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High School Students' Views on Who Influences Their Thinking about Education and Careers

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Statistics in Brief publications present descriptive data in tabular formats to provide useful information to a broad audience, including members of the general public. They address simple and topical issues and questions. They do not investigate more complex hypotheses, account for inter-relationships among variables, or support causal inferences. We encourage readers who are interested in more complex questions and in-depth analysis to explore other NCES resources, including publications, online data tools, and public- and restricted-use datasets. See nces.ed.gov and references noted in the body of this document for more information.

As they think about their future, high school students can face a wide range of education and career choices. How do they choose? Who helps young people make their educational and career choices? In particular, to what extent do schools help students with these decisions? Given the importance of education and career decisions for life success, these are not idle questions.

A significant amount of research has been done on this topic, most of which has been conducted within the framework of "social cognitive career theory" (SCCT). SCCT focuses on individuals' internal, cognitive processes (e.g., achievement, expectations) and how those cognitions interact with external, contextual factors (e.g., social supports and barriers) to influence career decisions and development (Lent, Brown, and Hackett 1994, 2000). This research has focused largely on cognitive factors, confirming the important role of students' achievement and abilities in making education and career decisions (Adragna 2009; Schnabel et al. 2002; Tracey and Hopkins 2001), as well as the role of related feelings of self-efficacy (Ali and Saunders 2009; Balsamo, Lauriola, and Saggino 2013; Creed, Patton, and Prideaux 2006; Gushue 2006; Lease 2006; Mihyeon 2011; Rogers and Creed 2011). Some SCCT research has focused on external barriers to career development, noting in particular the role of socioeconomic and cultural barriers

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in lowering students' expectations or deferring their decisions (Fouad and Byars-Winston 2005; Grodsky and Riegle-Crumb 2010; Gushue, Clarke, and Pantzer 2006).

Another area of SCCT research focuses on the factors that support students' career decisionmaking. Research on this topic has looked at the role of parents, families, teachers, counselors, mentors, or role models in general as supportive influences; this research has typically found that each of these groups has a positive influence on students' education and career decisionmaking (Bennett 2007; Borghans, Golsteyn, and Stenberg 2015; Constantine 2005; Gushue and Whitson 2006; Hargrove, Inman, and Crane 2005; Loera et al. 2013; Mihyeon 2010). These studies do not, however, reveal the relative influence these different groups have on students. What role, for example, do school staff play compared to parents or other family members? One study does provide a hint: Research by Otto (2000) found that most high school juniors relied on their mothers for career planning advice.

Many aspects of the SCCT framework have been well explored in the literature (e.g., Creed, Patton, and Prideaux 2006; Gushue 2006; Lent, Brown, and Hackett 1994, 2000; Rogers and Creed 2011). This Brief uses data from the High School Longitudinal Study of 2009 (HSLs:09) to explore the less well-developed area of relative influences in students' decisionmaking by quantitatively examining multiple sources of influence on students' thinking about two major life decisions: their future education and their career choices. As discussed below, the HSLs:09 data allow for an examination of who students believe most influences their thinking in

each domain and for a comparison of influences across the two domains. The data also enable an examination of whether students' reports on who has the most influence in each domain vary by students' socioeconomic status¹ (SES).

It should be noted, however, that this Brief provides a relatively simple descriptive analysis, excluding other potential factors that research has shown influence students' decisions in combination with or in addition to the factors examined here, such as students' post-high school intentions and race/ethnicity (e.g., Fouad and Byars-Winston 2005; Lent, Brown, and Hackett 1994). As with any correlational study, the reader should not infer causation from simple relationships.

Data, Measures, and Methods

HSLs:09 is a nationally representative, longitudinal study of more than 23,000 students who were first surveyed in fall 2009 when they were in the ninth grade and again in spring 2012, when most were in the eleventh grade. This Brief excludes private school students and looks at the 20,700 public high school students who responded to the 2012 survey. The Brief examines students' answers to the following questions in the HSLs:09 first follow-up survey:

Who has had the most influence on your thinking about education after high school, if anyone?

Who has had the most influence on your thinking about careers, if anyone?

For both questions, students selected one of the following response options:

¹ SES is a composite measure based on parents' education, parents' occupation, and family income.

your parents, another family member (aggregated into family members for this Brief); yourself, no one in particular (aggregated into myself)²; a teacher; your friends; your employer, a military recruiter, a coach or scout (aggregated into a single category); or don't know. The question about careers included an option for a *high school counselor*, and the question about postsecondary education included options for a *high school counselor* and a *counselor hired by your family to help prepare you for college admission* (aggregated into *counselor*).

To examine whether students' reports on who has the most influence on their thinking vary by SES, students were classified into three groups based on their family's SES ranking: the highest 20 percent of SES scores (high SES), the middle 60 percent of SES scores (middle SES), and the lowest 20 percent of SES scores (low SES).

Comparisons made in this Brief were tested for statistical significance at the $p < .05$ level to ensure that the differences were larger than might be expected due to sampling variation. With few exceptions, the report discusses only those differences that met the .05 significance level. Where nonsignificant findings are mentioned, they are referred to as findings with no measurable differences. No adjustments were made for multiple comparisons. More information on HSLs:09 and on the variables, sample, and analysis used here is available in the **Technical Notes** section at the end of the Brief.

² The rationale for combining "no one in particular" with "yourself" is that if no one influenced a student's decisionmaking, then by default the student was his or her own main influence. For percentages of students who selected each of these response alternatives, see <https://nces.ed.gov/surveys/ctes/tables/h167.asp> and <https://nces.ed.gov/surveys/ctes/tables/h168.asp>.

STUDY QUESTIONS

1 Who has the most influence on students' thinking about education after high school?

2 Who has the most influence on students' thinking about possible careers?

3 Do students report the same main source of information for education after high school and for careers?

4 Do students from different socioeconomic backgrounds report the same main sources of information for their education and career choices?

KEY FINDINGS

- *Family members* were most often reported as the main influence for students' thinking about education after high school, followed by *myself*; school staff (*teacher* or *counselor*) were less frequently reported as the main influence (figure 1).
- *Family members* and *myself* were most often reported as the main influence for students' thinking about careers, with school staff less frequently reported as the main influence (figure 2).
- *Family members* more often were reported as students' main influence for thinking about postsecondary education than for their thinking about careers, while students reported relying on themselves more when thinking about careers than when thinking about postsecondary education (figure 3).
- Students at each SES level most often reported *family members* and *myself* as their main influence for thinking about both further education and careers. However, high-SES students reported more often than low-SES students that they were their own main influence, while low-SES students reported more often than high-SES students that *teachers* or *counselors* were their main influence. High-SES students also reported more often than low-SES students that *family members* were their main influence for thinking about college (figures 4 and 5).

1

Who has the most influence on students' thinking about education after high school?

According to 2009 public school ninth-graders in 2012, *family members* was the group that most often had the most influence on their thinking about education after high school. Almost half of the students (49 percent) reported that *family members* most

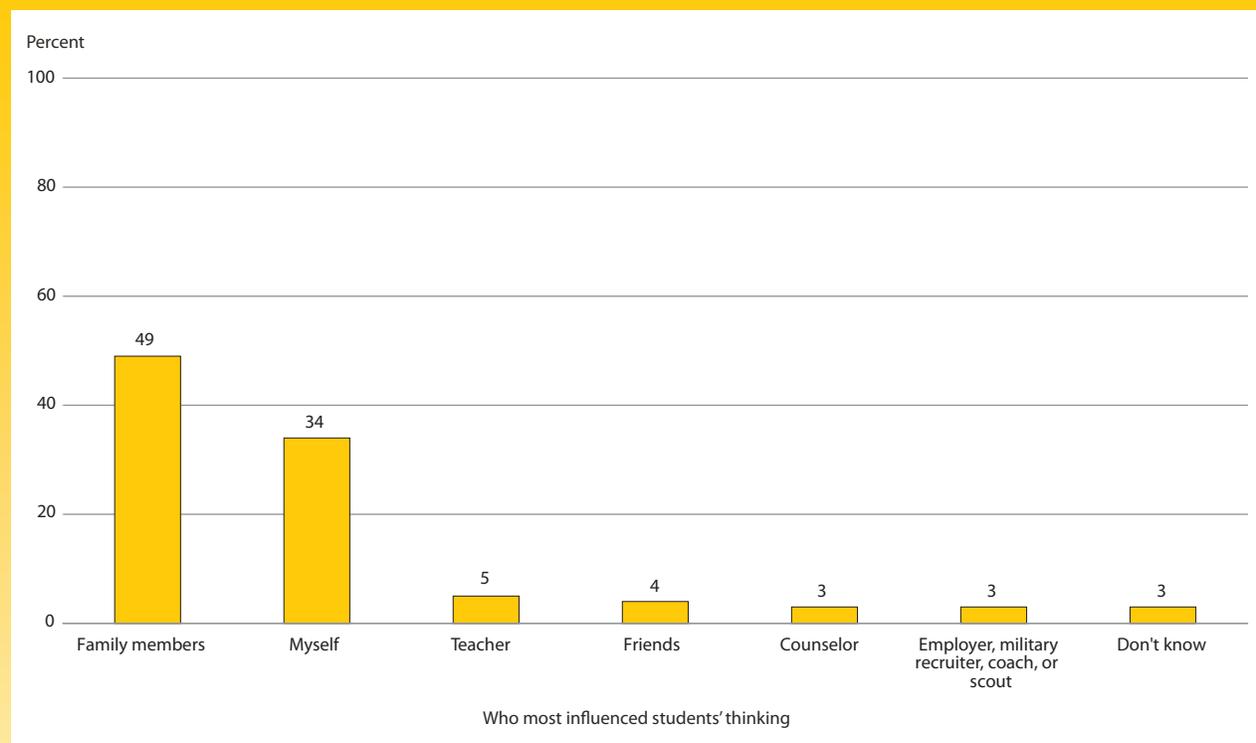
influenced their thinking on this issue (figure 1). The next most commonly reported most influential source was *myself* (34 percent), while nonfamily members—including school staff—were reported less frequently. No more than 5 percent of students indicated

that the most influence on their thinking about education after high school came from any one of these sources: *teacher; counselor; friends; or employer, military recruiter, coach, or scout.*

WHO INFLUENCES STUDENTS' EDUCATION DECISIONS

FIGURE 1.

Percentage distribution of fall 2009 public school ninth-graders as of spring 2012, by student reports on who most influenced their thinking about education after high school: 2012



NOTE: *Family members* includes response categories for *your parents* and *another family member*; *Myself* includes *yourself* and *no one in particular*; *Counselor* includes *high school counselor* and *counselor hired by your family to help you prepare for college admission*. Standard errors for estimates can be found at <http://nces.ed.gov/surveys/ctes/tables/H167.asp>. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HLS:09), First Follow-Up Restricted-Use Data File.

2 Who has the most influence on students' thinking about possible careers?

In terms of who most influenced students' career decisions, *family members* and *myself* were again the most commonly reported sources, although there was no measurable difference in the percentage of

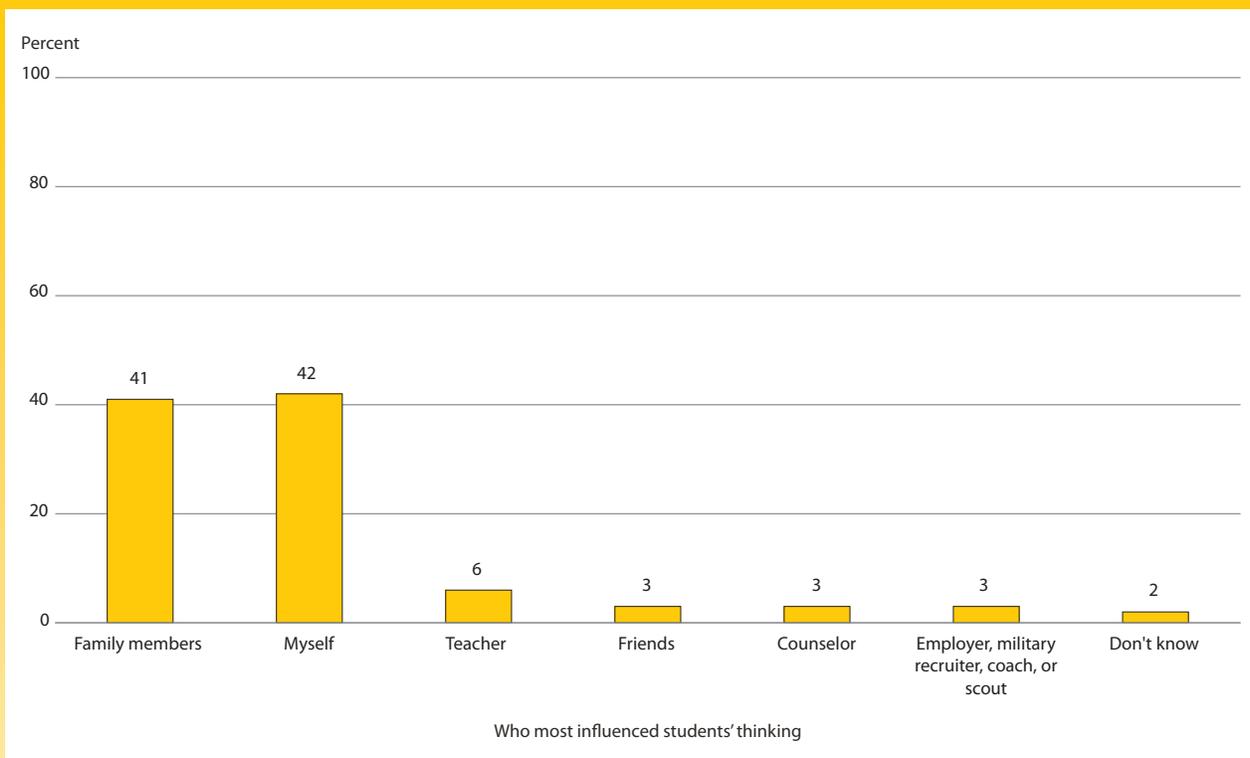
students who chose these options (41 and 42 percent, respectively; figure 2). School staff were again reported less frequently; as with education after high school, relatively

few students (6 percent) indicated that a *teacher* had the most influence on their thinking about careers, and only 3 percent indicated that a *counselor* had the most influence.

WHO INFLUENCES STUDENTS' CAREER DECISIONS

FIGURE 2.

Percentage distribution of fall 2009 public school ninth-graders as of spring 2012, by student reports on who most influenced their thinking about careers: 2012



NOTE: *Family members* includes response categories for *your parents* and *another family member*; *Myself* includes *yourself* and *no one in particular*. For who influenced students' thinking about careers, the only response option for *Counselor* was *high school counselor*. Standard errors for estimates can be found at <http://nces.ed.gov/surveys/ctes/tables/H168.asp>. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HLS:09), First Follow-Up Restricted-Use Data File.

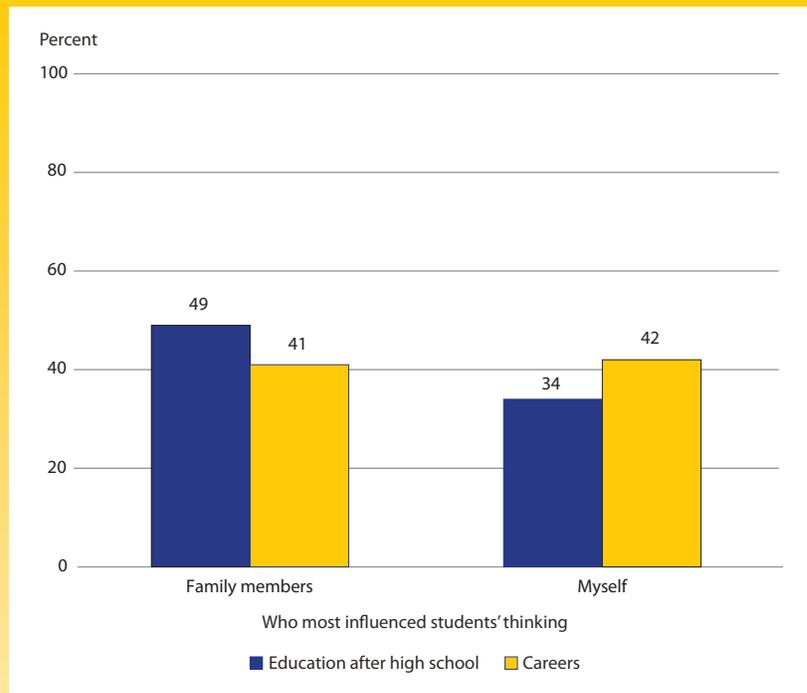
3 Do students report the same main source of information for education after high school and for careers?

As noted above, *family members* and *myself* were most often reported to be students' main influence when thinking about both education after high school and careers. However, *family members* were more often reported as students' main information source for their thinking about education than about careers (figure 3). Overall, 49 percent of students reported that *family members* were their most influential source when thinking about education, while 41 percent reported that *family members* were their most influential source when thinking about careers. In contrast, students relied on themselves more often in their thinking about careers than about education; 42 percent of students reported that they were their own main influence when thinking about careers, compared to 34 percent who reported that they were their own main influence when thinking about education.

FAMILY VERSUS SELF AS INFORMATION SOURCES

FIGURE 3.

Percentage of fall 2009 public school ninth-graders as of spring 2012 who reported *family members* or *myself* as their most influential source of information for education after high school and for careers: 2012



NOTE: *Family members* includes response categories for *your parents* and *another family member*; *Myself* includes *yourself* and *no one in particular*. Standard errors for estimates can be found at <http://nces.ed.gov/surveys/ctes/tables/H167.asp> and <http://nces.ed.gov/surveys/ctes/tables/H168.asp>.

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

4 Do students from different socioeconomic backgrounds report the same main sources of information for their education and career choices?

Students from different SES backgrounds show the same overall pattern of decisionmaking as students in general. As for all students, students from high-, middle-, and low-SES backgrounds most often reported *family members* and/or *myself* as their main influence for thinking about both education and careers. But there were differences in the relative emphasis students from different SES groups

placed on each source of information; generally, higher SES students more often than lower SES students reported *family members* or *myself* as their main influence, while lower SES students more often than higher SES students reported a *teacher* or a *counselor* as their main influence.

Sources of information for education after high school. When considering education after high

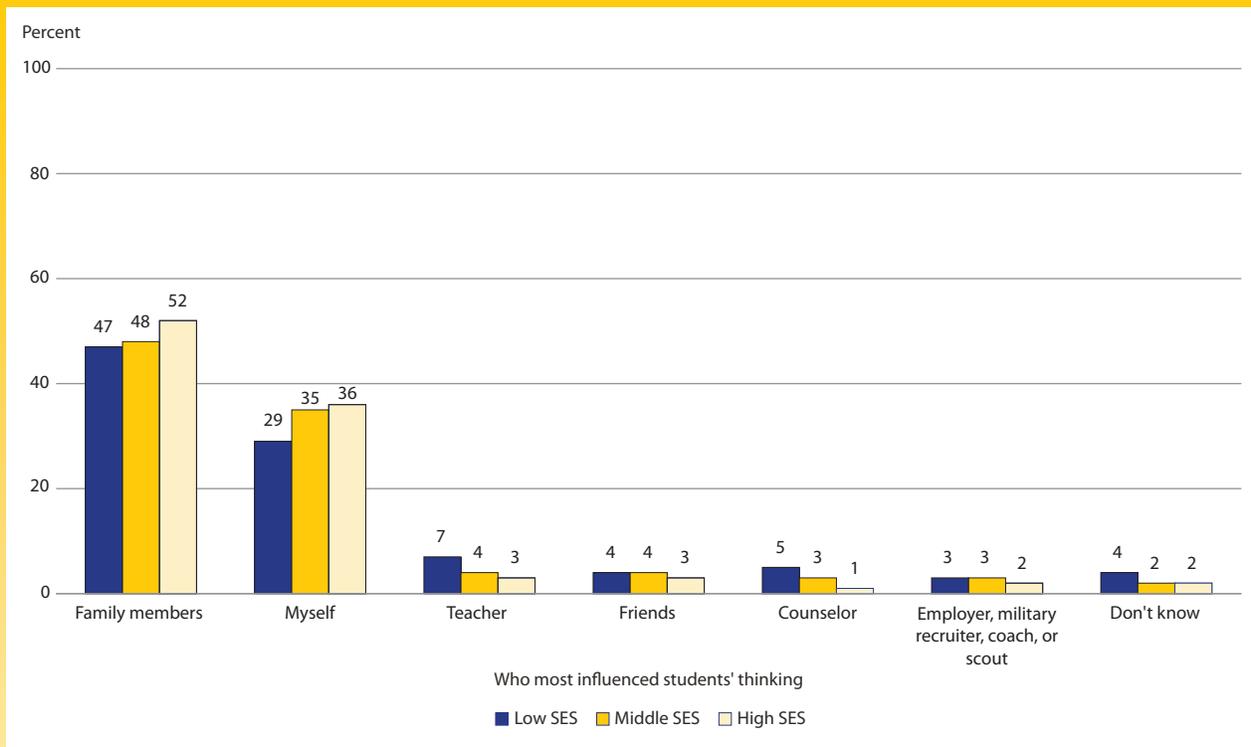
school, high- and middle-SES students reported more often than low-SES students that they were their own most influential source of information, and high-SES students reported more often than middle- and low-SES students that *family members* were their most influential source (figure 4).

Lower SES students reported that their main influence for thinking about education was school staff (*teacher*

INFLUENCES ON EDUCATION DECISIONS, BY SES BACKGROUND

FIGURE 4.

Percentage distribution of fall 2009 public school ninth-graders as of spring 2012, according to student reports of who most influenced their thinking about education after high school, by socioeconomic status (SES): 2012



NOTE: *Family members* includes response categories for *your parents* and *another family member*; *Myself* includes *yourself* and *no one in particular*; *Counselor* includes *high school counselor* and *counselor hired by your family to help you prepare for college admission*. Standard errors for estimates can be found at <http://nces.ed.gov/surveys/ctes/tables/H167.asp>. Detail may not sum to totals 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), First Follow-up Restricted-Use Data File.

or *counselor*) more often than did higher SES students. However, even among low-SES students, *teacher* and *counselor* were each reported as the main source of influence by fewer than 10 percent of students.

Sources of Information for Careers.

When considering careers, higher SES students reported that they were their

own main source of information more often than did lower SES students. As figure 5 shows, 49 percent of high-SES students reported that they were their own most influential source, compared to 42 percent of middle-SES students and 36 percent of low-SES students.

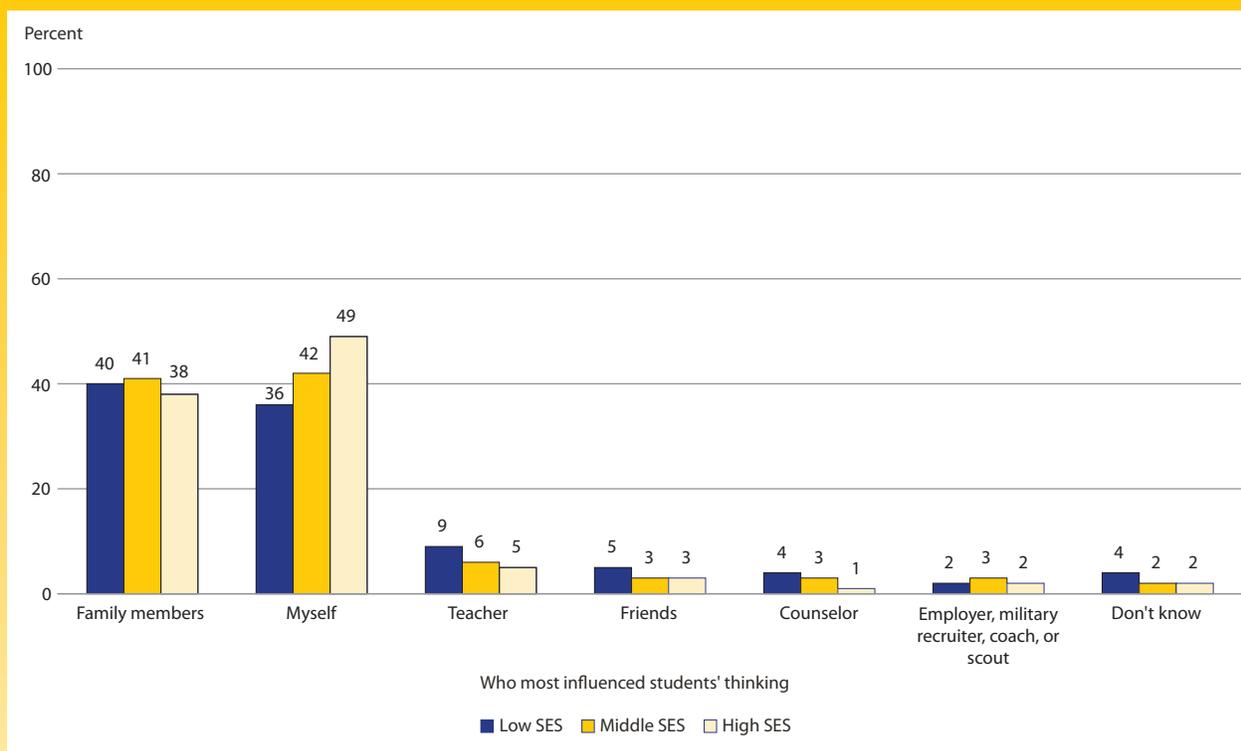
Low-SES students, compared to middle- and high-SES students, more

often reported school staff (*teacher* or *counselor*) as their most influential source of information for thinking about careers (figure 5). But again, even among low-SES students, *teacher* and *counselor* were each reported as the most influential source by about 10 percent or fewer students.

INFLUENCES ON CAREER DECISIONS, BY SES BACKGROUND

FIGURE 5.

Percentage distribution of fall 2009 public school ninth-graders as of spring 2012, according to student reports of who most influenced their thinking about careers, by socioeconomic status (SES): 2012



NOTE: *Family members* includes response categories for *parents* and *another family member*; *Myself* includes *yourself* and *no one in particular*. For who influenced students' thinking about careers, the only response option for *Counselor* was *high school counselor*. Standard errors for estimates can be found at <http://nces.ed.gov/surveys/ctes/tables/H168.asp>. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, High School Longitudinal Study of 2009 (HLS:09), First Follow-Up Restricted-Use Data File.

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<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2018088>

Readers of this Statistics in Brief might also be interested in the following NCES reports and tables:

High School Longitudinal Study of 2009 (HSL:09) 2013 Update and High School Transcript Study: A First Look at Fall 2009 Ninth-Graders in 2013 (NCES 2015-037rev). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015037rev>.

Web Tables—High School Dropouts and Stopouts: Demographic Backgrounds, Academic Experiences, Engagement, and School Characteristics (NCES 2015-064). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015064>.

Ninth-Graders' Mathematics Coursetaking, Motivations, and Educational Plans (NCES 2015-990). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2015990>.

High School Longitudinal Study of 2009 (HSL:09) First Follow-up: A First Look at Fall 2009 Ninth-Graders in 2012 (NCES 2014-360). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2014360>.

High School Longitudinal Study of 2009 (HSL:09): A First Look at Fall 2009 Ninth-Graders (NCES 2011-327). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011327>.

High School Longitudinal Study of 2009 (HSL:09): A First Look at Fall 2009 Ninth-Graders' Parents, Teachers, School Counselors, and School Administrators (NCES 2011-355). <http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2011355>.

For a selection of tables, figures, and reports on career and technical education (CTE) topics, visit the CTE Statistics website at <http://nces.ed.gov/surveys/ctes>.

TECHNICAL NOTES

This section describes the survey methodology for the HSLs:09 and the variables and analyses used in this Statistics in Brief. More detailed information on the HSLs:09 methodology is available in *High School Longitudinal Study of 2009 (HSLs:09) Base Year to First Follow-up Data File Documentation* (Ingels et al. 2013).

Survey Methodology

The estimates provided in this Statistics in Brief are based on data collected in the first follow-up study (2012) of the HSLs:09. Starting with a cohort of students who were enrolled in the ninth grade in fall 2009, the HSLs:09 follows students throughout their high school and early adult years in order to understand students' trajectories from the beginning of high school into postsecondary education, the workforce, and beyond. The HSLs:09 first follow-up study included a mathematics assessment and a student questionnaire, as well as questionnaires administered to students' parents, school counselors, and school administrators. The student questionnaire collected information such as high school attendance, grade progression, and attainment; school experiences (including withdrawal from school); demographics and family background; influences on thinking and behavior; and behaviors, expectations, and aspirations, including factors influencing college choice. The analysis in this Brief used the HSLs:09 first follow-up student questionnaire data file.

In the base-year HSLs:09, students were sampled through a two-stage process: schools were sampled first, followed by students within schools.

The target population at the school level was defined as regular public schools (including public charter schools) and private schools in the 50 states and the District of Columbia that provided instruction in both ninth and eleventh grades. Stratified random sampling based on school type (public, private–Catholic, private–other), geographic region (Northeast, Midwest, South, West), and geographic location of the school (city, suburban, town, rural) resulted in the identification of 1,889 eligible schools. A total of 944 of these schools participated in the study, resulting in a 55 percent weighted response rate, or 50 percent unweighted response rate. For the 767 participating public schools used in this Brief, the weighted response rate was 59 percent, and the unweighted response rate was 51 percent.

In the second stage of sampling, students were randomly selected using a stratified systematic sampling procedure from base-year enrollment lists provided by administrative contacts at the school. The second-stage sampling strata were defined by the students' race/ethnicity (Hispanic, Asian, Black, and other [including White]) specified by the school, yielding approximately 26,300 sampled students (or about 28 students per school). The target population of students was defined to include all ninth-grade students who attended the study-eligible schools in the fall 2009 term. Students who were unable to directly participate in the study because of language barriers or severe disabilities were retained in the sample, and contextual data were sought for them. Their ability to complete the study instruments was reassessed in the first follow-

up. Of the 26,300 sampled students, approximately 25,200 were eligible and about 24,700 were able to participate in the assessment

In the first follow-up, all 25,200 base-year study-eligible students were surveyed, regardless of their response status at the base year. (Two exceptions to this are sample members who died or were removed as a result of base-year sampling errors discovered only in the first follow-up; e.g., the student was not a ninth-grader in 2009.)

Unlike prior NCES secondary studies, the HSLs:09 student sample was not refreshed to include a representative later-grade cohort. As a result, first follow-up estimates from the sample are associated only with the ninth-grade cohort 2.5 years later and not the universe of students attending the eleventh grade in the spring of 2012. These sampling procedures resulted in responses from 20,700 public school students that were utilized for the analyses in this Brief.

Two student-based analytic weights were computed for the HSLs:09 first follow-up data—one for analyses specific to the first follow-up and one for longitudinal analyses associated with change between the base year and first follow-up. For this Statistics in Brief, the student-level weight W2STUDENT was used; this weight accounts for (1) base-year school nonresponse and (2) student nonresponse in the first follow-up (regardless of the student's base year response status).

Two broad categories of error occur in estimates generated from questionnaires: sampling and nonsampling errors. Sampling errors occur when observations are based

on samples rather than on entire populations. The standard error of a sample statistic is a measure of the variation due to sampling and indicates the precision of the statistic. Analytic weights were used in combination with software that accounts for the HSLs:09 complex questionnaire design to produce appropriate standard errors for the estimates for the target population. For this Statistics in Brief, variance estimation was generated through balanced repeated replication.

Nonsampling errors can be attributed to several sources: incomplete information about all respondents (e.g., some students or schools refused to participate, or students participated but answered only certain items); differences among respondents in question interpretation; inability or unwillingness to give correct information; mistakes in recording or coding data; and other errors of collecting, processing, sampling, and imputing missing data. Standard quality control procedures were followed in the HSLs:09 base-year and first follow-up data collections in order to minimize nonsampling errors.

Response Rates and Nonresponse Bias

NCES requires that for any stage of data collection yielding a response rate below 85 percent, the data must be evaluated for nonresponse bias (U.S. Department of Education 2014). For this Brief, this requirement pertains to unit response rates—the percentage of students completing the student questionnaire—and item response rates for each of the questionnaire items used in this analysis.

The data in this Brief come from the HSLs:09 first follow-up student questionnaire, which had a unit

response rate of 82 percent. Therefore, a nonresponse bias analysis was conducted. In total, 17 variables were used in the nonresponse bias analysis, including student race/ethnicity, school urbanicity, school size, and school control (public versus private). After nonresponse-bias adjustment, no bias was detected at the 0.05 level of significance.

The only item used in this Brief with a response rate lower than 85 percent was socioeconomic status (a composite variable derived from five questionnaire variables; see below). Missing values for individual variables were statistically imputed using a weighted sequential hot-deck procedure. More information on nonresponse bias and imputation in the HSLs data are available in Ingels et al. (2013).

Statistical Procedures

Comparisons of means and proportions were tested using Student's *t* statistic. Differences between estimates were tested against the probability of a Type I error³ or significance level. The statistical significance of each comparison was determined by calculating the Student's *t* value for the difference between each pair of means or proportions and comparing the *t* value with published tables of significance levels for two-tailed hypothesis testing. Student's *t* values were computed to test differences between independent estimates using the following formula:

$$t = \frac{E_1 - E_2}{\sqrt{se_1^2 + se_2^2}}$$

³ A Type I error occurs when one concludes that a difference observed in a sample reflects a true difference in the population from which the sample was drawn, when no such difference is present.

where E_1 and E_2 are the estimates to be compared and se_1 and se_2 are their corresponding standard errors.

When estimates are not independent, the covariance must be accounted for in the formula. The *t* value computed to test differences between dependent estimates in this Brief is conservative in that it assumes a perfect correlation between the estimates being compared:

$$t = \frac{E_1 - E_2}{\sqrt{(se_1^2 + se_2^2) + (2[se_1 * se_2])}}$$

This formula was used when comparing two percentages from a distribution that sums to 100.

There are hazards in reporting statistical tests for each comparison. First, comparisons based on large *t* statistics may appear to merit special attention. This can be misleading, since the magnitude of the *t* statistic is related not only to the observed differences in means or percentages but also to the number of respondents in the specific categories used for comparison. Hence, a small difference compared across a large number of respondents would produce a large (and thus possibly statistically significant) *t* statistic.

A second hazard in reporting statistical tests is the possibility that one can report a “false positive” or Type I error. Statistical tests are designed to limit the risk of this type of error using a value denoted by *alpha*. The *alpha* level of .05 was selected for findings in this Brief and ensures that a difference of a certain magnitude or larger would be produced when there was no actual difference between the quantities in the underlying population no more

than 1 time out of 20. When analysts test hypotheses that show *alpha* values at the .05 level or smaller, they reject the null hypothesis that there is no difference between the two quantities. Failing to reject a null hypothesis (i.e., detect a difference), however, does not imply that the values are the same or equivalent.

Variables Used

The following variables were used in this Brief. All variables were obtained from the HSLs:09 first follow-up student file. In the descriptions below, variable names from the HSLs:09 files are listed in capital letters, followed by the weighted item response rate.

Who has had most influence on thinking about education after high school

This variable is based on the student questionnaire item *Who has had the most influence on your thinking about education after high school, if anyone?* (S2CLGINFLU, 87.4 percent). The response options were *A high school counselor, A counselor hired by your family to help you prepare for college admission, A teacher, Your parents, Another family member, Your friends, Your employer, A military recruiter, A coach or scout, Yourself, No one in particular, and Don't know*. The variable takes a missing value if the respondent does not provide an answer. For this Brief, values for response options *A high school counselor* and *A counselor hired by your family to help you prepare for college admission* were combined

into *Counselor*; *Your parents* and *Another family member* were combined into *Family members*; *Your employer, A military recruiter, and A coach or scout* were combined into *Employer, military recruiter, coach, or scout*; and *Yourself* and *No one in particular* were combined into *Myself*.

Who has had most influence on thinking about careers

This variable is based on the student questionnaire item *Who has had the most influence on your thinking about careers, if anyone?* (S2CAREERINFLU, 87.2 percent). The response options were *A high school counselor, A teacher, Your parents, Another family member, Your friends, Your employer, A military recruiter, A coach or scout, Yourself, No one in particular, and Don't know*. The variable takes a missing value if the respondent does not provide an answer. For this Brief, values for response options *Your parents* and *Another family member* were combined into *Family members*; *Your employer, A military recruiter, and A coach or scout* were combined into *Employer, military recruiter, coach, or scout*; and *Yourself* and *No one in particular* were combined into *Myself*.

Socioeconomic Status

Socioeconomic status (SES) is a measure of the family's relative position in society. Based on items in the HSLs:09 follow-up parent questionnaire, an SES index (X2SES) was constructed as an average of the

values from five variables: the highest education of each parent/guardian of a responding student (X2PAR1EDU and X2PAR2EDU); the occupation prestige score of each parent/guardian of a responding student (coded from X2PAR1OCC2 and X2PAR2OCC2); and family income (X2FAMINCOME) (Ingels et al. 2013). For the 51.8 percent of unweighted cases with nonresponding parents, five imputed values were generated, and X2SES was computed as the average of the imputed values; for the 8.1 percent of unweighted cases for which incomplete parent data were obtained, education, occupation, and/or family income were imputed using other information provided by the responding parent, and X2SES was constructed from the combination of actual and imputed values (Ingels et al. 2013).

The X2SES index score was divided into fifths based on quintiles (20th, 40th, 60th, 80th, and 100th percentiles), in the variable X2SESQ5. For this Brief, the middle 60 percent of X2SESQ5 scores were combined to form one middle SES category. The lowest 20 percent formed a low SES category, and the highest 20 percent formed a high SES category. This approach provides SES categories of sufficient size for cross-sectional analysis, while also restricting the low and high ends of the distribution (the lowest and highest 20 percent) to groups that can be reasonably interpreted as low SES and high SES, respectively.

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RUN YOUR OWN ANALYSIS WITH DATALAB

You can replicate or expand upon the analyses in this report, or even create your own analysis. DataLab has several different tools that allow you to customize and generate output from a variety of different survey datasets. Visit DataLab at

<http://nces.ed.gov/datalab/>

The screenshot displays the DataLab website interface. At the top, there are navigation tabs for 'Pre-K', 'K-12', and 'Postsecondary', along with 'MORE TOOLS' and 'LEARNING' buttons. Below the navigation is a search bar labeled 'RETRIEVE TABLE:' with an input field for 'Enter Table Number' and a 'GO' button. On the left, a list of 'ALL TOPICS' includes: Attendance and Enrollment, Education History, Educational Transitions, Employment, Faculty and Staff, Finances, Parents and Family, Pre-K and K-12 Staff, School and Institutional Characteristics, School Districts, Special Education, Staffing, Student Characteristics, and Teachers and Teaching. The center features a hexagonal graphic with 'DATALAB' in the middle, surrounded by various icons like a signal tower, a pie chart, a magnifying glass, and a document. On the right, there are buttons to 'LAUNCH BY DATASET' for 'QuickStats', 'PowerStats', and 'TrendStats', and a 'VIEW ALL DATASETS' link. At the bottom right, there is an information icon and contact information: 'Questions? Contact NCES nces.info@rti.org'.