

# Report on the Freshman Year

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## Executive Summary

In September 2003, NAU President John Haeger established a Task Force on the Freshman Year with a two-year charge to review, assess and recommend changes to the experience of first-year freshmen with the intent to assure a high-quality first-year academic and college life experience, and to improve the retention rates of first-time, full-time freshmen on the Mountain Campus. This report summarizes the information gathered by the task force during its first six months and includes initial recommendations for action. The task force limited its study to the experience of first-time, full-time (FTFT) freshmen on the Mountain Campus.

### **Key information garnered regarding NAU freshmen includes:**

- Freshmen are predominantly full-time, residential, traditionally aged college students attending classes at the mountain campus. Most are in state, Caucasian, and have at least one parent with a college degree. Approximately 30% of freshmen fail to meet one or more criteria for regular admission (GPA, class rank, or high school coursework.) Attitudinally, male freshmen are more confident in math and science than the national norm yet have a lower desire to complete their college degree than the norm.
- First-time, full-time freshmen experience relatively small classes and educational experiences that are equal to or better than that of our peers, as rated by the National Survey on Student Engagement (NSSE). Many of these positive educational practices are characteristic of University Colloquium (UC 101), a course taken by 73% of FTFT freshmen in the 2002-2003 academic year. The elimination of UC 101 as a requirement may alter the quality of the first year educational practices freshmen experience. After fall and spring terms, 76% of the FTFT freshmen were in good standing both terms, 14% had academic difficulty one or both terms, and 10% of freshmen left after fall term (6% in good standing, 4% on probation.) Most FTFT freshmen that leave after their first year were less academically successful than the returning students, most with GPA's below 2.5.
- 79.3% of NAU freshmen ranked NAU as their first choice for college attendance. Approximately 37% of NAU's FTFT freshmen are first generation college students. In contrast to their peers nationally, 89% of NAU's freshmen arrive in Flagstaff from homes 101 or more miles from campus (28% is the national average) and 90% of non-Flagstaff FTFT freshmen choose to live on campus. In AY03-04, the majority of freshmen (70%) expressed concerns about financing college, and over 80% of FTFT Mountain Campus freshmen were awarded some form of financial aid. NAU freshmen tend to be very independent, socially autonomous and academically confident, but less likely than their peers nationally to seek assistance. NAU FTFT freshmen face many of the same adjustment and transition issues typical to new college students, including the development of essential self-management skills and personal/academic evaluation of their choice to attend NAU. Freshmen are involved in a variety of out of class activities. Students reported exercising 2-3 days a week and over 50% of the students reported being involved in a dating or committed relationship. An increasing segment of NAU's FTFT class (33%) classifies themselves as abstainers or non-drinkers of alcoholic beverages.
- A large number of freshman support programs are offered through Academic Affairs and Enrollment Management and Student Affairs. Programming tends to be targeted without significant overlap but without much coordination between programs. Most programs have

some form of assessment, focusing on measures such as GPA, but they generally do not assess learning outcomes. Supplemental instruction, offered through a partnership between academic units and Enrollment Management and Student Affairs, is an example of an effective program for improving student academic success.

- Retention rates of FTFT freshmen over the past eight years have remained relatively steady around 67%. Entering students most likely to be retained are traditional-aged, white females. Retention rates are related to high school academic success whether measured by HS GPA, test scores or high school rank. Once at NAU, college academic performance predicts retention with an average retention rate of 79% for FTFT freshmen with an NAU GPA > 2.5. Intensive freshman programming such as that offered by Honors, Athletics and STAR, have a positive retention affect on their participants.
  - Of the 2002 FTFT freshman cohort, 31% did not return for the fall 2003. Fifty-three percent of these freshmen were in good academic standing (not on probation or suspended). The students who were in good academic standing, but still left NAU, report generally positive experiences at NAU but express dissatisfaction with local-related issues (weather, town, etc.) Most of the students who left in good academic standing transferred to a college that was in their home state, with 44% transferring to Arizona State University and 12% to the University of Arizona.
- Assessment measures were identified that look at the inputs, experiences and outcomes of our freshmen. Inputs include demographics, HS academic performance and attitudinal indicators. Experiences include pre-term experiences, coursework, and freshman programming. Outcomes include academic performance measures, student learning outcomes and student-development outcomes. This task force recommends regular coordinated collection of data which should result in annual or bi-annual assessment reports on the freshman year experience.

The Freshman Year Task Force identified actions that the institution should take in order to improve the quality of the freshman year experience for our entering students and to improve retention. Some of these actions are currently underway while others are recommendations for future action.

### **Evaluate and recommend changes to the recruitment and admissions process.**

Efforts in progress include (immediate plan):

1. Identify those factors within the admissions criteria that are the most predictive of poor academic performance while at NAU. Assure all entering freshmen have academic preparation for university level work by gradually decreasing the number of admitted students that have these risk factors of poor academic performance.
2. Target recruiting efforts to attract students who want to enroll and persist at NAU.
3. Create a robust, multivariable, predictive model for retention.
4. Improve the accuracy and thoroughness of data records of academic preparation of entering students (high school courses, SAT/ACT profiles, and College Student Inventory [CSI] student reports) to better understand the link between academic preparation and student success at NAU.

Recommended future action (1-5 year plan):

5. Develop stronger relationships with Arizona high schools to better communicate essential learning outcomes and academic skills important for student success in college.

### **Improve the academic success of students who attend NAU.**

Efforts in progress include (immediate plan):

6. Require and refine course (e.g., EPS 101) designed to provide academic transition assistance to less prepared entering students.
7. Provide intrusive assistance to freshmen who are identified as being at risk or potentially benefiting from academic assistance (Learning Assistance Centers), academic advising (Gateway Student Success Center), career planning (Gateway Student Success Center), residence life (Student Affairs) and personal counseling (Counseling and Testing Center).
8. Increase the partnership between the Gateway Student Success Center and all academic departments to assure strong and consistent advising across campus.
9. Strategically utilize placement and readiness testing to assure prerequisite knowledge.
10. Continue and possibly expand the use of nationally normed surveys of freshmen to understand the attitudinal aspects of entering freshmen, including identifying students at academic and emotional risk.

Recommended future action (1-5 year plan):

11. Foster superior classroom experiences for freshmen by assigning outstanding and committed instructors to teach freshman classes and providing them with strong faculty training opportunities in the pedagogy of teaching freshmen.

### **Coordinate and assess freshman support programming.**

Future recommended actions include (1-5 year plan):

12. Establish a Freshman Programming Council for collaboration, coordination and articulation between freshman year programs.
13. Each freshman programming effort should clearly define its goals and the results it will use to assess its effectiveness. Freshman programming should avoid duplication and compliment existing programs.
14. An independent entity should assess the effectiveness of freshman support programs.

### **Monitor the freshman year experience at NAU.**

Efforts in progress include (immediate plan):

15. Assess the freshman year in terms of the areas described in the Assessment Model\*. Three major areas that still need to be addressed in order to comprehensively assess the freshman year are:
  - Measuring student-learning outcomes.
  - Setting standards for each measure on the model.
  - Obtaining representative samples and further exploring which nationally normed instruments to utilize and how often to administer.

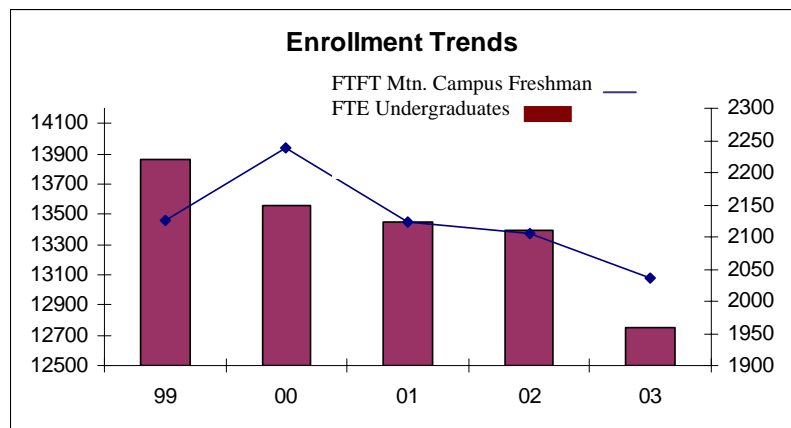
During the 2004-2005 academic year, the President's Task Force will continue to address factors affecting the academic success of freshmen, consider other factors related to retention, and recommend an organizational structure for continued review and monitoring of the freshman year.

\*Assessment Model found on pages 38-41 of the full Task Force Report.

# Introduction

Northern Arizona University's distinct identity is providing a high quality, residential undergraduate learning community. The freshman year is the critical year in the undergraduate experience: it is the time a student forms a connection with a university, its people and its location. A high quality residential undergraduate learning community encourages freshmen to mature in their academic abilities, progress in their sense of self and relationship to others, and develop a connection between their education and their future.

Yet, are we meeting our goal of offering a high quality residential undergraduate experience? The number of entering first-time, full-time freshmen has decreased at NAU while the increase in freshmen elsewhere in the state is rapidly rising. Of more concern is the steady decline in the total undergraduate population. Why does NAU's retention rate of first-time, full-time freshmen to the sophomore year hover between 67% and 68%, when the retention rate at moderately selective public universities is typically in the mid 70% range?



The president established a Task Force on the Freshman Year with a two-year charge to review, assess and recommend bold changes to the experience of first-year freshmen with the intent to assure a high-quality first-year academic and college life experience and to improve the retention rates of first-time, full-time freshmen on the Mountain Campus. This report summarizes the information gathered by the task force during its first six months and its initial recommendations for action. The report incorporates input received by the task force from providers of services and academic programs to freshmen as well as the participants at the Summit on the Freshman Year held on March 23, 2004.

The task force has limited its study on the experience of first-time, full-time (FTFT) freshmen on the Mountain Campus since this captures the experience of 97.7% of our freshmen.

# Demographic and Academic Preparedness Profile of NAU

## Demographics

In this section we provide data on the demographics of our first-time, full-time (FTFT) freshmen.

### How many FTFT freshmen are on the Mountain campus, at Yuma and Statewide?

	2000	2001	2002	2003
<b>Mountain</b>	2,238	2,124	2,105	2,037
<b>Statewide</b>	11	4	10	35
<b>Yuma</b>	1	2	2	12
	2,250	2,130	2,117	2,084

Nearly all first-time full-time freshmen at NAU are Mountain campus students (97.7% in fall 2003). There has been a 9% decrease in the number of Mountain campus FTFT freshmen from fall 2000 to fall 2003.

### How many of our Mountain campus freshmen are first time, full-time versus part-time?

	2000	2001	2002	2003
	2,238	2,124	2,105	2,037
<b>Full-time</b>	88.7%	90.9%	90.8%	91.1%
	285	213	213	197
<b>Part-time</b>	11.3%	9.1%	9.2%	8.9%
<b>Total</b>	2,523	2,337	2,318	2,234

The number of part-time freshmen on the Mountain campus has decreased in absolute numbers and as a percentage of all Mountain campus freshmen. The enrollment decrease has been much greater among part-time students (30.9%) than among full-time students (9%).

### What are the demographics<sup>1</sup> (residency status, age, sex, and ethnicity) of our FTFT freshmen?

<b>RESIDENCY</b>	2003	2003	10-yr Average	<b>SEX</b>	2003	2003	10-yr Average
<b>Non-Arizona Residents</b>	442	21.7%	22.0%	<b>Female</b>	1,207	59.3%	58.8%
<b>AZ Residents</b>	1,595	78.3%	78.0%	<b>Male</b>	830	40.7%	41.2%
<b>Total</b>	<b>2,037</b>	<b>100.0%</b>	<b>100.0%</b>	<b>Total</b>	<b>2,037</b>	<b>100.0%</b>	<b>100.0%</b>

<sup>1</sup> Unless otherwise noted, the demographics section is limited to First-time, Full-time, Mountain Campus Freshmen, excluding international students. Source: Cohorts 1994 - 2003

<b>AGE</b>	<b>2003</b>	<b>2003</b>	<b>10-year Average</b>
<b>less than 17</b>	3	0.1%	0.1%
<b>17</b>	100	4.9%	5.2%
<b>18</b>	1552	76.2%	76.2%
<b>19</b>	253	12.4%	13.8%
<b>20</b>	45	2.2%	1.7%
<b>21 and older</b>	83	4.1%	3.0%
<b>Total</b>	<b>2,036<sup>2</sup></b>	<b>100.0%</b>	<b>100.0%</b>

Over the past ten years, there has been little change in the residency, age and sex distributions of FTFT Mountain Campus freshmen. As a point of comparison, for other moderately selective public institutions the average gender breakdown is 56.5% female and 43.5% male.

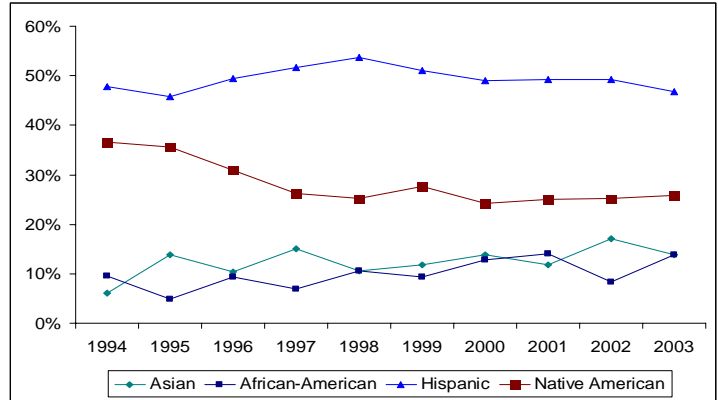
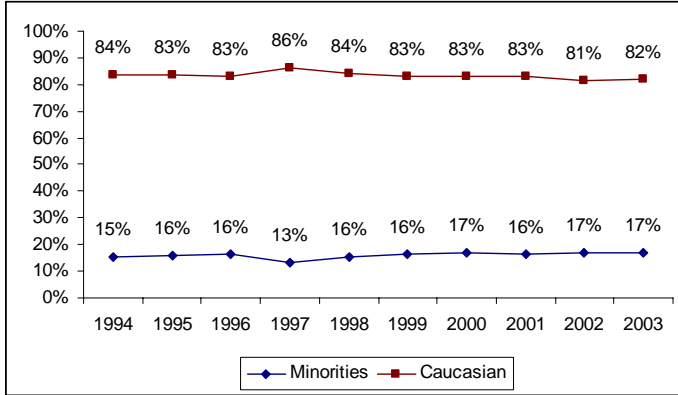
<b>ETHNICITY</b>	<b>Year</b>										<b>10-yr Avg.</b>
	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	
<b>Asian-American</b>	0.9%	2.2%	1.7%	2.0%	1.6%	1.9%	2.3%	1.9%	2.9%	2.4%	2.0%
<b>African-American</b>	1.4%	0.8%	1.5%	0.9%	1.6%	1.6%	2.1%	2.3%	1.4%	2.4%	1.6%
<b>Hispanic</b>	7.2%	7.3%	8.1%	6.9%	8.3%	8.4%	8.2%	8.1%	8.5%	8.0%	7.9%
<b>Native American</b>	5.5%	5.7%	5.0%	3.5%	3.9%	4.6%	4.1%	4.1%	4.3%	4.4%	4.5%
<b>Unknown</b>	1.1%	0.7%	0.5%	0.5%	0.6%	0.6%	0.1%	0.4%	1.5%	1.0%	0.7%
<b>Caucasian</b>	83.8%	83.4%	83.2%	86.2%	83.9%	82.9%	83.2%	83.2%	81.4%	81.8%	83.2%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>

As a point of comparison, for other moderately selective public institutions the average breakdown by ethnicity is: 5.2% Asian American, 8.9% African American, 5.0% Hispanic, and 0.7% Native American. Undergraduate diversity, for all undergraduates – not just the first-time, full-time freshmen, is 24% at NAU and 18% at our peer institutions<sup>3</sup>.

<sup>2</sup> There was no age recorded for one individual in the 2003 FTFT cohort.

<sup>3</sup> University Of Central Florida, George Mason University, University Of Nevada - Las Vegas, Ohio University, Ball State University, Old Dominion University, University Of Delaware, Cal State University – Fresno, Bowling Green State University, Miami University (Oh), Oakland University, University Of Nevada – Reno, University Of Montana, University Of Wyoming, University Of North Dakota, University Of Vermont, University Of Minnesota - Duluth

## Diversity of Northern Arizona University's First-time, Full-time Freshmen



Percent totals for each year may not add to 100% because of unknown ethnicity values for some students.

### How many FTFT students self-report as first-generation college students?

39% in 2003 (*College Student Inventory - CSI*)

34% in 2003 (*National Survey of Student Engagement - NSSE*)

37% in 2002 (*National Survey of Student Engagement - NSSE*)

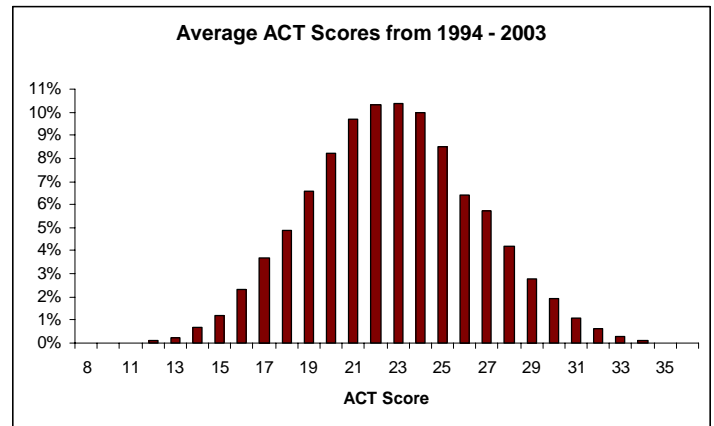
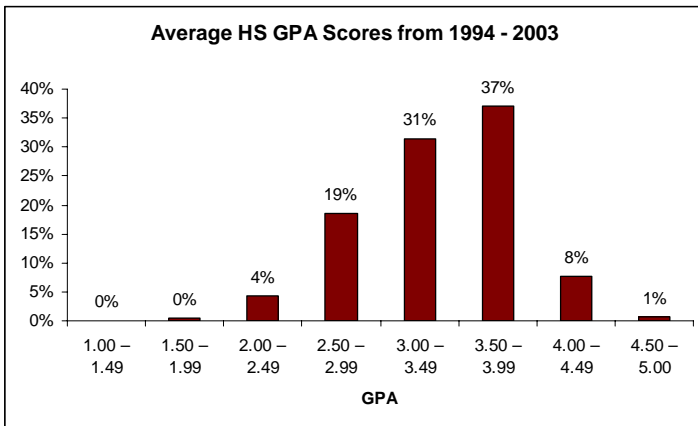
### Academic Preparedness

In this section data on the academic preparedness of first-time, full-time (FTFT) freshmen is provided.

#### General Aptitude Admission Criteria and High School Information:

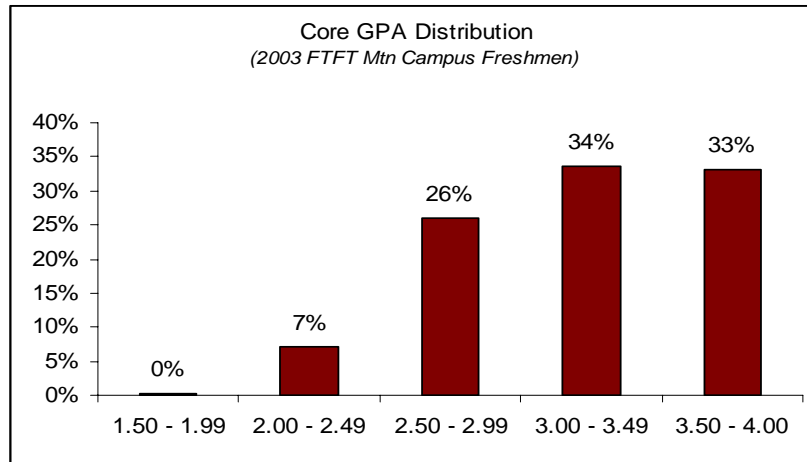
For regular (unconditional) admission, an entering Arizona resident must meet the following general aptitude requirements: (a) have a core GPA of 3.00 or higher (on a 4.0 scale); **OR** (b) be in the top 25% of their class; **OR** (c) have a composite ACT score of 22 or higher (1040 SAT). A non-Arizona resident must meet (a) **OR** (b) above, **OR** have a composite ACT score of 24 or higher (1110 SAT).

On average, across the past ten years, the majority of incoming freshmen have a high school GPA that falls in the range of 3.00 – 3.99. The average GPA has remained constant across the ten years.

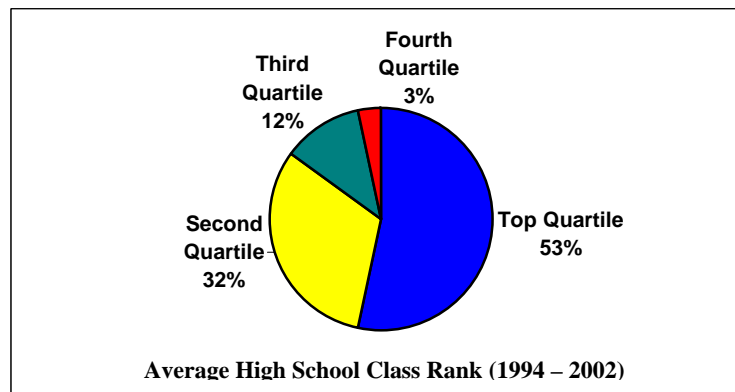


Similarly, the average ACT<sup>4</sup> score of entering freshmen have remained consistent from 1994 – 2003. The average composite ACT score for incoming freshmen from 1994 – 2003 is 22.6. As a point of comparison, for other moderately selective public institutions with an institution size of 5,000 – 17,999, the average ACT score from 1995 – 2001 is 21.8. Approximately 60% of the FTFT mountain campus freshmen meet NAU's regular admission criteria based upon an ACT score of 22 or higher.

Note that the high school GPA reported above is reported to NAU by the individual high school and reflects all high school coursework completed. This is different from the core GPA required by admission that is based on 16 core courses (4 English, 4 mathematics, 3 lab science, 2 social science, 2 foreign language, 1 fine arts). For example, in 2003 the average core GPA was 3.21 whereas the overall high school GPA was 3.55. Arguably a student's high school core GPA is a more meaningful measure of collegiate preparedness as only core subject areas are considered. Note from the bar chart below, 67% of FTFT Fall 2003 Mountain Campus freshmen had a core GPA of 3.00 or greater.



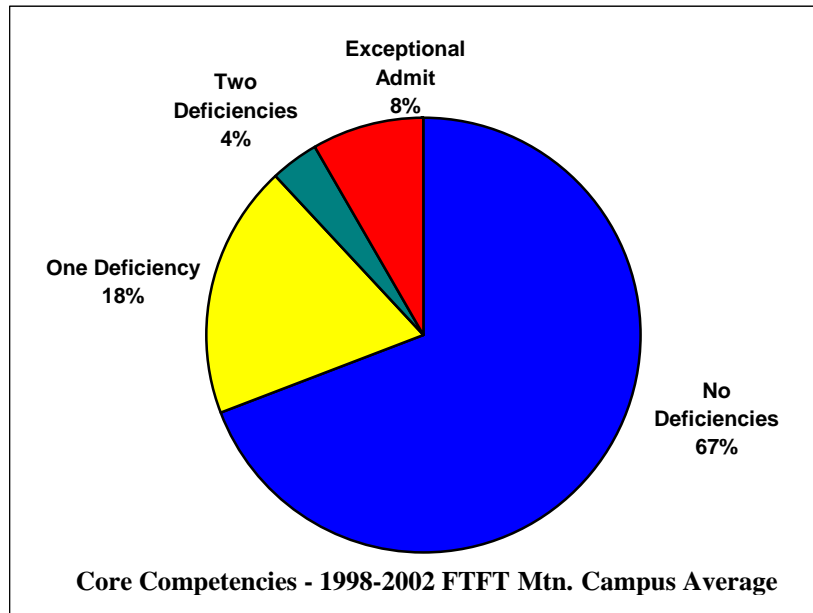
Approximately 27% of First-time, Full-time, Mountain Campus freshmen were in the top 10% of their high school class. The average at NAU for all undergraduates is approximately 26%. For our peer institutions, approximately 19% of the undergraduates graduated in the top 10% of their high school class.



On average, 67% of FTFT Mountain Campus freshmen meet the admissions competency requirements. These competency requirements are the same core courses from which the high school core GPA is derived (4 English, 4 mathematics, 3 lab science, 2 social science, 2 foreign

<sup>4</sup> SAT scores have been converted to ACT scores for those students who only have SAT test scores.

language, and 1 fine arts). Eighteen percent of the FTFT freshmen have a deficiency in one of these competency areas, 4% have two deficiencies in two different competency areas (not including deficiencies in math and lab science), and approximately 8% of the students have more than two deficiencies, and / or two or more deficiencies in the same competency areas, and / or two deficiencies – one in math and the other in lab science.



	1998	1999	2000	2001	2002	Total
No Deficiencies	1272	1362	1574	1465	1439	7112
One Deficiency	408	430	389	367	353	1947
Two Deficiencies (in two different areas)	94	100	63	79	48	384
Exception to Admissions Criteria	170	169	140	169	212	860
Not Applicable	70	64	72	44	53	303
<b>Total</b>	<b>2014</b>	<b>2125</b>	<b>2238</b>	<b>2124</b>	<b>2105</b>	<b>10606</b>

	1998	1999	2000	2001	2002	Total
No Deficiencies	63%	64%	70%	69%	68%	67%
One Deficiency	20%	20%	17%	17%	17%	18%
Two Deficiencies (in two different areas)	5%	5%	3%	4%	2%	4%
Exception to Admissions Criteria	8%	8%	6%	8%	10%	8%
Not Applicable	3%	3%	3%	2%	3%	3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Deficiencies average % and total N are based upon 1998 - 2002 Cohort Data

### Are NAU students more or less academically prepared than the national norm?

By self-report, students evaluate their academic performance higher than their peers.

<i>Average Grade in HS (self-report): B and greater average</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
NAU	93.5	81.8	90.3

<i>Moderately Selective Public 4yr Colleges</i>	87.4	76.4	82.6
<i>All Public 4 yr Colleges</i>	87.6	78.3	83.6

Source: CIRP (incoming FTFT Freshmen – CIRP sample size is 568)

<i>Student rated self "above average" or "highest 10%" compared with the average person of his/her age in academic ability</i>	<i>Females</i>	<i>Males</i>	<i>Total</i>
<i>NAU</i>	70.0	73.8	71.0
<i>Moderately Selective Public 4yr Colleges</i>	55.6	62.3	58.5
<i>All Public 4 yr Colleges</i>	59.2	67.0	62.6

Source: CIRP (incoming FTFT Freshmen – CIRP sample size is 568)

### **Are they more or less academically motivated than the norm?**

According to the six Academic Motivation scales on the CSI instrument, NAU female freshmen rank higher than the norms on study habits, intellectual interests, verbal confidence, and attitude towards educators. They are very slightly below the norm for math and science confidence and their desire to finish college. NAU male freshmen are above the norm on math and science confidence, but below the norms on study habits, intellectual interests, desire to finish college, and attitude towards educators. On the whole, NAU freshmen respondents were most below the norm on the desire to finish college.

<i>Academic Motivation Scales for New Freshmen</i>			
	<i>Females</i>	<i>Males</i>	<i>Total</i>
<i>Study Habits</i>	54	41	49
<i>Intellectual Interests</i>	55	45	51
<i>Verbal Confidence</i>	51	50	51
<i>Math &amp; Science Confidence</i>	48	57	51
<i>Desire to Finish College</i>	48	38	44
<i>Attitude Towards Educators</i>	52	44	49

Source: CSI (CSI sample size is 1278) The national norms for all six motivation scales are set at 50.

## **Academic Experience of the Freshman Year**

This section summarizes the academic experiences of NAU freshmen during their first year including their program interests, classes they take, the quality of their educational experiences, and their academic success.

### **Program Interests**

Approximately 23% of FTFT freshmen choose not to declare a major when first beginning at NAU. Of the students who declared majors, business has consistently been the most popular major (10% on average) over the past ten years, followed by education and communication. Majors related to the health professions, biology, and engineering disciplines are also popular.

The top majors that are declared by the FTFT freshmen are listed below in descending order of the major's ten-year average.

<i>Majors for FTFT Mtn. Campus</i>	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Average
<b>Undeclared</b>	30%	27%	28%	28%	24%	19%	18%	17%	24%	21%	23.3%
<b>Business Preparation</b>	8%	7%	9%	10%	11%	12%	11%	10%	10%	10%	9.7%
<b>Elementary Education Prep</b>	8%	7%	7%	7%	7%	8%	6%	8%	6%	3%	6.6%
<b>Communication Preparation</b>	4%	5%	7%	6%	6%	6%	8%	1%	0%	1%	4.4%
<b>Hotel &amp; Restaurant Mgt (BS)</b>	2%	3%	2%	3%	3%	3%	2%	3%	3%	3%	2.6%
<b>Exercise Science Preparation</b>		2%	2%	2%	4%	1%	4%	4%	4%	1%	2.5%
<b>Health Professions Preparation</b>	6%	5%	5%	5%	4%	1%	0%	0%	0%	2%	2.5%
<b>Biology Preparation</b>				3%	4%	6%	5%	4%	0%	1%	2.4%
<b>Criminal Justice (BS)</b>	2%	2%	3%	2%	2%	3%	3%	3%	2%	2%	2.4%
<b>Psychology (BS)</b>	1%	2%	3%	3%	1%	2%	4%	3%	3%	3%	2.4%
<b>Engineering Preparation</b>				5%	5%	5%	5%	0%		2%	2.2%
<b>Computer Sci &amp; Engin (BSCSE)</b>	3%	2%	3%	1%	1%	2%	1%	3%	2%	0%	1.8%
<b>Psychology (BA)</b>	3%	2%	1%	2%	2%	2%	1%	2%	1%	1%	1.7%
<b>Nursing Preparation</b>	1%	2%	0%	0%	0%	2%	2%	1%	3%	2%	1.4%
<b>Forestry (BSF)</b>	1%	2%	2%	1%	1%	2%	1%	2%	0%	1%	1.3%
<b>Mechanical Engin (BSE)</b>	1%	2%	1%	0%	1%	1%	1%	2%	2%	2%	1.3%
<b>Medical Preparation</b>						1%	2%	3%	3%	3%	1.2%
<b>Biology (BS)</b>	3%	3%	2%	1%	1%	0%	0%	0%	1%	1%	1.1%
<b>Music Education (BMED)</b>	0%		0%	0%	2%	2%	2%	2%	2%	2%	1.0%

*NOTE: Table reflects the distributions by year for each major. Only those majors that had a minimum of 200 declared freshman majors over the period of years from 1994 - 2003 are included in the above table.*

On average, 8% of our entering FTFT freshmen participate in the Honors Program, 3% in athletics and 2% in the Three-Year Degree Program.

### Classes

Freshmen take (based on a ten-year average), a course load of 14.9 credits during their first semester with a wide variation of loads. Twenty-one percent (21%) of our freshmen take 15 credits, while twenty-five percent (25%) of freshmen take more than 15 credits. Fifty-four percent (54%) of the freshmen take fewer than 15 credits.

The courses in which most freshmen enroll are, in order of total enrollment:

UC 101, ENG 105, PSY 101, FYE 101, MAT 114, CIS 120, CIS 120L, CHM 151, BIO 181, SOC 101, MAT 125, CHM 151L, MAT 110, CJ 101, ART 100, COM 101, BA 205, ANT 102, POS 120, PES 100, EPS 101

Courses designed to enhance freshmen academic success impact the following fraction of first-time, full-time freshmen (averaged over the past four years):

UC 101	University Colloquium	73%
FYE 101	First Year Experience	47%
EPS 101	Academic & Personal Development	10%

Liberal studies foundation courses also impact high numbers of freshmen:

ENG 105	Critical Reading and Writing	56%
MAT 114	Quantitative Reasoning	25%
MAT 125	Precalculus	18%
MAT 110	College Algebra	15%
	Other math foundation courses (MAT 119, 131, 136, 137, 150, 155, 238, 239)	31%

The Mathematics and Statistics department serves the greatest number of freshmen, with 89% of the freshmen enrolled in a mathematics course.

The size of the typical freshman course section is relatively small. Sixty percent (60%) of the 100-level course sections offered have enrollments below 30 students. In addition, 80% of freshmen enroll in two or fewer high enrollment courses (e.g. a course section with enrollment of 100 or more students) during their first year.

### **Academic Experiences**

A good measure of the quality of the educational experience of freshmen is provided through the National Survey of Student Engagement (NSSE.) Each year, NSSE collects information from freshmen and seniors at four-year colleges and universities across the country to assess the extent to which students are engaged in activities that represent effective educational practices as a meaningful proxy for measuring collegiate quality. Results at NAU are benchmarked against our peer group (Doctoral II Institutions) and predicted performance based on institutional characteristics.

The levels of engagement for first year students at NAU are similar to the responses from other Doctoral II university participants in 71 of the 79 comparisons. Distinguishing characteristics of our freshmen's academic experience are:

- 1) First year students at NAU were significantly more likely than first year students at other Doctoral II institutions to have
  - a. Made a class presentation
  - b. Included diverse perspectives in class discussions and writing assignments
  - c. Participated in community-based projects as part of a regular course; and
  - d. Have written papers or reports of fewer than 5 pages.
  
- 2) First year respondents at NAU were significantly less likely than first year students at other Doctoral II institutions to have
  - a. Applied theories or concepts to practical problems or in new situations
  - b. Analyzed quantitative problems
  - c. Learned effectively on their own.

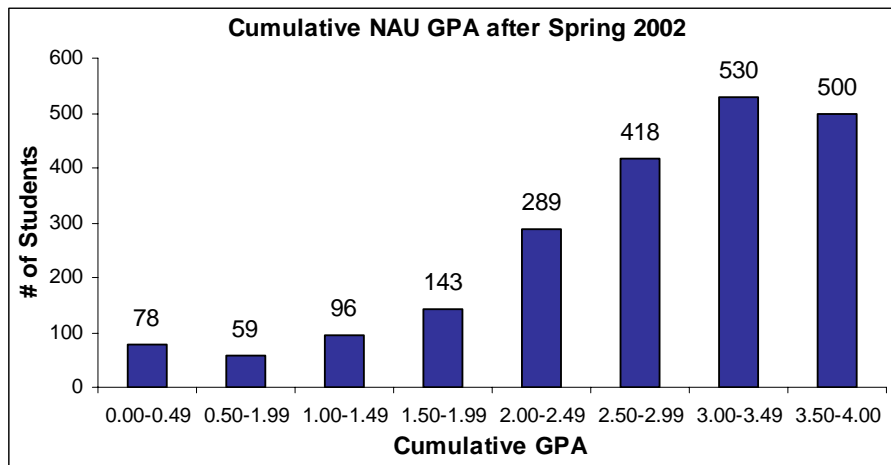
The NSSE combines these comparisons into five general categories representing effective educational practice. NAU excels, relative to our peers and our predicted performance, in two of

these areas: Active and Collaborative Learning and Enriching Educational Experiences. NAU was slightly above our peers and our predicted performance in the areas of Level of Academic Challenge and Student Interactions with Faculty. In the area of Supportive Campus Environment, since last year, the rating rose from being below predicted levels to the predicted level.

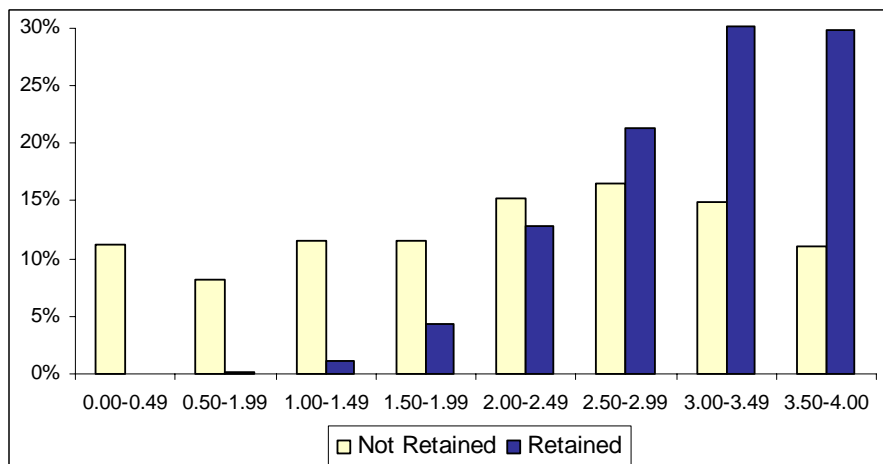
Note that many of these positive educational practices are characteristic of UC 101, a course taken by 73% of our freshmen. Effective AY04-05 this course will no longer be offered. This may alter the quality of the first year educational practices students' experience.

**Academic Success**

Over the past five years, the average GPA of FTFT Mountain Campus freshmen after the fall term has been 2.7 and the cumulative average GPA after spring term has been 2.8. The GPA distribution at the end of spring 2002 for the 2001 FTFT Mountain Campus cohort is summarized below:



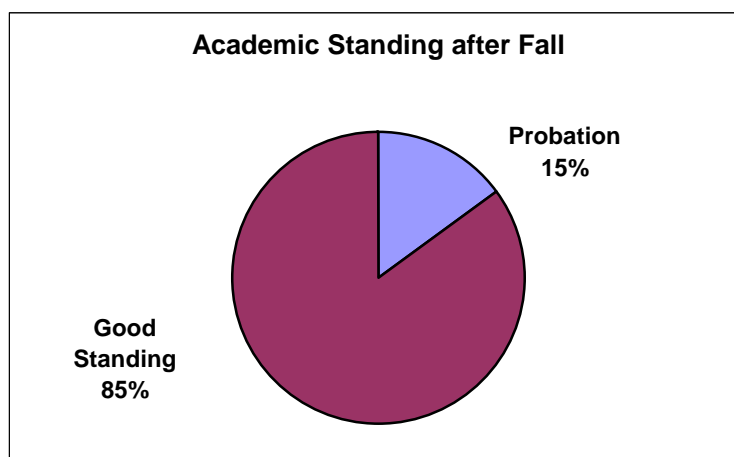
The next chart compares the GPA distribution of the 2001 FTFT students who returned to NAU with those who left NAU after their first year. Most of the students with GPAs below 2.5 do not return, whereas most of the students who do return have GPAs greater or equal to 2.5.



## **Probation and Suspension**

If a student's cumulative GPA falls below 1.8 and 2.0 (depending on the number of credits s/he have earned), s/he are placed on academic probation. If a student is on academic probation, s/he must earn at least a 2.0 GPA for the following term or s/he will be academically suspended. It is possible for a student to remain on probation for several terms and still avoid suspension, as long as the student obtains at least a 2.0 GPA each term while his/her cumulative GPA improves.

An analysis of the data for FTFT freshmen in the AY00-01, AY01-02, and AY02-03 revealed very little variation in the trends between years.



Typically 15% of freshmen are on probation at the end of the fall term.

Of the students in good standing after the fall term, 8% leave NAU after the fall term. Four percent (4%) are on academic probation after the spring semester. Of the students on academic probation after the fall semester, two-thirds leave immediately after fall term (30%) or are suspended after the spring term (35%.) One third of the fall probation students persist, with twenty-one percent (21%) returning to good standing after the spring semester and fourteen percent (14%) remaining on probation after the spring semester.

Overall, after fall and spring terms:

- 10% of freshmen left after fall term (6% in good standing, 4% on probation)
- 76% remain in good standing both terms and
- 14% had academic difficulty one or both terms

The average retention rate of first-time, full-time freshmen with any probationary status (including suspension) during the first year is 30%.

## DFW Courses

There is some concern that freshmen enrolled in courses with high rates of students who earn a letter grade of “D”, fail the course, or withdraw (DFW courses) are more likely to receive a low cumulative GPA and leave the university. The table below lists the courses with enrollments of more than 100 FTFT freshmen with a DFW rate greater than 20%. In all but three cases, the DFW rate for freshmen is lower (27%) than the average DFW rate for the class (30%). The retention rate of FTFT freshmen receiving an A, B or C in these courses is higher than the institutional average of 69% for that year, and with four exceptions, the average retention rate of the FTFT freshmen receiving a D, F or W was less than 60%, significantly lower than the average. However, while the evidence is clear that academic performance is related to successful retention into the sophomore year, there is no evidence thus far that taking high DFW courses is the reason a student has a lower grade point average and subsequently leaves the institution.

**Academic Year 2002 High DFW Courses**

Course	% of DFW Grades for all Students	% of DFW Grades for FTFT Freshmen	Total # of FTFT Freshmen* Enrolled	Retention % of FTFT Freshmen Receiving A, B, or Cs in High DFW Courses	Retention % of FTFT Freshmen Receiving D, W, or F's in High DFW Courses
AST 180	31.6%	27.3%	150	80.7%	46.3%
BIO 181	30.3%	25.3%	399	74.8%	41.0%
BIO 100	25.3%	22.9%	170	82.9%	44.6%
CHM 151	24.8%	23.0%	396	83.3%	38.5%
CHM 152	21.6%	22.4%	125	91.8%	67.9%
ECO 284	25.7%	19.8%	121	83.5%	33.3%
MAT 114	26.5%	21.3%	578	79.8%	47.0%
MAT 125	38.7%	37.2%	379	80.9%	44.7%
MAT 110	47.2%	42.7%	354	85.6%	53.1%
MAT 136	38.8%	32.4%	176	81.9%	51.1%
MAT 119	27.9%	21.3%	150	84.9%	64.9%
MAT 150	36.1%	25.5%	141	86.7%	63.9%
PHI 100	28.2%	28.0%	118	76.5%	48.5%
PSY 101	25.6%	23.0%	886	78.6%	34.8%
SOC 101	23.4%	24.8%	375	75.5%	32.3%
STA 270	27.2%	30.0%	100	82.9%	60.0%

## Performance based on expectations

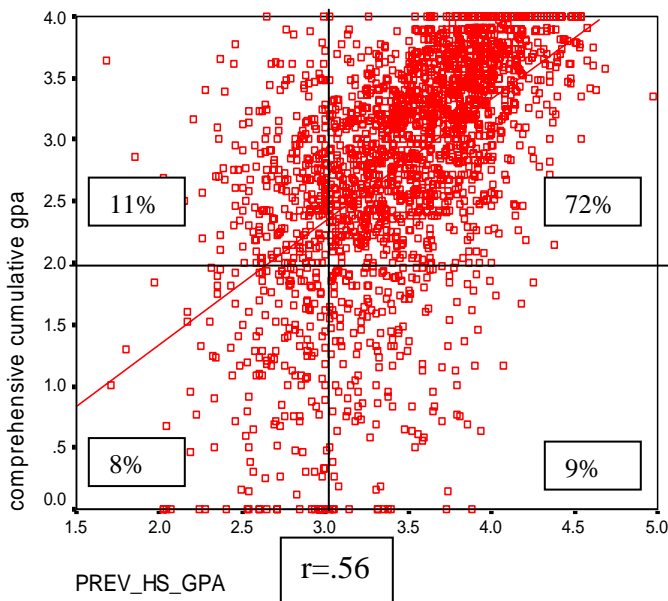
A fundamental question is “Are NAU students as academically successful as they should be given their academic preparation for college?” In other words, is the quality of NAU academic experiences and the support infrastructure sufficient such that good students can academically succeed at NAU?

The scatterplot below provides a clue. Each FTFT freshman’s high school GPA is plotted against their NAU cumulative GPA after two semesters of study during AY 01-02. If the simple correlation that HS GPA reflects a student’s academic preparation and that the NAU GPA reflects their academic success is used, in an ideal world a perfect linear relationship would exist: a good HS

GPA should translate into a good NAU GPA. Assume that a student with a HS GPA over 3.0 was academically prepared, and a student with an NAU GPA above 2.0 (the cutoff for probation) is academically successful. You can see that the lower-right quadrant represents students who under-performed: they entered with HS GPAs over 3.0 but received NAU GPAs less than 2.0. In AY01-02, this represented 185 students or 9% of the entering freshman class.

If we contrast that with the number of students who entered NAU under prepared (HS GPA less than 3.0) but did well at NAU (a GPA over 2.0), we find 238 students, or 11% of the freshman class who performed above expectations. Approximately 163 of the under prepared students also performed poorly at NAU and are classified as performing as expected.

Since approximately the same number of freshmen over-performed as under-performed, NAU's educational environment does not seem to predict either over-performance or under-performance of entering freshmen.



# Out of Class Experiences of NAU Freshmen

## Background Information about the Class of 2007

Based on comparative information from the 2003 Cooperative Institutional Research Program (CIRP) Freshman Survey and the 2003 College Student Inventory (CSI), NAU FTFT freshman students come from families with comparable (if not slightly elevated) parental educational achievement and income levels to their national peers. (It should be noted that female students were over-sampled in both NAU fall 2003 surveys<sup>5</sup>.)

Parents' Education (highest level)	NAU CSI <sup>6</sup>		NAU CIRP <sup>7</sup>		4 Year CIRP <sup>8</sup>	
	Father	Mother	Father	Mother	Father	Mother
Grammar school or less	1.6%	2.2%	1.3%	0.9%	2.9%	2.5%
Some high school	2.8%	3.2%	4.0%	2.7%	5.1%	3.6%
High school graduate	21.3%	21.6%	14.1%	17.7%	27.6%	28.5%
Postsecondary school other than college	****	****	2.7%	3.4%	4.8%	5.4%
Some college	26.2%	29.1%	19.1%	20.9%	17.4%	19.6%
College degree	24.6%	27.9%	31.2%	31.5%	26.3%	26.4%
Some graduate school	****	****	1.8%	3.7%	1.5%	2.1%
Graduate degree	22.6%	16.0%	22.9%	19.3%	14.6%	12.0%

Status of parents	NAU CIRP	4-Year CIRP
One or both deceased	3.2%	3.6%
Both alive, divorced or living apart	27.1%	25.2%
Both alive and living with each other	69.8%	71.2%

Estimated parental income	NAU CIRP	4-Year CIRP
Less than \$10,000	2.2%	3.2%
\$10,000 to \$14,999	2.0%	3.2%
\$15,000 to \$19,000	2.6%	3.0%
\$20,000 to \$24,999	3.8%	4.0%
\$25,000 to \$29,999	3.8%	3.8%
\$30,000 to \$39,999	6.7%	7.9%
\$40,000 to \$49,999	8.5%	9.7%
\$50,000 to \$59,999	8.7%	11.7%
\$60,000 to \$74,999	13.6%	15.1%
\$75,000 to \$99,999	18.6%	15.9%
\$100,000 to \$149,999	15.0%	13.6%
\$150,000 to \$199,999	4.6%	7.3%
\$200,000 to \$249,999	2.6%	1.7%
\$250,000 or more	4.5%	2.6%

From the 2003-04 NAU Common Data Set:<sup>9</sup>

Average age of FTFT Students: 19  
 Percentage of FTFT Students age 25+: 4%

Using NAU's definition for "first generation college student" (neither parent has completed a bachelor's, masters, or doctoral degree), 39% of NAU's FTFT students would be considered first generation college student (502 of 1278 respondents to the 2003 NAU CSI).

<sup>5</sup> NAU 2003 FTFT Cohort [Mountain Campus] was 59.3% female, 40.7% male (PAIR).

<sup>6</sup> NAU 2003 CSI data is based on the responses of 1204 FTFT NAU freshmen surveyed during fall semester 2003. The 2003 NAU CSI cohort was 62.5% female, 37.4% male.

<sup>7</sup> NAU 2003 CIRP data is based on responses of 571 FTFT NAU freshmen surveyed during August and September 2003. The 2003 NAU CIRP cohort was 71.6% female, 28.4% male.

<sup>8</sup> 4 Year CIRP Data is drawn from a representative sample of a consortium group of comparable 4-year public moderately selective colleges and universities. The 2003 freshman norms are based on the responses of 276,449 students at 413 of the nation's baccalaureate colleges and universities. The data has been statistically adjusted to reflect the responses of the 1.2 million FTFT students entering all four-year colleges and universities as freshmen in 2003.

<sup>9</sup> NAU Office of Planning and Institutional Research.

Similar to their peers nationally, NAU FTFT freshmen typically applied to 0-3 other colleges and the majority (79.3%) reported that NAU was their first choice college as compared to 67.7% of FTFT freshmen entering moderately selective public institutions across the nation.

Number of other colleges applied to for admission this year	NAU CIRP	4-Year CIRP
None	25.5%	22.9%
1	16.2%	14.8%
2	22.2%	18.7%
3	18.0%	18.4%
4	10.4%	11.7%
5	3.5%	6.5%
6	2.3%	3.3%
7 to 10	1.8%	3.2%
11 or more	.02%	0.4%

College attended is student's	NAU CIRP	4-Year CIRP
First choice	79.3%	67.7%
Second choice	15.1%	24.5%
Third choice	4.0%	5.3%
Less than third choice	1.6%	2.5%

Miles from college to permanent home	NAU CIRP	4-Year CIRP
5 or less	2.8%	6.5%
6 to 10	1.2%	9.9%
11 to 50	1.6%	36.2%
51 to 100	5.3%	19.4%
101 to 500	70.7%	24.9%
Over 500	18.3%	3.1%

NAU's freshman class is representative of Arizona's demographics. A large proportion are drawn from the major population centers of the Phoenix and Tucson metropolitan areas. Just over twenty one percent (21.7%) of all NAU FTFT students are from out of state<sup>10</sup>.

In contrast to FTFT freshmen nationally, 84% of all (Mountain Campus) FTFT freshmen and 90% of all non-Flagstaff FTFT freshmen choose to live on campus<sup>12</sup>. In contrast to many of our peer and moderately selective consortium group institutions, NAU has no on-campus residency requirement for freshmen.

Housing plans during fall term:	NAU CIRP	4-Year CIRP
College dormitory	94.4%	58.0%
With family or other relatives	0.9%	31.6%
Other private home, apartment, or room	3.5%	7.0%
Other campus student housing	1.1%	2.9%
Fraternity or sorority house <sup>11</sup>	0.0%	0.0%
Other	0.2%	0.4%

Over 80 percent (or 1,692 of 2,037) of NAU FTFT Mountain Campus freshmen were awarded some form of aid inclusive of need and non-need based scholarships, grants, loans, waivers, federal work study and veterans' benefits<sup>13</sup>. Seventy percent (70%) of the FTFT freshmen who completed the 2003 CIRP Survey express some or major concerns about their ability to finance their college education.

<sup>10</sup> NAU Common Data Set 2003-04, Office of Planning and Institutional Research.

<sup>11</sup> All 8 of NAU's Sororities and 11 of 12 of NAU's Fraternities are housed in Mountain View Residence Hall. There may be affiliated (members of NAU's Greek organizations) who responded to the survey as living in a college dormitory who are actually residing in NAU's Greek Residence Hall.

<sup>12</sup> Data drawn from PeopleSoft to determine class standing and permanent city address; HOLIS [Housing On-Line Information System] to determine on-campus residency.

<sup>13</sup> Financial Aid data drawn from PeopleSoft and 2003 FTFT Mountain Campus Cohort exclusive of international students.

Concern about financing college	4-Year CIRP	NAU CIRP
None (I am confident that I will have sufficient funds)	32.0%	30.0%
Some (but I probably will have enough funds)	54.5%	56.3%
Major (not sure I will have enough funds to complete college)	13.4%	13.7%

While most (63.9%) of our current freshmen projected that *[at some point in their college career]* they would get a job to help pay for college expenses (NAU 2003 CIRP Survey), 17% of FTFT students reported working for pay on campus and 21% report working for pay off campus (NAU 2003 NSSE Report). Students working off campus tended to work more hours per week than those working on campus.

### **NAU FTFT Student Attitudes, Self-Perceptions and Values**

FTFT students were asked to rate themselves on a variety of personal traits as compared with the “average person” of his/her age. Their confidence in their academic ability ranked #2 of the 5 top responses.

#### **STUDENTS RATE THEMSELVES ABOVE AVERAGE OR HIGHEST 10% IN:**

CIRP Cohort Moderately Select 4- Year	All	Males	Females	NAU CIRP 2003 FTFT Sample	All	Males	Females
Cooperativeness	71.4%	68.6%	73.5%	Cooperativeness	77.3%	71.9%	79.4%
Drive to achieve	64.4%	60.9%	67.0%	Academic ability	71.0%	73.8%	70.0%
Understanding of others	63.8%	60.4%	66.4%	Drive to achieve	70.9%	66.3%	72.7%
Academic ability	58.5%	62.3%	55.6%	Understanding of others	68.7%	65.6%	70.0%
Persistence	57.1%	60.2%	54.9%	Leadership ability	63.2%	66.3%	62.0%

NAU FTFT students are far less confident about their perceived popularity or risk taking abilities. Of note is the low reported self-confidence in the area of computer skills – particularly among female students.

#### **STUDENTS ARE NOT AS CONFIDENT ABOUT THEIR SKILLS IN THE FOLLOWING AREAS:**

CIRP Cohort Moderately Select 4- Year	All	Males	Females	NAU CIRP 2003 FTFT Sample	All	Males	Females
Popularity	35.2%	41.7%	30.3%	Risk taking	36.8%	47.5%	32.6%
Spirituality	34.4%	32.7%	35.7%	Religiousness	34.0%	26.3%	37.1%
Public-speaking ability	31.4%	34.2%	29.3%	Artistic ability	33.2%	36.3%	32.0%
Artistic ability	28.3%	29.2%	27.6%	Computer skills	32.6%	48.4%	26.3%
Religiousness	27.7%	25.4%	29.5%	Popularity	24.3%	40.5%	18.0%

In a recent analysis of the 2003 NAU CSI data (Eibeck, 2003), NAU students were found to be:

1. Very independent. Socially autonomous, very academically confident, and less likely to seek assistance.
2. At the national norm for academic motivation, except males who have lower desire to finish college and a relatively negative attitude toward learning and educators.

In comparison to students at 4-yr public institutions across the nation, NAU FTFT students have:

Very low desire to meet other students and to participate in group activities (37 <sup>th</sup> percentile)	Very low desire to seek academic assistance (40 <sup>th</sup> percentile)
Very low levels of predicted academic difficulty (37 <sup>th</sup> percentile)	Less receptive to institutional help (42 <sup>nd</sup> percentile)
Less likely to join in social activities (45 <sup>th</sup> percentile)	Less receptive to career counseling (42 <sup>nd</sup> percentile)
	Less likely to drop out (44 <sup>th</sup> percentile)

In addition to their low levels of academic motivation [including a lower willingness to expend effort at studies (41<sup>st</sup> percentile) and lower enjoyment of the learning process (45<sup>th</sup> percentile)], male FTFT students at NAU report lower levels of family emotional support (45<sup>th</sup> percentile) and a very high level of distress in the context of college (61<sup>st</sup> percentile).

Most students indicate a desire and/or need for:

1. Career related assistance
  - Qualifications for occupations
  - Job market for graduates
  - Selecting an occupation
2. Help in obtaining a scholarship
3. Help with exam skills

Entering FTFT students at NAU mirror the national trend towards moderate political thinking, reflecting a decline in the proportion of students who self-identify as “liberal” and an increase to 33.9% of students who felt that “keeping up to date with political affairs” was a very important or essential life goal<sup>14</sup>.

How would you characterize your political views?	NAU CIRP	4-Year CIRP
Far left	4.4%	2.5%
Liberal	26.0%	21.4%
Middle-of-the-road	45.9%	56.7%
Conservative	22.2%	17.8%
Far right	1.5%	1.5%

Student agrees “strongly” or “somewhat” that:	NAU CIRP	4-Year CIRP
The federal government should do more to control the sale of handguns	77.4%	75.2%
Same-sex couples should have the right to legal marital status	64.0%	60.9%
There is too much concern in the courts for the rights of criminals	56.7%	64.8%
Abortion should be legal	54.5%	52.2%

<sup>14</sup> Young, J.R. (2004, January 30). Students’ political awareness hits highest level in a decade. The Chronicle of Higher Education, Volume 50, Issue 21, p. A30.

## **What Freshmen Experience: Typical Transitional Issues for Entering Students<sup>15</sup>**

Student Affairs practitioners have been tracking transitional issues for new students over the course of the academic year for more than 40 years. While not exhaustive, the following chronology represents “typical” issues experienced by FTFT college students of “traditional age” (18-20).

### **August**

- Excitement.
- Trying to figure out where everything is on campus.
- Feelings of loneliness and homesickness, especially for those who have never lived away from home and those who had a very happy childhood
- Getting to know new people, making college friends, finding an initial “niche”, someone to go to meals with, someone to hang out with.
- Anxiety about roommates, professors, classes
- Feelings of inadequacy or not fitting in

### **September**

- Adjusting to living with a roommate.
- Learning to take care of daily personal needs without parental direction or support: Organization, laundry, expenses, eating well, health care, adequate sleep, housekeeping, etc.
- First exams.
- Getting adjusted to Flagstaff.
- Frequent calls and visits home. Feelings of loneliness and homesickness may continue.
- Challenges of managing freedom. Making lifestyle decisions regarding drug and alcohol experimentation, morality, class attendance and social pressures.
- Students question their decision to come to NAU: “Do I fit in here?” Students run the risk of feeling disconnected from their peers if they don’t feel “connected” to the university or any other organization.

### **October**

- First test grades returned; Academic pressures and workload increase prior to mid-term.
- Summer romances ending or maintaining long-distance romantic relationships.
- Freshmen begin to realize that life in college is not as perfect as they were led to believe by parents, teachers and counselors.
- Consequences of (poor/good) decision-making during early semester may arise (social, academic, community behaviors, etc.)
- Roommate problems may begin to arise

### **November**

- Midterm grades returned; Academic pressure continues to increase with term papers and final preparation on the horizon. (Procrastination, difficulty of work or lack of ability become reality.)
- New anxiety generated by having to register for spring semester when the fall semester feels barely two months old.
- Roommate and/or social tensions increase as all students are under stress.
- Initial friendships may shift due to emerging commonalities/differences in personality, interests or values.
- Excitement and/or anxiety regarding going home for Thanksgiving.
- Extracurricular time strain: Seasonal parties, service projects, religious activities divert student energies.

### **December**

- Anxiety, fear and guilt increase as finals approach, papers are due, and the realization for some that they may not return for a second semester.
- Pressures increase on romantic relationships because of the approach of vacation and extended separation.
- Financial strain associated with holiday gifts and travel costs.

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<sup>15</sup> Sources include: Office of Residence Life, Northern Arizona University. (2003). 2003-04 RA Workbook, Flagstaff, AZ. and Texas A&M University-Corpus Christi, Just Like Clockwork: The Rhythm of College Life [On-line]. Available: <http://parents.tamucc.edu/Rhythm.html>.

- Pre-holiday excitement or worries (Especially for those who have concerns for family, those who have no home to visit, and for those who prefer not to go home because of family conflicts.)

### **January**

- “Fresh Start” mentality sets in with new term.
- Satisfaction and/or disappointment with fall term grades. Resolve to do better academically.
- Readjustment to school and being away from home security and friends.
- Students from warmer climates adjust to colder temperatures, experience snow and related activities.
- Potential for seasonal depression and lethargy due to weather, lack of participation in outdoor activities (not interested or no time to do so), isolation.
- Some students are relieved to be away from home and back at school; others are just happy to be back at school.
- Cold and flu season may interfere with academic performance.

### **February**

- Personal/parental pressure to clarify academic and vocational choices may cause stress and anxiety.
- Participation in a club or organization to satisfy social needs.
- Valentine’s Day may bring out feelings of loneliness, isolation.
- Potential increase in alcohol and other substance abuse.

### **March**

- Social scene picks up; decisions increase regarding drug and alcohol use, morality and time management.
- Reapplication for on-campus housing process becomes important for those returning to campus for fall. Potential for anxiety regarding finding roommate(s) for next year.
- Academic pressures mount as midterm exams and term papers are all due at once.
- Excitement and/or disappointment regarding spring break plans.
- Mid-winter illnesses pile up and students become more restless and tense. May need spring break to catch up on rest, academics or to make sufficient money to cover expenses for the term.
- Early registration may re-focus stress over academic and career decision-making.
- Summer job hunting begins in earnest over spring break.

### **April**

- Excitement with the arrival of spring; students with “Spring Fever” want to play and socialize.
- Many students experience optimism because the second semester is perceived to be on the “downhill slope.”
- Full activities calendar invites participation and challenges time management.
- Pre-registration prompts continuing stress and confusion over necessary academic decision-making.
- End of semester academic pressures (papers and exams) pile up.
- End of semester sadness due to anticipation of separation from friends for the summer.
- Summer job panic.

### **May**

- Final exams, papers and projects cause tension and stress.
- Plans for summer school, travel, work, housing, must be in place.
- Sadness over leaving friends, deciding the destiny of romantic relationships for the summer.
- Potential worry over facing conflicts at home with family, making the transition back to living at home.
- An air of confidence abounds because freshmen feel they have “made it.”
- Realization of how college influences life decisions.

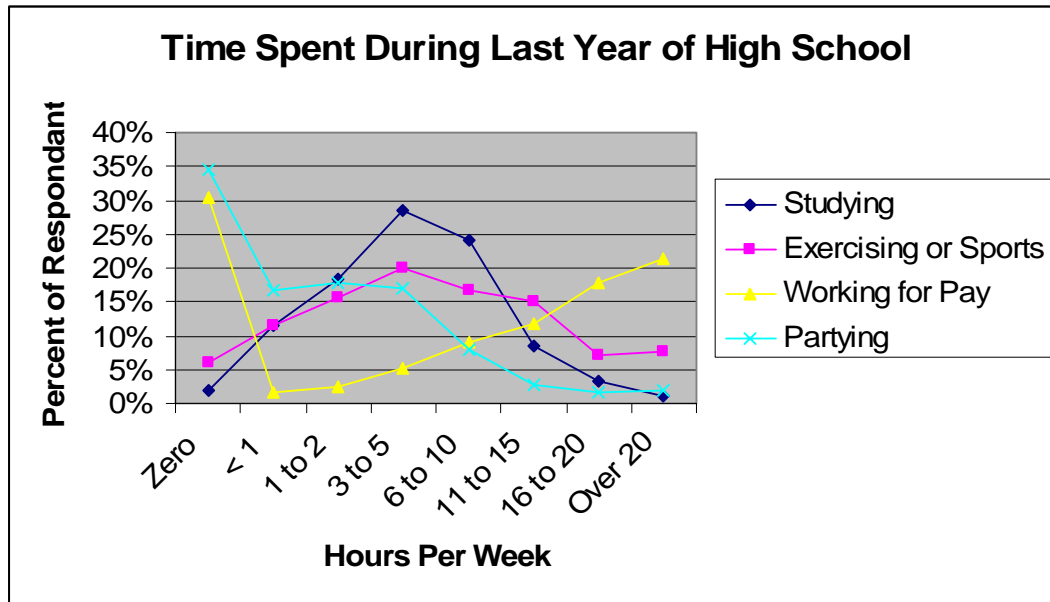
## **24 Hours in a Day: How do freshmen spend their time?**

If past behaviors are the best predictors of future performance, entering NAU freshmen reported that they spent on average 3-5 hours per week studying, about the same amount of time they spent exercising or participating in sports<sup>16</sup>. Since 2-3 hours of study time per hour of class is

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<sup>16</sup> Chart Data Source - NAU 2003 CIRP Freshmen Survey.

recommended at the college level, entering freshmen could anticipate three times as many hours doing homework as they did in high school.

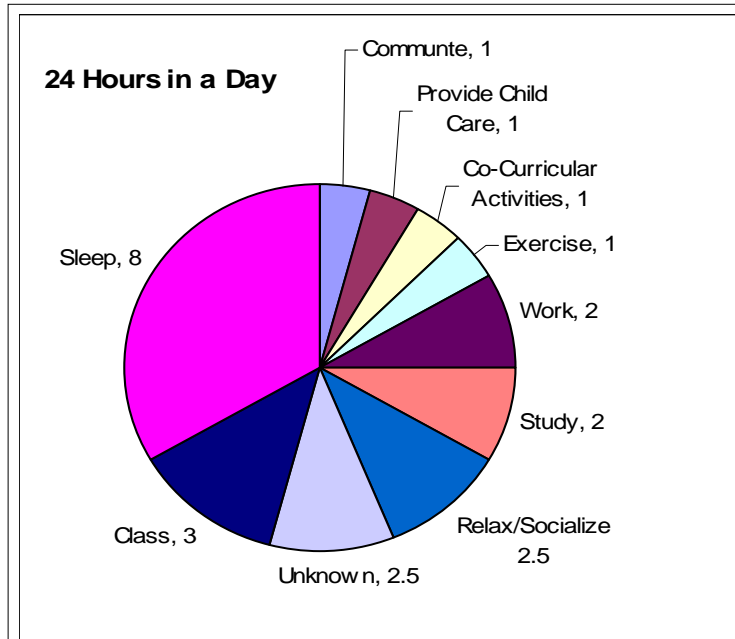


What do FTFT students anticipate they will do while at NAU?<sup>17</sup>

Student's estimates: chances are "very good" that he/she will	NAU CIRP	4-Year CIRP
Get a bachelor's degree	84.5%	76.0%
Socialize with someone of another racial/ethnic group	76.5%	60.4%
Develop close friendships with other students	76.2%	76.2%
Make at least "B" average	66.7%	53.8%
Get a job to help pay for college expenses	63.9%	53.3%
Be satisfied with your college	54.1%	44.3%
Participate in student clubs/groups	43.1%	32.0%
Communicate regularly with your professors	36.2%	28.6%
Participate in volunteer or community service work	34.1%	16.5%
Strengthen religious beliefs/convictions	31.9%	17.8%
Participate in a study abroad program	19.8%	12.3%
Change career choice	12.5%	11.2%
Change major field	11.4%	13.0%
Seek personal counseling	9.8%	7.1%
Join a social fraternity or sorority	8.5%	7.7%
Participate in student protests or demonstrations	8.4%	4.9%
Play varsity/intercollegiate athletics	7.6%	12.8%
Work full-time while attending college	7.0%	9.4%
Transfer to another college before graduating	6.1%	11.6%
Participate in student government	4.7%	5.7%
Drop out of college	0.4%	0.9%

<sup>17</sup> Chart Data Source - NAU 2003 CIRP Freshmen Survey.

Based on fall class enrollments of FTFT students (completed courses) from 1994-2002, NAU freshmen completed, on average, 14.18 credit hours (excluding remedial courses) or 14.36 credit hours (including remedial courses); translating into roughly 3 hours of class per day. That leaves 21 hours that they are out of class each day. The following chart details what we know about how freshmen spend their time:



**Chart Information Sources:**

- Commute or Travel to Class, Provide Child Care, Co-Curricular Activities, Work, Study, Relax/Socialize Categories: [NAU 2003 NSSE Report](#), Office of Planning and Institutional Research.
- Class: [1994-2002 FTFT Fall Class Enrollments](#), Office of Planning and Institutional Research
- Sleep and Unknown: Estimated values. See section on Health-Related Activities for more details.

Approximately 23% of NAU’s FTFT students spend more than 5 hours per week participating in co-curricular

activities, and 21% have participated in one or more Intramural Sport Program<sup>18</sup>. While only 6% participate in programs sponsored by the Outdoor Recreation Program, unorganized outdoor activities such as hiking, skiing, mountain/road biking, rock climbing and camping are popular with many students.

**Health-Related Activities of Freshmen**

The following section on the health-related activities of freshmen students has been extracted from the 2003 Health and Wellness Survey<sup>19</sup>. Over 50% of freshmen students surveyed reported being in some sort of a dating relationship, although a much smaller portion are engaged or married. FTFT students reported exercising on average 2-3 days a week and getting on average 3-4 nights of adequate sleep per week.

<sup>18</sup> NAU Data Warehouse.

<sup>19</sup> Students were asked to fill out a 121-to130 item-questionnaire (administered annually) regarding specific health and wellness issues (relationships, alcohol, reproductive health, general health.) The Fronske Health Education Office designed the survey tool. This report includes freshmen on-campus resident’s responses only. All NAU Mountain Campus students were contacted through an email encouraging them to participate. All responses were done anonymously. Two thousand eight hundred forty (2840) students were surveyed; a 22% response rate. Of the total participants, five hundred fifty two (552) were freshmen on-campus residents. 76% of the freshmen respondents were female, 24% male. The average age of freshmen respondents was 18.75 years.

**Relational Status:**

	Frequency	Percent
Casually dating	87	15.8
Engaged	13	2.4
Exclusively dating one person	192	34.8
Married	1	.2
Other	4	.7
Single	255	46.2
Total	552	100.0

**Number of days of the week exercising & adequate rest:**

	N	Mean	Std. Deviation
Exercise 20-30 minutes aerobically	552	2.22	2.034
Strength training	552	2.90	1.944
Adequate rest/sleep	552	3.29	2.131

(Based on values of 0-7 for number of days / week)

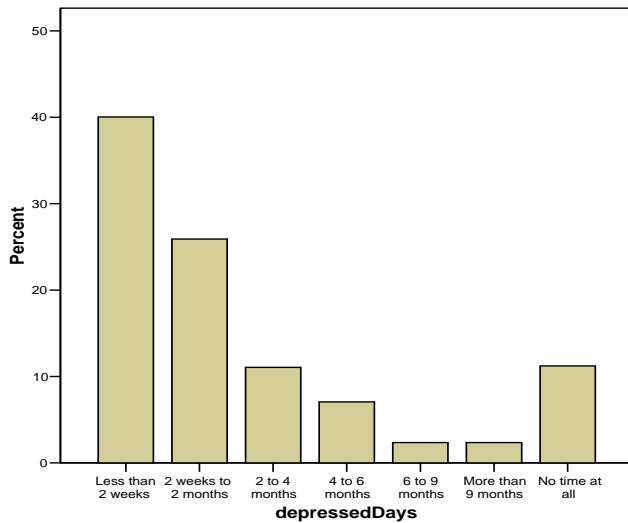
**Methods for weight loss in the past 30 days**

	Frequency	Percent
Combined dieting and exercising to lose weight	117	22.9
Combined vomiting and diet pill use to lose weight	28	5.5
Diet to lose weight	10	2.0
Exercise to lose weight	178	35.0
I didn't do any of the above	175	34.4
Take diet pills to lose weight	1	.2
Total	509	100.0

More than half of freshmen reported using a weight-loss modality in the past 30 days; Eleven percent (11%) of women reported an eating disorder-like behavior (vomiting, or diet pill use) compared to 2% of men.

**Frequency of depression in the past year**

A significant number of students experienced depression within the past year. Only 11% reported



no depression. About 40% had minor depression lasting up to 2 weeks. Forty eight percent (48%) of freshmen experienced depression lasting 2 weeks to more than 9 months. Among those experiencing depression, 18% said that it affected their academic performance in the form of lower grades or having to drop classes.

**Stress effects on academics**

General stress seems to affect most freshmen significantly. About 80% of freshmen reported being affected by stress. Half of those reporting stress said it affected their academics.

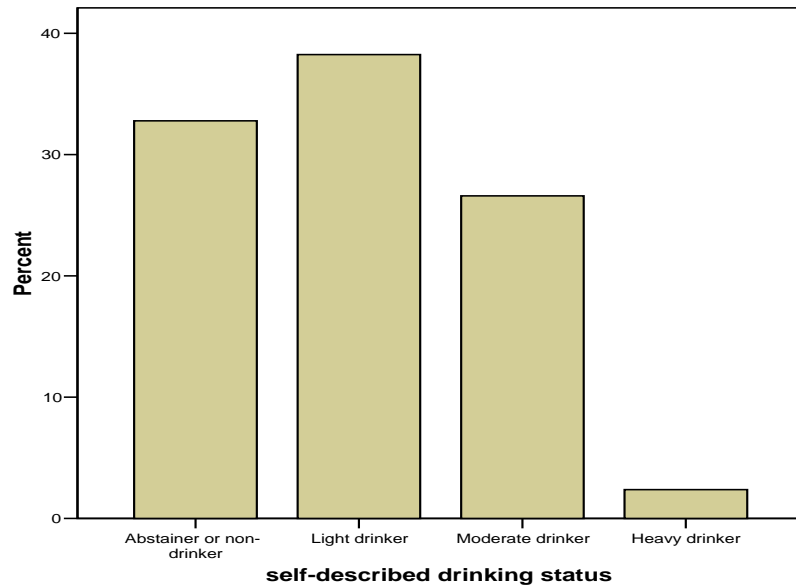
**Reproductive Health**

Men (71%) were more likely than women (61%) to report some form of sexual activity in the past year<sup>20</sup>. Men reported 2.06 partners while women reported 1.87 partners in the past year. Men and women reported similar views about how many sexual partners a typical NAU student has had in the last school year. Most students (79%) expressed the belief that “It’s okay to have sex but only with one monogamous partner.” Sexually active students are significantly more liberal about sexual relationships than are those who have abstained from sex in the past year.

Fifty five percent (55%) of freshmen reported being in a monogamous relationship for three months or longer. Among monogamous, sexually active students, a majority (73%) reported having only one sexual partner in the past year. However, 24% reported having more than one partner in the past year. About 9% of reported monogamous students had three or more partners in the past year.

**Alcohol Related Issues**

The majority of freshman campus residents classify themselves as drinkers. Thirty-three percent (33%) indicated that they were abstainers or non-drinkers.



A comparison of drinking habits between men and women show as follows:

Drinking-Related Behaviors	Gender	
	Male	Female
Number of drinks last time drinking (mean)	6	4
Number of days drinking each month (mean)	4	5
Used a fake ID to drink while at NAU	17%	13%
Passed out in the past 30 days	15%	16%
Poor performance in class due to alcohol	7%	8%
Missed a class due to alcohol	18%	20%
Had unprotected sex in the past 30 days as a result of drinking	7%	9%

<sup>20</sup> Comparing means using Independent Samples T Test, there was no statistical difference (p < .05) between men and women’s reported average number of sexual partners in the last school year.

Among drinkers, freshman men consume more drinks (6.0 drinks) than women (4.0 drinks) the last time drinking. From the above tables it appears that, while men drink more, both men and women share significant consequences of drinking.

## **Freshman Support Programming**

Current programming for freshmen students includes a variety of programs offered by academic units and by departments within Enrollment Management and Student Affairs (EMSA). Programming includes both optional and required programming available to first year students. A web site with a list of programs and descriptions can be found at <http://www.nau.edu/otrs/firstyear/>.

### **List of Current Programs**

#### **ACADEMIC - COURSES FOR CREDIT**

- FYE 101-a one-credit “extended orientation” course. Over the past three years, 3,024 freshmen enrolled. This is on average 1,008 freshmen per year or 47% of the incoming freshman class.
- EPS 101- an elective course teaching academic success skills including personal development, learning strategies, test taking skills, and career development. Over the past three years on average, 271 or 13% of freshmen enrolled each year.
- HON 190/191- a two-course sequence emphasizing intensive reading, writing and discussions required by the Honors curriculum. Over the past four years an average of 180 freshmen per year enrolled.
- ENG 105- a course teaching formal university-level writing skills required by the Liberal Studies program. Approximately 1,800 freshmen enroll each year.
- UC 101 – This course introduced students to the world of academia, and to the role of intellectual inquiry in the pursuit of a liberal education. Beginning fall 2004, UC 101 will no longer be offered. Over the past three years, 4,808 incoming freshmen enrolled. This is on average, 1,600 freshmen per year or 74% of the incoming freshman class.

#### **OTHER ACADEMIC PROGRAMMING**

- Gateway Student Success Center
  - The Gateway Student Success Center provides freshmen with centralized academic support services and career planning services in a responsive, effective and friendly atmosphere.
- Learning Assistance Centers (LAC’S)
  - LAC staff work with academic staff to provide a variety of academic support services to students. These services include supplemental instruction in biology and chemistry courses. This is a collaborative effort involving biology and chemistry faculty and LAC staff. Additionally, ongoing study skills, time management, and computer workshops are available. Beginning

summer of 2004, LAC staff will provide these types of workshops to incoming freshmen who are “conditionally” admitted and who will be required to enroll in EPS 101. Peer tutoring is available on-line, in freshman residence halls, and at both learning assistance centers on campus. A “drop in” math lab and study groups are offered for a variety of entry-level classes. Each year, services are provided to approximately 700-800 freshmen.

- Athletics
  - All NAU student-athletes participate in a variety of academic programs to ensure their academic success and progress towards graduation. Athletics has the following programs in place for student-athletes: mentoring, study hall, tutoring, workshops and study groups, and a mid-term grade/progress report system to ensure student athletes successfully complete their academic coursework. Approximately 75 new freshman athletes enroll each year.
  
- Learning Communities
  - Freshmen register in a coordinated set of freshman classes that meet either major or liberal studies requirements. This model has varied over the years and included FIGS, or Freshmen Interest Groups, and cohort course scheduling, as well as the Living Learning Communities of the Education House and Honors.
  
- Placement and Readiness Testing
  - Individual departments provide placement and readiness testing for proper placement into appropriate courses. These are administered on an “ad-hoc” basis as a number of departments utilize different tests for placement. Because these tests are inconsistently administered, it is difficult to accurately report the number of students who complete these tests.
  
- Cline Library
  - Cline library offers a variety of academic services to freshmen that support the FYE 101, UC 101, ENG 105 and HON 190 courses. This course support includes electronic reserves, library instruction, study rooms and access to electronic media and computers.

## **ENROLLMENT MANAGEMENT AND STUDENT AFFAIRS SUPPORT PROGRAMS**

- Retention Alert Program (RAP)

The RAP program is an early warning retention program. Students enrolled in the high DFW courses, participants in the Successful Transition and Readiness Program (STAR), Native American Student Services (NASS), and Student Support Services (SSS) programs as well as English 105 and UC 101 are targeted for participation in this program. Faculty identify students who are experiencing academic difficulties and these students are contacted by staff for a personal consultation. Students receive individual assistance and are referred to appropriate campus resources.

- Office of Orientation Transition and Retention Services (OTRS)

OTRS provides a variety of programs for all incoming freshmen. These include:

- Mentor Works! – Faculty and staff provide individual mentoring to first year students.
  - Previews – Two-day intensive orientation to the university for all new students and their family members. Previews is a required program for FTFT freshmen.
  - FYE 101 – the third phase of orientation is offered to first year students as a navigational skills building orientation one-hour elective credit course. Upperclassmen peer mentors in small seminar settings teach FYE 101 where students are introduced to 16 important services/resources designed to increase student retention.
  - Common Reading - a book is selected by the Liberal Studies Committee for FTFT freshmen to read prior to arriving on campus. The book is incorporated into UC 101, FYE 101 and ENG 105. In recent years the Common Reading Program has included *Nickel and Dimed on Not Getting By in America*, *Letters from Yellowstone*, *The Milagro Beanfield War*, *The Color of Water*, *Ishmael*, and *The Bean Trees*.
  - Lumberjack Welcome Week – the week prior to the start of each semester includes a variety of social and academic activities.
  - Parent Services – Parents are a crucial link in the success of FTFT freshmen. The Office of Parent Services connects family members with information, resources and services, which assist parents in supporting their student.
- STAR Program - Multicultural Student Center – (MSC)  
Services provided by the MSC assist students from all ethnic backgrounds in fulfilling their academic, social, and cultural goals. The major program in the MSC for incoming freshmen is the STAR Program: Successful Transition and Academic Readiness. The STAR Program is a five-week summer program that helps first generation, low-income and under-represented freshman students adjust to college life. The STAR Program provides a transition from high school to college and develops academic skills needed for college success. This summer bridge program serves approximately 125-150 students each year.
  - Native American Student Services (NASS)  
NASS provides support services that assist Native American and Alaskan Native Students in achieving academic and personal success. The NASS program serves approximately 125-150 new students each year and works to increase the retention and graduation rates of Native students on campus.
  - Student Support Services (SSS)  
SSS, a federally funded TRIO program, provides academic support and educational services to increase college retention and graduation rates for eligible low-income, first generation or disabled students. Freshmen and sophomores who are participating in this program receive scholarships awarded by the SSS program. Each year, SSS serves approximately 50-100 freshmen students.

- Freshman Connections

The Office of Residence Life provides transition, academic and social support programming in living communities for approximately 1,700 freshmen students in four “freshman connections” residence halls. Included in this programming are in hall tutoring, workshops on academics, and a variety of topics aimed to address the specific needs of first year students. An emphasis is placed on meeting and getting to know other members of the student’s community.

### **Assessment of Current Programs**

The majority of these programs conduct some form of assessment. To date, assessment has focused mainly on traditional outcomes; i.e., grade point averages, retention and persistence rates. Many support programs housed in EMSA have demonstrated success. For instance, minority students who participate in the STAR program have retention rates higher than the general population and rates higher than their white counterparts. In the SSS program, 92% of students remained in good academic standing during AY 01-02 and 84% of participants were retained in this same year. Freshman students who live on campus have been retained at a 10% higher rate than freshmen who lived off campus.

What is clearly missing in these assessments is an analysis of learning outcomes where appropriate. While this type of assessment is fairly new, it is important to examine what students are learning and how this impacts their retention and success.

### **The Supplemental Instruction Program-An example of a program that works**

Student performance in gatekeeper courses often is a barrier to academic success and career development. Gatekeeper courses are defined as high enrollment courses, with a high proportion of first-semester, freshmen students, and a high proportion of DFW grades. Examples include introductory biology (BIO 181), chemistry (CHM 151) and mathematics courses (MAT 152, MAT 125 and MAT 136).

Funding from the National Institute of General Medical Sciences was secured in 1998 with the goal to increase the participation of under-represented minorities in biomedical research careers. These funds provide support for Supplemental Instruction in gatekeeper courses. The program is administered by EMSA, which provides a “holistic” approach to serving the students. In addition, there is hands-on participation by faculty who teach the courses. The faculty identify supplemental instruction leaders (peer tutors), who attend every class and encourage student participation.

The program serves 800 – 900 students per semester, in 10 –12 course sections. The data demonstrate that students who participate have higher grades on average than non-participants. Improvement is about 1/3 of a letter grade on average, and is higher for minority students.

Several factors have contributed to the success of the program. Among these, a major factor is the strong participation of faculty in the program, and their collaboration with EMSA staff, which provides a seamless web of support for students. The program also provides several opportunities

for students to connect personally with tutors and faculty. This, in turn, assists these students in making a “connection” on campus.

### **Challenges for the Future for Freshmen Programming**

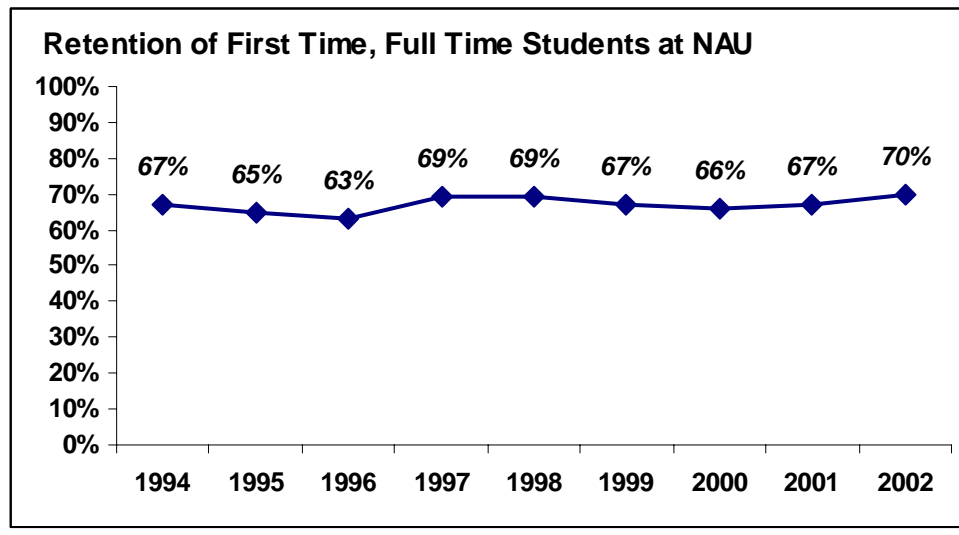
- How to expand SI to other gatekeeper courses. Data from the College of Arts and Sciences demonstrates the success of this model.
- To increase interactions and collaboration between faculty and EMSA personnel.
- To increase collaboration across freshman support programs.

## **Retention**

### **Trends in Retaining our First-Time, Full-Time Mountain Campus Freshmen:**

There has been minimal variation in the proportion of FTFT freshmen retained to the second year. The average retention percentage from 1994 – 2002 is 67%.

**Figure 1. Retention Percentages of FTFT Mountain Campus Freshmen, 1994-2002**



### **General Demographics of Retained vs. Non-Retained Students:**

Using the average retention rate from 1994 – 2002 several demographic characteristics of freshmen are noted as risk factors specific to retention. Non-traditional first-time, full-time freshmen (over 21 years old) are more likely to leave NAU. Caucasian students are retained at a higher rate than all ethnic minorities including African-American, Asian American, Hispanic, International, and Native American. Males are also more likely to leave. Not surprisingly, students who rank in the top quartile of their high school class are more likely to be retained, with those in the top 10% of their class staying at significantly higher rates than the average retention rate for FTFT freshmen.

**Table 1. Characteristics of Retained and Non-Retained FTFT Freshmen 1994-2002**

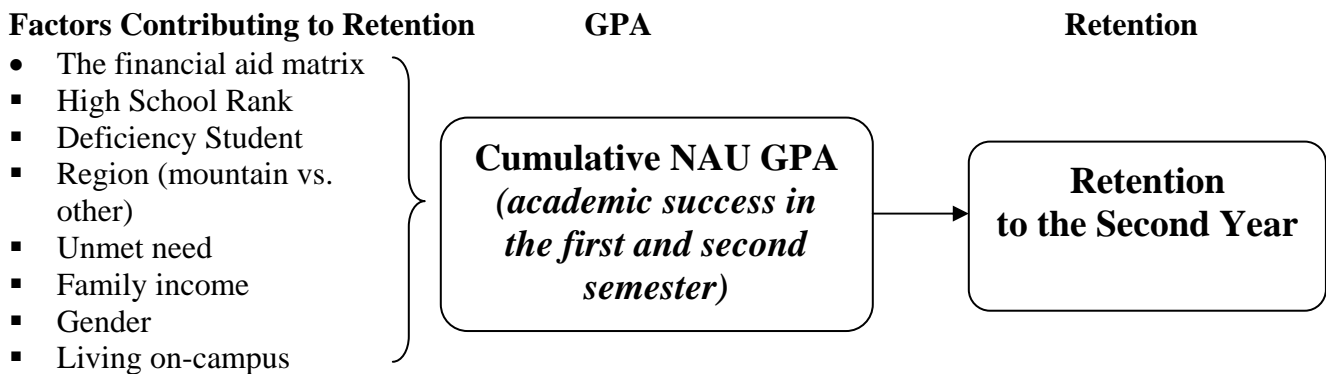
<b>Retention of FTFT Freshmen</b>	<b>Average Retention % by Category</b>	<b><i>Difference from Overall Average Retention Rate</i></b>
<b>Overall Average</b>	<b>66.6%</b>	
<b>Less than 21 years old</b>	<b>67.0%</b>	<i>0.4%</i>
<b>21-25 years</b>	<b>51.3%</b>	<i>-15.3%</i>
<b>More than 25 years old</b>	<b>66.2%</b>	<i>-0.4%</i>
<b>Arizona Resident</b>	<b>67.2%</b>	<i>0.6%</i>
<b>Non Resident</b>	<b>64.8%</b>	<i>-1.8%</i>
<b>African American</b>	<b>64.7%</b>	<i>-1.9%</i>
<b>Asian American</b>	<b>61.2%</b>	<i>-5.4%</i>
<b>Hispanic</b>	<b>62.9%</b>	<i>-3.7%</i>
<b>International</b>	<b>47.5%</b>	<i>-19.1%</i>
<b>Native American</b>	<b>55.8%</b>	<i>-10.8%</i>
<b>Unknown</b>	<b>70.3%</b>	<i>3.7%</i>
<b>Caucasian</b>	<b>68.0%</b>	<i>1.4%</i>
<b>Female</b>	<b>69.3%</b>	<i>2.7%</i>
<b>Male</b>	<b>62.8%</b>	<i>-3.8%</i>
<b>HS Rank: Top 10</b>	<b>78.5%</b>	<i>11.9%</i>
<b>HS Rank: 11-25</b>	<b>71.2%</b>	<i>4.6%</i>
<b>HS Rank: Second Quartile</b>	<b>60.6%</b>	<i>-6.0%</i>
<b>HS Rank: Third Quartile</b>	<b>55.4%</b>	<i>-11.2%</i>
<b>HS Rank: Bottom Quartile</b>	<b>47.7%</b>	<i>-18.9%</i>
<b>HS Rank: Unknown</b>	<b>56.4%</b>	<i>-10.2%</i>
<b>Mountain Campus</b>	<b>66.6%</b>	<i>0.0%</i>

**Other Characteristics that Predict Continuation at NAU**

The main predictor of retention is academic performance, measured by cumulative GPA. For example, 72% of the students who qualified for probation at the end of their first semester were not retained for a second year. Seventy-seven percent of the students who did not return from fall 2001 – 2002 had cumulative NAU GPAs of less than 2.00. Students who are not successful academically during their first-year are significantly less likely to return for a second year.

It is not surprising to note that those students who are not successful academically at NAU tend to be the same students that struggled in high school. Some of the best predictors of academic success while at NAU include a student's entrance exam scores (ACT or SAT) and high school GPA.

Students that enter better prepared academically as measured by ACT / SAT scores and high school GPA are more likely to succeed academically. If a student has deficiencies when entering, meaning that the student did not meet the minimal core course requirements for admission, they are less likely to succeed academically. In addition to high school academic performance, having unmet financial need and a lower family income also adversely affects a student's likelihood of continuing at NAU. While living on-campus is a strong positive predictor of retention, being male is a negative predictor of student retention. (It is not yet clear whether the positive effect of living on campus in freshman-only residence halls is a function of living conditions, of having other freshman students as neighbors, or of the ready access to support and freshman programming that is available to those residents.)



While the predictors mentioned above have the strongest relationships to student academic success and subsequent retention, there are other positive and negative influences on retention. These are listed below:

**Other Positive Influences Include:**

- Full-time status
- Cumulative honor points<sup>21</sup>
- Cumulative net hours<sup>22</sup>
- Student ability (SAT, ACT, rank in class)
- Financial aid student
- Enrollment in FYE 101
- Arizona resident
- Participation in Previews orientation

**Other Negative Influences Include:**

- Age (older students are retained at lower rates than younger students)
- D,F,W (students earn a “D” or “F” grade, or withdraw from a course)
- Late application to the university (summer application date)
- Enrollment in a remedial course

<sup>21</sup> Honor points are the points a student earns for letter-graded courses. The total of these points (i.e., cumulative honor points) is the numerator in the equation used to calculate GPA.

<sup>22</sup> Net hours are the number of hours for letter-graded courses that a student has completed. The total of these hours (i.e., cumulative net hours) is the dominator in the equation used to calculate GPA.

It should be noted that many of the positive factors are reflective of academic success whereas the negative factors are reflective of poor academic success and / or preparation.

**Effects of Freshman Programming**

There are positive correlations between participation in freshman programs and other support and retention of freshman students. For example, over the past six cohorts of freshmen, those attending Previews have consistently had higher retention rates (typically a difference of 10-14 percentage points). Those participating in the Freshman Year Experience 101 (FYE 101) course also had higher retention rates than those not attending (7-12 % difference). Additionally, students involved in the Honor’s Program and athletics are retained at higher rates than the general population of FTFT freshmen (on average a difference of 18% for Honors participants and 6% for athletes). As presented elsewhere in the report, participation in SI for several key science courses did increase students’ grades and success in those courses. The difference in performance for students participating in SI is especially pronounced for students from under-represented groups. The STAR program (Successful Transition and Academic Readiness), providing a 5-week summer orientation and academic experience for low-income, first-generation, or ethnic minority students, is also correlated with substantially higher retention rates (Table 2).

Each of these programs involves a self-selected group of students; that is, students choose whether to participate (or, in the case of ‘required’ Previews, whether to actively avoid participation). Thus these correlations cannot be viewed as evidence that the programs actively lead to student success and retention.

**Table 2.**

	<b>NAU 5-year average retention</b>	<b>STAR participants 5-yr average retention</b>
<b>African American</b>	64 %	72 %
<b>Asian American</b>	61 %	73 %
<b>Hispanic</b>	64 %	72 %
<b>Native American</b>	58 %	59 %
<b>Caucasian</b>	69 %	69 %

**Why do students in good standing leave NAU?<sup>23</sup>**

It is clear that the majority of students who are not retained at NAU after their freshman year are students who are experiencing academic difficulties, are on probation, and / or have been suspended. Less understood, and to date less researched, is why our “good” students do not return. In identifying these “good” students who leave we are referring to students who are in good

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<sup>23</sup> The full report, which provides significantly greater detail on the variety of responses, of NAU’s non-retained freshmen students can be found at the Office of Planning and Institutional Research’s website at: <http://www4.nau.edu/pair/> under PAIR Reports

academic standing, not on probation or suspended, and who chose not to continue their academic careers at NAU.

The most relevant data that aims to assess why it is that our good students leave comes from summer calls that were made to all freshman students who were in good academic standing but had not yet pre-registered for the fall 2003 semester. It is important to note that out of the AY02-03 freshman class of 2,396; only 425 students met these criteria. Contact was attempted with all 425 students and successful contacts were made with 229. Of the total 425 students with whom contact was attempted, 75 did return for the fall 2003 semester.

When these students in good academic standing were asked what was the one thing they would change about NAU, the majority of student respondents indicated that they would change nothing or that they did not know. However, many student respondents cited NAU's location as a negative. When respondents were given the option to provide any additional comments, 34% of the students provided an overall positive comment about NAU. Sixteen percent of students commented on the tuition costs or the general cost of living in Flagstaff. Guardian respondents were most likely to indicate dorms or housing as the one thing that they would change about NAU and the location (Flagstaff) was also cited as a negative by many guardian respondents. Some students / guardian respondents indicated that they planned on attending a different university. When these respondents were asked what the one thing was that they would change about NAU they were generally positive about their experience at NAU, however, the small town, weather, distance from home, and general cost of living were common concerns of those leaving NAU to attend a different university.

The results from the summer-calls survey to these students who were in good academic standing support the contention that students, at least by their own self-report, do not leave because they are displeased with a variety of factors controllable by the university such as academic challenge, faculty, or the educational environment. There seems to be considerable support for the notion that students leave because NAU was not a good fit for them personally, not due to academics, but mostly due to its location and / or the surrounding small-town environment. This argument is further supported by survey results of the first-year students where 86% of respondents indicated that they would evaluate their entire *educational* experience at NAU as good or excellent, and yet only 76% of the same students reported that if they could start over again, they would definitely or probably start over again at NAU<sup>24</sup>.

## **Assessing the Freshman Year**

### **A Working Model**

After receiving reports from several individual freshman year programming efforts, the Task Force on the Freshman Year formed an assessment subcommittee. This group was tasked with creating a

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<sup>24</sup> These survey results are from the 2003 National Survey of Student Engagement (NSSE). The NSSE is grounded in the theoretical framework that student engagement, measured by the frequency with which students participate in activities that represent effective educational practices, is a meaningful proxy for measuring collegiate quality. The full report is available at the Office of Planning and Institutional Research's website at: <http://www4.nau.edu/pair/> under PAIR Reports

comprehensive plan for assessing the freshman year experience at NAU that was inclusive of orientation, academics, support services, and each of the intentional freshman year programs the university offers for freshmen. Informed by national best practices, local program objectives, and a review of current instruments utilized by NAU to gather data on freshmen, the committee developed the following model to use as a guide for assessing the freshman year. Much of the information presented earlier in this report feeds into this model.

I. Inputs

- a. Demographic Distributions
  - i. Gender
  - ii. Ethnicity
  - iii. Age
  - iv. Residency
  - v. First Generation College Student
- b. High School GPA
- c. High School Course Work
- d. Entrance Exam Data
- e. Cumulative Transfer Hours
- f. Attitudinal Data

II. Freshman Experiences

- a. Pre-Term Experiences (e.g., Orientation)
- b. Freshman Coursework
- c. Freshman Year Programming

III. Outcomes

- a. Traditional Academic Outcomes
  - i. Cumulative GPA
  - ii. Probationary Status
  - iii. Credit Hour Accumulation/Progress to Sophomore Year
  - iv. Retention Rates
- b. Student-Learning and Student-Development Outcomes
  - i. Foundational Cognitive Skills
    - 1. Writing
    - 2. Speaking
    - 3. Reading
    - 4. Quantitative
    - 5. Computer
    - 6. Study
  - ii. Academic Motivation/Purpose
    - 1. Educational Goal Development
    - 2. Self-Efficacy
    - 3. Value of Educational Tasks  
(These probably will be assessed as academic domain specific constructs such as self-efficacy for math, etc.)
  - iii. Practical Competencies

1. Social Connectedness
2. Navigational Knowledge
3. Time/Health/Financial Management (College Life Skills)

Informed by Astin's work on assessment<sup>25</sup>, the basic framework consists of three major sections: inputs, experiences (or environment), and outcomes (1993:7). After creating the model, the second step taken by the committee was to compile all NAU data relevant to each section of the model in order to begin to assess areas in which outcomes might be able to be measured and areas in which data was lacking. Two major types of data were sought; a balance of direct or performance-based data and indirect or student self-report data are needed to have a well-rounded view of the NAU freshman year. The following is a summary of the kinds of data NAU has, the gaps identified, and the next steps proposed by the committee to include broader campus participation in the process.

### **Inputs**

For almost the entire section of inputs, NAU has access to good and complete data. The only input area with less than complete data is attitudinal data. That is because the source of data in this area is student surveys and the samples obtained for some surveys are not necessarily representative of the entire NAU freshman population. A plan is in place to acquire more complete samples during Previews beginning with the fall 04 entering freshman class, which will ensure more representative indirect data.

### **Experiences**

In terms of experiences during the freshman year, NAU has several pieces of information both from direct observation and from surveys. The primary survey for which NAU has information is the National Survey of Student Engagement, which collects data on students' experiences in and out of the classroom. Additionally the PeopleSoft system and the Student Affairs Data Mart contain records of student activities, such as attendance at Previews, After Hours programs, intramurals, and career services events, as well as residence on campus and being advised at the Gateway Student Success Center. Currently, there are not any identified data sources for direct observations of students' participation in classroom activities except records of freshman students' coursework. The Task Force's Assessment Committee is working with the Liberal Studies committee and FYE 101 to identify data sources for direct observations of students' participation in classroom activities.

### **Outcomes**

In the third section of the model, there are two key components: traditional academic outcomes and learning outcomes. It is clear that NAU is indeed rich in terms of traditional academic outcomes data (retention rate, cumulative GPA, credit hour accumulation, etc.). On the other hand, it is equally clear that NAU is limited in terms of data collected on learning outcomes, particularly in terms of direct observational data of learning outcomes. Several pieces of indirect learning outcomes data are currently available through the 2003 National Survey of Student Engagement (NSSE) or will be available in spring 2004 through Your First College Year (YFCY). It should be

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<sup>25</sup> Astin, Alexander W. *What Matters in College? Four Critical Years Revisited*. San Francisco: Jossey-Bass, 1993.

noted however that the NSSE is only administered every other year at NAU and that the spring 2004 administration of YFCY is a pilot to see how useful it might be.

The learning outcomes section of the model relies heavily on previous sections being complete. Thus, the lack of data in those mentioned areas prevents comprehensive evaluation of learning outcomes. It will require considerable effort to fill the gaps in missing data as well as formalize a process whereby all those data sets are reviewed. Currently, the Assessment Subcommittee is working to identify collaborators across campus with the goal of forming review committees that will have two functions. The first will be to review the work of the Assessment Subcommittee, note the area where data are missing, and propose ways to collect needed data. The second function is to review the existing data and to the extent possible draw conclusions about the freshman year at NAU. Presumably, as the gaps are filled the latter becomes more possible and reflective of the freshman experience. It is toward this end that the Assessment Subcommittee is moving.

## **What to do next?**

The Freshman Year Task Force identified actions that the institution should take in order to improve the quality of the freshman year experience for our entering students and to improve retention. The overarching recommendations are to shift the characteristics of students admitted to NAU, improve the success of students who attend, assess and coordinate freshman support programming, and monitor the freshman year experience. Some of these actions are currently underway while others are recommendations for future action.

### **Recruit and admit students with different characteristics.**

Efforts in progress include:

1. Identify those factors within the admissions criteria that are the most predictive of poor academic performance while at NAU. Assure all entering freshmen have academic preparation for university level work by gradually decreasing the number of admitted students who have these risk factors of poor academic performance.
2. Target recruiting efforts to attract students who want to enroll and persist at NAU.
3. Create a robust, multivariable, predictive model for retention.
4. Improve the accuracy and thoroughness of data records of academic preparation of entering students (high school courses, ACT and SAT profiles, and College Student Inventory [CSI] student reports) to better understand the link between academic preparation and student success at NAU.

Future recommended action:

5. Develop stronger relationships with Arizona high schools to better communicate essential learning outcomes and the academic skills important for student success in college.

### **Improve the academic success of students who attend NAU.**

Efforts in progress include:

6. Require and refine courses (e.g., EPS 101) designed to provide academic transition assistance to less prepared entering students.

7. Provide intrusive assistance to freshmen who are identified as being at risk or potentially benefiting from academic assistance (Learning Assistance Centers), academic advising (Gateway Student Success Center), career planning (Gateway Student Success Center), residence life (Student Affairs) and personal counseling (Counseling and Testing Center).
8. Increase the partnership between the Gateway Student Success Center and all academic departments to assure strong and consistent advising across campus.
9. Strategically utilize placement and readiness testing to assure prerequisite knowledge.
10. Continue and possibly expand the use of nationally normed surveys of freshmen to understand the attitudinal aspects of entering freshmen, including identifying students at academic and emotional risk.

Future recommended action:

11. Foster superior classroom experiences for freshmen by assigning outstanding and committed instructors to teach freshman classes and providing them with strong faculty training opportunities in the pedagogy of teaching freshmen.

### **Coordinate and assess freshman support programming.**

Future recommended actions include:

12. Establish a Freshman Programming Council for collaboration, coordination and articulation among freshman year programs.
13. Each freshman programming effort should clearly define its goals and the results it will use to assess its effectiveness. Freshman programming should avoid duplication and complement existing programs.
14. An independent entity should assess the effectiveness of freshman support programs.

### **Monitor the freshman year experience at NAU.**

Efforts in progress include:

15. Assess the freshman year in terms of the areas described in the Assessment Model. Three major areas that still need to be addressed in order to comprehensively assess the freshman year are:
  - Measuring student learning outcomes.
  - Setting standards for each measure on the model.
  - Obtaining representative samples and further exploring which nationally normed instruments to utilize and how often to administer.

In the 2004-2005 academic year the President's Task Force will continue to address factors affecting the academic success of freshmen, consider other factors related to retention, and recommend an organizational structure for continued review and monitoring of the freshman year.