Introduction

In 2014–15, the high school graduation rate reached a record high of 83 percent (U.S. Department of Education 2016). Despite the gains, over half a million students still drop out of high school each year (U.S. Department of Education 2015). High schools have adopted various strategies designed to keep students who are at risk of not graduating in school and on track for earning the credits required to graduate. “At-risk” students are defined as those failing to achieve basic proficiency in key subjects or exhibiting behaviors that can lead to failure and/or dropping out of school. Dropout prevention strategies are diverse; they vary in type of program, services offered, frequency, intensity, and duration of contact with target students.

The U.S. Department of Education (Department) sponsored the National Survey on High School Strategies Designed to Help At-Risk Students Graduate (HSS), which aimed to provide descriptive information on the prevalence and characteristics of dropout prevention strategies for at-risk students. The survey collected data in the 2014–15 school year from a nationally representative sample of 2,142 public high schools and focused on 13 specific high school improvement strategies identified by a panel of external experts and senior Department officials. This brief on mentoring is the fifth in a series being released this year with key findings about these high school improvement strategies.

Definition of Mentoring

Mentoring can be used as a dropout prevention strategy to provide high school students with supportive relationships from nonparental adults to address their academic and nonacademic needs. High schools match at-risk students with adult volunteers from within the school (e.g., teachers, administrative staff) or outside the school (e.g., community volunteers). The HSS defined a mentor as an adult assigned to a high school student to ensure that the student stays on track academically, help raise the student’s educational goals and improve behavior and attendance, and offer a sounding board for the student’s personal concerns. A mentor is not a case manager, regular school counselor, or peer. These mentorships are formalized through the matching of an adult to students and are different from mentorships that might develop more informally in other contexts (e.g., through extracurricular activities like participation in sports teams).

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1 The survey examined 13 strategies designed to improve high school outcomes for at-risk students. These strategies are: (1) academic support classes, (2) academic tutoring, (3) accelerated academic programs, (4) career-themed curriculum, (5) case manager, (6) competency-based advancement, (7) credit recovery, (8) early warning systems, (9) mentoring, (10) middle to high school transitions, (11) personalized learning plans, (12) social services, and (13) student support teams. See http://www2.ed.gov/about/offices/list/opepd/ppss/reports-high-school.html for the series of briefs.
Research on Mentoring

There is some significant evidence that suggests programs that provide high school students with mentors may help students progress in school (i.e., accumulate credit or get promoted to the next grade) or stay in school. For example, the following interventions showed promising results in rigorously conducted studies:

- **Check & Connect.** Two experimental studies assessed the impact of Check & Connect, an intervention that assigns high school students a “monitor” to track student performance and provide individualized attention to students, and found it had statistically significant positive effects on helping students stay in school (Sinclair et al. 2005; Sinclair et al. 1998). The studies’ samples included students with disabilities who received special education services.

- **Achievement for Latinos through Academic Success (ALAS).** Another experimental study examined the effects of ALAS, an intervention for middle and high school students that assigns a counselor or mentor to monitor student attendance, behavior, and academic achievement, and found it can help students progress or stay in school (Larson and Rumberger 1995). In this study, almost all the students in the sample were Latino.

- **Twelve Together.** An experimental study of Twelve Together, an intervention that provides peer support and mentoring services through weekly discussion groups led by trained adult facilitators, found that it can help students stay in school, although there were no effects on progressing in school (Dynarski et al. 1998). Half the students in the study sample were Hispanic, 14 percent were non-Hispanic White, 10 percent were non-Hispanic Black, and 26 percent were classified by the study as other race.

Survey Findings on Mentoring

This brief describes the use of mentoring as a dropout prevention strategy. It does not assess the effectiveness of this strategy but instead describes its application in high schools across the country—which students were provided mentors, what services were provided by mentors, and what type of individuals served as mentors. This analysis included an examination of four school characteristics: (1) size, (2) poverty, (3) locale, and (4) graduation rate. Only statistically significant differences within a school characteristic (at \( p < .05 \)) are discussed; non-statistically significant differences are not reported. School characteristics were defined in the following ways:

- **School size.** School size categories consisted of small schools (fewer than 500 students), medium schools (500–1,199 students), and large schools (1,200 or more students) based on 2013–14 Common Core of Data (CCD) student enrollment data.

- **School poverty.** Poverty levels were based on 2013–14 CCD free or reduced-price lunch (FRPL) and total CCD school enrollment data. The poverty categories were low-poverty schools (below 35 percent students with FRPL), medium-poverty schools (35–49 percent with FRPL), and high-poverty schools (50 percent or more students with FRPL).

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2 The U.S. Department of Education’s What Works Clearinghouse (WWC) reviewed studies evaluating these three interventions and determined that some of them met the WWC’s rigorous standards and showed positive effects. The WWC provides educators, policymakers, researchers, and the public with a centralized and trusted source of scientific evidence of what works in education. See [http://ies.ed.gov/ncee/wwc/](http://ies.ed.gov/ncee/wwc/) for more information.
School locale. School locale included three mutually exclusive locales from the CCD: rural schools, suburban/town schools, and city schools.

Graduation rate. School classification by graduation rate was based on three categories: low graduation rate (67 percent or lower graduation rate), medium graduation rate (68 to 89 percent graduation rate), and high graduation rate (90 percent or higher graduation rate).

Summary of Key Findings

- One-third of all high schools (35 percent) provided mentoring to some students. Large schools were more likely than small schools to provide mentoring, and a greater share of city schools provided mentoring than suburban and rural schools.

- Nationwide, an estimated 10 percent of students received mentoring through their high schools.

- Of the high schools providing mentoring services, 53 percent offered or assigned mentoring to select students and 47 percent offered or assigned mentoring to all students. Schools that offered or assigned mentoring services to select students identified them by academic performance (e.g., grades) or staff recommendations.

- The more common reasons for high schools to provide mentoring services were to address the academic and social needs of students. Low-graduation-rate schools were more likely than high-graduation-rate schools to expect mentors to support students in areas beyond academic achievement, such as addressing family issues or concerns.

- High schools more often used existing school personnel to serve as mentors: teachers (74 percent), school counselors (48 percent), or administrative staff (46 percent). A smaller proportion of schools used mentors from outside the school. These mentors were staff from a community-based organization partnering with the school (20 percent), district staff (17 percent), or college students (10 percent).

- Among high schools with mentoring services, the majority of students were expected to meet with their mentors on a daily or weekly basis (59 percent), and most schools (60 percent) required students to meet with their mentors.

What was the prevalence of mentoring students in high school?

Nationwide, about a third (35 percent) of high schools provided mentoring during the 2014–15 school year. These patterns varied by school size and locale (Exhibit 1). There were no significant differences by high school poverty level or graduation rate.

Differences by school size. Large schools were more likely than small schools to provide mentoring to students (44 percent compared with 32 percent).

Differences by school locale. A greater share of city schools provided mentoring (41 percent) compared with suburban and rural schools (37 and 29 percent, respectively).
Exhibit 1. Percentage of high schools that provided mentoring, 2014–15

<table>
<thead>
<tr>
<th>School Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>All high schools</td>
<td>35%</td>
</tr>
<tr>
<td>Large</td>
<td>44%*</td>
</tr>
<tr>
<td>Small</td>
<td>32%</td>
</tr>
<tr>
<td>City</td>
<td>41%*</td>
</tr>
<tr>
<td>Suburban</td>
<td>37%</td>
</tr>
<tr>
<td>Rural</td>
<td>29%</td>
</tr>
</tbody>
</table>

Exhibit reads: In 2014–15, 44 percent of large high schools and 32 percent of small high schools provided mentoring to students. * p < .05.

NOTE: The asterisk is placed on one case per comparison. Differences across school characteristics with two categories were based on comparisons between the two groups. Differences across school characteristics with three categories were based on goodness-of-fit across all three categories.

Unweighted n = 704 high schools.

SOURCE: HSS survey of high school administrators, 2015 (Question 15).

How many students received mentoring?
In 2014–15, an estimated one out of 10 high school students nationwide received mentoring (10 percent), according to school principals. Among high schools that provided mentoring, principals reported that on average 41 percent of students in their schools received mentoring.

For what purposes did high schools provide mentoring?
The more common reasons high schools gave for providing mentoring were to address the academic and social needs of students (Exhibit 2). The top five reported reasons were to ensure that students stayed on track academically (90 percent), to improve student engagement in school (81 percent), to model positive and respectful behavior (81 percent), to prevent at-risk behavior (77 percent), and to help raise students’ educational or career goals (76 percent). The purposes of mentoring varied by three school characteristics: graduation rate, poverty level, and locale. These purposes did not vary by school size.

Differences by poverty level. High-poverty schools were more likely than low-poverty schools to report that mentoring was implemented to help students address family issues and concerns (53 percent compared with 33 percent). High-poverty schools also were more likely than low-poverty schools to report assisting students with exploring community resources as a purpose of mentor assignments (53 percent compared with 37 percent).

Differences by school locale. The purposes of mentoring varied by school locale. The most noticeable difference was in the purpose of addressing family issues or concerns: 57 percent of city schools reported this purpose compared with 47 percent of suburban schools and 36 percent of rural schools.

Differences by graduation rate. Low-graduation-rate schools were more likely than high-graduation-rate schools to report that mentors served as resources in aspects beyond student academics. For example, low-graduation-rate schools were more likely than high-graduation-
rate schools to report that mentors were assigned to model positive and respectful behavior (87 percent compared with 77 percent), to serve as a sounding board for personal concerns (77 percent compared with 66 percent), or to monitor attendance (67 percent compared with 51 percent).

Exhibit 2. Percentage of high schools that reported the purposes for providing mentoring, by poverty level, locale, and school graduation rate, 2014–15

<table>
<thead>
<tr>
<th>Purpose</th>
<th>All Schools</th>
<th>Poverty Level</th>
<th>Locale</th>
<th>Graduation Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Low</td>
<td>City</td>
</tr>
<tr>
<td>To ensure that students stay on track academically</td>
<td>90%</td>
<td>90%</td>
<td>87%</td>
<td>91%</td>
</tr>
<tr>
<td>To improve student engagement in school</td>
<td>81%</td>
<td>81%</td>
<td>86%</td>
<td>84%</td>
</tr>
<tr>
<td>To model positive and respectful behavior</td>
<td>81%</td>
<td>84%</td>
<td>82%</td>
<td>84%*</td>
</tr>
<tr>
<td>To prevent at-risk behavior</td>
<td>77%</td>
<td>79%</td>
<td>72%</td>
<td>80%</td>
</tr>
<tr>
<td>To help raise students’ educational or career goals</td>
<td>76%</td>
<td>80%</td>
<td>77%</td>
<td>82%*</td>
</tr>
<tr>
<td>To serve as a sounding board for personal concerns</td>
<td>70%</td>
<td>70%</td>
<td>69%</td>
<td>75%*</td>
</tr>
<tr>
<td>To monitor attendance</td>
<td>61%</td>
<td>64%*</td>
<td>53%</td>
<td>68%*</td>
</tr>
<tr>
<td>To provide advice about postsecondary options</td>
<td>61%</td>
<td>68%*</td>
<td>53%</td>
<td>70%*</td>
</tr>
<tr>
<td>To develop conflict resolution skills</td>
<td>50%</td>
<td>55%*</td>
<td>44%</td>
<td>59%*</td>
</tr>
<tr>
<td>To explore community resources to address individual needs</td>
<td>47%</td>
<td>53%*</td>
<td>37%</td>
<td>55%*</td>
</tr>
<tr>
<td>To address family issues or concerns</td>
<td>47%</td>
<td>53%*</td>
<td>33%</td>
<td>57%*</td>
</tr>
<tr>
<td>To help select classes</td>
<td>33%</td>
<td>34%</td>
<td>28%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Exhibit reads: Among high schools that provided mentoring in 2014–15, 90 percent cited ensuring that students stayed on track academically as a purpose of mentorship assignments.

* p < .05.

NOTE: The asterisk is placed on one case per comparison. Differences across school characteristics with two categories were based on comparisons between the two groups. Differences across school characteristics with three categories were based on goodness-of-fit across all three categories.

Unweighted n = 704 high schools

SOURCE: HSS survey of high school administrators, 2015 (Question 20).

How did high schools target students for inclusion in mentoring?

High schools most frequently reported targeting students for inclusion in mentoring based on poor academic performance (76 percent), followed by recommendation by school staff (74 percent), attendance problems (70 percent), and discipline issues (67 percent) (Exhibit 3).
Exhibit 3. Student subgroups or needs that high schools targeted for mentoring, 2014–15

Among high schools that provided mentoring to a subset of students in 2014–15, 76 percent targeted students who performed below standards or grade level.

Unweighted n = 375 high schools.

SOURCE: HSS survey of high school administrators, 2015 (Question 18).

How did high schools provide mentoring for students?

Among schools that provided mentoring services in 2014–15, slightly more than half targeted select students (Exhibit 4). Schools either assigned mentoring to a subset of students (30 percent) or offered mentoring to a subset of students (24 percent). Less than half of schools offered mentoring to all students (28 percent) or assigned mentoring to all students (18 percent). Students who were offered mentoring needed to opt in to being matched with mentors, whereas students who were assigned mentoring were matched without needing to opt in.

Exhibit 4. Percentage of schools that provided mentoring to all or select students, by school size, poverty level, and graduation rate, 2014–15

<table>
<thead>
<tr>
<th>All schools with mentoring</th>
<th>School size</th>
<th>Poverty level</th>
<th>Graduation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Large</td>
<td>Small</td>
<td>High</td>
</tr>
<tr>
<td>Offered to all students</td>
<td>28%</td>
<td>16%*</td>
<td>36%</td>
</tr>
<tr>
<td>Assigned to all students</td>
<td>18%</td>
<td>8%*</td>
<td>23%</td>
</tr>
<tr>
<td>Total</td>
<td>47%</td>
<td>23%*</td>
<td>59%</td>
</tr>
<tr>
<td>Offered to a subset of students</td>
<td>24%</td>
<td>34%*</td>
<td>18%</td>
</tr>
<tr>
<td>Assigned to a subset of students</td>
<td>30%</td>
<td>42%*</td>
<td>24%</td>
</tr>
<tr>
<td>Total</td>
<td>53%</td>
<td>77%*</td>
<td>41%</td>
</tr>
</tbody>
</table>

Exhibit reads: Among high schools that provided mentoring in 2014–15, 28 percent offered mentoring to all students.

* p < .05.

NOTE: The asterisk is placed on one case per comparison. Differences across school characteristics with two categories were based on contrasts with the two groups. Percentages may not sum to totals because of rounding.

Unweighted n = 704 high schools.

SOURCE: HSS survey of high school administrators, 2015 (Question 16).
There were differences in schools that provided mentoring services to all students based on school size, school poverty, and graduation rate.

**Differences by school size.** Large schools were less likely than small schools to provide mentoring to all students (23 percent compared with 59 percent).

**Differences by school poverty.** High-poverty schools were more likely than low-poverty schools to provide mentoring to all students (51 percent compared with 41 percent).

**Differences by graduation rate.** Low-graduation-rate schools were more likely than high-graduation-rate schools to provide mentoring to all students (63 percent compared with 42 percent).

There were also differences in schools that targeted select students for mentoring services based on school size, school poverty, and graduation rate.

**Differences by school size.** Large schools were more likely than small schools to target mentoring to a subset of students (77 percent compared with 41 percent).

**Differences by school poverty.** High-poverty schools were less likely than low-poverty schools to target mentoring to a subset of students (49 percent compared with 59 percent).

**Differences by graduation rate.** Low-graduation-rate schools were less likely than high-graduation-rate schools to target mentoring to a subset of students (37 percent compared with 58 percent).

**Who served as mentors and how were they matched with students?**

High schools recruited a variety of staff members to serve as mentors in 2014–15. Schools more often used existing school personnel with preexisting roles: teachers (74 percent), school counselors (48 percent), or administrative staff (46 percent). A smaller proportion of schools used mentors from outside the school. These mentors were community volunteers (34 percent), staff from community-based organizations partnering with the school (20 percent), district staff (17 percent), or college students (10 percent) (Exhibit 5).
Exhibit 5. Percentage of schools that reported the type of staff who served as mentors to students, 2014–15

Exhibit reads: Among high schools that implemented mentoring in 2014–15, 74 percent reported that teachers served as mentors.

Unweighted \( n = 704 \) high schools.

SOURCE: HSS survey of high school administrators, 2015 (Question 19).

To match mentors with students, schools used a number of criteria. The most common were teacher recommendations (52 percent), student academic records (50 percent), recommendations from other adults such as school nurses or athletic coaches (40 percent), and student discipline records (37 percent). Other criteria used for mentor matching were convenience (e.g., time, location) (28 percent) and student selection of a mentor (19 percent). On average, schools used two to three criteria to match mentors with students.

How often did students meet with mentors?

Of the schools that implemented mentoring, more than half (59 percent) of mentors were expected to meet with their students daily or weekly, 15 percent were expected to meet every other week, 17 percent were intended to meet once a month, and a small minority (6 percent) were intended to meet less frequently than once a month. On average, about 42 percent of the mentors were tasked with mentoring five or fewer students, 15 percent had six to 10 students, and 42 percent had more than 10 students. Sixty percent of the schools that provided mentoring required students to meet with their mentors.

Methodology

The National Survey on High School Strategies Designed to Help At-Risk Students Graduate (HSS) was a survey of 13 high school strategies designed to improve graduation rates among students at risk of dropping out and was administered in the 2014–15 school year. The 13 strategies are: (1) academic support classes, (2) academic tutoring, (3) accelerated academic programs, (4) career-themed curriculum, (5) case manager, (6) competency-based advancement, (7) credit recovery, (8) early warning systems, (9) mentoring, (10) middle to high school transitions, (11) personalized learning plans, (12) social services, and (13) student support teams.
The purpose of the survey was to inform education practitioners and policymakers about the prevalence, characteristics, and students served by these strategies in U.S. public high schools. The descriptive study did not measure the effectiveness of particular strategies but instead examined implementation factors in high schools across the country. The study team identified the 13 strategies and designed survey items for each strategy with input from a panel of external experts in the field and senior Department officials.

The researchers selected a nationally representative sample of high schools\(^3\) using a random sampling approach, stratifying high schools based on graduation rate (from \textit{EDFacts})\(^4\) and locale code (from \textit{NCES 2013--14 Common Core of Data}). The survey collected data from high school principals (or designees knowledgeable about programs and strategies) at sampled schools. The survey response rate was 90 percent. The survey responses, after cleaning and processing, were analyzed in SAS and Stata using descriptive techniques that apply the appropriate statistical population weights to account for stratification by graduation rate and locale.

Results reported in this brief reflect the full survey sample unless otherwise noted and are representative of U.S. public high schools nationwide. References in the text to differences between subgroups based on sample data refer only to differences that are statistically significant using a significance level of \(p < .05\).

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\(^3\) All U.S. public high schools providing instruction to 12th grade students in the fall of 2010 were included in the sampling frame unless (1) the lowest offered grade was 11th grade or higher, (2) there were fewer than five students in grades 9 through 12, (3) the percentage of students enrolled in grades 9 through 12 was under 20 percent of the total school enrollment and the total number of students in grades 9 through 12 was fewer than 20, or (4) the school name contained one of nine keywords indicating juvenile detention center or hospital. Of the 103,813 total schools listed in the 2010–11 CCD, 22,447 high schools met the criteria to be included in the sampling frame.

\(^4\) There were 3,302 schools without graduation rate information in the 2010–11 \textit{EDFacts} public use data set. The researchers used an imputation approach to assign these schools to either the high- or low-graduation-rate stratum. The imputation process began by examining the distribution of the high/low graduation rate classification for the 19,145 schools by sampling locale. The percentage of schools classified as high graduation rate was calculated separately for each locale sampling stratum; 68.4 percent of rural schools were classified as high graduation rate, 63.0 percent of suburban schools were classified as high graduation rate, and 41.0 percent of city schools were classified as high graduation rate. The research team randomly assigned each of the 3,302 schools with unknown graduation rates to the high graduation rate stratum with probability 68.4 if the school was classified as rural, with probability 63.0 if the school was classified as suburban, and with probability 41.0 if the school was classified as urban. The sample size was adjusted upwards to account for potential misclassification due to this method. In analysis, the researchers used the restricted-use 2013–14 \textit{EDFacts} data and graduation rates published on school and district websites to fill in this missing data.
References


Appendix: Mentoring (Survey Excerpt)
National Survey on High School Strategies Designed to Help At-Risk Students Graduate

This section asks about Adult Mentoring. For the purposes of this survey, an adult mentor is an adult assigned to student(s) to ensure that the students stay on track academically, help raise students’ educational goals, and offer a sounding board for students’ personal concerns. An adult mentor is not a case manager or regular school counselor.

15. In the 2014-15 school year, does your school have formal adult mentor(s)?
(Please select only one)
{Only allow one selection}  
Yes  No

If user responds “Yes” to Q15, ask Q16 through Q24. Otherwise, skip to Q25.

16. How are formal adult mentor(s) allocated to students?
(Please select only one)
{Only allow one selection}

 Offered of all students (school-wide)  
 Offered to a subset of students  
 Assigned to all students (school-wide)  
 Assigned to a subset of students

If user responds “Subset of students” to Q16, ask Q17 & Q18. Otherwise, skip to Q19.

17. On average, approximately what percentage of high school students in your school receives an adult mentor in the 2014-15 school year?
(Slide bar for 0% to 100%)

18. Are any of the following subsets of students targeted for receiving an adult mentor?
(Check all that apply)
Students with attendance issues (e.g., truancy)  
Students with discipline or behavioral issues  
Students performing below standards or grade level  
Students performing above standards or grade level  
Students in a particular grade level, regardless of performance  
Students recommended by high school staff (e.g., counselor or teacher)  
Reentry students  
English Language Learners  
Other  
(Please Specify________________)

(Please Specify________________)
19. Who serves as formal adult mentor(s) in your school?
(Check all that apply)

- Teachers
- School counselors
- Administrative staff
- Community volunteers
- Community-based agency staff
- District-employed staff whose job is to mentor students
- College students
- Other (Please specify: __________________)

20. For what purpose do you assign formal adult mentor(s) in your school?
(Check all that apply)

- To ensure that students stay on track academically
- To provide advice about postsecondary options
- To help raise students’ educational or career goals
- To serve as a sounding board for personal concerns
- To improve student engagement in school
- To prevent at-risk behavior
- To model positive and respectful behavior
- To develop conflict resolution skills
- To monitor attendance
- To help select classes
- To address family issues or concerns
- To explore community resources to address individual needs
- Other (Please Specify________________)

21. What information do you use to match students with their particular adult mentor?
(Check all that apply)

- Academic record
- Discipline record
- Teacher recommendation
- Other adult recommendation
- Student selection of mentor
- Convenience (e.g., time, geography)
- Other (Please Specify________________)
### 22. Are students **required** to meet with their formal adult mentor?
(Please select only one)

<table>
<thead>
<tr>
<th>Selection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

### 23. On average, how often do students meet with their formal adult mentor?
(Please select only one)

<table>
<thead>
<tr>
<th>Selection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Daily</td>
<td></td>
</tr>
<tr>
<td>Weekly</td>
<td></td>
</tr>
<tr>
<td>Every other week</td>
<td></td>
</tr>
<tr>
<td>Once a month</td>
<td></td>
</tr>
<tr>
<td>Less frequently than once a month</td>
<td></td>
</tr>
<tr>
<td>I don’t know</td>
<td></td>
</tr>
</tbody>
</table>

### 24. On average, how many students share the same formal adult mentor?
(Please select only one)

<table>
<thead>
<tr>
<th>Selection</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 student</td>
<td></td>
</tr>
<tr>
<td>2 to 5</td>
<td></td>
</tr>
<tr>
<td>6 to 10</td>
<td></td>
</tr>
<tr>
<td>More than 10</td>
<td></td>
</tr>
</tbody>
</table>

The full survey is available at: [http://www2.ed.gov/about/offices/list/opepd/ppss/reports-high-school.html](http://www2.ed.gov/about/offices/list/opepd/ppss/reports-high-school.html)