Multiple Year Studies Focused On Demographic Groups

Each year MAP-Works has examined its Transition Survey questions to determine which questions have been useful in providing insight into academic success. Questions not deemed useful have been eliminated and new promising questions have been added.

The research staff in the Department of Residence has benchmarked student responses to questions that appeared in every fall Transition Survey since Fall 2008. The focus of benchmarking is on whether survey item scores improve year to year, or whether show improvement over time.

Cohort Comparisons

This brief report examines differences in responses to the annual MAP-Works Transition Survey by first-year first-time students at Iowa State University for cohort years from Fall 2008 through Fall 2013. For the past 4 years, the majority of the New Direct from High School (NDHS) students (89.7%) lived on campus in residence halls or apartments. Gender distribution of respondents was 55% male and 45% female. Ethnicity distribution was 87% majority and 13% minority. For the past 4 years, off-campus students responded less well (35%) than on-campus students (83%).

Update for 6-year MAP-Works comparison: For the past six years, the majority of the first-year first-time students (90.6%) lived on campus in residence halls or apartments. Gender distribution of respondents was 55% male and 45% female. Ethnicity distribution was 85% majority and 12% minority. For the six years, off-campus students responded less well (36%) than on-campus students (81%).

This analysis compares 77 items that were in all 4 surveys to allow comparisons.

Fifty of the 77 items (65%) improved from Fall 2008. Those that showed mean improvement of .25 or more were:

- NA132 Planned Time - In an average week, how many hours do you spend: - Studying/out-of-class school work
- Q076 Advanced Academic Behaviors - To what degree are you the kind of person who: Communicates with instructor outside of office hours
- Q034 Self-Assessment of Management Skills - To what degree are you the kind of person who: Plans out your time
- Q074 Advanced Academic Behaviors - To what degree are you the kind of person who: Participates in class
- NA134 Planned Time - In an average week, how many hours do you spend: - Exercising or playing sports
- Q039 Self-Assessment of a Healthy Lifestyle - To what degree do you: Sleep enough (i.e., not tired most days)
- Q084 Advanced Academic Behaviors - To what degree are you the kind of person who: Works on large projects well in advance of the due date
- Q036 Self-Assessment of Management Skills - To what degree are you the kind of person who: Makes "to-do lists"
- Q126 Homesickness - To what degree do you: Think about going home all the time [Excludes Q95-living at home]
Q135 Academic Adjustment - Overall, to what degree are you: Keeping current with your academic work
Q030 Self-Assessment of Management Skills - To what degree are you the kind of person who: Follows through with what you say you’re going to do

**Twenty-four of the 77 items showed a decline.** Those with a mean score decline of -.25 or more were:

D055 Academic Experiences - Of those, how many courses are you struggling in?
Q088 Campus Involvement - To what degree: Do you intend to attend student functions (i.e., sporting events, plays, art exhibits etc.)?
Q072 Core Academic Behaviors - To what degree are you the kind of person who: Records your assignments and tests in a calendar
Q118 Interference With Class Attendance - To what degree are the following factors interfering with your ability to attend class or arrive on time to class: Lack of reliable transportation [Branch--off-campus only]
Q090 Campus Involvement - To what degree: Are you interested in holding a leadership position in a college / university student organization?
Q087 Campus Involvement - To what degree: Are you interested in playing intramural sports?

Although a number of items have shown increased scores over the four years, many times in a steady progression from one year to the next, the research does not explain why the scores increased. Whatever the case, about 2/3 of the self-reported items showed an improvement from Fall 2008, and a number of have shown a substantial increase (in excess of .25). At the same time, only half as many showed a similar decline (of at least -.25). While we would like to think that increased contact and conversation with students prompted by MAP-Works was the reason for the improved self-reported scores for the improved items, at this point it is only speculation.
MAP-Works Transition Survey Question Analyses

Faculty and staff requests have been the driving force behind these efforts, wanting to compare overall response by various demographic groups. Some tables that have been prepared to date are listed below. For these tables, mean comparisons that were statistically significant (less likely to be caused by chance) are highlighted and appropriate statistics are provided.

MAP-Works "Risk Indicator" (low-medium-high risk)

This research focused on mean comparisons to questions based on the students' risk indicator (1 = high risk; 2 = moderate risk; 3 = low risk). The MAP-Works program indicates these risk indicators by color (red = low risk; yellow = moderate risk; and green = little risk). The indicator worked very well in years 2008 through 2010 as mean responses to questions most always ended in a step pattern from low risk to high risk. The proprietary algorithm used was recalculated in 2011 to disrupt this usual step pattern for most items. However, the risk indicator still demonstrates students most at risk. In 2012, the proprietary algorithm was recalculated again accounting for an additional level of high risk students: 'High Red 2.' For the purpose of cross-sectional analyses for each cohort and consistency of risk indicators defined as three categories (1 = high risk; 2 = moderate risk; 3 = low risk), both types of high red risk indicators ('High Red 2' and 'High Red') have been combined to 1 = 'high risk' category.

Almost all items (70% of 71 = 99%) showed statistically significant mean scores among the risk indicators for all 6 years. Those with the lowest means were students predicted to be high risk. Students with means between the other two means were students predicted to be at moderate risk. Finally, students with the highest means were students predicted to be at low risk.

Gender

Comparisons for by gender yielded a number of significant differences. Reported are MAP-Works Transition Survey question items where a statistically significant difference was found between men and women for each of six years (except where noted).

Women students had significantly higher ratings than Men students for these items (the cohort years where there was a significant rating is in parenthesis when not all 6 years):

- **Self-assessment**
  - Writing composition (5 of 6 years)
  - Reading composition (5 of 6 years)
  - Plans out time
  - Makes "to do" lists
  - Intends to attend and participate in a student organization
  - Intends to hold a college leadership position (3 of 6 years)
  - Is meeting people who share common interests, include them in activities and they like (5 of 6 years)
  - Adjusting to living on-campus housing (on campus) (4 of 6 years)

- **Institutional commitment**
  - Aspire to a higher degree than men (5 of 6 years)
  - Committed to completing a degree within (5 of 6 years)
  - Committed to completing a degree at Iowa State (4 of 6 years)
  - Regret leaving home to go to school (4 of 6 years)
• Miss family and friends back home
• Feels they belong here and are fitting in (the latter for (4 of 6 years)
• Fitting in (3 of 6 years)
• Would choose Iowa State again if they had to do it over again (5 of 6 years)
• Would recommend Iowa State to someone who wants to attend college (5 of 6 years)

• Academic engagement (all self-reported)
  • Time studying for a test in college
  • The number of courses taken
  • Kind of person who turns in home work and does required reading in courses in which they are struggling
  • Grade expected in courses in which they are struggling (5 of 6 years)
  • Takes good notes in class
  • Turns in required homework assignments (5 of 6 years)
  • Records your assignments and tests in a calendar
  • Spends sufficient study time to earn good grades (5 of 6 years)
  • Studies in a place without distractions (5 of 6 years)
  • Studies on a regular schedule (5 of 6 years)
  • Reads the assigned readings within a day before class (5 of 6 years)
  • Works on large projects well in advance of the due date (5 of 6 years)
  • Study/out-of-class school work (5 of 6 years)
  • Is learning (3 of 6 years)
  • Satisfied with social life on campus (4 of 6 years)

Men gave significantly higher ratings than women students for these items:

• Self-assessment
  • Math ability
  • Problem-solving skills
  • Self-disciplined (5 of 6 years)
  • Follows through on things (4 of 6 years)
  • Is dependable
  • Exercises enough to remain physical healthy
  • Interested in playing intramural sports

• Academic engagement
  • Time studying for a test in high school
  • The number of courses in which they are struggling
  • Do well in their hardest course (4 of 6 years)
  • Class attendance (5 of 6 years)
  • Communicates with instructor outside of office hours (3 of 6 years)
  • Hours spent exercising or playing

Summary

Women reported higher self-assessment scores than men regarding organizational and academic ability, academic engagement and institutional commitment items. However, women also reported being more likely to miss family and friends than men. Men scored higher in self-perceived math and problem solving ability, and hours spent exercising or playing.


**Ethnicity (minority or majority)**

Reported are MAP-works Transition Survey question items where a statistically significant difference was found between minority and majority students for each of six years (except where noted). Items are reported in no general order, but are clustered into categories where possible. Below are items where significant differences were noted for at least three cohort years:

Majority students gave significantly higher overall ratings for the University than minority students. In addition, majority students would be more willing to choose the University again if they had to do it over again, and would recommend this University to someone who wants to attend college (3 of 4 years).

Minority students were significantly more likely than majority students to:

- **Motivated**
  - Have higher degree aspirations
  - Have spent more time studying in high school (3 of 5 years)

- **Study**
  - Anticipate studying more while in college (3 of 5 years)
  - Struggle in courses in which they are having difficulty (3 of 5 years)

- **Class and Social Engagement**
  - Take more courses (3 of 5 years)
  - Struggle in more courses (4 of 5 years)
  - Be interested in holding a leadership position in student organization (4 of 5 years)

- **Class attendance**
  - Perceive lack of reliable transportation to interfere with class attendance (3 of 5 years)

- **Homesickness**
  - Miss family back home (4 of 5 years)
  - Think about going home all the time

Minority students were significantly less likely than majority students to:

- Report the University as their first choice for enrollment

- **Self-ratings of abilities**
  - Report their parents’ education level as higher
  - Report themselves as someone who shows up on time (2 of 4 years)
  - Self-rate themselves higher for problem-solving ability (3 of 5 years)
  - Report themselves as someone who makes “to do” lists (3 of 5 years)
  - Report themselves as someone who is physically healthy (3 of 5 years)
  - Feels they belong at the University (3 of 5 years)

- **Classes in which they are struggling**
  - Turned in homework in courses in which they were struggling (3 of 5 years)
  - Done the required reading in the courses in which they were struggling (4 of 5 years)

- **Academic habits**
  - Estimated higher class attendance in all their courses this semester (3 of 5 years)
Self-describe themselves as someone who attends class (3 of 5 years)

**Academic Colleges (Vet Med not included)**

The report focuses on responses by college. With six undergraduate colleges (Vet Med was excluded) and 6 cohort years, this report focuses only on items where there was a significant difference for at least 4 of 6 years.

Students in **College of Agriculture**, compared with students in other colleges, reported:
- lowest level of father’s education
- Iowa State as their first choice among colleges who admitted them
- aspiring to the highest level of education
- highest aspiration to achieving a degree at Iowa State (4 of 6 years)
- expect to spend the most time studying for a test in college (5 of 6 years)
- attending class most frequently
- least amount of certainty they will do well on all problems and tasks assigned in their courses (5 of 6 years)
- most likely to choose this college or university again if they had to do it over

Students in **College of Design**, compared with students in other colleges, reported:
- highest (or second to the highest) level of father’s education
- highest level of being a person who follows through with what you say you’re going to do (5 of 6 years)
- among the lowest levels of education they aspire to achieve
- spending the most hours studying for a test in high school
- most certain they will persevere on class projects even when there are challenges course
- most certain they are the kind of person who works on large projects well in advance of the due date
- least likely to intend to participate in a student organization
- least interested in holding a leadership position in a college/university student organization
- the greatest motivation to complete their academic work

Students in **College of Engineering**, compared with students in other colleges, reported:
- highest (or second highest) level of father’s education
- lowest self-rating for writing composition skills
- highest self-rating on math ability
- highest self-rating on problem-solving skills
- spending the least amount of hours, on average, studying for a test in high school
- taking the least (or near least) amount of courses
- struggling in the fewest courses (5 of 6 years)
- most likely to report the course they are having most difficulty with is in their major
- most (or near most) confident in doing well in their hardest course
- most likely (or near most) to attends class
- least likely to take good notes in class
• least likely to record their assignments and tests in a calendar
• most interested in playing intramural sports
• least likely to miss family and friends back home
• spending the most time studying or on out-of-class school work

Students in **College of Human Sciences**, compared with students in other colleges, reported:
• least self-rating on math ability
• least self-rating on problem-solving skills
• highest self-rating on being dependable (5 of 6 years)
• highest self-rating on planning out their time
• highest self-rating on being a person who makes “to do” lists
• highest rating on exercising the amount of time to remain physically healthy
• highest self-rating on turning in assigned homework regarding the course they are having the most difficulty
• highest self-rating on taking good notes in class
• highest self-rating on recording assignments and tests in a calendar
• highest self-rating of attending student functions (i.e. sporting events, plays, art exhibits etc.)
• highest self-rating of meeting people who share a common interest

Students in **College of Business**, compared with students in other colleges, reported:
• lowest self-rating on conducting required readings for the most difficult class (4 of 6 years)
• least likely to choose Iowa State again if they had it to do over

Students in **College of Liberal Arts & Sciences**, compared with students in other colleges, reported:
• lowest ranking for Iowa State as their first choice among colleges who admitted them
• highest self-rating for writing composition skills
• highest self-rating for reading comprehension skills
• lowest self-rating for self-discipline
• lowest self-rating for commitment to complete their degree at Iowa State (4 of 6 years)
• least likely for the course with which they said they were struggling to be in their major
• least likely to work on large projects well in advance of the due date
• least likely to be interested in playing intramural sports
• least likely to be meeting people who share common interests
• least motivated to complete their academic work
Residence (on- or off-campus)

This research focused on differences in responses based on whether the student lived on- or off-campus. Questions branched for response by only one group (on-campus or off-campus) are omitted because comparisons could not be made between the two groups. A number of significant differences were found between the two groups. Below are the few items where significant differences were noted for at least three of the four cohort years:

Students who live on campus had significantly higher ratings than their peers for these items (the number of cohort years where there was a significant rating is in parenthesis when not all 4 years):
- Meet people who include you in activities (4 of 6 years)

Students who live off-campus gave significantly higher ratings for these items:
- Study in a place without distractions (3 of 6 years)

Learning Community (learning community member or not)

Comparisons for Learning Community (LC) and non-Learning Community respondents yielded a number of significant differences. Below are items where significant differences were noted for at least three years:

**LC students gave significantly higher ratings than non-LC students for these items:**
- **Background characteristics**
  Level of mother’s education
- **Self-assessment**
  - Confident in doing well on all problems and tasks in courses
  - Confident in doing well in hardest course
  - Confident in persevering on class projects, even when there are challenges
  - Math and problem-solving skills
  - Self-discipline
  - Dependability
  - Follow-through
  - Planning time (5 of 6 years)
  - Making “to do” lists
- **Core academic behaviors**
  - Attending class, turning in required homework assignments, and spending sufficient time to get good grades.
- **Advanced academic behaviors**
  - Participating in class, and working on large projects well in advance of due date
- **Academic adjustment**
  - Having a sense of belonging: feel they belong at Iowa State and are fitting in
  - Satisfied with social life on campus
  - Being motivated to keep current with and complete academic work
  - Feel they are learning
  - Satisfied with academic life on campus
- **Academic engagement**
  - Spend more time in an average week studying or doing out-of-class school work
- Striving to achieve higher grades
- Taking more courses

**Campus involvement**
- Interested in playing intramural sports
- Intention to participate in a student organization and interested in holding a leadership position in a student organization
- Meeting people they like, and who share common interests or include them in their activities

**Institutional commitment**
- Aspiring to a higher level of education
- Committed to completing a degree and doing so at Iowa State

**On-campus living**
- Making friends with others in the building/area
- Hanging out with other residents
- Satisfied with the social activities in their building/area
- Adjusting to living on-campus

**Overall evaluation**
- Would choose Iowa State if they had it to do over again
- Would recommend Iowa State to someone who wants to attend college
- Rating of their experience at Iowa State

**Non-LC students had significantly higher ratings than LC students for some items:**
- Spent more time studying in high school (4 of 6 years)
- Struggling in more classes while in college (5 of 6 years), and more in their major
- Homesickness--Think about going home all the time
- Homesickness--Regret leaving home to go to school (5 of 6 years)
- Time exercising or playing sports (3 of 6 years)
- Attended fewer classes this term
- Taking fewer courses and struggling in courses they take