



America's Promise Alliance Evaluation

Gender Disparities in Educational Expectations: A Look at 9th Graders

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Introduction

A quarter of our nation's youth do not complete high school with their peers (National Center for Education & Institute of Education, 2012). In the last 30 years, there has been little improvement in high school graduation rates (Aud et al., 2012). The current trend is concerning because the job market favors workers with a post-secondary degree. One approach to improving high school graduation rates is to elevate educational attainment for all youth to that of the higher performing groups; that is, by reducing disparities in educational achievement.

Gender disparities represent a prominent gap in educational achievement with females having an advantage in completing high school and earning post-secondary degrees. Some key areas where females outperform their male counterparts in recent years are:

- *Graduating high school*: 81% for females vs. 73% for males (U.S. Department of Education).
- *Intending to immediately enroll in college among high school seniors*: 74% for females vs. 63% for males (Aud et al., 2012).
- *Planning to complete a bachelor's degree*: 53% for males vs. 66% for females.
- *Enrolling in college immediately following high school*: 49% for females relative to 34% for males (Aud et al., 2012).
- *Earning a college degree*: Examining completion rates by 2010, 56% of male and 61% of female first-time, full-time students enrolled in a 4-year institution in 2004 completed their degree within 6 years.
- *Enrolling in postbaccalaureate education*: 59% of individuals enrolled in postbaccalaureate training were female (Aud et al., 2012).
- *Earning a postbaccalaureate degree*: females earned 60% of the master's degrees and 52% of the doctoral degrees (Aud et al., 2012).

The disparities in these academic indicators suggest that males are underachieving. High school graduates experience many benefits, including opportunities for post-secondary education and training opportunities, higher incomes, more job stability, higher levels of job satisfaction, better health and reduced rates of incarceration (Cohen & Piquero, 2009; Cutler & Lleras-Muney, 2006; Lochner & Moretti, 2004). Local economies also benefit from higher educational achievement, which helps attract and keep employment opportunities (Swanson, 2009). Two-year and four-year degrees help prepare individuals and

make them eligible for better paying and more stable jobs than are typically available to individuals with lesser levels of education.

The pathway to high school graduation and college and career readiness begins long before one's senior year in high school. Ninth grade is a pivotal year because, for most youth, it marks the transition from middle school to high school – a transition which can be very stressful for some youth (Kinney, 1993). It coincides with a time in adolescence when youth are more likely to disengage from school, which can be an early sign that students are beginning the process of dropping out (Finn, 1989). Ninth grade is also the grade that students are most likely to repeat, which is another risk factor for failing to graduate (Allensworth & Easton, 2005; Neild, Stoner-Eby, & Furstenberg).

Because of the salience of ninth grade, this report examines gender differences in academic outcomes among a nationally-representative sample of ninth graders in 2009. We examine outcomes in four domains linked to successful transitions to adulthood for youth: achievement expectations; student motivation and school engagement; planning for the future; and social capital. Our results show gender disparities are seen in each of these domains, which has implications for developing strategies and programs to help students reach their potential.

1. Achievement Expectations

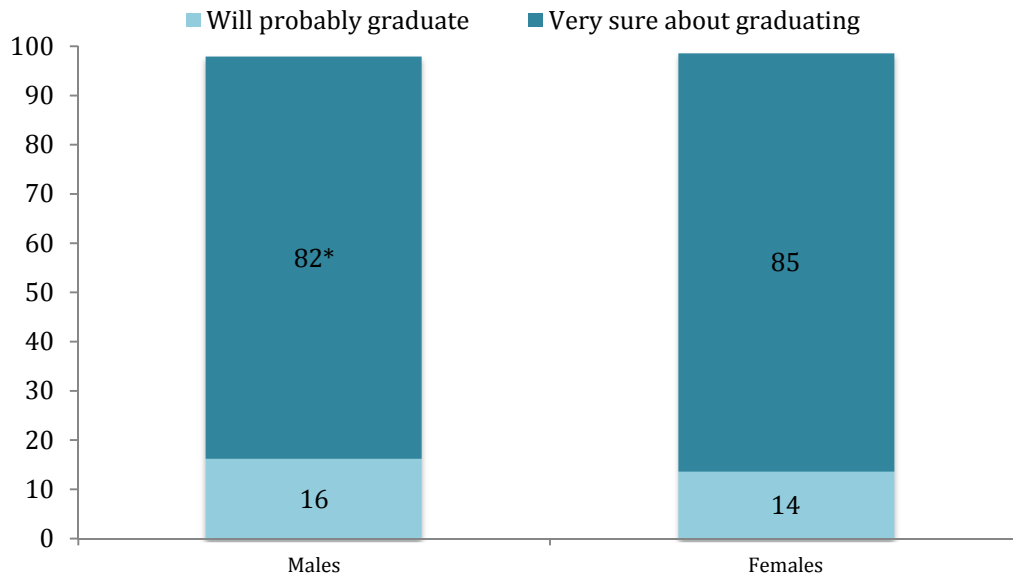
Rationale: Student expectations for their future are an important part of achievement (Eccles & Wigfield, 2002). Students and parents with high expectations for attending college often positively affect the choices and priorities of students while in school as well as the education that they actually attain (Wells, Seifert, Padgett, Park, & Umbach, 2011).

Measures: Three measures related to achievement expectations were examined. The first were student responses to “How sure are you that you will graduate from high school?” Next we examined students’ and parents’ responses to “How far in school will the ninth grader go?” The options were: less than high school, high school diploma or GED, start (or complete) an associate’s degree, start (or complete) a bachelor’s degree, start (or complete) a master’s degree, start (or complete) a Ph.D., M.D., Law or other professional degree, and don’t know. The categories “start” and “complete” for each degree type were combined because few respondents reported that they would start but not complete the degree. College refers to a bachelor’s degree or beyond.

Findings: A higher percentage of females than males expect to go to college (60% vs. 54%). A higher percentage of males than females expected their highest level of education to be a high school degree (17% vs. 12%). Parents tended to have higher expectations than the students for the probability that their child would go to

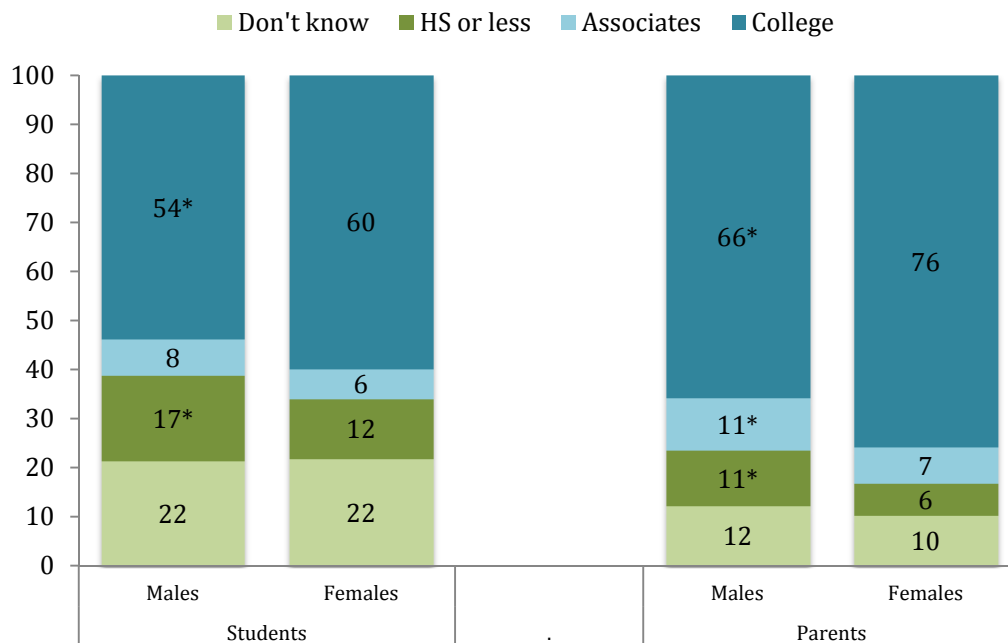
college. A larger percentage of parents believed that their daughters would attain at least a bachelors degree than their sons (76% vs. 66%).

Figure 1.1 9th Graders Beliefs about the Probability of Graduating High School



*Indicates significantly different from females

Figure 1.2 9th Grade Student and Parental Expectations for Educational Attainment



*Indicates significantly different from females

2. Student Value and Student Engagement

Rationale: Student beliefs about the value of school are an important determinant of high school completion (Davis, Ajzen, Saunders, & Williams, 2002). Beliefs that success in school is important for college entry or career choice can motivate students to invest in their coursework (Eccles & Wigfield, 2002). When students understand the relevance of the task to their future, they are more likely to engage in their coursework (Frymier & Shulman, 1995).

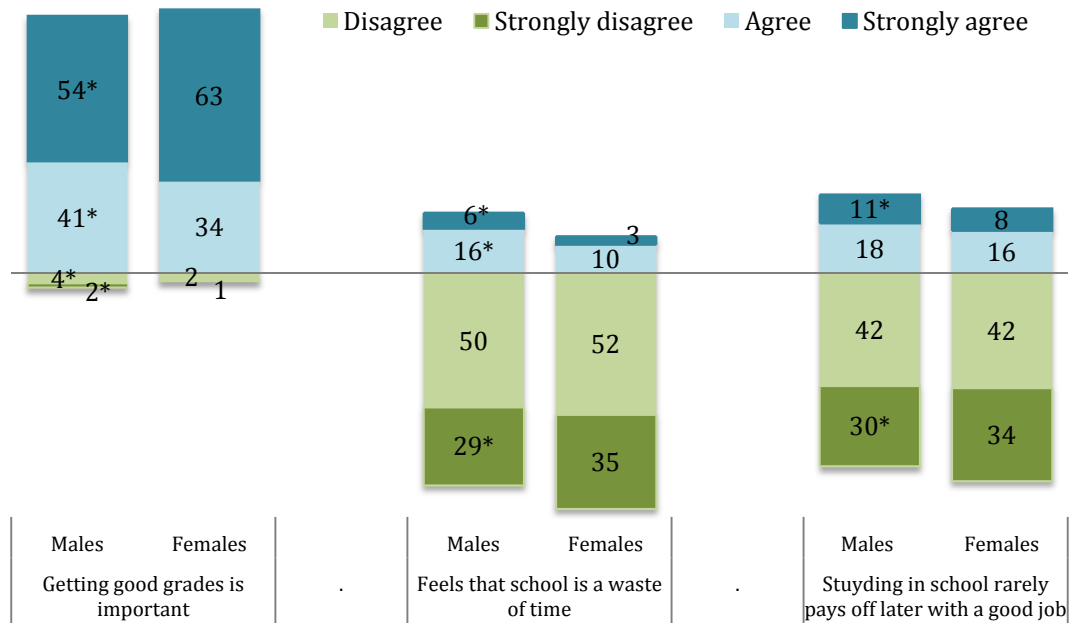
Student engagement is related to motivation. One sign that a student is engaged is being prepared for class (Voelkl, 2012). It demonstrates that the student is taking the class seriously and preparing for the day ahead. Students who show up to school unprepared for the day may be disengaging from school, signaling that they do not view school success as key to their future success.

Measures: Three measures were used to examine gender differences in motivation for school: student believes getting good grades in school is important; student feels that school is a waste of time; and student thinks that studying in school rarely pays off later with a good job. These measures were examined on a four-point Likert scale ranging from strongly agree to strongly disagree.

Four measures were used to assess behavioral engagement in class. These measures relate to student preparedness and include the frequency with which the student goes to class without their homework done, goes to class without a pencil or paper, goes to class without books and goes to class late. These items were measured on a four-point Likert scale of never, rarely, sometimes and often.

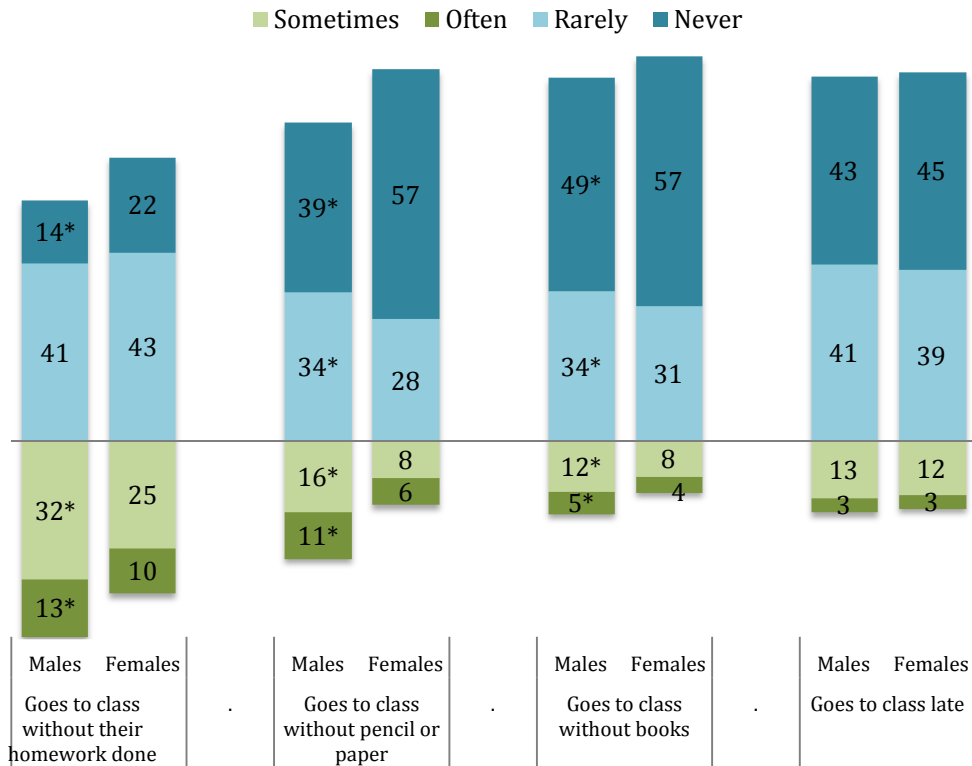
Findings: Relative to males, a higher percentage of females strongly agree that getting good grades is important (63% vs. 54%) (see Figure 2.1). Females are also more likely to strongly disagree that school is a waste of time (35% vs. 29%) or that studying rarely pays off (34% vs. 30%). A larger percentage of females than males report that they never go to class without their homework done (22% vs. 14%), without pencil and paper (57% vs. 39%), or without books (57% vs. 49%). Males and females did not differ in the percentage that went to class late.

Figure 2.1 9th Grader Beliefs about the Value of School



*Indicates significantly different from females

Figure 2.2 9th Grader Behavioral Engagement (measured by preparedness)



*Indicates significantly different from females

3. Planning for the Future

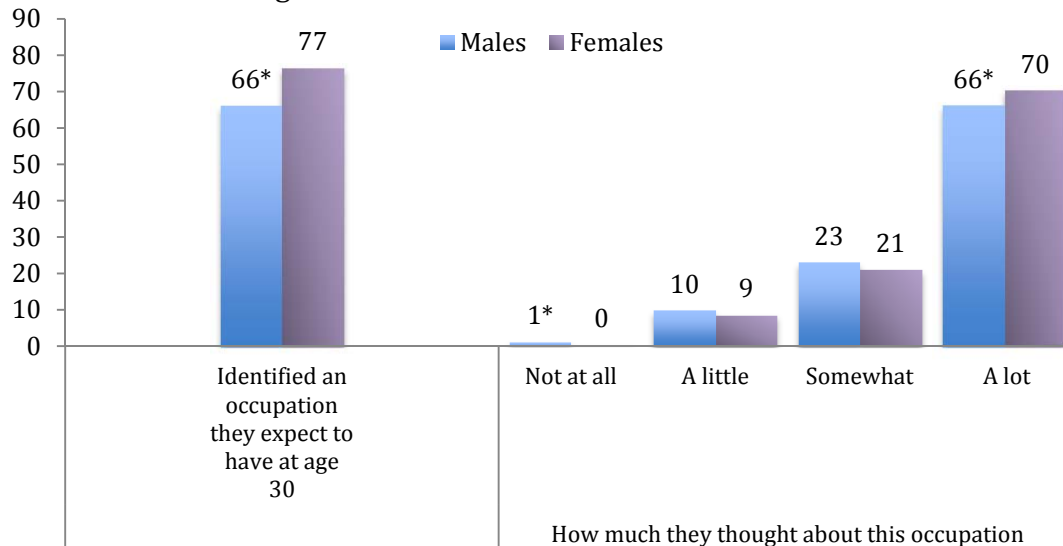
Rationale: For youth, the series of steps to meet high school graduation requirements and to have competitive credentials and skills for college or work force entry may be unclear. Planning for the future helps students set realistic goals, establishes a path to achieve those goals and helps students see the connection between academic performance and future opportunities. Research among a sample of ninth graders found that career planfulness was associated with increased school engagement –such that students who planned valued school more (Kenny, Blustein, Haase, Jackson, & Perry, 2006).

Measures: To assess planfulness, we examined whether or not the ninth grader has developed an education or a career plan, as well as if they have expectations for their occupation at age 30 and the extent to which the student has thought about this occupation. Although the age of 30 seems far away, it is intended to measure the students' long-range plans for themselves.

Findings: A higher percentage of females than males indicated a specific occupation that they expect to have at age 30 (77% vs. 66%) (see Figure 3.1). Among students who identified an occupation, a higher percentage of females reported that they had thought a lot about this occupation (70% vs. 66%).

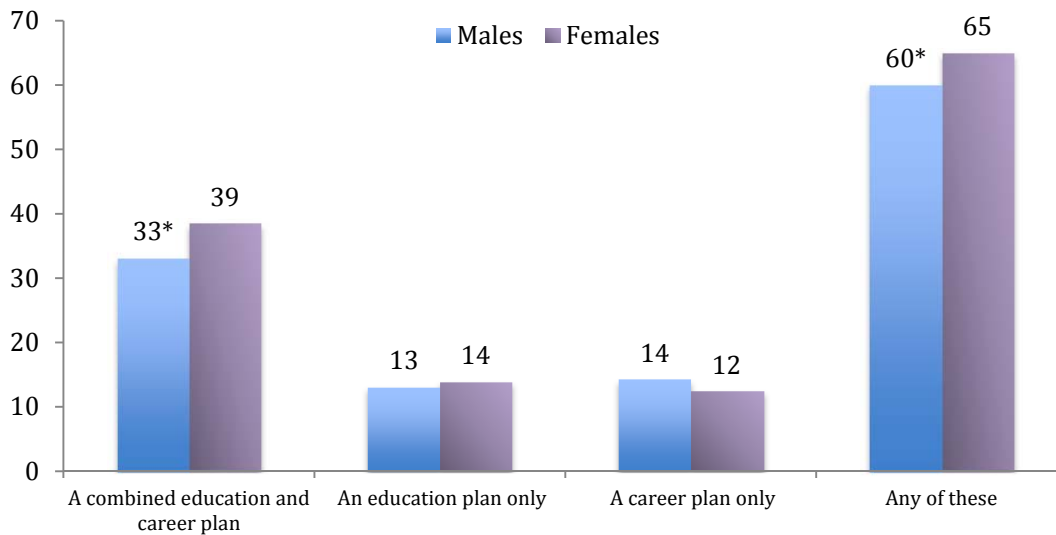
A higher percentage of females than males indicated that they have a combined education and career plan (39% vs. 33%) (see Figure 3.2). There were no gender disparities in the percentage of students who had an education plan or a career plan. However, a higher percentage of females reported having at least one of these plans (65% vs. 60%).

Figure 3.1 9th Grader has Identified an Occupation they Expect to Have at Age 30 & The Amount of Thought 9th Grader Invested in this Decision



*Indicates significantly different from females

Figure 3.2 Student Has Developed an Education and/or Occupational Plan



*Indicates significantly different from females

4. Social Capital Related to Planning for the College and Careers

Rationale: Interpersonal networks of parents, supportive adults and peers can influence an individual's values, norms and expectations for education (Coleman, 1988). Support from caring adults such as parents and teachers has been linked to better career planning, which in turn has been linked to improved school engagement and better grades (Perry, Liu, & Pabian, 2009). School personnel can provide guidance in planning for the future for students that might lack quality social capital in their home environment; in fact, students who contact counselors for college information are more likely to apply for college (Bryan, Moore-Thomas, Day-Vines, & Holcomb-McCoy, 2011). Peers also influence students' expectations. Students who have peers who are planning to attend postsecondary institutions are more likely to enroll in postsecondary institutions (Choy, Horn, Nuñez, & Chen, 2000).

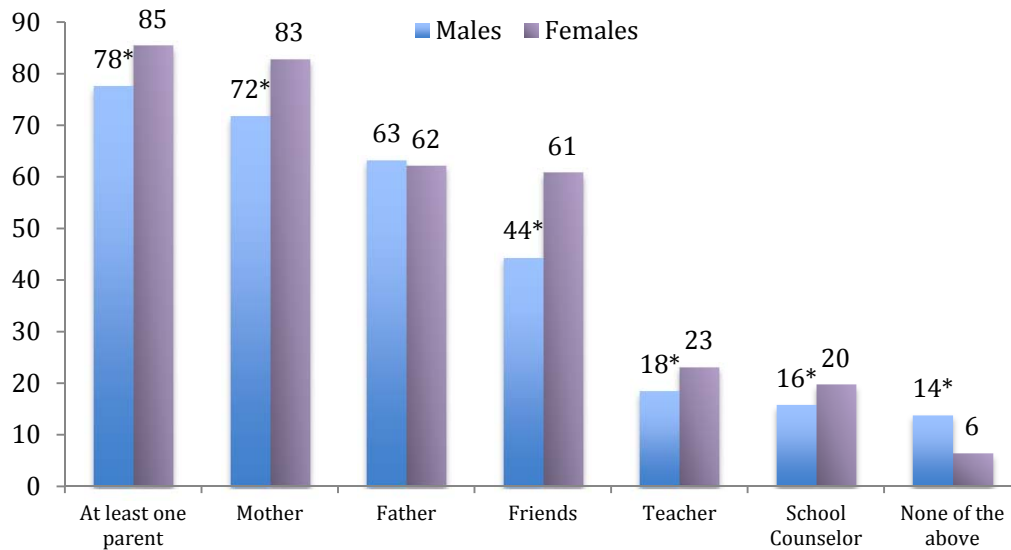
Measures: The indicators for social capital related to educational and career planning look first at whom the student reports talking to about college and career plans. We also examine who the student reports talking to most about future plans.

Findings: A higher percentage of females than males report talking to a parent (85% vs. 78%), a friend (61% vs. 44%), a teacher (23% vs. 18%) or a school counselor (20% vs. 16%) about their college plans (see Figure 4.1). Only 6 percent of females relative to 14 percent of males had not talked to any of these people about college. Both males and females report talking to their mothers more than their fathers about college. There is no gender disparity in the percentage of ninth graders who report talking to their fathers about college. However, daughters are more likely to talk to their mothers than are sons (83% vs. 72%). The pattern that is

observed for who students talk to about college plans closely mirror the patterns for who students talk to about their job and career plans (see Figure 4.2).

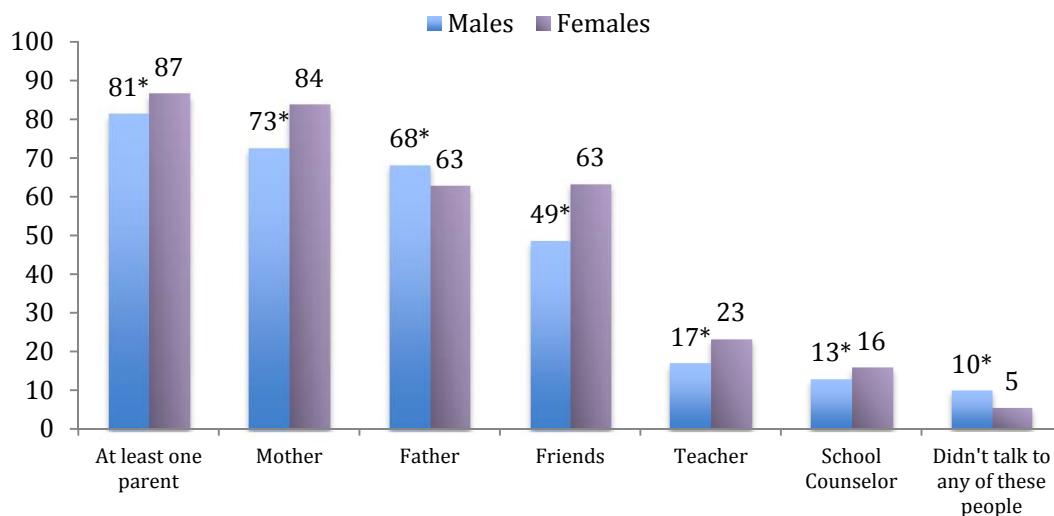
Figure 4.3 examines who students report talking to most about their future plans. Relative to females, a higher percentage of males report that they mostly talk to their parents about their futures (29% vs. 39%). This is important to note given the information in Figures 4.1 and 4.2, which show that males are less likely to talk to any parent about college or career plans.

Figure 4.1 Who students Talk to About Their College Plans



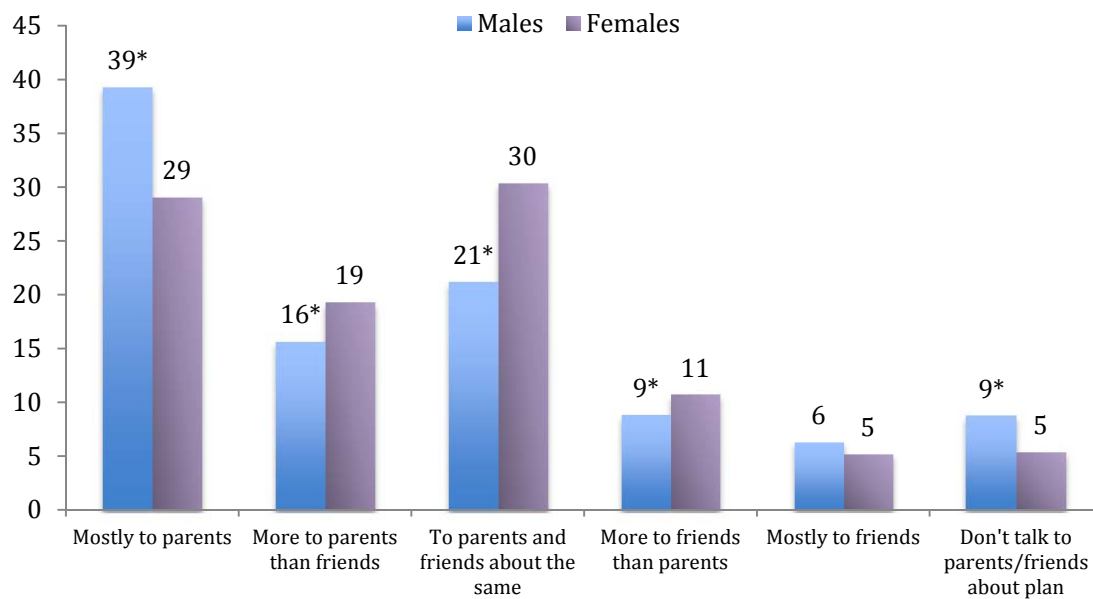
*Indicates significantly different from females

Figure 4.2 Who students Talk to About Their Career Plans



*Indicates significantly different from females

Figure 4.3 Who do students talk to most about their future plans



*Indicates significantly different from females

Discussion

Ninth grade students have high expectations for their educational attainment. Regardless of gender, the findings from this report suggest that nearly all ninth graders believe they will or probably will graduate high school. Similarly, parental and students expectations are very high that the student will earn a college degree. Yet, in 2011 only 32% of individuals aged 25-29 had obtained a bachelor's degree (Institute of Education Sciences & National Center for Education Statistics, 2012).

Examining the indicators presented in this report, ninth grade females have an advantage over their male counterparts in several areas. Females have higher educational expectations – with more females expecting to earn a college or advanced degree. Parents are also more likely to expect their daughters will go to college than their sons. Females are more likely to believe that school pays, that getting good grades is important and that school is not a waste of time. Females are also more likely to come to class prepared with their homework completed. These factors help set the stage for school achievement.

Having a plan for how to achieve one's educational and career goals helps one attain higher levels of achievement. Females are more likely to have an education, career, or educational and career plan. They are more likely to have a career in mind and have spent more time thinking about the career.

Although students express high expectations for educational attainment, the national graduation rate has barely changed in the last 30 years. Intentional efforts will be required to help students achieve these goals. One strategy to improve high school graduation and college and career readiness is to help students create realistic, strategic plans (Schneider, Kirst, & Hess, 2003). The plans can have clear

milestones and be relevant to their lives. Career exploration and job shadowing are some options to help students set goals and understand the path to those goals. Talking to caring adults can help students see the connection between school and their future.

Appendix A. Methods

The data for this analysis come from the High School Longitudinal Study of 2009 (HSLs:09), a nationally representative sample of students who attended ninth grade during the 2009-2010 school year. The data collection was sponsored by the National Center for Education Statistics (NCES) of the Institute of Education Sciences, the U.S. Department of Education and with additional support from the National Science Foundation the data are representative of 10 states. Informants include the student self-reports, parents, math and science teachers, counselors and school principals. Over 20,000 students participated in the survey from 944 schools. The first step in the sampling process was to select the schools. Public and private schools that had both 9th and 11th grades were included in the sampling frame. On average, approximately 28 students per school were selected by a stratified systematic approach to complete the survey. All analyses in this report were weighted to account for the sampling design. Student weights were used for questions where the respondent was a student and parent weights were used for questions answered by parents.

The numbers shown in this report are estimates based on a survey that was designed using statistical principles to create a nationally representative sample. The scores for each measure are estimates – meaning the exact value is uncertain. To capture the extent of this uncertainty, we created 95% confidence intervals. For statistical purposes, two numbers are said to be statistically significantly different if their confidence intervals do not overlap.

Appendix B. Supplemental Tables

Table B. 1.1 9 th Graders Beliefs about the Probability of Graduating High School									
	Very sure about graduating	95% CI	Will probably graduate	95% CI	Will probably not graduate	95% CI	Very sure about not graduating	95% CI	χ^2 p-value
Male (n=10,559)	81.5	80.0-82.9	16.4	15.1-17.8	1.5	1.1-1.9	0.7	0.4-1.0	0.005
Female (n=10,324)	84.7	83.2-86.2	13.9	12.5-15.4	1.0	0.7-1.3	0.4	0.2-0.7	
Total (n=20,883)	83.1	82-84.2	15.2	14.2-16.2	1.2	1-1.5	0.5	0.3-0.7	

Table B. 1.2 9 th Grade Student and Parental Expectations for Educational Attainment									
	HS or less	95% CI	Associates	95% CI	College	95% CI	Don't know	95% CI	χ2 p-value
Students									
Male (n=10,698)	17.2	15.9-18.6	7.6	6.8-8.5	53.7	51.9-55.5	21.5	20.3-22.8	0.000
Female (n=10,438)	12.2	10.9-13.6	6.1	5.3-6.9	59.9	58.1-61.6	21.9	20.7-23.2	
Total (n=21,136)	14.7	13.7-15.7	6.8	6.3-7.4	56.8	55.3-58.2	21.7	20.9-22.6	
Parents									
Male (n=7,678)	11.4	10.1-12.8	10.6	9.3-12	65.9	63.5-68.2	12.2	10.8-13.7	0.000
Female (n=7,678)	6.4	5.4-7.5	7.4	6.4-8.5	75.9	73.6-78	10.4	9.2-11.6	
Total (n=15,356)	8.9	7.9-9.9	9.0	8.2-9.9	70.8	69.1-72.5	11.3	10.4-12.2	

Table B. 2.1 9 th Grader Beliefs about the Value of School									
	Strongly agree	95% CI	Agree	95% CI	Disagree	95% CI	Strongly disagree	95% CI	χ2 p-value
Getting good grades is important									
Male (n=10,642)	53.5	51.5-55.5	40.9	39.1-42.8	4.0	3.5-4.7	1.5	1.2-2.0	0.000
Female (n=10,420)	63.0	61.2-64.7	33.9	32.0-35.8	2.4	1.9-3.2	0.7	0.4-1.0	
Total (n=21,062)	58.2	56.7-59.8	37.4	35.9-39	3.2	2.8-3.7	1.1	0.9-1.3	
Feels that school is a waste of time									
Male (n=10,620)	5.9	5.3-6.7	16.1	15.0-17.2	49.5	47.9-51.1	28.5	26.8-30.2	0.000
Female (n=10,381)	3.0	2.4-3.7	10.3	9.4-11.4	52.2	50.9-53.6	34.5	32.7-36.2	
Total (n=21,001)	4.5	4.0-5.0	13.2	12.5-14	50.9	49.8-52.0	31.5	30.1-32.8	
Studying in school rarely pays off later with a good job									
Male (n=10,633)	10.6	9.6-11.8	18.3	17.0-19.6	41.5	40.0-43.1	29.6	28.0-31.2	0.000
Female (n=10,385)	8.1	7.3-9.0	15.5	14.1-17.1	42.4	40.8-43.9	34.1	32.4-35.7	
Total (n=21,018)	9.4	8.6-10.2	16.9	15.8-18.0	41.9	40.7-43.2	31.8	30.5-33.2	

Table B. 2.2 9 th Grader Behavioral Engagement (measured by preparedness)									
	Never	95% CI	Rarely	95% CI	Sometimes	95% CI	Often	95% CI	χ2 p-value
Goes to class without their homework done									
Male (n=10,681)	14.4	13.2-15.6	40.8	39.3-42.3	31.7	29.9-33.5	13.1	12.1-14.2	0.000
Female (n=10,438)	21.7	20.4-23.0	43.4	41.9-45.0	24.6	23.1-26.2	10.3	9.3-11.4	
Total (n=21,119)	18.0	17.1-19.0	42.1	41.1-43.1	28.1	27.0-29.3	11.7	11.0-12.5	
Goes to class without pencil or paper									
Male (n=10,651)	39.0	37.6-40.4	34.1	32.8-35.5	16.3	15.3-17.3	10.6	9.8-11.5	0.000
Female (n=10,417)	57.4	55.8-58.9	28.0	26.2-29.8	8.4	7.6-9.3	6.2	5.5-7.1	
Total (n=21,068)	48.2	47.0-49.4	31.1	30.1-32.1	12.4	11.7-13	8.4	7.9-9.0	
Goes to class without books									
Male (n=10,639)	49.0	47.3-50.8	34.4	32.9-36.0	11.5	10.4-12.7	5.1	4.5-5.8	0.000
Female (n=10,404)	57.2	55.4-59.0	31.1	29.6-32.8	8.2	7.3-9.2	3.5	2.9-4.1	
Total (n=21,043)	53.1	51.7-54.5	32.8	31.6-34.0	9.9	9.2-10.6	4.3	3.9-4.7	
Goes to class late									
Male (n=10,639)	43.3	41.4-45.2	40.5	38.8-42.2	13.0	11.7-14.3	3.3	2.8-4.0	0.402
Female (n=10,405)	45.2	43.6-46.8	39.4	38.1-40.8	12.4	11.2-13.7	3.0	2.4-3.7	
Total (n=21,044)	44.2	42.8-45.6	39.9	38.8-41.1	12.7	11.8-13.6	3.2	2.7-3.7	

Table B. 3.1 9 th Grader has Identified an Occupation they Expect to Have at Age 30 & The Amount of Thought 9 th Grader Invested in this Decision									
Identified an occupation they expect to have at age 30									
	Yes	95% CI	χ2 p-value						
Male (n=10,569)	66.1	64.3-67.7	0.000						
Female (n=10,341)	76.5	74.7-78.2							
Total (n=20,910)	71.3	69.7-72.8							
How much 9th grader has thought about choice of occupation at age 30									
	Not at all	95% CI	A little	95% CI	Somewhat	95% CI	A lot	95% CI	χ2 p-value
Male (n=6,972)	1.1	0.8-1.5	9.8	8.7-11.0	23.0	21.3-24.8	66.1	64.0-68.2	0.001
Female (n=7,897)	0.3	0.2-0.7	8.5	7.5-9.5	20.9	19.3-22.5	70.3	68.8-71.8	
Total (n=14,869)	0.7	0.5-0.9	9.1	8.3-9.9	21.8	20.9-22.9	68.4	67.2-69.6	

Table B.3.2—Student Has Developed an Education and/or Occupational Plan									
	A combined education and career plan	95% CI	An education plan only	95% CI	A career plan only	95% CI	Any of these	95% CI	χ^2 p- value
Male (n=10,478)	33.1	31.5-34.8	13.1	12.0-14.3	14.2	13.2-15.3	60.4	58.7-62.1	0.000
Female (n=10,292)	38.5	36.8-40.3	13.9	12.6-15.2	12.4	11.2-13.6	64.8	63.3-66.2	
Total (n=20,770)	35.8	34.7-37.0	13.5	12.6-14.4	13.3	12.5-14.1	62.6	61.6-63.6	

Table B. 4.1 Who students Talk to About Their College Plans			
	Yes	95% CI	χ^2 p-value
At least one parent			
Male (n=10,477)	77.6	76.2-78.9	0.000
Female (n=10,337)	85.4	84.1-86.7	
Total (n=20,814)	81.5	80.4-82.6	
Mother			
Male (n=10,333)	71.8	70.3-73.2	0.000
Female (n=10,229)	82.9	81.4-84.3	
Total (n=20,562)	77.4	76.3-78.4	
Father			
Male (n=9,699)	63.2	61.6-64.9	0.330
Female (n=9,540)	62.2	60.6-63.8	
Total (n=19,239)	62.7	61.5-63.9	
Friends			
Male (n=10,543)	44.4	42.9-46.0	0.000
Female (n=10,355)	60.8	59.1-62.4	
Total (n=20,898)	52.6	51.5-53.7	
Teacher			
Male (n=10,543)	18.4	17.1-19.8	0.000
Female (n=10,355)	23.1	21.5-24.8	
Total (n=20,898)	20.8	19.8-21.9	
School Counselor			
Male (n=10,543)	15.8	14.6-17.1	0.000
Female (n=10,355)	19.7	18.3-21.2	
Total (n=20,898)	17.8	16.7-18.9	
Didn't talk to any of these people			
Male (n=10,543)	13.8	12.7-14.9	0.000
Female (n=10,355)	6.4	5.6-7.3	
Total (n=20,898)	10.1	9.4-10.8	

Table B. 4.2 Who students Talk to About Their Career Plans			
	Yes	95% CI	χ2 p-value
At least on parent			
Male (n=10,495)	81.4	80.3-82.5	0.000
Female (n=10,330)	86.6	85.6-87.6	
Total (n=20,825)	84.0	83.2-84.8	
Mother			
Male (n=10,352)	72.5	71.2-73.9	0.000
Female (n=10,223)	83.7	82.5-84.9	
Total (n=20,575)	78.2	77.2-79.1	
Father			
Male (n=9,711)	68.1	66.5-69.6	0.000
Female (n=9,534)	62.7	61.1-64.4	
Total (n=19,245)	65.4	64.2-66.6	
Friends			
Male (n=10,559)	48.6	47.0-50.2	0.000
Female (n=10,349)	63.4	61.8-65.0	
Total (n=20,908)	56.0	54.9-57.1	
Teacher			
Male (n=10,559)	16.9	15.6-18.3	0.000
Female (n=10,349)	23.2	21.8-24.6	
Total (n=20,908)	20.0	19.1-21.0	
School counselor			
Male (n=10,559)	12.8	11.6-14.0	0.000
Female (n=10,349)	15.8	14.4-17.2	
Total (n=20,908)	14.3	13.2-15.4	
Didn't talk to any of these people			
Male (n=10,559)	9.9	9.0-10.8	0.000
Female (n=10,349)	5.4	4.7-6.2	
Total (n=20,908)	7.6	7.1-8.2	

Table B. 4.3 Who do students talk to most about their future plans													
	Mostly to parents	95% CI	More to parents than friends	95% CI	To parents and friends about the same	95% CI	More to friends than parents	95% CI	Mostly to friends	95% CI	Don't talk to parents/friends about plan	95% CI	χ^2 p- value
Male (n=10,543)	39.3	37.8- 40.8	15.7	14.6- 16.9	21.2	20.0- 22.6	8.8	8.0- 9.6	6.3	5.6- 7.1	8.7	7.9- 9.6	0.000
Female (n=10,356)	29.1	27.4- 30.9	19.3	17.9- 20.7	30.4	29.2- 31.7	10.7	9.7- 11.8	5.2	4.5- 5.9	5.4	4.7- 6.2	
Total (n=20,899)	34.2	33.1- 35.3	17.5	16.6- 18.4	25.8	24.9- 26.8	9.7	9.1- 10.4	5.7	5.2- 6.3	7.1	6.5- 7.6	

References

- Allensworth, Elaine M., & Easton, John Q. (2005). The On-Track Indicator as a Predictor of High School Graduation.
- Aud, Susan, Hussar, William, Johnson, Frank, Kena, Grace, Roth, Erin, Manning, Eileen, . . . Yohn, Carolyn. (2012). The Condition of Education 2012. Washington, DC.
- Bryan, Julia, Moore-Thomas, Cheryl, Day-Vines, Norma L., & Holcomb-McCoy, Cheryl. (2011). School Counselors as Social Capital: The Effects of High School College Counseling on College Application Rates. *Journal of Counseling & Development*, 89(2), 190-199. doi: 10.1002/j.1556-6678.2011.tb00077.x
- Choy, Susan P., Horn, Laura J., Nuñez, Anne-Marie, & Chen, Xianglei. (2000). Transition to College: What Helps At-Risk Students and Students Whose Parents Did Not Attend College. *New Directions for Institutional Research*, 107.
- Cohen, Mark A., & Piquero, Alex R. (2009). New evidence on the monetary value of saving a high risk youth. *Journal of Quantitative Criminology*, 25, 25-249.
- Coleman, James S. (1988). Social Capital in the Creation of Human Capital. *American Journal of Sociology* 1, 94.
- Cutler, David M., & Lleras-Muney, Adriana. (2006). Education and health: Evaluating theories and evidence *NBER Working Paper Series*. Cambridge, MA: National Bureau of Economic Research.
- Davis, Larry E., Ajzen, Icek, Saunders, Jeanne, & Williams, Trina. (2002). The decision of African American students to complete high school: An application of the theory of planned behavior. *Journal of Educational Psychology*, 94(4), 810-819. doi: 10.1037//0022-0663.94.4.810
- Eccles, Jacquelynne S., & Wigfield, Allan. (2002). Motivational beliefs, values, and goals. *Annual review of psychology*, 53, 109-132. doi: 10.1146/annurev.psych.53.100901.135153
- Finn, Jeremy D. (1989). Withdrawing from school. *Review of Educational Research*, 59(2), 117-142.
- Frymier, A. B., & Shulman, G. M. (1995). "What's in it for me?": Increasing content relevance to enhance students' motivation. *Communication Education*.
- Institute of Education Sciences, & National Center for Education Statistics. (2012). The Condition of Education: Educational Attainment (Indicator 48-2012). from http://nces.ed.gov/programs/coe/indicator_eda.asp
- Kenny, Maureen E., Blustein, David L., Haase, Richard F., Jackson, Janice, & Perry, Justin C. (2006). Setting the stage: Career development and the student engagement process. *Journal of Counseling Psychology*, 53(2), 272-279. doi: 10.1037/0022-0167.53.2.272
- Kinney, David A. (1993). From Nerds to Normals : The Recovery of Identity among Adolescents from Middle School to High School. *Sociology of Education*, 66(1), 21-40.

- Lochner, Lance, & Moretti, Enrico. (2004). The effect of education on crime: Evidence from prison inmates, arrests, and self-reports. *The American Economic Review*, 94(1), 155-189.
- National Center for Education, Statistics, & Institute of Education, Sciences. (2012). Trends in High School Dropout and Completion Rates in the United States : 1972 – 2009.
- Neild, Ruth Curran, Stoner-Eby, Scott, & Furstenberg, Frank F. Connecting entrance and departure: The transition to ninth grade and high school dropout.
- Perry, J. C., Liu, X., & Pabian, Y. (2009). School Engagement as a Mediator of Academic Performance Among Urban Youth: The Role of Career Preparation, Parental Career Support, and Teacher Support. *The Counseling Psychologist*, 38(2), 269-295. doi: 10.1177/0011000009349272
- Schneider, Barbara, Kirst, Michael, & Hess, F. M. (2003). Strategies for success: High school and beyond. *Brookings papers on education policy*, 6(6), 55-93.
- Swanson, Christopher B. (2009). Cities in crisis: closing the graduation gap. educational and economic conditions in america's largest cities. Bethesda M. D.: Editorial Projects in Education.
- U.S. Department of Education, National Center for Education Statistics Common Core of Data). [Averaged Freshmen Graduation Rate (AFGR) by race/ethnicity, gender, state or jurisdiction, and year: School years 2002–03 through 2008–09].
- Voelkl, Kristin E. (2012). School Identification (pp. 193-218).
- Wells, Ryan S., Seifert, Tricia a, Padgett, Ryan D., Park, Sueuk, & Umbach, Paul D. (2011). Why Do More Women than Men Want to Earn a Four-Year Degree?: Exploring the Effects of Gender, Social Origin, and Social Capital on Educational Expectations. *The Journal of Higher Education*, 82(1), 1-32. doi: 10.1353/jhe.2011.0004