Stanford Survey of Adolescent School Experiences Report

Princeton High School
Fall 2016

**Data analysis and report writing for School Experiences Survey is a collaborative effort among members of the Challenge Success research team, including Denise Pope, Sarah Miles, Margaret Dunlap, Shannon Davidson, and Jerusha Conner.*

Glossary of Terms

Mean: The average

Standard Deviation ("SD"): The amount of variability/spread in students' answers; the larger the deviation, the greater the spread

Minimum: The lowest response given by student participants

Maximum: The highest response given by student participants

Analysis of Variance (ANOVA): Analysis to determine whether groups of students have different mean scores. Grouping variables here included gender, grade-level, and ethnicity.

Significant Group Difference: A difference among two or more groups that cannot be accounted for by chance (i.e., very high likelihood that two or more group means actually differ from each other).

Correlation ("r"): The relationship between 2 variables; a correlation will always fall between -1 and 1. A negative "r" indicates a negative relationship (e.g., students' perception of high teacher support is related to their decreased cheating); A positive "r" indicates a positive relationship (e.g., students' perception of high teacher support is related to their increased enjoyment of schoolwork). The larger the absolute value of "r", the stronger the relationship

Cheating Behavior: This scale includes a total of 13 items and measures whether students have engaged in various forms of cheating behavior. Sample items include: Since coming to this school, how often have you gotten answers or questions from someone who has already taken the test?; Since coming to this school, how often have you copied material almost word for word from any source and turned it in as your own? The students rated all 13 items from 1=Never to 4=More than three times. *Note: With the exception of the physical health scale, the cheating scale and all of the remaining scales below were created by calculating a mean score for each participant on the scale's items. For example, for the cheating scale, each student has a cheating behavior score, which is the mean of the 13 cheating items.*

Academic Engagement: Eleven items were used to measure academic engagement. These items asked how often students enjoyed schoolwork, gave effort in school, and found value and meaning in their work. The rating scale for these items was 1=Never to 5=Always.

Academic Worries: The academic worries scale asked students to report how much they worry about academic-related issues. For example: How often do you worry about taking tests? How much pressure do you feel to do well in school?; How much do you worry that if you do not do well in school, your friends will not accept you?; How much

do you worry about the possibility of not getting into a good college. There were a total of 9 items on this scale, rated from 1=None to 5=A lot.

Physical Health: We asked students to report whether they had or had not experienced a set of stress-related physical symptoms in the 30 days prior to the survey including: headaches, exhaustion, weight loss, weight gain, sweating, difficulty sleeping, and stomach problems. We then summed each student's responses to get a total physical health score.

Teacher Care and Support: This scale included 9 items to measure students' perceptions of teacher care and support. Sample items include: How many of your teachers value and listen to students' ideas? How many of your teachers are willing to help you on homework? Students selected an answer from 1= None to 5=All.

Parent Expectations: This scale included 6 items, which asked students to share the extent to which they feel they can meet their parents' academic expectations of them. Students responded from 1= not at all able to meet their expectations to 5= are able to meet their expectations.

Parent Mastery and Performance Goals: These scales included 6 items, which asked students to share how important it is to their parents that they give maximum effort, challenge themselves and deeply learn material (all mastery goals). And, how important it is to their parents that they are the best at everything, do well compared to others, and worry about getting bad grades (all performance goals). Students responded from 1=not at all important to 5=very important.

Overview of Princeton High School Participants

Overall, we received 1,417 (mostly) complete surveys. The mean age for the sample was 15.76 (*SD*=1.21). Forty-nine percent of the participants identified themselves as female, 49% as male, and 2% as "other". Fifty-eight percent of the participants reported taking at least one Accelerated course and 58% reported taking at least one AP course. Fourteen percent of the participants reported taking at least 3 Accelerated courses and 27% reported taking at least 3 AP courses (see Table 1). Seventeen percent indicated that they speak English as a second language. See Figure 1 for grade-level distribution and Table 2 for ethnicity distribution.

Figure 1. Grade Distribution

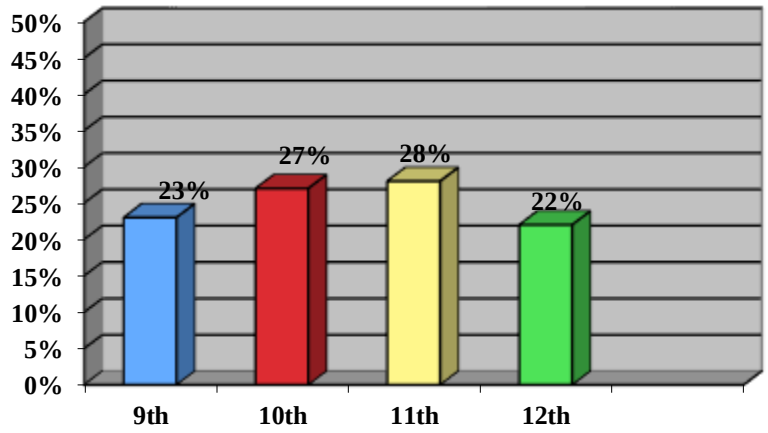


Table 1. AP and Accelerated Course Enrollment

	Accelerated	AP
0	42%	42%
1	29%	18%
2	15%	13%
3	10%	11%
4	2%	10%
5+	2%	6%

Table 2. Distribution by Race & Ethnicity

Group	*Percent*
Caucasian	53%
East Asian or Asian American	20%
Multiethnic/Multiracial	6%
Latino/Latina	6%
African American or Black	5%
South Asian or Indian	4%
Middle Eastern or Arab American	1%
Other	5%

How Students Spend Their Time

We asked students how much time during weekdays and weekends they spent in various activities, including time spent on school-assigned and non-school-assigned homework (e.g. language or religious school, tutoring, SAT or ACT prep homework), extracurricular activities, and using the computer/cell phone for recreational purposes (Instagram, email, Snapchat, etc.) We asked how they perceived the level of homework they had and how and why they participated in certain activities.

Time Spent on Homework

On average, students reported doing between 0 minutes and 7 hours of school-assigned homework per weekday night (mean =3.12, median= 3.00, SD =1.50) and between 0 and 7 hours of school-assigned homework on a typical Saturday or Sunday (mean =3.44, median= 3.50, SD =1.74). On average, students reported doing between 0 and 7 hours of non-school-assigned homework per weekday night (mean=.81, median= .50, SD = 1.20) and 0 to 7 hours of non-school-assigned homework on a typical Saturday or Sunday (mean=1.28, median= .50, SD=1.63). Grade-level differences are shown in Table 3 below.

Table 3. Average Time (in hours) Spent on HW during School Week and Weekend

	9th	10th	11th	12th
Weekday school-assigned homework	3.15 (1.49)	2.95 (1.38)	3.43 (1.49)	2.92 (1.57)
Weekday NON-school-assigned homework	.76 (1.21)	63 (1.07)	.94 (1.21)	.89 (1.17)
Weekend school-assigned homework	3.48 (1.72)	3.34 (1.68)	3.76 (1.71)	3.13 (1.78)
Weekend NON-school-assigned homework	1.08 (1.67)	.95 (1.43)	1.73 (1.71)	1.33 (1.56)

*****The numbers in parentheses are standard deviations

Students were asked how they felt about the amount of homework they had each night.

- 62% reported they had “too much” homework.
- 36% felt they had the “right” amount of homework.

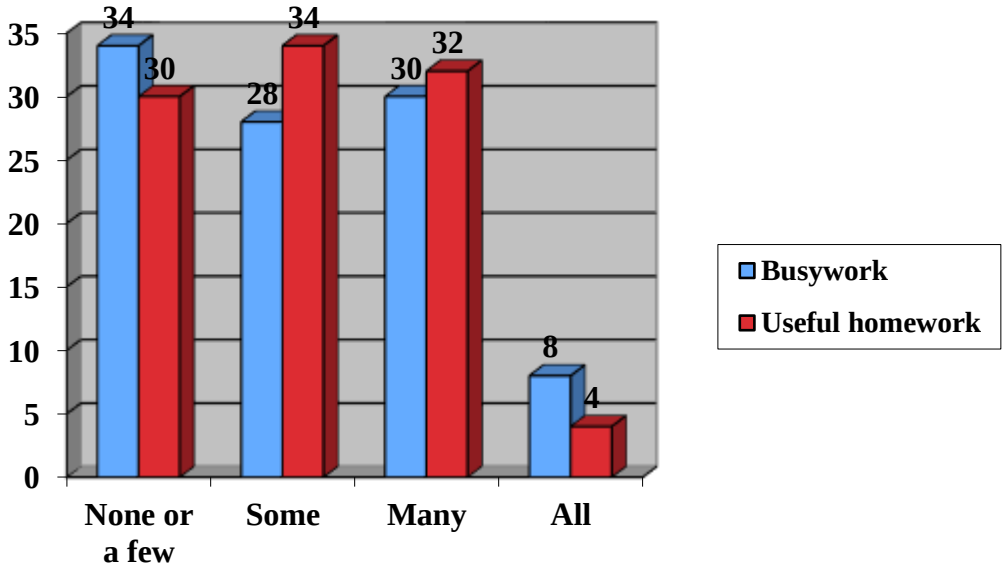
Students were also asked what else they do while doing homework:

- 64% listening to music
- 55% eating (dinner or snack)
- 52% texting
- 38% are on Instagram, other social networking sites
- 29% watching TV, YouTube, Netflix
- 24% checking, sending email
- 20% talking to family or friends in person
- 12% talking on phone, Google Hangout, Skype, ooVoo
- 10% are just doing their homework

Perceptions of Homework

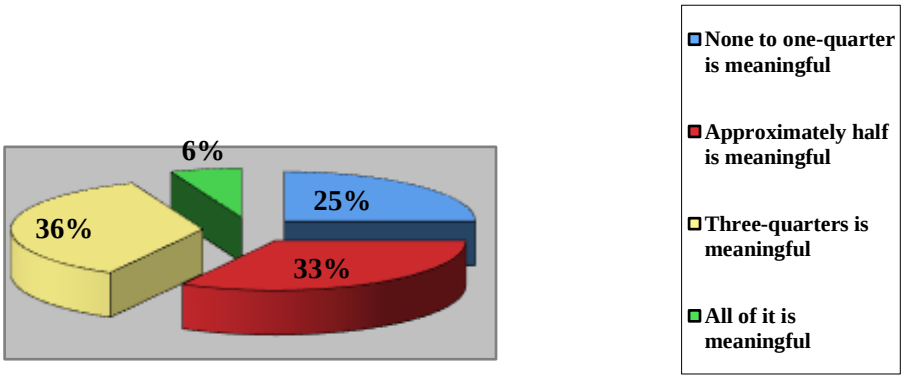
Thirty-eight percent of the participants felt that *many or all* of their classes assign busywork. Thirty percent reported that *none or a few* of their classes assign homework that helps them to learn the material, whereas 36% of the participants felt that *many or all* of their classes assign homework that helps them learn the material. (See Figure 2 below.)

Figure 2. Percent of Students Reporting How Many of their Classes Assign Busywork vs. Homework that Helps Them to Learn the Material.



As seen in Figure 3 below, 42% of students felt that between three-quarters and all of the homework they do during a typical week is meaningful.

Figure 3. What Percent of Students' Homework is Meaningful?



Group Differences in Homework

Comparisons of means analyses were conducted to examine differences in time spent doing homework and ratings of homework load by gender, grade level, ethnicity, and the number of AP and Accelerated courses. All differences reported below were statistically significant.

- *School-assigned homework during weekdays*: On average, 11th graders reported spending significantly more time on school-assigned homework on weekdays than 10th and 12th graders. Females reported spending significantly more time on school-assigned homework on weekdays than males. Students taking 3 or more AP courses reported spending significantly more time on school-assigned homework on weekdays than students taking 2 or fewer AP courses. Students taking 3 or more Accelerated courses reported spending significantly more time on school-assigned homework on weekdays than students taking no Accelerated courses. There were no significant differences by student ethnic background.

- *Non school-assigned homework during weekdays*: On average, 11th and 12th graders reported spending significantly more time on non school-assigned homework on weekdays than 10th graders. Latino students reported spending significantly more time on non school-assigned homework on weekdays than White or multi-ethnic students. Students taking 3 or more AP courses reported spending significantly more time on non school-assigned homework on weekdays than students taking no AP courses. There were no significant differences by student gender or the number of Accelerated courses.

- *School-assigned homework on weekends*: On average, 11th graders reported spending significantly more time on school-assigned homework on weekends than 10th and 12th graders; and 9th graders reported spending significantly more time on school-assigned homework on weekends than 12th graders. Females reported spending significantly more time on school-assigned homework on weekends than males. Students taking 1 or more AP courses reported spending significantly more time on school-assigned homework on weekends than students taking no AP courses. Students taking 2 or more Accelerated courses reported spending significantly more time on school-assigned homework on weekends than students taking no Accelerated courses. There were no significant differences by student ethnic background.

- *Non school-assigned homework on weekends*: On average, 11th graders reported spending significantly more time on non school-assigned homework on weekends than students in all other grades; and 12th graders reported spending significantly more time on non school-assigned homework on weekends than 10th graders. Asian students reported spending significantly more time on non school-assigned homework on weekends than White, African American, and multi-ethnic students. Students taking 3 or more AP

courses reported spending significantly more time on non school-assigned homework on weekends than students taking 2 or fewer AP courses; students taking 2 AP courses reported spending significantly more time on non school-assigned homework on weekends than students taking no AP courses. Students taking 1 or more Accelerated courses reported spending significantly more time on non school-assigned homework on weekends than students taking no Accelerated courses. There were no significant differences by student gender.

- *Overall Homework Load*: On average, 9th and 11th graders reported significantly more of an overall homework load than 12th graders. Females reported significantly more of an overall homework load than males. Students taking 1 AP course reported significantly more of an overall homework load than students taking no AP courses. There were no significant differences by student ethnic background or the number of Accelerated courses.

Extracurricular Activities

Eighty-nine percent of the respondents reported participating in at least one extracurricular activity. Of those students who reported participating in extracurricular activities, they spent an average of approximately 8 ¼ hours during the weekdays and a approximately 3 ½ hours on weekends on extracurricular activities (see Table 4).

Table 4. Approximate Time Spent on Extracurricular Activities

	0-3 hours	4 to 6 hours	7 to 10 hours	More than 10 hours
Percent of students who spent time in extracurriculars Monday through Friday	23%	21%	22%	34%
Percent of students who spent time in extracurriculars Saturday through Sunday	56%	31%	13%	--

Twenty-three percent of students reported feeling *often or always* stressed by their extracurricular activities. And, 31% report that it is *quite or extremely important* to their parents that they are successful in their extracurricular activities.

Types of Extracurricular Activities Students Do

- 47% School Sports
- 43% Community Service
- 42% School Clubs (Language Clubs, Math Team, Chess Club, Debate, etc.)
- 40% Club or outside of school sports
- 31% Performing Arts
- 19% Religious Organizations
- 12% Journalism and Literature
- 11% Visual Arts
- 2% Student Council/Government
- 2% Scouts
- 2% Language course

Of the extracurriculars students participate in, students find school sports the most stressful (28% rated as most stressful) followed by club sports (15% rated as most stressful) and performing arts (15% rated as most stressful).

Princeton High School added a question asking those students that indicated that they do feel stressed by their extracurriculars, why they feel stressed by their extracurricular activities.

- 41% chose balancing extracurriculars with schoolwork or homework
- 38% chose personal expectations
- 33% chose competitive environment
- 28% chose group or team expectations
- 25% chose coach/teacher/staff expectations
- 13% chose parental expectations
- 13% chose leadership expectations
- 10% chose group/team dynamics

Why Students are Participating in Extracurricular Activities

73% chose enjoyment as the primary reason for participating in an extracurricular activity.
14% chose resume-building ("looks good on college applications") as the primary reason.
3% chose that "I can hang out with my friends" as the primary reason.
3% chose that their "parents/guardians want them to" as the primary reason.
3% chose learning new things as the primary reason.

Group Differences in Extracurricular Activities

Comparisons of means group differences in time spent doing extracurricular activities during the weekdays and weekends were analyzed.

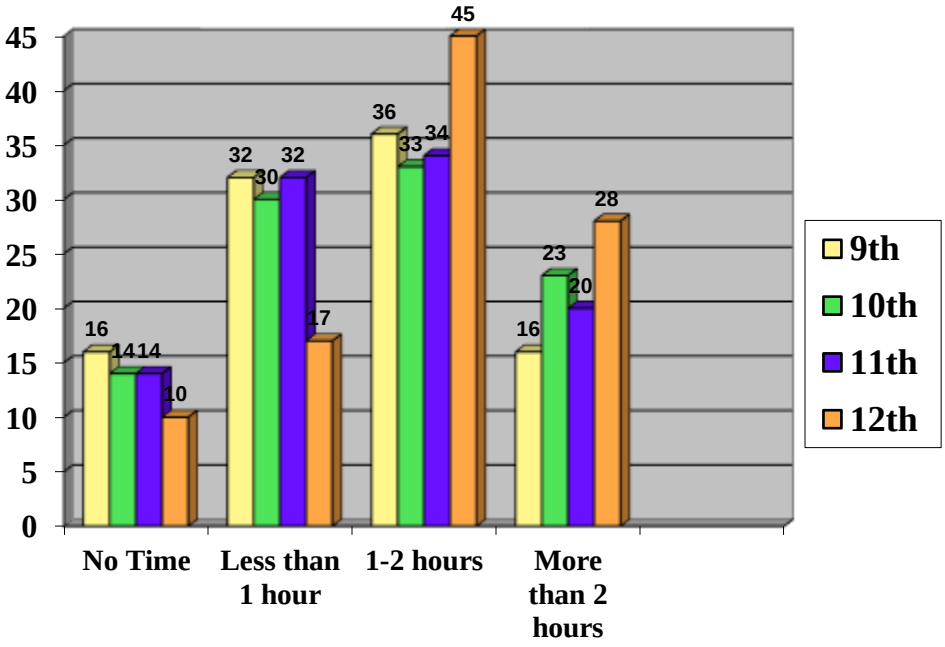
- On average, students taking 3 or more Accelerated courses reported spending significantly more time participating in extracurriculars on weekends than students taking no Accelerated courses. There were no significant differences in time spent doing extracurriculars on weekdays by the number of Accelerated courses.
- On average, students taking 1 AP course reported spending significantly more time participating in extracurriculars on weekdays and weekends than students taking no AP courses.
- There were no significant difference in time spent doing extracurricular activities during weekdays or weekends by student grade level, ethnic background, or gender.

Other Activities

We asked students how much free or unplanned time they have each weekday and, generally, what they do with that time. Overall, 42% of students reported having between 0 and 59 minutes of free time on a typical weekday, 36% of students reported having approximately 1 to 2 hours of free time, and 22% reported having more than 2 hours of free time on a typical weekday.

The most common activities students reported engaging in during free time were watching television, YouTube or Netflix, texting, emailing, or talking on the phone, spending time with friends, and on social networking sites (Instagram, Facebook, etc.). Figure 4 shows the amount of free time reported by grade level. And, Table 5 shows what students typically do when they have free or unplanned time on the weekdays by grade level.

Figure 4. Percent of Each Grade Reporting Amount of Free Time a Day



We also asked students if they work for pay and how much time they spend working. Approximately 16% of students reported working for pay at least one hour on a typical weekday.

Table 5. Most Common Free Time Activities by Grade

	9th	10th	11th	12th
Percent of students who texting, emailing, talking with friends via phone, tablet, etc.	42%	38%	34%	38%
Percent of students who are on Instagram or other similar sites	36%	41%	35%	31%
Percent of students who watch TV, Netflix, etc.	51%	57%	49%	53%
Percent of students who play Xbox, Playstation, video games, etc.	23%	21%	21%	25%
Percent of students who spend time with friends	35%	33%	38%	40%
Percent of students who spend time with family	31%	28%	34%	24%
Percent of students who exercise	29%	31%	25%	28%
Percent of students who read for pleasure	19%	11%	18%	14%

Group Differences in Free Time

Group differences in the average amount of free time were examined. All differences reported below were statistically significant.

- On average, 12th graders reported having significantly more free time than students in 9th through 11th grades.
- On average, males reported having significantly more free time than females.
- On average, students taking no Accelerated courses reported having significantly more free time than students taking 3 or more Accelerated courses.
- There were no significant differences by student ethnic background or the number of AP courses.

What are you proud of?

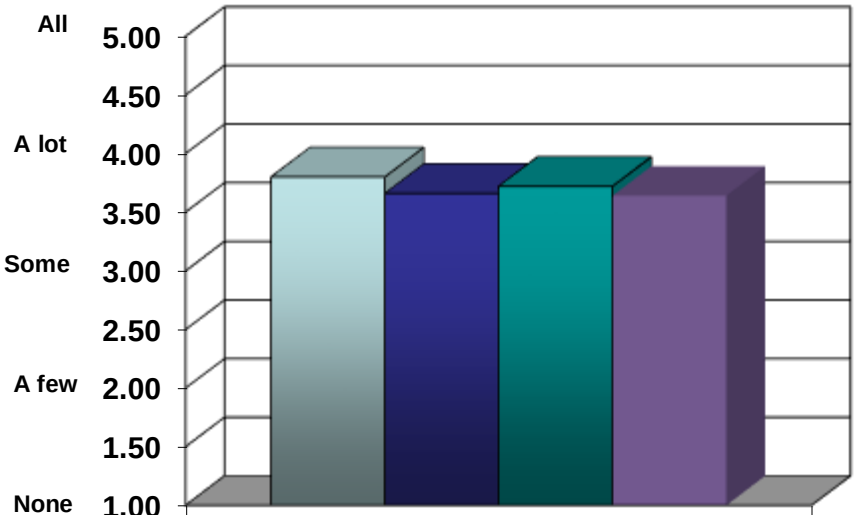
Students were asked to choose an accomplishment of which they are most proud in extracurricular, academic, or social/interpersonal arenas:

- 27% marked that they were most proud of an academic accomplishment
- 23% marked that they were most proud of an accomplishment in sports
- 19% marked that they were most proud of an extracurricular accomplishment other than performing arts or sports (5% citing visual arts, 7% citing community service, 6% citing school clubs, 1% citing student government/leadership)
- 12% marked performing arts
- 5% marked that they were most proud of social accomplishments
- 6% marked that they were not proud of anything
- 2% marked that they were most proud of their family.

Teacher Care & Support

Students were asked how many of their teachers cared about them and supported them. Figure 5 shows results by grade level.

Figure 5. Students' Average Perceptions of the Number of Teachers Who Care about Them and Support Them by Grade



	Teacher Care and Support
9th	3.80
10th	3.66
11th	3.72
12th	3.64

68% of respondents reported they have at least one adult in the school they can go to if they have problems. Of those that have an adult to go to with a problem, the results indicated the following percentages by grade level:

9th graders: 61%
10th graders: 66%
11th graders: 69%
12th graders: 75%

Of those students who reported that they have someone to go to on campus, the following adults were the most frequent and primary and secondary sources of support:

Primary Sources:	Secondary Sources:
Counselor 50%	Teacher 42%
Teacher 30%	Counselor 25%
Coach 11%	Coach 10%
Nurse 3%	Nurse 8%
Psychologist 2%	Psychologist 6%
Case Manager 1%	Principal/Asst. Principal 3%
Other Staff 3%	Case Manager 2%
	Other Staff 4%

Group differences in Teacher Care and Support

Group differences in the mean amount of teacher support were examined.

- On average, 9th graders reported more teachers supported them than 12th graders.
- On average, males reported significantly more teachers supported them than females.
- There were no significant differences by student ethnic background or the number of AP or Accelerated courses.

Student Perceptions of Parents

Students were asked to report on their ability to meet their parents'/guardians' expectations of them. Additionally, we asked students to what extent they felt their parents held mastery and performance goals for them (to see definitions of mastery and performance goals as well as information about the scales used, please review the Glossary included at the beginning of this report). Table 6 includes the grade-level mean score of students' perceptions of parents' goals and expectations.

Table 6. Students' Perception of Parents' Goals by Grade

	9th	10th	11th	12th
Parent Mastery	3.95 (.85)	3.86 (.84)	3.85 (.86)	3.75 (.86)
Parent Performance	3.31 (1.13)	3.19 (1.08)	3.18 (1.11)	3.02 (1.07)
Ability to Meet Parent Expectations	3.58 (.95)	3.49 (.98)	3.52 (.94)	3.51 (1.01)

*****The numbers in parentheses are standard deviations.

Group differences in Parent Goals and Expectations

Comparisons of means indicated the following significant differences in parent goals and expectations:

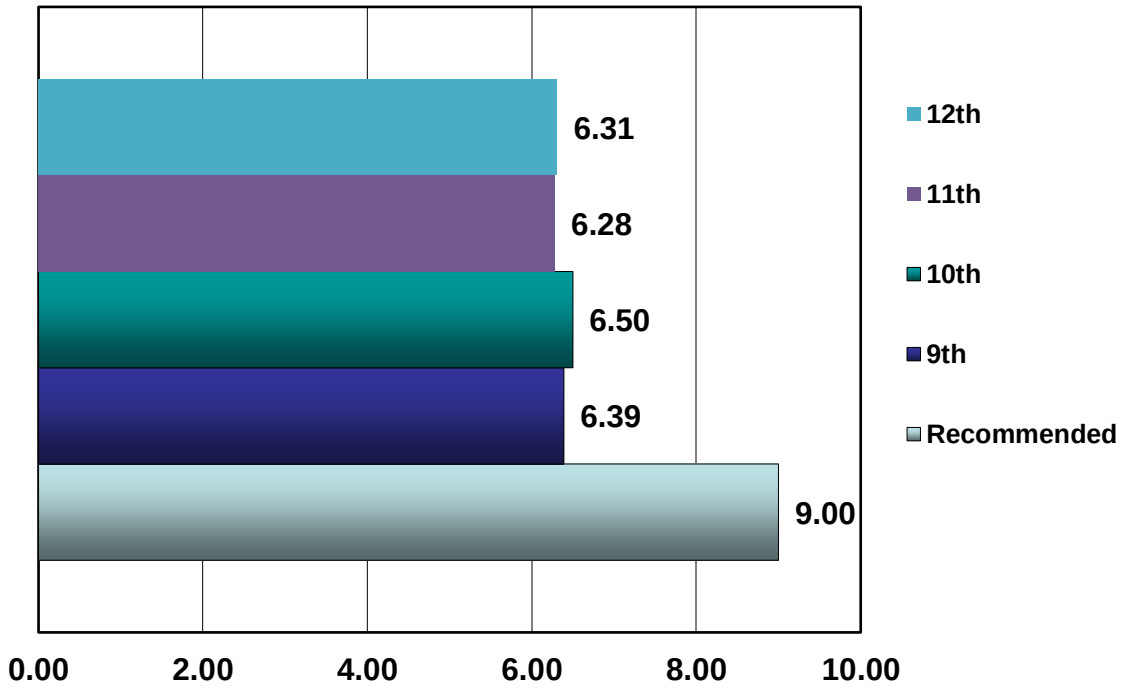
- *Parent Mastery Orientation*: On average, 9th graders reported their parents as significantly more mastery oriented than 12th graders. Students of all other ethnic backgrounds except Latino reported their parents as significantly more mastery oriented than Latino students. Students taking 2 or more Accelerated courses reported their parents as significantly more mastery oriented than students taking no Accelerated courses. There were no significant differences by student gender or the number of AP courses.
- *Parent Performance Orientation*: On average, 9th graders reported their parents as significantly more performance oriented than 12th graders. Asian students reported their parents as significantly more performance oriented than Latino, White, and multi-ethnic students; and African American and Latino Students reported their parents as significantly more performance oriented than White students. Students taking 3 or more Accelerated courses reported their parents as significantly more performance oriented than students taking 1 Accelerated course. There were no significant differences by student gender or the number of AP courses.
- *Parent Expectations*: On average, White students reported that they felt significantly more able to meet their parents' expectations than Asian students. Students taking 2 or more Accelerated courses reported that they felt significantly more able to meet their parents' expectations than students taking no Accelerated courses. There were no significant differences by student grade level, gender, or the number of AP courses.

Sleep

Research recommends that adolescents get between 8 and 10 hours of sleep per night in order to maintain health. On average, students reported getting about 6 ¼ hours of sleep per night (minimum hours reported= < 3 hours, maximum= 12 hours, *SD*=1.33). See Figure 6.

64% of students reported going to bed later than 11:00 pm.

Figure 6. Average Hours of Sleep by Grade Level on a Typical School Night



Group Differences in Student Sleep

In comparisons of means, the following significant group differences were found:

- On average, males reported getting significantly more sleep than females.
- There were no significant differences by student grade level, ethnic background, or the number of AP or Accelerated courses.

Academic Engagement

We asked students how often they felt engaged in school using several items regarding how often they enjoyed their schoolwork and found it interesting; how often they worked hard and put effort into their schoolwork, and how often they found their schoolwork valuable and useful. Students answered on a scale from 1=Never to 5=Always.

- 41% of the students "do school": they often or always work hard, but they rarely, if ever, find their schoolwork interesting, fun, or valuable.
- 33% of students report working hard on their schoolwork and finding their schoolwork meaningful. We consider these students "purposefully engaged."
- 15% of the students reported "full engagement." These students often or always work hard, enjoy the work, and find it meaningful.
- 7% of students reported no engagement in their schoolwork. These students did not work hard, enjoy, or find value in their schoolwork.

*The remaining 4% percent marked affective engagement (enjoyment of schoolwork) and behavioral engagement (working hard) or just cognitive engagement (finding schoolwork interesting).

Students were also asked to indicate what makes their classes most interesting to them (they were able to choose one or two choices). The most commonly selected answers were the following:

- When the topic is interesting (73%)
- When the teacher is enthusiastic (53%)
- When I have friends in the class (34%)
- When what I am learning is relevant to my life (30%)
- When the class includes discussions, debates, and experiments (28%)
- When we get to work in groups (14%)

Group differences in Student Academic Engagement

In a comparison of mean differences the following results were indicated:

- *Behavioral Engagement*: On average, 9th graders reported significantly more behavioral engagement than 10th and 12th graders; and 11th graders reported significantly more behavioral engagement than 12th graders. Females reported significantly more behavioral engagement than males. Students taking 1 or more Accelerated courses reported significantly more behavioral engagement than students taking no Accelerated courses. There were no significant differences by student ethnic background or the number of AP courses.
- *Affective Engagement*: On average, 9th graders reported significantly more affective engagement than 10th and 11th graders. Students taking 2 or more Accelerated courses reported significantly more affective engagement than students taking no Accelerated courses. There were no significant differences by student gender, ethnic background, or the number of AP courses.
- *Cognitive Engagement*: On average, 9th graders reported significantly more cognitive engagement than 10th through 12th graders. Students taking 2 or more Accelerated courses reported significantly more cognitive engagement than students taking no Accelerated courses. There were no significant differences by student gender, ethnic background, or the number of AP courses.

What factors are associated with student engagement?

We found that <u>all three dimensions</u> of student engagement are significantly correlated with the following factors:

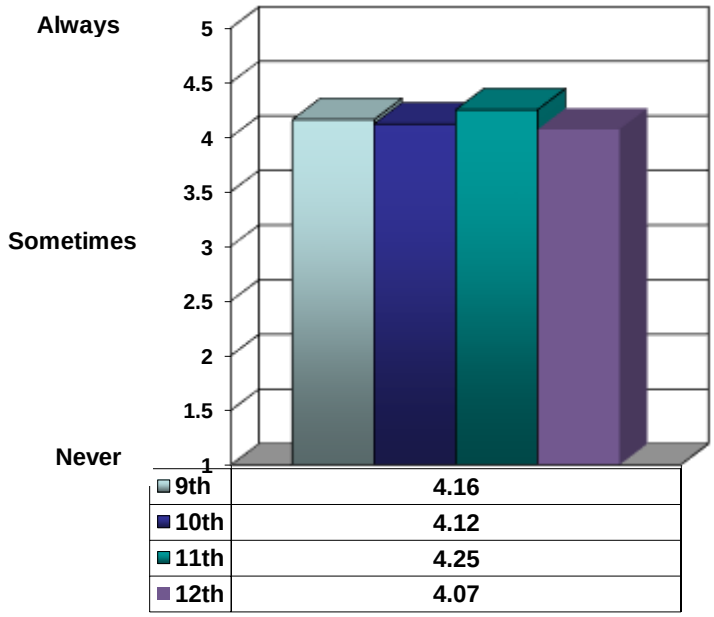
- Cheating*: the more fully engaged in school students are, the less likely they are to report cheating on schoolwork.*
- Teacher care and support*: the more fully engaged in school students are, the more likely they are to report support from their teachers.*
- Parent mastery*: the more fully engaged students are, the more likely they are to report their parents as mastery oriented.*
- Parent expectations: *students who are more likely to report that they can meet their parents' expectations of them are more likely to be fully engaged in school.*

School Stress & Academic Worries

We asked students three questions to assess how often they feel stressed over school work and with what activities school work interferes, and eight questions regarding how often they worry about academic-related issues like college acceptance, tests, and their performance on schoolwork. Figure 7 includes mean scores on students' stress over schoolwork by grade level. Table 7 includes mean scores on the academic worries scale.

- 81% of participants reported they were often or always stressed by schoolwork.
- 70% of participants reported that schoolwork often or always kept them from having time with family or friends.
- 74% of participants reported that schoolwork often or always kept them from getting enough sleep.
- 61% have felt forced to drop an activity because of the amount of schoolwork they have.

Figure 7. Mean of How Often Students Experience Stress from Schoolwork by Grade Level



9th	4.16
10th	4.12
11th	4.25
12th	4.07

Table 7. Students' Perception of Their Own Academic Worry

	9th	10th	11th	12th
Academic Worry	3.76 (.82)	3.81 (.79)	3.86 (.72)	3.69 (.81)

*Scale from 1 (Never) to 5 (Always); the numbers in parentheses are standard deviations

Group Differences in Student Academic Worries

Comparisons of means indicated the following about student academic worries:

- On average, 11th graders reported significantly more academic worry than 12th graders.
- On average, females reported significantly more academic worry than males.
- On average, students taking 1 AP course reported significantly more academic worry than students taking no AP courses.
- There were no significant differences by student ethnic background or the number of Accelerated courses.

What factors are associated with student academic worries?

Students who reported academic worry also reported:

- More parent mastery (*r* = .28)
- More parent performance orientation (*r* = .42)
- More physical stress symptoms (*r* = .42)
- More time spent on homework (*r* = .35)
- Cheating more often (*r* = .16)
- Feeling less able to meet their parents' expectations (*r* = -.28)
- Enjoying their schoolwork less (*r* = -.10)
- More putting forth effort on schoolwork (*r* = -.20)
- Less teacher support (*r* = -.20)
- Less sleep (*r* = -.22)

Student Health & Well-Being

In the month prior to the survey:

- 47% of students reported that a stress-related health or emotional problem caused them to miss more than one day of school.
- 56% reported that a stress-related health or emotional problem caused them to miss a social, extracurricular or recreational activity more than once in the past month.
- Approximately 41% of students surveyed experienced exhaustion, headaches, *and* difficulty sleeping in the past month (see Figure 8 for percent on physical problems related to stress and Table 8 for percent by grade).

Figure 8. Percent of All Participants Who Experienced Physical Health Problems in the Past Month because of Stress

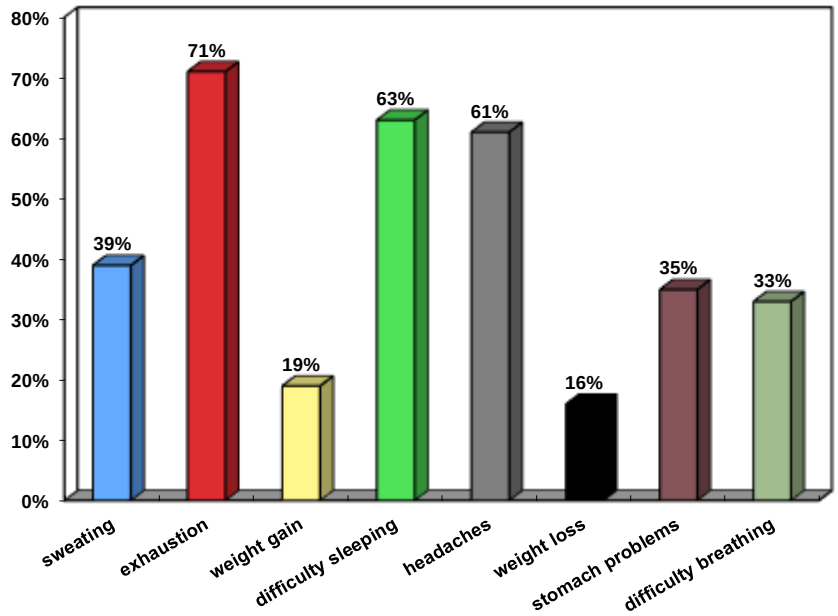


Table 8. Stress-Related Physical Symptoms by Grade Level

	Sweating	Exhaustion	Weight Gain	Difficulty Sleeping	Headaches	Weight Loss	Stomach Problems	Difficulty Breathing
9th	38%	68%	14%	62%	56%	14%	31%	29%
10th	34%	65%	15%	64%	61%	14%	31%	32%
11th	41%	73%	22%	65%	66%	16%	37%	36%
12th	43%	77%	24%	62%	63%	19%	40%	34%

Group differences in student stress-related physical symptoms

Comparisons of means indicated the following about student stress-related physical symptoms:

- On average, 12th graders reported significantly more stress-related physical symptoms than 9th graders.
- On average, females reported significantly more stress-related physical symptoms than males.
- There were no significant differences by student ethnic background or the number of AP or Accelerated courses.

What factors are associated with student stress-related physical symptoms?

Students who report more physical symptoms of stress also report:

- More cheating (*r*=.13)
- More academic worry (*r*=.42)
- More time spent on homework (*r*=.27)
- More parent performance orientation (*r*=.10)
- Finding value and meaning in their schoolwork less often (*r*=-.19)
- Enjoying schoolwork less often (*r*=-.16)
- Less teacher support (*r*= -.31)
- Less sleep (*r*= -.28)
- Less able to meet their parents' expectations (*r*=-.21)

Academic Integrity

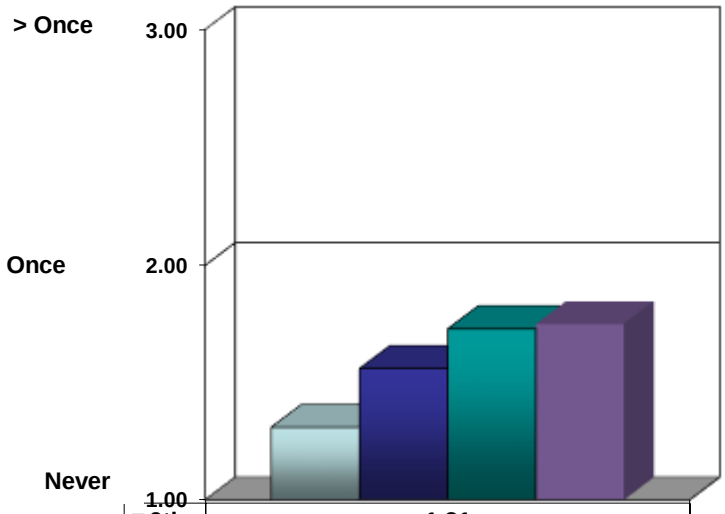
We asked students to report their own engagement in many cheating behaviors (rated from 1=never to 4=four or more times) during the past year. Figure 9 shows the average frequency of cheating across all behaviors by grade level. Table 9 shows the percent of all participants who engaged in each behavior during the past year.

11% of the participants reported that they have not cheated in any way in the past year.

Most Common Forms of Cheating Reported by Students Were:

- Working on an assignment with others when the instructor asked for individual work.
- Copying someone else's homework.
- Getting questions or answers from someone who has already taken the test.

Figure 9. Average Frequency of Cheating Behavior by Grade Level



9th	1.31
10th	1.56
11th	1.73
12th	1.75

Table 9. Students' Perceptions of Their Own Cheating Behavior

Behavior	Never	One Time	2-3 Times	Four or More Times
Working on an assignment with others when the instructor asked for individual work.	23%	16%	29%	32%
Getting questions or answers from someone who has already taken the test.	49%	19%	18%	14%
Helping someone else cheat on a test.	67%	13%	12%	9%
Copying from another student during a test with his or her knowledge.	82%	8%	5%	5%
Copying from another student during a test without his or her knowledge.	82%	10%	5%	3%
Paraphrasing or copying a few sentences of material from a written source without footnoting or referencing it in a paper.	53%	22%	14%	11%
Using unpermitted cheat sheets during a test.	87%	7%	2%	3%
Using an electronic/digital device as an unauthorized aid during a test or examination.	87%	7%	4%	2%
Copying material, almost word for word, from any source and turning it in as your own work.	85%	9%	3%	3%
Turning in a paper copied, at least in part, from another student's paper, whether or not the student is currently taking the course.	79%	10%	6%	5%
Using a false or forged excuse to obtain an extension on a due date or delay taking an exam.	79%	11%	6%	4%
Turning in work done by someone else.	91%	5%	2%	2%
Copying someone else's homework.	38%	18%	20%	24%

Group Differences in Cheating

Comparisons of means to examine group differences on the cheating scale indicated the following significant differences:

- On average, 11th and 12th graders reported cheating significantly more often than 9th and 10th graders; 10th graders reported cheating significantly more often than 9th graders.
- On average, males reported cheating significantly more often than females.
- On average, students taking 1 or more AP courses reported cheating significantly more often than students taking no AP courses.
- There were no significant differences by students ethnic background or the number of Accelerated courses.

What factors are associated with cheating behavior?

We found the following factors are significantly correlated with cheating behavior:

Students who report cheating more often also report:

- Putting less effort into their schoolwork (r = -.27)
- Enjoying their schoolwork less (r = -.20)
- Finding their schoolwork less interesting and meaningful (r = -.25)
- Less teachers support them (r = -.19)
- Less able to meet their parents' expectations (r = -.10)
- More physical stress symptoms (r = .13)

Students' Perceptions of Effective School Changes

We asked students how effective certain school changes would be to improve the student experience and reduce stress.
Students rated change the way teachers assign homework, create more time for students to work on homework/projects in school, and change the way tests, quizzes, or exams are given (e.g. not have more than one test on a given day) as the most

Table 10. Students' Perceptions of How Effective School Changes Would Be in Improving the Student Experience and Reducing Student Stress.

	Not at all or a little effective	Somewhat effective	Quite or very effective
Hold student assemblies regarding student health, well-being, etc.	72%	19%	9%
Change the way teachers assign homework (e.g. how many projects students have at one time)	14%	21%	65%
Change the way tests, quizzes, or exams are given (e.g. not have more than one test on a given day)	17%	22%	61%
Revise school schedule (e.g. more late start days)	25%	22%	53%
Revise test or exam schedule	20%	23%	57%
Create more time for students to work on homework/projects in school	12%	15%	73%
Create more opportunities for students to interact with teachers or receive academic support	19%	26%	55%
Revise or create procedures to improve academic integrity/honesty	51%	25%	24%
Change the grading system or grading policies	28%	28%	44%
Modify homeroom	64%	19%	17%
	58%	20%	22%

Limit the number of AP courses students can take in one year			
Create more opportunities for students to interact with teachers to receive social and/or emotional support	40%	29%	31%
Add more student-directed time during the school day for students	24%	25%	51%