Beginning College Survey of Student Engagement 2013
Self-Comparison Report

February 2014

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EXECUTIVE SUMMARY

In 2013, over 71,000 first-time freshmen from 124 four-year colleges and universities participated in the Beginning College Survey of Student Engagement (BCSSE), a national survey that collects information from incoming first-year students about their backgrounds, high school experiences and performance, and expectations for academic experiences during the first year of college. Mason initially participated in BCSSE in 2008. In summer 2013, 3,213 prospective first-year Mason undergraduate students were invited by e-mail to participate in the survey online. After excluding duplicate cases and respondents who did not enroll in fall 2013, the final number of respondents was 1,435, yielding a response rate of 49%.

This report focuses on the BCSSE results from Mason in the following areas: demographic and academic characteristics of incoming freshmen, academic preparation and expectations for college experiences as measured by BCSSE scales, and special topics on time allocation and financial conditions. Where applicable, results from 2013 and 2008 are compared to show change over time. Within 2013, analyses by gender and by race/ethnicity are summarized to highlight differential characteristics and expectations of Mason freshmen. References to data prior to 2008 or from peer institutions (i.e., doctoral level participating institutions) are included occasionally in the report to illustrate trends or provide a context for the findings. More in-depth comparisons with peer institutions will be available in a separate peer-comparison report.

Major Findings

Demographic Characteristics

- Racial/ethnic minorities account for over half of the 2013 Mason respondents (54%), higher than their representation in the total population. As was the case in 2008, Asian students constitute the largest minority group in 2013.
- The percentage of first-generation freshmen has increased. Forty percent of the 2013 Mason respondents said that neither of their parents or people who raised them earned a 4-year college degree, compared to 30% in 2008.
- Women are 61% of the respondents, higher than their proportion in the total population.

Academic Characteristics

- A higher percentage of the 2013 freshmen respondents took or passed advanced courses in high school than their 2008 counterparts:
    - 40% of the 2013 respondents passed calculus in high school compared to 31% in 2008
    - 88% of the 2013 respondents took at least one advanced placement (AP) class compared to 80% in 2008
    - 65% of the 2013 respondents took 3 or more AP classes compared to 46% of their 2008 counterparts
- Half of the 2013 respondents (56%) reported that their high school grades were mostly A's – a 17 percentage point increase since 2008, and equivalent to that of Mason peers in 2013.
- The 2013 freshmen respondents scored significantly higher on the SAT composite than their 2008 counterparts, with male students scoring significantly higher than female students. Non-first-generation freshmen scored significantly higher than their first-generation peers.
- Over two-thirds of the 2013 freshmen respondents (73%) reported studying 6 or more hours per week during the last year of high school, a 7 percentage point increase from 2008. This figure has more than doubled over the past 10 years (35% in 2003, data source: Cooperative Institutional Research Program Survey - CIRP).

Expected Academic Engagement in College and Importance of Campus Environment

2008 vs. 2013

- In 2013, Mason freshmen expect to spend more time studying in college than they did in high school (e.g., study over 16 hours a week: 60% vs. 25%), and nearly half express concern about managing time during the first year in college. This concern was true in 2008 as well.
- The 2013 freshmen foresee less academic difficulty and perceive themselves to be better prepared academically compared to their 2008 peers, particularly in critical thinking, quantitative skills, and using computing and information technology. Freshmen in 2013 also expect a higher level of academic perseverance both inside and outside of class.
- The 2013 freshmen expect to have more interactions with faculty outside of class and on activities beyond coursework than their 2008 peers; they also attach more importance to campus environment, including opportunities for campus activities and interaction with diverse others.
- A higher percentage of Mason 2013 freshmen (about 90%) expect to have discussions with people of different race/ethnicity, religious beliefs, or political views than their 2008 peers (about 80%).

Gender

- Compared to their male peers, female freshmen used learning strategies significantly more often in high school, expect more interactions with faculty during the first-year of college, and perceive themselves to be better prepared in writing. Female students also express more concerns about possible difficulty in learning course material and interaction with faculty, and consider it important to have an academically and socially supportive campus environment.
- Male freshmen reported applying quantitative reasoning more often than their female peers during the last year of high school and perceive themselves to be better prepared in critical thinking, ability to use numerical information, and IT skills during the first year of college. On the other hand, male students were more concerned about managing time in college.

Race/ethnicity

- Black/African American students expect to have more interactions with faculty and other students on academic (e.g., study for exams, work on projects or assignments) and non-academic activities (e.g., talk about career plans) compared to other race/ethnic groups; black/African American freshmen also expect to persevere more in the face of academic challenges and consider it more important that the campus environment supports academic (e.g., learning support services) and social success (e.g., opportunities for diverse interactions and campus activities).
- Asian students anticipate more academic difficulty than other race/ethnic groups; Asian freshmen also have a lower perception of academic preparedness compared to black/African American or white peers, particularly in terms of communication skills and critical thinking.
- Campus environment was less important to white students than other students.

Financial Concerns and Work for Pay

- Mason 2013 freshmen have more concerns about paying for college than their 2008 peers. About 90% of the 2013 freshmen said they would rely on family support compared to 68% in 2008; the percentage using grants and scholarships as a funding source also went up 14 percentage points to 72% in 2013.
- Acknowledging financial concerns, nearly two-thirds of freshmen in 2013 plan to work for pay up to 20 hours a week during the first-year in college, far more than they did in high school.

INTRODUCTION

The Beginning College Survey of Student Engagement (BCSSE) is a national survey administered annually to incoming first-time first-year students before they start college. BCSSE collects data about students' high school experiences and performance, expectations for academic experiences during the first year in college, and plans for co-curricular activities.

BCSSE was initially launched in 2007. Although developed as a companion survey to the National Survey of Student Engagement (NSSE), BCSSE can also be administered as a stand-alone instrument. In 2013, BCSSE incorporated substantial changes both in items and response scales. As a result, the new BCSSE generates nine scales instead of six as produced in previous years. Mason participated in BCSSE in 2008 and 2013.

BCSSE Scales

BCSSE scales are intended to provide a framework to organize the information collected to better understand the characteristics of incoming freshmen and develop and implement effective services and programs to address their needs. The new scales are listed below. See Appendix A for a detailed description of each scale.

- Quantitative Reasoning (QR)
- Learning Strategies (LS)
- Collaborative Learning (CL)
- Student-Faculty Interaction (SFI)
- Interaction with Diverse Others (IDO)
- Expected Academic Perseverance (EAP)
- Expected Academic Difficulty (EAD)
- Perceived Academic Preparation (PAP)
- Importance of Campus Environment (ICE)

Where possible, scales from 2008 and 2013 are aligned to facilitate a comparison. Compared to the previous BCSSE scales, the nine 2013 BCSSE scales contain four (*EAP, EAD, PAP* and *ICE*) that are essentially the same items, two (*SFI* and *IDO*) that have some new items, and three (*QR, LS* and *CL*) that are all new items or items with major changes in wording. The major change in the instrument is reflected in BCSSE definitions of academic engagement in high school and the first year of college. See Appendix B for a side-by-side comparison of the 2008 and 2013 scales.

Survey Administration and Response Rate

In 2013, over 71,000 incoming first-year students from 124 four-year colleges and universities participated in BCSSE. In summer 2013, all 3,213 prospective first-year Mason undergraduate students were invited by e-mail to participate in the survey online. During summer orientations, non-respondents were invited to take the survey on-site and post cards were handed to students as a reminder to fill out the survey. In total, 1,435 enrolled students responded, yielding a response rate of 49%.

Compared to the 2013 first-time freshman population (n=3011), female and black/African American students were slightly over represented among the respondents (61% and 14%, respectively, compared to 54% and 11% of the population). Forty percent of the 2013 respondents at Mason were identified as first-generation students, according to the BCSSE definition of neither parent having earned a 4-year college degree.

Scope and Structure of the Report

This report focuses on BCSSE results from Mason with four main sections:

- Demographic and academic characteristics of BCSSE respondents
- Scale score comparison: 2008 vs. 2013
- 2013 scale score comparison by subgroup
- Additional analyses on special topics

Trend analysis results are included where applicable to capture change in the incoming characteristics and expectations of first-time freshmen over time.

Important Notes

- The terms *respondents*, *freshmen*, and *students* in this report are synonymous referring to the 1,435 and 1,467 students whose responses on the survey from 2013 and 2008, respectively, were used in this report.
- First-generation students are defined as those with neither parent (or guardian) having completed a 4-year college degree.
- Percentages reported may not add up to 100 due to rounding.
- Percentages for 2000-2008 in Figure 11 are based on data published in the 2008 BCSSE report.
- Post-hoc comparisons of students by race/ethnicity use the following numbering system:
    - Black/African American – 1
    - Asian – 2
    - Hispanic – 3
    - White – 4

DEMOGRAPHIC AND ACADEMIC CHARACTERISTICS OF BCSSE RESPONDENTS

Demographic Characteristics

Enrollment Status

Almost all respondents (99%) graduated from high school in 2013. The majority of the respondents (90%) graduated from public high schools; the rest either attended private schools (10%) or earned a high school diploma through home schooling or GED (1% combined). Almost all respondents (99%) reported that they would enroll full-time in college. These statistics were very similar to those for the 2008 cohort.

Gender and Race/Ethnicity

Demographic characteristics of the 2013 BCSSE respondents are summarized in Table 1. Female students account for 61% of the 2013 respondents as they did in 2008. By race/ethnicity, the survey respondents represent a very diverse student body with over half of respondents reporting they are non-white. The largest minority groups are Asian (16%) and black/African American (14%). Compared to the population of the freshman class, female (53%) and black/African American (11%) students were slightly over represented among the respondents. No attempt is made to compare the 2013 and 2008 respondents by race/ethnicity because the 2013 race/ethnicity data reported in Table 2 is based on a new method as required by the State Council of Higher Education for Virginia.

Table 1. Gender and Race/Ethnicity in 2013

	Respondents	Population
Gender		
Female	61%	53%
Male	39%	47%
Race/Ethnicity		
White	46%	50%
Black/African American	14%	11%
Hispanic	12%	11%
Asian	16%	16%
Other	12%	12%

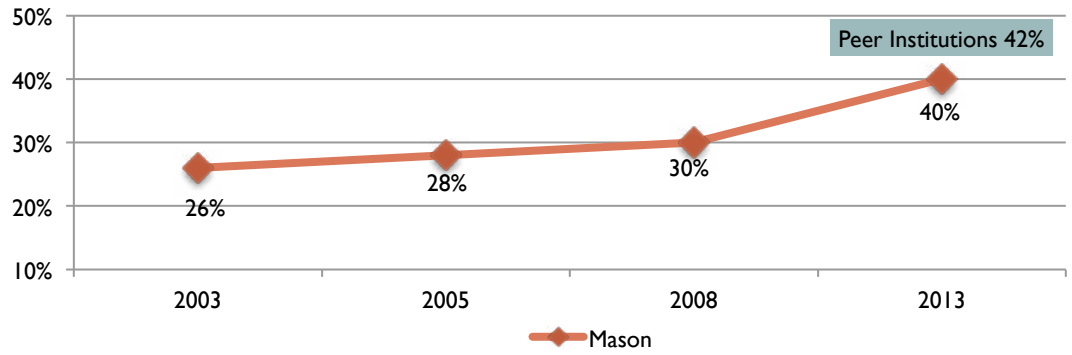
Note: The percentages are based on institutional data with Asian and Pacific Islander combined.

First-Generation Students

BCSSE defines a "first-generation" student as one with neither parent (or those who raised him/her) having completed a 4-year college degree. Applying this definition, the percentage of first-generation freshmen at Mason has been on the rise during the last decade reaching 40% in 2013, reflecting a 14 percentage point increase since 2003 (see Figure 1), bringing the Mason percentage close to that of peer institutions (42%), which have also seen an increase in first-generation enrollment.

Research suggests that students whose parents did not attend college face a greater challenge in access to college education, retention, and graduation compared to peers with parents holding college degrees (Choy, 2001; Pascarella, Pierson, Wolniak, & Terenzini, 2004). The fact that Mason has more first-generation freshmen in 2013 than before has implications for support services in the university community as first-generation students may need continuing institutional support (Saenz, Hurtado, Barrera, Wolf & Yeung, 2007).

Figure 1. Percentage of First-Generation Respondents, 2003-2013



Note: The percentages for 2003 and 2005 are from CIRP Freshman Survey data and are based on the same definition as BCSSE.

Academic Characteristics

Math Courses

As a measure of academic preparation, BCSSE asks respondents to indicate whether they earned a grade of C or better in several high school math courses including algebra II, pre-calculus/trigonometry, calculus, and probability or statistics.

Results in Table 2 show that the majority of 2013 respondents (84%) passed pre-calculus/trigonometry, as did their 2008 peers, along with algebra II (94%). A higher percentage of the 2013 respondents also passed calculus – 40% compared with 31% in 2008, suggesting that the 2013 incoming freshman class may be better prepared in math than their 2008 peers.

Table 2. Percent Earning a Grade of C or Better in High School Math Courses

Course	2008	2013
Algebra II	N/A	94%
Pre-calculus/Trigonometry	84%	84%
Calculus	31%	40%
Probability or Statistics	34%	34%

Note: The percentages are for "passing" in 2008.

AP Classes and College or University Credit Classes

BCSSE 2013 asked respondents to indicate how many advanced placement (AP) classes and college or university courses they had completed for credit. Overall, the 2013 respondents took more AP classes than their 2008 counterparts.

Table 3. Advanced Placement (AP) and College or University Courses Taken for Credit During High School

	AP Classes		College/University Courses[1]
Number of Classes	2008	2013	2013
0	20%	12%	53%
1-2	34%	23%	27%
3-4	25%	27%	8%
5 or more	21%	38%	13%

[1] *This item was not included in BCSSE 2008.*

As shown in Table 3, 88% of the 2013 respondents took at least one AP class during high school, compared with 80% of their 2008 peers. At the upper end of the spectrum, 38% of the 2013 respondents took 5 or more AP classes, compared with 21% in 2008. Nearly half of the 2013 BCSSE respondents took college or university classes for college credits before starting at Mason.

Reading and Writing

In BCSSE 2013, respondents were asked about their level of engagement in reading and writing activities during the last year of high school. As shown in Table 4, about 40% of the respondents spent at least 6 hours in a typical week on assigned reading. In terms of writing in high school, most students most frequently wrote short to medium length papers (1-5 and 6-10 pages). Nearly two-thirds never wrote a long paper/report (11 pages or more).

Table 4. Amount of Reading and Writing During Last Year of High School, 2013[1]

	None	1-5 hours	6-10 hours	> 10 hours
Of the time you spent preparing for class in a typical 7-day week, about how many hours were on assigned reading?	5%	54%	25%	17%

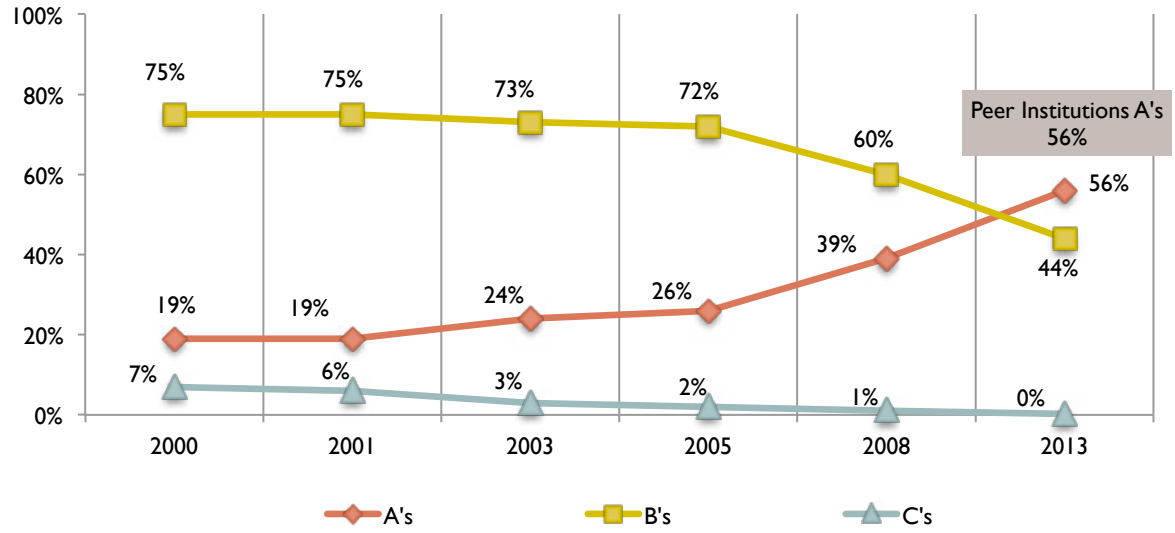
About how many papers, reports, or other writing tasks of the following length did you complete?	None	1-5 papers	6-10 papers	>10 papers
Up to 5 pages (n=1314)	4%	46%	19%	31%
Between 6 and 10 pages (n=1176)	25%	65%	7%	3%
11 pages or more (n=1083)	60%	37%	2%	2%

[1] *No comparison is made with the 2008 data because BCSSE 2013 changed both the items and the response scale for reading and writing during high school.*

High School Grades

The 2013 BCSSE respondents reported better high school grades than previous cohorts. The *median* of self-reported high school grades among the 2013 respondents is A-, compared with B+ for their 2008 counterparts. Figure 2 shows that, overall, the percentage of the respondents reporting that most of their high school grades were A's has been on the rise during the last decade, with the largest increase of 17 percentage points being observed between 2008 and 2013. In comparison, 56% of Mason peers also reported that most of their high school grades were A's.

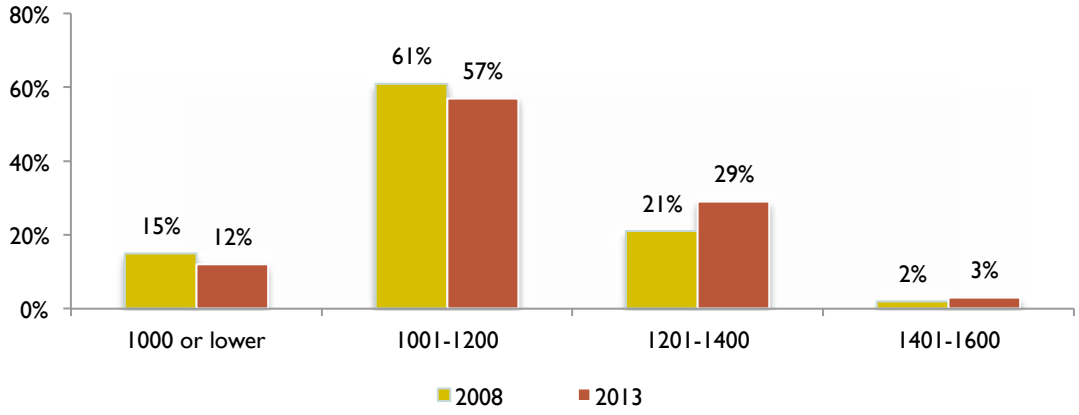
Figure 2. Self-Reported High School Grades, 2000-2013



SAT/ACT Scores

Figure 3 shows that the distribution of the SAT composite scores for the 2013 respondents shifted up the scale relative to their predecessors – 32% of the 2013 cohort scored over 1200, compared to 23% of their 2008 counterparts. Related to this change is the smaller percentage of the 2013 respondents scoring 1200 or less (69% compared to 76% 2008). Further analysis shows that the 2013 respondents scored significantly higher on the SAT composite than their 2008 peers (average score: 1147 vs. 1125 respectively).

Figure 3. SAT Composite Score[1], 2008 vs. 2013



[1]*Based on institutional data. The maximum SAT composite score is 1600.*

Subgroup analyses reveal significant differences in 2013 SAT composite/ACT converted scores by gender and first-generation status. As shown in Table 5, male students scored significantly higher than female counterparts; non-first-generation freshmen had significantly higher scores than first-generation peers. These findings mirror the 2008 survey results.

Table 5. Self-Reported SAT Composite – Comparison by Gender and First-Generation Status, 2013

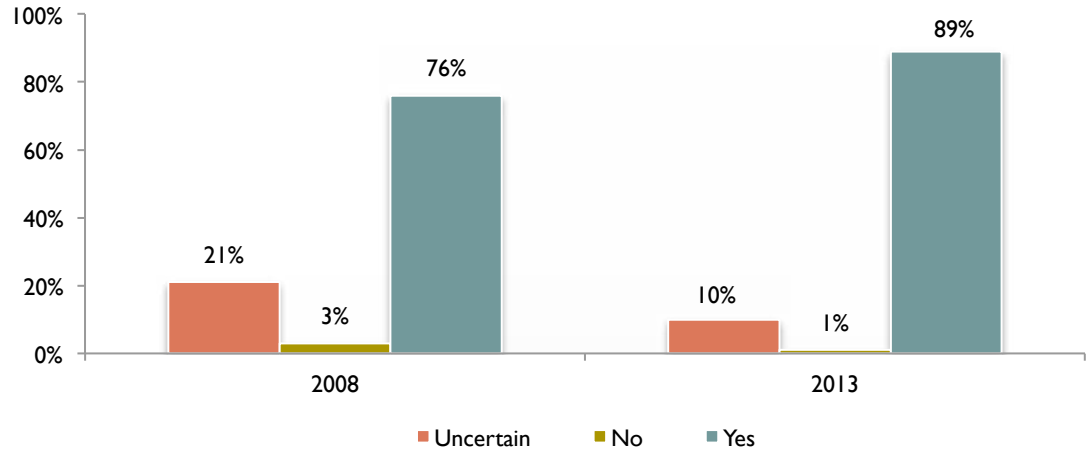
	Female (n=674)	Male (n=490)	First-Generation (n=384)	Non-First-Generation (n=599)
Mean[1]	1127	1175	1116	1173
Significance Level	***		***	
Effect Size [2]	-0.40		-0.48	

[1]*Based on institutional data. The maximum of the SAT composite score is 1600.*
[2] *ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)*
*** *p < .001 t-test (2 tailed)*

Academic Aspiration

As an assessment of their future plans, BCSSE asks respondents to indicate whether they intend to graduate from Mason. As shown in Figure 4, a much higher percentage of the 2013 respondents provided a positive answer: nearly 90% of the 2013 respondents reported that they expect to graduate from Mason, compared to 76% in 2008.

Figure 4. Percent of Students Who Intend to Graduate from Mason, 2008 vs. 2013



SCALE SCORE COMPARISON: 2008 VS. 2013

BCSSE introduced major changes in items and scales in 2013. The nine 2013 BCSSE scales can be classified into three groups: (1) four scales contain essentially the same items (2) two scales include some new items, and (3) three scales include all new items or items with major change in wording. This section focuses primarily on the four scales that have remained basically the same in both 2008 and 2013: *Expected Academic Perseverance, Expected Academic Difficulty, Perceived Academic Preparation*, and *Importance of Campus Environment*. For these four scales, a comparison of the 2008 and 2013 data is made at the scale and item levels. For the two scales that contain some new items (*Student Faculty Interaction* and *Interaction with Diverse Others*), only item-level analysis results are provided on items used in both 2008 and 2013.

Scale Score Comparison

In 2008, BCSSE scale scores were calculated by transforming responses to a 0-10 point scale. The mean scale score was then calculated for each respondent. For 2013, BCSSE changed its calculation method in that the responses for each item were transformed to a 0-60 point scale before calculating the mean scale score for each respondent. To facilitate scale score comparison in this report, the 2008 scale score was converted to the 0-60 point scale. Table 6 presents summary data for the scales used in both 2008 and 2013. Results show the following compared to BCSSE 2008 respondents:

- Respondents in 2013 reported a significantly higher level of academic perseverance and perceive themselves to be better prepared academically.
- The 2013 freshmen are less concerned about academic difficulties.
- The 2013 freshman class places significantly more importance on campus environment.

Table 6. BCSSE Scale Scores Mean Comparison, 2008 vs. 2013

BCSSE Scales[1]	2008 (n=1467)	2013 (n=1435)	Sig.	Effect Size[2]
Expected Academic Perseverance (EAP)	42.53	44.90	***	-0.25
Expected Academic Difficulty (EAD)	30.52	29.41	**	0.10
Perceived Academic Preparation (PAP)	43.05	45.68	***	-0.28
Importance of Campus Environment (ICE) [3]	44.52	47.40	***	-0.28

Note: Scale scores were based on a 60-point scale.
[1]Based on six items in 2008 and seven items in 2013
[2] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)
** $p < .01$, *** $p < .001$, *t-test (2-tailed)*

Item Analysis by Scales

Expected Academic Perseverance

In the *Expected Academic Perseverance (EAP)* scale, students were asked how certain they were that they would stay on task and persist when encountering various challenging situations as described by the six items in Table 7. Students were asked to rate their level of certainty on a 6-point scale (1 = Not at all certain to 6 = Very certain). Table 7 shows the percentage of students marking 5 or 6 for each item. Overall, the 2013 respondents reported a significantly higher level of expected academic perseverance on all six items than their 2008 peers. The biggest increase is associated with *finding additional information for course assignments when they do not understand materials*.

Table 7. Percent of Students with High Levels of Academic Perseverance

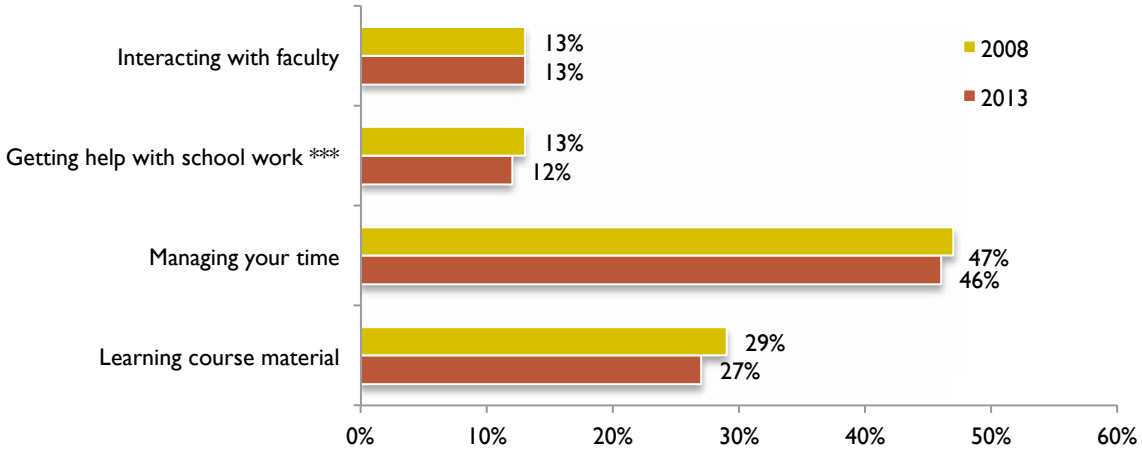
During the coming school year, how certain are you that you will do the following?	**2008**	**2013**	**Difference**	**Sig.**	**E.S.** [1]
Study when there are other interesting things to do	36%	45%	+9%	***	-0.15
Find additional information for course assignments when you don't understand the material	59%	72%	+13%	***	-0.29
Participate regularly in course discussions, even when you don't feel like it	37%	45%	+8%	***	-0.21
Ask instructors for help when you struggle with course assignments	62%	67%	+5%	**	-0.12
Finish something you have started when you encounter challenges	69%	77%	+8%	***	-0.19
Stay positive, even when you do poorly on a test or assignment	59%	66%	+7%	*	-0.09

Note: The percentages are for "5" and "6" combined on a 6-point scale (1=Not at all certain to 6=Very certain).
** p < .05, ** p < .01, *** p < .001, t-test (2-tailed)*
[1] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Expected Academic Difficulty

To gauge the *Expected Academic Difficulty (EAD),* students were asked to rate, on a 6-point scale (1 = Not at all difficult to 6 = Very difficult), how difficult it is to *learn course material*, *manage time*, *get help with school work*, and *interact with faculty*. Figure 5 shows the percentage of students marking 5 or 6 on the scale for each item. Results show that the 2008 and 2013 freshman classes reported similar levels of expected academic difficulty on three of the four measures. However, the 2013 freshmen were less concerned about *getting help with school work* compared to their 2008 counterparts. *Managing time* continues to be a major concern among nearly half of the Mason freshmen in 2013 as was the case in 2008.

Figure 5. Percent of Students Anticipating Certain Academic Difficulty



Note: The percentages are for "5" and "6" combined on a 6-point scale (1=Not at all certain to 6=Very certain).
**** p <. 001, t-test (2-tailed), small effect size (0.15)*

Perceived Academic Preparation

To assess freshman preparedness for college, BCSSE asks respondents to evaluate how prepared they were in seven competency areas on a 6-point scale (1=Not at all prepared to 6=Very prepared): writing, speaking, critical thinking, quantitative skills, teamwork, IT skills, and self-learning. Table 8 shows the percentages of students marking 5 and 6 for each item. Compared to their 2008 counterparts, freshmen in 2013 perceived themselves to be significantly better prepared academically in six of the seven areas. Increases were most prominent in *critical thinking*, *quantitative skills*, and competency in using *computing and information technology*.

Table 8. Perceived Academic Preparation

How prepared are you to do the following in your academic work at this institution?	**2008**	**2013**	**Difference**	**Sig.**	**E.S.[1]**
Write clearly and effectively	55%	63%	+8%	***	-0.21
Speak clearly and effectively	54%	59%	+5%	*	-0.09
Think critically and analytically	56%	68%	+12%	***	-0.28
Analyze numerical and statistical information	39%	51%	+12%	***	-0.34
Work effectively with others	74%	78%	+4%	*	-0.08
Use computing and information technology	54%	65%	+11%	***	-0.28
Learn effectively on your own	64%	67%	+3%		-0.08

Note: The percentages are for "5" and "6" combined on a 6-point scale (1=Not at all prepared to 6=Very prepared).
** p < .05, ** p < .01, *** p < .001, t-test (2-tailed)*
[1] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Importance of Campus Environment

Importance of Campus Environment (ICE) is a composite indicator of what matters most to freshmen in their college experience and environment. Students were asked to rate how important they felt about different aspects of college environment on a 6-point scale (1=Not at all important to 6=Very important). Table 9 shows the percentage of students marking 5 or 6 on each item. Major findings include the following:

- Compared to the 2008 freshman class, freshmen in 2013 attached significantly more importance to five of the six aspects of campus environment addressed by BCSSE.
- Over two-thirds of the 2013 freshmen considered it highly important to have *opportunities to attend campus activities and events*, *to be involved socially*, and *to interact with diverse others on campus*.

Table 9. Importance of Campus Environment

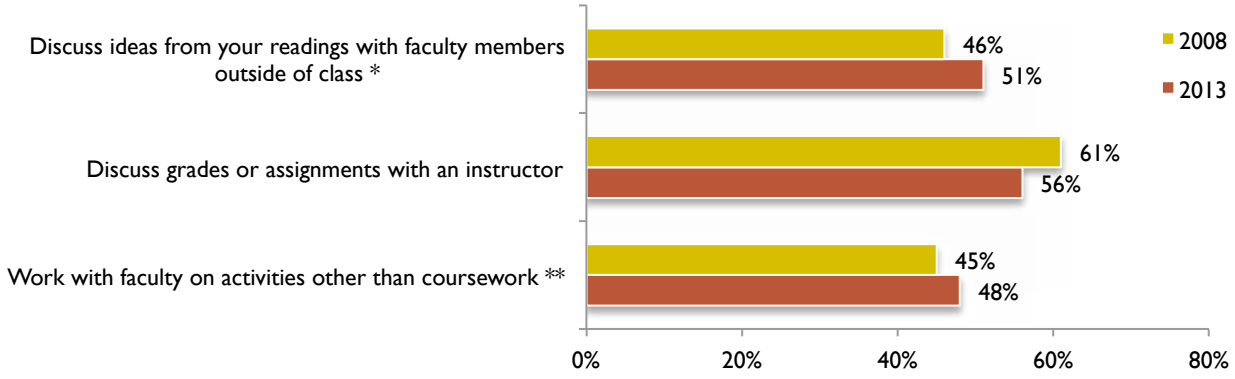
How important is it to you that your institution provides each of the following?	**2008**	**2013**	**Difference**	**Sig.**	**E.S. [3]**
A challenging academic experience	56%	61%	+5%	**	-0.11
Support to help students succeed academically	84%	88%	+4%	***	-0.20
Opportunities to interact with students from different backgrounds (social, racial/ethnic, religious, etc.)	63%	68%	+5%		-0.07
Help managing your non-academic responsibilities [1]	44%	52%	+8%	***	-0.18
Opportunities to be involved socially [2]	50%	71%	+21%	***	-0.45
Opportunities to attend campus activities and events	66%	74%	+8%	***	-0.17

The percentages are for "5" and "6" combined on a 6-point scale (1=Not important to 6=Very important).
*** p < .01, *** p <. 00,1 t-test (2-tailed)*
[1] The wording for this item in 2008 was "assistance coping with your non-academic responsibilities".
[2] The wording for this item in 2008 was "support to help you thrive socially".
[3] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Student-Faculty Interaction

In the *Student-Faculty Interaction (SFI)* scale, students are asked to indicate, on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very often), how often they expect to interact with faculty during the freshman year. Three of the four items, also used in 2008, are included in figure 6 for comparison. Compared to the 2008 cohort, freshmen entering Mason in 2013 expect to have significantly more interaction with faculty outside of class either in *discussing ideas about their readings* or *on activities other than coursework* (see Figure 6).

Figure 6. Student-Faculty Interaction



Note: The percentages are for "often" and "very often" combined.
** p < .05, ** p <.01, t-test (2-tailed), small effect size (0.09 and 0.12 for items 1 and 3, respectively)*

Interaction with Diverse Others

The *Interaction with Diverse Others (IDO)* scale is a new scale starting in 2013. Using four items, the scale asks students to indicate how often they expect to have discussions with people who are different from themselves on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very often). Interaction with diverse others was also addressed in 2008 but through two items one of which has multiple elements (see footnote for Table 11). Results in Table 10 show that the 2013 freshmen are more likely to expect to have interactions with *people of a different race/ethnicity*, *religious beliefs*, or *political views* than their 2008 counterparts.

Table 10. Interaction with Diverse Others

During the coming school year, about how often do you expect to have discussions with the following:	**2008**	**2013**	**Dif. in %**
People of a different race/ethnicity	78%	94%	+16
People with religious beliefs other than your own	78%[1]	90%	+11[2]
People with political views other than your own		88%	

Note: The percentages are for "often" and "very often" combined.
[1]The 2008 item covers both groups of people with the wording "have serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values".
[2] Based on the difference between the percentage of 2008 item and the average percentage of the two similar 2013 items

2013 SCALE SCORE COMPARISON BY SUBGROUP

This section summarizes 2013 BCSSE results focusing on comparisons within Mason by gender, first-generation (FG) status, and race/ethnicity. Results of subgroup analyses are presented at the scale level first. Where significant differences emerge, item-level comparisons are discussed.

Scale Scores Comparison by Gender, First-Generation, and Race/Ethnicity

BCSSE 2013 creates nine scale scores to report level of high school engagement and expected experiences during the first year in college. Scale score comparisons by gender and first-generation status are summarized in Table 11. Results reveal the following major findings:

- Female freshmen reported using learning strategies significantly more often than male students during high school.
- Compared to male freshmen, female students expect significantly more interactions with faculty and diverse others in college, expect more academic difficulty, and attach more importance to campus environment.
- Male freshmen perceive themselves as better prepared academically than female students and rate themselves significantly higher on quantitative reasoning.
- No significant differences emerge at the scale score level between first-generation and non-first-generation freshmen.

Table 11. BCSSE 2013 Scale Scores Comparison by Gender and First-Generation Status

	Gender				*First-Generation*		
BCSSE Scales	**Female (n=870)**	**Male (n=565)**	**Sig.**	**E.S.** [1]	**FG (n=487)**	**Non-FG (n=720)**	**Sig.**
Quantitative Reasoning	32.0	34.4	**	-0.16	32.8	32.9	
Learning Strategies	41.8	38.1	***	0.29	39.9	40.6	
Collaborative Learning	38.3	37.2		0.10	38.5	37.4	
Student-Faculty Interaction	35.3	33.2	**	0.15	34.9	34.0	
Interactions with Diverse Others	51.4	48.4	***	0.25	50.7	49.8	
Expected Academic Perseverance	45.2	44.5		0.08	44.9	45.0	
Expected Academic Difficulty	30.0	28.6	*	0.13	29.9	29.0	
Perceived Academic Preparation	45.2	46.4	*	-0.13	45.4	45.9	
Importance of Campus Environment	48.9	45.0	***	0.40	48.1	47.0	

Note: Scale scores were based on a 60-point scale.
** p < .05, ** p < .01, *** p < .001, t-test (2-tailed)*
[1] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Table 12 shows scale score comparisons by race/ethnicity focusing on four major groups: black/African American, Asian, Hispanic, and white. Major findings are highlighted below:

- Black/African American students rate themselves significantly higher on six of the nine scales than Asian peers including *use of learning strategies in high school, expected interactions with faculty* and *diverse others, expected academic perseverance,* and *perceived academic preparation in college*. Furthermore, black/African American students were less concerned about academic difficulty than Asian students during the freshman year.

- Black/African American students also score significantly higher on four scales than white students: *collaborative learning, interactions with faculty, expected academic perseverance,* and *importance of campus environment*.
- Asian students anticipate more academic difficulty than non-Asian peers; Asian freshmen also have a lower perception of academic preparedness compared to black/African American and white freshmen.
- Campus environment is less important to white students than to other students.

Table 12. BCSSE 2013 Scale Scores Comparison by Race/Ethnicity

	Black/ African American (n=200)	Asian (n=224)	Hispanic (n=174)	White (n=660)	Sig.	E.S. [1]	Post-hoc Comparison
BCSSE Scales	1	2	3	4			
Quantitative Reasoning	33.6	33.9	32.3	32.5			
Learning Strategies	42.9	38.6	39.3	40.5	**	0.01	1>2
Collaborative Learning	39.9	37.9	38.9	36.8	*	0.01	1>4
Student-Faculty Interaction	39.7	31.8	36.4	33.2	***	0.04	1>2,4; 3>2
Interactions with Diverse Others	52.5	48.0	50.0	50.4	**	0.01	1>2
Expected Academic Perseverance	47.6	43.2	45.7	44.5	***	0.02	1>2,4
Expected Academic Difficulty	27.1	33.2	30.0	28.5	***	0.03	2>1,3,4
Perceived Academic Preparation	47.0	43.5	44.9	46.4	***	0.02	1>2; 4>2
Importance of Campus Environment	51.3	48.1	48.5	46.0	***	0.04	1>2,4; 2>4; 3>4

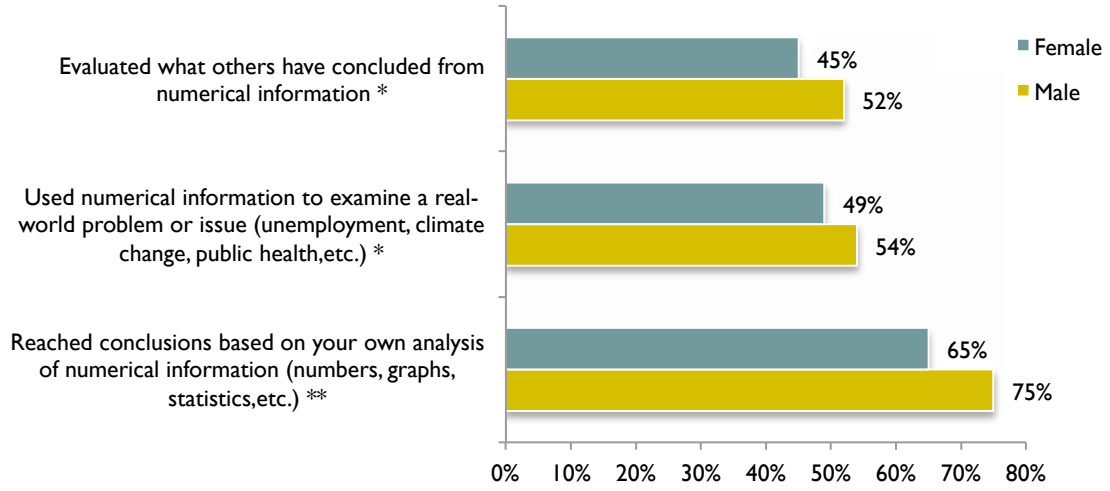
Note: Scale scores were based on a 60-point scale.
** p < .05, ** p < .01, *** p <.001, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Item Analysis within Scales

Quantitative Reasoning - High School Academic Engagement

In BCSSE 2013, respondents were asked how often, on a 4-point scale (1=Never to 4=Very often), they had applied quantitative reasoning techniques during the last year of high school. These quantitative reasoning techniques include reaching conclusions based on their analysis of numerical information, using numerical information to examine a problem/issue, and evaluating what others have concluded from numerical information. Results in Figure 7 show that male students indicate more frequently that they were engaged in quantitative reasoning than their female counterparts.

Figure 7. Quantitative Reasoning during Last Year of High School by Gender



Note: Percentages are for "often" and "very often" combined.
** p < .05, ** p < .01, t-test (2-tailed), small effect sizes ranging from 0.11 to 0.18 (criteria for t-test, Cohen, 1988)*

Learning Strategies - High School Academic Engagement

As part of the assessment of high school academic engagement, students were asked to rate, on a 4-point scale (1=Never to 4=Very often), how often they used learning strategies during the last year of high school. Specific strategies include *identifying key information from reading assignments*, *reviewing notes after class*, and *summarizing what they have learned in class or from course materials*. Results in Table 13 show that female students reported using learning strategies more often than male students during high school.

Table 13. Using Learning Strategies during Last Year of High School by Gender

About how often did you do the following?	**Female**	**Male**	**Sig.**	**E.S.** [1]
Identified key information from reading assignments	87%	82%	***	0.22
Reviewed your notes after class	69%	62%	***	0.25
Summarized what you learned in class or from course materials	66%	58%	***	0.20

Note: Percentages are for "often" and "very often" combined.
**** p < .001, t-test (2-tailed)*
[1] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Black/African American students reported using the strategy of *identifying key information from reading assignments* more often than Asian students during high school (see Table 14). No significant differences emerged from other pairwise comparisons.

Table 14. Using Learning Strategies during Last Year of High School by Race/Ethnicity

	Black/ African American	Asian	Hispanic	White	Sig	E.S.[1]	Post-hoc comparison
About how often did you do the following?	1	2	3	4			
Identified key information from reading assignments	89%	82%	79%	86%	*	0.01	1>2
Reviewed your notes after class	72%	64%	65%	66%			
Summarized what you learned in class or from course materials	67%	58%	61%	63%			

Note: Percentages are for "often" and "very often" combined.
** p < .05, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Collaborative Learning – Expected College Academic Engagement

In the *Collaborative Learning* scale, BCSSE asks respondents were to indicate, on a 4-point scale (1=Never to 4=Very often), how often they would work with other students on course assignments or exam preparations. Asian and Hispanic freshmen were more likely to say that they would *ask another student for help with course materials* than white students (see Table 15). Black/African American students, compared to Asian and white peers, expect to *prepare for exams* through more collaboration with other students. Black/African American students are also more likely to *work with other students on projects or assignments* compared to Asian and white students.

Table 15. Expected Collaborative Learning in the Coming School Year by Race/Ethnicity

	Black/ African American	Asian	Hispanic	White	Sig	E.S.[1]	Post-hoc comparison
About how often do you expect do the following?	1	2	3	4			
Ask another student to help you understand course material	58%	66%	64%	53%	**	0.01	2,3>4
Explain course material to one or more students	59%	51%	57%	59%		0.00	
Prepare for exams by discussing or working through course material with other students	85%	78%	81%	77%	**	0.01	1>2,4
Work with other students on course projects or assignments	78%	71%	77%	66%	**	0.01	1>2,4

Note: Percentages are for "often" and "very often" combined.
*** p < .01, ANOVA.*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Student-Faculty Interactions – Expected College Academic Engagement

The *Student-Faculty Interaction* scale contains four items that ask respondents to indicate how often they expect to interact with faculty both inside and outside of class. Table 16 shows that female students expect to have more interactions with faculty than male students to *talk about career plans* or *academic performance*, and to *work on activities beyond coursework*.

Table 16. Expected Student-Faculty Interactions in the Coming School Year by Gender

About how often do you expect to do the following (with a faculty member)?	**Female**	**Male**	**Sig.**	**E.S.** [1]
Talk about career plans	66%	58%	**	0.19
Work on activities other than coursework	51%	44%	**	0.17
Discuss academic performance	58%	53%	*	0.13
Discuss course topics, ideas or concepts outside of class	51%	50%		

Note: Percentages are for "often" and "very often" combined.
** p < .05, ** p < .01, t-test (2-tailed)*
[1] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Table 17 reveals two distinct patterns in student interactions with faculty when examined by race and ethnicity. First, black/African American students expect to have more interactions with faculty than Asian and white students in several areas including *talking about career plans*, *working on activities other than coursework*, and *discussing academic performance*. Additionally, Hispanic students expect to have more interactions with faculty in *discussing career plans* and *course-related ideas and topics outside of class* compared to Asian students, and *discussing academic performance* compared to white students.

Table 17. Expected Student-Faculty Interactions in the Coming School Year by Race/Ethnicity

	Black/ African American	**Asian**	**Hispanic**	**White**	**Sig**	**E.S.**[1]	**Post-hoc comparison**
About how often do you expect do the following (with a faculty member)?	1	2	3	4			
Talk about career plans	76%	53%	69%	61%	***	0.03	1>2,4; 3>2
Work on activities other than coursework	58%	47%	50%	45%	***	0.02	1>2,4
Discuss academic performance	73%	51%	61%	51%	***	0.05	1>2,4; 3>4
Discuss course topics, ideas, or concepts outside of class	54%	42%	56%	50%	**	0.02	1,3>2

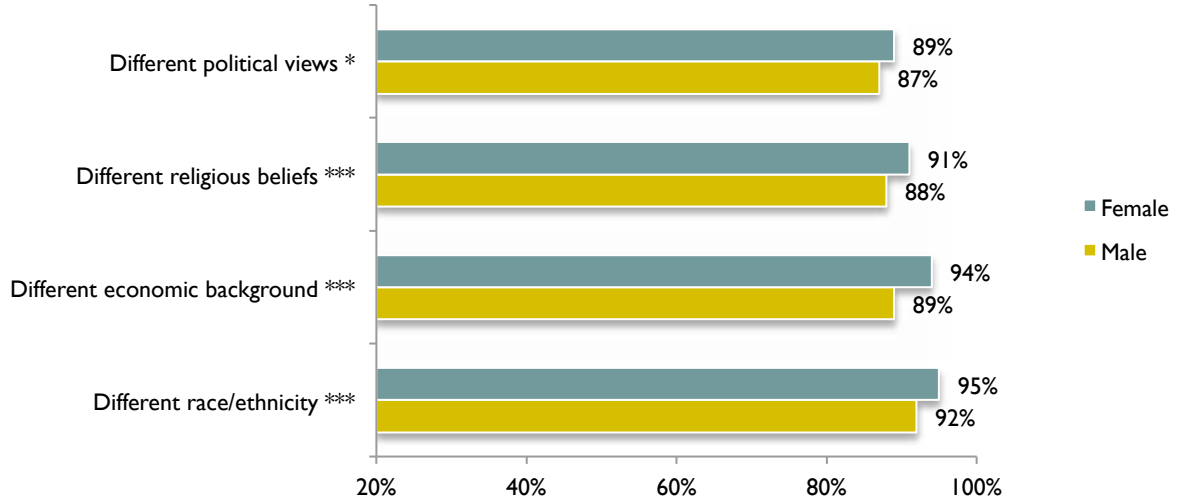
Note: Percentages are for "often" or "very often" combined.
*** p < .01, **** p < .001, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Interactions with Diverse Others - Expected College Social Engagement

The *Interactions with Diverse Others* scale includes four items that ask respondents to rate, on a 4-point scale (1=Never to 4=Very Often), how often they expect to have *discussions with people of a different race/ethnicity*, *economic background*, *religious beliefs*, or *political views* during the freshman year. Results in Figure 8 show that, while the overwhelming majority of the 2013 incoming freshmen (about 90%) expect frequent interactions with diverse others regardless of gender, female students scored significantly higher across the board than their male peers.

Figure 8. Expected Interactions with Diverse Others in the Coming School Year by Gender

About how often do you expect to have discussions with people from the following groups?



Note: Percentages are for "often" and "very often" combined.
** p < .05, *** p < .001 t-test (2-tailed), small effect sizes ranging from 0.12 to 0.30 (criteria for t-test, Cohen, 1988)*

Analysis by race/ethnicity shows that large majorities of all groups expect to have discussions with people different than themselves. In Table 18, differences between groups appear on 3 of the 4 response categories. Black/African American students, when compared to Asian and white students, are more likely to expect to have *discussions with people of different race/ethnicity* and *economic backgrounds*. Both black/African American and white students are more likely to expect to have *discussions with people of different political views* than Asian students.

Table 18. Expected Interactions with Diverse Others in the Coming School Year by Race/Ethnicity

	Black/ African American	Asian	Hispanic	White	Sig	E.S.[1]	Post-hoc comparison
About how often do you expect to have discussions with people from the following groups?	1	2	3	4			
Different race/ethnicity	97%	91%	95%	93%	**	0.01	1>2,4
Different economic background	96%	87%	93%	93%	***	0.02	1>2,4
Different religious beliefs	92%	85%	89%	93%		0.01	
Different political views	89%	80%	90%	91%	**	0.01	1,4>2

Note: Percentages are for "often" or "very often" combined.
*** p < .01, *** p < .001, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Expected Academic Perseverance

In the *Expected Academic Perseverance* (EAP) scale, students were asked to rate, on a 6-point scale (1=Not at all certain to 6=Very certain), how certain they are that they will stay on task and persist when encountering various challenging situations as described by six items (see Table 19). Difference emerge among groups on all items with the exception that *studying when there are other interesting things to do* is somewhat of a struggle for all groups. While there are differences among groups regarding *participating in course discussions*, this too may be a struggle for most students.

Table 19. Expected Academic Perseverance in the Coming School Year by Race/Ethnicity

	Black/ African American	Asian	Hispanic	White	Sig	E.S.[1]	Post-hoc comparison
How certain are you that you will do the following:	1	2	3	4			
Study when there are other interesting things to do	46%	41%	52%	44%		0.01	
Find additional information for course assignments when you don't understand the material	81%	74%	75%	69%	**	0.02	1>2,4
Participate regularly in course discussions, even when you don't feel like it	51%	35%	41%	46%	**	0.01	1,4 >2
Ask instructors for help when you struggle with course assignments	74%	65%	71%	65%	**	0.02	1>2, 4
Finish something you have started when you encounter challenges	83%	71%	81%	78%	**	0.02	1,4 >2
Stay positive, even when you do poorly on a test or assignment	79%	61%	72%	63%	***	0.02	1>2, 4

Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not at all certain to 6=Very certain).
*** p < .01, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Expected Academic Difficulty

In the *Expected Academic Difficulty* scale, students were asked to rate, on a 6-point scale (1 = Not at all difficult to 6 = Very difficult), how difficult it is to learn course material, manage time, get help with school work, and interact with faculty. It can be seen from Table 20 that around half of the respondents had some concern about *managing time* in college, males significantly more so than females. On the other hand, female students were more worried about *learning course material* and *interacting with faculty*, though these percentages are not high for either men or women.

Table 20. Expected Academic Difficulty in the Coming School Year by Gender

How difficult do you expect the following to be?	**Female**	**Male**	**Sig.**	**E.S.[1]**
Learning course material	29%	24%	**	0.19
Managing your time	43%	52%	*	-0.14
Getting help with school work	13%	9%		
Interacting with faculty	15%	8%	***	0.25

Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not at all difficult to 6=Very difficult).
** p < .05, ** p < .01, *** p < .001 t-test (2-tailed)*
[1] ES=Effect Size, small: 0.20, medium: 0.50, large: 0.80 (criteria for t-test, Cohen, 1988)

Results in Table 21 show that, overall, Asian students were more likely than their peers to have concerns about academic difficulty during the first year in college: they expect more *difficulty in learning course materials* (compared to white peers only), *getting help with school work* (compared to both black/African American and white students), and *interacting with faculty*. Black/African American students were less concerned about *getting help with school work* compared to their peers. Regardless of race/ethnicity, *managing time* in college is seen as a significant challenge for nearly half of the respondents.

Table 21. Expected Academic Difficulty in the Coming School Year by Race/Ethnicity

	Black/ African American	**Asian**	**Hispanic**	**White**	**Sig**	**E.S.[1]**	**Post-hoc comparison**
How difficult do you expect the following to be?	1	2	3	4			
Learning course material	25%	39%	29%	23%	**	0.02	2>4
Managing time	42%	54%	54%	42%	*	0.01	
Getting help with school work	6%	22%	14%	9%	***	0.04	2,3,4 >1; 2>4
Interacting with faculty	9%	23%	10%	10%	***	0.03	2>1,3,4

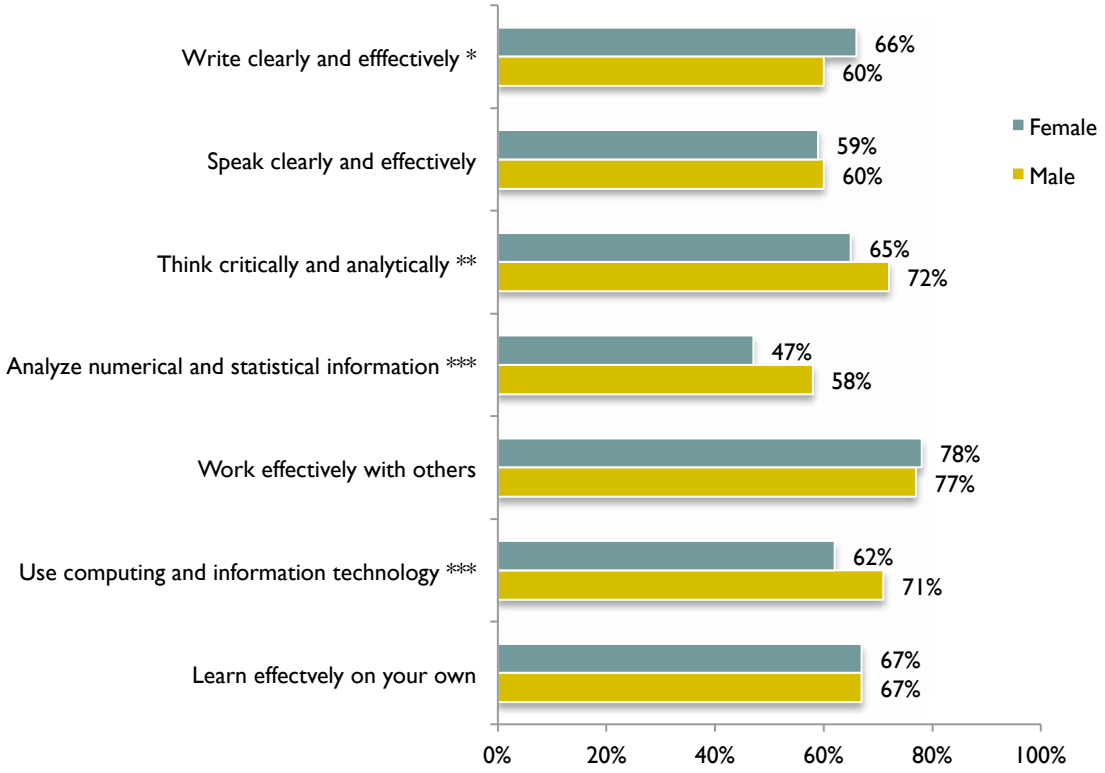
Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not at all difficult to 6=Very difficult).
** p < .05, ** p < .01, *** p < .001, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Perceived Academic Preparation

BCSSE 2013 includes seven items in this scale for respondents to rate, on a 6-point scale (1=Not at all prepared to 6 =Very prepared), their level of preparedness for college academics. Gender differences emerge (Figure 9) in freshman self-reported ability to cope with academic challenges in college: male students report a higher level of perceived preparedness in critical thinking, quantitative skills, and IT skills, whereas female students rate themselves higher on writing skills. These differences to a large extent mirror the findings from the 2008 BCSSE results.

Figure 9. Perceived Academic Preparation by Gender

How prepared are you to do the following in your academic work at this institution?



Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not at all prepared to 6=Very prepared).
** p < .05, ** p < .01, *** p < .001, t-test (2-tailed), small effect sizes ranging from 0.14 to 0.29*

Results in Table 22 show that both black/African American and white students perceive a significantly higher level of preparedness than their Asian peers in writing and speaking abilities and in critical thinking skills. Black/African American students also consider themselves to be better prepared in teamwork than Asian students and in IT skills than white peers. While Hispanic students rated themselves as less prepared in writing than white peers, they reported a better perception of their speaking ability than Asian students.

Table 22. Perceived Academic Preparation by Race/Ethnicity

	Black/ African American	Asian	Hispanic	White	Sig	E.S.[1]	Post-hoc comparison
How prepared are you to do the following in your academic work at this institution?	1	2	3	4			
Write clearly and effectively	66%	51%	57%	70%	***	0.03	1,4>2; 4>3
Speak clearly and effectively	62%	44%	57%	64%	***	0.03	1,3,4>2
Think critically and analytically	68%	58%	67%	73%	***	0.02	1,4>2
Analyze numerical and statistical information	55%	51%	49%	51%			
Work effectively with others	83%	74%	78%	78%	*	0.01	1>2
Use computing and information technology	75%	64%	65%	64%	*	0.01	1>4
Learn effectively on your own	67%	60%	64%	70%			

Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not at all prepared to 6=Very prepared).
** p < .05, *** p < .001 ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

Importance of Campus Environment

To assess what is important to first-year students in their college environment, students were asked to rate, on a 6-point scale (1=Not important to 6 = Very important), the level of importance for seven academic and non-academic opportunities and services provided by the university. As shown in Table 23, female students consider six of the seven aspects significantly more important than male students, with the biggest gap observed in *learning support services* and support for *managing non-academic responsibilities*.

Table 23. Importance of Campus Environment by Gender

How important is it that your institution provides the following?	Female	Male	Sig.
Challenging academic experience	62%	60%	
Support to help succeed academically	91%	84%	***
Opportunities to interact with students from different backgrounds	73%	60%	***
Help managing non-academic responsibilities	58%	43%	***
Opportunities to be involved socially	76%	64%	***
Opportunities to attend campus activities and events	79%	67%	***
Learning support services	79%	62%	***

Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not important to 6=Very important).
**** p <.001, t-test (2-tailed), effect sizes ranging from 0.25 to 0.42 (small to approaching medium)*

Black/African-American students consider *academic support*, *opportunities for diverse interactions*, and *learning support services* more important than their peers (see Table 24); black/African-American students also find it more important than white peers that the university *help students manage non-academic responsibilities* (work, family, etc.), *provide opportunities for students to be involved socially* and *attend campus activities*. Additionally, white students consider *support for non-academic responsibilities* and *learning support services* less important than Hispanic students.

Table 24. Importance of Campus Environment During Freshman Year by Race/Ethnicity

	Black/ African American	Asian	Hispanic	White	Sig	E.S.[1]	Post-hoc comparison
How important is it that your institution provides the following?	**1**	**2**	**3**	**4**			
Challenging academic experience	63%	60%	61%	63%			
Support to help succeed academically	95%	89%	88%	86%	***	0.02	1>2,3,4
Opportunities to interact with students from different backgrounds	84%	72%	69%	62%	***	0.03	1>2,3,4
Help managing non-academic responsibilities	61%	61%	59%	44%	***	0.04	1,2,3>4
Opportunities to be involved socially	82%	73%	72%	68%	**	0.01	1>4
Opportunities to attend campus activities and events	84%	77%	77%	72%	**	0.01	1>4
Learning support services	92%	69%	77%	67%	***	0.05	1>2,3,4; 3>4

Note: Percentages are for "5" and "6" combined on a 6-point scale (1=Not at all prepared to 6=Very prepared).
*** p < .01, *** p < .001, ANOVA*
[1] ES=Effect Size, small: 0.01, medium: 0.059, large: 0.138, (criteria for ANOVA, Cohen, 1988)

ADDITIONAL ANALYSES ON SPECIAL TOPICS

This section provides information on time allocation and student finances. Whenever possible, a comparison is made between the BCSSE 2008 and BCSSE 2013 data.

Time Allocation

Study Hours in High School

Compared with the 2008 incoming freshmen, the 2013 respondents spent more time preparing for classes (studying, reading, doing homework, etc.) during the last year of high school (see Figure 10). Forty-four percent of the respondents in 2013 spent 11 or more hours a week preparing for classes compared to 38% in 2008.

Figure 10. Actual Hours Spent Preparing for Classes during Last Year of High School, 2008 vs. 2013

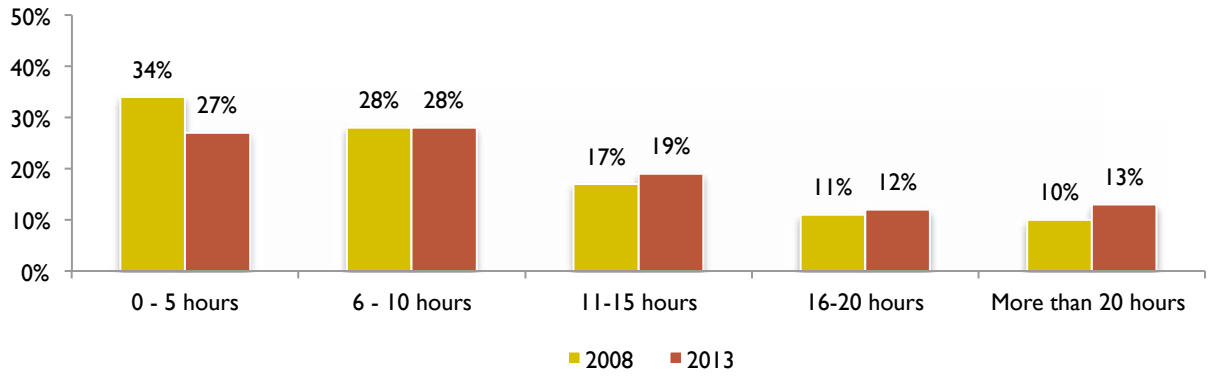
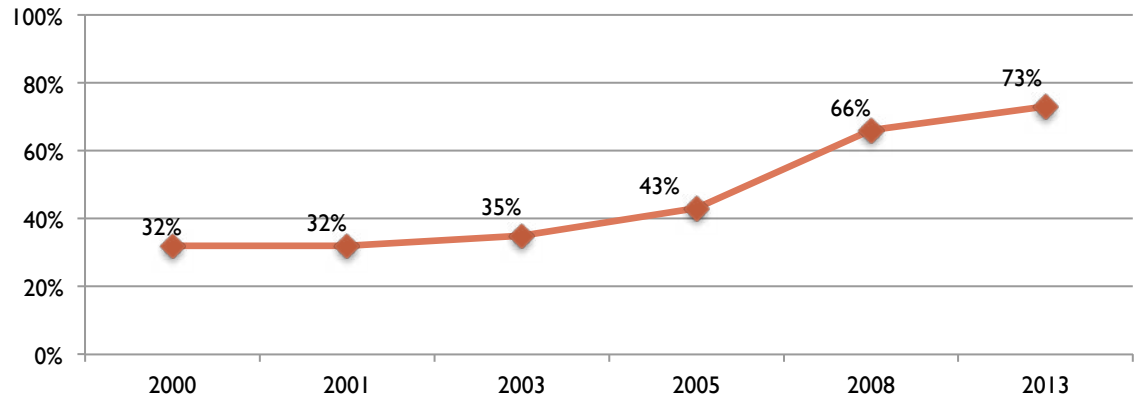


Figure 11 presents a closer look at the trend of Mason students studying at least six hours a week during the last year of high school. Results show clearly that the percentage has been on the rise over the last decade reaching 73% in 2013, more than doubling the 32% in 2000.

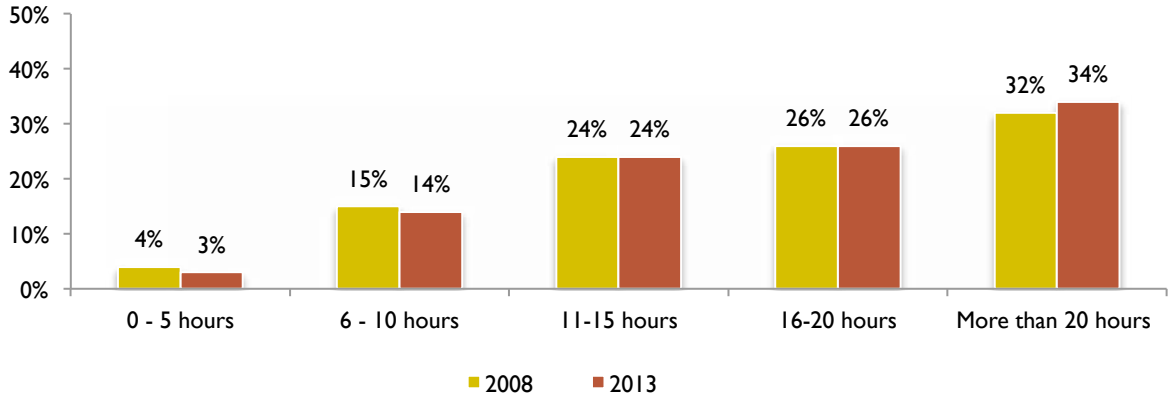
Figure 11. Studying 6 or More Hours per Week during Last Year of High School, 2000-2013



Study Hours in College

When asked about hours expected to be spent preparing for classes during the first year in college, half of the respondents in both cohorts said they would put in 11-20 hours a week (see Figure 12); approximately another one-third expected to spend more than 20 hours a week. This is quite different than the actual time spent on study in high school. Looking across the two cohorts, the overall distributions of the expected hours for study in college were similar.

Figure 12. Expected Hours to be Spent Preparing for Class during Freshman Year, 2008 vs. 2013



Work for Pay

The 2013 freshmen spent less time working during the last year of high school than their 2008 peers – about half of the 2013 respondents did not work compared with 35% in 2008 (see Table 25). In terms of working for pay in college, the two cohorts are similar. About two-thirds of freshmen in both 2008 and 2013 expect to work up to 20 hours a week during the first year in college. Many of these students will, presumably, be looking for work on campus.

Table 25. Hours Working for Pay

	High School (the last year)			College (expected)		
Hours per Week	**2008**	**2013**	**Dif. in %**	**2008**	**2013**	**Dif. in %**
0	35%	51%	16%	25%	25%	0%
1-10	23%	23%	0%	31%	32%	1%
11-20	28%	17%	-11%	34%	32%	-2%
More than 20 hours	14%	10%	-4%	11%	10%	-1%

Co-Curricular Activities

Participation in co-curricular activities such as arts, clubs, and athletics is an important part of the college experience and has a positive effect on social integration on campus. Results in Table 26 show that, compared to high school, a higher percentage of the 2013 freshmen expect to be involved in co-curricular activities. Further, among the 2013 freshmen, 27% plan to spend 16 or more hours per week on co-curricular activities, compared to 20% of the 2008 freshmen.

Table 26. Hours Participating in Co-Curricular Activities

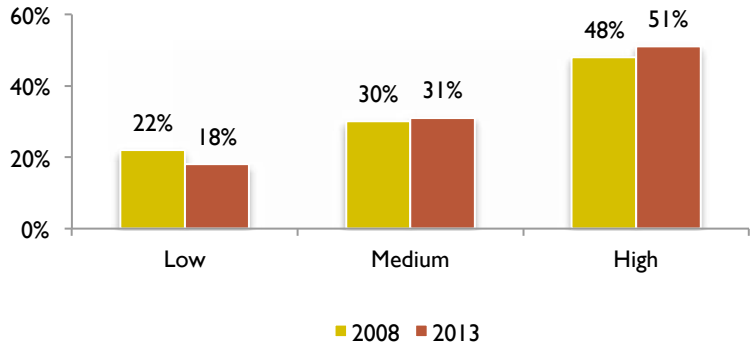
	High School (the last year)			College (expected)		
Hours per Week	**2008**	**2013**	**Dif. in %**	**2008**	**2013**	**Dif. in %**
0-5	38%	37%	-1%	29%	21%	-8%
6-10	20%	19%	-1%	29%	30%	1%
11-15	16%	17%	1%	22%	22%	0%
16-20	13%	12%	-1%	12%	15%	3%
More than 20 hours	14%	15%	1%	8%	12%	4%

Student Finances

Financial Concerns

BCSSE respondents were asked to estimate the level of difficulty in paying college expenses during the first year in college on a 6-point scale (1=Not al all difficult to 6=Very difficult). Figure 13 shows the results for this item on a collapsed scale with three levels of difficulty: low (1-2), medium (3-4), and high (5-6).

Figure 13. Level of Concern about Paying for College Expenses



Overall, there was a significant upward shift along the response scale over time (* $p < .05$, Chi-Square). Compared to their 2008 peers, more Mason freshmen in 2013 foresee difficulty in paying college expenses.

Funding Sources for College Education

BCSSE identifies four main funding sources and asks respondents to indicate whether they would be using these sources to cover education expenses. Despite minor changes introduced in the wording in 2013, the funding sources remain basically the same: (a) parents/ family, (b) student loans, (c) scholarships or grants, and (d) work or personal saving. As seen in Table 27, parents/relatives, followed by job/personal savings, was the primary source of college funding in 2008. In 2013, while support expected from parents/relatives continues to rise, reliance on all sources of funding has increased – particularly grants/scholarships.

Table 27. Funding Sources for College Expenses, 2008 vs. 2013

Funding Sources [1]	**2008**	**2013**	**Dif. in %**
Parents or relatives	88%	93%	5% ***
Loans [2]	56%	63%	7% ***
Grants or scholarships	58%	72%	14% ***
Job or personal savings [3]	70%	77%	7% ***

[1] The percentages for 2008 are for "less than half", "half or more", and "all or nearly all" combined. The percentages for 2013 are for "using" specified funding sources.
[2] The wording in 2008 was "student loans".
[3] The wording in 2008 was "self" (work on campus or off-campus, savings).
**** $p < .001$, proportion test*

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APPENDIX A: BCSSE Scale Descriptions

BCSSE scales are intended to provide a framework to organize the information collected to better understand the characteristics of incoming freshmen and develop and implement effective services and programs to address their needs.

1) **Quantitative Reasoning (QR)** consists of three items related to student engagement with analysis and numerical information during the last year of high school. The items include reaching conclusions based on student analysis of numerical information, using numerical information to examine issues or problems, and evaluating what others have concluded from numerical information.
2) **Learning Strategies (LS)** consists of three items related to student use of strategies to enhance learning during the last year of high school. Specific strategies include identifying key information from reading assignments, reviewing notes after class, and summarizing course materials.
3) **Collaborative Learning (CL)** consists of four items related to students' expectation to interact and collaborate with their peers in understanding course materials, working on assignments or projects, and preparing for exams during the first year of college.
4) **Student-Faculty Interaction (SFI)** consists of four items addressing students' expectation to interact with faculty inside or outside of class during the first year of college. Interactions may pertain to academic performance, course materials, or career plans, and may involve work with faculty on activities beyond coursework.
5) **Interaction with Diverse Others (IDO)** consists of four items measuring students' expectation to interact with peers who are different from themselves in race/ethnicity, economic situation, religious beliefs, or political points of view during the first year of college.
6) **Expected Academic Perseverance (EAP)** consists of six items related to the level of persistence that students have in case they face challenges or academic adversity during the first year of college.
7) **Expected Academic Difficulty (EAD)** consists of four items related to the level of difficulty students expect to experience in academic activities during the first year of college. Difficulty may spring from course materials, time management, getting help with schoolwork, or interaction with faculty.
8) **Perceived Academic Preparation (PAP)** consists of seven items that ask students to assess their preparedness in various competency areas including writing, speaking, critical thinking, quantitative skills, computer and IT skills, teamwork, and self-learning during first year of college.
9) **Importance of Campus Environment (ICE)** consists of seven items that measure student's perception of importance of different aspects of campus support and environment. These aspects pertain to challenging academic experience, support for academics and non-academic responsibilities, opportunities for interaction with diverse others and for attending campus events and activities.

APPENDIX B: BSCCE Scale Comparison, 2008 vs. 2013

The following shows the nature of the change in BCSSE scales between 2008 and 2013.

2008 Scales	2013 Scales	Nature of Change
Expected Academic Perseverance	Expected Academic Perseverance	No change
Expected Academic Difficulty	Expected Academic Difficulty	No change
Perceived Academic Preparation	Perceived Academic Preparation	No change
Importance of Campus Environment	Importance of Campus Environment	The 2013 scale contains one new item
	Student-Faculty Interaction	New scale but no change in three of the four items forming this scale
	Interaction with Diverse Others	New scale where two of the four items forming the scale are basically the same as before
	Quantitative Reasoning	New scale addressing high school engagement with analysis and numerical information
	Learning Strategies	New scale addressing high school use of strategies to enhance learning
	Collaborative Learning	New scale with different items to address a similar concept
High School Academic Engagement		No longer used in 2013
Expected Academic Engagement		No longer used in 2013

APPENDIX C: BCSSE 2013 Respondent Characteristics – Mason [1]

	Respondents	
	Count	%
Number of Surveys Used for Analysis [2]	1435	100%
Mode of Completion		
Paper	0	0%
Web	1435	100%
When Student Completed BCSSE		
Prior to the start of fall term classes	1419	99%
During the first week of fall term classes	16	1%
After the first week of fall term classes	0	0%
Student Characteristics		
Enrollment Status		
Full-time	1194	99%
Less than full-time	12	1%
Gender [3]		
Female	870	61%
Male	565	39%
Race/Ethnicity [3]		
American Indian	3	<1%
Asian/Pacific Islander	224	16%
Black/African American	200	14%
Hispanic/Latino	174	12%
White	660	46%
Two or more	99	7%
Unknown	45	3%
Non-Resident Alien	30	2%
High School Graduation Year		
2010 or earlier	3	<1%
2011	4	<1%
2012	13	1%
2013	1400	99%
First-Generation Status [4]		
Yes	487	40%
No	720	60%
International or Foreign National Student		
Yes	82	7%
No	1118	93%

[1] Unless specified otherwise, the characteristics are based on self-reported data.
[2] This number excludes duplicate cases and respondents who were not enrolled at Mason in fall 2013.
[3] Based on institutional data
[4] First-generation is defined as one with neither parent (or those who raised him/her) having completed a 4-year college degree.

APPENDIX D: BCSSE 2013 Instrument

The BCSSE 2013 survey instrument is found at http://bcsse.iub.edu/survey_instruments.cfm. Instruments from previous years are also available.

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