

## Qualities of Incoming Students Truman State University

For our participation in the Wabash Study 2010, Truman State University selected for study three desired characteristics of graduates from our 2008-2010 Master Plan. These include a) understanding and articulating well-reasoned arguments b) demonstrating courageous, visionary, and service-oriented leadership and c) living emotionally and physically healthy lives. This report focuses on what we know about students' abilities in these three areas when they begin their college experience. Understanding where they start may enable us to better facilitate experiences that create transformation into clear thinkers, effective leaders, and healthier individuals.

### **Summary Overview of Incoming Qualities**

Many students come to Truman with good reasoning skills relative to their peers. With surprisingly little variability, they rate themselves highly on general academic skills, leadership ability, and health. They also value broad thinking skills and community service. These qualities make them good candidates for engaging activities that may prove transformative in many positive ways. However, their high expectations and their confidence in themselves may also make them vulnerable to setbacks, especially if transformation requires a disorienting experience.

### **Reasoning**

Students who come to Truman are well-prepared academically overall. In the 2010 class, 47% of enrolling students had been in the top ten percent of their high school graduating class, and 77% had been in the top 25%. They had a high school GPA of 3.76. Of those who took the ACT, they averaged a score of 27, and 28% had a score of 30 or higher.

On the CLA, which is designed to measure critical thinking, entering students scored at the 75th percentile in 2007, 84th in 2008, and 80th in 2009. More specifically to our selected focus, the

CLA attempts to measure student ability to make an argument and critique an argument. While entering Truman students do well on all the CLA tasks, there is some evidence from 2008 and 2009 that their skills in making an argument are relatively weaker than other kinds of critical thinking tasks.

CLA Results for First Year Students, 2006 - 2009

	Fall 2006			Fall 2007			Fall 2008			Fall 2009		
	#	Actual CLA Score	Percentil e Ran k	#	Actu al CLA Scor e	Percentil e Rank	#	Actu al CLA Score	Percentil e Rank	#	Actual CLA Score	Percentil e Rank
Total CLA Score	58	1204	n/a	142	1126	75	122	1183	84	146	1176	81
Performance Task	32	1205	n/a	74	1128	75	61	1160	83	73	1155	83
Analytic Writing Task	26	1203	n/a	68	1124	75	61	1205	81	73	1197	79
Make an Argument	29	1198	n/a	69	1118	75	61	1197	77	73	1190	72
Critique an Argument	28	1202	n/a	69	1125	76	61	1212	82	73	1203	86

Students' perceptions of their own abilities may also influence their openness to transformative experiences in reasoning. On the 2009 CIRP, 67% reported that in the past year they frequently supported their ideas with logical arguments, 57% reported frequently seeking solutions to problems and explaining them to others, and 45% reported frequently evaluating the quality and reliability of information received. More generally, over 27% of Truman first-year students rated themselves as in the top ten percent of people their age in academic ability. The chart below shows similar ratings on other factors related to reasoning. Given the prior achievements of our students, these ratings are realistic, even modest when the reference population is all individuals in their age group. However, high ratings present two challenges for educating these students. First, their recognition of their previous success may make them believe that they are already

fully capable of understanding and articulating well-reasoned arguments, which may make them resistant to radically new approaches to reasoning. Additionally, their relative ranking among the highly selective population at Truman is likely to be lower than what they previously experienced, potentially leading them to be defensive about their current skills.

Student Ratings of their Own Reasoning Abilities, 2009 CIRP

	Top 10%	Above Average	Average	Below Average	Lowest 10%
<b>Academic Ability</b>	27.4%	56.2%	16.0%	0.3%	0.1%
<b>Drive to Achieve</b>	34.6%	41.3%	21.4%	2.4%	0.3%
<b>Mathematical Ability</b>	12.8%	33.8%	33.6%	17.2%	2.6%
<b>Intellectual self-concept</b>	18.8%	44.6%	30.6%	5.3%	0.7%
<b>Self-Understanding</b>	16.7%	39.8%	38.5%	4.3%	0.7%
<b>Writing Ability</b>	16.2%	37.6%	37.1%	8.3%	0.8%
<b>Ability to see the world from someone else's perspective</b>	18.0%	51.7%	28.4%	1.6%	0.3%

Another relevant characteristic of incoming students is their prior preparation at the university level. According to 2010 NSSE data, students reported earning more Advanced Placement credit before entering Truman than did students at similar institutions. Fifty-five percent have at least one AP course. Adding dual-enrollment, International Baccalaureate, and other kinds of credit increases these numbers substantially. More specifically, in most years, as many as 25% arrive with credit in hand for ENG 190 – Writing As Critical Thinking. Therefore, any effect that we wish to have must go beyond entry level classes, which many students will not take at Truman.

Finally, student's values and expectations about what they will be expected to do in college may influence their readiness to transform. According to the 2008 CSXQ, 86% of students expect to explore different ways of thinking about a topic or issue often or very often. Ninety-four percent expect to "Try to see how different facts and ideas fit together" often or very often. Eighty-two

percent expect it to be a frequent occurrence to request someone else check their writing for clarity. When rating the institution’s emphasis on developing critical and evaluative skills, over half check 7 on a 1 – 7 scale. On the 2009 CIRP, 70% stated that gaining a general education and appreciation of ideas was very important. Clearly, students expect to exercise their reasoning skills in college, and value those abilities.

**Health**

Most students entering Truman rate themselves average or above average on physical and emotional health.

Student Ratings of Health, 2009 CIRP

	Top 10%	Above Average	Average	Below Average	Lowest 10%
<b>Emotional health</b>	20.0%	31.8%	38.5%	8.8%	0.9%
<b>Physical health</b>	16.6%	32.8%	39.0%	10.6%	0.9%

Students also report relatively healthy physical behaviors. For example, 13% reported having frequently or occasionally smoked in the last year, while 31% reported frequently or occasionally drinking. While these numbers could be lower yet, they are already lower than most of our comparison schools. Students also report spending less time partying than students entering comparison schools report. However, somewhat less time spent in physical exercise is reported by entering Truman students.

Student reports of mental health experiences and expectations are mixed. Ninety-two percent of students had frequently or occasionally felt overwhelmed by all they had to do. Fifty-four percent had frequently or occasionally felt depressed. Both of these responses were statistically significantly higher than comparison schools. Yet, over 65% of students thought there was very little or no chance that they would seek personal counseling during their college experience.

## Leadership

Of the three desired characteristics of graduates, leadership is the one for which we have the least concrete information. Informal reports from students about their high school experiences suggest that most have experienced several leadership roles as part of building their college application.

More formally, incoming students rate themselves as having good leadership skills.

**Comment [KS1]:** There was more information from the 2005 and 2006 interview projects.

Student Ratings of Leadership Related Attributes, 2009 CIRP

	Top 10%	Above Average	Average	Below Average	Lowest 10%
<b>Leadership Ability</b>	10.0%	40.5%	30.5%	7.8%	0.6%
<b>Ability to see the world from someone else's perspective</b>	18.0%	51.7%	28.4%	1.6%	0.3%
<b>Openness to having my own views challenged</b>	16.8%	40.1%	35.9%	6.4%	0.8%
<b>Ability to discuss and negotiate controversial issues</b>	21.9%	39.9%	33.5%	4.4%	0.3%

Students also engaged in behaviors that demonstrate leadership activities. For example, 99% of students frequently or occasionally reported having sought solutions to problems and explained them to others. Twenty-five percent of incoming students reported have participated in political demonstrations in the past year. Furthermore, 35% of students state there is a very good chance that they will participate in volunteer or service work during college. According to the 2008 CSXQ, 30% of students expect to provide leadership for an organization or manage a service project often or very often. However, another 50% expect to provide leadership occasionally. This appears to be a good balance, suggesting that students are willing to take leadership roles, but recognize that they need not be leaders in every project or organization.

## Number of Leadership and Service Learning Activities - 2006

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Activities	Median	Number of Activities							
		0	1	2	3	4	5	6	7+
High School									
Leadership	2	9%	16%	24%	18%	22%	7%	2%	2%
Service Learning	1	22%	29%	24%	14%	8%	3%	0%	0%
College									
Leadership	2	15%	24%	24%	16%	9%	4%	4%	3%
Service Learning	2	9%	22%	28%	20%	11%	3%	3%	3%

Note. N = 116. Percentages reflect the proportion of participants listing each number of activities

## Transformative Experiences

### Measures and Instruments

Most of the information about the qualities of incoming students comes from basic institutional data, the 2008 CSXQ (College Student Experiences Questionnaire) and the 2009 CIRP (Cooperative Institutional Research Program) Survey. The CIRP is administered during our “Truman Week”, the first few days students are on campus. All first-time students entering in the fall took it in 2009. The CSXQ was similarly administered to first-time students in the fall 2008.

The CLA (Collegiate Learning Assessment) was also used to assess critical thinking. The CLA has been given to a relatively small sample of first year students each year in the fall since 2006. 2009 is the most recent data available: 146 first year students participated that year. (200 seniors also participated, but their data will be considered as part of the outcomes).

Experiences of Good Practices and Supportive Environments  
Truman State University

**Purpose of this report**

For our participation in the Wabash Study 2010, Truman State University selected for study three desired characteristics of graduates from our 2008-2010 Master Plan. These include a) understanding and articulating well-reasoned arguments b) demonstrating courageous, visionary, and service-oriented leadership and c) living emotionally and physically healthy lives. This report focuses on what we know about the experiences of undergraduate students that are relevant to each of these three characteristics. This builds on the previous report concerning incoming qualities. Fortunately, we have a wealth of existing data on experiences in each of these categories, and continue to collect additional information. Information included in this report is often drawn from the “Purple Papers” prepared by each of the four task forces created for this project. These data were recently discussed at the Strategic Planning and Assessment workshop, allowing a large portion of the campus community to participate in making meaning of existing patterns. Understanding what experiences students currently have that create transformation into clear thinkers, effective leaders, and healthier individuals is crucial to improving these experiences.

**Summary Overview of Experiences**

- **Sixty – eight percent of students have experiences they find transformational, with study abroad and internship identified as consistently among the most powerful.**
- **Only 52% of students take foundational critical thinking courses at Truman, limiting the potential for these courses to provide the introduction to a university-wide framework for critical thinking.**
- **Estimates of students engaged in leadership vary from 92% to 34%, depending greatly on how leadership is defined.**
- **Truman students report that stress causes more academic difficulties than students do at comparable institutions.**

**Reasoning**

### Foundation courses in Critical Thinking

Many faculty and administrators argue that good reasoning and critical thinking are crucial components of virtually every college course. However, some courses provide more intentional and directive experiences in critical thinking. For example, rather than having an introductory composition class, Truman State has structured the essential skill as Writing as Critical Thinking (ENG 190). The outcomes for the course are as follows:

Students who successfully complete Writing as Critical Thinking will understand and appreciate the central role writing and critical thinking play in becoming an active student of the liberal arts. Critical thinkers are able to apply clearly articulated criteria when examining and analyzing texts, ideas, and events; recognize the limits of their understanding and knowledge; rethink their ideas and values as they discover new information; enthusiastically seek out a range of views on the subjects that concern them; listen skillfully to the ideas of others; and recognize that critical thinking requires a lifelong commitment to self-reflection.

In Writing as Critical Thinking, students will be asked to develop these and similar attitudes by writing. In fulfilling these requirements, students will:

1. use critical thinking to analyze readings as well as other forms of media (such as photographs, sound recordings, or film);
2. recognize and emulate the writing process of experienced writers;
3. meet the needs of readers with varied expectations and backgrounds by using appropriate style and mechanics;
4. use critical thinking, critical reading, reflection, and discussion to compose engaging, well-organized writing;
5. revise their writing using instructor and peer response as well as self-assessment;
6. make progress towards computer literacy; and
7. understand the importance of intellectual and academic honesty, including accurate, critical, and clear quotation and citation of the work of others.

Another course required of all students as an essential skill that explicitly involves understanding and articulating well-reasoned arguments is Public Speaking ( COMM 170) The outcomes for this course include

A liberally educated person is intellectually and practically engaged in academic, professional and civic communities. Ethical and effective public speaking enables that engagement. Public speaking draws on rhetorical and other communication theory to illuminate the personal responsibility of each citizen speaker, particularly the call to civility through reason. Individual response to that call determines the character of democracy as a collective action.

The conscious acceptance of personal responsibility for public speaking is intertwined with a deep understanding of the purposes, structures and delivery of spoken messages. Students investigate the classical modes of proof – ethos, pathos, and



logos – to develop the ability to construct eloquent messages and defensible arguments that respond to the needs of their communities. Students practice conscious, critical, and respectful listening to gain an appreciation for diverse points of view. Students critique their own speaking performances and those of others to achieve confidence in and mastery over delivery skills.

To prepare students for civic engagement, the public speaking essential skills requirement will accomplish the following objectives:

1. Students will enact ethical public discourse and accept ethical responsibility in producing and consuming public discourse.
2. Students will understand and perform the audience-centered approach of the speechmaking process including selecting topics, organizing speeches, using persuasive appeals and using supporting materials effectively.
3. Students will develop critical thinking skills, including the process of listening as receiving, constructing meaning from and responding to public messages.

However, many students do not take these foundational courses at Truman. Between 2006 and August 2011, only 52% of Truman graduates took Writing as Critical Thinking. The other 48% transferred credit from other institutions. In the same group, only 77% fulfilled their requirements for Public Speaking at Truman. Clearly, any increase in overall critical thinking cannot simply target these foundational courses. A recommendation by the Higher Order Thinking skills committee to Undergraduate Council included a plan for a common framework for critical thinking. Though this has good empirical support, the current curriculum has no logical early point in which to make sure all students have been introduced to the framework. Increased state pressure on expanding transfer and articulation agreements also rules out a new university requirement that could not be completed elsewhere.

#### Source of Critical Thinking Submissions to the Truman Portfolio

The Truman portfolio asks graduates to submit works that represent their best examples of Critical Thinking and writing. Since students also identify the circumstances under which each work was created, student selections can inform us about which critical thinking experiences students value most highly. In the 2010 portfolio, 50.2 % of students selected a submission from their major and 30.6% selected a work from the Liberal Studies Program (Gen. Ed), 8.3% for their minor and 10.6% from elective courses. Thus, many students recognize that their best reasoning occurs in the area in which they have the most expertise.

The table below demonstrates that students select their submissions from a vast array of courses. This is good news, in that awareness of the importance of critical thinking skills is

distributed across the curriculum. The distribution may also tell us which disciplines most intentionally highlight critical thinking. However, these selections should be interpreted with caution. Many other factors influence selection, including the recency with which the student took the course. Some students may even intentionally select works that best fit the criteria. For example, even if a math major is aware that her capstone project demonstrates excellent critical thinking, she may not choose to include that project because she knows portfolios are read by faculty who may have no math expertise.

### Critical Thinking Scores by Course Prefix

Prefix	Count			Mean Score			% Competent		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
ENG	208	227	236	1.85	1.69	1.71	66%	60%	60%
JINS	171	149	126	1.87	1.82	1.93	71%	64%	72%
PHRE	117	85	91	1.95	1.74	1.76	72%	60%	65%
COMM	45	61	76	1.76	1.87	1.76	62%	66%	64%
BSAD	72	43	67	1.68	1.84	1.88	58%	65%	75%
HIST	64	44	54	2	1.89	1.87	70%	66%	70%
POL	38	56	48	2.47	2.2	2.00	95%	84%	73%
BIOL	27	46	46	1.93	2.07	2.11	74%	78%	78%
JUST	32	40	33	2.16	1.98	2.03	81%	65%	70%
ED	28	31	33	1.75	1.84	1.82	64%	74%	76%
ES	16	22	29	1.75	1.86	1.62	56%	77%	52%
PSYC	27	24	29	1.96	1.88	1.86	74%	67%	66%
ART	18	22	23	2.06	1.91	2.22	72%	68%	87%
NU	28	22	23	1.93	2.09	1.87	68%	82%	74%
ACCT	17	17	23	1.94	1.65	1.96	82%	59%	74%
ECON	26	25	21	2.15	2.12	2.00	88%	76%	76%
SED	3	9	16	1.67	1.89	1.63	67%	78%	69%
SOAN	15	34	15	2.13	2.12	2.07	67%	79%	60%
SPAN	4	8	15	2.5	1.88	2.07	100%	63%	80%
MUSI	1	10	14	3	1.8	1.43	100%	70%	43%
CMDS	3	7	10	2.33	1.57	1.40	100%	57%	50%
HLTH	8	13	10	1.75	1.31	1.40	63%	54%	40%
CHEM	13	17	8	1.38	2.18	2.13	38%	82%	75%
AGSC	18	6	7	1.83	1.5	1.71	67%	67%	71%
RUSS	6	5	7	2.17	2	2.14	100%	80%	71%
THEA	4	15	8	2.25	2	1.88	100%	87%	75%
CLAS	6	3	6	1.83	2.33	2.33	67%	100%	67%
CS	2	6	5	2	1.17	1.40	50%	33%	40%
PHYS	4	3	5	1.5	2	1.60	25%	67%	40%
IDSM			4			2.00			75%
STAT	4	3	4	1.5	2.67	2.00	25%	100%	100%

Other	58	133	66	1.74	1.81	1.652	62%	66%	59%
All	1083	1186	1158	1.90	1.85	1.83	69%	67%	67%

Other Critical Thinking data

Many of the experiences students have in understanding and articulating well reasoned arguments are assigned by faculty. Fortunately multiple kinds of evidence show that faculty highly value critical thinking. Of the 199 faculty respondents in the 2005 HERI survey, 196 stated that “Develop ability to think critically” was very important or essential to an undergraduate education. The Higher Order Thinking recently investigated how critical thinking is manifested within coursework. Below is an excerpt from their report to the Undergraduate Council.

Additionally, the committee requested samples of assignments, rubrics, syllabi, and other teaching materials from all departments in order to review how faculty teach higher-order thinking skills and received numerous responses. These materials, along with distinctive courses like Writing as Critical Thinking and our focus on Modes of Inquiry in the Liberal Studies Program, demonstrate our practical and collective commitment to higher-order thinking. Preliminary review of these materials shows—to no one’s surprise—that teaching and learning of higher-order thinking is happening here.

The committee also recognized that there is currently no common framework for discussing critical thinking. Several decades ago, as assessment was beginning on campus, many rubrics drew from Bloom’s taxonomy. This prompted further measurement and discussion of critical thinking. However, the system is far from perfect, and the campus has been drifting away from using the taxonomy. While this has some advantages, it may make it harder for students to recognize commonalities in approaches to reasoning across courses and disciplines.

According to the National Survey of Student Engagement and Faculty Survey of Student Engagement both first-year students and seniors report a stronger emphasis on memorization than faculty do. This may result either from a discrepancy in recognition of critical thinking, student failure to take advantage of opportunities for critical thinking, or faculty failure to comprehend the realities of how students spend their time.

## **Emotionally and Physically Healthy Lives**

### Coursework in Health

Truman Students are also required to take coursework to fulfill the Personal Wellness essential skill. They may take Military Science 101, or they may take Health 195 and 196. Of 2006 – current graduates, 71% chose to take Health 195 at Truman. The outcomes for this course include the following

#### Health Knowledge Outcomes:

1. Relate the components of the physical dimension of health to a health enhancing lifestyle: Explain how physical fitness, diet, sexual behavior, substance abuse, etc. affect physical health as evaluated by written tests, projects or portfolios.
2. Recognize the importance of engaging in creative and stimulating mental activities in and outside the classroom to promote lifelong intellectual growth as evaluated by written tests, projects, or portfolios.
3. Describe the components of emotional health: personal feelings and feelings of others, the normality of human emotion, personal abilities and limitations, controlling or coping with personal feelings, and how to seek support when necessary as evaluated by written tests, projects or portfolios.
4. Appreciate the significance of getting along with others, showing concern for humanity as a whole and accepting the uniqueness of others as an essential part of social health as evaluated by a Likert or value scale.
5. Reflect on the spiritual dimension of health which requires examination of life experiences to discover personal meaning and purpose in life as evaluated by a reflection project.
6. Explain how our reciprocal interaction with the environment affects our health as evaluated by written tests, projects or portfolios.

These objectives have been adapted from Robbins, G., Powers, D., & Burgess, S. (1999). *A Wellness Way of Life (4th ed.)*. Boston: McGraw-Hill.

Students should experience physical activities that are classified as lifetime activities when attempting to accomplish the outcomes indicated below.

#### Physical Activity Outcomes:

1. Participate in activities that affect and improve cardiovascular endurance as evaluated by an exercise log.
2. Perform activities that promote muscular strength and/or muscular endurance as evaluated by demonstration and an exercise log.
3. Demonstrate proper technique in a variety of stretches as evaluated by demonstration.

### Experiences relevant to Physical Health

Data from surveys and the University recreation center indicate that students are considered with their health, but struggle with healthy behaviors. Consider the following examples.

#### Dietary habits

- Only 6.5% of students eat the recommended 5 servings of fruits and vegetables daily (ACHA, Spring 2011)
- 60.7% of students have only 1-2 servings of fruits and vegetables daily (ACHA, Spring 2011)

#### Weight Management

- 47.6 % of students are trying to lose weight (ACHA, Spring 2011)
- 10.6 % of students are classified as obese according to BMI (MCHBS, Spring 2011)
- 22.6 % of students are classified as overweight according to BMI (MCHBS, Spring 2011)

#### Exercise

- 18.6% of students exercised at a moderate intensity 5 or more days/week for at least 30 minutes. (ACHA, Spring 2011)
- 31.0 % of students exercised vigorously for at least 20 minutes on 3 or more days/week (ACHA, Spring 2011)
- 40.2 % did not complete any vigorous intensity exercise. (ACHA, Spring 2011)

Furthermore, students may be influenced by the wellness of faculty and staff, who are not always good models. For example, 31% of faculty and staff have not had a wellness check within the last 12 months. Only 32% feel that they are exercising enough for overall well-being, and the average BMI 27.28 (Recommended range is 18.5-25) (Faculty/staff needs assessment, Spring 2011)

### Stress and Health

The most troubling area of concern for our students now is mental health – particularly as it relates to stress. National surveys suggest that average student stress is very high. Seventy-five percent of students stated stress levels have increased since coming to Truman, and 54% of students responded that academics have been traumatic or difficult to handle (EBI,2010). Other worrisome reports include the following

- 25.1 % of students in the Spring 2011 ACHA survey felt things were hopeless at some point in the last 12 months. (25.1% Nationally)
- 18.7% felt overwhelming anxiety in the last 2 weeks. (ACHA, Spring 2011)
- 25% of students seeking services at UCS had thoughts of killing themselves. (Counseling Services Annual Report, 2010-2011)
- 8.7 % of students in the Spring 2011 ACHA survey reported seriously considering suicide in the past 12 months.

- 1.3 % of students reported in the Spring 2011 ACHA survey they had attempted suicide within the past 12 months.

Though these levels may not be much higher than reported levels across the nation, there is some indication that stress impacts academic performance more at Truman. Stress impacts academics considerably or a great deal for 25% of Truman students vs. 16% nationally (MCHBS). Because of this concern, we have tried to examine stressors in multiple ways. The top stress sources according to MCHBS survey 2011 are

- 79% Academics
- 51% Finances
- 47 % Time management
- 44% Future plans

The Student interview project found these academic stressors falling in moderate stress or higher categories:

- Multiple back to back assignments and tests in different classes (91.2%)
- Amount of work required in classes (73.7%)
- Keeping a high enough GPA for scholarships or graduate school (68.4%)
- Group projects (64%)
- Studying for tests (60.5%)
- Getting into required/desired classes (58.8%)

Fortunately, students have multiple ways of coping with stress. In the academic year 2010-2011, a record 597 students made use of University Counseling Services. That represents a 12% increase from the previous year, and a 63% increase over the past ten years. According to the (MCHBS 2011) other major coping strategies included the following.

- 62% smiled/laughed,
- 55% talked with a friend,
- 55% napped,
- 53% made lists,
- 51% exercised

Table 18. STUDENT SUGGESTIONS FOR REDUCING LEVELS OF ACADEMIC STRESS AND/OR HELPING STUDENTS COPE WITH STRESS MORE EFFECTIVELY (N=114)

Students have ability/responsibility to limit their own stress by having good time management, organization, and a good attitude; students also need to take the initiative in and out of class, using resources and being prepared	50.9%
Students should find a stress outlet through exercise, social activities, campus activities, etc. Get involved in	36%

extracurriculars but make sure you have a good balance (between school, social, organizations, and work), and get enough sleep.	
Professors should be open and available to talk with students, have and communicate clear expectations and requirements, and cooperate with other faculty regarding test scheduling and flexibility.	33.3%
Professors need to be organized and effective in providing students with materials and study resources, while holding students accountable. There should be less busy work and more productive smaller assignments/quizzes, with big assignments spaced out.	23.7%
Truman as an institution could do more to improve its relationship with students through transparency, accommodation, mentoring, grad school help, and two-way communication.	22.8%
Re-evaluation of administrative policy in regard to LSP, academic year, scheduling, alcohol policy, etc. Also improve registration process and scholarship system.	19.3%
More/better facilities/services including parking, library hours and resources, more rec center hours and classes, better housing facilities, and less crowded dining halls.	11.5%
Advisors need to be more effective in helping students plan out their years at Truman, make informed decisions, and be aware of all of the their academic options and opportunities .	7.9%
Need to create more support for freshman, in regard to finding appropriate activities, making social connections, and facilitating faculty interaction, but in a low-stress environment. Freshman should be discouraged from biting off more than they can chew.	7.0%

### **Leadership**

Measurement of leadership experiences requires a shared definition of leadership. The campus community is still working on such a definition. For example, the Co curricular record includes the following definition “Leadership: These activities involve performing in leadership offices and positions. Examples include executive positions in student organizations.” The Leadership task force has proposed that we move away from a focus on a managerial role to emphasis on leadership as a relational construct. Data are currently being collected to reflect this evolving definition.

The 2005 and 2006 student interview projects focused on leadership and service learning, both of which are related to the desired characteristic of graduates “courageous, visionary, and service oriented leadership” Following are the relevant definitions from this project:

... leadership was defined conceptually as systematically and intentionally motivating, guiding, directing, enabling, or organizing the behaviors of other people; and service learning was defined as providing help or support to individuals, organizations, and/or communities (service) accompanied by significant and identifiable educational growth (learning) for the student providing the service.

A sample of 116 students who had reached junior status was interviewed. In 2006, 85% of students reported being involved in at least 1 college leadership experience, 92 % reported at least one leadership activity in 2005. Similarly, 88% and 91% reported at least one service-learning activity in 2005 and 2006 respectively. See the Table below for more details on number of experiences in 2006.



### Number of Leadership and Service Learning Activities - 2006

Activities	Median	Number of Activities							
		0	1	2	3	4	5	6	7+
Leadership	2	15%	24%	24%	16%	9%	4%	4%	3%
Service Learning	2	9%	22%	28%	20%	11%	3%	3%	3%

Note.  $N = 116$ . Percentages reflect the proportion of participants listing each number of activities

In contrast, the transformative experiences survey as part of the portfolio suggested that only 34% (2010) and 35.3% (2011) of students reported having leadership experiences. Clearly, either the students were using different experiences of leadership, or the sample for the student interview project had a high concentration of student leaders. Given that the methodology of the student interview project gave the definition and many examples, while the survey did not, the difference in definitions is probably the driving factors.

How students become engaged in leadership is also a necessary part of understanding leadership experiences. Students who were not involved in leadership experiences often reported that they had no time to become engaged. Reported pathways for those who were leaders are summarized in the table below from the 2006 Student Interview project.

#### How Students Get Involved in College Leadership

Pathway to Leadership	Sample		
	2005	2006	Combined
Group Membership	47%	57%	51%
Modeling / Social Learning	27%	10%	19% <sup>a</sup>
Self-Motivated	24%	27%	26%
Elected	10%	14%	12%
Fit Prior Experience	10%	8%	9%
Faculty Informed / Encouraged	7%	10%	9%
Respond to Advertisement	7%	8%	8%
Encouraged by Others (not faculty)	6%	11%	9%
Scholarship Job	5%	7%	6%
Organization Needed Leader	5%	2%	4%
Part of Coursework	4%	11%	7%

Note. Percentages reflect the proportion of participating students,  $N = 111$  in 2005,  $N = 99$  in 2006. Categories not mutually exclusive. <sup>a</sup>2005 and 2006 proportions differ significantly, Fisher's exact test  $p < .05$ , two-tailed.

Students in the Interview Project also provided information on how Truman supports leadership, and how leadership could be better supported. These are summarized in the tables below.

#### How Truman State University Supports Leadership

Support for Leadership	Sample		
	2005	2006	Combined
Many Organizations Available	45%	47%	46%
Faculty Encouragement	38%	45%	41%
Socially Normative	31%	23%	27%
Structural Support (e.g., small school)	25%	24%	24%
Advertisements	18%	16%	17%
In-Class Support	14%	15%	14%
Campus Events Promote	9%	7%	8%
May Start Organization	7%	3%	5%
Other	5%	8%	6%
No Support Evident	2%	6%	4%

Note.  $N = 121$  in 2005.  $N = 116$  in 2006. Categories not mutually exclusive. <sup>a</sup>2005 and 2006 proportions differ significantly, Fisher's exact test  $p < .05$ , two-tailed.

#### How Truman State University Might Better Support Leadership

Leadership Suggestion	Sample		
	2005	2006	Combined
More Advertisement	28%	14%	21% <sup>a</sup>
Faculty Support	27%	26%	26%
More Resources (e.g., money)	18%	23%	21%
No Suggestions	17%	9%	14%
Inter-organizational Communication	9%	9%	9%
Other	9%	17%	13%
Kirksville Connections	7%	1%	4% <sup>a</sup>
Recognition for Leadership	6%	4%	5%
No Improvement Needed	5%	8%	6%
Improve Attitudes (e.g., toward Greeks)	5%	4%	5%
More Encouragement (nonspecific)	4%	17%	11% <sup>a</sup>

Note.  $N = 121$  in 2005.  $N = 116$  in 2006. Categories not mutually exclusive. <sup>a</sup>2005 and 2006 proportions differ significantly, Fisher's exact test  $p < .05$ , two-tailed.

Institutional support for leadership is also assessed through various campus interviews.

Following are some of the points drawn from Educational Benchmarking, Inc. (EBI) surveys.

Various surveys from EBI are used on campus. The following questions use a 7-point Likert-scale with to measure satisfaction, with 1=Very Dissatisfied or No agreement, 4=Neutral, Satisfaction or Agreement, and 7=Very Satisfied or Extreme Agreement.

- To what extent do College Union activities: Provide opportunities for you to assume a leadership role. (3.4 – 2005, 3.39 – 2006, 3.61 – 2009)
- To what extent do College Union activities: Provide leadership training (3.27 – 2005, 3.19 – 2006, 3.44 – 2009)
- To what extent has attending student activities: provided opportunities for you to assume a leadership role (4.92 – 2010)
- To what extent has attending student activities: provided leadership training (4.6 – 2010)
- To what degree has your fraternity/sorority experience enhanced your ability to: assume positions of responsibility (5.84 – 2005, 5.97 – 2006)
- When compared to other participating institutions, Truman ranks in the bottom quartile on the first three items. Truman ranks in the second or third quartile on the remaining items.

### **Transformative Experiences**

Study abroad experiences, leadership, independent research or performance, etc. are all powerful experiences that often lead to significant student growth. According to the 2009 and 2010 transformative experiences surveys, 86% of graduating students report participating in potentially transformational experiences while at Truman. Sixty-eight participated in one or more experiences that they themselves labeled transformational.

In the survey study abroad is reported as the most consistently transformational experiences, and involves about 400 students participating each year.

In Spring 2011, there were also several student-led focus groups targeted toward better understanding transformative experiences. The focus groups discussed ideas about what transformation involves, personally transformative experiences, barriers, and support for transformation. Following is an excerpt from their report.

Most participants said internships were the most transformational experiences they had undertaken. Internships were described as very transformational by students because it gave them a practical way to use or apply their class room knowledge.

Study abroad was another experience some participants found transformative. Some said the experience wasn't necessarily beneficial in the academic sense. However, it was an opportunity to enrich their cultural perspectives on issues.

Study Abroad also helped students view life through a different lens. Some other students went on research programs in foreign countries (example: Panama) which qualifies as both a study abroad and research opportunity.

Furthermore, service learning and intensive volunteer work allows students to shape their perspective on life, and allows students to gain hands on experiences in fields they would like to venture into.

Conferences were also named along with the previously mentioned Transformative learning experiences. Students said conferences gave them opportunity to interact with people in the professions they would want to pursue and gave them a chance to network. The conferences created an opportunity to interact with practitioners and learn about what has brought them to where they are in their profession.

While student focus groups continue to collect related data on high-impact experiences, there are also relevant NSSE data. Several items focus on smaller scale, but potentially frequent experiences that might fundamentally change how students see the world.

The values below are based on a scale of 1 (never) – 4 very often.

**In your experience at your institution during the current school year, about how often have you done each of the following?**

**1.** Discussed ideas from your readings or classes with others outside of class (students, family members, co-workers, etc.)

2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.69	2.75	2.90
Seniors	2.80	2.93	3.00
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.79	2.85	2.88
Seniors	2.95	2.99	2.99

**2.** Had serious conversations with students who are very different from you in terms of their religious beliefs, political opinions, or personal values.

2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.85	2.78	2.91
Seniors	2.84	2.78	2.89
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.85	2.81	2.84
Seniors	2.87	2.77	2.84

**3.** Examined the strengths and weaknesses of your own views on a topic or issue

2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.63	2.65	2.76
Seniors	2.71	2.73	2.82
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.67	2.69	2.73
Seniors	2.78	2.76	2.79

**4.** Tried to better understand someone else's views by imagining how an issue looks from his or her perspective.

2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.79	2.84	2.90
Seniors	2.76	2.88	2.93
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.83	2.87	2.90
Seniors	2.89	2.91	2.94

5. Learned something that changed the way you understand an issue or concept.

2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.81	2.90	3.00
Seniors	2.82	2.92	3.03
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.85	2.92	2.98
Seniors	2.94	2.95	3.00

The Transformative Experiences Task force has stated that “these data suggest that Truman could do more to facilitate the quality and quantity of transformational learning experiences. Although a majority of students report transformational experiences, many do not, and the quality of some experiences is reported to be inconsistent.”

#### **Measures and Instruments**

Information from this report comes from a wide variety of direct and indirect sources. The National Survey of Student Engagement (NSSE) is given annually to a sample of first-year students and a sample of seniors. The Truman Portfolio is collected from all graduates, and contains submissions of student work, scored by faculty readers. A Transformative Experiences questionnaire is administered in conjunction with the portfolio. The Student interview projects involves in-depth interviews with approximately 100 to 200 students each year. Recent interview topics have included leadership, quality of life, and stress. Truman also has participated recently in the American College Health Association Survey (ACHA) and the Missouri College Health Behavior Survey. Some of the enrollment data were pulled directly from Banner, the campus information system. At all levels, students both provide and help make meaning of the data. More complete descriptions of each instrument and how it is administered can be found at <http://assessment.truman.edu/almanac/index.asp>

## ***Growth on Outcomes Report Truman State University***

This report is one in a series submitted as part of the 2010 Wabash National Study. In early summer 2010, Truman State University applied to become part of the Wabash National Study of Liberal Arts Education, coordinated by the Center for Inquiry at Wabash College. Thirty institutions will collaborate in the study, which is designed to strengthen the achievement of student outcomes through effective use of assessments. For these project, Truman decided to focus on transformative experiences in three desired characteristics of graduates: leading physically and emotionally healthy lives, demonstrating leadership, and understanding and articulating well-reasoned arguments. Two previous reports focused on incoming qualities of students and the experiences they have as undergraduates. This report completes the assessment picture by focusing on outcomes. Portions of this report have been taken directly from the “Purple Papers” prepared for the campus community on each of these topics, and from the Truman *Assessment Almanac*.

### **Overview of Outcomes:**

- Though Truman students are good critical thinkers, there is room for improvement.
- Students report generally good health, but stress threatens their mental health
- The lack of a campus-wide definition of critical thinking prevents meaningful generalizations about leadership outcomes.

More detailed summaries of each characteristic open each of the subsections of this report.

## **Understanding and Articulating Well-Reasoned Arguments/Critical Thinking**

### Summary of Critical Thinking (From the Purple Paper)

#### Direct Measures

- Truman students' Collegiate Learning Assessment scores are right at expected level.
- Portfolio and various teaching and assessment instruments (see below) reveal the vestiges of Bloom's vocabulary, but no consistent terminology or concepts are used across our curriculum.
- The Higher-Order Thinking Skills Committee review of syllabi and assignments reveal that skilled teaching of critical thinking is indeed occurring at Truman, but that we lack a shared framework and vocabulary for this work.
- In the 2010 Truman Liberal Arts Portfolio, the median score for the Critical Thinking and Writing submission is 2 (Competent), the mean 1.82, with 67% of students demonstrating Competence or Strong Competence. By this measure, about one-third of our graduates did not provide evidence that they are competent critical thinkers.

#### Indirect Measures

- Students' self-reported data indicate that they believe they are thinking critically; on the 2010 Graduating Student Questionnaire, 97.5% report that their major has adequate or very adequate teaching of critical thinking.
- Both first-year students and seniors (National Survey of Student Engagement) report a greater emphasis on memorization than faculty (Faculty Survey of Student Engagement) report, suggesting less a lack of critical thinking than a lack of recognition and appreciation of critical thinking in their mental models of education.

These measures suggest that our students are learning how to think but that our results are more competent than extraordinary.

### Critical Thinking by measure

**CLA:** The Collegiate Learning Assessment (CLA) is a standardized testing initiative in United States higher educational evaluation and assessment. It uses a "value-added" outcome model to examine a college or university's contribution to student learning which relies on the institution, rather than the individual student, as the primary unit of analysis. The CLA measures are designed to test for critical thinking, analytic reasoning, problem solving, and written communication skills.

First-year student Performance						
Number of First-year student	Mean Score	Mean Score Percentile Rank	25th Percentile Score	75th Percentile Score		Standard Deviation
Total CLA Score	146	1176	81	1047	1290	163
Performance Task	73	1155	83	1043	1236	156
Analytic Writing Task	73	1197	79	1058	1339	168
Make-an-Argument	73	1190	72	1079	1336	178
Critique-an-Argument	73	1203	86	1058	1360	202
EAA	146	1203	90	1110	1300	146
Senior Performance						
Number of Seniors	Mean Score	Mean Score Percentile Rank	25th Percentile Score	75th Percentile Score		Standard Deviation
Total CLA Score	200	1301	90	1229	1401	145
Performance Task	100	1252	86	1155	1334	142
Analytic Writing Task	100	1350	90	1301	1425	132
Make-an-Argument	100	1333	88	1286	1427	143
Critique-an-Argument	100	1366	92	1274	1478	165
EAA	200	1267	95	1190	1340	127

CLA-participating students appeared to be generally representative of their classmates with respect to entering ability levels as measured by Entering Academic Ability (EAA) scores. Specifically, across institutions, the average EAA score of CLA seniors was only 11 points higher than that of the entire senior class. Further, the correlation between the average EAA score of CLA seniors and their classmates was extremely high ( $r = .94$ ,  $n = 155$  institutions). The pattern for First-year student was similar. The average EAA score of CLA First-year student was only 4 points higher than that of the entire freshman class (1050 versus 1046, over  $n = 153$  institutions), and the correlation between the average EAA score of CLA First-year student and their classmates was similarly high ( $r = .90$ ,  $n = 153$  institutions). These data suggest that as a group, CLA participants were similar to all students at participating schools. This correspondence increases confidence in the inferences that can be made from the results with the samples of students that were tested at a school to all the students at that institution.

**Truman portfolio:** The Truman portfolio has been a part of Truman's assessment program since the 1980's and is now a graduation requirement of all students. One of the current prompts is Critical thinking. It is scored on a 0-3 scale. 2 is labeled "competent". However, this may be misleading, because it is set at the level of a graduating seniors' best work.



*2010 portfolio data*

Number of submissions read: **1158**  
 Median critical thinking : **2**  
 Percent demonstrating Competence: 67%  
 Highest scoring school: **Social and Cultural Studies**  
 Most frequent source (course): **ENG 190**  
 Most frequent source (discipline): ENG  
 Trend from previous year: **Very stable**

In 2010, 67.2% of seniors submitted material judged as demonstrating “competence” or “strong competence.” Less than 5% submitted material judged as demonstrating no critical thinking. Typically, entries evaluated as “none” were creative writing or very short reports displaying neither analysis nor evaluation. The percentage of seniors with submissions judged as competent or showing strong competence has been stable since 2005, with the exception of a higher year in 2006.

Majors Grouped	% competent		
	2008	2009	2010
Arts and Letters	76%	73%	75%
Business	62%	54%	62%
Health science and education	60%	64%	62%
Social and cultural studies	78%	73%	73%
Science and mathematics	67%	68%	63%
All	69%	67%	67%

Below, the means and the percent of students demonstrating competency on the Critical Thinking prompt of the Truman portfolio are grouped by students’ GPA, suggesting that GPA is related to portfolio score, but not strongly.

GPA	Mean	% Dem Comp	Total
4.0	2.06	82%	34
3.76 – 3.99	2.07	77%	193
3.51 – 3.75	1.84	69%	213
3.26 – 3.5	1.80	66%	193
3.01 – 3.25	1.72	62%	169
2.76 – 3.0	1.67	62%	112
2.75 and under	1.81	62%	85
Total	1.82	67%	1009

Students whose majors fall in the schools of Arts and Letters, Social and Cultural Studies, and Science and Mathematics significantly outperform those in the schools of Business and Health Science and Education. No group had more than 5% of submissions demonstrating no competence.

Year	#	Percent	Mean
Fresh	109	11.0%	1.34
Soph	133	13.4%	1.82
Junior	396	39.9%	1.92
Senior	354	35.7%	1.87

Year of submission was supplied by 992 submissions. As given in the table above, the vast majority of submissions were from the later years in college. This is encouraging, because one would hope that students recognize that more advanced critical thinking is likely to occur later in the college career. Submissions produced early in a student's career produced lower scores. Results are skewed further by the low scores typically received by submissions from ENG 190.

Course Type	#	%	Mean
Elect	103	10.9%	1.75
LSP	289	30.6%	1.63
Major	474	50.2%	1.93
Minor	78	8.3%	1.82

About half of the submissions fulfilled assignments for classes in the major, as shown. LSP courses were significantly lower than other submissions, due to the high number of submissions from ENG 190.

Of the items submitted, 20.1% dealt with issues of gender, 25.7% with issues of class, 15.0% with issues of race, and 19.4% with international perspectives. These were higher than in the past, we believe, because students were invited to self-identify whether their submissions met the criteria. In past years, faculty may have missed marking these categorizations.

Students drew from a wide variety of sources for this submission in this category. The table to the left shows those prefixes responsible for 5 or more submissions over the past two years. English leads the way, again owing to the large number of submissions from ENG 190, Writing as Critical Thinking. Omitting that course, JINS overtakes ENG as the most commonly used course prefix.

**National Survey of Student Engagement (NSSE):** Truman participates roughly every two years in the National Survey of Student Engagement. Though student report some higher-level thinking required in class, there is disagreement on campus over whether the relative ratings of higher-order thinking compared to memorization ought to be higher. The next two tables show these rates over time and across major.

**National Survey of Student Engagement (NSSE): Truman Responses over Time**

		First-Year Students				Seniors			
		2004	2006	2008	2010	2004	2006	2008	2010
	Response Option	%	%	%	%	%	%	%	%
Mental Activities: Memorizing facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	Very Little	5	3	3	3	8	5	7	9
	Some	23	27	27	23	24	29	32	31
	Quite a bit	43	42	44	43	25	42	37	37
	Very much	27	29	26	31	24	24	24	23
	Mean	2.95	2.96	2.92	3.01	2.84	2.84	2.79	2.74
Mental Activities: Coursework emphasizes: <b>Analysis</b> of the basic elements of an idea, experience or theory	Very Little	2	1	1	2	2	1	1	1
	Some	22	17	16	17	11	11	11	10
	Quite a bit	43	49	48	46	43	45	43	42
	Very much	34	33	35	35	43	44	45	47
	Mean	3.09	3.13	3.16	3.15	3.28	3.32	3.33	3.35
Mental Activities: Coursework emphasizes: <b>Synthesis</b> and organizing of ideas, information, or experiences into new, more complex interpretations and relationships	Very Little	6	4	3	4	3	3	3	2
	Some	30	26	28	27	21	19	22	19
	Quite a bit	40	45	45	42	43	41	42	38
	Very much	26	25	24	26	32	36	34	41
	Mean	2.85	2.91	2.89	2.91	3.05	3.12	3.06	3.18
Mental Activities: Coursework emphasizes: <b>Making of judgments</b> about the value of information, arguments, or methods	Very Little	9	5	3	4	5	5	4	6
	Some	40	29	30	31	31	25	22	21
	Quite a bit	28	44	46	43	35	41	44	37
	Very much	23	22	22	21	28	29	30	36
	Mean	2.65	2.83	2.86	2.82	2.87	2.95	3.00	3.02
Mental Activities: Coursework emphasizes: <b>Applying</b> theories of concepts to practical problems in new situations	Very Little	4	2	3	2	2	2	3	2
	Some	30	19	21	18	21	16	16	14
	Quite a bit	34	46	43	43	36	40	39	33
	Very much	33	33	33	36	40	41	41	51
	Mean	2.96	3.09	3.06	3.14	3.15	3.21	3.19	3.32
Educational and Personal Growth: Thinking critically and analytically	Very Little	4	3	1	2	1	1	2	1
	Some	15	15	12	12	8	11	9	9
	Quite a bit	40	40	40	40	37	36	35	31
	Very much	41	42	46	47	53	52	53	59
	Mean	3.18	3.21	3.32	3.31	3.42	3.40	3.40	3.48
Number of Respondents		323	715	631	650	293	527	652	654

**Truman Responses by Field of Major**

Question	Response Option	Freshmen							Seniors						
		Arts and Humanities	Biological Sciences	Business	Physical Science	Professional	Social Sciences	Overall	Arts and Humanities	Biological Sciences	Business	Physical Science	Professional	Social Science	Overall
Mental Activities: <b>Memorizing</b> facts, ideas, or methods from your courses and readings so you can repeat them in pretty much the same form	Very Little	5%	0%	4%	6%	5%	4%	3%	16%	5%	7%	9%	4%	5%	9%
	Some	32%	15	16	32	16%	21%	23%	32%	17%	27%	52%	25%	34%	31%
	Quite a Bit	37%	%	%	%	38%	43%	43%	36%	45%	41%	26%	39%	35%	37%
	Very Much	26%	51	49	26	41%	32%	31%	16%	33%	25%	13%	31%	26%	23%
		%	%	%	%	%	%	%							
			34	30	36										
		%	%	%	%										
Mental Activities: Coursework emphasizes: <b>Analysis</b> of the basic elements of an idea, experience or theory	Very Little	2%	2%	2%	0%	1%	5%	2%	1%	0%	0%	0%	1%	1%	1%
	Some	11%	12	22	13	20%	10%	17%	11%	12%	12%	7%	6%	8%	10%
	Quite a Bit	42%	%	%	%	39%	41%	46%	34%	35%	49%	54%	49%	38%	42%
	Very Much	45%	48	54	49	39%	44%	35%	53%	52%	39%	39%	44%	53%	47%
		%	%	%	%	%	%	%							
			38	23	38										
		%	%	%	%										
Mental Activities: Coursework emphasizes: <b>Synthesis</b> and organizing of ideas, information, or experiences into new, more complex interpretations and relationships	Very Little	5%	3%	4%	2%	5%	4%	4%	4%	0%	3%	0%	0%	4%	2%
	Some	21%	16	39	15	24%	28%	27%	12%	23%	29%	17%	15%	20%	19%
	Quite a Bit	38%	%	%	%	46%	36%	42%	33%	42%	36%	43%	45%	27%	38%
	Very Much	37%	60	36	49	25%	32%	26%	51%	35%	32%	39%	39%	49%	41%
		%	%	%	%	%	%	%							
			21	21	34										
		%	%	%	%										
Mental Activities: Coursework emphasizes: <b>Making of judgments</b> about the value of information, arguments, or methods	Very Little	5%	2%	4%	7%	2%	5%	4%	5%	8%	7%	11%	3%	4%	6%
	Some	25%	28	34	39	25%	30%	31%	24%	22%	22%	20%	16%	17%	21%
	Quite a Bit	39%	%	%	%	47%	38%	43%	30%	43%	34%	46%	44%	40%	37%
	Very Much	32%	48	48	39	26%	27%	21%	42%	28%	37%	24%	37%	39%	36%
		%	%	%	%	%	%	%							
			23	13	15										
		%	%	%	%										
Mental Activities: Coursework emphasizes: <b>Applying</b> theories of concepts to practical problems in new situations	Very Little	3%	0%	4%	2%	4%	3%	2%	4%	0%	2%	0%	0%	1%	2%
	Some	18%	13	19	13	12	11%	18%	18%	18%	12%	17%	4%	20%	14%
	Quite a Bit	40%	%	%	%	48%	43%	43%	31%	38%	32%	24%	25%	31%	33%
	Very Much	39%	38	43	36	36%	44%	36%	47%	44%	54%	59%	70%	48%	51%
		%	%	%	%	%	%	%							
			49	33	49										
		%	%	%	%										
Educational and Personal Growth: Thinking critically	Very Little	1%	3%	1%	0%	1%	1%	2%	3%	0%	1%	0%	0%	3%	1%
	Some	9%	3%	15	13	12%	15%	12%	6%	11%	9%	17%	3%	5%	9%

and analytically	Quite a Bit Very Much	45% 46%	45 % 49 %	% 31 % 52 %	% 30 % 57 %	44% 44%	27% 57%	40% 47	23% 68%	31% 58%	39% 51%	17% 65%	37% 61%	25% 67%	31% 59%
Number of Respondents		106	65	67	47	82	81	611	154	66	91	46	71	74	621

Notes: Major

**Graduating Student Questionnaire:** In this survey, each graduating student rates various aspects of their University and curricular experience and their satisfaction with different services on campus. The following table shows outcomes related to well-reasoned arguments, broken up into school.

	University- wide	Arts & Letters	Business	Health Sciences & Education	Science & Mathematics	Social & Cultural Studies
# of respondents	1185	237	214	182	314	230

**6. Please indicate to the best of your knowledge, the number of times you involved yourself in the following activities during the course of the school year**

*6f. Applied the knowledge and skills gained in one discipline to learning in other disciplines*

response	frequency	percentage	%	%	%	%	%	
1-Never			0.5	0.4	0.9	1.1	0.0	0.4
2-Seldom			14.6	9.8	20.7	16.8	14.8	12.3
3-Often			55.7	53.4	58.2	58.7	55.0	55.9
4-Very Often			29.2	36.3	20.2	23.5	30.2	31.3
Mean			3.14	3.26	2.98	3.04	3.15	3.18

**12. How adequately has your major prepared you in each of the following?**

*12f. Ability to apply knowledge in defining problems and solving them*

response	frequency	percentage	%	%	%	%	%	
1-Very inadequate			0.4	0.9	0.5	0.0	0.3	0.4
2-Inadequate			3.0	3.5	3.8	0.6	4.5	1.8
3-Adequate			45.6	47.6	50.2	35.8	47.6	43.9
4-Very Adequate			51.0	48.1	45.5	63.7	47.6	53.8
Mean			3.47	3.43	3.41	3.63	3.42	3.51

*12g. Ability to find information; interpret and apply findings*

response	frequency	percentage	%	%	%	%	%	
1-Very inadequate			0.3	0.9	0.0	0.0	0.0	0.4
2-Inadequate			2.1	2.1	2.4	0.5	3.5	0.9
3-Adequate			41.5	40.6	50	35.2	41.3	40.1
4-Very Adequate			56.1	56.4	47.6	64.3	55.2	58.6
Mean			3.53	3.53	3.45	3.64	3.52	3.57

*12h. Ability to think critically*

response	frequency	percentage	%	%	%	%	%	
1-Very inadequate			0.4	0.9	0.9	0.0	0.0	0.4
2-Inadequate			2.0	2.6	2.4	0.6	3.3	0.9
3-Adequate			37.1	30.8	47.6	34.3	38.1	34.5
4-Very Adequate			60.4	65.8	49.1	65.2	58.6	64.2
Mean			3.57	3.62	3.45	3.65	3.55	3.62

**Alumni Survey:** In this survey, alumni are asked to rate various aspects of their University and curricular experience and their satisfaction with different services on campus. One of these aspects we have data for is critically thinking and its application after Truman.

How adequately do you feel the Liberal Studies Program or co-curriculum education/experiences at Truman were in each of the following?

1 - Very inadequate      2 – Inadequate      3 – Adequate      4 - Very adequate

	Valid	Missing	Mean
Generating topics for writing via critical thinking and discussion	304	21	3.36
Interpreting and critically evaluating ethical and political issues and practices	288	37	3.17
Using mathematics to study assumptions critically, reason logically, and arrive at sound conclusions	289	36	3.15
Think critically	315	10	3.58

**Employer Survey:** The employer survey is parallel to the alumni survey. However, since very few employers respond, these data must be interpreted with caution.

In evaluating your employees, how would you rate the preparedness of Truman State University graduates in each of the following areas?

Averages were taken from as a ratio of: Fair Good and Excellent

	Valid	Missing	Mean
ability to think critically	26	8	3.23
combining knowledge from multiple areas to solve problems	26	8	3.04

## Physically and Emotionally Healthy Lives

### Summary (from the Healthy Living Purple Paper):

Data is plentiful about the emotional and physical health of Truman students. Areas that stood out in the reviewed data include stress and suicidality, lack of physical activity, poor dietary habits and weight management.

1. **Stress** is common but not much higher than reported levels of college student stress across the nation; however, it appears to have a higher impact on academic performance at Truman than at other schools.
  - a. 75% of students stated stress levels have increased since coming to Truman (EBI,2010)
  - b. 54% of students responded "Academics" have "been traumatic or very difficult to handle". (ACHA, Spring 2011)
  - c. The highest factor negatively impacting students' academic performance, as reported by students, was stress (34.3%). Additionally, 23.0% identified anxiety as a negative impact on their academic performance. (ACHA, Spring 2011).
  - d. Top stress sources according to MCHBS survey 2011:
    - i. 79% Academics
    - ii. 51% Finances
    - iii. 47 % Time management
    - iv. 44% Future plans
  - e. Stress impacts academics considerably or a great deal for 25% of Truman students vs. 16% nationally (MCHBS)
  - f. Overall stress and academic stress have a significant positive correlation (.539) (Student Interview Project 2011)
  - g. Academic stress has a significant negative relationship with academic control (-.291) (Student Interview Project 2011)
  - h. Academic stressors falling in moderate stress or higher categories according to the Student Interview Project 2011 include:
    - i. Multiple back to back assignments and tests in different classes (91.2%)
    - ii. Amount of work required in classes (73.7%)
    - iii. Keeping a high enough GPA for scholarships or graduate school (68.4%)
    - iv. Group projects (64%)
    - v. Studying for tests (60.5%)
    - vi. Getting into required/desired classes (58.8%)
  - i. Stress impacts personal life considerably or a great deal for 28% of Truman students vs. 21% nationally(MCHBS)
  - j. 18.7% felt overwhelming anxiety in the last 2 weeks. (ACHA, Spring 2011)
  - k. Stress coping strategies include 62% smiled/laughed, 55% talked with a friend, 55% napped, 53% made lists, 51% exercised (MCHBS)
2. **Suicidal Ideation, Intention, and Attempts**
  - a. 25% of students seeking services at UCS had thoughts of killing themselves. (Counseling Services Annual Report, 2010-2011)
  - b. 8.7 % of students in the Spring 2011 ACHA survey reported seriously considering suicide in the past 12 months.



- c. 17.6 % of students have had suicidal thoughts (MCHBS) (13.4 % nationally)
  - d. 1.3 % of students reported in the Spring 2011 ACHA survey they had attempted suicide within the past 12 months. With a population of approximately 5,900 students, the sample statistics suggest that approximately 77 Truman students thus reported they had attempted suicide within the past 12 months.
  - e. 25.1 % of students in the Spring 2011 ACHA survey felt things were hopeless at some point in the last 12 months. Hopelessness has been consistently identified as a leading risk factor for suicide (Mental Health First Aid, 2009)
  - f. 25.1 % of student in ACHA survey felt things were hopeless at some point in the last 12 months.
3. **Physical activity**- Current recommendations from the American College of Sports Medicine and American Heart Association for adults under the age of 65
- Moderate-intensity cardio or aerobic exercise for at least 30 minutes on 5 or more days per week, or
  - Vigorous-intensity cardio or aerobic exercise for at least 20 minutes on 3 or more days per week
  - Do eight to 10 strength-training exercises, eight to 12 repetitions of each exercise twice a week
- a. 18.6 % of students exercised at a moderate intensity 5 or more days/week for at least 30 minutes. (ACHA, Spring 2011)
  - b. 27.1% did not complete any moderate intensity exercise (ACHA, Spring 2011)
  - c. 31.0 % of students exercised vigorously for at least 20 minutes on 3 or more days/week (ACHA)
  - d. 40.2 % did not complete any vigorous intensity exercise. (ACHA, Spring 2011)
3. **Dietary habits**
- a. Only 6.5% of students eat the recommended 5 servings of fruits and vegetables daily (ACHA, Spring 2011)
  - b. 60.7% of students have only 1-2 servings of fruits and vegetables daily (ACHA, Spring 2011)
4. **Weight Management**
- a. 47.6 % of students are trying to lose weight (ACHA, Spring 2011)
  - b. 10.6 % of students are classified as obese according to BMI (MCHBS, Spring 2011)
  - c. 22.6 % of students are classified as overweight according to BMI (MCHBS, Spring 2011)

Healthy Lives by measure

**National College Health Assessment:** The results of the National College Health Assessment (NCHA) of 2009, give some specific stressors with the level of impact they have on academics for Truman students compared to the national averages. These results reflect 315 Truman students participating in this survey. As the survey was given to over 87,000 students nationwide, it also allows some comparisons across institutions. The NCHA asks students about factors that affect academic performance: behaviors or situations that lead to lower exam grades, course grades, dropped courses, disruption in research or practicum work, etc. Some of this data is displayed below on the table with the Truman's percentage first and the national average in parentheses.

Academic Impacts  
(national comparison data %)

Alcohol Use	6.1% (5.2)	Learning Disability	2.0% (0.4)
Anxiety	21.4% (18.5)	Relationship difficulties	5.8% (6.3)
Attention Deficit/Hyperactive Disorder	2.6% (4.5)	Participation in Extra-curricular Activities	15.5% (9.3)
Chronic illness	3.9% (3.5)	Difficulties Sleeping	23.3% (19.4)
Depression	15.6% (11.6)	Work	8.8% (13.0)
Drug Use	1.3% (1.9)	Roommate Problems	5.8% (6.3)
Homesickness	5.3% (3.9)	Finances	4.5% (6.4)
Internet use/ computer games	17.7% (11.7%)	Eating Disorder	0.6% (1.2)

-32% of Truman respondents reported stress as a significant factor disrupting academic performance, compared to 26.9% nationwide

-27% reported not having experienced stress

**Missouri College Health and Behavior Study:** Moving onward in time and changing surveys to the Missouri College Health and Behavior Survey (MCHBS) of 2010. These results give us a broader sense of not only the source of where stress originates from, but its effects on students compared to the national average. The top

stress sources according to MCHBS are in order as follows: 79% Academics, 51% Finances, 47 % Time management, 44% Future plans.

- 82.4% reported having felt stressed during the past two weeks, with 28.4% saying they felt extremely stressed
- 96.5 % of Truman students reported school as one area of the highest stress, compared to 86.8% statewide.
- Stress impacts personal life considerably or a great deal for 28% of Truman students vs. 21% nationally
- Stress impacts academics considerably or a great deal for 25% of Truman students vs. 16% nationally
- 17.6 % of students have had suicidal thoughts vs. 13.4 % nationally
- 39% of respondents reported that stress has substantially impacted or interfered with their academic lives.

It is unfortunate that Truman student's stress levels are continuously higher than national averages. This data and comparisons are as startling as they are unwanted. The majority of stress that Truman students have stems from academics or school somehow and the stress they experience impacts them in a highly negative manner. We can almost conclude that a vicious circle forming between school and stress; 96.5% of Truman students report school as one area of highest stress and that stress impacts their academic life's substantially for 39% of the respondents. High levels of stress, if not dealt with effectively, are known to contribute to a variety of negative outcomes. In a university setting, these can include lower academic performance, health and well-being, and retention.

**Student Interview Project:** Given the potential for serious problems related to student stress, and existing indicators of high stress levels among Truman students, the 2011 Student Interview Project was therefore designed to:

- (1) measure the extent of self-reported general and academic stress at Truman,
- (2) identify the domains of academic life that students experience as most and least stressful, (3) find out how students explain the levels of stress they experience across different academic domains.

Participants were recruited from a university-wide random sample of 450 undergraduates with introductory letters from the University President's Office and email contacts by student Interview Project team members. Students were assured that their participation was voluntary and that their names would not be reported with their interview or questionnaire data.

Participants first completed a short battery of questionnaires, which included topics of

- (1) overall stress levels, and
- (2) perceived academic stress.

The interview project staff reviewed each participant's academic stress

questionnaire immediately after it was completed, the individual students were asked to talk about the two highest and the two lowest sources of academic stress (or domains) they identified on the survey, and to explain why each category is or is not a major source of stress for them. They were also asked for suggestions for reducing academic stress, and for helping students cope with stress. (Student Interview Project 2010)

Ratings of academic stress categories and correlations with overall stress  
 Participants rated domains on a 7-point scale from not stressful (1) to highly stressful (7).

	Mean	Standard Deviation	Perceived as High Stress category	Perceived as Low Stress category	Correlation with overall stress
<b>Multiple back-to-back assignments and tests in different classes</b>	5.50	1.36	91.2%	8.8%	.451**
<b>Amount of work required in classes</b>	4.51	1.50	73.7%	26.3%	.443**
<b>Keeping a high enough GPA for scholarships and grad school</b>	4.45	2.04	68.4%	31.6%	.228*
<b>Group Projects</b>	4.04	1.61	64%	36%	.172
<b>Studying for Tests</b>	4.32	1.55	60.5%	39.5%	.433**
<b>Getting into Required/Desired Classes</b>	4.10	2.03	58.8%	41.2%	.289**
<b>Co-curricular or extra-curricular involvement</b>	3.17	1.80	41.2%	58.8%	.269**
<b>Balancing work and classes</b>	2.61	2.32	39.5%	60.5%	.253**
<b>Effectiveness of teaching</b>	2.85	1.58	31.6%	68.4%	.289**
<b>Participating in class discussions</b>	2.61	1.57	28.1%	71.9%	.135
<b>Consistency of BA/BS and curricular requirements across majors</b>	2.35	1.79	28.1%	71.9%	.194*
<b>Communication by faculty about expectations and due dates of assignments</b>	2.70	1.39	25.4%	74.6%	.298**
<b>Academic Advising</b>	2.40	1.46	23.7%	76.3%	.225*
<b>Getting timely feedback on homework and tests</b>	2.49	1.42	21.9%	78.1%	.244**
<b>Faculty Availability</b>	2.08	1.32	14.9%	85.1%	.238*

While many students express concern about the levels of stress they are dealing with, most students recognize that hard work and some degree of stress are part and parcel of academic life. Areas of academic life (domains) that more than half of participants

identified as creating high levels of for students are:

1. multiple back-to-back assignments
2. the amount of work required in classes
3. keeping a high enough GPA for scholarships and grad school
4. studying for tests
5. getting into classes.

The explanations students offer for why these areas are highly stressful generally fall into two different groups; 1) those that emphasize faculty and 2) those that emphasize student responsibility. For the most part, Truman students are willing to take responsibility for engaging in stress management by making good use of their time, being well organized and having a good attitude, and by finding outlets for their stress through exercise, and social activities. However, participant comments suggest that students who are making their best effort to manage their academic stress can only balance the multiple demands they face if their professors are willing to work with them by communicating clear expectations and requirements, being flexible in response to overlapping test schedules and due dates, and providing adequate materials and study resources.

Areas frequently associated with low stress levels include:

1. effectiveness of teaching
2. participating in class discussions
3. faculty communication
4. advising
5. feedback and availability.

Student attributions for low levels of stress in these domains, as well as explanations for why keeping a high GPA and studying for tests create little stress for some participants, also tend to cluster in two groups: 1) those that emphasize individual self-confidence and a sense of academic control or perceived ability to achieve positive outcomes with hard work; 2) those that emphasize positive interactions with faculty. In other words, self-confidence, academic control, and good relationships with faculty seem to play particularly important roles in reducing student stress. Reducing academic stress may therefore call for finding ways of increasing students' perception of choice and control over their academic lives and building confidence in their ability to work hard and succeed.

**University Counseling Services:** One thing that Truman students do have available to them, which was not mentioned by suggestions of the Student Interview Project on campus, is the University Counseling Services. They provide help for a variety of different issues that Truman students might have difficulty with. They create a report every year that provides certain important data that is unique to seeing the health status of Truman students. This data gives a glimpse into what type of students are reaching out for help and receiving it from the UCS.

UCS provided face-to-face counseling services to 597 students in 2010, which represents 10% of the student body. This number only includes students who officially completed a screening and does not include any direct services provided like crisis intervention, outreach services or consultation for students who did not complete a screening. This was the highest number of individual students served in one year in the history of UCS, which opened in 1992 and represents a 12.9% increase from last year's record total.

The range of counseling sessions individuals attended is important to take into consideration. In keeping with our time-limited model of service delivery, the average number of counseling visits (including intake per student was 5.35, and approximately 87% of clients were seen for 10 or fewer sessions.

<b>Session Utilization</b>	
Screening Only	23%
2-5	41%
6-10	23%
11-15	9%
16+	4%

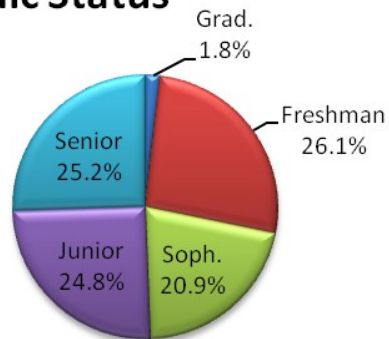
#### Client Demographics

**Emotional Support:** When asked if they get the emotional help and support from their family, 20.4% strongly or somewhat disagreed. When asked if they get the emotional support from their friends and acquaintances, 13% strongly or somewhat disagreed.

**Financial Situation:** When asked to describe their financial situation, 32.2% described their current financial situation as always or often stressful, which is a slight increase from last year, and 19.5% described their financial situation growing up as always or often stressful, which was a decrease from last year.

#### *Year in School*

## Academic Status

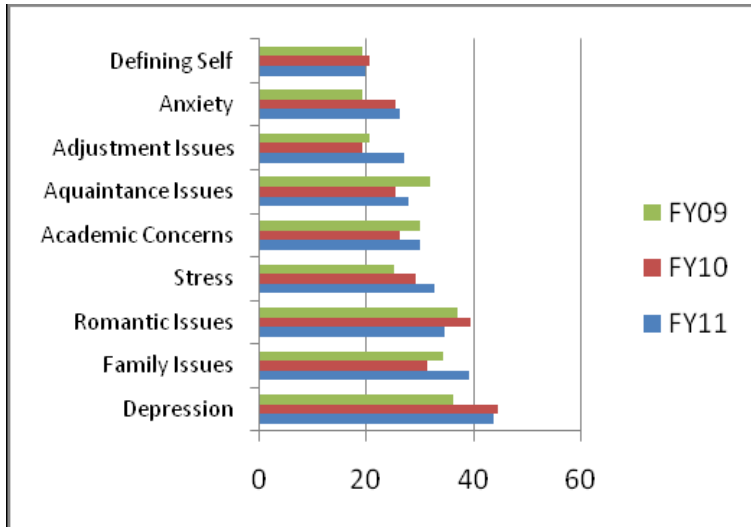


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### Client Concerns

-The following graph displays the top nine categories of issues that the clinicians at UCS determined were addressed in counseling after counseling was complete. The list contains both developmental issues and common mental-health problems. These are not mutually exclusive categories (i.e., students can and often are represented in more than one category). The following reflects the percentage of clients that utilized UCS services with that issue.

The blue bar represents 2010/11 data, the red bar represents 2009/10 data, and the green bar represents 2008/09 data. The data is listed from lowest percentage to highest for the 2010/11 year. The order has changed but the top nine categories have remained the same.



Student Recreation Center Usage

Student Recreation Center Usage Reports by Gender January 1 through December 31				
Year	Male	Female	Unk	TOTAL
2002	72,085	86,468	15,376	173,929
2003	78,969	91,486	9,763	180,218
2004	83,224	94,642	24	177,890
2005	74,776	92,189	4	166,969
2006	74,648	89,836	4	164,488
2007	72,472	83,379	49	155,900
2008	77,442	88,117	1	165,560
2009	77,527	86,692	46	164,265
2010	82,547	88,082	27	170,656

At Truman State, the female to male ratio remains somewhat stable around 6:4. Meaning the total population of students is 60% females. The chart above shows how the



count for females as always being a higher count than males, but not as large above as the schools ratio predicts. This is not the results we want because it indicates a small amount of the female population is using the rec center as opposed to the males population; having females being 60% of the total we would like to see a larger difference in the numbers. From the years of 2002-2006 the percentage use of females was stable around 55%, still being under the 60% we want. Worse still is the years of 2006-2010 the percentage of female usage has decreased from 55% to 52%.

<b>Truman State University Student Recreation Center</b>	<b>Fall Semester</b>	<b>Spring Semester</b>	<b>Total</b>
<b>Total Patron Counts</b>			
<b>2003-2004</b>	<b>78,414</b>	<b>91,133</b>	<b>169,547</b>
<b>2004-2005</b>	<b>73,013</b>	<b>85,210</b>	<b>158,223</b>
<b>2005-2006</b>	<b>69,397</b>	<b>84,149</b>	<b>153,546</b>
<b>2006-2007</b>	<b>66,509</b>	<b>79,906</b>	<b>146,415</b>
<b>2007-2008</b>	<b>64,729</b>	<b>83,697</b>	<b>148,426</b>
<b>2008-2009</b>	<b>69,643</b>	<b>87,672</b>	<b>157,315</b>
<b>2009-2010~</b>	<b>64,193</b>	<b>89,467</b>	<b>153,660</b>
<b>2010-2011</b>	<b>68,609</b>	<b>85,914</b>	<b>154,523</b>

Continuously every year, there is a large increase of usage of the rec center from the fall to the spring semester. This is unwanted because students should be exercising the same amount all year round. This increase from fall to spring could be the result from students needing to “settle in” and they do not have the schedule mapped out for working out and/or they are unaware of the rec center as a resource for fitness.

## **Leadership**

**Summary (from the Leadership Purple Paper):**

#### **Portfolio - Transformative Experiences Questionnaire**

- 34% (2010) and 35.3% (2011) of students reported having leadership experiences.
- Students indicated that leadership experiences were very transformative, rating them 2.5 (2010) and 2.6 (2011) on a 0-3 scale (0 = "not at all transformative", 3 = "transformative").

#### **GSQ**

- Question 13a asks students to rate themselves on their leadership ability on a scale of 1 (low) to 4 (high).
- The means over the past 5 years (FY06 to FY10) have been consistently between 3.36 and 3.38, with approximately 47% rating themselves as a '4' and 91% as either a '3' or a '4'. The overall mean over the 5 years was 3.37.

#### **Alumni Survey**

- Question 25d asks how the Truman experience provided them with the knowledge and skills necessary for successfully exercising leadership on a scale of 1 (Very Inadequately) to 4 (Very Adequately).
- Results for FY06 to FY10 were fairly consistent, ranging from a low of 3.37 to a high of 3.44 with a mean of 3.41. Approximately 49.5% provided a rating of '4' and 92.4% as either a '3' or a '4'.

#### **Educational Benchmarking Inc. (EBI)**

- Various surveys from EBI are used on campus. The following questions use a 7-point Likert-scale with to measure satisfaction, with 1=Very Dissatisfied or No agreement, 4=Neutral, Satisfaction or Agreement, and 7=Very Satisfied or Extreme Agreement.
- To what extent do College Union activities: Provide opportunities for you to assume a leadership role. (3.4 – 2005, 3.39 – 2006, 3.61 – 2009)
- To what extent do College Union activities: Provide leadership training (3.27 – 2005, 3.19 – 2006, 3.44 – 2009)
- To what extent has attending student activities: provided opportunities for you to assume a leadership role (4.92 – 2010)
- To what extent has attending student activities: provided leadership training (4.6 – 2010)
- To what degree has your fraternity/sorority experience enhanced your ability to: assume positions of responsibility (5.84 – 2005, 5.97 – 2006)
- When compared to other participating institutions, Truman ranks in the bottom quartile on the first three items. Truman ranks in the second or third quartile on the remaining items.

#### **Other Sources**

- Cooperative Institutional Research Program (CIRP) Fall 2009 survey indicated that 61% of Truman freshmen rated themselves as "Above Average" in Leadership ability.
- 2010 Employer Survey indicated that 84.6% of the valid responses rated Truman graduates as either "Good" or "Excellent" in exercising leadership.

### Leadership by measure

**Educational Benchmarking Inc.:** Several surveys from EBI are used on campus, the student union survey most recently. The survey is distributed to a sample of students via email. The following questions use a 7-point Likert scale to measure satisfaction, with 1=Very Dissatisfied or No agreement 4=Neutral, Satisfaction or Agreement 7=Very Satisfied or Extreme Agreement.

- To what extent do College Union activities: Provide opportunities for you to assume a leadership role. (3.4 – 2005, 3.39 – 2006, 3.61 – 2009)
- To what extent do College Union activities: Provide leadership training (3.27 – 2005, 3.19 – 2006, 3.44 – 2009)
- To what extent has attending student activities: provided opportunities for you to assume a leadership role (4.92 – 2010)
- To what extent has attending student activities: provided leadership training (4.6 – 2010)

When compared to other participating institutions, Truman ranks in the bottom quartile on the first three items. Truman ranks in the second or third quartile on the remaining item. The university is also planning to use the ACUI/EBI Student Leadership Assessment survey in the future to further explore some of these issues.

**Graduating Student Questionnaire:** The GSQ also has questions that allow students to rate their own leadership skill.

FY10    FY09    FY08    FY07    FY06

13. Using the descriptions below, how would you rate yourself on a scale from 1 (low) to 4 (high)?

13a Leadership ability

N	1180	1271	1056	1165	1132
Mean	3.37	3.36	3.36	3.37	3.38
1-Low	0.7	1.7	1.4	0.9	1.4
2	7.6	7.5	7.3	8.9	7.2
3	45.3	43.7	44.8	42.7	43.2
4-High	46.4	47.1	46.5	47.5	48.2

Alumni Survey

How adequately do you feel the Liberal Studies Program or co-curriculum education/experiences at Truman were in each of the following?

1 - Very inadequate    2 – Inadequate    3 – Adequate    4 - Very

adequate

	Valid	Missing	Mean
Understanding citizenship and leadership in its broadest sense	287	38	3.09
Exercise leadership	310	15	3.41

**Employer Survey:** The Employer survey asks the question “In evaluating your employees, how would you rate the preparedness of Truman State University graduates in each of the following areas?”. Again, as the response rate was low, these data should be interpreted with caution.

Averages were taken from as a ratio of: Fair Good and Excellent

	Valid	Missing	Mean

exercising leadership	26	8	3.12
decision-making skills	26	8	3.04
making informed and ethical decisions	26	8	3.12
ability to adapt to novel situations	26	8	3.04

**Truman portfolio:** Through a questionnaire on transformative experiences, students have reported that leadership positions have been very transformative. The questionnaire had students report the leadership positions they held. The responses were then rated on a 0 – 3 scale, 0 being students who reported holding a leadership position but did not demonstrate the leadership in their description while the score of 3 was given to students demonstrating great amounts of leadership. The table below shows how many students participated in leadership opportunities while at Truman within their indicated School from their major. The percentage of students reporting leadership participation was pretty even across all majors. It should be noted that while the Interdisciplinary Studies (IDS) school indicates that 50% of students participated in leadership opportunities, that there are only 6 students in this school. The School of Business had the next highest reporting at 41% of students taking part in leadership positions. The school reporting the lowest percentage of students participating in leadership was the School of Health and Science Education at 23%. Out of the total number of students who completed the transformative experience questionnaire, 34% reported having a leadership position.

School	Student Reports		Total	% demonstrating Leadership
	No Leadership	Leadership		
Arts and Letters	96	48	144	33%
Business	86	60	146	41%
Health Sciences & Education	73	22	95	23%
Interdisciplinary Studies	3	3	6	50%

Social and Cultural Studies	116	50	166	30%
Science and Math	140	76	216	35%
<b>Total</b>	<b>514</b>	<b>259</b>	<b>773</b>	<b>34%</b>

## **Transformative Experiences**

### Summary of Transformative Experiences (From the Purple Paper)

- 86% of students report engaging in a traditionally transformative experience, and 65% of students were engaged in high impact educational experiences in FY11.
- 

### Transformation by measure

**High Impact Educational Experiences (HIEEs):** The Coordinating Board of Higher Education in Missouri has requested that public institutions track the number of high-impact experiences in which students participate. These include capstone experiences, student research, service learning, etc. In FY10, Truman's percentage was 52.0% in FY11 it was 65.6% . This increase likely reflects better measurement. As the measurement is refined, further increases are expected over the short term.

**NSSE:** The National Survey of student engagement also asks students to rate activities that might be considered transformative. These data show that we are similar to COPLAC schools, but often somewhat behind all liberal arts schools.

To what extent has your experience at this institution contributed to your knowledge, skills, and personal development in the following areas?

1: Very Little

4: Very Much

1. Thinking critically and analytically

2008			
Year	Truman	COPLAC	Lib Arts
First Year	3.32	3.23	3.40
Seniors	3.40	3.40	3.58
2010			
Year	Truman	COPLAC	Lib Arts
First Year	3.31	3.22	3.35
Seniors	3.48	3.40	3.49

2. Understanding yourself

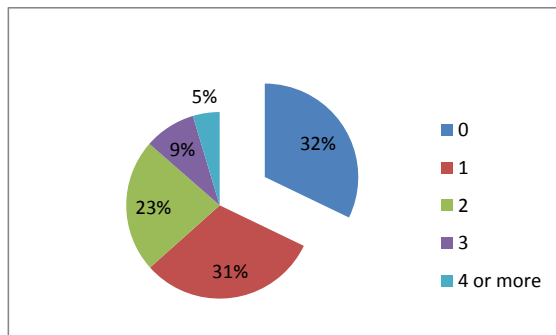
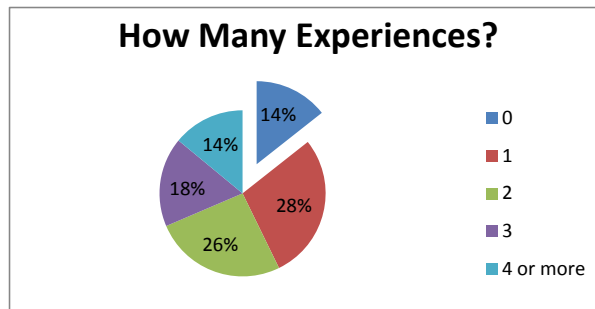
2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.72	2.81	2.93
Seniors	2.79	2.84	3.07
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.71	2.79	2.89
Seniors	2.81	2.86	2.97

3. Solving complex real-world problems

2008			
Year	Truman	COPLAC	Lib Arts
First Year	2.61	2.67	2.74
Seniors	2.65	2.70	2.82
2010			
Year	Truman	COPLAC	Lib Arts
First Year	2.60	2.64	2.75
Seniors	2.76	2.75	2.82

**Truman portfolio:** When graduating seniors complete the Truman portfolio, they are also asked to complete a transformative experiences questionnaire. Following are results.

- 86% of students report participation in at least one activity on the list.
- 14% indicated not participating in any transformational experiences.
- 14% of respondents also reported participating in 4 or more experiences they considered to be transformational.



When asked about the **quality** of those experiences, 32% did not report any of their experiences at Truman as transformational, while roughly that same number reported having one transformational experience at

Truman.

Preliminary analysis of the revised instrument shows:

- 1) 80% of students report transformational experiences while at Truman.
- 2) Study Abroad continues to be reported as particularly transformational.
- 3) On-campus Leadership opportunities and course-embedded experiences show transformational reports similar to study abroad for some students.
- 4) Research experiences and Service learning experiences are less consistent in transformational opportunities.

	<b>% Reporting</b>	<b>Avg. Rating (0-3 scale)</b>
Study Abroad	21%	2.7
Service Learning	23%	2.0
Research	26%	2.2



Internship	24%	2.5
Leadership	35%	2.5
Student-led	7%	2.3
Course*	28%	2.8
Other*	8%	2.8

Current limitations of the instrument include:

- 1) Students who skip the TEQ entirely are sometimes indistinguishable from those who report no transformational activities. This may be as many as 5% of the students who graduated in the spring.
- 2) For “Course” and “Other” only those students with transformational experiences give a report, so average ratings are artificially high.
- 3) Terms were not fully defined, so students may have different ideas of “research,” “Service-learning,” and other terms used in this study.
- 4) Preliminary analysis has found differences in responses by gender, major, and GPA/ACT score.
- 5) Eighty-two percent of women and seventy-five percent of men report participation in a transformational activity throughout their time at Truman. Two-thirds of women and one-half of men report participation in one of the “big four” experiences, study abroad, service learning, research, and internships

	<b>Very Transformative</b>	<b>None / Little</b>	<b>N</b>
Study Abroad	78%	2.5%	159
Service Learning	35%	25%	178
Research	45%	20%	203
Internship	65%	8%	184
Student-Led	60%	22%	50
Learning			
Leadership	60%	8.8%	268
Course	78%	N/A	218
Other T.E.	81%	N/A	60

Overall, students were quite pleased with their transformational experiences. Over two-thirds of responses included detailed descriptions of their experiences and why they are transformational. Service learning and research experiences were less consistent in leading to reported transformation; this could be due to a wide range of activities within those umbrellas or a lack of clarity regarding the definition of those experiences. Student-led learning had a high number of students reporting both especially high and especially low responses from participating students.