



NATIONAL SCIENCE BOARD SCIENCE & ENGINEERING INDICATORS 2020



K-12 Education

Elementary and Secondary Mathematics and Science Education

Supplemental Tables

NSB-2019-6

September 04, 2019

This publication is part of the *Science and Engineering Indicators* suite of reports. *Indicators* is a congressionally mandated report on the state of the U.S. science and engineering enterprise. It is policy relevant and policy neutral. *Indicators* is prepared under the guidance of the National Science Board by the National Center for Science and Engineering Statistics, a federal statistical agency within the National Science Foundation. With the 2020 edition, *Indicators* is changing from a single report to a set of disaggregated and streamlined reports published on a rolling basis. Detailed data tables will continue to be available online.

Supplemental Tables

Table	Title
S1-1	Average mathematics assessment test scores of children who were in kindergarten for the first time in the 2010–11 school year and in grade 5 in the 2015–16 school year, by child and family characteristics
S1-2	Average science assessment test scores of children who were in kindergarten for the first time in the 2010–11 school year and in grade 5 in the 2015–16 school year, by child and family characteristics
S1-3	Average scores of students in grades 4, 8, and 12 on the NAEP mathematics assessment, by student characteristics: 1990–2017
S1-4	Students in grades 4, 8, and 12 scoring at or above NAEP's proficient level in mathematics for their grade, by student grade and characteristics: 1990–2017
S1-5	Average NAEP technology and engineering literacy assessment scores of students in grade 8 and percentage of students scoring proficient or above, by student characteristics: 2014 and 2018
S1-6	High school graduates enrolled in college in October after completing high school, by demographic characteristics and institution type: 1975–2016
S1-7	Students in grade 9 in fall 2009 who had not enrolled in postsecondary education and had worked for pay since leaving high school, by selected demographic characteristics: 2016
S1-8	Distribution of STW and non-STW occupation for students in grade 9 in fall 2009 who had not enrolled in postsecondary education and had worked for pay since leaving high school, by selected demographic characteristics: 2016

TABLE S1-1

Average mathematics assessment test scores of children who were in kindergarten for the first time in the 2010–11 school year and in grade 5 in the 2015–16 school year, by child and family characteristics

(Average score)

Child and family characteristic	Kindergarten, fall 2010	Kindergarten, spring 2011	Grade 1, spring 2012	Grade 2, spring 2013	Grade 3, spring 2014	Grade 4, spring 2015	Grade 5, spring 2016
All children	36.8	51.3	74.5	92.0	105.9	114.3	121.4
Sex							
Male	37.1	51.4	75.5	93.7	107.9	116.2	122.4
Female	36.5	51.1	73.5	90.3	103.9	112.5	120.3
Race or ethnicity ^a							
White	39.5	54.5	78.5	96.6	110.5	118.9	125.9
Black or African American	32.7	45.4	67.1	81.3	94.6	102.9	110.3
Hispanic or Latino	32.0	46.4	68.4	85.8	100.0	108.7	115.7
Asian	41.0	54.2	77.9	98.9	112.6	121.0	128.7
Native Hawaiian or Other Pacific Islander	36.0	52.8	74.2	93.2	107.4	115.6	123.4
American Indian or Alaska Native	34.4	49.4	74.3	92.9	107.6	114.5	121.2
More than one race	38.6	52.9	76.4	95.0	107.5	115.9	122.5
Family poverty status in fall 2010 ^b							
Income below the federal poverty level	31.5	45.6	67.8	84.6	98.4	106.7	113.5
Income at or above 200% of the federal poverty level	40.4	55.2	78.9	97.2	110.9	119.2	126.4
Family type in fall 2010 ^c							
One-parent household	33.1	47.0	70.0	85.8	99.7	107.8	114.5
Two-parent household	38.1	52.8	76.2	94.2	108.1	116.6	123.7
Primary home language in fall 2010							
English	37.8	52.3	75.7	93.2	107.0	115.3	122.2
Not English	31.2	45.6	68.0	85.8	100.0	109.3	116.6
Parents' highest education in fall 2010 ^d							
Less than high school education	28.8	43.6	65.9	82.3	95.7	104.5	111.6
High school diploma or equivalent	32.0	45.8	68.5	85.4	99.6	107.7	114.9
Some college, associate's degree, or career or technical education	35.6	50.1	73.1	90.2	104.5	112.9	119.6
Bachelor's degree	40.5	55.1	79.0	97.2	110.9	119.5	126.6
Graduate or professional school	43.8	58.7	82.5	101.6	114.5	123.1	130.3

^a Hispanic may be any race; race categories exclude Hispanic origin.

^b Poverty status is based on 2010 U.S. Census poverty thresholds, which identify incomes determined to meet household needs, given family size. For example, in 2010, a family of two was below the poverty threshold if its income was lower than \$14,220.

^c Two-parent household includes two biological parents, two adoptive parents, and one biological or adoptive parent and one other parent or partner. One-parent household refers to one biological or adoptive parent only.

^d The highest level of education achieved by either of the parents or guardians in a two-parent household or by the only parent or guardian in a one-parent household.

Note(s)

The possible range of scores for the mathematics assessment was 0–159. The fall kindergarten mathematics scores have a mean of 36.8 and a standard deviation of 11.23, and the spring grade 5 mathematics scores have a mean of 121.4 and a standard deviation of 15.90.

Source(s)

Mulligan GM, McCarroll JC, Flanagan KD, and McPhee C, *Findings From the Fifth-Grade Round of the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011)*, NCES 2019-130 (2019).

Science and Engineering Indicators

TABLE S1-2

Average science assessment test scores of children who were in kindergarten for the first time in the 2010–11 school year and in grade 5 in the 2015–16 school year, by child and family characteristics

(Average score)

Child and family characteristic	Kindergarten, spring 2011	Grade 1, spring 2012	Grade 2, spring 2013	Grade 3, spring 2014	Grade 4, spring 2015	Grade 5, spring 2016
All children	34.4	43.7	53.6	61.0	67.9	74.7
Sex						
Male	34.5	44.1	54.1	61.6	68.4	75.2
Female	34.3	43.4	53.0	60.5	67.4	74.2
Race or ethnicity ^a						
White	37.1	47.2	56.9	64.5	71.2	77.9
Black or African American	31.1	38.9	47.6	54.6	61.2	66.9
Hispanic or Latino	30.1	38.4	48.6	56.0	63.3	70.6
Asian	32.1	42.7	55.0	63.2	69.9	77.8
Native Hawaiian or Other Pacific Islander	31.7	40.5	50.3	58.7	64.7	72.5
American Indian or Alaska Native	35.7	44.0	53.3	59.7	68.8	74.2
More than once race	36.8	46.8	56.4	63.9	70.9	77.3
Family poverty status in fall 2010 ^b						
Income below the federal poverty level	30.2	38.2	47.8	55.4	62.3	68.9
Income at or above 200% of the federal poverty level	37.0	47.2	57.2	64.8	71.5	78.4
Family type in fall 2010 ^c						
One-parent household	32.7	40.9	50.0	57.3	64.1	70.5
Two-parent household	35.2	44.9	54.9	62.5	69.3	76.3
Primary home language in fall 2010						
English	35.6	45.2	54.8	62.2	68.9	75.5
Not English	27.7	35.8	46.8	54.9	62.6	70.0
Parents' highest education in fall 2010 ^d						
Less than high school education	28.0	35.1	45.1	52.5	60.0	66.4
High school diploma or equivalent	31.4	39.7	49.3	56.4	63.3	70.3
Some college, associate's degree, or career or technical education	34.2	43.2	52.6	60.0	67.1	73.8
Bachelor's degree	36.8	46.8	57.1	64.8	71.3	78.4
Graduate or professional school	38.3	49.6	59.8	67.6	74.0	80.6

^a Hispanic may be any race; race categories exclude Hispanic origin.

^b Poverty status is based on 2010 U.S. Census poverty thresholds, which identify incomes determined to meet household needs, given family size. For example, in 2010, a family of two was below the poverty threshold if its income was lower than \$14,220.

^c Two-parent household includes two biological parents, two adoptive parents, and one biological or adoptive parent and one other parent or partner. One-parent household refers to one biological or adoptive parent only.

^d The highest level of education achieved by either of the parents or guardians in a two-parent household or by the only parent or guardian in a one-parent household.

Note(s)

The possible range of scores for the science assessment was 0–100. The spring kindergarten science scores have a mean of 34.4 and a standard deviation of 7.28, and the spring grade 5 science scores have a mean of 74.7 and a standard deviation of 11.76.

Source(s)

Mulligan GM, McCarroll JC, Flanagan KD, and McPhee C, *Findings From the Fifth-Grade Round of the Early Childhood Longitudinal Study, Kindergarten Class of 2010–11 (ECLS-K:2011)*, NCES 2019-130 (2019).

Science and Engineering Indicators

TABLE S1-3

Average scores of students in grades 4, 8, and 12 on the NAEP mathematics assessment, by student characteristics: 1990–2017

(Average score)

Student grade and characteristics	1990	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017
All students in grade 4	213	220	224	226	235	238	240	240	241	242	240	240
Sex												
Male	214	221	224	227	236	239	241	241	241	242	241	241
Female	213	219	223	224	233	237	239	239	240	241	239	239
Race or ethnicity ^a												
White	220	227	232	234	243	246	248	248	249	250	248	248
Black or African American	188	193	198	203	216	220	222	222	224	224	224	223
Hispanic or Latino ^b	200	202	207	208	222	226	227	227	229	231	230	229
Asian or Pacific Islander	225	231	229	s	246	251	253	255	256	258	257	258
American Indian or Alaska Native	s	s	217	208	223	226	228	225	225	227	227	227
More than one race	s	s	s	224	237	241	241	243	245	245	245	245
Socioeconomic status ^c												
Eligible for free or reduced-price lunch	NA	NA	207	208	222	225	227	227	229	230	229	228
Not eligible for free or reduced-price lunch	NA	NA	232	235	244	248	249	250	252	254	253	252
Student disability status ^d												
Has a disability	s	s	204	198	214	219	220	221	218	218	218	214
Does not have a disability	s	s	225	228	237	240	242	242	244	245	244	243
English language learner status ^d												
English language learner	s	s	201	199	214	216	217	218	219	219	218	217
Not English language learner	s	s	225	227	237	240	242	242	243	244	243	243
Percentiles ^e												
10th percentile	171	177	182	184	197	200	202	202	203	203	202	198
25th percentile	193	199	203	205	216	220	222	221	222	222	221	219
50th percentile	214	221	225	227	236	239	242	241	242	243	242	241
75th percentile	235	242	245	248	255	258	260	260	261	262	261	262
90th percentile	253	259	262	265	270	273	275	275	276	278	277	279
All students in grade 8	263	268	270	273	278	279	281	283	284	285	282	283
Sex												
Male	263	268	271	274	278	280	282	284	284	285	282	283
Female	262	269	269	272	277	278	280	282	283	284	282	282
Race or ethnicity ^a												
White	270	277	281	284	288	289	291	293	293	294	292	293
Black or African American	237	237	240	244	252	255	260	261	262	263	260	260
Hispanic or Latino ^b	246	249	251	253	259	262	265	266	270	272	270	269
Asian or Pacific Islander	275	290	s	288	291	295	297	301	303	306	306	310
American Indian or Alaska Native	s	s	s	259	263	264	264	266	265	269	267	267
More than one race	s	260	s	270	280	280	285	286	288	288	285	287
Parents' highest education ^f												
Did not finish high school	242	249	250	253	257	259	263	265	265	267	265	265
Graduated from high school	255	257	260	261	267	267	270	270	271	270	268	267
Some education after high school	267	271	277	277	280	280	283	284	285	285	282	281
Graduated from college	274	281	281	286	288	290	292	295	295	296	294	294
Unknown	241	252	252	254	259	260	263	264	265	266	263	264
Socioeconomic status ^c												
Eligible for free or reduced-price lunch	NA	NA	250	253	259	262	265	266	269	270	268	267
Not eligible for free or reduced-price lunch	NA	NA	277	283	287	288	291	294	296	297	296	296
Student disability status ^d												
Has a disability	s	s	231	230	242	245	246	249	250	249	247	247

TABLE S1-3

Average scores of students in grades 4, 8, and 12 on the NAEP mathematics assessment, by student characteristics: 1990–2017

(Average score)

Student grade and characteristics	1990	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017
Does not have a disability	s	s	273	276	282	283	285	287	288	289	287	288
English language learner status ^d												
English language learner	s	s	226	234	242	244	246	243	244	246	246	246
Not English language learner	s	s	272	274	279	281	283	285	286	287	284	285
Percentiles ^e												
10th percentile	215	221	221	223	230	231	235	236	237	237	235	233
25th percentile	239	243	245	249	254	255	258	259	260	261	258	256
50th percentile	264	269	273	275	279	280	283	284	285	286	283	283
75th percentile	288	294	297	300	303	304	306	308	309	310	308	310
90th percentile	307	315	316	320	323	324	327	329	329	331	329	333
All students in grade 12	NA	NA	NA	NA	NA	150	NA	153	NA	153	152	NA
Sex												
Male	NA	NA	NA	NA	NA	151	NA	155	NA	155	153	NA
Female	NA	NA	NA	NA	NA	149	NA	152	NA	152	150	NA
Race or ethnicity ^a												
White	NA	NA	NA	NA	NA	157	NA	161	NA	162	160	NA
Black or African American	NA	NA	NA	NA	NA	127	NA	131	NA	132	130	NA
Hispanic or Latino ^b	NA	NA	NA	NA	NA	133	NA	138	NA	141	139	NA
Asian or Pacific Islander	NA	NA	NA	NA	NA	163	NA	175	NA	172	170	NA
American Indian or Alaska Native	NA	NA	NA	NA	NA	134	NA	144	NA	142	138	NA
More than one race	NA	NA	NA	NA	NA	142	NA	158	NA	155	157	NA
Parents' highest education ^f												
Did not finish high school	NA	NA	NA	NA	NA	130	NA	135	NA	137	133	NA
Graduated from high school	NA	NA	NA	NA	NA	138	NA	142	NA	139	139	NA
Some education after high school	NA	NA	NA	NA	NA	148	NA	150	NA	152	149	NA
Graduated from college	NA	NA	NA	NA	NA	161	NA	164	NA	164	163	NA
Unknown	NA	NA	NA	NA	NA	123	NA	129	NA	127	125	NA
Socioeconomic status ^c												
Eligible for free or reduced-price lunch	NA	NA	NA	NA	NA	132	NA	137	NA	139	137	NA
Not eligible for free or reduced-price lunch	NA	NA	NA	NA	NA	155	NA	160	NA	162	160	NA
Student disability status ^d												
Has a disability	NA	NA	NA	NA	NA	114	NA	120	NA	119	118	NA
Does not have a disability	NA	NA	NA	NA	NA	153	NA	156	NA	157	155	NA
English language learner status ^d												
English language learner	NA	NA	NA	NA	NA	120	NA	117	NA	109	115	NA
Not English language learner	NA	NA	NA	NA	NA	151	NA	154	NA	155	153	NA
Percentiles ^e												
10th percentile	NA	NA	NA	NA	NA	105	NA	110	NA	111	107	NA
25th percentile	NA	NA	NA	NA	NA	127	NA	130	NA	131	128	NA
50th percentile	NA	NA	NA	NA	NA	151	NA	154	NA	154	152	NA
75th percentile	NA	NA	NA	NA	NA	174	NA	177	NA	177	175	NA
90th percentile	NA	NA	NA	NA	NA	194	NA	197	NA	197	196	NA

NA = not available; s = suppressed for reasons of confidentiality and/or reliability.

NAEP = National Assessment of Educational Progress.

^a Other racial and ethnic groups are included in the rows for All students in grade 4, All students in grade 8, and All students in grade 12 but are not shown separately in the table.

^b Hispanic may be any race; race categories exclude Hispanic origin.

^c NAEP uses eligibility for the federal National School Lunch Program (NSLP) as a measure of socioeconomic status. NSLP is a federally assisted meal program that provides low-cost or free lunches to eligible students. It is often referred to as the free or reduced-price lunch program. Information on students' eligibility for free or reduced-price lunch was first collected in 1996.

^d From 1996 on, students with a disability and English language learners were allowed to use testing accommodations (e.g., extended time, one-on-one testing, bilingual dictionary).

^e A percentile is a score location below which a specified percentage of the population falls.

^f Parents' highest level of education is defined by the highest level reported by eighth graders and twelfth graders for either parent. Fourth graders were not asked to indicate their parents' highest level of education because their responses in previous studies were highly variable, and a large percentage of them chose the "I don't know" option.

Note(s)

The scale for NAEP mathematics assessment scores is 0–500 for grades 4 and 8 and 0–300 for grade 12. From 1996 on, data shown here are for students allowed to use testing accommodations. NAEP does not collect parental education data for students in grade 4. Grade 12 mathematics data are presented from 2005, 2009, 2013, and 2015 only because the mathematics framework was substantially revised in 2005, making prior assessment results not comparable with those in or after 2005. Mathematics assessment was not conducted in 2007 and 2011 for grade 12.

Source(s)

National Center for Science and Engineering Statistics, National Science Foundation, special tabulations (2018) of the 1990–2017 NAEP mathematics assessments, National Center for Education Statistics, Department of Education.

Science and Engineering Indicators

TABLE S1-4

Students in grades 4, 8, and 12 scoring at or above NAEP's proficient level in mathematics for their grade, by student grade and characteristics: 1990–2017

(Percent)

Student grade and characteristic	1990	1992	1996	2000	2003	2005	2007	2009	2011	2013	2015	2017
Male	NA	NA	NA	NA	NA	25.1	NA	28.3	NA	27.6	26.2	NA
Female	NA	NA	NA	NA	NA	21.1	NA	23.5	NA	23.8	22.7	NA
Race or ethnicity ^a												
White	NA	NA	NA	NA	NA	28.9	NA	32.7	NA	33.2	31.7	NA
Black or African American	NA	NA	NA	NA	NA	5.6	NA	6.2	NA	7.1	7.1	NA
Hispanic or Latino ^b	NA	NA	NA	NA	NA	8.1	NA	11.0	NA	11.8	11.9	NA
Asian or Pacific Islander	NA	NA	NA	NA	NA	36.0	NA	51.8	NA	46.8	46.2	NA
American Indian or Alaska Native	NA	NA	NA	NA	NA	6.1	NA	11.6	NA	12.5	9.9	NA
More than one race	NA	NA	NA	NA	NA	18.9	NA	28.2	NA	25.7	30.6	NA
Parents' highest education ^e												
Did not finish high school	NA	NA	NA	NA	NA	6.9	NA	8.1	NA	9.1	7.1	NA
Graduated from high school	NA	NA	NA	NA	NA	11.5	NA	13.9	NA	12.2	12.4	NA
Some education after high school	NA	NA	NA	NA	NA	18.2	NA	19.0	NA	19.6	18.0	NA
Graduated from college	NA	NA	NA	NA	NA	34.3	NA	38.0	NA	37.7	36.8	NA
Unknown	NA	NA	NA	NA	NA	5.8	NA	7.9	NA	5.6	0.0	NA
Socioeconomic status ^c												
Eligible for free or reduced-price lunch	NA	NA	NA	NA	NA	7.7	NA	10.2	NA	11.4	11.0	NA
Not eligible for free or reduced-price lunch	NA	NA	NA	NA	NA	26.7	NA	31.9	NA	33.7	32.3	NA
Student disability status ^d												
Has a disability	NA	NA	NA	NA	NA	4.5	NA	6.6	NA	5.9	5.7	NA
Does not have a disability	NA	NA	NA	NA	NA	24.4	NA	27.5	NA	27.7	26.3	NA
English language learner status ^d												
English language learner	NA	NA	NA	NA	NA	3.1	NA	4.0	NA	2.8	5.7	NA
Not English language learner	NA	NA	NA	NA	NA	23.8	NA	26.6	NA	26.4	25.2	NA

NA = not available; s = suppressed for reasons of confidentiality and/or reliability.

NAEP = National Assessment of Educational Progress.

^a Other racial and ethnic groups are included in the rows for All students in grade 4, All students in grade 8, and All students in grade 12 but are not shown separately in the table.

^b Hispanic may be any race; race categories exclude Hispanic origin.

^c NAEP uses eligibility for the federal National School Lunch Program (NSLP) as a measure of socioeconomic status. NSLP is a federally assisted meal program that provides low-cost or free lunches to eligible students. It is sometimes referred to as the free or reduced-price lunch program. Information on students' eligibility for free or reduced-price lunch was first collected in 1996.

^d From 1996 on, students with a disability and English language learners were allowed to use testing accommodation (e.g., extended time, one-on-one testing, bilingual dictionary).

^e Parents' highest level of education is defined by the highest level reported by eighth graders and twelfth graders for either parent. Fourth graders were not asked to indicate their parents' highest level of education because their responses in previous studies were highly variable, and a large percentage of them chose the "I don't know" option.

Note(s)

From 1996 on, data shown here are for students allowed to use testing accommodations. NAEP does not collect parental education data for students in grade 4. Grade 12 mathematics data are presented from 2005, 2009, 2013, and 2015 only because the mathematics framework was substantially revised in 2005, making prior assessment results not comparable with those in or after 2005. Mathematics assessment was not conducted in 2007 and 2011 for grade 12.

Source(s)

National Center for Science and Engineering Statistics, National Science Foundation, special tabulations (2018) of the 1990–2017 NAEP mathematics assessments, National Center for Education Statistics, Department of Education.

TABLE S1-5

Average NAEP technology and engineering literacy assessment scores of students in grade 8 and percentage of students scoring proficient or above, by student characteristics: 2014 and 2018

(Average score and percent)

Student characteristic	Average scale score		Percentage of students scoring proficient or above	
	2014	2018	2014	2018
All students in grade 8	150	152	43.3	46.4
Sex				
Male	149	150	41.8	44.1
Female	151	155	44.8	48.8
Race or ethnicity ^a				
White	160	163	55.6	58.5
Black or African American	128	132	18.4	23.5
Hispanic or Latino ^b	138	139	27.9	30.6
Asian or Pacific Islander	159	169	54.0	65.3
American Indian or Alaska Native	146	133	41.6	28.8
More than one race	154	157	45.0	52.7
Parents' highest education ^c				
Did not finish high school	133	138	20.4	28.5
Graduated from high school	137	138	27.4	29.1
Some education after high school	152	151	43.6	43.9
Graduated from college	159	163	55.2	58.8
Socioeconomic status ^d				
Eligible for free or reduced-price lunch	135	138	25.2	29.8
Not eligible for free or reduced-price lunch	163	164	59.3	60.3
Student disability status ^e				
Has a disability	116	118	13.0	13.2
Does not have a disability	155	157	47.0	51.2
English language learner status ^e				
English language learner	108	106	4.8	5.2
Not English language learner	152	155	45.3	49.0
Percentiles				
10th percentile	104	104	NA	NA
25th percentile	127	129	NA	NA
50th percentile	152	155	NA	NA
75th percentile	175	178	NA	NA
90th percentile	193	197	NA	NA

NA = not available.

NAEP = National Assessment of Educational Progress.

^a Other racial and ethnic groups are included but are not shown separately.^b Hispanic may be any race; race categories exclude Hispanic origin.^c Parents' highest level of education is defined by the highest level reported by eighth graders and twelfth graders for either parent. Fourth graders were not asked to indicate their parents' highest level of education because their responses in previous studies were highly variable, and a large percentage of them chose the "I don't know" option.^d NAEP uses eligibility for the federal National School Lunch Program (NSLP) as a measure of socioeconomic status. NSLP is a federally assisted meal program that provides low-cost or free lunches to eligible students. It is sometimes referred to as the free or reduced-price lunch program.^e From 1996 on, students with a disability and English language learners were allowed to use testing accommodation (e.g., extended time, one-on-one testing, bilingual dictionary). More information about testing accommodation is available at <https://nces.ed.gov/nationsreportcard/about/inclusion.asp>.

Note(s)

The scale for NAEP technology and engineering literacy assessment scores is 0–300.

Source(s)

National Science Foundation, National Center for Science and Engineering Statistics, special tabulations (2018) of the 2014 and 2018 NAEP Technology and Engineering Literacy assessment, National Center for Education Statistics, Department of Education.

Science and Engineering Indicators

TABLE S1-6

High school graduates enrolled in college in October after completing high school, by demographic characteristics and institution type: 1975–2016

(Percent)

Year	All graduates	Sex		Family income ^a			Race or ethnicity ^b				Parents' highest education ^c				Institution type	
		Male	Female	Low	Middle	High	White	Black or African American	Hispanic or Latino ^d	Asian	Less than high school	High school diploma or equivalent	Some college	Bachelor's or higher degree	2-year	4-year
1975	50.7	52.6	49.0	31.2	46.2	64.5	49.1	44.5	52.7	NA	NA	NA	NA	NA	18.2	32.6
1976	48.8	47.2	50.3	39.1	40.5	63.0	50.3	45.3	53.6	NA	NA	NA	NA	NA	15.6	33.3
1977	50.6	52.1	49.3	27.7	44.2	66.3	50.1	46.8	48.8	NA	NA	NA	NA	NA	17.5	33.1
1978	50.1	51.1	49.3	31.4	44.3	64.0	50.4	47.5	46.1	NA	NA	NA	NA	NA	17.0	33.1
1979	49.3	50.4	48.4	30.5	43.2	63.2	50.1	45.2	46.3	NA	NA	NA	NA	NA	17.5	31.8
1980	49.3	46.7	51.8	32.5	42.5	65.2	51.5	44.0	49.6	NA	NA	NA	NA	NA	19.4	29.9
1981	53.9	54.8	53.1	33.6	49.2	67.6	52.4	40.3	48.7	NA	NA	NA	NA	NA	20.5	33.5
1982	50.6	49.1	52.0	32.8	41.7	70.9	54.2	38.8	49.4	NA	NA	NA	NA	NA	19.1	31.5
1983	52.7	51.9	53.4	34.6	45.2	70.3	55.5	38.0	46.7	NA	NA	NA	NA	NA	19.2	33.5
1984	55.2	56.0	54.5	34.5	48.4	74.0	57.9	39.9	49.3	NA	NA	NA	NA	NA	19.4	35.8
1985	57.7	58.6	56.8	40.2	50.6	74.6	58.6	39.5	46.1	NA	NA	NA	NA	NA	19.6	38.1
1986	53.8	55.8	51.9	33.9	48.5	71.0	58.5	43.5	42.3	NA	NA	NA	NA	NA	19.3	34.5
1987	56.8	58.3	55.3	36.9	50.0	73.8	58.8	44.2	45.0	NA	NA	NA	NA	NA	18.9	37.9
1988	58.9	57.1	60.7	42.5	54.7	72.8	60.1	49.7	48.5	NA	NA	NA	NA	NA	21.9	37.1
1989	59.6	57.6	61.6	48.1	55.4	70.7	61.6	48.0	52.7	NA	NA	NA	NA	NA	20.7	38.9
1990	60.1	58.0	62.2	46.7	54.4	76.6	63.0	48.9	52.5	NA	NA	NA	NA	NA	20.1	40.0
1991	62.5	57.9	67.1	39.5	58.4	78.2	64.2	47.2	52.6	NA	NA	NA	NA	NA	24.9	37.7
1992	61.9	60.0	63.8	40.9	57.0	79.0	64.2	50.0	58.2	NA	33.0	56.0	68.0	81.0	23.0	38.9
1993	62.6	59.9	65.2	50.4	56.9	79.3	63.9	51.3	55.7	NA	47.0	52.0	63.0	88.0	22.8	39.8
1994	61.9	60.6	63.2	43.3	57.8	77.9	64.0	52.4	55.0	NA	43.0	50.0	65.0	83.0	21.0	40.9
1995	61.9	62.6	61.3	34.2	56.0	83.5	65.4	52.9	51.6	NA	27.0	47.0	70.0	88.0	21.5	40.4
1996	65.0	60.1	69.7	48.6	62.7	78.0	66.6	55.4	57.6	NA	45.0	56.0	67.0	85.0	23.1	41.9
1997	67.0	63.6	70.3	57.0	60.7	82.2	68.1	58.8	55.3	NA	51.0	62.0	63.0	86.0	22.8	44.3
1998	65.6	62.4	69.1	46.4	64.7	77.5	67.7	59.8	51.9	NA	50.0	57.0	68.0	82.0	24.4	41.3
1999	62.9	61.4	64.4	47.6	60.2	75.4	66.8	58.6	47.4	NA	36.0	54.0	60.0	82.0	21.0	41.9
2000	63.3	59.9	66.2	49.7	59.5	76.9	65.4	56.4	48.6	NA	44.0	52.0	64.0	81.0	21.4	41.9
2001	61.8	60.1	63.5	43.8	56.4	80.0	66.3	56.4	52.8	NA	39.0	52.0	62.0	81.0	19.6	42.1
2002	65.2	62.1	68.4	56.3	60.9	78.2	66.5	57.3	54.8	NA	43.0	52.0	66.0	83.0	21.6	43.6
2003	63.9	61.2	66.5	52.8	57.6	80.1	68.0	59.9	57.7	80.0	43.0	54.0	63.0	82.0	21.5	42.5
2004	66.7	61.4	71.5	47.8	63.3	80.1	69.4	58.8	57.7	81.6	40.0	55.0	67.0	86.0	22.4	44.2
2005	68.6	66.5	70.4	53.5	65.1	81.2	70.2	58.2	57.5	80.9	43.0	62.0	66.0	89.0	24.0	44.6
2006	66.0	65.8	66.1	50.9	61.4	80.7	70.4	55.6	58.5	85.1	43.0	56.0	67.0	78.0	24.7	41.3
2007	67.2	66.1	68.3	58.4	63.3	78.2	70.0	55.7	62.0	85.8	45.0	52.0	65.0	86.0	24.1	43.1

TABLE S1-6

High school graduates enrolled in college in October after completing high school, by demographic characteristics and institution type: 1975–2016

(Percent)

Year	All graduates	Sex		Family income ^a			Race or ethnicity ^b				Parents' highest education ^c				Institution type	
		Male	Female	Low	Middle	High	White	Black or African American	Hispanic or Latino ^d	Asian	Less than high school	High school diploma or equivalent	Some college	Bachelor's or higher degree	2-year	4-year
2008	68.6	65.9	71.6	55.9	65.2	81.9	70.8	60.3	62.3	90.1	44.0	57.0	72.0	82.0	27.7	40.9
2009	70.1	66.0	73.8	53.9	66.7	84.2	71.2	62.4	60.9	88.1	39.9	57.9	74.4	82.2	27.7	42.4
2010	68.1	62.8	74.0	50.7	66.7	82.2	70.1	66.1	62.3	87.4	50.8	58.0	70.5	83.7	26.7	41.4
2011	68.2	64.7	72.2	53.5	66.2	82.4	68.2	62.1	66.1	83.9	s	54.2	66.8	83.1	25.9	42.3
2012	66.2	61.3	71.3	50.9	64.7	80.7	67.6	60.5	65.9	82.3	60.6	57.1	66.2	76.8	28.8	37.5
2013	65.9	63.5	68.4	45.5	63.8	78.5	67.4	60.7	65.5	83.6	42.9	51.7	64.2	82.9	23.8	42.1
2014	68.4	64.0	72.6	57.8	63.6	83.6	69.3	60.6	64.7	84.2	53.9	56.2	67.0	81.3	24.6	43.7
2015	69.2	65.8	72.5	69.2	62.2	83.2	69.6	60.8	69.0	88.5	56.3	56.9	65.0	82.4	25.2	44.0
2016	69.8	67.5	71.9	65.4	65.0	82.5	70.1	57.5	67.6	85.7	50.2	56.8	66.6	83.7	23.7	46.0

NA = not available; s = suppressed for reasons of confidentiality or reliability.

^a Family income is categorized as follows: low income includes families in the lowest 20% of income distribution, middle income includes families in the middle 60%, and high income includes families in the highest 20%.^b Because of the small sample size for racial and ethnic categories, data are subject to relatively large sampling errors. Therefore, 3-year moving averages are used to produce more stable estimates. The 3-year moving average is an arithmetic average of the rates in the year indicated, the year immediately preceding, and the year immediately following. For 1975 and 2013, a 2-year moving average is used. Data for 1975 reflect an average of 1975 and 1976, and data for 2013 reflect an average of 2012 and 2013. Starting from 2003, data for white, black or African American, and Asian students exclude individuals identifying themselves as more than one race.^c This refers to the highest level of education achieved by either parent.^d Hispanic may be any race; race categories exclude Hispanic origin.**Note(s)**

The table includes students ages 16 to 24 who completed high school in the survey year. Before 1992, high school graduates referred to those who had completed 12 years of schooling. As of 1992, high school graduates refer to those who have received a high school diploma or equivalency certificate.

Source(s)Parents' education: National Center for Education Statistics special tabulations (2019) of the 1992–2016 Current Population Survey, Bureau of Labor Statistics. All other data: McFarland J, Hussar B, Wang X, Zhang J, Wang K, Rathbun A, Barmer A, Forrest Cataldi E, and Bullock Mann F, *The Condition of Education 2018*, NCES 2018-144 (2018), Tables 302.10, 302.20, 302.30.

TABLE S1-7

Students in grade 9 in fall 2009 who had not enrolled in postsecondary education and had worked for pay since leaving high school, by selected demographic characteristics: 2016

(Percentage)

Demographic characteristic	Worked since leaving high school
Total	85.1
Sex	
Male	86.7
Female	82.8
Race or ethnicity ^a	
White	87.3
Black or African American	80.1
Hispanic or Latino	82.3
Asian	82.0
Other	91.2
Highest level of parents' education ^b	
High school or less	83.1
Sub-baccalaureate certificate or associate's degree	87.6
Bachelor's or higher degree	88.5
Family socioeconomic status in quintile	
Lowest fifth	82.5
Middle three-fifths	86.3
Highest fifth	85.3

^a Other includes American Indian or Alaska Native, Pacific Islander or Native Hawaiian, and respondents having origins in more than one race. Hispanic may be any race; race categories exclude Hispanic origin.

^b The highest level of education achieved by either of the parents or guardians in a two-parent household or by the only parent or guardian in a one-parent household.

Note(s)

About 28% of fall students in grade 9 in fall 2009 had not enrolled in postsecondary education as of February 2016.

Source(s)

Radford AW, Fritch LB, Leu K, and Duprey M, *High School Longitudinal Study of 2009 (HSL:09) Second Follow-Up: A First Look at Fall 2009 Ninth-Graders in 2016*, NCES 2018-139 (2018); National Center for Science and Engineering Statistics, National Science Foundation, special tabulations (2018) of HSL:09, National Center for Education Statistics, Department of Education.

TABLE S1-8

Distribution of STW and non-STW occupation for students in grade 9 in fall 2009 who had not enrolled in postsecondary education and had worked for pay since leaving high school, by selected demographic characteristics: 2016

(Percentage)

Demographic characteristic	Occupation	
	STW	Non-STW
Total	13.5	86.5
Sex		
Male	18.0	82.0
Female	7.0	93.0
Race or ethnicity ^a		
White	16.8	83.2
Black or African American	8.3	91.7
Hispanic or Latino	8.0	92.0
Asian	9.9	90.1
Other	20.7	79.3
Highest level of parents' education ^b		
High school or less	13.2	86.8
Sub-baccalaureate certificate or associate's degree	15.3	84.7
Bachelor's or higher degree	12.5	87.5
Family socioeconomic status in quintile		
Lowest fifth	14.0	86.0
Middle three-fifths	13.2	86.8
Highest fifth	13.9	86.1

STW = skilled technical workforce.

^a Other includes American Indian or Alaska Native, Pacific Islander or Native Hawaiian, and respondents having origins in more than one race. Hispanic may be any race; race categories exclude Hispanic origin.

^b The highest level of education achieved by either of the parents or guardians in a two-parent household or by the only parent or guardian in a one-parent household.

Note(s)

About 28% of students in grade 9 in fall 2009 had not enrolled in postsecondary education as of February 2016.

Source(s)

Radford AW, Fritch LB, Leu K, and Duprey M, *High School Longitudinal Study of 2009 (HSL:09) Second Follow-Up: A First Look at Fall 2009 Ninth-Graders in 2016*, NCES 2018-139 (2018); National Science Foundation, special tabulations (2018) of HSL:09, National Center for Education Statistics, Department of Education.