published figures. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; Private School Universe Survey (PSS), selected years, 1990–91 through 2001–02; National Elementary and Secondary Enrollment Model, 1972–2003; and Elementary and Secondary Teacher Model, 1968–2002. (This table was prepared November 2005.)

Table 34. Actual and alternative projected numbers for current expenditures and current expenditures per pupil in fall enrollment in public elementary and secondary schools: 1990–91 through 2015–16

Year	Fall enrollment (in thousands)	Current expenditures			
		Constant 2003–04 dollars[1]		Current dollars	
		Total (in billions)	Per pupil in fall enrollment	Total (in billions)	Per pupil in fall enrollment
Actual					
1990–91	41,217	$280.8	$6,812	$202.0	$4,902
1991–92	42,047	284.4	6,765	211.2	5,023
1992–93	42,823	288.6	6,738	220.9	5,160
1993–94	43,465	294.7	6,779	231.5	5,327
1994–95	44,111	301.7	6,841	243.9	5,529
1995–96	44,840	307.3	6,852	255.1	5,689
1996–97	45,611	316.4	6,937	270.2	5,923
1997–98	46,127	328.5	7,121	285.5	6,189
1998–99	46,539	342.5	7,360	302.9	6,508
1999–2000	46,857	356.1	7,599	323.9	6,912
2000–01	47,204	370.3	7,845	348.4	7,380
2001–02	47,672	384.8	8,072	368.4	7,727
2002–03	48,183	396.1	8,220	387.6	8,044
Middle alternative projections					
2003–04	48,541	411.2	8,471	411.2	8,471
2004–05	48,560	418.9	8,626	430.2	8,860
2005–06	48,710	429.2	8,812	447.4	9,185
2006–07	48,948	440.9	9,008	468.0	9,562
2007–09	49,091	451.7	9,201	489.4	9,969
2008–09	49,167	462.1	9,399	511.6	10,406
2009–10	49,267	474.0	9,621	–	–
2010–11	49,415	486.0	9,836	–	–
2011–12	49,637	498.4	10,042	–	–
2012–13	49,938	511.7	10,247	–	–
2013–14	50,294	527.4	10,486	–	–
2014–15	50,735	545.8	10,758	–	–
2015–16	51,220	565.2	11,034	–	–
Low alternative projections					
2003–04	48,541	411.2	8,471	411.2	8,471
2004–05	48,560	419.0	8,628	430.4	8,862
2005–06	48,710	427.2	8,770	445.5	9,146
2006–07	48,948	436.7	8,922	464.8	9,495
2007–09	49,091	446.0	9,085	486.5	9,911
2008–09	49,167	454.3	9,240	509.2	10,358
2009–10	49,267	463.6	9,409	–	–
2010–11	49,415	472.0	9,551	–	–
2011–12	49,637	482.7	9,725	–	–
2012–13	49,938	494.9	9,911	–	–
2013–14	50,294	509.4	10,128	–	–
2014–15	50,735	526.5	10,378	–	–
2015–16	51,220	545.7	10,654	–	–
High alternative projections					
2003–04	48,541	411.2	8,471	411.2	8,471
2004–05	48,560	419.2	8,632	430.3	8,861
2005–06	48,710	432.6	8,882	449.3	9,223
2006–07	48,948	449.0	9,173	472.4	9,651
2007–09	49,091	462.8	9,428	494.3	10,070
2008–09	49,167	475.9	9,679	516.3	10,501
2009–10	49,267	491.1	9,968	–	–
2010–11	49,415	507.3	10,265	–	–
2011–12	49,637	523.3	10,542	–	–
2012–13	49,938	539.2	10,797	–	–
2013–14	50,294	557.2	11,078	–	–
2014–15	50,735	577.4	11,381	–	–
2015–16	51,220	598.8	11,691	–	–

–Not available.

[1]Based on the Consumer Price Index for all urban consumers, 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. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; "National Public Education Financial Survey," 1990–91 through 2002–03; National Elementary and Secondary Enrollment Model, 1972–2003; and Elementary and Secondary School Current Expenditures Model, 1969–70 through 2002–03. (This table was prepared November 2005.)

Table 35. Actual and alternative projected numbers for current expenditures and current expenditures per pupil in average daily attendance (ADA) in public elementary and secondary schools: 1990–91 through 2015–16

		Current expenditures			
		Constant 2003–04 dollars[1]		Current dollars	
Year	ADA (in thousands)	Total (in billions)	Per pupil in ADA	Total (in billions)	Per pupil in ADA
Actual					
1990–91	38,427	280.8	7,307	202.0	5,258
1991–92	38,961	284.4	7,301	211.2	5,421
1992–93	39,570	288.6	7,292	220.9	5,584
1993–94	40,146	294.7	7,339	231.5	5,767
1994–95	40,721	301.7	7,410	243.9	5,989
1995–96	41,502	307.3	7,404	255.1	6,147
1996–97	42,262	316.4	7,487	270.2	6,393
1997–98	42,766	328.5	7,681	285.5	6,676
1998–99	43,187	342.5	7,932	302.9	7,013
1999–2000	43,807	356.1	8,128	323.9	7,394
2000–01	44,076	370.3	8,401	348.4	7,904
2001–02	44,605	384.8	8,627	368.4	8,259
2002–03	45,068	396.1	8,788	387.6	8,600
Middle alternative projections					
2003–04	45,112	411.2	9,115	411.2	9,115
2004–05	45,130	418.9	9,282	430.2	9,533
2005–06	45,269	429.2	9,482	447.4	9,883
2006–07	45,491	440.9	9,693	468.0	10,289
2007–09	45,624	451.7	9,900	489.4	10,726
2008–09	45,694	462.1	10,114	511.6	11,197
2009–10	45,787	474.0	10,352	–	–
2010–11	45,925	486.0	10,584	–	–
2011–12	46,131	498.4	10,805	–	–
2012–13	46,411	511.7	11,026	–	–
2013–14	46,741	527.4	11,283	–	–
2014–15	47,151	545.8	11,575	–	–
2015–16	47,602	565.2	11,873	–	–
Low alternative projections					
2003–04	45,112	411.2	9,115	411.2	9,115
2004–05	45,130	419.0	9,284	430.4	9,536
2005–06	45,269	427.2	9,436	445.5	9,841
2006–07	45,491	436.7	9,601	464.8	10,217
2007–09	45,624	446.0	9,775	486.5	10,664
2008–09	45,694	454.3	9,942	509.2	11,145
2009–10	45,787	463.6	10,124	–	–
2010–11	45,925	472.0	10,277	–	–
2011–12	46,131	482.7	10,464	–	–
2012–13	46,411	494.9	10,664	–	–
2013–14	46,741	509.4	10,897	–	–
2014–15	47,151	526.5	11,166	–	–
2015–16	47,602	545.7	11,464	–	–
High alternative projections					
2003–04	45,112	411.2	9,115	411.2	9,115
2004–05	45,130	419.2	9,288	430.3	9,535
2005–06	45,269	432.6	9,557	449.3	9,924
2006–07	45,491	449.0	9,870	472.4	10,384
2007–09	45,624	462.8	10,144	494.3	10,835
2008–09	45,694	475.9	10,415	516.3	11,299
2009–10	45,787	491.1	10,725	–	–
2010–11	45,925	507.3	11,045	–	–
2011–12	46,131	523.3	11,344	–	–
2012–13	46,411	539.2	11,617	–	–
2013–14	46,741	557.2	11,920	–	–
2014–15	47,151	577.4	12,246	–	–
2015–16	47,602	598.8	12,579	–	–

–Not available.

[1]Based on the Consumer Price Index for all urban consumers, 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. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; "National Public Education Financial Survey," 1990–91 through 2002–03; National Elementary and Secondary Enrollment Model, 1972–2003; and Elementary and Secondary School Current Expenditures Model, 1969–70 through 2002–03. (This table was prepared November 2005.)

Table 36. Estimated and alternative projected numbers for average annual salaries of classroom teachers in public elementary and secondary schools: 1990–91 through 2015–16

School year	Constant 2003–04 dollars[1]	Current dollars
Estimated		
1990–91	$45,979	$33,084
1991–92	45,875	34,063
1992–93	45,747	35,029
1993–94	45,477	35,737
1994–95	45,378	36,675
1995–96	45,339	37,642
1996–97	45,024	38,443
1997–98	45,274	39,350
1998–99	45,854	40,544
1999–2000	45,960	41,807
2000–01	46,128	43,395
2001–02	46,651	44,660
2002–03	46,777	45,776
2003–04	46,752	46,752
2004–05	46,476	47,750
Middle alternative projections		
2005–06	46,561	48,533
2006–07	47,017	49,907
2007–09	47,185	51,124
2008–09	47,373	52,446
2009–10	47,768	–
2010–11	47,989	–
2011–12	48,231	–
2012–13	48,405	–
2013–14	48,489	–
2014–15	48,553	–
2015–16	48,580	–
Low alternative projections		
2005–06	46,391	48,380
2006–07	46,677	49,673
2007–09	46,733	50,982
2008–09	46,761	52,419
2009–10	46,968	–
2010–11	46,931	–
2011–12	47,071	–
2012–13	47,197	–
2013–14	47,229	–
2014–15	47,246	–
2015–16	47,305	–
High alternative projections		
2005–06	46,841	48,641
2006–07	47,667	50,152
2007–09	48,065	51,340
2008–09	48,439	52,553
2009–10	49,069	–
2010–11	49,569	–
2011–12	50,044	–
2012–13	50,364	–
2013–14	50,554	–
2014–15	50,671	–
2015–16	50,756	–

–Not available.

[1]Based on the Consumer Price Index for all urban consumers, 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. Mean absolute percentage errors of selected education statistics can be found in table A-2, appendix A.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Salary Model, 1970–71 through 2002–03; and *Ranking and Estimates: Ranking of the States 2004 and Estimates of School Statistics 2005*, National Education Association. (This table was prepared November 2005.)

Technical Appendixes

Appendix A
Projection Methodology

The general procedure for *Projections of Education Statistics to 2015* 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 2004. This enrollment rate was then projected through the year 2015 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.

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

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 $\alpha = 0.4$.

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 *Forecasting: Methods and Applications* by Spiro Makridakis, Steven C. Wheelwright, and Rob J. Hyndman (John Wiley and Sons, 1998, p. 607).

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.

For some 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.

The key determinants of higher education enrollment are household income, which represents ability to pay, and an age-specific unemployment rate, which acts as a proxy for opportunity costs faced by students. Age-specific unemployment rates are likely to increase during a weak or pessimistic economy, with the result that the estimated opportunity costs will be lower. This will have a positive impact on higher education enrollment, as students face less attractive alternatives. This will be apparent in the short term, resulting in a potential reversal in the expected pattern across the alternative economic scenarios. As a result, the high alternative projections will be lower than the low alternative projections. However, in the long term, the effect of the per capita income variable dominates the effects of the unemployment rate. This results in a pattern where the high alternative projections are greater than the low alternative projections.

Many of the projections in this publication are demographically based on U.S. Census Bureau middle series projections of the population by age. The population projections developed by the U.S. Census Bureau are based on the 2000 census and the middle series assumptions for the fertility rate, internal migration, net immigration, and mortality rate.

The future fertility rate assumption, which determines projections of the number of births, is one key assumption in making population projections. 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 the population cohorts for these enrollment ranges have already been born. 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, level enrolled by student, and type of institution. Projections of college enrollment are also based on disposable income per capita and unemployment rates. The projections of elementary and secondary teachers are based on education revenue receipts from state sources and enrollments. The projections of expenditures of public elementary and secondary schools are based on enrollments and projections of disposable income per capita and various revenue measures of state and local governments. Projections of disposable income per capita and unemployment rates were obtained from the company Global Insight, Inc. Many additional assumptions were made in projecting 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 0.3, 0.5, 1.2, and 2.5 percent, respectively. For more information on mean absolute percentage errors, see table A-2.

Table A-1. Summary of forecast assumptions to 2015

Variable	Middle alternative	Low alternative	High alternative
Demographic assumptions			
Population	Projections are consistent with the Census Bureau middle series estimates.	Same as middle alternative	Same as middle alternative
18- to 24-year-old population	Average annual growth rate of 0.2%	Same as middle alternative	Same as middle alternative
25- to 29-year-old population	Average annual growth rate of 1.2%	Same as middle alternative	Same as middle alternative
30- to 34-year-old population	Average annual growth rate of 0.6%	Same as middle alternative	Same as middle alternative
35- to 44-year-old population	Average annual decline of 0.7%	Same as middle alternative	Same as middle alternative
Economic assumptions			
Disposable income per capita in constant dollars	Annual percent changes range between 2.0% and 2.4% with an annual growth rate of 2.5%	Annual percent changes range between 1.5% and 2.5% with an annual growth rate of 2.2%	Annual percent changes range between 2.3% and 3.2% with an annual growth rate of 3.1%
Education revenue receipts from state sources per capita in constant dollars	Annual percent changes range between 1.7% and 3.1% with an annual growth rate of 2.8%	Annual percent changes range between 1.5% and 3.2% with an annual growth rate of 2.4%	Annual percent changes range between 1.8% and 3.7% with an annual growth rate of 3.6%
Inflation rate	Inflation rate ranges between 1.5% and 2.7%	Inflation rate ranges between 1.5% and 3.7%	Inflation rate ranges between 1.2% and 2.6%
Unemployment rate (men)			
Ages 18 and 19	Remains between 16.3% and 17.2%	Remains between 15.6% and 16.7%	Remains between 16.0% and 16.8%
Ages 20 to 24	Remains between 9.3% and 9.9%	Remains between 8.9% and 9.6%	Remains between 9.1% and 9.6%
Age 25 and over	Remains between 3.9% and 4.1%	Remains between 3.7% and 4.0%	Remains between 3.8% and 4.0%
Unemployment rate (women)			
Ages 18 and 19	Remains between 12.4% and 13.1%	Remains between 11.9% and 12.9%	Remains between 12.1% and 12.9%
Ages 20 to 24	Remains between 7.9% and 8.4%	Remains between 7.6% and 8.3%	Remains between 7.7% and 8.3%
Age 25 and over	Remains between 3.9% and 4.1%	Remains between 3.7% and 4.1%	Remains between 3.8% and 4.1%

SOURCE: U.S. Department of Commerce, Census Bureau, previously unpublished tabulation (June 2004); and Global Insight, Inc., "U.S. Quarterly Model." (This table was prepared December 2005.)

Table A-2. Mean absolute percentage errors (MAPEs) by lead time for selected statistics in all public elementary and secondary schools and degree-granting institutions: 2005

	Lead time (years)									
Statistic	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Public elementary and secondary schools										
PK–12 enrollment	0.3	0.5	0.8	1.0	1.2	1.3	1.5	1.8	2.1	2.5
PK–8 enrollment	0.4	0.6	0.9	1.1	1.2	1.4	1.8	2.3	2.9	3.5
9–12 enrollment	0.4	0.7	1.0	1.2	1.3	1.5	1.8	2.2	2.3	2.3
High school graduates	0.8	0.9	1.6	1.7	1.4	1.6	2.4	3.5	4.0	3.9
Elementary and secondary teachers	1.0	1.6	1.8	2.2	2.7	3.4	4.0	4.5	4.7	5.6
Total current expenditures[1]	1.3	2.5	2.3	2.4	2.9	4.0	4.8	4.1	3.7	3.0
Current expenditures per pupil in fall enrollment[1]	1.3	2.3	2.1	2.3	3.5	4.5	5.1	4.8	5.5	5.2
Estimated average annual teacher salaries[1]	1.2	1.6	2.0	3.4	5.0	6.3	7.9	9.0	9.5	9.7
Degree-granting institutions										
Total enrollment	1.5	2.4	3.1	3.6	4.6	6.3	8.2	9.8	10.1	—
Men	1.6	2.8	3.4	4.2	5.7	7.1	8.5	9.6	9.2	—
Women	1.7	2.7	3.7	3.6	3.8	5.6	7.9	10.0	10.8	—
4-year institutions	1.1	2.0	2.8	3.9	4.5	5.8	8.0	9.8	10.5	—
2-year institutions	2.4	3.9	4.4	4.3	5.2	7.0	8.4	9.8	9.4	—
Associate's degrees	2.3	2.9	2.9	4.9	5.6	6.7	7.5	8.7	11.3	12.4
Bachelor's degrees	0.9	2.0	2.8	3.7	5.7	7.5	8.3	8.8	9.4	9.7
Master's degrees	1.6	4.1	7.7	9.9	11.3	14.2	16.4	16.7	15.7	17.4
Doctor's degrees	2.6	3.5	3.0	3.7	2.5	2.3	4.8	5.2	1.7	2.6
First-professional degrees	1.3	1.3	1.8	3.4	5.5	7.0	8.8	10.6	10.5	10.0

—Not available. Not all actual values were available to calculate a MAPE for this lead time.

[1]In constant dollars based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Mean absolute percentage error is the average value of the absolute values of errors expressed in percentage terms. MAPEs for K-12 enrollments were calculated using the last 22 editions of *Projections of Education Statistics*. MAPEs for high school graduates were calculated from the past 15 editions of *Projections of Education Statistcs*. MAPES for teachers were calculated from the past 15 editions containing teachers projections and MAPEs for current expenditures and teacher salaries were calculated using projections from the last 15 editions containing current expenditure and teacher salary projections. MAPEs for degree-granting institution enrollments and earned degrees were calculated using the last 8 and 9 editions, respectively. MAPEs for current-fund expenditures were calculated using the last 10 editions of *Projections of Education Statistcs* that included projections of current-fund expenditures. Calculations were made using unrounded numbers. Some data have been revised from previously published numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics*, various issues. (This table was prepared November 2005.)

Enrollment

National

Enrollment projections are based on projected enrollment rates, by age and sex, where the enrollment rate for a given population for a certain level of education is the number of people in that population enrolled at that level of education divided by the total number of people in that population. These enrollment rates were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes. The projected enrollment rates were then used in the Education Forecasting Model (EDMOD), which consists of age-specific rates by sex and by enrollment levels.

Enrollments by age and age groups from the U.S. Census Bureau were adjusted to NCES totals to compute rates for 1972 through 2004. The first stage of EDMOD is an age-specific enrollment model in which these enrollment rates are projected and applied to age-specific population projections from the U.S. Census Bureau. This stage includes all ages for students enrolled in grades K–12 and for students enrolled in colleges and universities. This stage, which is used separately for each sex, consists of the following categories: (1) nursery and kindergarten; (2) elementary grades 1–8; (3) secondary grades 9–12; (4) full-time college enrollment; and (5) part-time college enrollment.

At the postsecondary level, 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 separately, with each model run by sex. Within an enrollment category, where applicable, college 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. Three alternative projections were made using various economic assumptions. Table A-3 shows enrollment rates for 2004 and middle alternative projected enrollment rates for 2010 and 2015. Table A-4 shows the equations used to project the enrollments for men by attendance status. Table A-5 shows the equations used to project enrollment rates for women by attendance.

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, and secondary ungraded and special. Grade progression rate projections were used for grades 2 through 12. Table A-6 shows the public school enrollment rates, and table A-7 shows the public school grade progression rates for 2003 and projections for 2004 through 2015. The projected rates in tables A-6 and A-7 were used to compute the projections of enrollments in elementary and secondary schools, by grade, shown in table 3.

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

The third stage of EDMOD projects enrollments in degree-granting institutions, by age group, sex, attendance status, and level enrolled by student, and by type and control of institution. These projections for 2005 through 2015 are shown in tables A-8 and A-9, along with actual values for 2004. 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 A-8 and A-9 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 2005 through 2015 are shown in table A-10, along with actual percents for 2004. 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 2004 and projections for 2005 through 2015 are shown in table A-11. The projected rates in table A-11 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. The full-time-equivalent enrollment measures enrollment as if students were enrolled full time for one academic year, and equals the sum of full-time enrollment and full-time-equivalent of part-time enrollment. The full-time-equivalent of part-time enrollment was estimated as a percentage of part-time enrollment. In EDMOD, the full-time-equivalent of part-time enrollment was calculated using different percentages for enrollment category by level enrolled and by type and control of institution. Actual percents for 2004 and projections for 2005 and 2015 are shown in table A-12.

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

College Enrollment, by Sex, Attendance Status, Age Group, and Race/Ethnicity

The fifth stage of EDMOD projects enrollments in degree-granting institutions by age, sex, attendance status, and race/ethnicity. The race/ethnicity groups projected include the following: White, Non-Hispanic; Black, Non-Hispanic; Hispanic; Asian or Hawaiian-Pacific Islander, Non-Hispanic; American Indian/Alaska Native, Non-Hispanic; and Non-Resident Alien. Enrollment projections are based on projected enrollment rates by age, sex, attendance status, and race/ethnicity where the enrollment rate for a given population for a certain level of education is the number of people in that population enrolled at that level of education divided by the total number of people in that population. With the exception of American Indian/Alaska Native, Non-Hispanic and Non-Resident Alien, all race/ethnicity groups were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes. Due to the nature of the historical data, American Indian/Alaska Native, Non-Hispanic enrollments were projected using single exponential smoothing and Non-Resident Alien enrollments were projected using patterns in recent historical growth.

Enrollments by sex, race/ethnicity and age from the U.S. Census Bureau were adjusted to NCES totals by sex and race/ethnicity to compute rates for 1980 through 2004. As with the first stage of EDMOD, the fifth stage consists of age-specific enrollment models for each sex-race/ethnicity group in which enrollment rates are projected and applied to age-specific population projections by sex and race/ethnicity from the U.S. Census Bureau. The final set of projected rates by age, sex, attendance status, and race/ethnicity were controlled to the stage one enrollment rates by age, sex, and attendance status to ensure consistency across stages.

Stage five consists of sixteen individual pooled time series models—one for each attendance status - sex - race/ethnicity combination—that are each pooled across age. As with the stage one postsecondary level projections, projections of full-time and part-time college enrollments by race/ethnicity were considered only for ages 16 and over. College enrollment is negligible for earlier ages. Within each model, college 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. Table A-14 shows the equations used to project the enrollments for White, Non-Hispanic men by attendance status. Table A-15 shows the equations used to project enrollment rates for White, Non-Hispanic women by attendance. Table A-16 shows the equations used to project the enrollments for Black, Non-Hispanic men by attendance status. Table A-17 shows the equations used to project enrollment rates for Black, Non-Hispanic women by attendance. Table A-18 shows the equations used to project the enrollments for Hispanic men by attendance status. Table A-19 shows the equations used to project enrollment rates for Hispanic women by attendance. Table A-20 shows the equations used to project the enrollments for Asian or Hawaiian-Pacific Islander, Non-Hispanic men by attendance status. Table A-21 shows the equations used to project enrollment rates for Asian or Hawaiian-Pacific Islander, Non-Hispanic women by attendance status.

Projection Accuracy

An analysis of projection errors from the past 22 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 0.3, 0.5, 1.2, and 2.5 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.3 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 out were 0.4, 0.6, 1.2, and 3.5 percent, respectively, while those for projections of public school enrollment in grades 9–12 were 0.4, 0.7, 1.3, and 2.3 percent for the same lead times.

For projections of total enrollment in degree-granting institutions, an analysis of projection errors based on the past 8 editions of *Projections of Education Statistics* indicates that the MAPEs for lead times of 1, 2, and 5 years were 1.5, 2.4, and 4.6 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 1.5 percent of the actual value, on the average. For more information on MAPEs, see table A-2, page 89.

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

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

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:

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

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

where:

$$K_t = RK_t\left(P_{5t}\right)$$

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

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

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

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

Enrollment in Degree-Granting Institutions

For degree-granting institutions, 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

j = Subscript denoting sex

k = Subscript denoting attendance status

E_{ijkt} = Enrollment of students age i by sex and attendance status

P_{ijt} = Population age i by sex

R_{ijkt} = Enrollment rate for students age i by sex and attendance status

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

Then:

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

where:

$$E_{ijkt} = R_{ijkt}\left(P_{ijt}\right)$$

Enrollment in Degree-Granting Institutions by Race/Ethnicity

With this edition of the *Projections of Education Statistics*, projections for degree-granting institutions by sex and attendance status of student were further disaggregated by race/ethnicity for the first time. 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

j = Subscript denoting sex

k = Subscript denoting attendance status

l = Subscript denoting race/ethnicity

E_{ijklt} = Enrollment of students age i by sex, attendance status, and race/ethnicity

P_{ijlt} = Population age i by sex and race/ethnicity

R_{ijklt} = Enrollment rate for students age i by sex, attendance status, and race/ethnicity

T_{ijklt} = Total enrollment for a particular subset of students by race/ethnicity: full-time men, full-time women, part-time men, part-time women

Then:

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

where:

$$E_{ijklt} = R_{ijklt}\left(P_{ijlt}\right)$$

Methodological Tables

Table A-22 gives the basic assumptions underlying enrollment projections.

Private School Enrollment

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

Private school enrollment data from the NCES Private School Universe Survey for 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, 1999–2000, and 2001–02 were used to develop these projections. In addition, population estimates for 1989 to 2004 and population projections for 2005 to 2015 from the U.S. Census Bureau were used to develop the projections.

Prekindergarten, 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. 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. 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 secondary ungraded are projected to remain constant at their 2001 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (prekindergarten through 12) and ungraded 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 this projection method has been developed only recently and there is not yet enough historical information to evaluate model performance. As additional data become 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 2004 to the year 2015. This is the 11th report on state-level projections for public school elementary and secondary education statistics.

Public school enrollment data from the NCES Common Core of Data survey for 1980 to 2003 were used to develop these projections. This survey does not collect enrollment data for private schools.

Population estimates for 1980 to 2004 and population projections for 2005 to 2015 from the U.S. Census Bureau were used to develop the enrollment projections. The state population projections used in this year's update have been revised relative to last year's update. The set of population projections used in this year's *Projections of Education Statistics to 2015* are the Census Bureau's newly released (April 2005) set of interim state-level population projections. This set of state-level projections line up with the Census Bureau's interim national population projections, which were released earlier in May 2004. The population projections used in last year's *Projections of Education Statistics* were based on the Census Bureau's old state-level population projections, but were adjusted to line up with the 2002 state-level population estimates and interim national population projections. During the next year, the Census Bureau plans to develop a revised set of population projections that will be consistent with a revised set of national population projections and that will include modifications to produce projections by race and Hispanic origin as well as by age and sex.

The changes in the underlying population projections impact the final state-level enrollment projections in this year's edition of the *Projections of Education Statistics*. While the impact varies by state, this year's state-level projections are substantially different than the state-level projections released in last year's publication, *Projections of Education Statistics to 2014*.

Table A-13 describes the number of years, projection methods, and smoothing constants used to project enrollments in public schools. Also included in table A-13 is the procedure for choosing the different smoothing constants for the time-series models.

All states, with the exception of the District of Columbia, were projected using the same single exponential smoothing parameter. Due to questions about the quality of the District of Columbia data, the smoothing parameters for the District of Columbia were estimated using the available historical data. This approach yielded more consistent projections of the District of Columbia enrollments.

Projections of enrollment in public elementary and secondary schools by state were developed using primarily the grade progression rate method. Prekindergarten, 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 secondary ungraded are projected to remain constant at their 2003 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (kindergarten through 12) and ungraded 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 projections of state enrollments were adjusted to sum to 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 A-3. Actual and middle alternative projected numbers for college enrollment rates, by sex, attendance status, and age: Fall 2004, 2010, and 2015

Sex, attendance status, and age	Actual 2004	Projected	
		2010	2015
Men			
Full-time			
16 years old	0.2	0.3	0.3
17 years old	2.3	2.4	2.6
18 years old	26.0	26.9	28.3
19 years old	35.5	36.5	38.2
20 years old	34.1	35.1	36.6
21 years old	30.4	31.4	32.9
22 years old	21.1	21.9	23.1
23 years old	12.0	12.5	13.3
24 years old	10.7	11.2	11.9
25 to 29 years old	5.1	5.3	5.7
30 to 34 years old	1.9	2.0	2.2
35 to 44 years old	1.4	1.5	1.6
Part-time			
16 years old	#	#	#
17 years old	0.7	0.7	0.8
18 years old	4.7	4.8	4.9
19 years old	6.5	6.6	6.7
20 years old	9.1	9.2	9.3
21 years old	7.6	7.7	7.9
22 years old	5.3	5.4	5.6
23 years old	7.0	7.2	7.5
24 years old	6.8	6.9	7.2
25 to 29 years old	5.3	5.5	5.7
30 to 34 years old	3.1	3.1	3.3
35 to 44 years old	1.4	1.5	1.6
Women			
Full-time			
16 years old	0.3	0.5	0.5
17 years old	4.3	3.4	4.2
18 years old	39.4	42.6	44.1
19 years old	45.9	49.1	50.5
20 years old	40.0	43.2	44.5
21 years old	36.6	39.7	41.0
22 years old	24.3	26.8	28.0
23 years old	16.1	18.0	21.3
24 years old	13.6	15.3	18.2
25 to 29 years old	6.5	7.4	8.9
30 to 34 years old	2.9	3.3	4.0
35 to 44 years old	2.3	2.6	3.2
Part-time			
16 years old	0.1	0.1	0.1
17 years old	1.0	1.0	1.1
18 years old	6.1	6.0	6.3
19 years old	9.4	9.2	9.5
20 years old	9.2	9.0	9.4
21 years old	10.0	10.0	10.4
22 years old	8.8	8.9	9.4
23 years old	8.0	8.2	8.4
24 years old	9.5	9.8	10.1
25 to 29 years old	7.5	7.8	8.2
30 to 34 years old	5.2	5.4	5.7
35 to 44 years old	6.9	7.2	7.7

Rounds to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-4. Equations for full-time and part-time college enrollment rates of men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-5.61	0.26	-21.5	0.99	2.19
Age 18	-3.00	0.22	-13.6		
Age 19	-2.76	0.18	-14.9		
Age 20	-2.91	0.19	-15.7		
Age 21	-3.02	0.19	-16.2		
Age 22	-3.53	0.19	-18.7		
Age 23	-3.94	0.19	-21.2		
Age 24	-4.24	0.20	-21.7		
Age 25	-5.04	0.21	-23.8		
Age 25-29	-6.00	0.20	-29.4		
Age3 5-44	-6.62	0.20	-33.5		
LNRYPDRNMA	0.41	0.04	11.6		
LNRUM	0.10	0.04	2.8		
Rho17	0.70	0.10	7.3		
Rho18	0.81	0.08	10.4		
Rho19	0.27	0.14	2.0		
Rho20	0.36	0.14	2.5		
Rho21	0.36	0.14	2.5		
Rho22	0.42	0.13	3.3		
Rho23	0.07	0.14	0.5		
Rho24	0.66	0.10	6.8		
Rho25-29	0.81	0.07	12.2		
Rho30-34	0.63	0.11	5.9		
Rho35-44	0.38	0.11	3.6		
Part-time					
Age 17	-7.62	0.92	-8.3	0.37	1.78
Age 18	-4.07	0.66	-6.2		
Age 19	-3.69	0.72	-5.1		
Age 20	-3.69	0.66	-5.6		
Age 21	-3.78	0.66	-5.7		
Age 22	-3.67	0.66	-5.5		
Age 23	-3.94	0.66	-6.0		
Age 24	-4.14	0.68	-6.1		
Age 25	-4.19	0.68	-6.2		
Age 25-29	-4.62	0.69	-6.7		
Age 35-44	-4.67	0.67	-7.0		
LNRYPDRNMA	0.25	0.12	2.1		
LNRUM	0.02	0.08	0.3		
Rho17	-0.20	0.16	-1.3		
Rho18	0.25	0.18	1.4		
Rho19	0.86	0.08	11.4		
Rho20	0.46	0.15	3.0		
Rho21	0.43	0.17	2.6		
Rho22	0.44	0.16	2.7		
Rho23	0.33	0.18	1.8		
Rho24	0.70	0.12	6.1		
Rho25-29	0.76	0.08	9.1		
Rho30-34	0.83	0.07	11.2		
Rho35-44	0.58	0.15	3.8		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
Rho(age) = Autocorrelation coefficient for each age.
LNRUM = Log unemployment rate for men.
LNRYPDRNMA = Log of three-period weighted average of per capita real disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method with a first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 2004. The number of observations is 352. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-5. Equations for full-time and part-time college enrollment rates of women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-9.90	1.48	-6.7	0.99	2.37
Age 18	-6.57	0.25	-26.6		
Age 19	-6.40	0.19	-33.4		
Age 20	-6.58	0.19	-35.2		
Age 21	-6.79	0.19	-36.3		
Age 22	-7.52	0.21	-35.2		
Age 23	-7.95	0.20	-39.2		
Age 24	-8.23	0.19	-43.3		
Age 25	-8.92	0.19	-45.9		
Age 25-29	-9.64	0.19	-51.0		
Age 35-44	-9.88	0.19	-52.7		
LNRYPDRNMA	1.16	0.04	26.9		
LNRUM	0.27	0.06	4.6		
Rho17	0.96	0.06	16.9		
Rho18	0.85	0.07	11.6		
Rho19	0.29	0.14	2.1		
Rho20	0.23	0.14	1.6		
Rho21	0.27	0.14	1.9		
Rho22	0.75	0.07	10.0		
Rho23	0.70	0.09	8.2		
Rho24	0.43	0.11	4.1		
Rho25-29	0.66	0.10	6.9		
Rho30-34	0.37	0.13	2.8		
Rho35-44	0.03	0.12	0.3		
Part-time					
Age 17	-7.29	0.56	-12.9	0.78	2.2
Age 18	-4.51	0.37	-12.3		
Age 19	-4.21	0.42	-10.0		
Age 20	-4.28	0.37	-11.6		
Age 21	-4.35	0.40	-10.8		
Age 22	-4.31	0.35	-12.2		
Age 23	-4.60	0.36	-12.8		
Age 24	-4.70	0.39	-12.2		
Age 25	-4.88	0.34	-14.2		
Age 25-29	-5.10	0.35	-14.4		
Age 35-44	-4.88	0.35	-14.1		
LNRYPDRNMA	0.40	0.08	5.2		
LNRUM	0.01	0.07	0.1		
Rho17	0.45	0.12	3.7		
Rho18	0.45	0.17	2.6		
Rho19	0.81	0.08	9.7		
Rho20	0.60	0.14	4.4		
Rho21	0.78	0.08	9.2		
Rho22	0.28	0.14	2.1		
Rho23	0.52	0.12	4.2		
Rho24	0.77	0.10	7.9		
Rho25-29	0.43	0.13	3.4		
Rho30-34	0.76	0.08	9.9		
Rho35-44	0.58	0.11	5.4		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
Rho(age) = Autocorrelation coefficient for each age.
LNRUM = Log unemployment rate for men.
LNRYPDRNMA = Log of three-period weighted average of per capita real disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method with a first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 2004. The number of observations is 352. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-6. Actual and projected numbers for enrollment rates in public schools, by grade level: Fall 2003, and 2004 through 2015

Grade level	Actual 2003	Projected 2004 through 2015
Prekindergarten	21.4	22.7
Kindergarten	87.1	88.7
Grade 1	91.2	92.0
Elementary ungraded	0.9	0.8
Secondary ungraded	0.9	0.8

NOTE: The the base age for each grade level is as follows: kindergarten, 5 years old; grade 1, 6 years old; elementary ungraded, 5- to 13-years-olds; and secondary ungraded 14- to 17-years-olds.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model, 1972–2003. (This table was prepared November 2005.)

Table A-7. Actual and projected numbers for public school grade progression rates: Fall 2003, and 2004 through 2015

Grade	Actual 2003	Projected 2004 through 2015
1 to 2	98.5	98.6
2 to 3	100.6	100.9
3 to 4	100.3	100.2
4 to 5	100.4	100.4
5 to 6	101.6	101.6
6 to 7	101.5	101.4
7 to 8	99.5	99.6
8 to 9	113.3	113.2
9 to 10	89.1	89.3
10 to 11	90.8	91.1
11 to 12	93.1	93.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model, 1972–2003. (This table was prepared November 2005.)

Table A-8. Actual and projected numbers for the percentage distribution of full-time students at degree-granting postsecondary institutions, for each age and sex classification: Fall 2004, and 2005 through 2015

Age	Men		Women	
	Actual 2004	Projected 2005 through 2015	Actual 2004	Projected 2005 through 2015
Undergraduate, 4-year institutions				
16 and 17 years old	66.7	60.6	64.1	63.8
18 and 19 years old	64.4	65.2	68.1	67.7
20 and 21 years old	76.7	76.8	78.3	78.7
22 to 24 years old	63.8	63.2	61.2	61.0
25 to 29 years old	41.7	41.5	39.3	38.8
30 to 34 years old	37.7	39.5	35.7	32.7
35 years and over	37.8	37.3	35.3	37.7
Undergraduate, 2-year institutions				
16 and 17 years old	32.2	36.9	34.2	32.6
18 and 19 years old	34.9	34.2	31.1	31.8
20 and 21 years old	21.4	20.9	19.3	19.2
22 to 24 years old	18.0	17.9	18.2	16.9
25 to 29 years old	17.5	19.9	27.2	27.2
30 to 34 years old	22.1	20.2	34.3	36.7
35 years and over	27.8	29.7	35.8	35.6
Postbaccalaureate, 2-year institutions				
16 and 17 years old	1.1	2.5	1.6	3.5
18 and 19 years old	0.7	0.6	0.8	0.5
20 and 21 years old	1.9	2.2	2.3	2.0
22 to 24 years old	18.1	18.9	20.6	22.1
25 to 29 years old	40.8	38.7	33.5	34.1
30 to 34 years old	40.2	40.3	29.9	30.6
35 years and over	34.4	33.1	28.9	26.7

NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-9. Actual and projected numbers for the percentage distribution of part-time students at degree-granting postsecondary institutions, for each age and sex classification: Fall 2004, and 2005 through 2015

	Men		Women	
Age	Actual 2004	Projected 2005 through 2015	Actual 2004	Projected 2005 through 2015
Undergraduate, 4-year institutions				
16 and 17 years old	14.0	8.4	24.8	16.7
18 and 19 years old	17.2	17.2	21.7	20.6
20 and 21 years old	28.1	25.4	30.3	28.6
22 to 24 years old	26.6	28.8	24.7	27.9
25 to 29 years old	28.6	30.1	25.8	25.4
30 to 34 years old	28.6	26.3	24.4	24.8
35 years and over	20.6	21.2	21.0	21.0
Undergraduate, 2-year institutions				
16 and 17 years old	85.8	91.5	75.1	83.2
18 and 19 years old	82.5	82.6	77.8	79.1
20 and 21 years old	71.0	73.9	68.9	71.0
22 to 24 years old	65.6	62.8	65.6	61.1
25 to 29 years old	50.6	49.5	50.2	50.1
30 to 34 years old	44.5	45.2	51.8	52.9
35 years and over	52.6	51.9	54.0	54.5
Postbaccalaureate, 2-year institutions				
16 and 17 years old	0.1	0.1	0.1	0.1
18 and 19 years old	0.4	0.2	0.5	0.3
20 and 21 years old	1.0	0.7	0.7	0.4
22 to 24 years old	7.7	8.4	9.8	11.0
25 to 29 years old	20.8	20.3	24.0	24.5
30 to 34 years old	27.0	28.5	23.8	22.3
35 years and over	26.8	26.9	25.0	24.5

NOTE: Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-10. Actual and projected numbers for enrollment in public degree-granting postsecondary institutions as a percent of total enrollment, by sex, attendance status, level enrolled, and type of institution: Fall 2004, and 2005 through 2015

	Men		Women	
Enrollment category	Actual 2004	Projected 2005 through 2015	Actual 2004	Projected 2005 through 2015
Full-time, undergraduate, 4-year institutions	66.9	66.5	65.7	65.0
Part-time, undergraduate, 4-year institutions	70.8	70.4	68.6	68.3
Full-time, undergraduate, 2-year institutions	90.7	91.0	90.9	90.4
Part-time, undergraduate, 2-year institutions	99.1	99.1	98.9	98.8
Full-time, postbaccalaureate, 4-year institutions	52.3	51.4	52.6	51.3
Part-time, postbaccalaureate, 4-year institutions	57.1	56.6	61.1	60.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-11. Actual and projected numbers for graduate enrollment in degree-granting postsecondary institutions as a percent of total post baccalaureate enrollment, by sex, attendance status, and type and control of institution: Fall 2004, and 2005 through 2015

	Men		Women	
Enrollment category	Actual 2004	Projected 2005 through 2015	Actual 2004	Projected 2005 through 2015
Full-time, 4-year, public	79.0	79.2	81.0	81.0
Part-time, 4-year, public	98.8	98.8	99.3	99.3
Full-time, 4-year, private	67.7	68.7	74.6	75.8
Part-time, 4-year, private	92.2	92.4	95.5	95.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-12. Actual and projected numbers for full-time-equivalent enrollment in degree-granting postsecondary institutions as a percent of part-time enrollment, by type and control of institution level, and level enrolled: Fall 2004, and 2005 through 2015

Enrollment category	Actual 2004	Projected 2005 through 2015
Public, 4-year, undergraduate	40.4	40.4
Public, 2-year, undergraduate	33.6	33.6
Private, 4-year, undergraduate	39.3	39.3
Private, 2-year, undergraduate	39.7	39.7
Public, 4-year, graduate	36.2	36.2
Private, 4-year, graduate	38.2	38.2
Public, 4-year, first-professional	60.1	60.1
Private, 4-year, first-professional	54.6	54.6

SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions Model, 1980–2004. (This table was prepared November 2005.)

Table A-13. Number of years, projection methods, and smoothing constants used to project state-level public school enrollments and high school graduates

Projected state variable	Number of years (1972–2003)	Projection method	Smoothing constant[1]	Basis for 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

[1]Alternative smoothing constants were used for the District of Columbia.
SOURCE: U.S. Department of Education, National Center for Education Statistics, State Public Elementary and Secondary Enrollment Model, 1980–2003; and State Public High School Graduates Model, 1980–81 through 2002–03. (This table was prepared November 2005.)

Table A-14. Equations for full-time and part-time college enrollment rates of White, non-Hispanic, men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-7.72	0.15	-52.8	0.98	0.74
Age 18	-4.81	0.11	-41.9		
Age 19	-4.61	0.11	-41.8		
Age 20	-4.83	0.11	-43.6		
Age 21	-4.97	0.11	-44.8		
Age 22	-5.47	0.11	-47.9		
Age 23	-5.97	0.11	-53.4		
Age 24	-6.33	0.11	-55.6		
Age 25-29	-7.26	0.11	-65.3		
Age 30-34	-8.34	0.11	-73.5		
Age 35 and up	-8.95	0.12	-74.7		
LNRYPDNWNH	0.22	0.01	38.2		
Part-time					
Age 17	-7.05	0.96	-7.4	0.46	2.12
Age 18	-2.43	0.06	-43.1		
Age 19	-2.15	0.09	-24.6		
Age 20	-2.10	0.05	-42.3		
Age 21	-2.21	0.06	-35.8		
Age 22	-2.10	0.06	-36.6		
Age 23	-2.36	0.04	-53.5		
Age 24	-2.60	0.06	-46.8		
Age 25-29	-2.67	0.04	-74.2		
Age 30-34	-3.12	0.05	-68.3		
Age 35 and up	-3.17	0.03	-107.7		
LNRJECIWSSPCPI	0.67	0.13	5.0		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNWNH = Log of White non-Hispanic per capita disposable income.
LNRJECIWSSPCPI = Log of real total private compensation employment cost index.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-15. Equations for full-time and part-time college enrollment rates of White, non-Hispanic, women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-12.12	0.27	-45.5	0.97	0.56
Age 18	-9.25	0.25	-37.7		
Age 19	-9.17	0.24	-37.5		
Age 20	-9.45	0.24	-38.7		
Age 21	-9.70	0.24	-39.7		
Age 22	-10.50	0.25	-42.5		
Age 23	-10.98	0.25	-44.6		
Age 24	-11.27	0.24	-46.0		
Age 25-29	-12.19	0.24	-49.9		
Age 30-34	-12.89	0.24	-52.7		
Age 35 and up	-13.07	0.24	-53.4		
LNRYPDNWNH	0.47	0.01	37.0		
Part-time					
Age 17	-8.14	0.42	-19.3	0.80	1.00
Age 18	-4.19	0.23	-18.0		
Age 19	-3.94	0.24	-16.4		
Age 20	-3.93	0.23	-16.9		
Age 21	-4.11	0.24	-17.4		
Age 22	-4.02	0.23	-17.3		
Age 23	-4.32	0.23	-18.6		
Age 24	-4.47	0.23	-19.1		
Age 25-29	-4.60	0.23	-20.0		
Age 30-34	-4.89	0.23	-21.2		
Age 35 and up	-4.59	0.23	-20.0		
LNRYPDNWNH	0.10	0.01	8.7		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNWNH = Log of White non-Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-16. Equations for full-time and part-time college enrollment rates of Black, non-Hispanic, men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-9.13	0.40	-22.6	0.92	1.76
Age 18	-6.96	0.40	-17.6		
Age 19	-6.71	0.40	-17.0		
Age 20	-6.85	0.39	-17.3		
Age 21	-7.06	0.40	-17.8		
Age 22	-7.26	0.40	-18.3		
Age 23	-7.73	0.40	-19.2		
Age 24	-8.00	0.40	-20.1		
Age 25-29	-8.77	0.40	-22.0		
Age 30-34	-9.59	0.41	-23.7		
Age 35 and up	-10.03	0.40	-25.1		
LNRYPDNBNH	0.29	0.02	13.5		
Part-time					
Age 17	-10.22	1.01	-10.1	0.27	2.25
Age 18	-7.74	0.46	-16.9		
Age 19	-7.01	0.45	-15.6		
Age 20	-6.91	0.44	-15.7		
Age 21	-6.93	0.43	-16.1		
Age 22	-6.78	0.45	-15.1		
Age 23	-7.33	0.45	-16.3		
Age 24	-7.22	0.45	-16.2		
Age 25-29	-7.26	0.43	-16.9		
Age 30-34	-7.45	0.43	-17.4		
Age 35 and up	-7.58	0.43	-17.8		
LNRYPDNBNH	0.21	0.02	9.2		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNBNH = Log of Black non-Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-17. Equations for full-time and part-time college enrollment rates of Black, non-Hispanic, women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-12.37	0.43	-28.9	0.93	1.36
Age 18	-10.34	0.42	-24.8		
Age 19	-10.11	0.42	-24.3		
Age 20	-10.38	0.42	-24.9		
Age 21	-10.49	0.42	-25.2		
Age 22	-11.06	0.42	-26.6		
Age 23	-11.26	0.42	-27.0		
Age 24	-11.51	0.42	-27.5		
Age 25-29	-12.44	0.42	-29.7		
Age 30-34	-12.90	0.42	-31.0		
Age 35 and up	-13.27	0.42	-31.8		
LNRYPDNBNH	0.50	0.02	22.3		
Part-time					
Age 17	-13.39	0.61	-22.0	0.51	1.52
Age 18	-11.15	0.48	-23.4		
Age 19	-10.94	0.47	-23.1		
Age 20	-10.73	0.48	-22.6		
Age 21	-10.86	0.47	-22.9		
Age 22	-10.54	0.47	-22.4		
Age 23	-10.81	0.47	-22.8		
Age 24	-11.19	0.48	-23.5		
Age 25-29	-11.14	0.46	-24.0		
Age 30-34	-11.21	0.47	-24.1		
Age 35 and up	-11.12	0.46	-24.0		
LNRYPDNBNH	0.45	0.03	17.8		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNBNH = Log of Black non-Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-18. Equations for full-time and part-time college enrollment rates of Hispanic men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-9.23	0.61	-15.1	0.89	1.98
Age 18	-7.32	0.60	-12.1		
Age 19	-7.08	0.60	-11.7		
Age 20	-7.27	0.60	-12.1		
Age 21	-7.48	0.61	-12.3		
Age 22	-8.03	0.61	-13.3		
Age 23	-8.25	0.61	-13.6		
Age 24	-8.32	0.60	-13.8		
Age 25-29	-9.20	0.61	-15.2		
Age 30-34	-9.94	0.61	-16.4		
Age 35 and up	-10.56	0.61	-17.2		
LNRYPDNH	0.29	0.03	8.7		
Part-time					
Age 17	-9.35	1.05	-8.9	0.26	2.17
Age 18	-6.46	0.50	-13.0		
Age 19	-6.33	0.51	-12.5		
Age 20	-6.09	0.50	-12.2		
Age 21	-6.16	0.50	-12.4		
Age 22	-6.24	0.50	-12.6		
Age 23	-6.54	0.51	-12.8		
Age 24	-6.76	0.50	-13.5		
Age 25-29	-6.82	0.49	-14.0		
Age 30-34	-7.22	0.49	-14.8		
Age 35 and up	-7.27	0.49	-14.9		
LNRYPDNH	0.19	0.03	6.9		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNH = Log of Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-19. Equations for full-time and part-time college enrollment rates of Hispanic women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-16.14	0.63	-25.5	0.87	1.78
Age 18	-13.53	0.60	-22.4		
Age 19	-13.47	0.60	-22.4		
Age 20	-13.82	0.60	-22.9		
Age 21	-13.93	0.60	-23.1		
Age 22	-14.65	0.61	-24.1		
Age 23	-14.81	0.60	-24.5		
Age 24	-15.22	0.61	-24.9		
Age 25-29	-15.93	0.60	-26.5		
Age 30-34	-16.60	0.61	-27.4		
Age 35 and up	-16.87	0.61	-27.7		
LNRYPDNH	0.67	0.03	20.2		
Part-time					
Age 17	-14.30	0.56	-25.4	0.47	1.66
Age 18	-12.03	0.43	-27.7		
Age 19	-11.88	0.43	-27.8		
Age 20	-12.07	0.44	-27.6		
Age 21	-11.94	0.44	-27.4		
Age 22	-12.12	0.44	-27.8		
Age 23	-12.10	0.43	-28.1		
Age 24	-12.52	0.44	-28.6		
Age 25-29	-12.58	0.42	-29.9		
Age 30-34	-12.95	0.42	-30.7		
Age 35 and up	-12.84	0.42	-30.6		
LNRYPDNH	0.52	0.02	22.7		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNH = Log of Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-20. Equations for full-time and part-time college enrollment rates of Asian/Pacific Islander men

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-7.86	0.71	-11.1	0.92	1.61
Age 18	-4.93	0.69	-7.2		
Age 19	-4.71	0.69	-6.8		
Age 20	-4.86	0.69	-7.1		
Age 21	-4.91	0.69	-7.1		
Age 22	-5.15	0.69	-7.5		
Age 23	-5.38	0.69	-7.8		
Age 24	-5.77	0.69	-8.3		
Age 25-29	-6.58	0.69	-9.5		
Age 30-34	-7.58	0.69	-11.0		
Age 35 and up	-8.35	0.69	-12.1		
LNRYPDNAHNH	0.24	0.04	6.6		
Part-time					
Age 17	-6.51	1.69	-3.9	0.24	2.27
Age 18	-3.46	0.91	-3.8		
Age 19	-2.93	0.92	-3.2		
Age 20	-2.67	0.93	-2.9		
Age 21	-3.00	0.93	-3.2		
Age 22	-2.90	0.95	-3.1		
Age 23	-3.05	0.92	-3.3		
Age 24	-3.56	0.92	-3.9		
Age 25-29	-3.57	0.90	-4.0		
Age 30-34	-4.16	0.90	-4.6		
Age 35 and up	-4.54	0.90	-5.0		
LNRYPDNAHNH	0.07	0.05	1.4		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNAHNH = Log of Asian/Pacific Islander non-Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-21. Equations for full-time and part-time college enrollment rates of Asian/Pacific Islander women

Independent variable	Coefficient	Standard error	T-statistic	R^2	D.W. statistic
Full-time					
Age 17	-13.28	0.38	-35.0	0.94	1.44
Age 18	-11.15	0.36	-30.6		
Age 19	-10.53	0.38	-27.9		
Age 20	-10.96	0.37	-29.9		
Age 21	-10.88	0.37	-29.6		
Age 22	-11.47	0.37	-30.6		
Age 23	-11.88	0.37	-32.3		
Age 24	-12.26	0.39	-31.1		
Age 25-29	-13.26	0.36	-36.8		
Age 30-34	-14.60	0.37	-39.5		
Age 35 and up	-14.94	0.37	-40.3		
LNRYPDNAHNH	0.57	0.02	30.4		
Part-time					
Age 17	-17.01	1.00	-17.0	0.47	1.68
Age 18	-14.89	0.85	-17.6		
Age 19	-14.48	0.87	-16.7		
Age 20	-14.90	0.85	-17.5		
Age 21	-14.22	0.86	-16.5		
Age 22	-14.23	0.85	-16.8		
Age 23	-14.94	0.85	-17.6		
Age 24	-15.11	0.86	-17.6		
Age 25-29	-15.50	0.84	-18.5		
Age 30-34	-16.19	0.84	-19.3		
Age 35 and up	-15.98	0.84	-19.1		
LNRYPDNAHNH	0.68	0.04	15.7		

R^2 = Coefficient of determination.
D.W. statistic = Durbin-Watson statistic.
Where:
AGE(age) = Enrollment rate by age.
LNRYPDNAHNH = Log of Asian/Pacific Islander non-Hispanic per capita disposable income.
NOTE: The regression method used to estimate the full-time and part-time equations was the pooled seemingly unrelated regression method. The time period used to estimate the equations is from 1980 to 2004. The number of observations is 275. For additional information, see M. D. Intriligator, *Econometric Models, Techniques, & Applications*, New Jersey: Prentice-Hall, Inc., 1978, pp. 165–173.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared January 2006.)

Table A-22. Enrollment (assumptions)

Variable	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)	1-9
	Public enrollment rates and public grade retention rates will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1-9
	The percentage of 7th- and 8th-grade public students enrolled in schools organized as secondary schools will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1-9
College enrollment, by age, sex, and attendance status	Age-specific enrollment rates 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	10-19
	Age-specific enrollment rates are a function of dummy variables by age, low alternative log of four-period weighted average of real disposable income per capita, and low alternative log unemployment rate by age group.	Low	10-19
	Age-specific enrollment rates are a function of dummy variables by age, high alternative log of four-period weighted average of real disposable income per capita, and high alternative log unemployment rate by age group.	High	10-19
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 2015. For each age group and attendance status category, the sum of the percentages must equal 100 percent.	High, middle, and low	10-19
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	10-19
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
College enrollment, by age, sex, attendance status, and race/ethnicity			
Full-time: White, Non-Hispanic men; White, Non-Hispanic women; Black, Non-Hispanic men; Black, Non-Hispanic women; Hispanic men; Hispanic women; Asian/Pacific Islander, Non-Hispanic men; Asian/Pacific Islander, Non-Hispanic women. Part-time: White, Non-Hispanic women; Black, Non-Hispanic men; Black, Non-Hispanic women; Hispanic men; Hispanic women; Asian/Pacific Islander, Non-Hispanic men; Asian/Pacific Islander, Non-Hispanic women	Age-specific enrollment rates by race/ethnicity are a function of dummy variables by age and the log of the corresponding race/ethnicity group's real disposable income per capita.	Middle (no alternatives)	22
Part-time White, Non-Hispanic men	Age-specific enrollment rates by race/ethnicity are a function of dummy variables by age and the log of real total compensation.	Middle (no alternatives)	22
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	23

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model, 1972–2004; State Public Elementary and Secondary Enrollment Model, 1980–2004; Enrollment in Degree-Granting Institutions Model, 1980–2004; and Enrollment in Degree-Granting Institutions by Race/Ethnicity Model, 1980–2004. (This table was prepared November 2005.)

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 1972–73 to 2002–03. 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 affected by changes in graduation requirements.

Projections of private high school graduates were calculated using the same methodology as public high school graduates, using data from 1988–89 to 2000–01.

Projection Accuracy

An analysis of projections from models used in the past 15 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of public high school graduates were 0.8 percent for 1 year ahead, 0.9 percent for 2 years ahead, 1.4 percent for 5 years ahead, and 3.9 percent for 10 years ahead. For the 1-year-ahead prediction, this meansthat one would expect the projection to be within 0.8 percent of the actual value, on the average. For more information on the mean absolute percentage errors, see table A-2, page 89.

State Level

This edition contains projections of high school graduates from public schools by state from 2003–04 to 2015–16. Public school graduate data from the Common Core of Data survey for 1980–81 to 2002–03 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 1980–81 to 2002–03. 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. All states, with the exception of the District of Columbia, were projected using the same single exponential smoothing parameter. Due to questions about the quality of the District of Columbia data, the smoothing parameters for the District of Columbia were estimated using the available historical data. This approach yielded more consistent projections of the District of Columbia graduates. Projections of grade 12 enrollment were developed based on the grade progression rates discussed in appendix A, Enrollment. The projected rates were 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.

Degrees Conferred

Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees for men and women were based on demographic models that relate degree awards to college-age populations and college enrollment by level enrolled and attendance status. Table A-23 describes the equations used to calculate projections, and table A-24 contains the basic assumptions underlying projections.

Associate's Degrees

Associate's degree projections for men and women were based on a weighted average over the last 2 years of undergraduate enrollment by attendance status in 2-year institutions and sex relative to the 18- to 24-year-old population by sex. The previous year is weighted two-thirds, and 2 years back is weighted one-third. Results of the regression analysis used to project associate's degrees are shown in table A-23.

Bachelor's Degrees

Bachelor's degree projections for men and women were based on a weighted average over the last 4 years of undergraduate enrollment by attendance status in 4-year institutions and sex relative to the 18- to 24-year-old population by sex. The weights for the previous 4 years—0.4, 0.3, 0.2, and 0.1—give more weight to the most recent years. Results of the regression analysis used to project bachelor's degrees are shown in table A-23.

Master's Degrees

Master's degree projections for men and women were based on a weighted average over the last 2 years of graduate enrollment by attendance status and sex relative to the 25- to 34-year-old population by sex. The previous year is weighted two-thirds, and 2 years back is weighted one-third. Results of the regression analysis used to project master's degrees are shown in table A-23.

Doctor's Degrees

Doctor's degree projections for men and women were based on a weighted average over the last 4 years of graduate enrollment by attendance status and sex relative to the 35- to 44-year-old population, by sex. The weights for the previous 4 years—0.4, 0.3, 0.2, and 0.1—give more weight to the most recent years. The results of the regression analysis used to project doctor's degrees are shown in table A-23.

First-Professional Degrees

First-professional degree projections for men and women were based on a weighted average over the last 3 years of first-professional enrollment by attendance status in 4-year institutions and sex relative to the 25- to 34-year-old population by sex. The weights for the previous 3 years—0.5, 0.33, and 0.17—give more weight to the most recent years. Results of the regression analysis used to project first-professional degree are shown in table A-23.

Projection Accuracy

An analysis of projection errors from similar models used in the past nine editions of Projections of Education Statistics indicates that mean absolute percentage errors (MAPEs) for associate's degrees were 2.3 percent for 1 year out, 2.9 percent for 2 years out, and 5.6 percent for 5 years out. For the 1-year-out prediction, this means that one would expect the projection to be within 2.3 percent of the actual value, on average. MAPEs for bachelor's degree projections were 0.9 percent for 1 year out, 2.0 percent for 2 years out, and 5.7 percent for 5 years out. MAPEs for master's degrees were 1.6, 4.1, and 11.3 percent, respectively. For doctor's degrees, the MAPEs were 2.6, 3.5, and 2.5 percent, respectively. For first-professional degrees, the MAPEs were 1.3, 1.3, and 5.5 percent, respectively. For more information on the MAPEs, see table A-2.

Table A-23. Equations for degrees conferred

Dependent variable					Equation	R^2	Durbin-Watson statistic[1]	Error distribution pattern[2]	Rho	Time period
Associate's degrees Men	LNASSOCM	= 4.9	+	0.4LNUG2ML2 (10.2)		0.95	2.0	AR(1)	0.57 (5.1)	1975–76 to 2003–04
Associate's degrees Women	LNASSOCW	= 5.6	+	0.6LNUG2WL2 (17.2)		0.99	1.5	AR(1)	0.65 (8.3)	1975–76 to 2003–04
Bachelor's degrees Men	LNBACHM	= 6.3	-	0.5LNUG4ML4 (5.2)		0.98	1.5	AR(1)	0.97 (7.5)	1977–78 to 2003–04
Bachelor's degrees Women	LNBACHW	= 139.6	-	0.4LNUG4WL4 (4.6)		0.99	1.6	AR(1)	0.99 (22.4)	1977–78 to 2003–04
Master's degrees Men	LNMASTM	= 7.0	+	0.6LNGML2 (4.6)		0.97	1.4	AR(1)	1.02 (9.6)	1975–76 to 2003–04
Master's degrees Women	LNMASTW	= 7.7	+	0.7LNGWL2 (22.3)		0.99	1.4	AR(1)	0.79 (18.6)	1975–76 to 2003–04
Doctor's degrees Men	LNDOCM	= 3.3	+	0.4LNGML4 (6.8)		0.99	1.7	AR(1)	0.69 (7.1)	1977–78 to 2003–04
Doctor's degrees Women	LNDOCW	= 1.9	+	0.3LNGWL4 (3.2)		0.95	2.3	AR(1)	1.04 (17.1)	1977–78 to 2003–04
First-professional degrees Men	LNFPROM	= 3.5	+	0.2LNFPML3 (3.1)		0.99	1.7	AR(1)	0.87 (23.1)	1976–77 to 2003–04
First-professional degrees Women	LNFPROW	= 7.8	+	0.6LNFPWL3 (35.6)		0.98	0.8	AR(1)	0.07 (0.6)	1976–77 to 2003–04

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston and J. Dinardo, *Econometric Methods*, New York: McGraw-Hill, 1996.
[2]AR(1) indicates that the models was estimated using least squares with the AR(1) process for correcting for first-order autocorrelation. 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, pp. 315–318.
Where:
LNASSOCM = Log of the ratio of associate's degrees awarded to men relative to the population of 18- to 24-year old men
LNASSOCW = Log of the ratio of associate's degrees awarded to woman relative to the population of 18- to 24-year old women
LNBACHM = Log of the ratio of bachelor's degrees awarded to men relative to the population of 18- to 24-year old men
LNBACHW = Log of the ratio of bachelor's degrees awarded to women relative to the population of 18- to 24-year old women
LNMASTM = Log of the ratio of master's degrees awarded to men relative to the population of 25- to 34-year old men
LNMASTW = Log of the ratio of master's degrees awarded to women relative to the population of 25- to 34-year old women
LNDOCM = Log of the ratio of doctor's degrees awarded to men relative to the population of 35- to 44-year old men
LNDOCW = Log of the ratio of doctor's degrees awarded to women relative to the population of 35- to 44-year old women
LNFPROM = Log of the ratio of first-professional degrees awarded to men relative to the population of 25- to 34-year old men
LNFPROW = Log of the ratio of first-professional degrees awarded to women relative to the population of 25- to 34-year old women
LNUG2ML2 = Log of the ratio of full-time male undergraduate enrollment in 2-year institutions to the male population of 18- to 24-year-olds, weighted over the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time male undergraduate enrollment in 2-year institutions.
LNUG2WL2 = Log of the ratio of full-time female undergraduate enrollment in 2-year institutions to the female population of 18- to 24-year-olds, weighted over the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time female undergraduate enrollment in 2-year institutions.
LNUG4ML4 = Log of the ratio of full-time male undergraduate enrollment in 4-year institutions to the male population of 18- to 24-year-olds, weighted over the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time male undergraduate enrollment in 4-year institutions.
LNUG4WL4 = Log of the ratio of full-time female undergraduate enrollment in 4-year institutions to the female population of 18- to 24-year-olds, weighted over the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time female undergraduate enrollment in 4-year institutions.
LNGML2 = Log of the ratio of full-time male graduate enrollment to the male population of 25- to 34-year-olds, weighted over the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time male graduate enrollment.
LNGWL2 = Log of the ratio of full-time female graduate enrollment to the female population of 25- to 34-year-olds, weighted over the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time female graduate enrollment.
LNGML4 = Log of the ratio of full-time male graduate enrollment to the male population of 35- to 44-year-olds, weighted over the last 4 years (where weights are .4, .3., .2, and .1 for descending lagged years), plus the similar log ratio for part-time male graduate enrollment.
LNGWL4 = Log of the ratio of full-time female graduate enrollment to the female population of 35- to 44-year-olds, weighted over the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time female graduate enrollment.
LNFPML3 = Log of the ratio of full-time male first-professional enrollment to the male population of 25- to 34-year-olds, weighted over the last 3 years (where weights are .5, .33, and .17 for descending lagged years), plus the similar log ratio for part-time male first-professional enrollment.
LNFPWL3 = Log of the ratio of full-time female first-professional enrollment to the female population of 25- to 34-year-olds, weighted over the last 3 years (where weights are .5, .33, and .17 for descending lagged years), plus the similar log ratio for part-time female first-professional enrollment.
NOTE: R^2 indicates coefficient of determination. Rho measures the correlation between errors in time period t and time period t minus 1. Numbers in parentheses are t-statistics.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Table A-24. Degrees conferred (assumptions)

Variable	Assumptions	Alternatives	Tables
Associate's degrees			
Men	The number of associate's degrees awarded to men is a linear function of the log of the ratio of full-time male undergraduate enrollment in 2-year institutions to the male population of 18- to 24-year-olds, weighted over the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time male undergraduate enrollment in 2-year institutions. This relationship will continue through 2015–16.	Middle	27
Women	The number of associate's degrees awarded to women is a linear function of the log of the ratio of full-time female undergraduate enrollment in 2-year institutions to the female population of 18- to 24-year-olds, weighted over the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time female undergraduate enrollment in 2-year institutions. This relationship will continue through 2015–16.	Middle	27
Bachelor's degrees			
Men	The number of bachelor's degrees awarded to men is a linear function of the log of the ratio of full-time male undergraduate enrollment in 4-year institutions to the male population of 18- to 24-year-olds, weighted over the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time male undergraduate enrollment in 4-year institutions. This relationship will continue through 2015–16.	Middle	28
Women	The number of bachelor's degrees awarded to women is a linear function of the log of the ratio of full-time female undergraduate enrollment in 4-year institutions to the female population of 18- to 24-year-olds, weighted over the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time female undergraduate enrollment in 4-year institutions. This relationship will continue through 2015–16.	Middle	28
Master's degrees			
Men	The number of master's degrees awarded to men is a linear function of the log of the ratio of full-time male graduate school enrollment to the male population of 25- to 34-year-olds, weighted over the the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time male graduate school enrollment. This relationship will continue through 2015–16.	Middle	29
Women	The number of master's degrees awarded to women is a linear function of the log of the ratio of full-time female graduate school enrollment to the female population of 25- to 34-year-olds, weighted over the the last 2 years (where weights are .67 and .33 for descending lagged years), plus the similar log ratio for part-time female graduate school enrollment. This relationship will continue through 2015–16.	Middle	29
Doctor's degrees			
Men	The number of doctor's degrees awarded to men is a linear function of the log of the ratio of full-time male graduate school enrollment to the male population of 35- to 44-year-olds, weighted over the the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time male graduate school enrollment. This relationship will continue through 2015–16.	Middle	30
Women	The number of doctor's degrees awarded to women is a linear function of the log of the ratio of full-time female graduate school enrollment to the female population of 35- to 44-year-olds, weighted over the the last 4 years (where weights are .4, .3, .2, and .1 for descending lagged years), plus the similar log ratio for part-time female graduate school enrollment. This relationship will continue through 2015–16.	Middle	30
First-professional degrees			
Men	The number of first-professional degrees awarded to men is a linear function of the log of the ratio of full-time male first-professional school enrollment to the male population of 25- to 34-year-olds, weighted over the last 3 years (where weights are .5, .33, and, .17 for descending lagged years), plus the similar log ratio for part-time male first-professional school enrollment. This relationship will continue through 2015–16.	Middle	31
Women	The number of first-professional degrees awarded to women is a linear function of the log of the ratio of full-time female first-professional school enrollment to the female population of 25- to 34-year-olds, weighted over the last 3 years (where weights are .5, .33, and, .17 for descending lagged years), plus the similar log ratio for part-time female first-professional school enrollment. This relationship will continue through 2015–16.	Middle	31

SOURCE: U.S. Department of Education, National Center for Education Statistics, Degrees Conferred Model, 1975–76 through 2003–04. (This table was prepared November 2005.)

Elementary and Secondary Teachers

Public Elementary and Secondary Teachers

The number of public elementary and secondary teachers was projected separately for the elementary and secondary levels. The number of public elementary teachers was projected using the public elementary student/teacher ratio. The ratio was modeled as a function of local education revenue from state sources per student, and the level of elementary and secondary teacher wages relative to the overall economy-level wages. The number of public elementary teachers was obtained by applying the projected public elementary student/teacher ratio to the previously projected enrollment in public elementary schools. The number of public secondary teachers was projected using the public secondary student/teacher ratio. The ratio was modeled as a function of local education revenue from state sources per student and public secondary enrollment relative to the 11- to 18-year-old population. The number of public secondary teachers was obtained by applying the projected public secondary student/teacher ratio to the previously projected enrollment in public secondary schools.

The models were estimated using the AR1 model for correcting for autocorrelation, and all variables are in log form. Local education revenue from state sources were in constant 2000 dollars.

The equations in this section should be viewed as forecasting rather than structural equations, as the limitations of time and available data precluded the building of a large-scale, structural teacher model. The particular equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R^2s), the t-statistics of the coefficients, the Durbin-Watson statistic, and residual plots.

The multiple regression technique will yield good forecasting results only if the relationships that existed among the variables in the past continue throughout the projection period.

The public elementary teacher model is:

$$\ln(RELENRTCH_t) = b_0 + b_1 \ln(RSALARY_t) + b_2 \ln(RSGRNTELENR_t)$$

where:

$RELENRTCH_t$ is the public elementary student/teacher ratio in year t;

$RSALARY_t$ is the average teacher wage relative to the overall economy-level wage in year t; and

$RSGRNTELENR_t$ is the level of education revenue from state sources deflated by the consumer prices chained-price index in constant 2000 dollars per public elementary student in year t.

Each variable affects the public elementary student/teacher ratio in the expected way. As the average teacher wage relative to the overall economy-level wage increases, schools economize on teachers by increasing the student/teacher ratio as teachers are now more expensive to hire. As the level of real grants per elementary student increases, the class size decreases. The more money being devoted to education, the more teachers are hired, thus decreasing the student/teacher ratio.

The public secondary teacher model is:

$$\ln(RSCENRTCH_t) = b_0 + b_1 \ln(RSGRNTSCENR_t) + b_2 \ln(RSCENRPU_t)$$

where:

$RSCENRTCH_t$ is the public secondary student/teacher ratio in year t;

$RSGRNTSCENR_t$ is the level of education revenue from state sources deflated by the consumer prices chained-price index in constant 2000 dollars per public secondary student in year t; and

$RSCENRPU_t$ is the number of students enrolled in public secondary schools relative to the secondary school-age population in year t.

Each variable affects the public secondary student/teacher ratio in the expected way. As the level of real grants per secondary student increases, the student/teacher ratio decreases. The more money being devoted to education, the more teachers are hired, thus decreasing the student/teacher ratio. As enrollment rates (number of enrolled students relative to the school-age population) increase, the ratio also increases: increases in the enrollment rate are not matched one-for-one in increases in the number of teachers.

Table A-25 summarizes the results for the elementary and secondary public teacher models.

Enrollment is by organizational level, not by grade level. Thus, secondary enrollment is not the same as grade 9–12 enrollment because some states count some grade 7 and 8 enrollment as secondary. Therefore, the distribution of the number of teachers is also by organizational level, not by grade span.

Private Elementary and Secondary Teachers

Projections of private elementary and secondary teachers were derived in the following manner. From 1960 to 2002, the ratio of private school teachers to public school teachers was calculated by organizational level. These ratios were projected using single exponential smoothing, yielding a constant value over the projection period. This constant value was then applied to projections of public school teachers by organizational level to yield projections of private school teachers. This method assumes that the future pattern in the trend of private school teachers will be the same as that for public school teachers. The reader is cautioned that a number of factors could alter the assumption of constant ratios over the projection period.

The total number of public school teachers, enrollment by organizational level, and education revenue from state sources used in these projections were from the Common Core of Data (CCD) survey conducted by NCES. The proportion of public school teachers by organizational level was taken from the National Education Association and then applied to the total number of teachers from the CCD to produce the number of teachers by organizational level.

Projection Accuracy

An analysis of projection errors from the past 15 editions of *Projections of Education Statistics* indicated that the mean absolute percentage errors (MAPEs) for projections of classroom teachers in public elementary and secondary schools were 1.0 percent for 1 year out, 1.6 percent for 2 years out, 2.7 percent for 5 years out, and 5.6 percent for 10 years out. For the 2-year-ahead prediction, this means that one would expect the projection to be within 1.6 percent of the actual value, on average. For more information on the MAPEs, see table A-2.

Table A-25. Equations for public elementary and secondary teachers

Dependent variable	Equation	R^2	Durbin-Watson statistic[1]	Error distribution pattern[2]	Rho	Time period
Elementary	ln(RELENRTCH) = 3.8 + .1 ln(RSALARY) (4.8) - 2 ln(RSGRNTELENR) (-8.5)	0.99	1.9	AR(1)	0.21 (1.24)	1968 to 2002
Secondary	ln(RSCENRTCH) = 4.1 - .2 ln(RSGRNTSCENR) (-13.8) + .6 ln(RSCENRPU) (4.7)	0.99	1.9	AR(1)	0.60 (3.6)	1973 to 2002

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston and J. Dinardo, *Econometric Methods*, New York: McGraw-Hill, 1996.
[2]AR(1) indicates that the models was estimated using least squares with the AR(1) process for correcting for first-order autocorrelation. 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, pp. 315–318.
Where:
RELENRTCH = Log of the ratio of public elementary school enrollment to classroom teachers (i.e., student/teacher ratio)
RSCENRTCH = Log of the ratio of public secondary school enrollment to classroom teachers (i.e., student/teacher ratio)
RSALARY = Log of the average annual teacher salary relative to the overall economy wage in 2000 dollars
RSGRNTELENR = Log of the ratio of education revenue receipts from state sources per capita to public elementary school enrollment in 2000 dollars
RSGRNTSCENR = Log of the ratio of education revenue receipts from state sources per capita to public secondary school enrollment in 2000 dollars
RSCENRPU = Log of the ratio of enrollment in public secondary schools to the 11- to 18-year-old population
NOTE: R^2 indicates the coefficient of determination. Rho measures the correlation between errors in time period t and time period t minus 1. Numbers in parentheses are t-statistics.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Model, 1968–2003. (This table was prepared November 2005.)

Expenditures of Public Elementary and Secondary Schools

Econometric techniques were used to produce the projections for current expenditures and average teacher salaries. The particular equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R^2s), the t-statistics of the variables, the Durbin-Watson statistic, and residual plots. These econometric models will yield good forecasting results only if the relationships that existed among the variables in the past continue throughout the projection period.

Elementary and Secondary School Current Expenditure Model

There is a large body of work, both theoretical and empirical, on the demand for local public services such as education.[1] The elementary and secondary school current expenditure model is based on this work.

The model that is the basis for the elementary and secondary school current expenditure model has been called the median voter model. In brief, the theory states that spending for each public good in the community (in this case, spending for education) reflects the preferences of the "median voter" in the community. This individual is identified as the voter in the community with the median income and median property value. The amount of spending in the community reflects the price of education facing the voter with the median income, as well as his income and tastes. There are competing models in which the level of spending reflects the choices of others in the community, such as the "bureaucrats."

In a median voter model, the demand for education expenditures is typically linked to four different types of variables: (1) measures of the income of the median voter; (2) measures of intergovernmental aid for education going indirectly to the median voter; (3) measures of the price to the median voter of providing one more dollar of education expenditures per pupil; and (4) any other variables that may affect one's tastes for education. The elementary and secondary school current expenditure model contains variables reflecting the first two types of variables. The model is:

$$\ln(CUREXP_t) = b_0 + b_1\ln(PCI_t) + b_2\ln(SGRNT_t)$$

where:

ln indicates the natural log;

$CUREXP_t$ equals current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982–84 dollars in year t;

PCI_t equals disposable income per capita in constant 2000 dollars in year t; and

$SGRNT_t$ equals local governments' education revenue from state sources, per capita, in constant year 1982–84 dollars in year t. The model used to project this variable is discussed below.

The model was estimated using least squares with the AR(1) process for correcting for autocorrelation. This is the 12th edition of *Projections of Education Statistics* in which AR(1) was used. No correction for autocorrelation had been made in the previous four editions of *Projections of Education Statistics*. The model was estimated using data from 1969–70 to 2002–03.

There are potential problems with using a model for local government education expenditures for the nation as a whole. Two such problems concern the variable SGRNT. First, the amount of money that local governments receive for education from state governments varies substantially by state. Second, the formulas used to apportion state moneys for education among local governments vary by state.

Beginning in 1988–89, there was a major change in the survey form used to collect data on current expenditures. This new survey form produces a more complete measure of current expenditures; therefore, the values for current expenditures are not completely comparable to the previously collected numbers. Data for a majority of states were also collected for 1986–87 and 1987–88 that were comparable to data from the new survey

[1] For a discussion of the theory together with a review of some of the older literature, see Inman, R. P. (1979), ''The Fiscal Performance of Local Governments: An Interpretive Review," in *Current Issues in Urban Economics*, edited by P. Mieszkowski and M. Straszheim, Johns Hopkins Press, Baltimore, Maryland. More recent empirical work includes: Gamkhar, S. and Oates, W. (1996). Asymmetries in the Response to Increases and Decreases in Intergovernmental Grants: Some Empirical Findings. *National Tax Journal*, *49*(3): 501-512 and Mitias, P. and Turnbull, G. (2001) Grant Illusion, Tax Illusion, and Local Government Spending. *Public Finance Review. 29*(5): 347-368.

form. A comparison of these data with those from the old survey form suggests that the use of the new survey form may have increased the national figure for current expenditures by approximately 1.4 percent over what it would have been if the survey form had not been changed. When the model was estimated, all values for current expenditures before 1988–89 were increased by 1.4 percent.

The results for the model are shown in table A-26. Each variable affects current expenditures in the direction that would be expected. With high levels of income (PCI) or revenue from state sources (SGRNT), the level of spending increases.

From the cross-sectional studies of the demand for education expenditures, we have an estimate of how sensitive current expenditures are to changes in PCI. We can compare the results from this model with those from the cross-sectional studies. For this model, an increase in PCI of 1 percent, with SGRNT held constant, would result in an increase of current expenditures per pupil in fall enrollment of approximately .77 percent. With PCI held constant, an increase of 1 percent in SGRNT would result in an increase in current expenditures per pupil in fall enrollment of approximately .24 percent. Both numbers are well within the range of what has been found in cross-sectional studies.

The results from this model are not completely comparable with those from previous editions of *Projections of Education Statistics*. First, in those earlier editions, the sample period used to estimate the model began with either 1959–60 or 1967–68 rather than 1969–70. This change was made due to superior model diagnostics. Second, in some earlier editions the model contained an additional variable, as a proxy for the price facing the median voter, the ratio of enrollment to the population. This price variable has been excluded due to its lack of statistical significance as measured by its t-statistic. Third, in editions prior to *Projections of Education Statistics to 2011* and *Projections of Education Statistics to 2013,*[2] average daily attendance rather than fall enrollment, was used as the measure of enrollment. This change was made because the definitions of fall enrollment are more consistent from state to state than those of average daily attendance.

There have been other changes to the model used in earlier editions. As with the current expenditure projections in the most recent editions, the population number for each school year is the U.S. Census Bureau's July 1 population number for the upcoming school year. In earlier editions, the school year population numbers were from an economic consulting firm. These changes were made to be consistent with population projections used in producing other projections of education statistics. Also, there have been changes in the definition of disposable income.

Projections for total current expenditures were made by multiplying the projections for current expenditures per pupil in fall enrollment by projections for fall enrollment. The projections for total current expenditures were also divided by projections for average daily attendance to produce projections of current expenditures per pupil in average daily attendance to provide projections that are consistent with those from earlier years. Projections were developed in 1982–84 dollars and then placed in 2003–04 dollars using the Consumer Price Index. Current-dollar projections were produced by multiplying the constant-dollar projections by projections for the Consumer Price Index. The Consumer Price Index and the other economic variables used in calculating the projections presented in this report were placed in school year terms rather than calendar year terms.

Three alternative sets of projections for current expenditures are presented: the middle alternative projections, the low alternative projections, and the high alternative projections. The alternative sets of projections differ because of varying assumptions about the growth paths for disposable income and revenue from state sources.

The alternative sets of projections for the economic variables, including disposable income, were developed using three economic scenarios prepared by the economic consulting firm, Global Insight, Inc.

Global Insight's February 2005 trend scenario was used as a base for the middle alternative projections of the economic variables. Global Insight's trend scenario depicts a mean of possible paths that the economy could take over the forecast period, barring major shocks. The economy, in this scenario, evolves smoothly, without major fluctuations.

Global Insight's February 2005 pessimistic scenario was used for the low alternative projections, and Global Insight's February 2005 optimistic scenario was used for the high alternative projections.

[2] There were no projections of either current expenditures or teacher salaries in *Projections of Education Statistics to 2012*.

In the middle alternative projections, disposable income per capita rises each year from 2005–06 to 2015–16 at rates between 2.0 percent and 2.4 percent. In the low alternative projections, disposable income per capita ranges between 1.5 percent and 2.5 percent, and in the high alternative projections, disposable income per capita rises at rates between 2.3 percent and 3.2 percent.

The alternative projections for revenue from state sources, which form a component of the current expenditures model, were produced using the following model:

$$\ln(SGRNT_t) = b_0 + b_1\ln(PCI_t) + b_2\ln(ENRPOP_t)$$

where:

ln indicates the natural log;

$SGRNT_t$ equals local governments' education revenue from state sources, per capita, in constant 1982–84 dollars in year t;

$ENRPOP_t$ equals the ratio of fall enrollment to the population in year t; and

PCI_t equals disposable income per capita in constant 2000 dollars in year t.

The model was estimated using least squares with the AR(1) process for correcting for autocorrelation. The model was estimated using the period from 1971–72 to 2002–03. These models are shown in table A-26.

The values of the coefficients in this model follow expectations. As the enrollment increases relative to the population (higher ENRPOP), so does the amount of aid going to education. Finally, other things being equal, as the value of disposable income per capita in real dollar values (higher PCI) increases, the level of local governments' education revenue from state sources per capita also increases.

This year's edition of the *Projections of Education Statistics* uses the same revenue from state sources model as last year's edition. The model used in the prior two editions, *Projections of Education Statistics 2012* and *Projections of Education Statistics 2013,* was different. It included a term for personal taxes and non-tax receipts (PERTAX1) and an inflation rate term (RCPIANN) and was estimated over a different time period (the sample period began in 1967-68 rather than 1971-72). As with last year, the current model specification yielded superior model diagnostics than the model used in the *Projections of Education Statistics 2012* and *Projections of Education Statistics 2013*. The models in the previous four editions of the *Projections of Education Statistics* each used the same variable to represent enrollment (ENRPOP). In the earlier editions, models used average daily attendance rather than fall enrollment as the measure of enrollment, and the sample period used to produce the forecast began in 1959–60. As with the current expenditures model, the change to fall enrollment was done because the definition of fall enrollment is more consistent across states, and the change in sample period was done because of superior model diagnostics. Other models in the past have contained a second measure of state and local government revenue. Also in earlier editions, similar models were used except the variables were not in log form. Both of these changes were made because of superior model diagnostics.

Three alternative sets of projections for SGRNT were produced using this model. Each is based on a different set of projections for disposable income per capita. The middle set of projections was produced using the values from the middle set of alternative projections. The low set of projections was produced using the values from the low set of alternative projections, and the high set of projections was produced using the values from the high set of alternative projections. In the middle alternative projections, disposable income per capita rises each year from 2005–06 to 2015–16 at rates between 2.0 percent and 2.4 percent. In the low alternative projections, disposable income per capita ranges between 1.5 percent and 2.5 percent, and in the high alternative projections, disposable income per capita rises at rates between 2.3 percent and 3.2 percent.

Elementary and Secondary Teacher Salary Model

Most studies conducted on teacher salaries, like those on current expenditures, have used cross-sectional data. Unlike current expenditures models, however, the models for teacher salaries from these existing cross-sectional studies cannot easily be reformulated for use with time series data. One problem is that we do not have sufficient information concerning the supply of qualified teachers who are not presently teaching. Instead, the elementary and secondary salary model contains terms that measure the demand for teachers in the economy.

The elementary and secondary teacher salary model is:

$$\ln(SALRY_t) = b_0 + b_1\ln(CUREXP_t) + b_2\ln(ENRPOP_t) + b_3\ln(ENR_t/ENR1_t)$$

where:

ln indicates the natural log;

$SALRY_t$ equals the estimated average annual salary of teachers in public elementary and secondary schools in constant 1982–84 dollars in year t;

$CUREXP_t$ equals current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982–84 dollars in year t;

$ENRPOP_t$ equals the ratio of fall enrollment to the population in year t;

ENR_t equals fall enrollment in year t; and

$ENR1_t$ equals fall enrollment in year t-1.

The model was estimated using the period from 1970–71 to 2002–03. The model was estimated using least squares with the AR(1) process for correcting for autocorrelation.

Due to the effects on current expenditures caused by the change in survey forms discussed above, the values for current expenditures for 1969–70 to 1987–88 were increased by 1.4 percent when the salary model was estimated.

The equations and results for this model are also shown in table A-26. There is no literature for comparing the sizes of the coefficients. However, the direction of the impact each variable has on salaries is as expected: as the level of spending per pupil increases (higher CUREXP), more teachers can be hired, so demand for teachers increases and salaries may increase; as the number of students increases (higher ENRPOP and ENR/ENR1), demand for teachers may increase, so salaries may increase.

This year's edition of the *Projections of Education Statistics* uses the same salary model as last year's edition. The model used in the prior two editions, *Projections of Education Statistics 2012* and *Projections of Education Statistics 2013,* was slightly different: the enrollment ratio variable was the ratio of enrollment lagged one period to enrollment lagged two periods. Earlier versions of the salary model used average daily attendance rather than fall enrollment as the measure of enrollment, and the sample period used to produce the forecast began in 1959–60 rather than 1969–70. As with the current expenditures model, the change to fall enrollment was done because the definition of fall enrollment is more consistent across states.

Beginning with the *Projections of Education Statistics to 2006,* variables were in log form. In earlier editions, they were not.

As with current expenditures, three different scenarios are presented for teacher salaries. The same projections for ENRPOP and ENR are used for each alternative projection; the sole difference between the projections is in the projection for current expenditures. The middle alternative projection for salaries uses the middle alternative projection for current expenditures. The low alternative projection for salaries uses the low alternative projection for current expenditures. The high alternative projection for salaries uses the high alternative projection for current expenditures.

Current expenditures, average teacher salaries, and the number of teachers are interrelated; analysis was conducted to see whether the projections of these three time series were consistent.

The number of teachers was multiplied by the average salary and then divided by current expenditures for every school year from 1987–88 until 2015–16 (using the middle alternative projection for teachers, salaries, and current expenditures). The resulting value shows the portion of current expenditures that is spent on teacher salaries. The portion of current expenditures that goes toward teacher salaries has been in a slow downward trend, with the teacher salary share falling from 39 percent in 1990–91 to 35 percent in 2003–04. With the projected values, the portion of current expenditures that goes toward teacher salaries continues to fall slowly, to 33 percent in 2015–16. The results of this analysis indicate that the projections of these three time series are consistent.

Projection Accuracy

Fifteen of the last 16 editions of *Projections of Education Statistics* contained projections of current expenditures and teacher salaries. The actual values of current expenditures and teacher salaries can be compared with the projected values in the previous editions to examine the accuracy of the models.

The projections from the various editions of *Projections of Education Statistics* were placed in 1982–84 dollars using the Consumer Price Indices that appeared in each edition.

In most of the earlier editions of *Projections of Education Statistics,* average daily attendance rather than fall enrollment was used as the measure of enrollment in the calculation of the current expenditure per pupil projection. However, projections of current expenditures per fall enrollment were presented in most of these earlier editions, and projections of fall enrollment were presented in all of these earlier editions. As a result, the projected values of both current expenditures per pupil in fall enrollment and current expenditures per pupil in average daily attendance can be compared to their respective actual values.

Similar sets of independent variables have been used in the production of the current expenditure projections presented in the last 13 editions of *Projections of Education Statistics*, including this one. The one major change is that in all the earlier editions the set of variables included the ratio of the number of students to the population. There have also been some differences in the construction of the variables. First, as noted, average daily attendance was used in most of the previous editions rather than fall enrollment. Second, in *Projections of Education Statistics to 1997–98*, calendar year data were used for disposable income, the population, and the Consumer Price Index. With the later editions, school year data were used. Third, there have been two revisions in the disposable income time series, the first affecting the *Projections of Education Statistics to 2004* and the second, *Projections of Education Statistics to 2007*. Fourth, in the more recent editions, including this one, the U.S. Bureau of the Census's July 1 number for the population has been used. In the earlier editions, an average of the quarterly values was used. Fifth, in the more recent editions, the U.S. Census Bureau's population projections have been used. In the earlier editions, the population projections came from an economic consulting firm.

There has also been a change in the estimation procedure. In the more recent editions, the AR1 model for correcting for autocorrelation was used to estimate the model. In the earlier editions, ordinary least squares without correcting for autocorrelation was used to estimate the model.

Several commonly used statistics can be used to evaluate projections. The values for one of these, the mean absolute percentage error (MAPE), are presented in table A-2. MAPEs of expenditure projections are presented for total current expenditures, current expenditures per pupil in fall enrollment, current expenditures per pupil in average daily attendance, and teacher salaries.

To calculate the MAPEs presented in table A-2, the projections of each variable were first grouped by lead time; that is, all the projections of each variable that were a given number of years from the last year in the sample period were grouped together. Next, the percent differences between each projection and its actual value were calculated. Finally, for each variable, the mean of the absolute values of the percent differences were calculated, with a separate average for each lead time. These means are the MAPEs. Table A-2 contains a series of MAPEs for each dependent variable, with a different MAPE for each lead time.

For some editions of the *Projections of Education Statistics*, the first projection to be listed did not have a lead time of 1 year. For example, in *Projections of Education Statistics to 2002*, the first projection to appear was for 1990–91. This projection was calculated using a sample period ending in 1988–89, so it had a lead time of 2 years. The value that appeared for 1989–1990 was from NCES *Early Estimates*. Only those projections that appeared in an edition of *Projections of Education Statistics* were used in this evaluation.

Projections for teacher salaries also appeared in 15 of the last 16 editions of *Projections of Education Statistics*. In these earlier editions, average daily attendance rather than fall enrollment was used as the measure of enrollment. Beginning with *Projections of Education Statistics to 2006*, all the variables for the teacher salary model were placed in log form. With this change in functional form, there was also a change in the way the change in enrollment was measured.

Sources of Past and Projected Data

Data from several different sources were used to produce the projections in this report. In some instances, the time series used were made by either combining numbers from various sources or manipulating the available numbers. The sources and the methods of manipulation are described here.

The time series used for current expenditures was compiled from several different sources. For the school years ending in even numbers from 1969–70 to 1975–76, the numbers for current expenditures were taken from

various issues of *Statistics of State School Systems*, published by NCES. For the school years ending in odd numbers during the 1970s, up to and including 1976–77, the numbers were taken from various issues of *Revenues and Expenditures for Public Elementary and Secondary Education*, published by NCES. For the school years from 1977–78 until 2002–03, the data were from the NCES Common Core of Data survey and unpublished data.

For 1974–75 and 1976–77, expenditures for summer schools were subtracted from the published figures for current expenditures. The value for 1972–73 was the sum of current expenditures at the local level, expenditures for administration by state boards of education and state departments of education, and expenditures for administration by intermediate administrative units.

Note that although the data from the different sources are similar, they are not entirely consistent. Also, the NCES data beginning with 1980–81 are not entirely consistent with the earlier NCES numbers, due to differing treatments of items such as expenditures for administration by state governments and expenditures for community services.

An alternative source for current expenditures would have been the U.S. Census Bureau's F-33, which offers statistics at the district level. This level of detail was not needed, however.

For most years, the sources for the past values of average daily attendance were identical to the sources for current expenditures.

Projections for average daily attendance for the period from 2003–04 to 2015–16 were made by multiplying the projections for enrollment by the average value of the ratios of average daily attendance to the enrollment from 1990–91 to 2002–03; this average value was approximately .93.

The values for fall enrollment from 1979–80 to 2002–03 were taken from the NCES Common Core of Data survey. The projections for fall enrollment are those presented in chapter 1 of this publication.

For 1969–70 to 2002–03, the sources for revenue from state sources were the two NCES publications *Statistics of State School Systems* and *Revenues and Expenditures for Public Elementary and Secondary Education*, and the NCES Common Core of Data survey. The methods for producing the alternative projections for revenue from state sources are outlined above.

The estimates for average teacher salaries were taken from various issues of the National Education Association's *Estimates of School Statistics*. These numbers come from their annual survey of states.

The projected values for disposable income, personal taxes and non-tax receipts to state and local governments, and indirect business taxes and tax accruals to state and local governments were developed using projections developed by Global Insight's U.S. Quarterly Model. Projected values of the Consumer Price Index for all urban consumers, which was used for adjusting current expenditures, teacher salaries, revenue from state sources, and the state revenue variables, were also developed using the U.S. Quarterly Model.

The U.S. Census Bureau supplied both the historical and projected values for the population.

The values of all the variables from Global Insight were placed in school-year terms. The school-year numbers were calculated by taking the average of the last two quarters of one year and the first two quarters of the next year.

The Elementary and Secondary School Price Index was considered as a replacement for the Consumer Price Index for placing current expenditures and teacher salaries in constant dollars. This index could not be used because the required projections of the index were not available. There are other price indexes, such as the implicit price deflator for state and local government purchases, which could have been used instead of the Consumer Price Index. These alternatives would have produced somewhat different projections.

Table A-26. Equations for current expenditures per pupil in fall enrollment, estimated average annual salaries of teachers, and education revenue from state sources

Dependent variable	Equation	R^2	Durbin-Watson statistic[1]	Error distribution pattern[2]	Rho	Time period
Current expenditures per pupil	ln(CUREXP) = - 0.9 + 0.8ln(PCI) (5.7) + 0.2ln(SGRANT) (2.4)	0.99	1.4	AR(1)	0.80 (10.1)	1969–70 to 2002-03
Estimated average annual salaries	ln(SALRY) = 7.3 + 0.8ln(CUREXP) (5.7) + 0.5ln(ENRPOP) (2.1) + 1.3ln(ENR/ENR1) (2.4)	0.96	1.58	AR(1)	0.98 (33.0)	1970–71 to 2002-03
Education revenue from state sources per capita	ln(SGRNT) = - .3 + 1.3ln(PCI) (17.3) + 0.7ln(ENRPOP) (5.2)	0.98	1.87	AR(1)	0.49 (3.1)	1971–72 to 2002-03

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston and J. Dinardo, *Econometric Methods*, New York: McGraw-Hill, 1996.
[2]AR(1) indicates that the models was estimated using least squares with the AR(1) process for correcting for first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast when correcting for 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, pp. 315–318.
Where:
CUREXP = Current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982–84 dollars
SALRY = Average annual salary of teachers in public elementary and secondary schools in constant 1982–84 dollars
SGRANT = Local governments' education revenue from state sources, per capita, in constant 1982–84 dollars
PCI = Disposable income per capita in constant 2000 chained dollars
ENRPOP = Ratio of fall enrollment to the population
ENR = Fall enrollment
ENR1 = Fall enrollment lagged one period
NOTE: R^2 indicates the coefficient of determination. Rho measures the correlation between errors in time period t and time period t minus 1. Numbers in parentheses are t-statistics.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary School Current Expenditures Model, 1969–70 through 2002–03; Elementary and Secondary Teacher Salary Model, 1970–71 through 2002–03; and Revenue Receipts from State Sources Model, 1971–72 through 2002–03. (This table was prepared November 2005.)

Appendix B
Supplementary Tables

Table B-1. Annual number of births: 1946 through 2003

[In thousands]

Calendar year	Number of births	Calendar year	Number of births
1946	3,426	1975	3,144
1947	3,834	1976	3,168
1948	3,655	1977	3,327
1949	3,667	1978	3,333
1950	3,645	1979	3,494
1951	3,845	1980	3,612
1952	3,933	1981	3,629
1953	3,989	1982	3,681
1954	4,102	1983	3,639
1955	4,128	1984	3,669
1956	4,244	1985	3,761
1957	4,332	1986	3,757
1958	4,279	1987	3,809
1959	4,313	1988	3,910
1960	4,307	1989	4,041
1961	4,317	1990	4,158
1962	4,213	1991	4,111
1963	4,142	1992	4,065
1964	4,070	1993	4,000
1965	3,801	1994	3,953
1966	3,642	1995	3,900
1967	3,555	1996	3,891
1968	3,535	1997	3,881
1969	3,626	1998	3,942
1970	3,739	1999	3,959
1971	3,556	2000	4,059
1972	3,258	2001	4,026
1973	3,137	2002	4,022
1974	3,160	2003	4,091

NOTE: Some data have been revised from previously published figures.
SOURCE: 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. (This table was prepared November 2005.)

Table B-2. Actual and projected numbers for preprimary school-age populations: 1990 through 2015

[In thousands]

Year[1]	3- to 5-year-olds	3-year-olds	4-year-olds	5-year-olds
Actual				
1990	11,040	3,660	3,699	3,681
1991	11,151	3,723	3,722	3,707
1992	11,346	3,824	3,790	3,732
1993	11,692	3,989	3,898	3,805
1994	12,001	4,023	4,066	3,912
1995	12,188	4,004	4,103	4,081
1996	12,141	3,936	4,086	4,119
1997	12,019	3,894	4,021	4,104
1998	11,880	3,862	3,979	4,040
1999	11,768	3,827	3,946	3,996
2000	11,687	3,823	3,894	3,971
2001	11,564	3,815	3,838	3,911
2002	11,505	3,821	3,829	3,855
2003	11,574	3,893	3,835	3,846
2004	11,810	4,051	3,907	3,852
Projected				
2005	12,062	4,073	4,075	3,914
2006	12,266	4,101	4,081	4,084
2007	12,331	4,133	4,109	4,089
2008	12,427	4,170	4,140	4,116
2009	12,534	4,209	4,177	4,148
2010	12,650	4,250	4,216	4,184
2011	12,772	4,293	4,256	4,223
2012	12,901	4,338	4,300	4,263
2013	13,033	4,381	4,345	4,307
2014	13,160	4,420	4,388	4,352
2015	13,277	4,455	4,427	4,395

[1]Values as of July 1.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Projections are from the U.S. Census's middle series.

SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September 2004). (This table was prepared November 2005.)

Table B-3. Actual and projected numbers for school-age populations, ages 5, 6, 5 to 13, and 14 to 17: 1990 through 2015

[In thousands]

Year[1]	5-year-olds	6-year-olds	5- to 13-year-olds	14- to 17-year-olds
Actual				
1990	3,681	3,563	32,030	13,330
1991	3,707	3,686	32,609	13,491
1992	3,732	3,715	33,199	13,775
1993	3,805	3,743	33,761	14,096
1994	3,912	3,814	34,217	14,637
1995	4,081	3,919	34,825	15,013
1996	4,119	4,088	35,375	15,443
1997	4,104	4,127	35,915	15,769
1998	4,040	4,112	36,454	15,829
1999	3,996	4,045	36,804	16,007
2000	3,971	4,008	37,063	16,111
2001	3,911	3,989	37,077	16,172
2002	3,855	3,929	36,966	16,350
2003	3,846	3,872	36,757	16,502
2004	3,852	3,863	36,376	16,831
Projected				
2005	3,914	3,869	35,968	17,175
2006	4,084	3,923	35,907	17,306
2007	4,089	4,092	35,909	17,289
2008	4,116	4,098	36,012	17,060
2009	4,148	4,124	36,186	16,801
2010	4,184	4,155	36,439	16,566
2011	4,223	4,192	36,805	16,318
2012	4,263	4,230	37,229	16,134
2013	4,307	4,271	37,670	16,023
2014	4,352	4,315	38,106	16,011
2015	4,395	4,360	38,418	16,243

[1]Values as of July 1.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Projections are from the U.S. Census's middle series.

SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September 2004). (This table was prepared November 2005.)

Table B-4. Actual and projected numbers for college-age populations, ages 18, 18 to 24, 25 to 29, 30 to 34, and 35 to 44: 1990 through 2015

[In thousands]

Year[1]	18-year-olds	18- to 24-year-olds	25- to 29-year-olds	30- to 34-year-olds	35- to 44-year-olds
Actual					
1990	3,609	27,062	21,402	22,023	37,866
1991	3,410	26,655	21,044	22,387	39,413
1992	3,354	26,282	20,591	22,564	40,046
1993	3,455	26,102	20,146	22,646	40,975
1994	3,428	25,821	19,809	22,648	41,877
1995	3,601	25,585	19,742	22,425	42,765
1996	3,650	25,376	19,927	21,996	43,605
1997	3,780	25,574	19,960	21,494	44,282
1998	3,984	26,155	19,863	20,999	44,802
1999	3,993	26,780	19,632	20,647	45,130
2000	4,075	27,386	19,352	20,576	45,231
2001	4,070	28,058	18,983	20,766	45,170
2002	4,018	28,534	18,954	20,846	44,832
2003	4,124	29,021	19,172	20,755	44,444
2004	4,127	29,354	19,614	20,507	44,155
Projected					
2005	4,157	29,241	19,804	19,885	43,651
2006	4,233	29,372	20,360	19,493	43,378
2007	4,316	29,616	20,811	19,382	42,929
2008	4,446	29,980	21,161	19,531	42,338
2009	4,429	30,342	21,362	19,873	41,672
2010	4,356	30,565	21,426	20,310	41,168
2011	4,293	30,692	21,462	20,849	40,889
2012	4,212	30,739	21,536	21,288	40,789
2013	4,168	30,671	21,682	21,630	40,794
2014	4,122	30,478	21,929	21,828	40,829
2015	4,048	30,084	22,246	21,896	40,840

[1]Values as of July 1.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals because of rounding. Projections are from the U.S. Census's middle series.

SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September 2004). (This table was prepared November 2005.)

Table B-5. Actual and projected numbers for fall enrollment in public elementary and secondary schools, change in fall enrollment from previous year, population, and fall enrollment as a ratio of the population: 1990–91 through 2015–16

School year	Fall enrollment (in thousands)	Change in fall enrollment from previous year (in thousands)	Population (in millions)	Fall enrollment as a ratio of the population
Actual				
1990–91	41,217	674	250.1	0.165
1991–92	42,047	830	253.5	0.166
1992–93	42,823	776	256.9	0.167
1993–94	43,465	642	260.3	0.167
1994–95	44,111	647	263.4	0.167
1995–96	44,840	729	266.6	0.168
1996–97	45,611	771	269.7	0.169
1997–98	46,127	516	272.9	0.169
1998–99	46,539	412	276.1	0.169
1999–2000	46,857	319	279.3	0.168
2000–01	47,204	346	282.4	0.167
2001–02	47,672	468	285.3	0.167
2002–03	48,183	511	288.2	0.167
2003–04	48,541	358	291.0	0.167
Projected				
2004–05	48,560	19	293.9	0.165
2005–06	48,710	150	295.7	0.165
2006–07	48,948	238	298.4	0.164
2007–08	49,091	143	301.1	0.163
2008–09	49,167	75	303.8	0.162
2009–10	49,267	100	306.5	0.161
2010–11	49,415	148	309.2	0.160
2011–12	49,637	222	311.8	0.159
2012–13	49,938	301	314.5	0.159
2013–14	50,294	356	317.2	0.159
2014–15	50,735	441	319.9	0.159
2015–16	51,220	485	322.6	0.159

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Commerce, Census Bureau, *Current Population Estimates and Projections* (September 2004). U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 1990–91 through 2003–04; and Elementary and Secondary Enrollment Model, 1972–2003. (This table was prepared November 2005.)

Table B-6. Actual and alternative projected numbers for macroeconomic measures of the economy: School years 1990–91 through 2015–16

School year	Disposable income per capita[1]	Education revenue receipts from state sources per capita[2]	Consumer Price Index
Actual			
1990–91	22,693	585	0.720
1991–92	22,844	578	0.743
1992–93	23,082	577	0.766
1993–94	23,172	574	0.786
1994–95	23,653	600	0.808
1995–96	23,911	618	0.830
1996–97	24,407	636	0.854
1997–98	25,293	665	0.869
1998–99	26,155	693	0.884
1999–2000	26,782	727	0.910
2000–01	27,398	751	0.941
2001–02	27,939	756	0.958
2002–03	28,080	760	0.979
2003–04	28,853	787	1.000
Middle-alternative projections			
2004-05	29,438	800	1.027
2005-06	30,085	820	1.042
2006-07	30,763	841	1.061
2007-08	31,435	860	1.083
2008-09	32,128	879	1.107
2009-10	32,890	901	1.133
2010-11	33,623	922	1.161
2011-12	34,316	943	1.192
2012-13	34,995	965	1.224
2013-14	35,774	991	1.257
2014-15	36,648	1,021	1.290
2015-16	37,528	1,053	1.325
Low-alternative projections			
2004-05	29,444	801	1.027
2005-06	29,949	816	1.043
2006-07	30,488	831	1.064
2007-08	31,062	847	1.091
2008-09	31,616	861	1.121
2009-10	32,211	877	1.154
2010-11	32,709	891	1.192
2011-12	33,298	908	1.235
2012-13	33,918	928	1.280
2013-14	34,628	951	1.328
2014-15	35,432	979	1.377
2015-16	36,314	1,011	1.428
High-alternative projections			
2004-05	29,455	801	1.026
2005-06	30,308	828	1.039
2006-07	31,290	859	1.052
2007-08	32,161	885	1.068
2008-09	33,024	910	1.085
2009-10	34,001	939	1.103
2010-11	34,997	970	1.125
2011-12	35,917	999	1.148
2012-13	36,753	1,026	1.170
2013-14	37,667	1,057	1.192
2014-15	38,635	1,091	1.216
2015-16	39,617	1,127	1.240

[1]In 2003–04 dollars based on the price deflator for personal consumption expenditures, Bureau of Labor Statistics, U.S. Department of Labor.
[2]In 2003–04 dollars based on the Consumer Price Index for all urban consumers, 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: U.S. Department of Education, National Center for Education Statistics, The NCES Common Core of Data (CCD), "National Public Education Financial Survey," 1988–89 through 2003–04; Revenue Receipts From State Sources Model, 1971–72 through 2002–03; and Global Insight, Inc., "U.S. Quarterly Model: February 2005 Long-Term-Projections." (This table was prepared November 2005.)

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 on the survey.

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 of the surveys, universe and sample, are subject to errors of design, reporting, and 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 usually made by substituting for a missing item the response to that item of a respondent having characteristics similar to those of the respondent.

Although the magnitude of nonsampling errors in the data used in *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 (July 1 through June 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 95,000 public schools and 17,000 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 the CCD may be obtained from

John Sietsema
Elementary/Secondary Cooperative System
and Institutional Studies Division (ESCSISD)
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 the 1989–90, 1991–92, 1993–94, 1995–96, 1997–98, 1999–2000, 2001–02, and 2003–04 school years.

The PSS produces data similar to that of the CCD for 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., a private school is an institution that 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 Census Bureau.

Further information on the PSS may be obtained from

Steve Broughman
Elementary/Secondary Sample Survey
Studies program (ESLSD)
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 6,500 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 eight 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. Until 2000 these components included: Institutional Characteristics, Fall Enrollment, Completions, Salaries, Finance, and Fall Staff. Data are collected in the fall for institutional characteristics and completions; in the winter for employees by assigned position (EAP), salaries and fall staff; and in spring for enrollment, student financial aid, finances, and graduation rates.

The degree-granting institutions portion of this survey is a census of colleges awarding associate's or higher degrees, 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 were gathered in a census of all postsecondary institutions. The IPEDS tabulations developed for this edition of *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 that award associate or higher level degrees that are eligible to participate in Title IV federal financial aid programs. 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 have 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 the NCES publication *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 HEGIS enrollment and degrees surveys can be obtained from the HEGIS Post Survey Validation Study conducted in 1979.

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Fall (Institutional Characteristics) This survey collects basic information necessary to classify the institutions, including control, level, and kinds of programs, and information on tuition, fees, and room and board charges. Beginning in 2000, the survey collected institutional pricing data from institutions with first-time, full-time, degree/certificate-seeking undergraduate students. Unduplicated full-year enrollment counts and instructional activity are now collected on the Fall Enrollment survey. The overall response rate was 100.0 percent for Title IV degree-granting institutions in 2003.

Further information may be obtained from

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

Winter/Spring (Fall Enrollment) This survey has been part of the HEGIS and IPEDS series since 1966. The enrollment survey response rate is relatively high. Beginning in 2000, the data collection method was web-based, replacing the paper survey forms that had been used in past years. In 2004 the overall response rate was 100.0 percent for degree-granting institutions and the 2003 response rate was 99.6 percent. Imputation methods and response bias analysis for the 2003-04 survey are discussed in *Enrollment in Postsecondary Institutions, Fall 2003; Graduation Rates 1997 and 2000 Cohorts; and Financial Statistics, Fiscal Year 2003* (NCES 2005-177). Imputation methods and response bias analysis for the 2002-03 survey are discussed in *Enrollment in Postsecondary Institutions, Fall 2002 and Financial Statistics, Fiscal Year 2002* (NCES 2005-168).

Beginning with 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. In 2000, the enrollment survey collected the instructional activity and unduplicated headcount data, which are needed to compute a standardized, full-time equivalent (FTE) enrollment statistic for the entire academic year.

Integrated Postsecondary Education Data System Data Quality Study, Methodology Report, July 2005 (NCES 2005-175) showed that public institutions made the majority of changes to enrollment data during the 2004 revision period. The majority of changes were made to unduplicated headcount data with the net differences between the original data and the revised data at about 1 percent. Part-time students in general and enrollment in private not-for-profit institutions were often underestimated. The fewest changes by institutions were to CIP code data. More institutions provided enrollment data to IPEDS than to Thomson Peterson. A fairly high percentage of institutions that provided data to both provided the same data, and among those that did not, the difference in magnitude was less than 10 percent.

Further information may be obtained from

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National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Cathy.Statham@ed.gov
http://nces.ed.gov/ipeds/

Fall (Completions) This survey was part of the HEGIS series throughout its existence. However, the degree classification taxonomy was revised in 1970–71, 1982–83, 1991–92, and 2002–03. Collection of degree data has been maintained through the IPEDS system.

The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. The return rate over the years has been high, with the degree-granting institutions response rate for the 2003-04 survey at 99.8 percent. The overall response rate for the non-degree granting institutions was 99.6 percent in 2003-04. Because of the high return rate for the degree-granting institutions, nonsampling error caused by imputation is also minimal. Imputation methods and response bias analysis for the 2003-04 survey are discussed in *Postsecondary Institutions in the United States: Fall 2004 and Degrees and Other Awards Conferred: 2003-04* (NCES 2005-154).

The Integrated Postsecondary Education Data System Data Quality Study, Methodology Report, July 2005 (NCES 2005-175) indicated that most Title IV institutions supplying revised data on completions were able to supply missing data for the prior year. The small differences between imputed data for the prior year and the revised actual data supplied by the institution indicated that the imputed values produced by NCES were acceptable.

Further information on IPEDS Completions surveys may be obtained from

Andrew Mary
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National Center for Education Statistics
1990 K Street NW
Washington, DC 20006
Andrew.Mary@ed.gov
http://nces.ed.gov/ipeds/

Census Bureau

Current Population Survey

Prior to July 2001, estimates of school enrollment rates, as well as social and economic characteristics of students, were based on data collected in the Census Bureau's monthly household survey of about 50,000 dwelling units. Beginning in July 2001, this sample was expanded to 60,000 dwelling units. The monthly Current Population Survey (CPS) sample consists of 754 areas comprising 2,007 geographic areas, 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.

Caution should also be used when comparing data between Census years. With the release of the January 2003 CPS data, population controls that reflect the results of Census 2000 were used in the monthly CPS estimation process. The new controls increased the size of the civilian noninstitutional population by about 3.5 million in May 2002. This adjustment usually occurs 3 to 4 years after the census, and, if the adjustment is substantial, historical data will be revised. Data from January 2000 through December 2002 were revised to reflect these new controls. Over and above these revisions, the U.S. Census Bureau introduced another large upward adjustment to the controls as part of its annual update of population estimates for 2003. The prior change in population controls occurred in March 1993, where data after this date were based on the 1990 census-based population controls and data before this date were based on 1980 or earlier census based population controls. This change in population controls between 1980-based and 1990-based had relatively little impact on summary measures, such as means, medians, and percentage distributions. It does, however, have a significant impact on levels. For example, use of 1990-based population controls resulted in about a 1 percent increase in the civilian noninstitutional population and in the number of families and households. Thus, estimates of levels for data collected in 1994 and later years differed from those for earlier years by more than what could be attributed to actual changes in the population. These differences could be disproportionately greater for certain subpopulation groups than for the total population.

In addition to the changes in population controls, two other relevant changes were introduced into the CPS with the release of the January 2003 data. First, the questions on race and Hispanic origin in the CPS were modified to comply with the new standards for maintaining, collecting, and presenting Federal data on race and ethnicity for Federal statistical agencies. A major change under those standards is that respondents may select more

than one race when answering the survey. Respondents continued to be asked a separate question to determine if they are Hispanic, which is considered an ethnicity rather than a race. The ethnicity question was reworded to ask directly whether the respondent was Hispanic. Persons who report they are Hispanic also are classified separately in the race (or races) they consider themselves to be. Second, improvements were introduced to both the second stage and composite weighting procedures. These changes adapt the weighting procedures to the new race/ethnic classification system and enhance the stability over time of national and state/substate labor force estimates for demographic groups. These two changes, in addition to the change in population controls discussed above, benchmark the CPS data to the results of Census 2000, improve the estimation procedures, and ensure that the data series produced from the survey reflect the evolving composition of the U.S. population.

Further information on CPS may be obtained from

Education and Social Stratification Branch
Population Division
Census Bureau
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. Prior to 2001, the October supplement consisted of approximately 47,000 interviewed households. Beginning with the October 2001 supplement, the sample was expanded by 9,000 to a total of approximately 56,000 interviewed households. 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 prevalent 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.

For the October 2001 basic CPS, the nonresponse rate was 6.7 percent, and for the school enrollment supplement, the nonresponse rate was an additional 3.6 percent, for a total supplement nonresponse rate of 10.1 percent.

Further information on CPS methodology may be obtained from

http://www.bls.census.gov/cps/cpsmain.htm

Further information on CPS "School Enrollment" may be obtained from

Education and Social Stratification Branch
Census Bureau
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 datasets 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 P25-1131. These reports may be obtained from

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

Other Sources

National Education Association

Estimates of School Statistics

The National Education Association (NEA) reports enrollment, teacher, revenue, and expenditure data in its annual publication *Estimates of School Statistics*. Each year, NEA prepares regression-based estimates of financial and other education statistics and submits them to the states for verification. Generally, about 30 states adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously submitted data as final figures become available. The most recent publication contains all changes reported to the NEA.

Additional information is available from

National Education Association—Research
1201 16th Street NW
Washington, DC 20036
http://www.nea.org

Global Insight, Inc.

Global Insight, Inc. provides an information system that includes: databases of economic and financial information; 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 Global Insight Model of the U.S. Economy, which contains annual projections of 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

Global Insight, Inc.
1000 Winter Street
Suite 4300N
Waltham, MA 02451-124
http://www.globalinsight.com/

Appendix D
Glossary

Data Terms

American Indian or Alaska Native: A person having origins in any of the original peoples of North America and who maintains cultural identification through tribal affiliation or community recognition.

Asian/Pacific Islander: A person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, and Pacific Islands. This includes people from China, Japan, Korea, the Philippine Islands, American Samoa, India, and Vietnam.

Associate's degree: An award that normally requires at least 2 but less than 4 years of full-time equivalent college work.

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 ADM for groups of schools having varying lengths of terms is the average of the ADMs obtained for the individual schools.

Bachelor's degree: An award (baccalaureate or equivalent degree, as determined by the Secretary, U.S. Department of Education) that normally requires at least 4 but not more than 5 years of full-time equivalent college-level work. This includes all bachelor's degrees conferred in a 5-year cooperative (work-study) program. A cooperative plan provides for alternate class attendance and employment in business, industry, or government; thus, it allows students to combine actual work experience with their college studies. Also includes bachelor's degrees in which the normal 4 years of work are completed in 3 years.

Black, non-Hispanic: A person having origins in any of the black racial groups of Africa (except those of Hispanic origin).

Classroom teacher: A staff member assigned the professional activities of instructing pupils in self-contained classes or courses, or in classroom situations. Usually expressed in full-time-equivalents.

Cohort: A group of individuals that have a statistical factor in common (e.g., year of birth).

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

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer Price Index (CPI): This price index measures the average change in the cost of a fixed-market basket of goods and services purchased by consumers.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): The expenditures for operating local public schools, excluding capital outlay and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs.

Current expenditures per pupil in average daily attendance: Current expenditures for the regular school term divided by the ADA of full-time pupils (or full-time-equivalency of pupils) during the term. See also *Current expenditures* and *Average daily attendance*.

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: The highest award a student can earn for graduate study. The doctor's degree classification includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Doctor of Philosophy degree in any field such as agronomy, food technology, education, engineering, public administration, ophthalmology, or radiology.

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, 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.

Expenditures: Charges incurred, whether paid or unpaid, that are presumed to benefit the current fiscal year. For elementary and secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For degree-granting institutions, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, or extension of credit. Government expenditures include only external transactions, such as the provision of perquisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as average daily attendance or average daily membership.

First-professional degree: An award that requires completion of a program that meets all of the following criteria: (1) completion of the academic requirements to begin practice in the profession; (2) at least 2 years of college work prior to entering the program; and (3) a total of at least 6 academic years of college work to complete the degree program, including prior required college work plus the length of the professional program itself. First-professional degrees may be awarded in the following 10 fields: Chiropractic (D.C. or D.C.M.), Dentistry (D.D.S. or D.M.D.), Law (L.L.B., J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Pharmacy (Pharm.D.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., M.H.L., B.D., or Ordination), Veterinary Medicine (D.V.M.).

First-professional enrollment: The number of students enrolled in following degree programs: Chiropractic (D.C. or D.C.M.), Dentistry (D.D.S. or D.M.D.), Law (L.L.B., J.D.), Medicine (M.D.), Optometry (O.D.), Osteopathic Medicine (D.O.), Pharmacy (Pharm.D.), Podiatry (D.P.M., D.P., or Pod.D.), Theology (M.Div., M.H.L., B.D., or Ordination), Veterinary Medicine (D.V.M.).

Four-year institution: A postsecondary institution that offers programs of at least 4 years duration or one that offers programs at or above the baccalaureate level. Includes schools that offer postbaccalaureate certificates only or those that offer graduate programs only. Also includes free-standing medical, law or other first-professional schools.

Full-time equivalent (FTE) enrollment: A measurement equal to one student enrolled full time for one academic year. Total FTE enrollment includes full time plus the calculated equivalent of the part-time enrollment. The full-time equivalent of the part-time students can be

estimated using different factors depending on the type and control of institution and level of student.

Full-time-equivalent (FTE) enrollment: For degree-granting institutions, enrollment of full-time students, plus the FTE of part-time students as reported by institutions.

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 a bachelor's or first-professional degree, or equivalent, and are taking courses at the post-baccalaureate level. These students may or may not be enrolled in graduate 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's, 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's degree or is principally creditable toward a baccalaureate.

See also *Degree-granting institutions* and *Postsecondary education*.

Hispanic: A person of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race.

Master's degree: An award that requires the successful completion of a program of study of at least the full-time equivalent of 1 but not more than 2 academic years of work beyond the bachelor's degree.

Nonresident alien: A person who is not a citizen or national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.

Part-time enrollment: Undergraduate—A student enrolled for either 11 semester credits or less, or 11 quarter credits or less, or less than 24 contact hours a week each term. Graduate—A student enrolled for either 8 semester credits or less, or 8 quarter credits or less.

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: number of students with a bachelor's degree who are enrolled in graduate-level or first-professional courses.

Postsecondary education: The provision of a formal instructional program whose curriculum is designed primarily for students who are beyond the compulsory age for high school. This includes programs whose purpose is academic, vocational, and continuing professional education, and excludes avocational and adult basic education programs.

Postsecondary education institution: An institution which has as its sole purpose or one of its primary missions, the provision of postsecondary education.

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 (i.e., usually supported primarily by other than public funds) and the operation of whose program rests with other than publicly elected or appointed officials.

Property tax: The sum of money collected from a tax levied against the value of property.

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.

Pupil/teacher ratio: The enrollment of pupils at a given period of time, divided by the full-time-equivalent number of classroom teachers serving these pupils during the same period.

Race/ethnicity: Categories used to describe groups to which individuals belong, identify with, or belong in the eyes of the community. The categories do not denote scientific definitions of anthropological origins. A person may be counted in only one group. The groups used to categorize U.S. citizens, resident aliens, and other eligible non-citizens are as follows: Black, non-Hispanic, American Indian/Alaska Native, Asian/Pacific Islander, Hispanic, White, non-Hispanic.

Revenues: All funds received from external sources, net of refunds and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts ''in kind" are excluded, as are funds received from the issuance of debt, liquidation of investments, or nonroutine sale of property.

Revenue receipts: Additions to assets that do not incur an obligation that must be met at some future date and do not represent exchanges of property for money. Assets must be available for expenditures.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

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 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 the Internet, television, radio, telephone, or correspondence.

Tax base: The collective value of sales, assets, and income components against which a tax is levied.

Total expenditures per pupil in average daily attendance (ADA): Includes all expenditures allocable to per pupil costs divided by ADA. These allocable expenditures include current expenditures for regular school programs, interest on school debt, and capital outlay. Beginning in 1980–81, expenditures for administration by state governments were excluded and expenditures for other programs (summer schools, community colleges, and private schools) were included.

Two-year institution: A postsecondary institution that offers programs of at least 2 but less than 4 years duration. Includes occupational and vocational schools with programs of at least 1800 hours and academic institutions with programs of less than 4 years. Does not include bachelor's degree-granting institutions where the baccalaureate program can be completed in 3 years.

Unclassified student (elementary/secondary): A student who has been assigned to a school or program that does not have standard grade designations.

Unclassified student (postsecondary): A student taking courses creditable toward a degree or other formal award who cannot be classified by academic level. For example, this could include a transfer student whose earned credits have not been determined at the time of the fall report.

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.

Undergraduate enrollment: The number of students enrolled in a 4- or 5-year bachelor's degree program, an associate's degree program, or a vocational or technical program below the baccalaureate.

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 periods 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: Variable for which the values are determined outside the model but that 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 that are forecasted. Forecasts for next year are said to have a 1-year forecast horizon.

Forecasting: Assessing the magnitude that 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, 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.

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, predict, and 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.

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.

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