

# National Center for Education Statistics

**TABLE 1.**

**Percentage distributions of ninth-grade students, by current mathematics coursetaking, planned years of future mathematics coursetaking, plans for the year after high school, and views on usefulness of current mathematics course: 2009**

Student characteristic	Percent of ninth-graders
Highest level of mathematics course taken in grade 9	
No mathematics	10.3
Mathematics below algebra I	9.0
Algebra I	52.1
Mathematics above algebra I	28.7
Planned years of high school mathematics coursetaking	
1 or 2 years	11.5
3 years	27.2
4 or more years	61.3
Plan for year after high school	
Enroll in an associate's degree program <sup>1</sup>	16.7
Enroll in a bachelor's degree program	44.7
Work (no postsecondary education)	22.5
Neither work nor postsecondary education	3.1
Not sure	13.0
View on statement "What students learn in this math course will be useful for a future career"	
Strongly agree or agree	83.9
Disagree	12.3
Strongly disagree	3.9

<sup>1</sup> Includes students who reported that their plan for the year after high school was to enroll in an associate's degree program and to enroll in a bachelor's degree program.

NOTE: Detail may not sum to 100 because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

TABLE S1.

Standard errors for Table 1: Percentage distributions of ninth-grade students, by current mathematics coursetaking, planned years of future mathematics coursetaking, plans for the year after high school, and views on usefulness of current mathematics course: 2009

Student characteristic	Percent of ninth-graders
Highest level of mathematics course taken in grade 9	
No mathematics	0.32
Mathematics below algebra I	0.32
Algebra I	0.54
Mathematics above algebra I	0.47
Planned years of high school mathematics coursetaking	
1 or 2 years	0.40
3 years	0.51
4 or more years	0.55
Plan for year after high school	
Enroll in an associate's degree program	0.42
Enroll in a bachelor's degree program	0.54
Work (no postsecondary education)	0.48
Neither work nor postsecondary education	0.20
Not sure	0.38
View on statement "What students learn in this math course will be useful for a future career"	
Strongly agree or agree	0.42
Disagree	0.38
Strongly disagree	0.20

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSLs:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**TABLE 2.**

**Percentage of ninth-grade students reporting each motivation for their current and future mathematics coursetaking: 2009**

Reported motivation	Percent of ninth-graders
Motivation for current mathematics coursetaking	
Personal interest	24.4
School requirements	67.6
School encouragement	18.5
Parent encouragement	13.4
College entry or success	30.9
Career needs	16.8
Other or no reason <sup>1</sup>	10.8
Motivation for future high school mathematics coursetaking	
Personal interest	32.0
School requirements	41.9
School encouragement	16.3
Parent encouragement	29.1
College entry or success	59.2
Career needs	28.9
Other or no reason <sup>2</sup>	25.5
College and career motivations for future high school mathematics coursetaking	
College only	35.6
Both college and career	23.7
Career only	5.2
Neither college nor career	35.5

<sup>1</sup> Includes students who reported "Some other reason" and "You don't know why you are taking this course."

<sup>2</sup> Includes students who reported "Most students who are like you take a lot of math courses," "Your friends are going to take more math courses," "Some other reason," and "You don't know why, you just probably will."

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

TABLE S2.

Standard errors for Table 2: Percentage of ninth-grade students reporting each motivation for their current and future mathematics coursetaking: 2009

Reported motivation	Percent of ninth-graders
Motivation for current mathematics coursetaking	
Personal interest	0.48
School requirements	0.54
School encouragement	0.42
Parent encouragement	0.34
College entry or success	0.53
Career needs	0.45
Other or no reason	0.35
Motivation for future high school mathematics coursetaking	
Personal interest	0.51
School requirements	0.55
School encouragement	0.39
Parent encouragement	0.50
College entry or success	0.55
Career needs	0.52
Other or no reason	0.49
College and career motivations for future high school mathematics coursetaking	
College only	0.52
Both college and career	0.49
Career only	0.24
Neither college nor career	0.54

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**Table 3.**

**Percentage of ninth-grade students with each plan for the year after high school who are taking mathematics above algebra I, who plan to take 4 or more years of mathematics, and who have each motivation for future mathematics coursetaking: 2009**

<b>Student characteristic</b>	<b>Enroll in an associate's degree program<sup>1</sup></b>	<b>Enroll in a bachelor's degree program</b>	<b>Work (no post-secondary education)</b>	<b>Neither work nor post-secondary education</b>	<b>Not sure</b>
Currently taking mathematics above algebra I	24.8	39.7	15.6	20.9	22.6
Plan to take 4 or more years of high school mathematics	59.5	72.7	46.2	50.4	54.4
Motivation for future high school mathematics coursetaking					
Personal interest	31.1	40.0	23.2	21.3	23.9
School requirements	47.5	43.2	39.5	36.8	36.2
School encouragement	19.2	19.4	12.0	12.5	11.0
Parent encouragement	30.7	36.1	20.4	21.1	20.8
College entry or success	63.6	73.7	38.1	49.1	43.7
Career needs	35.0	34.6	20.5	16.0	19.2
Other or no reason <sup>2</sup>	24.5	20.4	31.9	29.5	33.1

<sup>1</sup> Includes students who reported that their plan for the year after high school was to enroll in an associate's degree program and to enroll in a bachelor's degree program.

<sup>2</sup> Includes students who reported "Most students who are like you take a lot of math courses," "Your friends are going to take more math courses," "Some other reason," and "You don't know why, you just probably will."

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

Table S3.

Standard errors for Table 3: Percentage of ninth-grade students with each plan for the year after high school who are taking mathematics above algebra I, who plan to take 4 or more years of mathematics, and who have each motivation for future mathematics coursetaking: 2009

Student characteristic	Enroll in an associate's degree program	Enroll in a bachelor's degree program	Work (no post-secondary education)	Neither work nor post-secondary education	Not sure
Currently taking mathematics above algebra I	1.19	0.75	0.78	2.38	1.22
Plan to take 4 or more years of high school mathematics	1.43	0.71	1.23	3.36	1.62
Motivation for future high school mathematics coursetaking					
Personal interest	1.25	0.77	1.11	2.53	1.28
School requirements	1.42	0.76	1.27	3.04	1.54
School encouragement	1.09	0.57	0.88	1.92	0.96
Parent encouragement	1.38	0.74	1.01	2.51	1.17
College entry or success	1.41	0.67	1.22	3.53	1.63
Career needs	1.36	0.76	1.04	2.18	1.45
Other or no reason	1.13	0.60	1.30	2.84	1.53

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**Table 4.**

**Percentage of ninth-grade students who are taking mathematics above algebra I, who plan to take 4 or more years of mathematics, who have each motivation for future mathematics coursetaking, and who have each plan for the year after high school, by students' socioeconomic status (SES): 2009**

<b>Student characteristic</b>	<b>Lowest SES quintile</b>	<b>Middle three SES quintiles</b>	<b>Highest SES quintile</b>
Currently taking mathematics above algebra I	17.7	25.2	49.3
Plan to take 4 or more years of high school mathematics	47.2	60.0	78.2
Motivation for future high school mathematics coursetaking			
Personal interest	27.4	30.5	41.4
School requirements	39.7	42.2	43.7
School encouragement	13.9	15.5	21.7
Parent encouragement	20.1	27.4	43.5
College entry or success	49.1	58.0	74.0
Career needs	25.9	28.3	34.0
Other or no reason	27.6	25.2	24.4
Plan for year after high school <sup>1</sup>			
Enroll in an associate's degree program <sup>2</sup>	20.5	17.3	11.4
Enroll in a bachelor's degree program	29.9	42.7	64.4
Work (no postsecondary education)	31.4	23.9	10.2
Neither work nor postsecondary education	3.3	3.2	2.7
Not sure	15.0	13.0	11.4

<sup>1</sup> Detail may not sum to 100 because of rounding.

<sup>2</sup> Includes students who reported that their plan for the year after high school was to enroll in an associate's degree program and to enroll in a bachelor's degree program.

NOTE: SES is a composite measure derived from parents' education level, occupation, and income. This variable was fully imputed for 24 percent of students and partially imputed for 8 percent of students. More information about this variable can be found in the report accompanying this table, available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015990>.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**Table S4.**

**Standard errors for Table 4: Percentage of ninth-grade students who are taking mathematics above algebra I, who plan to take 4 or more years of mathematics, who have each motivation for future mathematics coursetaking, and who have each plan for the year after high school, by students' socioeconomic status (SES): 2009**

Student characteristic	Lowest SES quintile	Middle three SES quintiles	Highest SES quintile
Currently taking mathematics above algebra I	1.12	0.58	1.00
Plan to take 4 or more years of high school mathematics	1.48	0.69	0.92
Motivation for future high school mathematics coursetaking			
Personal interest	1.39	0.66	0.99
School requirements	1.54	0.70	1.00
School encouragement	0.98	0.52	0.77
Parent encouragement	1.26	0.64	1.00
College entry or success	1.58	0.70	0.95
Career needs	1.47	0.66	0.95
Other or no reason	1.36	0.63	0.93
Plan for year after high school			
Enroll in an associate's degree program	1.29	0.52	0.64
Enroll in a bachelor's degree program	1.36	0.68	1.00
Work (no postsecondary education)	1.34	0.64	0.55
Neither work nor postsecondary education	0.71	0.23	0.29
Not sure	1.14	0.44	0.82

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.



# National Center for Education Statistics

**Table 5.**

**Percentage of ninth-grade students who are taking mathematics above algebra I and who plan to take 4 or more years of mathematics, by plan for year after high school and socioeconomic status (SES): 2009**

<b>Plan for year after high school and SES</b>	<b>Currently taking mathematics above algebra I</b>	<b>Plan to take 4 or more years of high school mathematics</b>
Enroll in associate's degree program <sup>1</sup>		
Lowest SES quintile	20.5	48.4
Middle 3 SES quintiles	24.0	60.4
Highest SES quintile	35.6	74.3
Enroll in bachelor's degree program		
Lowest SES quintile	25.7	60.7
Middle 3 SES quintiles	33.7	70.0
Highest SES quintile	57.2	83.2
Work (no postsecondary education)		
Lowest SES quintile	11.5	37.4
Middle 3 SES quintiles	15.2	47.0
Highest SES quintile	30.1	65.7
Neither work nor postsecondary education		
Lowest SES quintile	6.7!	44.5
Middle 3 SES quintiles	18.3	50.0
Highest SES quintile	45.3	58.6
Not sure		
Lowest SES quintile	13.8	38.7
Middle 3 SES quintiles	21.3	55.5
Highest SES quintile	37.6	70.1

! Interpret data with caution. Estimate is unstable because the standard error represents more than 30 percent of the estimate.

<sup>1</sup> Includes students who reported that their plan for the year after high school was to enroll in an associate's degree program and to enroll in a bachelor's degree program.

NOTE: SES is a composite measure derived from parents' education level, occupation, and income. This variable was fully imputed for 24 percent of students and partially imputed for 8 percent of students. More information about this variable can be found in the report accompanying this table, available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015990>.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**Table S5.**

**Standard errors for Table 5: Percentage of ninth-grade students who are taking mathematics above algebra I and who plan to take 4 or more years of mathematics, by plan for year after high school and socioeconomic status (SES): 2009**

<b>Plan for year after high school and SES</b>	<b>Currently taking mathematics above algebra I</b>	<b>Plan to take 4 or more years of high school mathematics</b>
Enroll in associate's degree program		
Lowest SES quintile	2.96	3.59
Middle 3 SES quintiles	1.40	1.65
Highest SES quintile	2.83	2.62
Enroll in bachelor's degree program		
Lowest SES quintile	2.41	2.56
Middle 3 SES quintiles	0.96	0.97
Highest SES quintile	1.18	0.93
Work (no postsecondary education)		
Lowest SES quintile	1.53	2.34
Middle 3 SES quintiles	0.95	1.58
Highest SES quintile	2.60	2.70
Neither work nor postsecondary education		
Lowest SES quintile	3.02	12.36
Middle 3 SES quintiles	2.94	3.67
Highest SES quintile	5.46	5.32
Not sure		
Lowest SES quintile	2.57	3.73
Middle 3 SES quintiles	1.51	1.78
Highest SES quintile	3.40	4.54

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**Table 6.**  
**Percentage of ninth-grade students reporting each motivation for future high school mathematics coursetaking, by plan for year after high school and socioeconomic status (SES): 2009**

Plan for year after high school and SES	Personal interest	School requirements	School encouragement	Parent encouragement	College entry or success	Career needs	Other or no reason <sup>1</sup>
Enroll in associate's degree program <sup>2</sup>							
Lowest SES quintile	27.9	47.0	18.8	30.9	59.2	34.9	25.2
Middle 3 SES quintiles	31.1	45.7	18.8	29.1	62.7	33.7	24.5
Highest SES quintile	36.3	56.4	21.8	37.4	74.9	40.5	23.2
Enroll in bachelor's degree program							
Lowest SES quintile	37.2	41.3	14.0	21.9	62.7	31.3	21.2
Middle 3 SES quintiles	37.1	43.9	18.4	33.3	72.5	34.1	18.9
Highest SES quintile	46.7	42.7	23.9	47.7	80.9	36.9	22.7
Work (no postsecondary education)							
Lowest SES quintile	21.7	34.0	12.1	15.6	35.0	19.8	34.0
Middle 3 SES quintiles	23.2	40.9	11.2	20.5	36.9	20.0	32.0
Highest SES quintile	26.7	45.4	16.6	33.4	54.3	25.1	25.1
Neither work nor postsecondary education							
Lowest SES quintile	11.1 !	29.4	7.1 !	11.6 !	56.0	10.7 !	24.4 !
Middle 3 SES quintiles	19.7	36.9	12.1	18.8	44.7	17.5	30.0
Highest SES quintile	36.2	43.7	19.0	38.1	57.5	16.1	32.7
Not sure							
Lowest SES quintile	21.1	39.7	11.5	12.1	33.8	17.6	31.9
Middle 3 SES quintiles	23.1	35.4	9.9	19.5	43.8	18.8	33.7
Highest SES quintile	30.1	34.7	14.2	35.5	54.8	22.6	32.7

! Interpret data with caution. Estimate is unstable because the standard error represents more than 30 percent of the estimate.

<sup>1</sup> Includes students who reported "Most students who are like you take a lot of math courses," "Your friends are going to take more math courses," "Some other reason," and "You don't know why, you just probably will."

<sup>2</sup> Includes students who reported that their plan for the year after high school was to enroll in an associate's degree program and to enroll in a bachelor's degree program.

NOTE: SES is a composite measure derived from parents' education level, occupation, and income. This variable was fully imputed for 24 percent of students and partially imputed for 8 percent of students. More information about this variable can be found in the report accompanying this table, available at <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015990>.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSLs:09), Base-Year Restricted-Use File.

# National Center for Education Statistics

**Table S6.**

**Standard errors for Table 6: Percentage of ninth-grade students reporting each motivation for future high school mathematics coursetaking, by plan for year after high school and socioeconomic status (SES): 2009**

<b>Plan for year after high school and SES</b>	<b>Personal interest</b>	<b>School requirements</b>	<b>School encouragement</b>	<b>Parent encouragement</b>	<b>College entry or success</b>	<b>Career needs</b>	<b>Other or no reason</b>
Enroll in associate's degree program							
Lowest SES quintile	3.05	3.73	2.66	3.90	3.83	3.47	2.77
Middle 3 SES quintiles	1.50	1.67	1.33	1.54	1.61	1.61	1.39
Highest SES quintile	2.79	2.96	2.32	2.81	2.48	3.07	2.45
Enroll in bachelor's degree program							
Lowest SES quintile	2.74	2.72	1.65	2.00	2.58	2.74	2.25
Middle 3 SES quintiles	1.02	1.01	0.77	0.99	0.87	1.02	0.76
Highest SES quintile	1.21	1.19	0.99	1.22	0.95	1.17	1.00
Work (no postsecondary education)							
Lowest SES quintile	2.09	2.36	1.54	1.58	2.44	1.91	2.64
Middle 3 SES quintiles	1.45	1.65	1.19	1.37	1.55	1.37	1.66
Highest SES quintile	2.50	2.86	1.93	2.66	2.86	2.52	2.44
Neither work nor postsecondary education							
Lowest SES quintile	5.01	8.96	2.72	4.53	11.79	4.82	7.62
Middle 3 SES quintiles	3.09	3.45	2.48	3.10	3.79	2.81	3.41
Highest SES quintile	5.46	5.45	4.56	5.45	5.43	4.12	5.38
Not sure							
Lowest SES quintile	3.30	4.19	2.70	2.40	4.70	4.86	3.53
Middle 3 SES quintiles	1.52	1.80	1.13	1.43	1.83	1.42	1.74
Highest SES quintile	3.06	3.35	2.03	3.33	4.14	2.95	4.44

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HSL:09), Base-Year Restricted-Use File.