IES Institute of Education Sciences

Report on the Condition of Education 2023

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August 2023

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A Letter From the

Commissioner of the National Center for Education Statistics

August 2023

On behalf of the National Center for Education Statistics (NCES), I am pleased to present the 2023 edition of the *Condition of Education*. The *Condition* is an annual report mandated by the U.S. Congress that summarizes the latest data on education in the United States, including international comparisons. This year's edition of the *Condition* offers a comprehensive review of education in this country during the coronavirus pandemic. It contains data spanning from early childhood to postsecondary and beyond, and covers topics such as enrollment, student achievement, teacher openings, and public school strategies for pandemic recovery. This edition of the *Condition* will be a valuable reference for policymakers and all those who are working to help the country recover from a once-a-century public health crisis.

The *Condition of Education* is designed to provide high quality and useful information to policymakers as well as parents, educators, and the education community. This report uses data from across the center, including the National Teacher and Principal Survey, Common Core of Data, Integrated Postsecondary Education System, and School Pulse Panel. In order to provide a comprehensive report, the Condition of Education also leverages data from outside of NCES, including data from the U.S. Census Bureau and Bureau of Labor Statistics.

The foundation of the *Condition of Education* is a series of online indicators. Indicators examine relationships; show changes over time; and/or compare experiences of persons from different backgrounds, places, and types of schools. Each indicator provides detailed information on a unique topic, ranging from prekindergarten through postsecondary education, as well as labor force outcomes. The *Report on the Condition of Education* offers a synthesized overview of core topics from across these indicators. Beyond the core topics represented in the summary report, the online indicator system also includes sections focused on School Crime and Safety and the condition of education by geographic locale, called Education Across America.

Each year, the Annual Reports and Information Staff make refinements to help our readers better understand the condition of education in the United States. This year, the report provides greater access to equitable data by presenting data on U.S. outlying areas and other jurisdictions when available. In an effort to make the data more readily accessible to all, the Annual Reports and Information Staff also expanded the use of interactive data visualizations in the online indicator portal and adapted the text to help readers more easily locate key statistics.

This year's *Condition* also includes two Spotlight indicators. These Spotlights examine challenges faced by schools during the coronavirus pandemic.

- **Teacher Openings in Elementary and Secondary Schools.** Among public schools with at least one open teaching position, the percentage of schools that found it difficult or were unable to fill these positions was higher in 2020-21 than in 2011-12 across 12 reported subject areas. This was also true of private schools in 10 of 12 reported subjects. Over a similar period, from 2012-13 to 2019-20, the number of persons completing traditional teacher preparation programs decreased by 28 percent, from 161,000 in 2012-13 to 116,100 in 2019-20.

- **Recovery from the Coronavirus Pandemic in K–12 education.** Using experimental data from the School Pulse Panel, this indicator shows that public schools reported wide-ranging concerns from students and parents during the coronavirus pandemic, including academic concerns, social concerns, and health concerns. Some of the most commonly used strategies to support students' learning recovery included: identifying individual needs with diagnostic assessment data (79 percent), identifying individual needs with formative assessment data (76 percent), and summer 2021 learning/enrichment programs (76 percent). Reported effectiveness of these strategies varied. Nevertheless, public schools reported that some learning recovery had taken place between the beginning and end of the 2021–22 school year. Specifically, public schools reported on average that 36 percent of students were behind grade level in at least one academic subject at the end of the 2021–22 school year, compared to a reported 50 percent on average at the beginning of the school year.

Findings from throughout the indicators offer additional information to complicate and deepen our understanding of these Spotlight findings. These additional findings speak to the value of exploring a wide range of data sources across the *Condition*. For instance:

- Despite difficulty hiring, the number of master's degrees conferred in education was 5 percent higher in 2020–21 than in 2018–19 (the last full academic year prior to the coronavirus pandemic).

- Despite reports of learning recovery over the course of the 2021–22 school year (in terms of the percentage of students behind grade level in at least one subject), data from the National Assessment of Educational Progress (NAEP) show declines in scale scores for 4th and 8th grade students from 2019 to 2022 in both mathematics and reading.

Additionally, the *Condition of Education* covers a wide range of outcomes across the educational career. For example, some key findings include:

- The percentage of 3- to 4-year-olds enrolled in school in 2021 (50 percent) was 10 percentage points higher than 2020 (40 percent), but remained lower than 2019 (54 percent). Some 86 percent of 5-year-olds were enrolled in school in 2021, compared with 91 percent in 2019.

- Despite overall public school enrollment declines during the pandemic, these downward trends were not universally observed across grade levels or across school types. The decrease in total public enrollment during the pandemic was driven by enrollment declines at the preK–8 level, particularly from fall 2019 to fall 2020, while enrollment in grades 9–12 continued to increase each year from fall 2019 to fall 2021. Between fall 2019 and fall 2020, while traditional public school enrollment decreased by 4 percent, public charter school enrollment increased by 7 percent.

- Between fall 2010 and fall 2021, total undergraduate enrollment in degree-granting postsecondary institutions decreased by 15 percent (from 18.1 million to 15.4 million students), with 42 percent (1.1 million students) of this decline occurring during the pandemic. Meanwhile, total enrollment in postbaccalaureate programs increased by 5 percent between fall 2010 and fall 2019 (from 2.9 million to 3.1 million students) and continued to increase by another 5 percent during the pandemic (to 3.2 million students in fall 2021).

- Of the degrees conferred by postsecondary institutions in 2020–21, science, technology, engineering, and mathematics (STEM) fields made up 8 percent of associate's degrees, 21 percent of bachelor's degrees, 17 percent of master's degrees, and 15 percent of doctor's degrees. The percentage of degrees conferred in a STEM field varied by student race/ethnicity and was highest for Asian students at all degree levels except for doctor's degrees, which was highest for students of Two or more races and White students.

- Between 2010 and 2022, educational attainment rates among 25- to 29-year-olds increased at different levels of attainment. In general, educational attainment rates increased for both male and female 25- to 29-year-olds as well as for most racial/ethnic groups. However, attainment gaps between some groups persisted in 2022.

The *Condition* also includes findings At a Glance, which allow readers to quickly make comparisons within and across indicators, as well as a Reader's Guide, a Glossary, and a Guide to Sources that provide additional information to help place the indicators in context. In addition, each indicator references the source data tables that were used to produce that indicator. Most of these data tables are in NCES's *Digest of Education Statistics*.

By providing this high quality and useful information, the *Condition of Education* serves as an important resource for policymakers as well as parents, educators, and the education community.

In addition to publishing the *Condition of Education*, NCES produces a wide range of other reports and datasets designed to help inform policymakers and the public about significant trends and topics in education. More information about the latest activities and releases at NCES may be found on our website or by following us on Twitter, Facebook, and LinkedIn.

Peggy G. Carr, Ph.D.
Commissioner
National Center for Education Statistics

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The authors are grateful to programs throughout the National Center for Education Statistics (NCES) and other agencies for collecting and preparing the many data sources presented in this report. This report is made possible by data from the Department of Education (ED*Facts* Initiative and Office of Special Education Programs), other government agencies (U.S. Census Bureau and Bureau of Labor Statistics), and international data collection efforts (International Association for the Evaluation of Educational Achievement and the Organization for Economic Cooperation and Development).

The authors would also like to thank the many individuals who contributed to the surveys that make this report possible. This report could not have been completed without their cooperation.

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Introduction

The *Report on the Condition of Education* is a congressionally mandated annual report from the National Center for Education Statistics. Using the most recent data available (at the time this report was written) from NCES and other sources, the report contains key indicators on the condition of education in the United States at all levels, from prekindergarten through postsecondary, as well as labor force outcomes and international comparisons. There are core indicators that are updated every year and spotlight indicators that provide in-depth analyses on topics of interest to education agencies, policymakers, researchers, and the public.

At the broadest level, the Condition of Education Indicator System is organized into five sections: family characteristics; preprimary, elementary, and secondary education; postsecondary education; population characteristics and economic outcomes; and international comparisons. The *Report on the Condition of Education 2023* encompasses key findings from the Condition of Education Indicator System. The full contents of the Indicator System can be accessed online through the website or by downloading PDFs for the individual indicators. The highlights below provide a brief overview of information available on various topics as well as direct links to the online version of indicators discussed.

The data in the indicators were obtained from many different sources—which collect information from respondents throughout the education system, including students and teachers, elementary and secondary schools, state education agencies, and colleges and universities—using surveys and compilations of administrative records. Users should be cautious when comparing data from different sources.

Highlights

School Enrollments During the Coronavirus Pandemic

The emergence of the coronavirus pandemic brought major disruptions to all levels of education in the United States.[1] In 2021, more than a year into the coronavirus pandemic, school enrollments generally remained lower than before the pandemic:

- About 50 percent of 3- to 4-year-olds were enrolled in school in October 2021, an increase of 10 percentage points compared with October 2020 (the first year of the pandemic) but still lower than in October 2019 (54 percent, before the pandemic). The percentage of 5-year-olds enrolled in school was also lower in October 2021 than in October 2019 (86 vs. 91 percent).[2]
- Between fall 2010 and fall 2019, total public elementary and secondary school enrollment increased by 3 percent, from 49.5 million to 50.8 million students. Total enrollment then dropped by 3 percent to 49.4 million students in fall 2020 and remained at a similar level (49.4 million students) in fall 2021. More specifically, declines in enrollment from fall 2019 to fall 2020 were largest in prekindergarten (preK) and kindergarten, but enrollments in both grades rebounded somewhat in fall 2021.
- Between fall 2010 and fall 2021, total undergraduate enrollment in degree-granting institutions decreased by 15 percent (from 18.1 million to 15.4 million students). Drops in undergraduate enrollment during the coronavirus pandemic (a decline of 1.1 million students between fall 2019 and fall 2021) accounted for 42 percent of the total decline during the period between fall 2010 and fall 2021.

In contrast, total enrollment in postbaccalaureate programs (such as master's and doctoral programs) increased by 5 percent between fall 2010 and fall 2019 (from 2.9 million to 3.1 million students) and continued to increase by another 5 percent during the pandemic (to 3.2 million students in fall 2021).

K–12 Teacher Openings

In 2020–21, in general, higher percentages of public and private schools reported difficulties filling open teaching positions than in 2011–12. For instance, 40 percent of public schools hiring for open teaching positions in special education in 2020–21 reported having difficulties filling the opening, compared with 17 percent in 2011–12. Between 2012–13 and 2019–20, the number of persons enrolled in traditional teacher preparation programs decreased by 30 percent (from 591,700 to 412,200), and the number of persons completing traditional teacher preparation programs decreased by 28 percent (from 161,000 to 116,100).

Overall, public school teachers had higher educational attainment in 2020–21 than in 2011–12. The average base salary for full-time public school teachers in 2020–21 ($61,600) was not measurably different from that in 2011–12 after adjusting for inflation.[3]

Challenges and Strategies Recovering From the Pandemic[4]

Besides their difficulties filling open teaching positions, schools experienced other challenges during their recovery from the pandemic. For instance, in April 2022, some 69 percent of public schools reported that the percentage of students who had sought mental health services from school had increased since the start of the coronavirus pandemic, but only 13 percent strongly agreed and 43 percent moderately agreed that their school was able to effectively provide mental health services to all students in need.

To support their students' pandemic-related learning recovery, public schools implemented a variety of strategies during the 2021–22 school year, including

- identifying individual needs with diagnostic assessment data (79 percent);
- identifying individual needs with formative assessment data (76 percent);

[1] Throughout this report, the United States refers to the 50 states and the District of Columbia unless otherwise noted.

[2] As of 2020, there were 47 states—plus the District of Columbia—that required that free education be offered by age 5; however, schooling was only compulsory for 5-year-olds in 11 states and the District of Columbia (see 50-State Comparison: Free and Compulsory School Age Requirements).

[3] Salary data are presented for regular, full-time public school teachers only; the data exclude other staff even when they have full-time teaching duties (regular part-time teachers, itinerant teachers, long-term substitutes, administrators, library media specialists, other professional staff, and support staff). Average base salary is for the school year; summer earnings are not included. Teachers who reported a base salary of zero are excluded.

[4] These data are from the School Pulse Panel (SPP). As part of a post-release quality evaluation of School Pulse Panel (SPP) data, an error was uncovered in the survey weighting procedure. This required a reweighting of the data and a recalculation of estimates released from the January 2022 through December 2022 SPP collections. Estimates in this report have been revised as of August, 2023, based on a reweighting of the data. For a description of the reweighting and its effect on the estimates, see this memo at https://ies.ed.gov/schoolsurvey/spp/ReweightingMemo.pdf. These data are experimental, and results should be interpreted with caution. Experimental data may not meet all NCES quality standards.

- summer 2021 learning/enrichment programs (76 percent);
- remedial instruction (73 percent);
- mental health and trauma support (72 percent);
- after-school learning/enrichment programs (60 percent); and
- professional development on learning recovery (50 percent).

Student Characteristics

The U.S. education system serves a diverse population of students across a variety of school settings. Of the 49.4 million students who were enrolled in public elementary and secondary schools (preK through grade 12) in fall 2021,[5]

- 22.4 million were White;
- 14.1 million were Hispanic;
- 7.4 million were Black;
- 2.7 million were Asian;
- 2.3 million were of Two or more races;
- 0.5 million were American Indian/Alaska Native; and
- 182,000 were Pacific Islander.

The percentage of public school students who attended public charter schools increased from 4 percent in fall 2010 (1.8 million students) to 7 percent in fall 2021 (3.7 million students). The percentage of public school students who were English learners (ELs) increased overall from 9.2 percent in fall 2010 (4.5 million students) to 10.3 percent in fall 2020 (5.0 million students).[6] The number of students ages 3–21 receiving special education and/or related services under the Individuals with Disabilities Education Act (IDEA) increased from 6.4 million in school year 2010–11 to 7.3 million in school year 2021–22. Taken as a percentage of total public school enrollment, this equates to an increase from 13 to 15 percent of students.[7]

Student Achievements and Educational Attainment

The health of an education system is often assessed through indicators of achievement and attainment. In this report, measures of achievement come from the National Assessment of Educational Progress (NAEP), while attainment is measured through degree completion.

At the elementary and secondary school level, some measures of student outcomes have improved over time, whereas others have not:

- At grades 4 and 8, the average National Assessment of Educational Progress (NAEP) reading and mathematics scores were lower in 2022 than in 2019.
- The U.S. average adjusted cohort graduation rate (ACGR) for public high school students increased from 79 percent in 2010–11 to 87 percent in 2019–20.[8]
- The overall status dropout rate (i.e., the percentage of 16- to 24-year-olds who are not enrolled in school and have not earned a high school credential) decreased from 8.3 percent in 2010 to 5.2 percent in 2021.[9]

One of the paths high school graduates may take to prepare for their future is to enroll in some form of postsecondary education. Of the 2.7 million high school completers[10] who graduated in the first 9 months of 2021, some 62 percent were enrolled in college in October 2021. This 2021 immediate college enrollment rate was lower than the rate in 2010 (68 percent). However, the percentage of 25- to 29-year-olds who had earned a postsecondary degree in 2022 had increased since 2010.

Educational attainment[11] is associated with many long-term life outcomes. For 25- to 34-year-olds who worked full time, year round (i.e., worked 35 or more hours per week for 50 or more weeks per year), higher educational attainment was associated with higher median earnings. For example, in 2021, the median earnings of

- master's or higher degree completers ($74,600) were 21 percent higher than the median earnings of bachelor's degree completers ($61,600); and
- bachelor's degree completers were 37 percent higher than the median earnings of associate's degree completers ($45,000).

[5] Enrollment counts for individual racial/ethnic groups do not sum to the total here because of rounding.
[6] This report looks at the number and percentage of ELs in kindergarten and higher grades over time. Data on ELs include students with a current EL identification, but not students who were formerly identified as ELs and no longer are. Note also that data on ELs enrolled in public schools have changed over time. For fall 2014 and earlier years, EL data include only those ELs who participated in EL programs. Starting with fall 2015, data include all currently identified ELs, regardless of program participation. However, the proportion of ELs who participate in EL programs is large. For example, in the 2020–21 school year, 98 percent of identified ELs were served by EL programs. Comparisons over time should be interpreted with caution due to this change in the data reported.
[7] The number of children served as a percentage of total enrollment is based on total public school enrollment in preK through grade 12. However, not all students served under IDEA receive education services in public school environments.
[8] The ACGR is considered the most accurate measure available for reporting on-time graduation rates. For more information, see Seastrom, M., Chapman, C., Stillwell, R., McGrath, D., Peltola, P., Dinkes, R., and Xu, Z. (2006). *User's Guide to Computing High School Graduation Rates, Volume 2: Technical Evaluation of Proxy Graduation Indicators* (NCES 2006-605). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved February 28, 2023, from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006605.
[9] A high school credential can be either a diploma or an equivalency credential such as a GED certificate.
[10] "High school completers" refers to individuals ages 16 to 24 who graduated from high school or completed a GED or other high school equivalency credential. In 2021, about 94 percent of those who completed high school in the first 9 months of 2021 were between 16 and 24 years old.
[11] Levels of educational attainment refer to the *highest* degree earned.

Spotlights: Teacher Openings During the Coronavirus Pandemic and Challenges and Strategies Recovering From the Pandemic

Key Findings From This Chapter

In 2020–21, in general, higher percentages of public and private schools reported difficulties filling open teaching positions than in 2011–12. Between 2012–13 and 2019–20, the number of persons enrolled in and completing traditional teacher preparation programs decreased.

- Forty percent of public schools hiring for open teaching positions in special education in 2020–21 reported having difficulties filling the opening, compared with 17 percent in 2011–12.
- The number of persons enrolled in traditional teacher preparation programs decreased by 30 percent between 2012–13 and 2019–20 (from 591,700 to 412,200), and the number of persons completing such programs decreased by 28 percent between 2012–13 and 2019–20 (from 161,000 to 116,100).

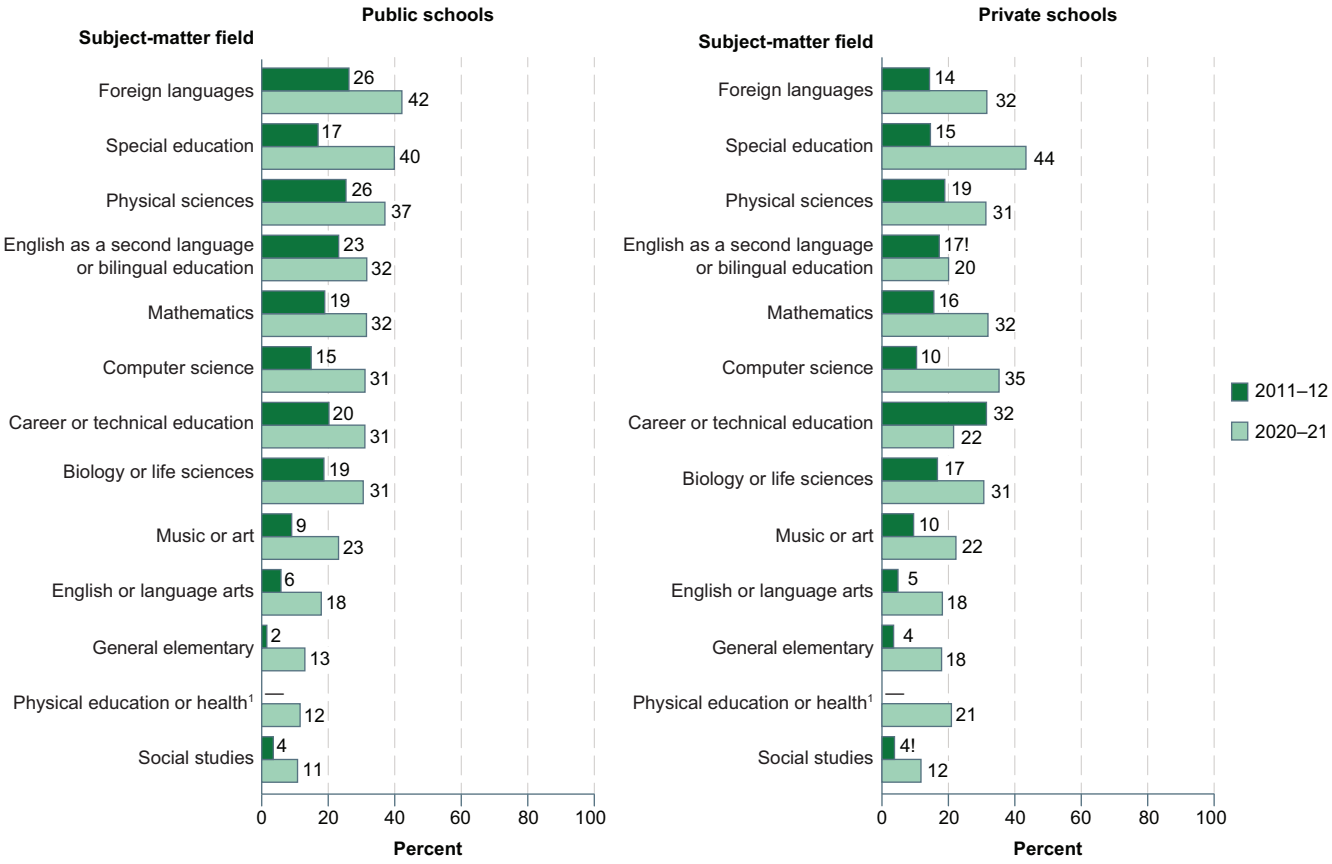
Some schools offer summer programs, after-school programs, mental health services, and/or community services/partnerships, and these may have been part of the strategies employed by schools to recover from the coronavirus pandemic.

- In April 2022, some 69 percent of public schools reported that the percentage of students who had sought mental health services from school had increased since the start of the coronavirus pandemic. In comparison, only 13 percent strongly agreed and 43 percent moderately agreed that their school was able to effectively provide mental health services to all students in need.
- Some of the most commonly used strategies for learning recovery included: identifying individual needs with diagnostic assessment data (79 percent), identifying individual needs with formative assessment data (76 percent), and summer 2021 learning/enrichment programs (76 percent).

The emergence of the coronavirus pandemic brought major disruptions to American society. The following two spotlight indicators present data on the challenges faced by elementary and secondary schools during the pandemic, and the strategies that they employed recovering from the pandemic. The first spotlight examines the extent to which elementary and secondary schools experienced challenges in filling open teaching positions in the 2020–21 school year. It also lends context to these staffing-related challenges by examining changes over time in the number of individuals enrolling in and completing teacher preparation programs. The second spotlight illuminates other challenges besides those related to staffing that public schools faced in 2021–22 as well as the strategies they used during the recovery from the coronavirus pandemic, including summer programs, mental health support, and community partnerships.

Teacher Openings in Elementary and Secondary Schools

Figure S1. Among public and private elementary and secondary schools that were hiring for at least one open teaching position in a specific field, percentage that found it very difficult or were not able to fill the opening, by subject-matter field of opening: School years 2011–12 and 2020–21



— Not available.
! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 and 50 percent.
[1] The field of physical education or health was not included in the 2011–12 survey.
NOTE: An open teaching position in a school may or may not have been filled before the start of the school year. Schools were surveyed after the start of the school year and were asked to report all teaching positions for which they hired or were hiring for the current school year, regardless of whether they were able to fill the position or not. Although rounded numbers are displayed, the figures are based on unrounded data.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School Data File" and "Private School Data File," 2011–12; and National Teacher and Principal Survey (NTPS), "Public School Data File" and "Private School Data File," 2020–21. See *Digest of Education Statistics 2022*, table 210.60.

Some schools may find it difficult or be unable to fill their open teaching positions (referred to as "having difficulties filling the opening" in this report). Among public schools hiring for open teaching positions in each of 12 reported fields,[12] a higher percentage in 2020-21 than in 2011-12 reported having difficulties filling the opening (figure S1).

For instance, 40 percent of public schools hiring for open teaching positions in special education in 2020-21 reported having difficulties filling the opening, compared with 17 percent in 2011-12. Similarly, for 10 of 12 fields, a higher percentage of private schools in 2020-21 than in 2011-12 reported having difficulties filling the opening in the field.

[12] One of the 12 reported fields, physical education or health, was excluded from comparisons over time, as the 2011-12 survey did not include this field.

In 2020-21, among schools hiring for open teaching positions in a specific field, more than one-quarter each of public and private schools reported having difficulties filling the opening in the following fields:

- foreign languages (42 percent of public schools and 32 percent of private schools);
- special education (40 percent of public schools and 44 percent of private schools);
- physical sciences (37 percent of public schools and 31 percent of private schools);
- mathematics (32 percent each of public and private schools); and
- computer science (31 percent of public schools and 35 percent of private schools).

Between 2012-13 and 2019-20, the number of persons enrolled in and completing traditional teacher preparation programs decreased.[13] Traditional teacher preparation programs typically offer undergraduate programs and often attract individuals who enter college with the goal of becoming a teacher. Specifically,

- the number of persons enrolled in traditional teacher preparation programs decreased by 30 percent between 2012-13 and 2019-20 (from 591,700 to 412,200); and
- the number of persons completing traditional teacher preparation programs decreased by 28 percent between 2012-13 and 2019-20 (from 161,000 to 116,100).

In contrast, the number of persons enrolled in alternative teacher preparation programs increased by 111 percent between 2012-13 and 2019-20 (from 84,100 to 177,800), and the number completing alternative teacher preparation programs increased by 24 percent during this period (from 28,200 to 35,100). However, individuals who participate in alternative programs may already be the teacher of record in a classroom and therefore would not be "new" teachers entering the profession upon their completion (*Teacher Openings in Elementary and Secondary Schools*).

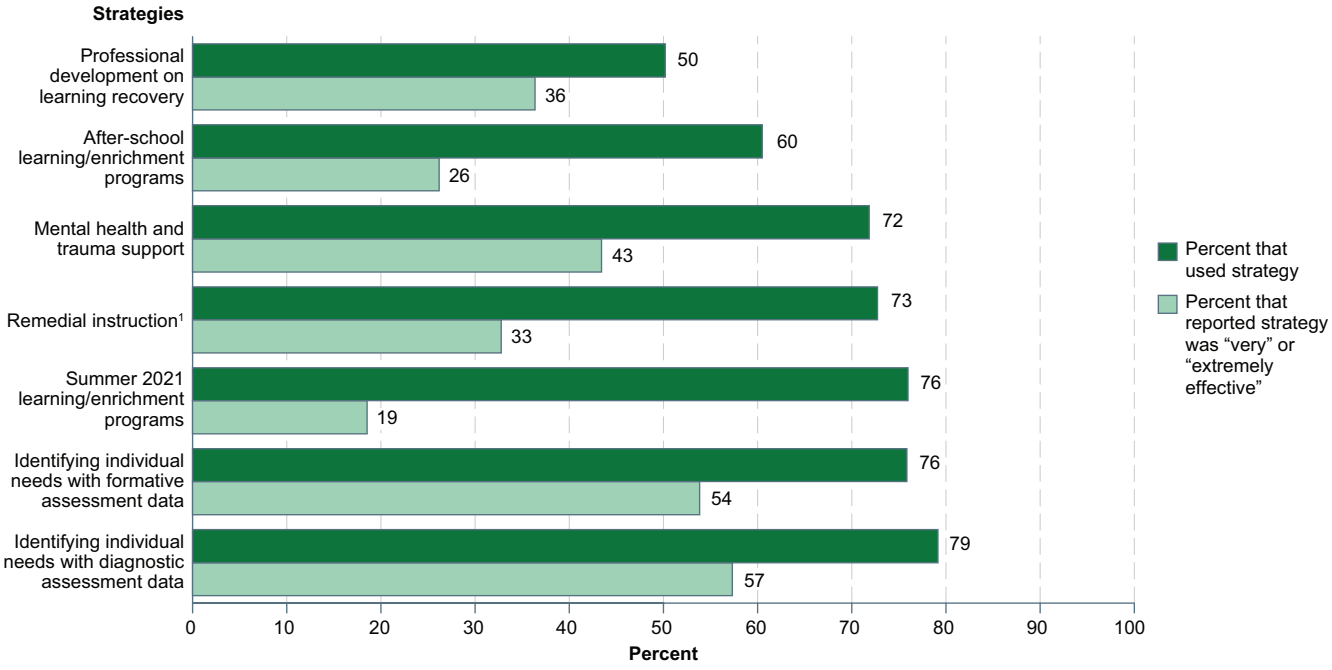
Challenges and Strategies Recovering From the Coronavirus Pandemic

Schools experienced many other challenges—besides staffing-related ones—during their recovery from the coronavirus pandemic.[14] Some of these other issues facing public schools included reported increases in student and teacher absenteeism, student socioemotional and behavioral development, and an increase in the percentage of students seeking mental health services from school, as compared with before the coronavirus pandemic. In particular, in April 2022, some 69 percent of public schools reported that the percentage of students who had sought mental health services from school had increased since the start of the coronavirus pandemic. Overall, only 13 percent of schools strongly agreed and 43 percent moderately agreed that their school was able to effectively provide mental health services to all students in need.

[13] Enrollment counts include students who completed their program in the same academic year. The definition of enrolled student changed beginning with the 2018-19 data. Starting in 2018-19, an enrolled student is defined as an individual who has been admitted, enrolled, and registered in a teacher preparation program and participated in the program during the academic year. Participation may include taking a course, participating in clinical experience, or participating in other program activities. For 2017-18 and earlier years, an enrolled student was defined as an individual admitted into a teacher preparation program.

[14] Data on challenges and strategies recovering from the coronavirus pandemic are from the School Pulse Panel (SPP). As part of a post-release quality evaluation of SPP data, an error was uncovered in the survey weighting procedure. This required a reweighting of the data and a recalculation of estimates released from the January 2022 through December 2022 SPP collections. Estimates in this report have been revised as of August, 2023, based on a reweighting of the data. For a description of the reweighting and its effect on the estimates, see this memo at https://ies.ed.gov/schoolsurvey/spp/ReweightingMemo.pdf. These data are experimental, and results should be interpreted with caution. Experimental data may not meet all NCES quality standards.

Figure S2. Percentage of public schools that used selected strategies to support pandemic-related learning recovery, and percentage of those schools that reported strategy was "very" or "extremely effective": June 2022



[1] Examples included using content from prior years to teach concepts or skills.
NOTE: Only schools that used a particular strategy to support pandemic-related learning loss were asked about the effectiveness of the strategy. While the results presented in this indicator have been weighted and adjusted for nonresponse, these experimental data should be interpreted with caution. Experimental data may not meet all NCES quality standards. For a complete view of the results, visit the Learning Recovery section of the School Pulse Panel dashboard.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, School Pulse Panel (June 2022).

To support their students' pandemic-related learning recovery, public schools implemented a variety of strategies during the 2021-22 school year. Overall, some of the most commonly reported strategies used to support pandemic-related learning recovery, out of a total of 15 possible strategies that administrators were asked to report on, were

- identifying individual needs with diagnostic assessment data (79 percent);
- identifying individual needs with formative assessment data (76 percent);
- summer 2021 learning/enrichment programs (76 percent);
- remedial instruction (73 percent);
- mental health and trauma support (72 percent);
- after-school learning/enrichment programs (60 percent); and
- professional development on learning recovery (50 percent; figure S2).

Among these strategies, the two that were reported as "very effective" or "extremely effective" by the highest percentage of public schools that used them were: identifying individual needs with diagnostic assessment data (57 percent) and identifying individual needs with formative assessment data (54 percent). In comparison, despite being used by 76 percent of public schools, summer 2021 learning/enrichment programs were considered "very effective" or "extremely effective" by just 19 percent of those schools (*Challenges and Strategies Recovering From the Coronavirus Pandemic*).

Family Characteristics

Key Findings From This Chapter

In 2021, some 17 percent of children under age 18 were in families living in poverty, lower than the 2010 poverty rate of 21 percent. The 2021 poverty rates were higher than the national average for children who were American Indian/Alaska Native (32 percent), Black (31 percent), and Hispanic (23 percent).

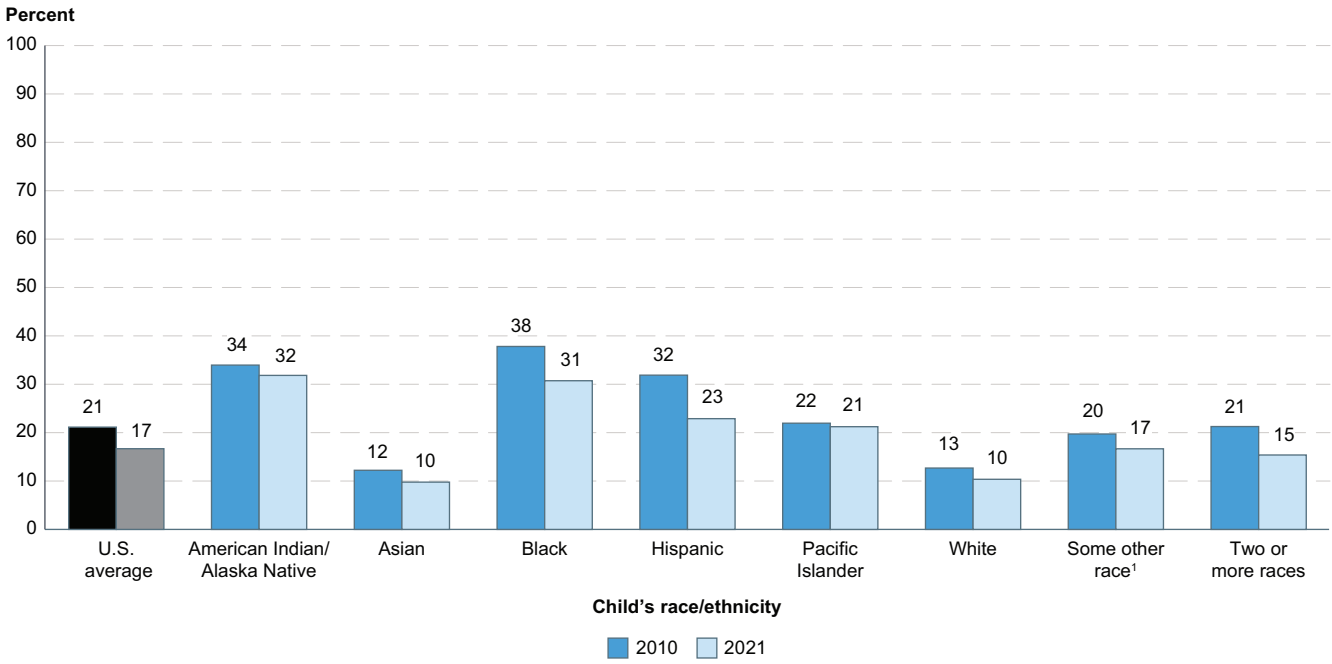
This section of the Condition of Education Indicator System presents indicators on children's family characteristics and family involvement in education. Families provide educational tools and opportunities to children in a variety of ways, including by exposure to enrichment activities and technology, access to schools, and familiarity with educational processes. Providing these tools and opportunities requires social and economic resources. As such, children's educational experiences and their academic achievement are closely associated with their families' socioeconomic characteristics. For example, research has found that living in poverty, lower parental educational attainment, and living in a single-parent household are associated with poor educational outcomes—including low achievement scores, having to repeat a grade, and dropping out of high school.[15, 16] Therefore, understanding the distribution of socioeconomic resources provides important context for understanding the condition of education in the United States.

[15] Pungello, E.P., Kainz, K., Burchinal, M., Wasik, B.H., Sparling, J.J., Ramey, C.T., and Campbell, F.A. (2010, February). Early Educational Intervention, Early Cumulative Risk, and the Early Home Environment as Predictors of Young Adult Outcomes Within a High-Risk Sample. *Child Development, 81*(1): 410–426. Retrieved December 30, 2022, from http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01403.x/full.

[16] Ross, T., Kena, G., Rathbun, A., KewalRamani, A., Zhang, J., Kristapovich, P., and Manning, E. (2012). *Higher Education: Gaps in Access and Persistence Study* (NCES 2012-046). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved December 30, 2022, from https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2012046.

Characteristics of Children's Families

Figure 1. Percentage of children under age 18 in families living in poverty, by child's race/ethnicity: 2010 and 2021



[1] Consists of respondents who wrote in some other race that was not included as an option on the questionnaire.
NOTE: Respondents were interviewed throughout the given year and reported the income they received during the previous 12 months. Data are based on sample surveys of the entire population residing within the United States, including the 50 states and the District of Columbia, but this figure includes only related children under age 18. Poverty status is determined by the Census Bureau using a set of money income thresholds that vary by family size and composition. For additional information about poverty status, see https://www.census.gov/topics/income-poverty/poverty/guidance/poverty-measures.html. Race categories exclude persons of Hispanic ethnicity. Although rounded numbers are displayed, the figures are based on unrounded data. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010 and 2021. See *Digest of Education Statistics 2022*, table 102.60.

In 2021, some 17 percent of children under age 18 were in families living in poverty. The 2021 poverty rate for children was lower than the 2010 poverty rate of 21 percent (figure 1). A reduction in the poverty rate was observed for children across all racial/ethnic groups, except for American Indian/Alaska Native and Pacific Islander children.

The poverty rate for children under age 18 varied across racial/ethnic groups in 2021. Poverty rates were higher than the national average (17 percent) for children who were

- American Indian/Alaska Native (32 percent);
- Black (31 percent); and
- Hispanic (23 percent).

Meanwhile, the poverty rates of children who were of Two or more races (15 percent), White (10 percent), and Asian (10 percent) were lower than the national average. The poverty rates for Pacific Islander children and children of some other race were not measurably different from the national average.

Compared with 2010, higher percentages of children in 2021 lived in households in which at least one parent[17] had completed a college degree (55 vs. 45 percent) (*Characteristics of Children's Families*).

[17] Parents include adoptive and stepparents, but exclude parents not residing in the same household as their children.

Preprimary, Elementary, and Secondary Education

Key Findings From This Chapter

In 2021, more than a year into the coronavirus pandemic, school enrollments generally remained lower than before the pandemic:

- Fifty percent of 3- to 4-year-olds were enrolled in school in October 2021, compared with 54 percent in October 2019. Some 86 percent of 5-year-olds were enrolled in school in October 2021, compared with 91 percent in October 2019.
- Between fall 2010 and fall 2019, total public elementary and secondary school enrollment increased by 3 percent, from 49.5 million to 50.8 million students. Total enrollment then dropped by 3 percent to 49.4 million students in fall 2020 and remained at a similar level (49.4 million students) in fall 2021.
- Despite the overall enrollment declines, these downward trends were not universally observed across grade levels or across school types. The decrease in total public enrollment during the pandemic was driven by enrollment declines at the preK-grade 8 level, while enrollment in grades 9–12 increased each year during the pandemic. Between fall 2010 and fall 2021, while traditional public school enrollment decreased, public charter school enrollment more than doubled.

Characteristics of the student population—including demographics, identification for services, and resources available in the home—have changed over time:

- Between fall 2010 and fall 2021, the percentages of public school students who were American Indian/Alaska Native, Black, or White decreased, whereas the percentages who were Asian, Hispanic, or of Two or more races increased.
- The number of students ages 3–21 receiving IDEA services increased from 6.4 million in school year 2010–11 to 7.3 million in school year 2021–22. Taken as a percentage of total public school enrollment, this equates to an increase from 13 to 15 percent of students.
- The percentage of public school students who were English Learners (ELs) increased overall between fall 2010 (9.2 percent, or 4.5 million students) and fall 2020 (10.3 percent, or 5.0 million students).
- The overall percentage of 3- to 18-year-olds with home internet access was higher in 2021 than in 2019 (97 vs. 95 percent), prior to the coronavirus pandemic. Home internet access rates were higher for those whose parents had attained higher levels of education and higher for those in higher income families.

Overall, public school teachers had higher educational attainment in 2020–21 than in 2011–12. The average base salary for full-time public school teachers in 2020–21 ($61,600) was not measurably different from 2011–12 after adjusting for inflation.

Some measures of student outcomes have improved over time, whereas others have not:

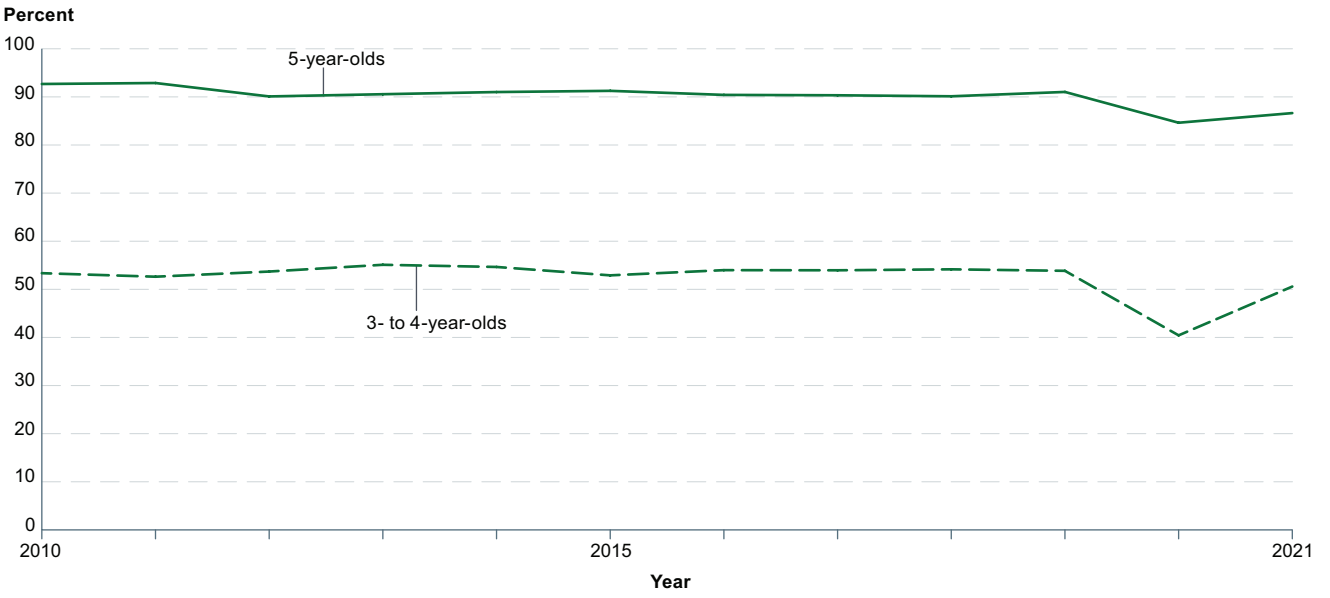
- The U.S. average adjusted cohort graduation rate (ACGR) for public high school students increased from 79 percent in 2010–11 to 87 percent in 2019–20.
- The overall status dropout rate (i.e., the percentage of 16- to 24-year-olds who are not enrolled in school and have not earned a high school credential) decreased from 8.3 percent in 2010 to 5.2 percent in 2021.
- At grades 4 and 8, the average NAEP reading and mathematics scores were lower in 2022 than in 2019. At both grade levels, the average reading scores in 2022 were not measurably different from those in 1992, whereas the average mathematics scores in 2022 were higher than those in 1990.

Many factors contribute to the condition of an education system: who is served by the system, the contexts in which students learn, what resources are available, and what outcomes are achieved. This section of the Condition of Education Indicator System focuses on these factors at the preprimary, elementary, and secondary levels of education.

This section of the report begins with a discussion of enrollments and considers the variety of contexts in which these students learn—from the type of school they attend (traditional public, charter, or private school) to the number and characteristics of the peers with whom they share their classrooms. In addition to coming from different socioeconomic and racial/ethnic backgrounds, students come to school with different language skills and may have disabilities that require accommodations and adjustments to instruction. Accordingly, this section examines enrollments of English Learners (ELs) and students with disabilities. Next, this section describes educational resources, including the training and salaries of teachers and the level and sources of education funding. The section concludes with a discussion of key outcomes of preK-12 schooling in the United States, including achievement and high school graduation.

Preprimary Education

Figure 2. Percentage of 3- to 4-year-olds and 5-year-olds enrolled in school: October 2010 through October 2021



NOTE: Data exclude children living in institutions (e.g., prisons or nursing facilities).
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October, 2010 through 2021. See *Digest of Education Statistics 2022*, table 202.20.

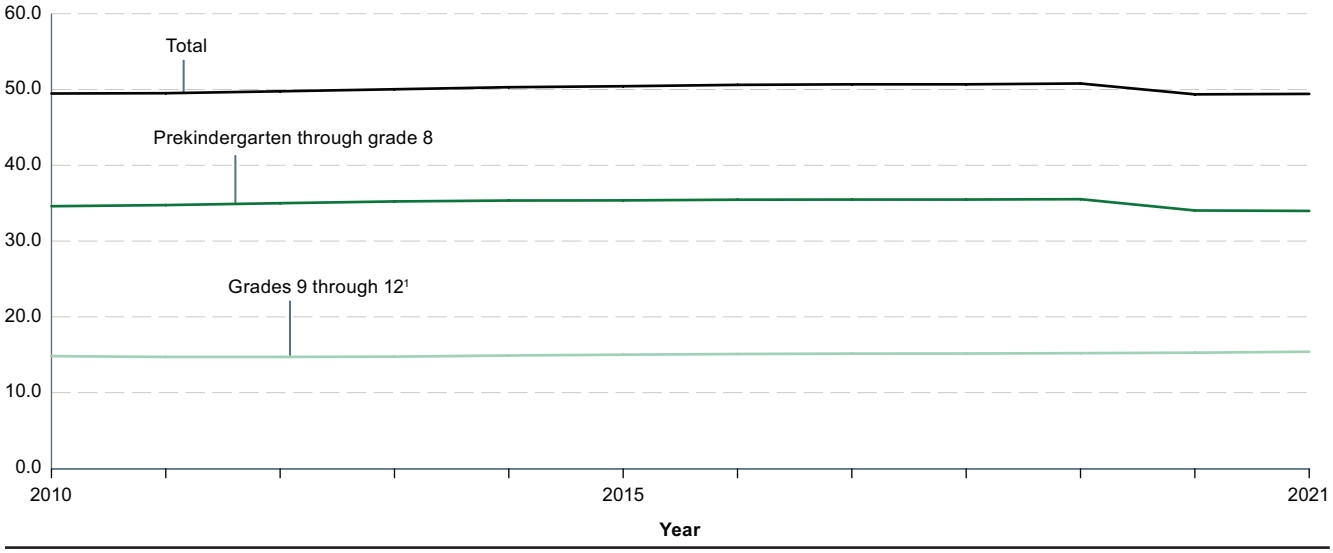
Formal schooling, such as kindergarten and preschool programs, is an important component of early childhood education. In October 2021, about 63 percent of 3- to 5-year-olds were enrolled in school overall. The enrollment rate was higher for 5-year-olds than for 3- to 4-year-olds (86 vs. 50 percent). For both age groups, the October 2021 enrollment rates were lower than they had been in October 2019, prior to the coronavirus pandemic (figure 2). A closer examination of the changes in enrollment rates over time shows the following:

- For both age groups, enrollment rates in October 2019 were not measurably different from those in October 2010.
- Between October 2019 and October 2020, enrollment rates decreased for both age groups: the rate for 5-year-olds fell 6 percentage points (from 91 to 84 percent), while the rate for 3- to 4-year-olds fell 13 percentage points (from 54 to 40 percent).
- Between October 2020 and October 2021, the enrollment rate increased for 3- to 4-year-olds only, by 10 percentage points (from 40 to 50 percent).
- For both age groups, enrollment rates in October 2021 remained lower than in October 2019, despite the 10-percentage-point recovery from October 2020 to October 2021 for 3- to 4-year-olds.

In October 2021, there were some differences in children's enrollment rates by parents' educational attainment, employment status, and family income, particularly among 3- to 4-year-olds. For example, the enrollment rate was higher for 3- to 4-year-olds whose parents had a bachelor's or higher degree (57 percent) than for those whose parents had any level of attainment below an associate's degree[18] (ranging from 37 to 48 percent). The enrollment rate was also higher for 3- to 4-year-olds in households with an annual family income exceeding $100,000 (59 percent) than for those in households of most other income groups (ranging from 36 to 57 percent) (*Enrollment Rates of Young Children*).

Elementary and Secondary Education and School Choice

Figure 3. Enrollment in public elementary and secondary schools, by level: Fall 2010 through fall 2021



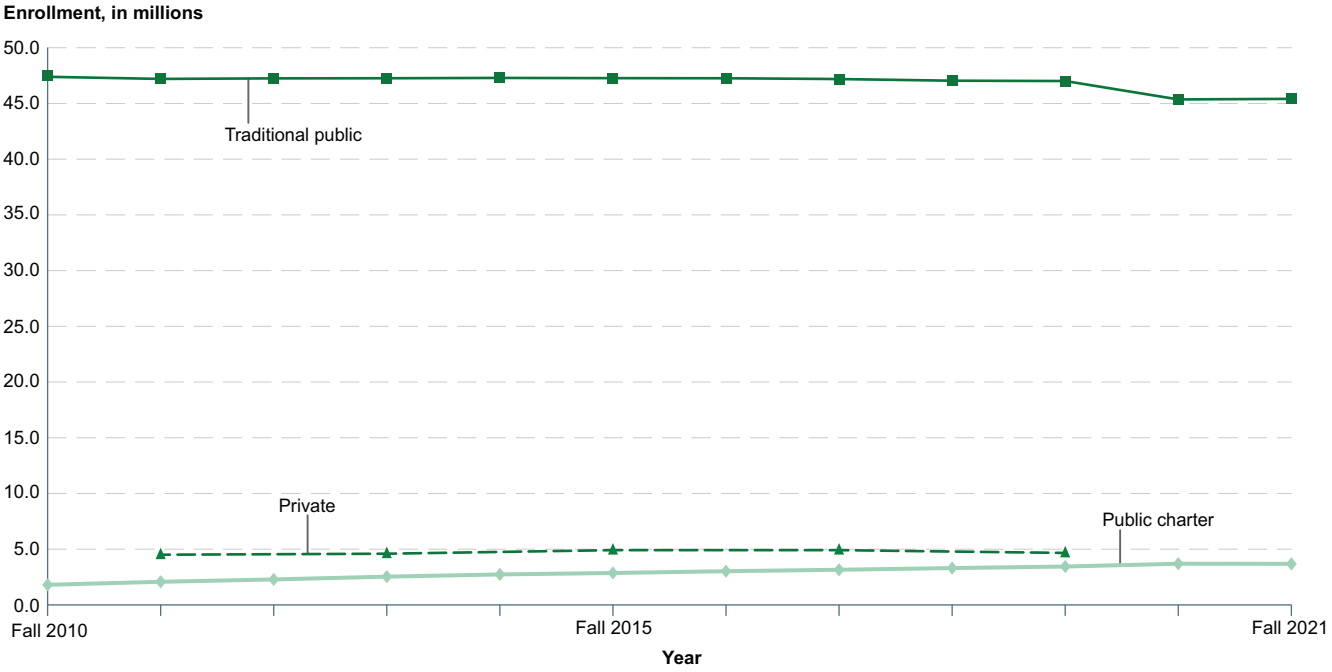
[1] Includes students reported as being enrolled in grade 13.
NOTE: Data are for the 50 states and the District of Columbia. Data include both traditional public schools and public charter schools. The total ungraded counts of students were prorated to prekindergarten through grade 8 and grades 9 through 12 based on the known grade-level distribution of a state. Includes imputations for nonreported prekindergarten enrollment in California for fall 2019 and 2021 and in Oregon for fall 2020 and 2021. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2010–11 through 2021–22. See *Digest of Education Statistics 2022*, table 203.10.

Between fall 2010 and fall 2019, total public elementary and secondary school enrollment increased by 3 percent, from 49.5 million to 50.8 million students. In the first year of the coronavirus pandemic, total enrollment dropped by 3 percent, to 49.4 million students in fall 2020 (figure 3). In fall 2021, total enrollment remained at around 49.4 million students.

Although enrollments in both grades preK–8 and 9–12 increased between fall 2010 and fall 2019, enrollments in these grade ranges had different patterns of change during the pandemic. Enrollment in grades preK–8 dropped 4 percent (from 35.6 million to 34.1 million students) between fall 2019 and fall 2020 and remained at a similar level in fall 2021 (34.0 million). In contrast, enrollment in grades 9–12 continued to increase each year during the pandemic, reaching an all-time high of 15.4 million students in fall 2021. Thus, enrollment changes in grades preK–8 accounted for the decrease in total public enrollment in the first year of the pandemic. More specifically, declines in enrollment from fall 2019 to fall 2020 were largest in preK and kindergarten: preK enrollment decreased by 22 percent (344,000 students) and kindergarten enrollment decreased by 9 percent (338,000 students). Collectively, enrollment declines in these two grades accounted for 46 percent of the total decrease at the preK–8 level between fall 2019 and fall 2020. From fall 2020 to fall 2021, enrollments in preK and kindergarten both rebounded somewhat (increasing by 14 and 5 percent, respectively), while enrollment in grades 1–8 decreased by 1 percent. However, preK and kindergarten enrollments in 2021 remained lower than 2019 levels (*Public School Enrollment*).

[18] "Below an associate's degree" includes less than high school, high school completion, and some college but no degree.

Figure 4. Enrollment in elementary and secondary schools, by school type: Selected years, fall 2010 through fall 2021



NOTE: Data are for the 50 states and the District of Columbia. Traditional public and public charter school enrollments include prekindergarten students, whereas private school enrollments include students in kindergarten through 12th grade only. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "Public Elementary/Secondary School Universe Survey," 2010–11 through 2021–22; Private School Universe Survey (PSS), 2011–12 through 2019–20. See *Digest of Education Statistics 2021*, table 205.20; and *Digest of Education Statistics 2022*, table 216.20.

In the United States, there is an array of education options, including traditional public schools, public charter schools, and private schools. In 2019-20, the distribution of these different schooling options differed by locale (city, suburb, town, and rural). For example, some 57 percent of public charter schools were in cities, compared with 25 percent of traditional public schools. Meanwhile, 12 percent of public charter schools were in rural areas, compared with 29 percent of traditional public schools. In 2019-20, a higher percentage of private schools were in suburban areas (38 percent) than in cities (34 percent), rural areas (19 percent), and towns (8 percent) (*Characteristics of Elementary and Secondary Schools*).

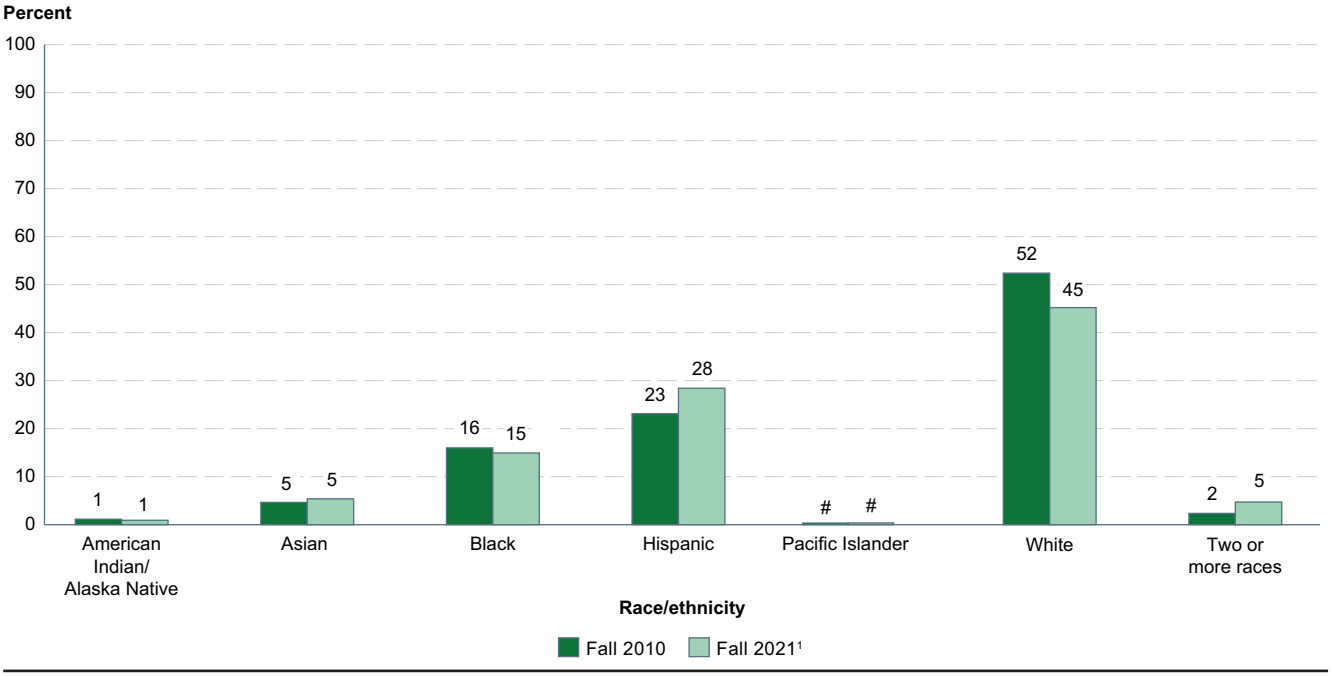
Between fall 2010 and fall 2021, traditional public schools and public charter schools experienced different trends in enrollment (figure 4). During this period, public charter school enrollment more than doubled, from 1.8 million students in fall 2010 to 3.7 million students in fall 2021—an overall increase of 1.9 million students. In contrast, the number of students attending traditional public schools decreased by 4 percent, or 2.0 million students, over the same period (from 47.4 million to 45.4 million students). Accordingly, between fall 2010 and fall 2021, the percentage of all public school students who attended public charter schools increased from 4 to 7 percent (*Public Charter School Enrollment*).

In fall 2019, about 4.7 million students in kindergarten through grade 12 were enrolled in private school.[19] Private school students made up about 9 percent of the combined public and private enrollment in kindergarten through grade 12 in every year from fall 2011 to fall 2019[20] (*Private School Enrollment*).

[19] At the time of the development of this report, the latest year for which private school enrollment data are available is prior to the pandemic in fall 2019. Private school enrollment excludes about 832,900 preK students who were enrolled in private schools that offer kindergarten or a higher grade in 2019.
[20] Private school enrollment data are collected once every two years, and the data are available for the fall of odd-numbered years only.

Racial/Ethnic Enrollment in Public and Private Schools

Figure 5. Percentage distribution of student enrollment in public elementary and secondary schools, by race/ethnicity: Fall 2010 and fall 2021



Rounds to zero.
[1] Includes imputations for nonreported prekindergarten enrollment in California and Oregon.
NOTE: Data are for the 50 states and the District of Columbia. Race categories exclude persons of Hispanic ethnicity. Although rounded numbers are displayed, the figures are based on unrounded data. Detail may not sum to 100 percent because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary and Secondary Education," 2010–11 and 2021–22. See *Digest of Education Statistics 2022*, table 203.50.

Between fall 2010 and fall 2021, the overall racial/ethnic composition of the U.S. public school student population changed (figure 5). Specifically, between fall 2010 and fall 2021, there was a decrease in the percentages of students who were

- White (from 52 to 45 percent);
- Black (from 16 to 15 percent); and
- American Indian/Alaska Native (from 1.1 to 0.9 percent).

During this period, there was an increase in the percentages of students who were

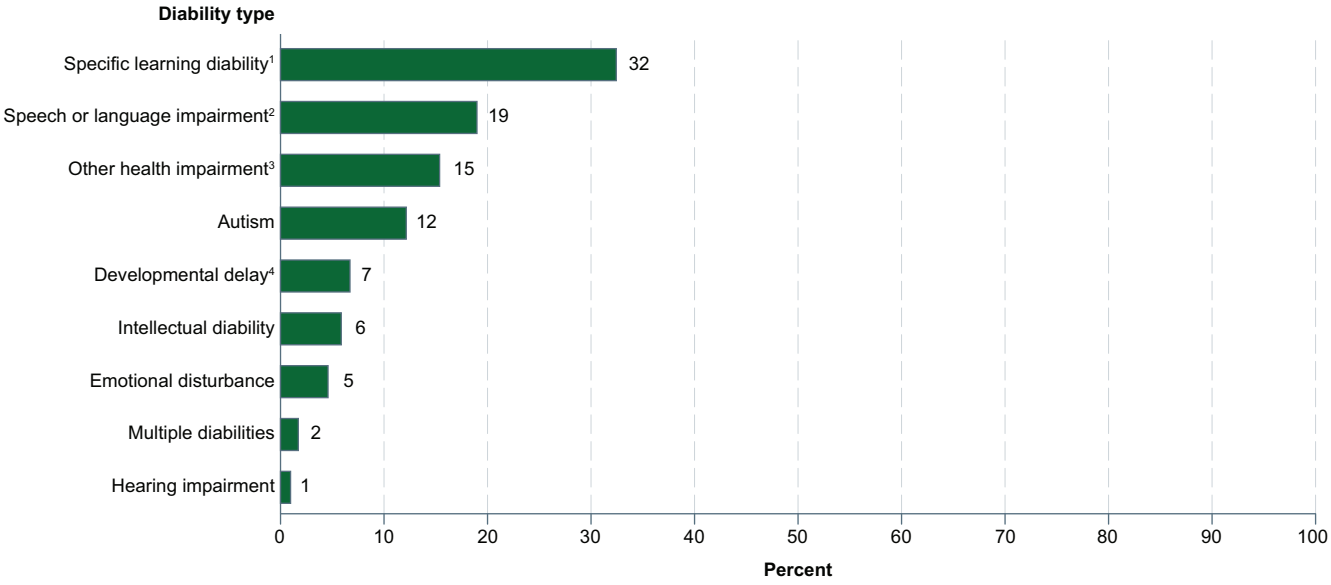
- Hispanic (from 23 to 28 percent);
- Asian (from 4.6 to 5.4 percent); and
- of Two or more races (from 2 to 5 percent).

In both fall 2010 and fall 2021, Pacific Islander students made up less than one-half of 1 percent of public elementary and secondary enrollment (*Racial/Ethnic Enrollment in Public Schools*).

The racial/ethnic composition of schools varies among the types of school examined in this report. For instance, in school year 2019-20, just over half (55 percent) of traditional public schools had enrollments where more than 50 percent of students were White. This is compared with 30 percent of public charter schools and 70 percent of private schools that had enrollments where more than 50 percent of students were White (*Characteristics of Elementary and Secondary Schools*).

Students With Disabilities

Figure 6. Percentage distribution of students ages 3–21 served under the Individuals with Disabilities Education Act (IDEA), by selected disability type: School year 2021–22



[1] A specific learning disability is a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.
[2] Speech or language impairment is defined as a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance.
[3] Other health impairments include having limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.
[4] Although federal law does not require that states/entities and local education agencies categorize children according to developmental delay, if this category is required by state law, they are expected to report these children in the developmental delay category.
NOTE: Data are for the 50 states and the District of Columbia only. Orthopedic impairment, visual impairment, traumatic brain injury, and deaf-blindness are not shown because they each account for less than 0.5 percent of students served under IDEA. Due to categories not shown, detail does not sum to 100 percent.
SOURCE: U.S. Department of Education, Office of Special Education Programs, Individuals with Disabilities Education Act (IDEA) database. Retrieved February 25, 2023, from https://data.ed.gov/dataset/idea-section-618-data-products. See *Digest of Education Statistics 2022*, table 204.30.

The number of students ages 3-21 served by IDEA[21] increased from 6.4 million in school year 2010-11 to 7.3 million in 2021-22.[22] Taken as a percentage of total public school enrollment, this equates to an increase from 13 to 15 percent of students.[23] Among students who received special education and/or related services under IDEA in school year 2021-22, the disability types with the largest reported percentages of students were

- specific learning disabilities (32 percent);[24]
- speech or language impairments (19 percent);[25]
- other health impairments (15 percent);[26] and
- autism (12 percent; figure 6).

In school year 2021-22, the number of students served under IDEA as a percent of total enrollment was

- highest for American Indian/Alaska Native (19 percent) and Black (17 percent) students; and
- lowest for Pacific Islander (11 percent) and Asian (8 percent) students.

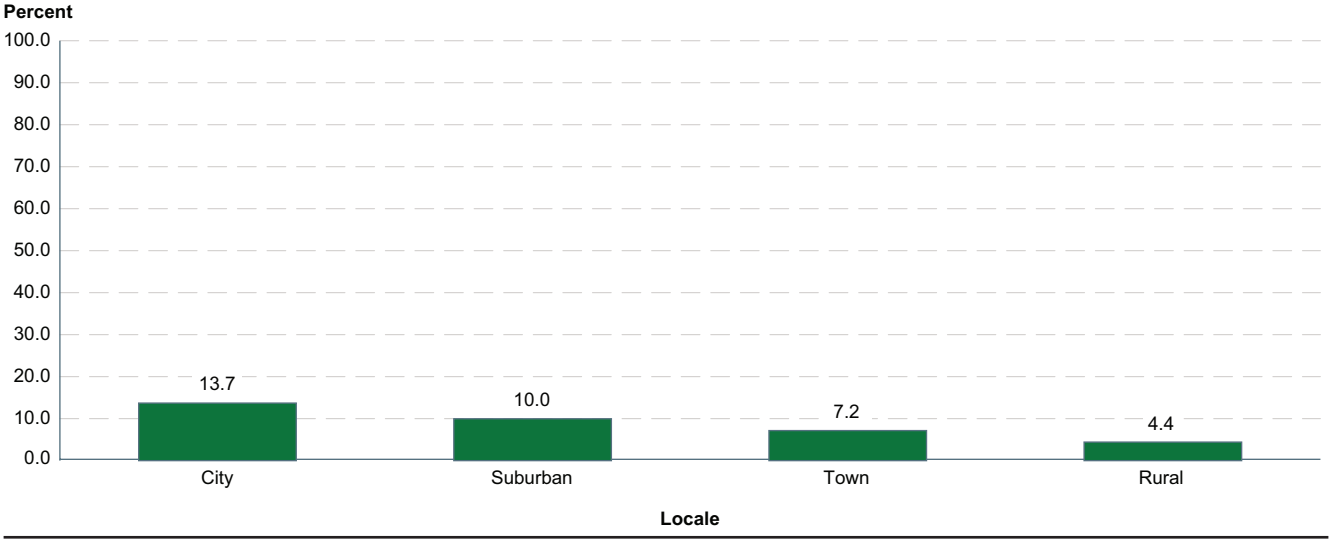
[21] Enacted in 1975, IDEA mandates the provision of a free and appropriate public school education for eligible students ages 3-21.
[22] Totals presented in this section include imputations for states for which data were unavailable. See reference tables in the *Digest of Education Statistics* for more information.
[23] The number of children served as a percentage of total enrollment is based on total public school enrollment in preK through grade 12. However, not all students served under IDEA receive education services in public school environments.
[24] A specific learning disability is a disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, that may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations.
[25] Speech or language impairment is defined as a communication disorder such as stuttering, impaired articulation, a language impairment, or a voice impairment that adversely affects a child's educational performance.
[26] Other health impairments include having limited strength, vitality, or alertness due to chronic or acute health problems such as a heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

The percentage distribution of students receiving special education and/or related services for various types of disabilities differed by race/ethnicity in school year 2021-22. For most racial/ethnic groups, specific learning disabilities and speech or language impairments were the two most common types of disabilities, accounting for at least 41 percent of students receiving IDEA services. Among Hispanic, American Indian/Alaska Native, and Pacific Islander students ages 3-21, specific learning disabilities and speech or language impairments together accounted for more than 50 percent of those who received special education services. In contrast, although these two disabilities accounted for 41 percent of Asian students receiving IDEA services, the most common disability for Asian students was autism (29 percent). The percentage of students from other racial/ethnic backgrounds receiving IDEA services due to autism ranged from 8 to 13 percent (*Students With Disabilities*).

English Learners

Students who are identified as English learners (ELs) can participate in language assistance programs to help ensure that they attain English proficiency and meet the academic content and achievement standards expected of all students. The percentage of public school students in the United States who were ELs increased overall between fall 2010 (9.2 percent, or 4.5 million students) and fall 2020 (10.3 percent, or 5.0 million students).[27] However, this upward trend was disrupted between fall 2019 and fall 2020—during the first school year of the coronavirus pandemic—when EL enrollment fell from 5.1 to 5.0 million students (from 10.4 to 10.3 percent of public school enrollment). For the majority of grade levels, the percentage of public school students who were ELs was higher in fall 2020 than in fall 2019. However, the percentage of ELs was lower in fall 2020 than in fall 2019 in kindergarten and grades 1, 2, 5, and 9. The difference was largest in kindergarten. Specifically, the percentage of EL kindergarteners declined by 2.1 percentage points (15.0 to 12.9 percent), compared with changes of half of a percentage point or less in every other grade.

Figure 7. Percentage of public school students who were English learners (ELs), by locale: Fall 2020



NOTE: Data are for the 50 states and the District of Columbia. Data are based on locales of school districts. Excludes EL students who are enrolled in prekindergarten.
SOURCE: U.S. Department of Education, National Center for Education Statistics, ED*Facts* file 141, Data Group 678, extracted December 10, 2021; and Common Core of Data (CCD), "Local Education Agency Universe Survey," 2020–21. See *Digest of Education Statistics 2022*, table 214.40.

[27] This report looks at the number and percentage of ELs in kindergarten and higher grades over time. Data on ELs include students with a current EL identification, but not students who were formerly identified as ELs and no longer are. Note also that data on ELs enrolled in public schools have changed over time. For fall 2014 and earlier years, EL data include only those ELs who participated in EL programs. Starting with fall 2015, data include all currently identified ELs, regardless of program participation. However, the proportion of ELs who participate in EL programs is large. For example, in the 2020-21 school year, 98 percent of identified ELs were served by EL programs. Comparisons over time should be interpreted with caution due to this change in the data reported.

In fall 2020, the percentage of students who were ELs was higher for school districts in more urbanized locales than for those in less urbanized locales (figure 7). ELs constituted an average of

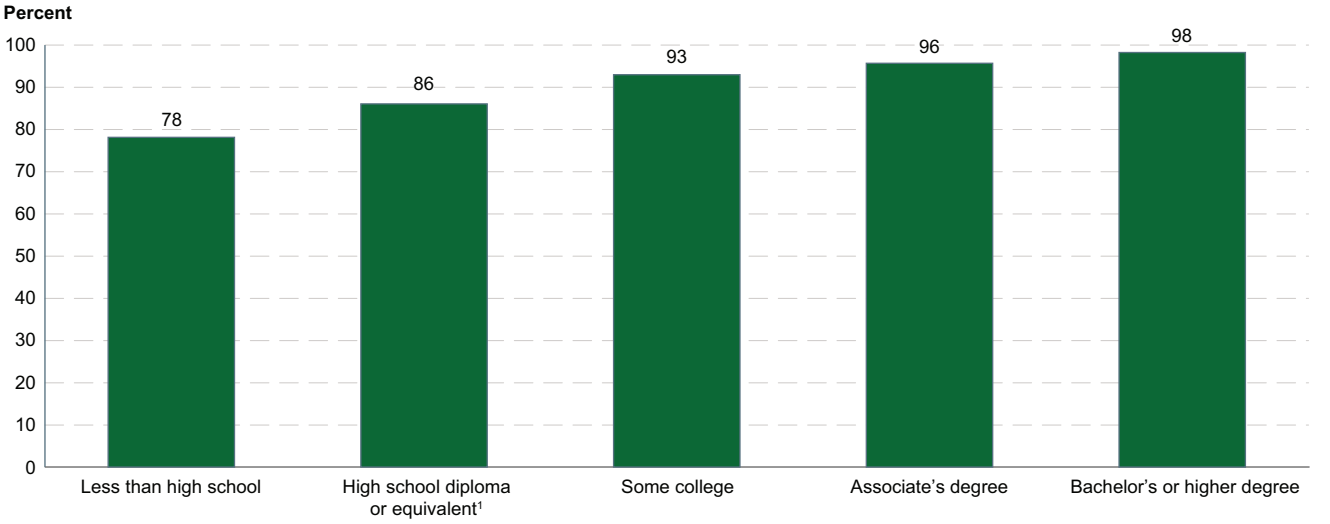
- 13.7 percent of total public school enrollment in cities;
- 10.0 percent in suburban areas;
- 7.2 percent in towns; and
- 4.4 percent in rural areas.

In fall 2020, more than three-quarters of ELs were Hispanic.

In addition, 800,600 ELs were identified as students with disabilities in fall 2020, representing 16.1 percent of the total EL enrollment. In comparison, students with disabilities made up 14.5 percent of total public school enrollment in 2020–21 (*English Learners in Public Schools*).

Children's Internet Access at Home

Figure 8. Percentage of 3- to 18-year-olds who had home internet access through a computer, by parental education: 2021



[1] Includes those who completed high school through equivalency credentials, such as the GED.
[2] Highest education level of any parent residing with the 3- to 18-year-old (including an adoptive or stepparent). Includes only 3- to 18-year-olds who resided with at least one of their parents.
NOTE: Includes only 3- to 18-year-olds living in households (respondents living in group quarters such as shelters, healthcare facilities, or correctional facilities were not asked about internet access). The percentage of 3- to 18-year-olds with internet access through a computer refers to the percentage in homes with both internet access and one or more of the following types of computer: desktop or laptop, tablet or other portable wireless computer, or "some other type of computer." Excludes 3- to 18-year-olds in homes having none of these types of computers. Includes those in homes having both smartphones and any of these types of computers.
SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2021. See *Digest of Education Statistics 2022*, table 702.12.

In 2021, some 97 percent of 3- to 18-year-olds had home internet access: 93 percent had access through a computer,[28] and 4 percent relied on a smartphone for home internet access.[29] The remaining 3 percent had no internet access at home. The overall percentage of 3- to 18-year-olds with home internet access was higher in 2021 than in 2019 (97 vs. 95 percent), prior to the coronavirus pandemic. More specifically, the percentage with home internet access through a computer was also higher in 2021 than in 2019 (93 vs. 88 percent).

The percentages of 3- to 18-year-olds with home internet access through a computer were higher for those whose parents had attained higher levels of education (figure 8) and higher for those in higher income families. For instance, in 2021, the percentage with home internet access through a computer was highest for those whose parents had attained a bachelor's or higher degree (98 percent) and lowest for those whose parents had attained less than a high school credential (78 percent).

The percentages of 3- to 18-year-olds with home internet access through a computer also varied across racial/ethnic groups. For instance, in 2021, the percentage with home internet access through a computer was highest for those who were Asian (97 percent) and lowest for those who were American Indian/Alaska Native (83 percent) (*Children's Internet Access at Home*).

[28] Refers to the percentage of 3- to 18-year-olds with home internet access through one or more of the following types of computers: desktop or laptop, tablet or other portable wireless computer, or "some other type of computer." Includes 3- to 18-year-olds in homes having both smartphones and any of these types of computers.
[29] Refers to the percentage of 3- to 18-year-olds who had home internet access only through a smartphone and did not have any of the types of computers listed in the previous footnote.

Public School Teachers

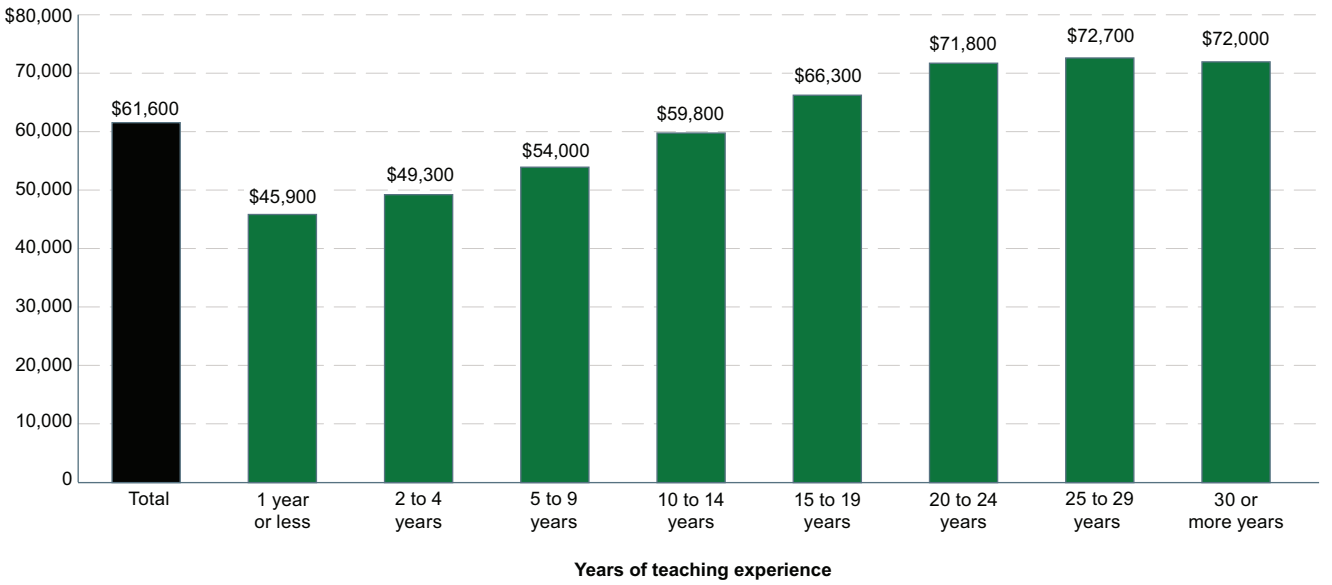
In the 2020-21 school year, there were 3.8 million full- and part-time public school teachers, including 1.9 million elementary teachers and 1.9 million secondary teachers.[30] In 2020-21, of all public school teachers,

- 90 percent held a regular or standard state teaching certificate or advanced professional certificate;
- 77 percent were female;
- 80 percent were White (compared with 46 percent of public school students who were White);
- 9 percent were Hispanic (compared with 28 percent of public school students who were Hispanic);
- 6 percent were Black (compared with 15 percent of public school students who were Black);
- 2 percent each were Asian or of Two or more races; and
- less than 1 percent each were American Indian/Alaska Native or Pacific Islander.

Overall, public school teachers had higher educational attainment in 2020-21 than in 2011-12. Specifically, higher percentages of public school teachers in 2020-21 than in 2011-12 held a postbaccalaureate degree as their highest degree, including:

- a master's degree (51 vs. 48 percent);
- an education specialist degree or certificate[31] (8.4 vs. 7.6 percent); and
- a doctor's degree (1.4 vs. 1.1 percent).

Figure 9. Average base salary for full-time teachers in public elementary and secondary schools, by years of full- and part-time teaching experience: School year 2020–21



NOTE: Amounts presented in current 2020–21 dollars. Estimates are for regular full-time teachers only; they exclude other staff even when they have full-time teaching duties (regular part-time teachers, itinerant teachers, long-term substitutes, administrators, library media specialists, other professional staff, and support staff). Excludes teachers who teach only prekindergarten. Average base salary is for the school year; summer earnings are not included. Teachers who reported a base salary of zero are excluded.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Teacher Data File," 2020–21. See *Digest of Education Statistics 2022*, table 211.10.

[30] Excludes teachers who teach only preK. Data are based on a head count of full-time and part-time teachers rather than on the number of full-time equivalent teachers. Teachers were classified as elementary or secondary on the basis of the grades they taught, rather than on the level of the school in which they taught. In general, elementary teachers include those teaching any of grades preK through grade 6 and those teaching multiple grades, with a preponderance of grades taught being kindergarten through grade 6. In general, secondary teachers include those teaching any of grades 7 through 12 and those teaching multiple grades, with a preponderance of grades taught being grades 7 through 12 and usually with no grade taught being lower than grade 5.

[31] Education specialist degrees or certificates are generally awarded for 1 year's work beyond the master's level. Includes certificate of advanced graduate studies.

In 2020–21, the average base salary (in current 2020–21 dollars) for full-time public school teachers was $61,600 (figure 9).[32] Average base salaries for full-time public school teachers in 2020–21 were generally higher for those with more years of full- and part-time teaching experience, except for teachers with the most experience. Specifically, among those with more experience, average salaries for teachers with 20 to 24 years, 25 to 29 years, and 30 or more years of experience were not measurably different from each other. Average base salaries, in current 2020–21 dollars, ranged from $45,900 for teachers with 1 year or less of experience to $72,700 for teachers with 25 to 29 years of experience. Additionally, average base salaries for full-time public school teachers in 2020–21 were generally higher for those with higher levels of educational attainment. The average base salary for full-time public school teachers in 2020–21 was not measurably different from 2011–12, in terms of constant 2020–21 dollars (*Characteristics of Public School Teachers*).

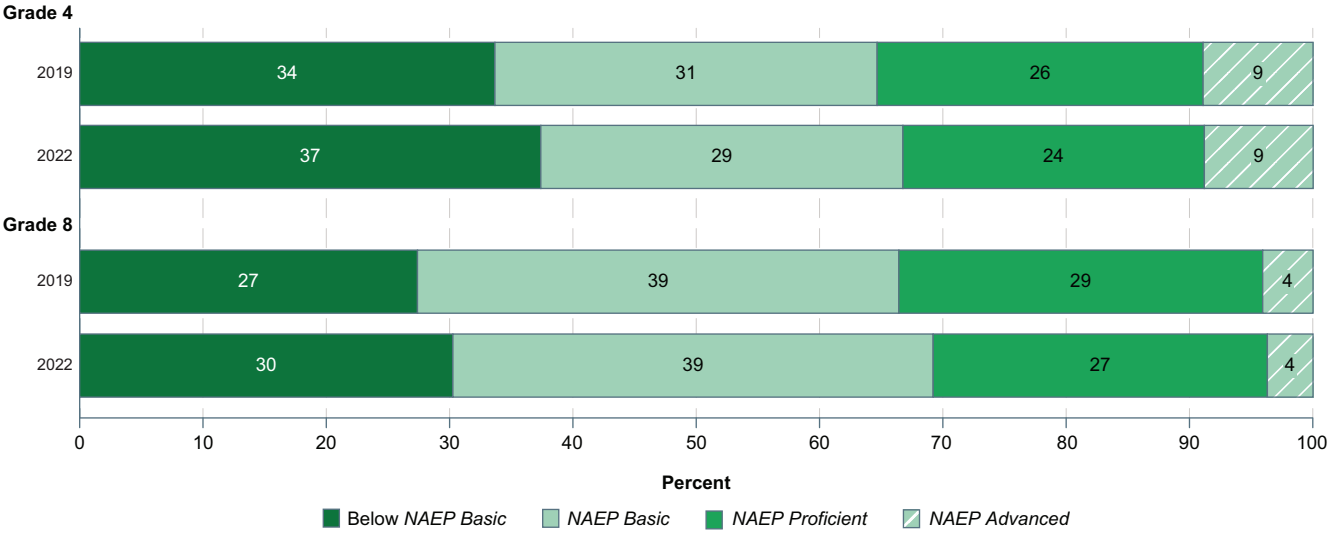
National Assessments

The National Assessment of Educational Progress (NAEP) assesses student performance in reading and mathematics at grades 4, 8, and 12 in both public and private schools across the nation. NAEP achievement levels are performance standards that describe what students should know and be able to do: *NAEP Basic* indicates partial mastery of fundamental skills, *NAEP Proficient* indicates solid academic performance and demonstrated competency over challenging subject matter, and *NAEP Advanced* indicates superior performance beyond *NAEP Proficient*.[33] For grades 4 and 8, the most recent reading and mathematics assessments were conducted from January through March of 2022, about two years since the onset of the coronavirus pandemic in the United States. For grade 12, the most recent assessments were conducted in 2019, before the pandemic. This report focuses on grades 4 and 8 performance, but detailed findings about grade 12 performance are available in the individual indicators online.

[32] Salary data are presented for regular, full-time public school teachers only; the data exclude other staff even when they have full-time teaching duties (regular part-time teachers, itinerant teachers, long-term substitutes, administrators, library media specialists, other professional staff, and support staff). Average base salary is for the school year; summer earnings are not included. Teachers who reported a base salary of zero are excluded.

[33] The NAEP achievement-level setting is based on the judgments of a broadly representative panel of teachers, education specialists, and members of the general public. The authorizing legislation for NAEP requires that the achievement levels be used on a trial basis until the Commissioner of the National Center for Education Statistics (NCES) determines that the achievement levels are reasonable, valid, and informative to the public (20 USC § 9622(e)(2)(C)). The NCES Commissioner's determination is to be based on a congressionally mandated, rigorous, and independent evaluation. The latest evaluation of the achievement levels was conducted by a committee convened by the National Academies of Sciences, Engineering, and Medicine in 2016. The evaluation concluded that further evidence should be gathered to determine whether the achievement levels are reasonable, valid, and informative. Accordingly, the NCES Commissioner determined that the trial status of the achievement levels should be maintained at this time. Read more about the NAEP reading achievement levels by grade.

Figure 10. Percentage distribution of 4th- and 8th-grade students, by National Assessment of Educational Progress (NAEP) reading achievement level: 2019 and 2022



NOTE: Includes public, private, Bureau of Indian Education, and Department of Defense Education Activity schools. Achievement levels are performance standards that describe what students should know and be able to do: *NAEP Basic* indicates partial mastery of fundamental skills, *NAEP Proficient* indicates demonstrated competency over challenging subject matter, and *NAEP Advanced* indicates superior performance beyond *NAEP Proficient*. NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution. Although rounded numbers are displayed, the figures are based on unrounded data. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 and 2022 Reading Assessments, NAEP Data Explorer. See *Digest of Education Statistics 2022*, table 221.12.

On both the 4th- and 8th-grade NAEP reading assessments, higher percentages of students performed below NAEP Basic in 2022 than in 2019, and lower percentages of students performed at or above NAEP Proficient in 2022 than in 2019 (figure 10). For instance, for 4th-grade students, the percentage who performed

- below *NAEP Basic* was 37 percent in 2022 compared to 34 percent in 2019; and
- at or above *NAEP Proficient* was 33 percent in 2022 compared to 35 percent in 2019.

At grades 4 and 8, the average NAEP reading score was lower in 2022 than in 2019.[34] In 2022, the average 4th-grade reading score (217) was lower than the score in 2019 (220), although it was not measurably different from the score in 1992. Similarly, the average 8th-grade reading score in 2022 (260) was lower than the score in 2019 (263), but it was not measurably different from the score in 1992. Another way to evaluate changes over time in students performing at higher and lower levels is to examine score gaps between those performing at the 90th and 10th percentiles.[35] Compared to 2019, the gap between the highest-performing (90th percentile) and lowest-performing (10th percentile) students in 2022 was larger at grade 4 but not measurably different at grade 8.

At both grade levels, average NAEP reading scores in 2022 were generally

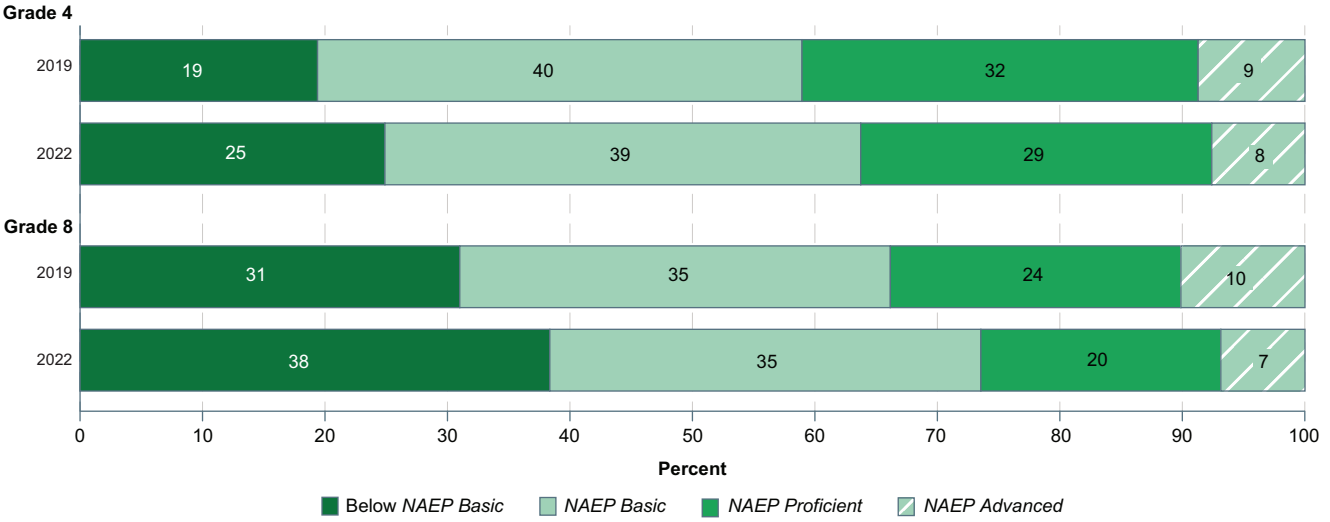
- higher for Asian and White students than for students of other racial/ethnic groups;
- higher for female students than for male students;
- lower for EL students than for non-EL students;
- lower for those identified as students with disabilities than for their peers without disabilities; and
- higher for students in low-poverty schools than for students in high-poverty schools[36] (*Reading Performance*).

[34] NAEP reading scale scores range from 0 to 500 for all grade levels.

[35] NAEP scores are reported at five selected percentiles to show the progress made by lower-performing (10th and 25th percentiles), middle-performing (50th percentile), and higher-performing (75th and 90th percentiles) students. This report focuses on the lowest-performing (10th percentile) and the highest-performing (90th percentile) students. The percentile represents a specific point on the percentage distribution of all students ranked by their score from low to high. For example, 10 percent of students scored at or below the 10th percentile score, while 90 percent of students scored above it.

[36] High-poverty schools are defined here as schools where 76 to 100 percent of the students are eligible for free or reduced-price lunch (FRPL); low-poverty schools are schools where 25 percent or less of the students are eligible for FRPL. Findings for school poverty should be interpreted with caution, due to the relatively higher rate at which FRPL data are missing.

Figure 11. Percentage distribution of 4th- and 8th-grade students, by National Assessment of Educational Progress (NAEP) mathematics achievement level: 2019 and 2022



NOTE: Includes public, private, Bureau of Indian Education, and Department of Defense Education Activity schools. Achievement levels are performance standards that describe what students should know and be able to do: *NAEP Basic* indicates partial mastery of fundamental skills, *NAEP Proficient* indicates demonstrated competency over challenging subject matter, and *NAEP Advanced* indicates superior performance beyond *NAEP Proficient*. NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution. Although rounded numbers are displayed, the figures are based on unrounded data. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 and 2022 Mathematics Assessments, NAEP Data Explorer. See *Digest of Education Statistics 2022*, table 222.12.

On both the 4th- and 8th-grade NAEP mathematics assessments, higher percentages of students performed below *NAEP Basic* in 2022 than in 2019, and lower percentages of students performed at or above *NAEP Proficient* in 2022 than in 2019 (figure 11). For instance, for 4th-grade students, the percentage who performed

- below *NAEP Basic* was 25 percent in 2022 compared to 19 percent in 2019; and
- at or above *NAEP Proficient* was 36 percent in 2022 compared to 41 percent in 2019.

In 2022, the average 4th-grade NAEP mathematics score (236) was lower than the score in 2019 (241), but it was higher than the score in 1990 (213).[37] Similarly, for 8th-grade students, the average mathematics score in 2022 (274) was lower than the score in 2019 (282), but it was higher than the score in 1990 (263). Compared to 2019, the score gap between the highest-performing (90th percentile) and lowest-performing (10th percentile) students in 2022 was larger at grade 4 but not measurably different at grade 8.

At both grade levels, average NAEP mathematics scores in 2022 were generally

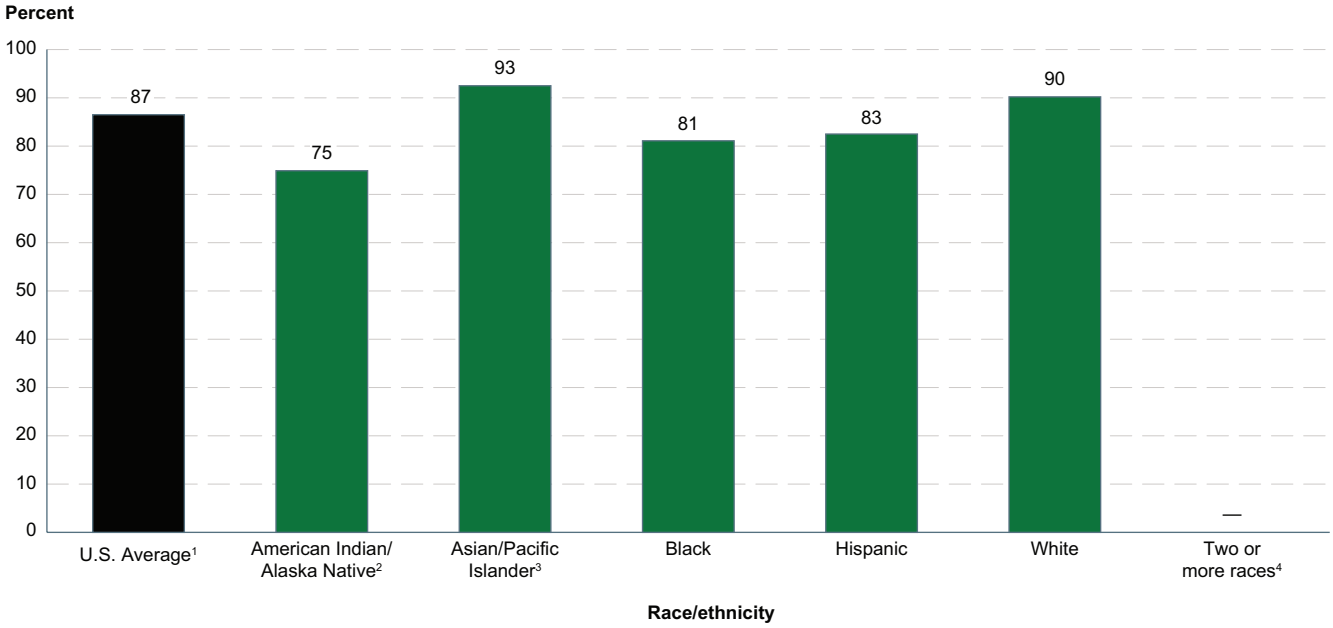
- higher for Asian and White students than for students of other racial/ethnic groups;
- higher for male students than for female students;
- lower for EL students than for non-EL students;
- lower for those identified as students with disabilities than for their peers without disabilities; and
- higher for students in low-poverty schools than for students in high-poverty schools.

These patterns were similar to those observed for reading, except that mathematics scores were higher for male students than for female students (*Mathematics Performance*).

[37] NAEP mathematics scale scores range from 0 to 500 for grades 4 and 8 and from 0 to 300 for grade 12.

High School Coursetaking, Persistence, and Completion

Figure 12. Adjusted cohort graduation rate (ACGR) for public high school students, by race/ethnicity: 2019–20



— Not available.
[1] Includes imputed data for Illinois and Texas.
[2] Estimated assuming a count of zero American Indian/Alaska Native students for Hawaii.
[3] Reporting practices for data on Asian and Pacific Islander students vary by state. Asian/Pacific Islander data in this indicator represent either the value reported by the state for the "Asian/Pacific Islander" group or an aggregation of separate values reported by the state for "Asian" and "Pacific Islander." "Asian/Pacific Islander" includes the "Filipino" group, which only California and Hawaii report separately.
[4] Due to nonreporting in several states, data for students of Two or more races are not available at the national level.
NOTE: The ACGR is the percentage of public school 9th-grades who graduate within 4 years of starting 9th grade with a regular diploma or, for students with the most significant cognitive disabilities, a state-defined alternate high school diploma.The U.S. average ACGR is for the 50 states and the District of Columbia. In 2019–20, some states may have changed their requirements for a regular high school diploma to account for the impact of the coronavirus pandemic. These changes are at the discretion of each state but may have resulted in less comparability in the ACGRs between 2019–20 and prior school years. Race categories exclude persons of Hispanic ethnicity.
SOURCE: U.S. Department of Education, Office of Elementary and Secondary Education, Consolidated State Performance Report, 2019–20; and National Center for Education Statistics, ED*Facts* file 150, Data Group 695, and ED*Facts* file 151, Data Group 696, 2019–20. See *Digest of Education Statistics 2021*, table 219.46

The adjusted cohort graduation rate (ACGR) is the percentage of students in a "cohort" of first-time 9th-graders who graduate within 4 years with a regular high school diploma or, for students with the most significant cognitive disabilities, a state-defined alternate high school diploma.[38,39] The U.S. average ACGR for public high school students increased over the first decade it was collected, from 79 percent in 2010–11 to 87 percent in 2019–20.[40]

Compared to the national average in 2019–20, the ACGRs for public high school students were

- higher for White (90 percent) and Asian/Pacific Islander[41] (93 percent) students;
- lower for American Indian/Alaska Native[42] (75 percent), Black (81 percent), and Hispanic (83 percent) students (figure 12); and
- lower for students with disabilities[43] (71 percent), EL students[44] (71 percent), and economically disadvantaged students[45] (81 percent) (*Public High School Graduation Rates*).

[38] State education agencies calculate the ACGR by first identifying the "cohort" of first-time 9th-graders in a particular school year. The cohort is then adjusted by adding any students who immigrate from another country or transfer into the cohort after 9th grade and subtracting any students who subsequently transfer out, emigrate to another country, or die.
[39] Before 2017–18, the definition of ACGR included regular high school diplomas only.
[40] In 2019–20, some states may have changed their requirements for a regular high school diploma to account for the impact of the coronavirus pandemic. These changes were at the discretion of each state but may have resulted in less comparability in the ACGRs between 2019–20 and prior school years.

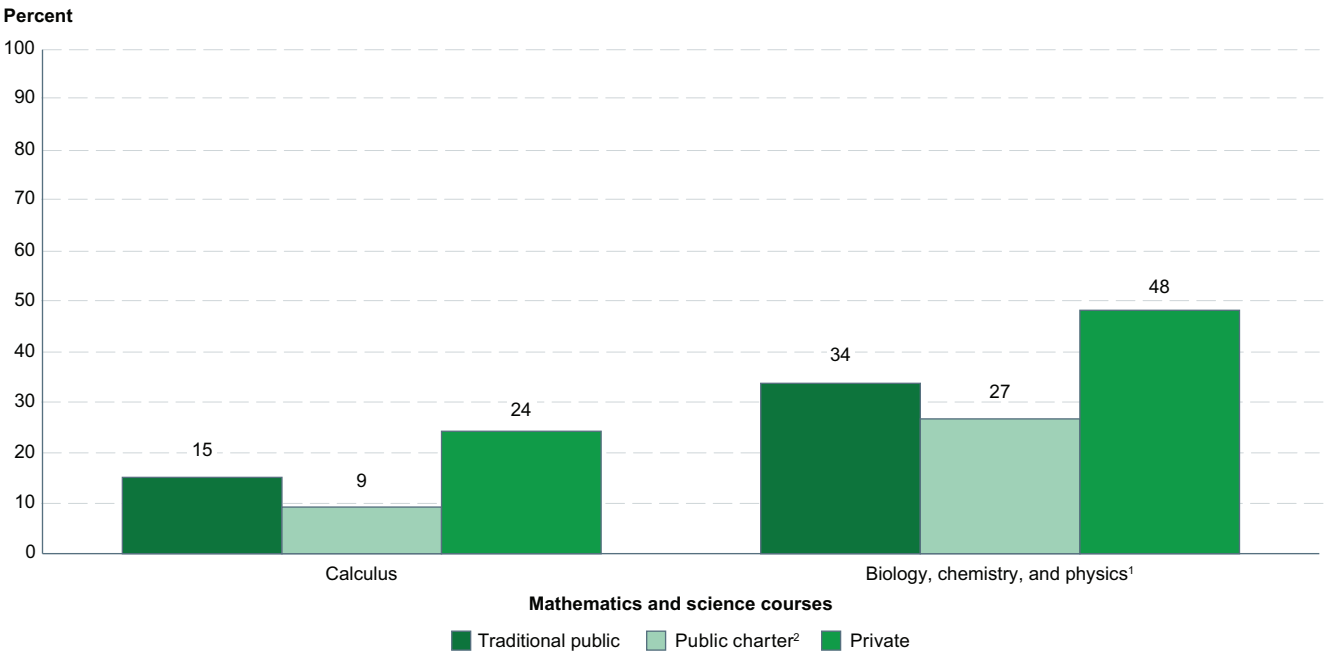
[41] Reporting practices for data on Asian and Pacific Islander students vary by state. Asian/Pacific Islander data in this report represent either the value reported by the state for the "Asian/Pacific Islander" group or an aggregation of separate values reported by the state for "Asian" and "Pacific Islander." "Asian/Pacific Islander" includes the "Filipino" group, which only California and Hawaii report separately.
[42] Estimated assuming a count of zero American Indian/Alaska Native students for Hawaii.
[43] This includes students identified as students with disabilities under IDEA.
[44] This includes students who met the definition of EL as outlined in the ED*Facts* workbook. For more information, see https://www2.ed.gov/about/inits/ed/edfacts/eden-workbook.html.
[45] Refers to students who met the state criteria for classification as economically disadvantaged.

In general, greater percentages of high school graduates[46] had completed[47] mathematics and science courses in 2019 than in 2009, including

- courses in algebra II[48] (85 vs. 80 percent),
- courses in precalculus/mathematical analysis (40 vs. 36 percent), and
- courses in all three subjects of biology, chemistry, and physics (35 vs. 30 percent).

However, the percentage of graduates who had completed calculus was lower in 2019 than in 2009 (16 vs. 18 percent).

Figure 13. Percentage of public and private high school graduates who completed selected mathematics and science courses in high school, by school type: 2019

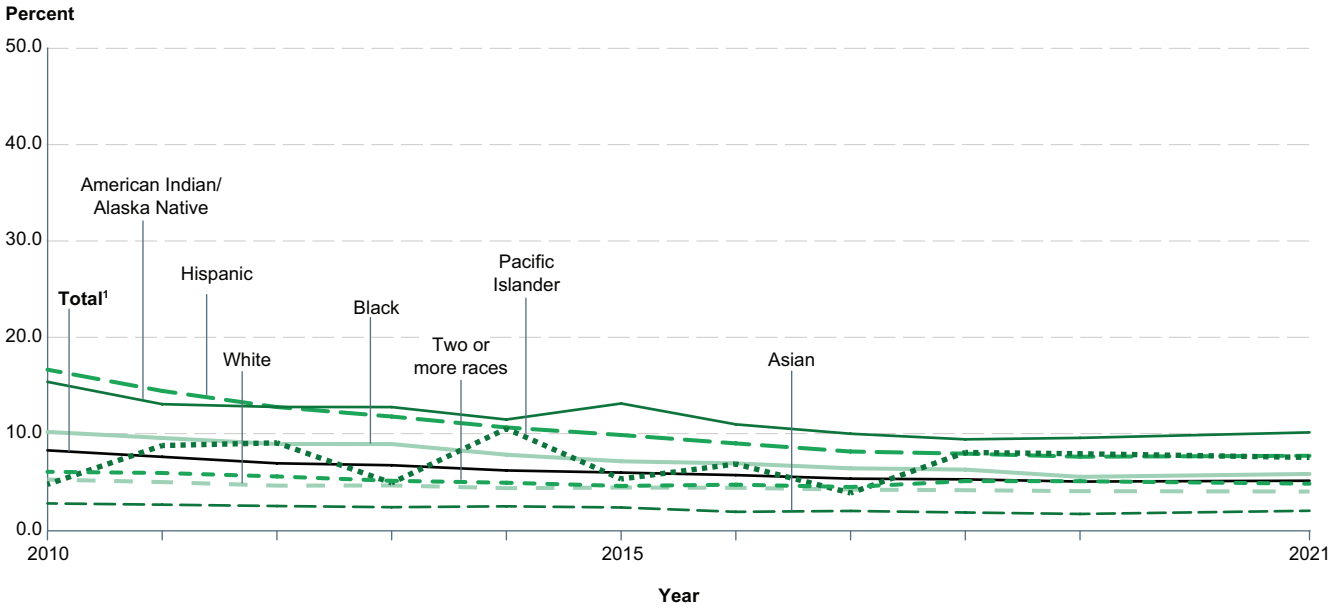


[1] Indicates graduate earned credits in all three subjects of biology, chemistry, and physics.
[2] Information about public charter schools was collected from the schools prior to the NAEP assessment.
NOTE: Completion of a mathematics or science course means that the graduate earned credits in a course within the category. It differs from graduates who took a course but did not pass or complete the course. For a high school graduate to be included in the analyses, their transcript had to meet four requirements: (1) the graduate received either a standard or honors diploma, (2) the transcript had three or more years of delineated courses, (3) the graduate's transcript contained 16 or more Carnegie credits, and (4) the graduate's transcript contained at least 1 Carnegie credit in English courses.
SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2019 High School Transcript Study (HSTS). See *Digest of Education Statistics 2021*, tables 225.40 and 225.45.

In 2019, high school graduates from private schools had higher completion rates in the more advanced mathematics and science courses, compared with their peers from traditional public and public charter schools (figure 13). For instance, 24 percent of private school graduates had completed calculus, compared with 15 percent of graduates from traditional public schools. Both percentages were higher than the percentage of graduates from public charter schools who had completed calculus (9 percent) (*High School Mathematics and Science Course Completion*).

[46] For a high school graduate to be included in this analysis, their transcript had to meet four requirements: (1) the graduate received either a standard or honors diploma, (2) the transcript had three or more years of delineated courses, (3) the transcript contained 16 or more Carnegie credits, and (4) the transcript contained at least 1 Carnegie credit in English courses.
[47] Completion of a course means that the graduate earned credits in a course within the category. It differs from graduates who took a course but did not pass or complete it. It includes only information about the coursework that graduates completed while they were enrolled in grades 9 through 12.
[48] Also includes courses that taught both algebra II and trigonometry.

Figure 14. Status dropout rates of 16- to 24-year-olds, by race/ethnicity: Selected years, 2010 through 2021



[1] Includes respondents who wrote in some other race that was not included as an option on the questionnaire.
NOTE: Status dropouts are 16- to 24-year-olds who are not enrolled in school and who have not completed a high school program, regardless of when they left school and whether they ever attended school in the United States. People who have received equivalency credentials, such as the GED, are counted as high school completers. Data are based on sample surveys of the entire population residing within the United States, including both noninstitutionalized persons (e.g., those living in households, college housing, or military housing located within the United States) and institutionalized persons (e.g., those living in prisons, nursing facilities, or other healthcare facilities). Race categories exclude persons of Hispanic ethnicity. Estimates may differ from those in figures based on the Current Population Survey (CPS) because of differences in survey design and target populations. The 2020 data are excluded from the analyses. Due to the impact of the coronavirus pandemic on response rates and survey administration, the Census Bureau changed the 2020 American Community Survey (ACS) release status to an experimental data product, meaning that it does not meet the Census Bureau's typical quality standards. Due to limitations of comparability over time for the experimental data product, 2020 ACS data are excluded from these analyses. For more information see https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021_CensusBureau_01.pdf.
SOURCE: U.S. Department of Commerce, Census Bureau, American Community Survey (ACS), 2010 through 2021. See *Digest of Education Statistics 2022*, table 219.80.

The *status dropout rate*[49] represents the percentage of 16- to 24-year-olds who are not enrolled in school and have not earned a high school credential (either a diploma or an equivalency credential such as a GED certificate). In 2021, there were 2.0 million status dropouts between the ages of 16 and 24. The overall status dropout rate decreased from 8.3 percent in 2010 to 5.2 percent in 2021 (figure 14).[50] From 2010 to 2021, the status dropout rate declined for 16- to 24-year-olds who were

- Hispanic (from 16.7 to 7.8 percent);
- American Indian/Alaska Native (from 15.4 to 10.2 percent);
- Black (from 10.3 to 5.9 percent);
- of Two or more races (from 6.1 to 4.9 percent);
- White (from 5.3 to 4.1 percent); and
- Asian (from 2.8 to 2.1 percent).

There was no measurable difference between the status dropout rates in 2010 and 2021 for those who were Pacific Islander. Further, there were no measurable differences between the status dropout rates in 2019—the year before the coronavirus pandemic—and 2021 for any racial/ethnic group.

Overall, U.S.-born 16- to 24-year-olds[51] had a lower status dropout rate in 2021 than their foreign-born peers (4.8 vs. 10.3 percent) (*Status Dropout Rates*).

[49] In this report, status dropout rates are based on data from the American Community Survey (ACS). The ACS is an annual survey that covers a broad population, including individuals living in households, individuals living in noninstitutionalized group quarters, and individuals living in institutionalized group quarters. Noninstitutionalized group quarters include college and university housing, military quarters, facilities for workers and religious groups, and temporary shelters for the homeless. Institutionalized group quarters include adult and juvenile correctional facilities, nursing facilities, and other health care facilities.
[50] The 2020 data are excluded from trend analyses. Due to the impact of the coronavirus pandemic on response rates and survey administration, the Census Bureau changed the 2020 American Community Survey (ACS) release status to an experimental data product, meaning that it does not meet the Census Bureau's typical quality standards. Due to limitations of comparability over time for the experimental data product, 2020 ACS data are excluded from these analyses. For more information see https://www.census.gov/content/dam/Census/library/working-papers/2021/acs/2021_CensusBureau_01.pdf.
[51] U.S.-born 16- to 24-year-olds include those born in the 50 states, the District of Columbia, Puerto Rico, American Samoa, Guam, the U.S. Virgin Islands, and the Northern Mariana Islands, as well as those born abroad to U.S.-citizen parents.

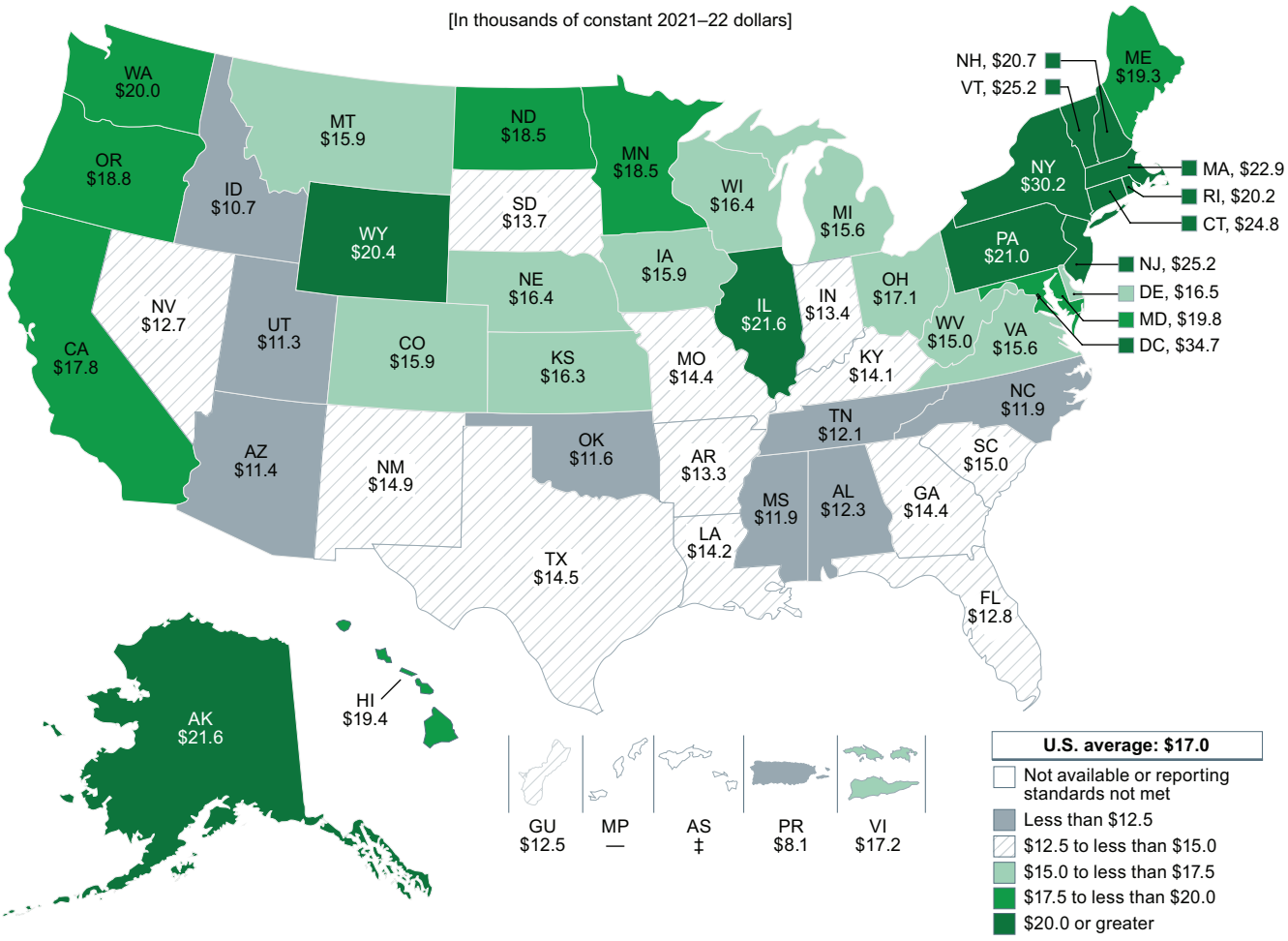
School Finances

In the 2019-20 school year, elementary and secondary public school revenues totaled $871 billion in constant 2021-22 dollars.[52] Of this total,

- 8 percent, or $66 billion, were from federal sources;[53]
- 47 percent, or $414 billion, were from state sources; and
- 45 percent, or $391 billion, were from local sources.[54]

Between 2010-11 and 2019-20, public school revenues increased by 13 percent in constant 2021-22 dollars, while public school enrollment increased by 3 percent (*Public School Revenue Sources*).

Figure 15. Total expenditures per pupil in public elementary and secondary schools, by state or jurisdiction: School year 2019–20



— Not available.
‡ Reporting standards not met.
NOTE: All 50 states and the District of Columbia are included in the U.S. average. Per pupil expenditures are calculated with fall enrollment. Expenditures are reported in constant 2021–22 dollars, based on the Consumer Price Index (CPI). Excludes prekindergarten expenditures and prekindergarten enrollment for California. Excludes expenditures for state education agencies and "other current expenditures," such as community services, private school programs, adult education, and other programs not allocable to expenditures per pupil in public schools. Categorizations are based on unrounded values.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "National Public Education Financial Survey," 2019–20. See *Digest of Education Statistics 2022*, table 236.75.

[52] Revenues and expenditures are adjusted for inflation to constant 2021-22 dollars using the Consumer Price Index (CPI). For these data, the CPI is adjusted to a school-year basis. The CPI is prepared by the Bureau of Labor Statistics, U.S. Department of Labor.

[53] Revenues from federal sources include amounts received from funds authorized by the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Due to the lag between when the funds were appropriated and when local education agencies (LEAs) recorded the amounts as revenues, the amounts reported for 2019-20 are expected to be only a small portion of the total amounts allocated to LEAs.

[54] Local revenues include revenues from such sources as local property taxes, other public revenues, and private revenues. Private revenues include tuition from individuals, transportation fees from individuals, food services (excluding federal reimbursements), district activities, textbook revenues, and summer school revenues.

Total expenditures for public elementary and secondary schools in the United States were $870 billion in 2019-20 (in constant 2021-22 dollars). This amounts to an average of $17,013 per public school pupil enrolled in the fall of that school year. In 2019-20, total expenditures per pupil were less than $12,500 in eight states and $20,000 or greater in eleven states and the District of Columbia. Total expenditures per pupil were lowest in Idaho ($10,709) and Utah ($11,311). They were highest in the District of Columbia ($34,670) and New York ($30,157).

In 2019-20, of the $17,013 spent on total expenditures per pupil nationally,

- current expenditures—which include salaries, employee benefits, purchased services, supplies, tuition, and other expenditures—accounted for $14,789 (87 percent);
- capital outlay—which includes expenditures for property, buildings, and alterations completed by school district staff or contractors—accounted for $1,760 (10 percent); and
- interest on school debt accounted for $465 (3 percent).

Average current expenditures per pupil increased by 9 percent from 2010-11 ($13,601) to 2019-20 ($14,789) in constant 2021-22 dollars. During this period, current expenditures per pupil were lowest in 2012-13 ($13,130) and then increased each year from 2012-13 to 2019-20 (figure 15) (*Public School Expenditures*).

Postsecondary Education

Key Findings From This Chapter

Between 2010 and 2021, undergraduate enrollment decreased, while enrollment in postbaccalaureate programs increased:

- The 2021 immediate college enrollment rate (62 percent) was lower than the rate in 2010 (68 percent). More specifically, the immediate college enrollment rate of students into 2-year institutions decreased from 27 to 19 percent. However, the rate into 4-year institutions in 2021 (43 percent) was not measurably different from the rate in 2010.
- Between fall 2010 and fall 2021, total undergraduate enrollment in degree-granting postsecondary institutions decreased by 15 percent (from 18.1 million to 15.4 million students). Undergraduate enrollment increased by 4 percent at 4-year institutions (from 10.4 million to 10.8 million students) and decreased by 39 percent at 2-year institutions (from 7.7 million to 4.7 million students).
- Total enrollment in postbaccalaureate programs increased by 5 percent between fall 2010 and fall 2019 (from 2.9 million to 3.1 million students) and continued to increase by another 5 percent during the pandemic (to 3.2 million students in fall 2021).

The number of degrees conferred above the certificate level has increased, and completion rates 8 years after entry were higher among full-time students than among part-time students:

- In 2020–21, postsecondary institutions conferred about 5.2 million awards, ranging from certificates below the associate's level to doctor's degrees. The number of awards conferred above the certificate level increased between 2010–11 and 2020–21, while fewer certificates were conferred in 2020–21 than in 2010–11.
- Among students who began at 4-year institutions in 2013, completion rates 8 years after entry were higher among full-time students (60 percent for both first-time students and non-first-time students) than among part-time students (35 percent for non-first-time students and 20 percent for first-time students). Completion rates at 2-year institutions were also higher for full-time than part-time students.

Of the degrees conferred by postsecondary institutions in 2020–21, science, technology, engineering, and mathematics (STEM) fields made up 8 percent of associate's degrees, 21 percent of bachelor's degrees, 17 percent of master's degrees, and 15 percent of doctor's degrees.

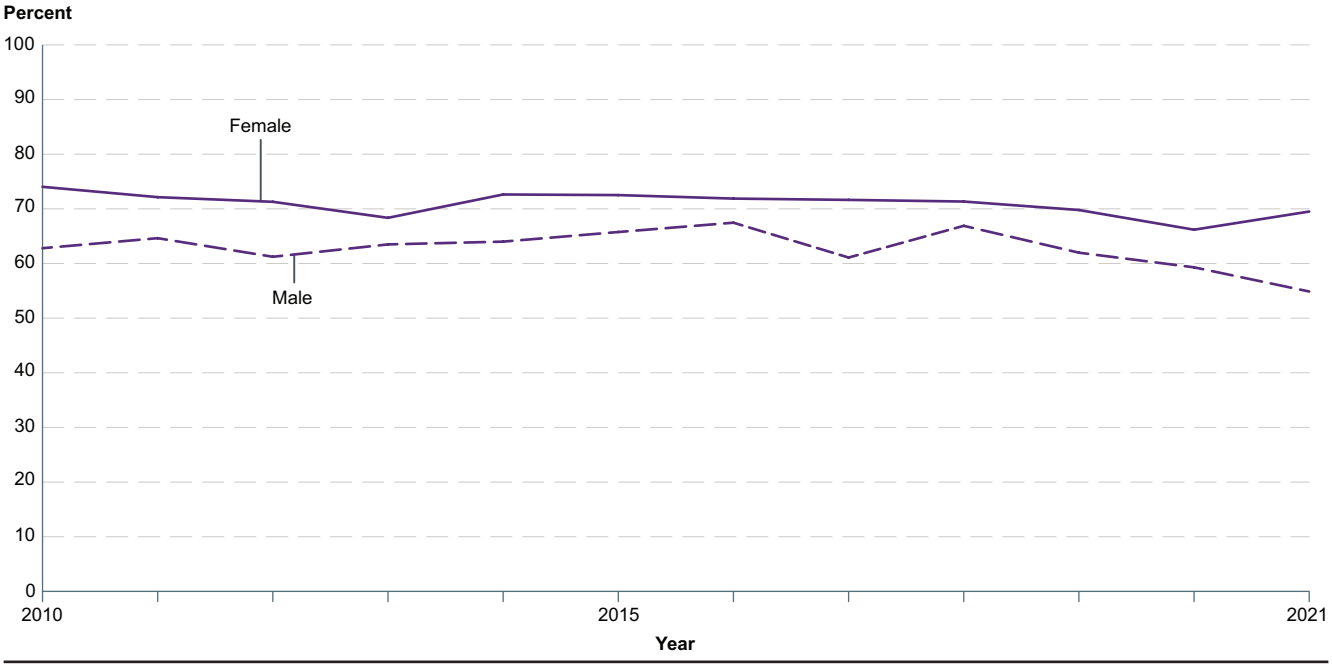
Between academic years 2010–11 and 2021–22, average annual undergraduate tuition and required fees for full-time students across all degree-granting postsecondary institutions increased by 17 percent (from $12,200 to $14,300, in constant 2021–22 dollars). Meanwhile, 38 percent of first-time, full-time degree/certificate-seeking undergraduate students overall were awarded loan aid in 2020–21, a 12 percentage point decrease from 2010–11 (50 percent).

In the United States, many students continue their education after completing compulsory schooling by pursuing postsecondary credentials. Just like preK-12 education, the condition of the postsecondary education system can be characterized by the students it serves, the contexts they learn in, the resources available to them, and the outcomes they achieve. However, because postsecondary education is not mandatory, the question of whom this system serves takes on a different nature. Accordingly, this section of the Condition of Education Indicator System begins by examining postsecondary enrollment rates and attendance status, both overall and by student characteristics. Once enrolled, postsecondary students find themselves in a variety of institutional contexts, which can be characterized by the types of degrees awarded, institutional control (public or private), and whether the private institutions are operated on a nonprofit or for-profit basis. Importantly, these different contexts offer students different resources, in terms of the programs available, the faculty and staff who teach them, and the quantity and quality of financial aid available. As additional background for understanding the provision of these resources, information is also provided on postsecondary expenditures and revenues, including tuition charged to students. Finally, the Condition of Education Indicator System provides information on several postsecondary outcomes, including persistence, degree completion, and degree fields, as well as differences in these outcomes by student and institutional characteristics.

This *Report on the Condition of Education* highlights data on postsecondary enrollments, changes in the institutional landscape, faculty characteristics, degree fields and degree completion, and student loans and repayments.

Postsecondary Enrollment

Figure 16. Immediate college enrollment rate of high school completers, by sex: 2010 through 2021



NOTE: *Immediate college enrollment rate* is defined as the annual percentage of high school completers who are enrolled in 2- or 4-year institutions in the October immediately following high school completion. High school completers include 16- to 24-year-olds who graduated with a high school diploma as well as those who completed a GED or other high school equivalency credential.
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), October Supplement, 2010 through 2021. See *Digest of Education Statistics 2022*, table 302.10.

Of the 2.7 million high school completers who graduated in the first 9 months of 2021, some 1.7 million (or 62 percent) were enrolled in college in October 2021. This annual percentage of high school completers who are enrolled in 2- or 4-year institutions within the specified time frame is known as the immediate college enrollment rate. The overall immediate college enrollment rate in 2021 was lower than the rate in 2010 (68 percent). Specifically, although the overall rate showed no consistent trend over the first two-thirds of this period (2010 to 2018), it declined over the latter third (from 2018 to 2021). Changes in the overall immediate college enrollment rate were primarily driven by the decrease in the rate for 2-year institutions (from 27 percent in 2010 to 19 percent in 2021). The rate for 4-year institutions in 2021 (43 percent) was not measurably different from the rate in 2010.

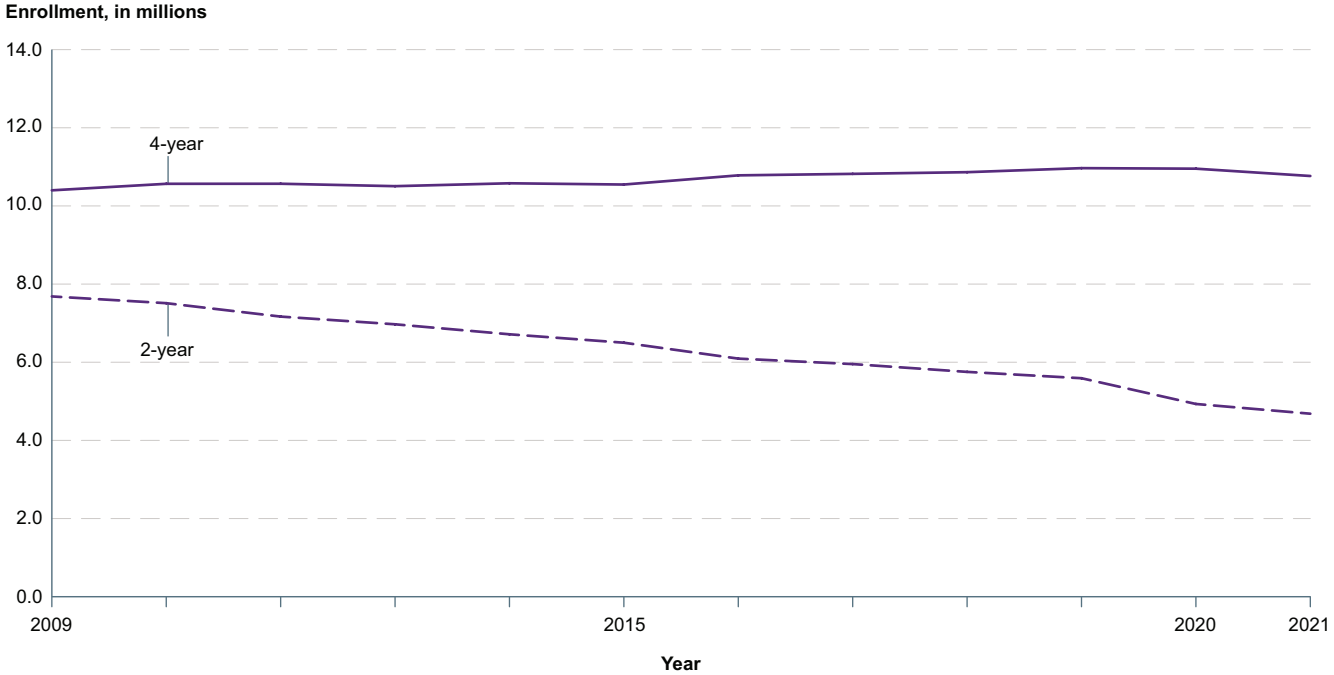
Immediate college enrollment rates differed by sex. In 2021, the overall rate for male students who immediately enrolled in college (55 percent) was lower than the rate for female students (70 percent; figure 16). This difference was driven by a lower percentage of male students than of female students who immediately enrolled in 4-year institutions (36 vs. 51 percent). The percentages of male students and female students who immediately enrolled in 2-year institutions did not measurably differ. Patterns of enrollment over time differed between male and female students. While the immediate college enrollment rate for male students was lower in 2021 than in 2010 (55 vs. 63 percent), the rates for female students in these two years were not measurably different from each other (*Immediate College Enrollment Rate*).

Between fall 2010 and fall 2021, total undergraduate enrollment in degree-granting postsecondary institutions decreased by 15 percent (from 18.1 million to 15.4 million students). During this period, undergraduate enrollment

- decreased by 1.5 million students, or 8 percent, over the 9-year period between fall 2010 and fall 2019, before the pandemic;
- decreased by 0.7 million students, or 4 percent, between fall 2019 and fall 2020, in the first year of the pandemic; and
- decreased by 0.4 million students, or 3 percent, between fall 2020 and fall 2021.

Drops in undergraduate enrollment during the coronavirus pandemic (i.e., between fall 2019 and fall 2021) accounted for 42 percent of the total decline during the period between fall 2010 and fall 2021.

Figure 17. Undergraduate enrollment in degree-granting postsecondary institutions, by level of institution: Fall 2010 through fall 2021



NOTE: Data are for the 50 states and the District of Columbia. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Spring 2011 through Spring 2022, Fall Enrollment component. See *Digest of Education Statistics 2021*, table 303.70.

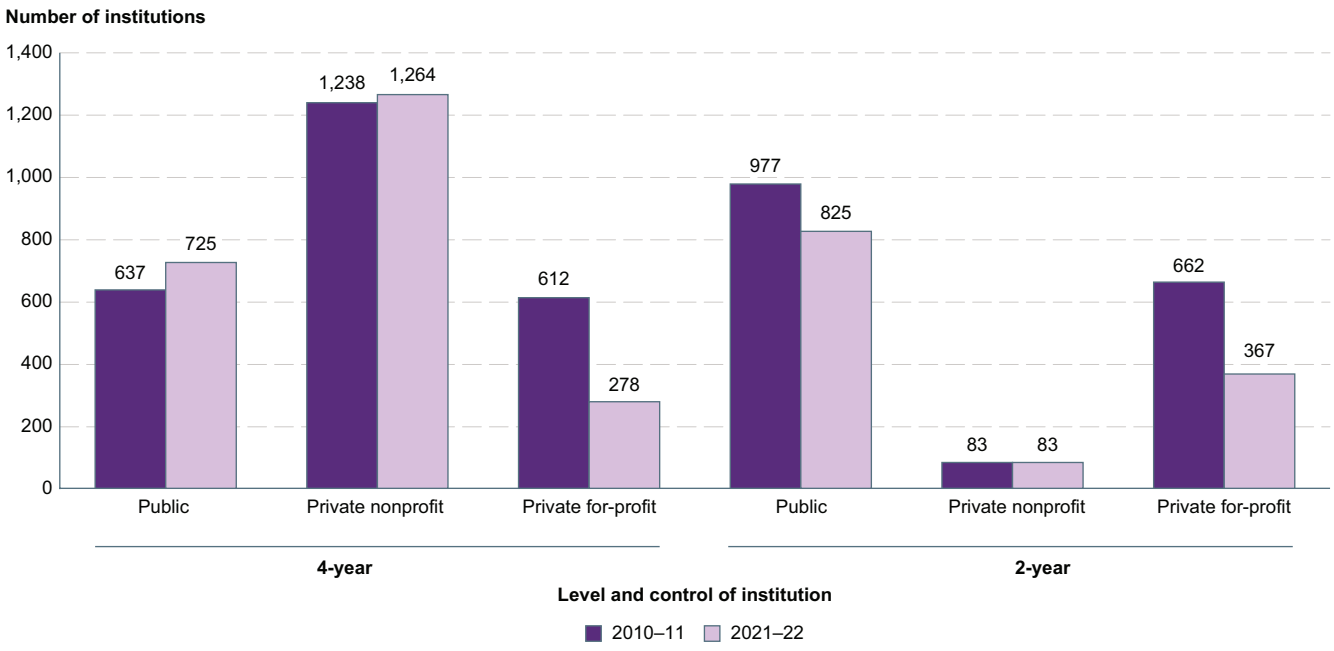
In fall 2021, some 70 percent (10.8 million students) of the total undergraduate population was enrolled at 4-year institutions; the remaining 30 percent (4.7 million students) was enrolled in 2-year institutions. Between fall 2010 and fall 2021, enrollment increased by 4 percent at 4-year institutions (from 10.4 million to 10.8 million students) and decreased by 39 percent at 2-year institutions (from 7.7 million to 4.7 million students) (figure 17). Among first-time, full-time undergraduate students who were enrolled in fall 2020, the retention rate[55] in fall 2021 was higher at 4-year than at 2-year degree-granting institutions (81 vs. 61 percent) (*Undergraduate Enrollment*).

Between fall 2010 and fall 2021, full-time undergraduate enrollment decreased by 17 percent (from 11.5 million to 9.5 million students) and part-time undergraduate enrollment decreased by 10 percent (from 6.6 million to 5.9 million students). In contrast, total enrollment in postbaccalaureate programs (such as master's and doctoral programs[56]) increased by 5 percent between fall 2010 and fall 2019 (from 2.9 million to 3.1 million students) and continued to increase by another 5 percent during the pandemic (to 3.2 million students in fall 2021) (*Undergraduate Enrollment*; *Postbaccalaureate Enrollment*).

Postsecondary Institutions

In academic year 2021-22, there were 3,542 degree-granting postsecondary institutions in the United States with first-year undergraduates: 2,267 were 4-year institutions offering at least one program at the bachelor's or higher degree level and 1,275 were 2-year institutions offering associate's degrees and other certificates.

Figure 18. Number of degree-granting postsecondary institutions with first-year undergraduates, by level and control of institution: Academic years 2010–11 and 2021–22



NOTE: Data in this table represent the 50 states and the District of Columbia. Degree-granting institutions grant associate's or higher degrees and participate in Title IV federal financial aid programs. Excludes institutions not enrolling any first-time degree/certificate-seeking undergraduates.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2010, Institutional Characteristics component; and Winter 2021–22, Admissions component. See *Digest of Education Statistics 2022*, table 305.30.

[55] Retention rates measure the percentage of first-time undergraduate students who return to the same institution the following fall. Among the 2 million first-time, full-time degree-seeking undergraduate students who entered degree-granting institutions in fall 2020 (about 12 percent of all undergraduate students), the overall retention rate in fall 2021 was 76 percent.

[56] Doctoral programs include programs formerly referred to as "first professional" programs, such as law degrees (J.D.) and medical (M.D.) or dental (D.D.S.) degrees.

By institutional control, the number of 4-year institutions in 2021-22 compared to the number in 2010-11 was

- 14 percent higher for public institutions (725 vs. 637 institutions), with the number increasing throughout the period;
- 2 percent higher for private nonprofit institutions (1,264 vs. 1,238 institutions), although there was no consistent trend in the number of institutions throughout the period; and
- 55 percent lower for private for-profit institutions (278 vs. 612 institutions), with the number declining after a peak in 2012-13 (710 institutions).

By institutional control, the number of 2-year institutions in 2021-22 compared to the number in 2010-11 was

- 16 percent lower for public institutions (825 vs. 977 institutions), with the number decreasing throughout the period;
- the same for private nonprofit institutions (83 institutions), with the number decreasing after a peak of 102 institutions in 2015-16; and
- 45 percent lower for private for-profit institutions (367 vs. 662 institutions), with the number decreasing throughout the period (*Characteristics of Degree-Granting Postsecondary Institutions*).

Faculty and Staff

In fall 2021, of the 1.5 million faculty[57] at degree-granting postsecondary institutions, 56 percent were full-time and 44 percent were part-time. Between fall 2009 and fall 2021, the number of full-time faculty increased by 15 percent (from 729,200 to 837,100). In contrast, the number of part-time faculty decreased by 7 percent (from 709,900 to 662,100).

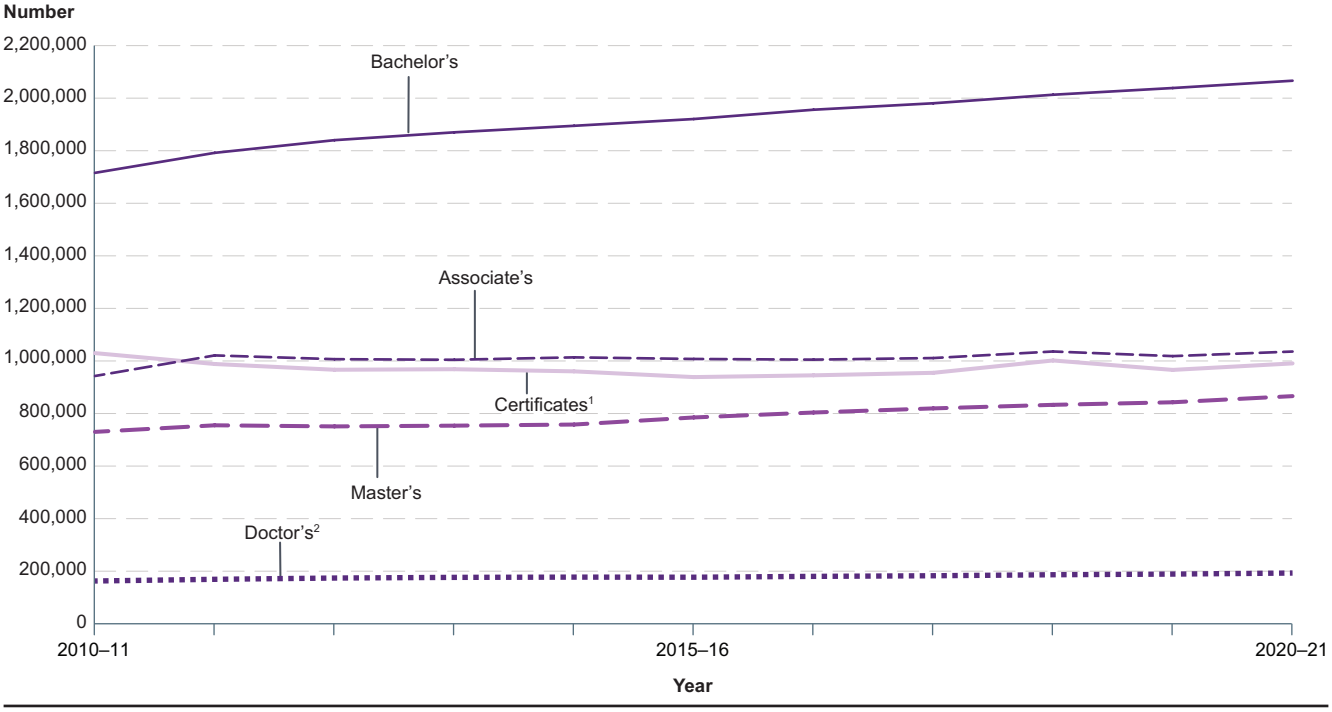
In fall 2021, of all full-time faculty at degree-granting postsecondary institutions,

- 73 percent were White;
- 12 percent were Asian;
- 6 percent were Black;
- 6 percent were Hispanic;
- 1 percent were of Two or more races;
- less than one-half of 1 percent were American Indian/Alaska Native; and
- less than one-half of 1 percent were Pacific Islander[58] (*Characteristics of Postsecondary Faculty*).

[57] Faculty include professors, associate professors, assistant professors, instructors, lecturers, assisting professors, adjunct professors, and interim professors.
[58] Percentages are based on full-time faculty whose race/ethnicity was known. Race/ethnicity was not collected for U.S. nonresident faculty. Detail may not sum to totals because of rounding.

Completions and Graduation Rates

Figure 19. Number of certificates and degrees conferred by postsecondary institutions, by award level: Academic years 2010–11 through 2020–21



[1] Data are for certificates below the associate's degree level.
[2] Includes Ph.D., Ed.D., and comparable degrees at the doctoral level. Includes most degrees formerly classified as first-professional, such as M.D., D.D.S., and law degrees.
NOTE: Data in this table represent the 50 states and the District of Columbia. Data are for postsecondary institutions participating in Title IV federal financial aid programs. Degree counts are limited to degree-granting institutions; certificate counts include both degree- and non-degree-granting institutions. Some data have been revised from previously published figures.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Fall 2011 through Fall 2021, Completions component. See *Digest of Education Statistics 2022*, table 318.40.

In 2020-21, postsecondary institutions conferred 5.2 million awards, ranging from certificates below the associate's level to doctor's degrees. The number of awards conferred above the certificate level increased between 2010-11 and 2020-21 for

- associate's degrees, by 10 percent (from 943,500 to 1.0 million);
- bachelor's degrees, by 20 percent (from 1.7 million to 2.1 million);
- master's degrees, by 19 percent (from 730,900 to 866,900); and
- doctor's degrees, by 18 percent (from 163,800 to 194,100).

Meanwhile, fewer certificates were conferred in 2020-21 (991,400) than in 2010-11 (1.0 million), although there was no consistent trend throughout the period (figure 19) (*Postsecondary Certificates and Degrees Conferred*).

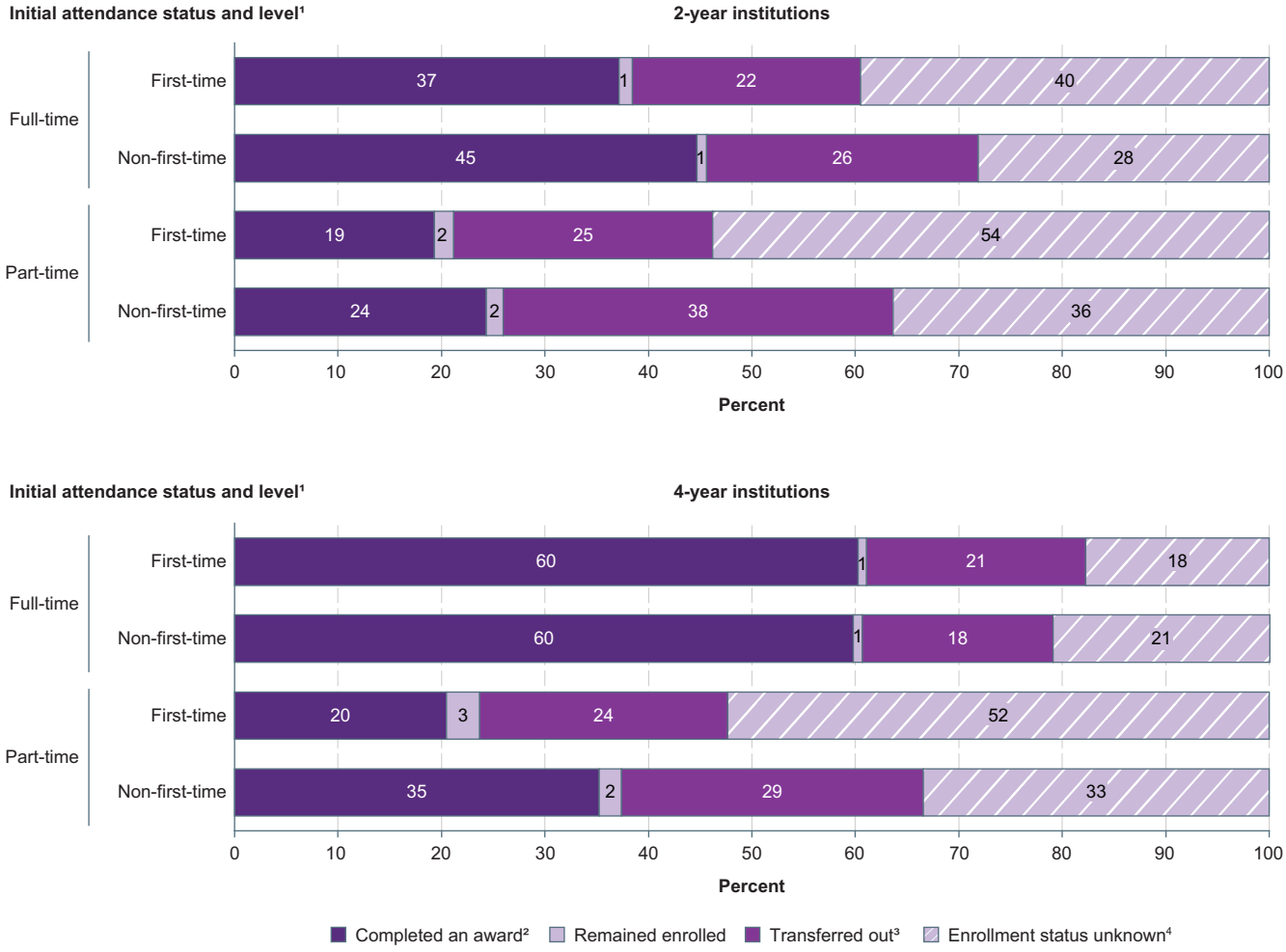
In 2020-21, some of the most common degree fields included

- business,[59] which accounted for 11 percent of associate's, 19 percent of bachelor's, and 23 percent of master's degrees conferred;
- health professions and related programs, which accounted for 17 percent of associate's, 13 percent of bachelor's, 16 percent of master's, and 44 percent of doctor's degrees conferred; and
- education, which accounted for 18 percent of master's and 7 percent of doctor's degrees conferred.

Additionally, in 2020-21, STEM[60] fields made up 8 percent of associate's degrees, 21 percent of bachelor's degrees, 17 percent of master's degrees, and 15 percent of doctor's degrees conferred (*Undergraduate Degree Fields*; *Graduate Degree Fields*).

[59] "Business" is defined as business, management, marketing, and related support services, as well as culinary, entertainment, and personal services.
[60] Science, technology, engineering, and mathematics (STEM) fields include biological and biomedical sciences, computer and information sciences, engineering and engineering technologies, mathematics and statistics, and physical sciences and science technologies.

Figure 20. Percentage distribution of students' postsecondary outcomes 8 years after beginning at 2- and 4-year institutions in 2013, by initial attendance status and level: 2021



[1] Initial attendance status (full-time or part-time student) and attendance level (first-time or non-first-time student) are based on the first full term (i.e., semester or quarter) after the student entered the institution. First-time students are those who had never attended a postsecondary institution prior to their 2013–14 entry into the reporting institution.
[2] Awards include certificates, associate's degrees, and bachelor's degrees. Includes only those awards that were conferred by the reporting institution (i.e., the institution that the student entered in 2013–14); excludes awards conferred by institutions to which the student later transferred.
[3] Transfer out data are required to be reported only by those institutions for which preparation for transfers is a substantial part of the institutional mission. The actual transfer rate (including students who transferred, but did not notify their initial institution) may be higher.
[4] Includes students who dropped out of the reporting institution and students who transferred to another institution without notifying the reporting institution.
NOTE: Data in this table represent the 50 states and the District of Columbia. Data are for degree-granting institutions, which grant associate's or higher degrees and participate in Title IV federal financial aid programs. The 2013 entry cohort includes all degree/certificate-seeking undergraduate students who entered a degree-granting institution between July 1, 2013, and June 30, 2014. Student enrollment status and completion status are determined as of August 31 of the year indicated; for example, within 8 years after the student's 2013–14 entry into the reporting institution means by August 31, 2021. The adjusted cohort excludes students who died or were totally and permanently disabled as well as students who left school to serve in the armed forces (including those called to active duty), to serve with a foreign aid service of the federal government (e.g., the Peace Corps), or to serve on official church missions. Although rounded numbers are displayed, the figures are based on unrounded data. Detail may not sum to totals because of rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System (IPEDS), Winter 2020–21, Outcome Measures component; and IPEDS Fall 2013, Institutional Characteristics component. See *Digest of Education Statistics 2022*, table 326.27.

Data on postsecondary outcomes are collected for four undergraduate student groups, including those who are considered "traditional" undergraduate students and those who do not fit the profile of a "traditional" undergraduate student:

- first-time, full-time students;
- first-time, part-time students;
- non-first-time,[61] full-time students; and
- non-first-time, part-time students.

Among students who began at 2-year institutions in 2013,

- completion rates[62] 8 years after entry were higher among full-time students (45 percent for non-first-time students and 37 percent for first-time students) than among part-time students (24 percent for non-first-time students and 19 percent for first-time students; figure 20); and
- transfer rates[63] 8 years after entry were higher among non-first-time students (38 percent for part-time students and 26 percent for full-time students) than among first-time students (25 percent for part-time students and 22 percent for full-time students).

Among students who began at 4-year institutions in 2013,

- completion rates 8 years after entry were higher among full-time students (60 percent each for first-time students and non-first-time students) than among part-time students (35 percent for non-first-time students and 20 percent for first-time students); and
- transfer rates 8 years after entry were higher among part-time students (29 percent for non-first-time students and 24 percent for first-time students) than among full-time students (21 percent for first-time students and 18 percent for non-first-time students) (*Postsecondary Outcomes for Nontraditional Undergraduate Students*).

Finances and Resources

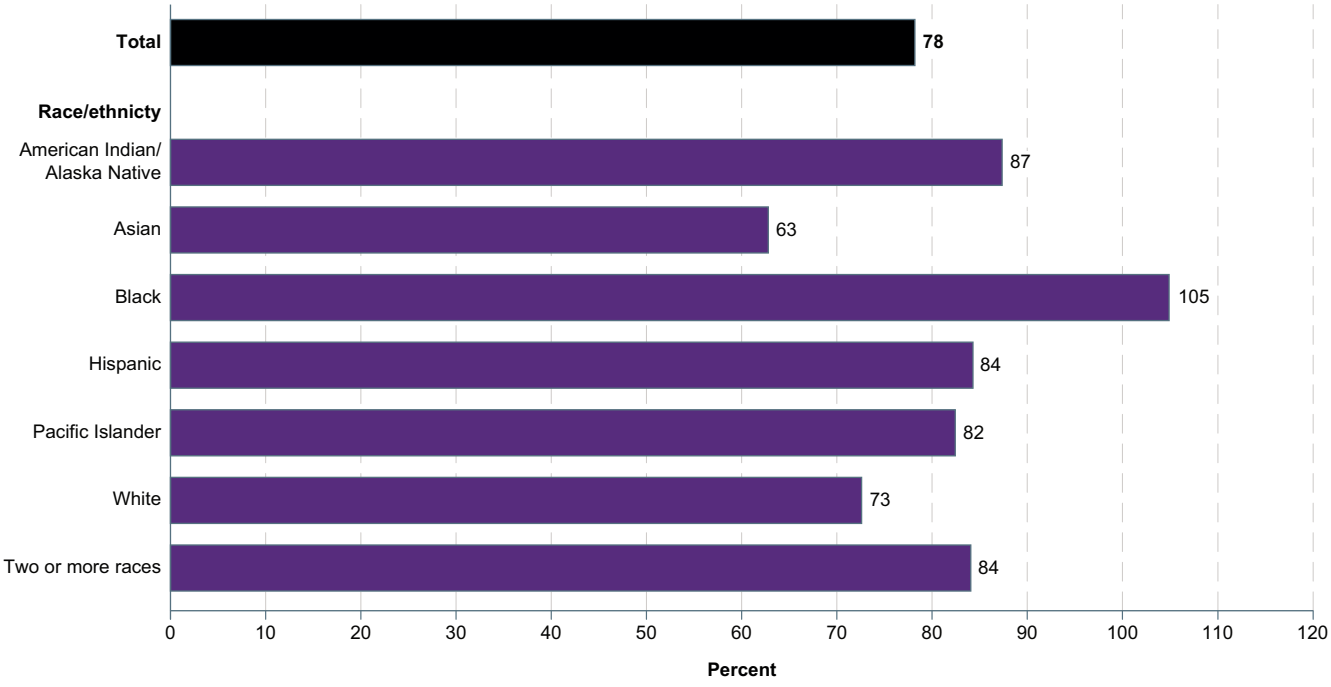
Between academic years 2010–11 and 2021–22, average annual undergraduate tuition and required fees for full-time students across all degree-granting postsecondary institutions increased by 17 percent (from $12,200 to $14,300, in constant 2021–22 dollars). Meanwhile, 38 percent of first-time, full-time degree/certificate-seeking undergraduate students overall were awarded loan aid in 2020–21, a 12 percentage point decrease from 2010–11 (50 percent).[64] Between 2010–11 and 2020–21, the average annual student loan amount for these students decreased by 8 percent, from $8,400 to $7,700 (in constant 2021–22 dollars).

In addition to examining annual student loans, it is important to understand the amount of student loans received over the entire course of a degree or certificate. For those who completed a bachelor's degree in 2015–16, these cumulative loan data are available specifically for federal loans.[65] For bachelor's degree completers who had ever received federal student loans, the average amount borrowed as of 2020 was $45,300. The average amount borrowed varied by race/ethnicity. Among bachelor's degree recipients who had ever received federal student loans,

- Black students borrowed an average of $58,400, which was higher than the average amount borrowed by those who were Asian ($49,100), of Two or more races ($43,400), White ($43,300), Hispanic ($41,700), or American Indian/Alaska Native ($36,900); and
- the average amount borrowed by Asian students was higher than the average amount borrowed by those who were Hispanic or American Indian/Alaska Native.

[61] Refers to students who had prior experience at a different postsecondary institution before attending the reporting institution.
[62] The completion rate 8 years after 2013 entry is defined as the percentage of the 2013 cohort that completed an award at their 2013 entry institution at any time between 2013 and 2021. At 2-year institutions, the overall completion rate includes completion of less than an associate's degree and associate's degree or higher. At 4-year institutions, the overall completion rate includes completion of less than a bachelor's degree and bachelor's degree or higher.
[63] "Transfer rate" for the 2013 entering cohort refers to the percentage of students who were known transfers (i.e., those who notified their 2013 entry institution of their transfer) within 8 years. The actual transfer rate (including students who transferred but did not notify their initial institution) may be higher.
[64] Includes only loans made directly to students. Does not include Parent PLUS Loans or other loans made directly to parents.
[65] Federal student loan and repayment data for those who completed a bachelor's degree in 2015–16 are from the Baccalaureate and Beyond Longitudinal Study (B&B), which may not be comparable to data included in the previous paragraph. B&B incorporates data from institutional records, the National Student Loan Data System, and student-reported information, while the previous paragraph relies only on institutional records. In addition, the B&B data presented are limited to federal loans.

Figure 21. Among federal student loan borrowers, average amount owed as a percentage of amount borrowed as of 4 years after 2015–16 bachelor's degree completion, by race/ethnicity: 2020



NOTE: Estimates pertain to individuals who completed the requirements for a bachelor's degree in 2015–16 and were awarded their degree by a Title IV eligible postsecondary institution in the 50 states, the District of Columbia, or Puerto Rico no later than June 30, 2017. Federal student loans include subsidized and unsubsidized Direct Loans (formerly called Stafford Loans), excluding Direct Unsubsidized Loans to students who received a TEACH Grant and failed to fulfill the service obligation; Perkins Loans; and Graduate PLUS Loans. Excludes Parent PLUS Loans. Respondents may owe more on their federal student loans than originally borrowed due to accumulating loan interest; thus, the amount owed may be greater than 100 percent of the amount borrowed. The amount borrowed represents cumulative amount borrowed in federal student loans for undergraduate and graduate education as of 4 years after completion of the respondent's 2015–16 bachelor's degree. Although rounded numbers are displayed, the figures are based on unrounded data.
SOURCE: U.S. Department of Education, National Center for Education Statistics, 2016/20 Baccalaureate and Beyond Longitudinal Study (B&B:16/20).

Among federal student loan borrowers who completed a bachelor's degree in 2015-16, the average amount owed as a percentage of amount borrowed as of 4 years later (2020) was 78 percent. This percentage was lower for those who were Asian (63 percent) and higher for those who were Black (105 percent) compared with most other racial/ethnic groups (figure 21). Black bachelor's completers were the only racial/ethnic group whose average amount owed as a percentage of amount borrowed was greater than 100 percent after 4 years—that is, on average, Black bachelor's completers owed more 4 years later than the amount they had originally borrowed (*Loans for Undergraduate Students and Debt for Bachelor's Degree Recipients*).

In 2020-21, total revenues at degree-granting postsecondary institutions in the United States were $993 billion (in constant 2021-22 dollars). Total revenues were

- $539 billion at public institutions,
- $438 billion at private nonprofit institutions, and
- $16 billion at private for-profit institutions.

The primary sources of revenue for degree-granting postsecondary institutions in 2020–21 were tuition and fees; investments;[66] government grants, contracts, and appropriations; and auxiliary enterprises.[67] At each type of institutional control (i.e., public, private nonprofit, or private for-profit), the revenue source that made up the largest share of total revenues varied:

- At public institutions, 40 percent of revenues came from government sources (including federal, state, and local government[68] grants, contracts, and appropriations).
- At private nonprofit institutions, 46 percent of revenues came from investments (reflecting an increase of 36 percentage points compared with 2019–20).
- At private for-profit institutions, 93 percent of revenues came from student tuition and fees (*Postsecondary Institution Revenues*).

In 2020–21, degree-granting postsecondary institutions in the United States spent $702 billion (in constant 2021-22 dollars). Total expenses were

- $450 billion at public institutions,
- $239 billion at private nonprofit institutions, and
- $14 billion at private for-profit institutions.

In 2020–21, instruction expenses[69] per full-time-equivalent (FTE) student was the largest expense category at public institutions ($12,087, or 27 percent of total expenses). The combined category of academic support, student services, and institutional support expenses[70] was the largest category of expenses per FTE student at private for-profit institutions ($11,072, or 65 percent of total expenses) and at private nonprofit institutions ($20,377, or 30 percent of total expenses) (*Postsecondary Institution Expenses*).

[66] Investments/investment returns are aggregate amounts of dividends, interest, royalties, rent, and gains or losses from both fair-value adjustments and trades of institutions' investments and/or endowments.
[67] Auxiliary enterprises, such as residence halls and food services, are essentially self-supporting operations of institutions that furnish a service to students, faculty, or staff.
[68] Private grants and contracts are included in local government revenues at public institutions.
[69] "Instruction" includes expenses related to colleges, schools, departments, and other instructional divisions of the institution and expenses for departmental research and public service that are not separately budgeted. It also includes expenses for both credit and noncredit activities and excludes expenses for academic administration where the primary function is administration.
[70] "Academic support" includes activities and services that support the institution's primary mission of instruction, research, and public service. "Student services" includes admissions, registrar activities, and activities for which the primary purpose is to contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Intercollegiate athletics and student health services may also be included except when operated as self-supporting auxiliary enterprises. "Institutional support" includes expenses for the day-to-day operational support of the institution.

Population Characteristics and Economic Outcomes

Key Findings From This Chapter

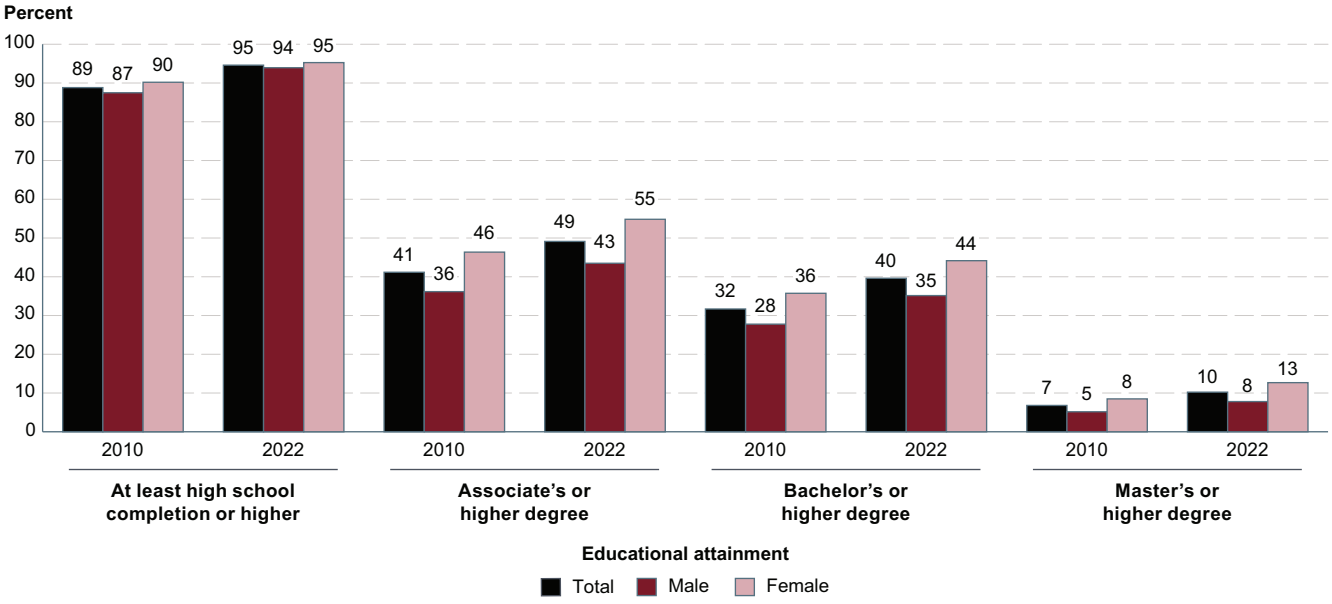
Educational attainment rates have increased over time. Higher levels of educational attainment are associated with higher employment rates and higher median earnings:

- Between 2010 and 2022, educational attainment rates among 25- to 29-year-olds increased at different levels of attainment. In general, educational attainment rates increased for both male and female 25- to 29-year-olds as well as for most racial/ethnic groups. However, attainment gaps between some groups persisted in 2022.
- In March 2022, the employment rate of 25- to 34-year-olds was higher for those with higher levels of educational attainment.
- At all levels of educational attainment, the employment rate for 25- to 34-year-olds in March 2022 was higher than the rate in March 2021.
- For 25- to 34-year-olds who worked full time, year round, higher educational attainment was also associated with higher median earnings. This pattern was consistent for each year from 2010 through 2021.

This section of the Condition of Education Indicator System begins with a report of educational attainment in the United States. The remainder of indicators in this section of the Condition of Education Indicator System examine further the relationship between educational attainment and labor force outcomes, such as employment rates and median earnings, with selected findings highlighted below.

Educational Attainment of Young Adults

Figure 22. Percentage of 25- to 29-year-olds, by educational attainment and sex: 2010 and 2022



NOTE: Data were collected in March of each year and are based on sample surveys of the noninstitutionalized population, which excludes persons living in institutions (e.g., prisons or nursing facilities); data include military personnel who live in households with civilians but exclude those who live in military barracks. High school completion includes those who graduated from high school with a diploma as well as those who completed high school through equivalency programs, such as a GED program. Although rounded numbers are displayed, the figures are based on unrounded data.
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement, 2010 and 2022. See *Digest of Education Statistics 2022*, table 104.20.

Between 2010 and 2022, educational attainment rates among 25- to 29-year-olds increased at different levels of attainment. During this period, the percentage

- who had completed at least high school[71] increased from 89 to 95 percent,
- with an associate's or higher degree increased from 41 to 49 percent,
- with a bachelor's or higher degree increased from 32 to 40 percent, and
- with a master's or higher degree increased from 7 to 10 percent (figure 22).

In general, educational attainment rates during this time period increased for both male and female 25- to 29-year-olds as well as for those of most racial/ethnic groups. For example, between 2010 and 2022, the percentages who had completed at least high school increased for those who were

- White (from 95 to 97 percent);
- Asian (from 94 to 99 percent);
- Black (from 90 to 95 percent); and
- Hispanic (from 69 to 88 percent).

Similarly, the percentages of 25- to 29-year-olds who had attained a bachelor's or higher degree increased from 2010 to 2022 for those who were

- White (from 39 to 45 percent);
- Black (from 19 to 28 percent);
- Hispanic (from 13 to 25 percent); and
- Asian (from 56 to 72 percent).

Despite these increases in educational attainment rates, attainment gaps between some groups persisted in 2022. However, between 2010 and 2022, some of the attainment gaps by race/ethnicity did narrow, including the White-Black, Asian-Hispanic, and White-Hispanic high school completion gaps and the White-Hispanic gap in the percentage of those who had attained a bachelor's or higher degree (*Educational Attainment of Young Adults*).

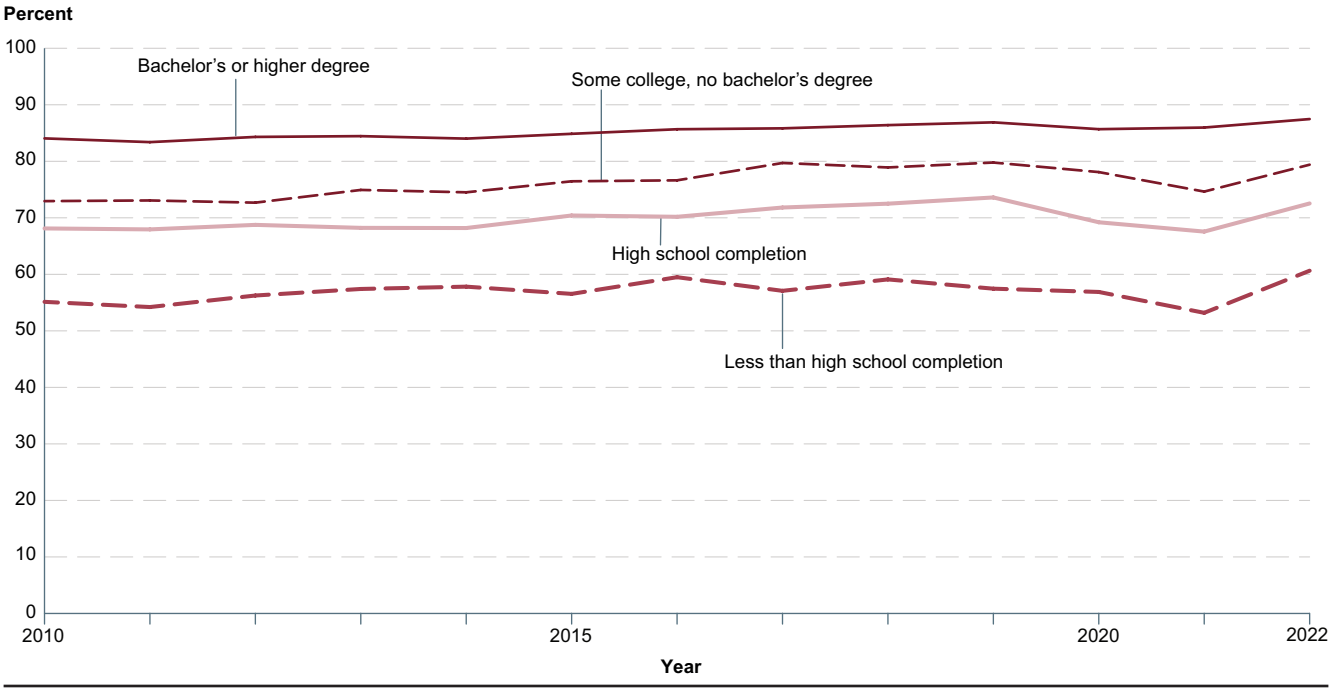
Economic Outcomes

The *employment rate* (also known as the employment-to-population ratio) is the percentage of persons in the civilian noninstitutionalized population who are employed.[72] In March 2022, roughly 2 years into the coronavirus pandemic, the employment rate of 25- to 34-year-olds was higher for those with higher levels of educational attainment. For example, the employment rate ranged from 61 percent for those who had not completed high school to 87 percent for those with a bachelor's or higher degree.

[71] High school completion includes those who graduated from high school with a diploma as well as those who completed high school through equivalency programs, such as a GED program.

[72] The civilian noninstitutionalized population excludes persons living in institutions (e.g., prisons or nursing facilities) and all military personnel.

Figure 23. Employment rates of 25- to 34-year-olds, by educational attainment: 2010 through 2022



NOTE: Data are based on sample surveys of the civilian noninstitutionalized population, which excludes persons living in institutions (e.g., prisons or nursing facilities) and all military personnel. The employment rate, or employment-to-population ratio, is the number of persons in each group who are employed as a percentage of the civilian noninstitutionalized population in that group. "Some college, no bachelor's degree" includes persons with an associate's degree. "High school completion" includes equivalency credentials, such as the GED. Caution should be used when comparing 2020, 2021, and 2022 estimates with those of prior years due to the impact that the coronavirus pandemic had on interviewing and response rates. For additional information about the impact of the coronavirus pandemic on the Current Population Survey data collection, please see https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar22.pdf.
SOURCE: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), Annual Social and Economic Supplement, 2010 through 2022. See *Digest of Education Statistics 2015*, *2018*, *2019*, *2020*, *2021*, and *2022*, table 501.50.

Recent trends in employment rates have been shaped by the recovery from the 2008 recession[73] and the coronavirus pandemic. During the pandemic–from 2020 to 2022–overall employment for 25- to 34-year-olds, measured in March of each year, was lowest in 2021 (76 percent; figure 23).[74] At all levels of educational attainment, the employment rate for 25- to 34-year-olds in 2022 was higher than the rate in 2021. With this rebound from 2021 to 2022, the 2022 employment rates for 25- to 34-year-olds at all levels of educational attainment were not measurably different from the rates in 2019, the year immediately before the pandemic. For example, among 25- to 34-year-olds whose highest level of educational attainment was high school completion, employment rates were 74 percent in 2019, then 68 percent in 2021, and then 73 percent in 2022 (*Employment and Unemployment Rates by Educational Attainment*).

For 25- to 34-year-olds who worked full time, year round (i.e., worked 35 or more hours per week for 50 or more weeks per year), higher educational attainment was also associated with higher median earnings. This pattern was consistent for each year from 2010 through 2021 (in constant 2021 dollars). For example, in 2021, the median earnings of

- master's or higher degree completers ($74,600) were 21 percent higher than the median earnings of bachelor's degree completers ($61,600);
- bachelor's degree completers were 37 percent higher than the median earnings of associate's degree completers ($45,000);
- associate's degree completers were 13 percent higher than the median earnings of high school completers[75] ($39,700); and
- high school completers were 22 percent higher than the median earnings of those who did not complete high school ($32,500) (*Annual Earnings by Educational Attainment*).

[73] National Bureau of Economic Research. (2021). U.S. Business Cycle Expansions and Contractions. Retrieved November 17, 2022, from https://www.nber.org/research/data/us-business-cycle-expansions-and-contractions.
[74] Caution should be used when comparing 2020, 2021, and 2022 estimates with those of prior years due to the impact that the coronavirus pandemic had on interviewing and response rates. For additional information about the impact of the coronavirus pandemic on the Current Population Survey data collection, please see https://www2.census.gov/programs-surveys/cps/techdocs/cpsmar22.pdf.
[75] Refers to those with a high school diploma or an equivalency credential such as a GED.

International Comparisons

Key Findings From This Chapter

The United States scored in the top 25 percent of participating education systems in both mathematics and science at both the 4th- and 8th-grade levels, in the 2019 Trends in International Mathematics and Science Study (TIMSS).

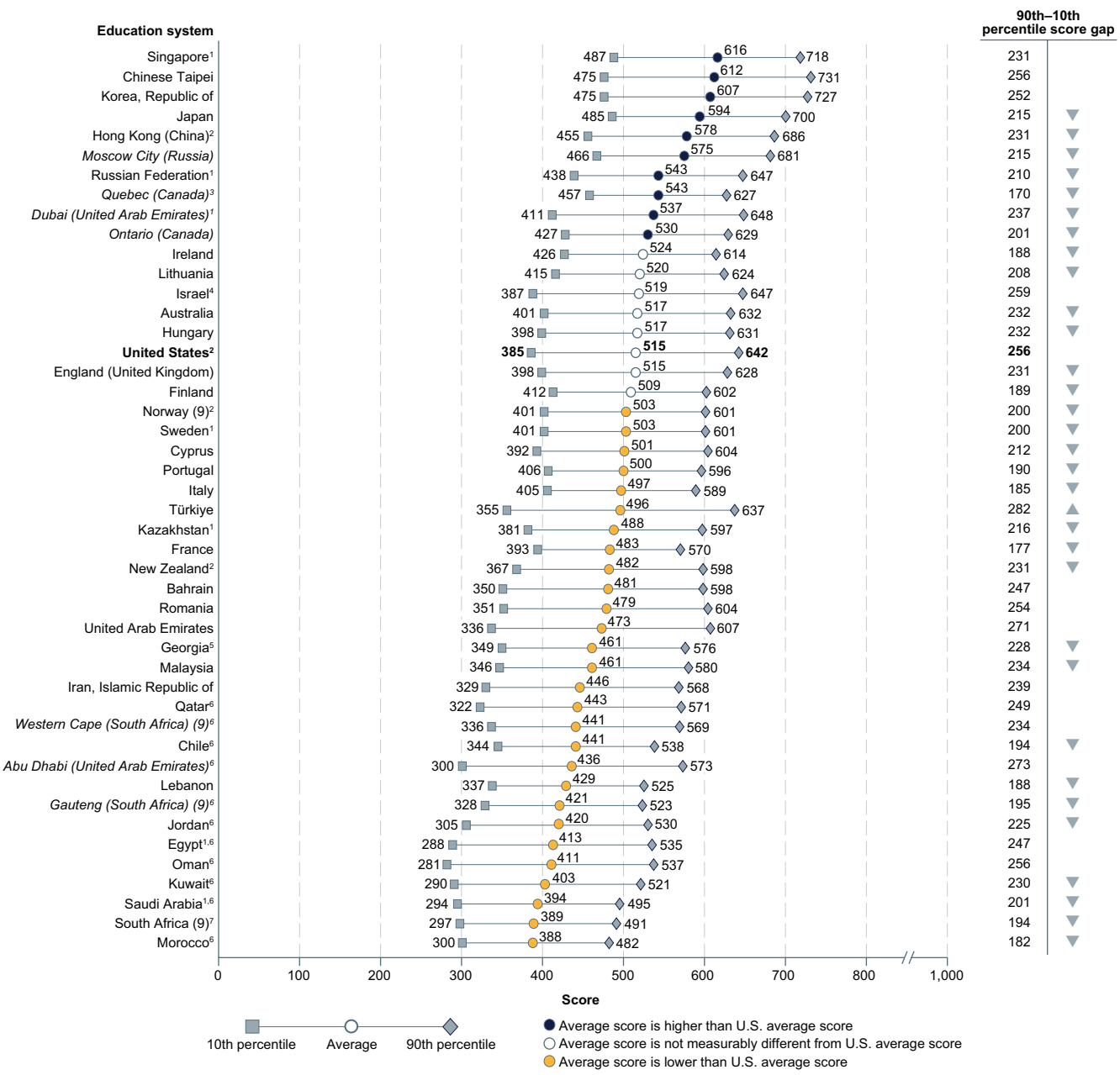
With 92 percent of 25- to 64-year-olds having completed a high school degree, the United States was among the top 6 out of 36 countries in 2021 reporting data on high school completion rates to the Organization for Economic Cooperation and Development.

Another way to assess the condition of education in the United States is to benchmark the performance of students in the United States against that of students in peer countries on key indicators. The indicators in this section of the Condition of Education Indicator System compare the U.S. education system to the education systems in other countries with respect to enrollment rates, student performance on international assessments, education expenditures, and educational attainment. This *Report on the Condition of Education* highlights key findings on international assessments and attainment.

Assessments

The Trends in International Mathematics and Science Study (TIMSS) is an international comparative study that has measured trends in mathematics and science achievement at 4th and 8th grade every 4 years since 1995. In 2019, TIMSS mathematics and science data were collected by 64 education systems at 4th grade and 46 education systems at 8th grade.

Figure 24. Average scores and 10th and 90th percentile scores of 8th-grade students on the TIMSS mathematics scale and percentile score gaps, by education system: 2019



▲ 90th to 10th percentile score gap is higher than the U.S. score gap.
▼ 90th to 10th percentile score gap is lower than the U.S. score gap.
[1] National Defined Population covers 90 to 95 percent of the National Target Population, as defined by Trends in International Mathematics and Science Study (TIMSS).
[2] Met guidelines for sample participation rates only after replacement schools were included.
[3] Nearly satisfied guidelines for sample participation rates after replacement schools were included.
[4] National Defined Population covers less than 90 percent of the National Target Population (but at least 77 percent), as defined by TIMSS.
[5] National Target Population does not include all of the International Target Population, as defined by TIMSS.
[6] Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 15 percent but does not exceed 25 percent.
[7] Reservations about reliability because the percentage of students with achievement too low for estimation exceeds 25 percent.
NOTE: In addition to average scores, this figure shows the scores for the (a) 10th percentile—the bottom 10 percent of students; and (b) 90th percentile—the top 10 percent of students. The percentile ranges are specific to each education system's distribution of scores, enabling users to compare scores across education systems. Education systems are ordered by average score. Education systems that are not countries are designated by their country in parentheses. Benchmarking participants are indicated with italics. For education systems with a "(9)" after their name, 9 indicates the years of formal schooling; these education systems chose to administer TIMSS at a different grade than other education systems (8 years of formal schooling). The TIMSS scale centerpoint is set at 500 and represents the mean of the overall achievement distribution in 1995. The standard deviation is set to 100. The TIMSS scale is the same in each administration (0 to 1,000 points); thus, a value of 500 in 2019 equals 500 in 1995. Although rounded numbers are displayed, data shown are based on unrounded estimates.
SOURCE: International Association for the Evaluation of Educational Achievement (IEA), Trends in International Mathematics and Science Study (TIMSS), 2019. See *TIMSS 2019 U.S. Highlights Web Report*, table M2b.

In 2019, at grade 8, both the U.S. average mathematics score (515) and the U.S. average science score (522) were higher than the TIMSS scale centerpoint (500 for both assessments).[76] In mathematics, 10 education systems had higher average mathematics scores than the United States, 7 had scores that were not measurably different, and 28 education systems had lower average scores (figure 24). In science, 10 education systems had higher average science scores than the United States, 9 had scores that were not measurably different, and 26 education systems had lower average scores (*International Comparisons: Mathematics and Science Achievement at Grades 4 and 8*).

Attainment

The Organization for Economic Cooperation and Development (OECD) is a group of 38 countries (as of 2021) whose purpose is to promote trade and economic growth. The OECD also collects and publishes an array of data on its member countries. This report uses OECD data to compare educational attainment across countries using two measures: high school completion and attainment of any postsecondary degree.[77]

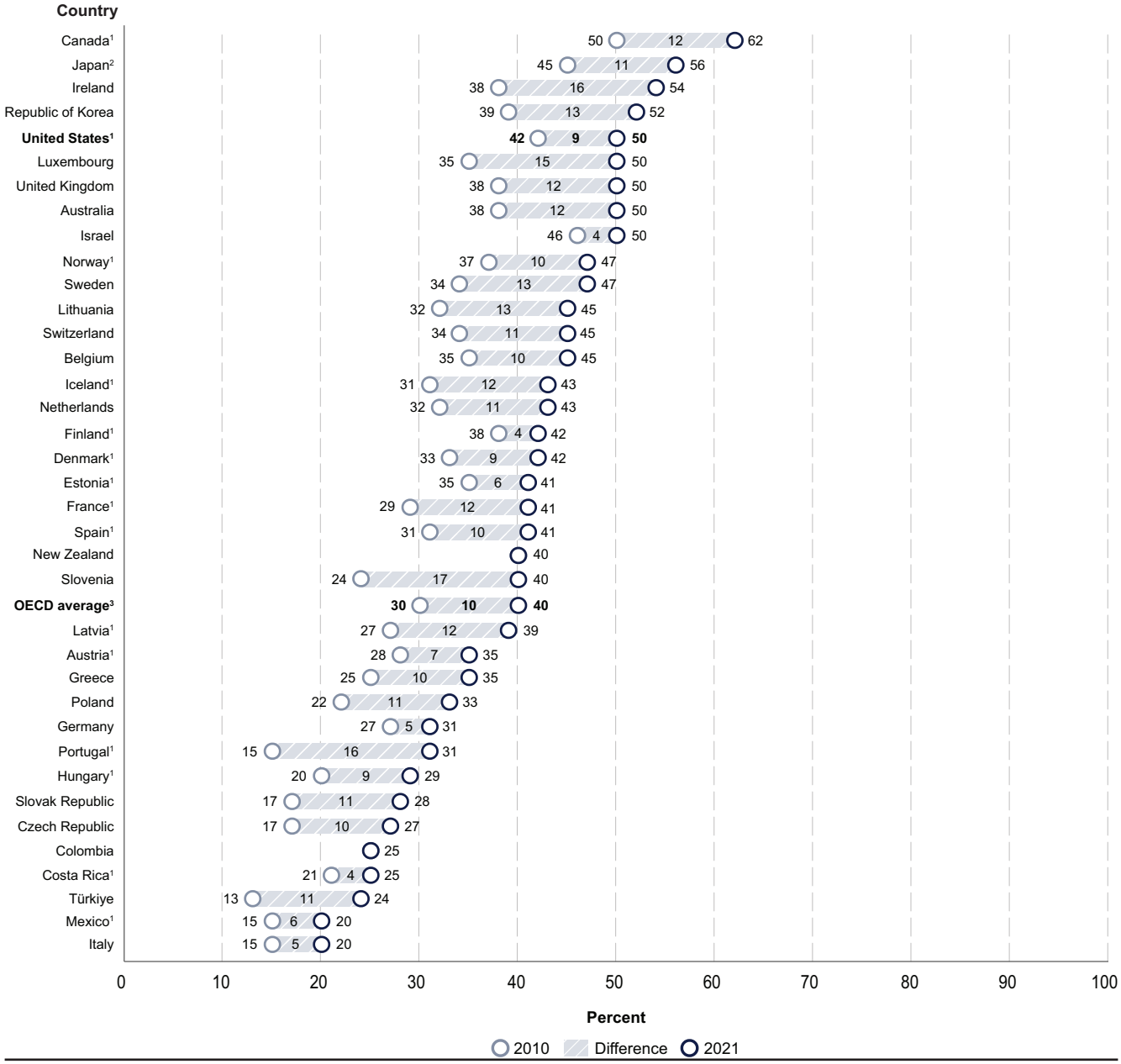
In 2021, some 92 percent of 25- to 64-year-olds in the United States had a high school diploma or its equivalent.[78] In comparison, the average rate for the OECD member countries was 80 percent. Among the 36 countries for which the OECD reported 2021 data on high school completion rates, the percentages of 25- to 64-year-olds who had completed high school ranged from 43 percent in Costa Rica and Mexico to 94 percent in the Czech Republic. The high school completion rate in the United States was higher than the rate in 30 countries.

[76] TIMSS scores are reported on a scale from 0 to 1,000, with a scale centerpoint set at 500 and the standard deviation set at 100. The TIMSS scale centerpoint represents the mean of the overall achievement distribution in 1995. The TIMSS scale is the same in each administration; thus, a value of 500 in 2019 equals 500 in 1995, when that was the international average.

[77] Attainment rates refer to the percentage of the population who had completed a certain level of education by the year of data collection, rather than the percentage who completed education in a particular year only.

[78] In this section, "high school degree" refers to degrees classified as ISCED 2011 level 3, which generally corresponds to high school completion in the United States, with some exceptions. See https://nces.ed.gov/programs/coe/glossary#isced for additional information on ISCED levels of education.

Figure 25. Percentage of the population 25 to 64 years old who had attained any postsecondary degree in Organization for Economic Cooperation and Development (OECD) countries: 2010 and 2021



[1] The International Standard Classification of Education (ISCED) was revised in 2011. Although data for 2010 were originally calculated using the 1997 version of ISCED, the footnoted countries revised their 2010 data to align with the 2011 version of ISCED.
[2] Data include some postsecondary nontertiary awards (i.e., awards that are below the associate's degree level).
[3] Refers to the mean of the data values for all reporting Organization for Economic Cooperation and Development (OECD) countries as of 2021 (including those that had been invited to become members and were under review, referred to as the accession process), to which each country reporting data contributes equally.
NOTE: Of the 38 OECD countries, 37 are included in this figure. Data for New Zealand and Colombia are available only for 2021. Chile is excluded because data are not available for 2010 and 2021. Data in this figure refer to degrees classified under ISCED 2011 as tertiary (postsecondary) degrees, which correspond to all degrees at the associate's level and above in the United States. Under ISCED 2011, tertiary degrees are classified at the following levels: level 5 (corresponding to an associate's degree in the United States), level 6 (a bachelor's or equivalent degree), level 7 (a master's or equivalent degree), and level 8 (a doctoral or equivalent degree). ISCED 2011 was used to calculate data for 2021 for all countries. Some data have been revised from previously published figures. Although rounded numbers are displayed, the figures are based on unrounded data.
SOURCE: Organization for Economic Cooperation and Development (OECD), Online Education Database. Retrieved October 3, 2022, from https://stats.oecd.org/Index.aspx.
See *Digest of Education Statistics 2022*, table 603.20.

Additionally, 50 percent of 25- to 64-year-olds in the United States had obtained a postsecondary degree, compared with the OECD average of 40 percent (figure 25). Among the 37 countries for which the OECD reported 2021 data on postsecondary attainment rates, the percentages earning any postsecondary degree ranged from 20 percent in Italy and Mexico to 62 percent in Canada. The postsecondary attainment rate in the United States was higher than the rate in 29 countries.

For 25- to 34-year-olds—that is, the age group whose educational attainment is likely to reflect more recent shifts in educational and economic systems—the OECD average percentage of those who had completed high school rose from 81 to 86 percent between 2010 and 2021,[79] while the corresponding percentage for the United States increased from 88 to 94 percent. In addition, the OECD average percentage of those with any postsecondary degree rose from 37 percent in 2010 to 47 percent in 2021, while the corresponding percentage in the United States rose from 42 to 51 percent (*International Educational Attainment*).

[79] Throughout this report, data are reported for all current OECD countries as of 2021 (including those that had been invited to become members and were under review, referred to as the accession process) for which a given year's data are available, even if they were not members of the OECD in that year.

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