

**To: Traditional Learner Subcommittee of Strategic Self Study**

**From:** Anne McNabb

**Subject: Analysis of survey data from a variety of sources in relation to Educational Goals**

1/12/97

This report compiles some of the Outcomes Assessment information collected by John Muffo's office. One of our key interests in this data was to determine whether our lists of presumed "Needs" for education (as phrased by the University, employers, students and parents) were congruent with other sources of information. The data are given within the context of the lists of needs we phrased. I've already sent you a separate report on the computer relevant information from surveys and Barbara Pendergrass and I are asking John M for additional cross referencing of that information against gender, race, and QCA (to the extent this information is available).

In Section 1 below (Needs defined by the University), the survey data are only useful for determining the extent to which a need is accomplished (e.g. graduation within a certain time, retention of students, etc) or the extent to which students perceive they have developed regarding an educational goal of the University (e.g. critical thinking, problem solving).

Section 3 (Needs defined by students) contains the most useful information. We wanted to know if our list of presumed student needs fitted with what the students were saying. Here are the ones we listed, rank ordered on that basis (most important first). Note that there isn't any information about some of the needs we listed (e.g. safety on campus, communication with parents).

1. Vocational needs:

a. develop skills and knowledge for profession Ext/very important 81.6%, Imp. 14.7%

b. explore career options and establish goals " " " 84.4%, " 12.2%

2. Improve intellectual skills (critical thinking, problem solv) " " " 88.9%, " 9.7%

writing skills " " " 75.5%, " 17.8%

speaking and presentation skills " " " 76.9%, " 17.5%

3. Personal development

a. knowledge for con't growth and self development " " " 80.4%, " 13.8%

b. personal/social maturation " " " 79.1%, " 15.7%

4. To become a good citizen

self understanding and service to society " " " 76.8%, " 16.2%

5. The Collegiate experience (extracurricular) " " " 44.7%, " 32.7%

6. Preparation for graduate or professional school Ext/very important 39.3%, imp. 23.3%

7. Development of leadership skills Need lot/moderate help 33.9%, little 38.2%

**Survey name abbreviations:**

ES = entering students that attend orientation (almost exclusively 1st yr, few transfers)

GS = graduating seniors (importance of goals and how well those goals were achieved)

A = alumni

T = college activities survey (includes time expenditure) 3 yr cycle of 450-600 students

S = student opinion survey (college environment) " " "

N = needs assessment survey " " "

## EDUCATIONAL GOALS OF/FOR TRADITIONAL LEARNERS:

**1. As defined by the University.** (list generated by committee but not ranked in order of importance).

### (a) to graduate in 4-6 years.

- overall 6 yr graduation rate for the U: students entering 1989, graduation by 1995 was 73% (4285 students). The rate for different colleges at Tech ranged from 67-77%. (IRPA 95-96 #19)
- John Muffo can supply long range data showing that this graduation rate at Tech has been very stable and that it is higher than national averages (figures in 60-65% range). As a land grant U, Tech is somewhat unusual in having selective entrance standards rather than open admissions. This is a big factor in the graduation rates.

### (b) to continue to enroll and make progress toward degree.

- year to year return rates are about 85% (IRPA data)
- detailed analysis of reasons why students don't return to Tech was prepared for the Provost by the Center for Survey Research (undergrads enrolled in fall 94 who did not return in fall 95; survey of 592 students at a variety of class levels). - I haven't tabulated this one yet.

- student opinion information: (GS #47)

The grade requirements for remaining in school after the freshman and sophomore years are appropriate.

strongly agree/agree	58.6%		
tend to agree	21.5%	all agree categories	80.1%
no opinion	11.5%		
tend to disagree	3.7%		
disagree/strongly disagree	3.0%	all disagree categ.	6.7%

### (c) to prepare for a career.

#### T - section on the College Environment

Fifth question - Emphasis on the personal relevance and practical values of courses.

Strong emphasis (5-7)	84.2%
Weak emphasis (1-3)	20.4%

#### T - Estimate of gains section (estimate of the extent to which you have gained or made progress)

First q on left- Gain in vocational training (knowledge and skill applicable to a specific job).

Very much	17.4%
Quite a bit	32.1%
Some	33.4%
Very little	15.8%

Third q on left -Gain in information relevant to a career.

Very much	21.3%
Quite a bit	46.4%
Some	26.8%
Very little	4.2%

**(d) to prepare for life-long learning (I've included critical thinking and problem solving in this one).**

T - Section on the College Environment (emphasis the University puts on each; scale with 7 being the strongest emphasis)

First question -Development of academic, scholarly and intellectual qualities.

Strong emphasis (5-7)	84.2%
Weak emphasis (1-3)	4.6%

Third question - Emphasis on being critical, evaluative and analytical.

Strong emphasis (5-7)	79.6%
Weak emphasis (1-3)	6.1%

T - Section on Estimate of Gains

Seventh q on right - Gains in ability to think analytically and logically.

Very much	24.6%
Quite a bit	39.3%
Some	28.8%
Very little	6.2%

Ninth q on right Gain in ability to put ideas together, to see relationships, similarities and differences between ideas.

Very much	19.1%
Quite a bit	47.5%
Some	28.1%
Very little	4.0%

Tenth q - Gain in ability to learn on your own, pursue ideas, and find information you need.

Very much	29.2%
Quite a bit	43.5%
Some	22.6%
Very little	3.3%

**(e) to prepare for graduate or professional study.**

T - Estimate of gains section.

Second q on left - Gain in acquiring background and specialization for further education in some professional, scientific or scholarly field.

Very much	19.8%
Quite a bit	38.2%
Some	33.8%
Very little	6.8%

**(f) to fulfill goals in general education.**

GS #51 The U-wide Core Curriculum should continue to be required for all undergraduate students.

Strongly agree/agree	40.0%
Tend to agree	24.4%
No opinion	10.9%
Tend to disagree	12.6%
Disagree/strongly disagree	10.8%

T Estimate of Gains section.

Third q on left - Gaining a broad general education about different fields of knowledge.

Very much	13.8%
Quite a bit	43.1%
Some	36.7%
Very little	5.3%

**(g) to prepare to contribute to society**

**(h) to understand global society.**(stated as a Core Value)

T Estimate of Gains section.

Ninth q on left - Gains in becoming aware of different philosophies, cultures and ways of life.

Very much	15.2%
Quite a bit	35.8%
Some	30.8%
Very little	16.3%

First q on right - Gains in understanding other people and the ability to get along with different kinds of people.

Very much	28.6%
Quite a bit	45.7%
Some	21.8%
Very little	2.9%

**(i) to have integrated knowledge across disciplines.**

**(j) to prepare for deep work in a specialty.**

**(k) personal growth and maturation.**(part of the Core Value about educating the whole person?)

T Estimates of Gain section.

10th q on left - “developing your own values and ethical standards” and

11th q on left - “understanding yourself - your abilities, interests and personality”.

**(l) to produce good alumni.**

**\*(m) computer literacy** (see separate report on computer related issues)

T Estimate of gains section -

8th on left - “acquiring familiarity with the use of computers.

**2. As defined by external constituencies (employers, business, industry, society)**

John Muffo has some general information in this area from the Outcomes Assessment info from depts.

Janice has surveys of employers from Placement.

### 3. As defined by students and parents.

#### Students:

##### (a) vocational outcomes.

ES #28 In deciding to go to college, how important was “to be able to get a better job”.

GS #7 Gain knowledge and develop skills that apply to a specific profession.

Extremely/very important	81.6%	definitely/largely achieved	66.1%
Important	14.7%	moderately achieved	25.5%
Somewhat important	2.1%	small achievement	6.0%
Not important	0.7%	did not achieve	1.3%

GS # 17 Understanding of professional and ethical standards.

Extremely/very important	67.8%	definitely/largely achieved	57.4%
Important	22.0%	moderately achieved	29.0%
Somewhat important	5.5%	small achievement	9.3%
Not important	1.5%	did not achieve	1.3%

N section on career and life goals. Importance of:

#1 - To have a steady job.

Very/moderately important	96.4%
Somewhat important	2.7%
Not important	0.5%

#3 - To be recognized as an expert by colleagues in my field of study.

Very/moderately important	65.9%
Somewhat important	24.3%
Not important	9.2%

#6 - To own and operate my own business.

Very/moderately important	37.6%
Somewhat important	27.1%
Not important	34.8%

N - section on educational and personal needs.

Learning about job opportunities.

Need lot/medium amount of help	69.7%
Need a little help	21.7%
Need no help	7.4%

Learning more about educational requirements.

Need lot/medium amount of help	48.9%
Need a little help	34.8%
Need no help	14.4%

Arranging to discuss my career interests.

Need lot/medium amount of help	59.9%
Need a little help	27.2%
Need no help	10.8%

Obtaining job experience in my area.

Need lot/medium amount of help	69.2%
Need a little help	19.9%
Need no help	9.2%

Developing effective job seeking skills.	
Need lot/medium amount of help	58.0%
Need a little help	31.0%
Need no help	9.2%

**(b) safety and well-being.**

**(c) maintaining contact between students and parents.**

**(d) personal and social maturation.**

GS#4 Improve personal skills (self reliance and self confidence).			
Extremely/very important	79.1%	definitely/largely achieved	70.3%
Important	15.7%	moderately achieved	22.0%
Somewhat important	3.0%	small achievement	5.1%
Not important	1.0%	did not achieve	0.8%

GS # 14 Development of personal values and a code of ethics.			
Extremely/very important	75.4%	definitely/largely achieved	71.8%
Important	16.7%	moderately achieved	20.1%
Somewhat important	4.2%	small achievement	4.8%
Not important	3.2%	did not achieve	2.9%

N -Educ and personal needs section  
 #34 - identifying strengths and weaknesses.  
 #35 developing personal values.  
 #36 learning how to handle stress.  
 #37-46 - all self development related.

**T - Estimate of Gains section**

Gain in understanding yourself.

Very much	32.5%
Quite a bit	40.7%
Some	18.7%
Very little	7.0%

Gain in developing own values and ethics.

Very much	25.5%
Quite a bit	36.5%
Some	27.9%
Very little	8.6%

**Needs Assessment Survey.**

Identifying my strengths and weaknesses.

Need lot/medium amount of help	26.1%
Need a little help	39.6%
Need no help	33.0%

Developing personal values.

Need lot/medium amount of help	10.1%
Need a little help	31.7%
Need no help	56.7%

Learning how to handle stress and anxiety.	
Need lot/medium amount of help	32.0%
Need a little help	37.5%
Need no help	29.5%

Expressing my own views and opinions.	
Need lot/medium amount of help	17.3%
Need a little help	30.7%
Need no help	51.0%

Developing confidence in myself.	
Need lot/medium amount of help	24.2%
Need a little help	35.6%
Need no help	39.0%

Learning how to make decisions effectively.	
Need lot/medium amount of help	26.5%
Need a little help	38.2%
Need no help	34.1%

Learning how to solve personal problems.	
Need lot/medium amount of help	20.2%
Need a little help	37.5%
Need no help	40.8%

Becoming more self reliant.	
Need lot/medium amount of help	16.2%
Need a little help	34.8%
Need no help	47.6%

Learning how to work effectively on my own.	
Need lot/medium amount of help	15.8%
Need a little help	31.0%
Need no help	51.9%

Managing my time more effectively.	
Need lot/medium amount of help	38.2%
Need a little help	35.3%
Need no help	25.7%

**(e) the “collegiate experience”.**

GS #6 Participate in extracurricular activities.

Extremely/very important	44.7%	definitely/largely achieved	45.8%
Important	32.7%	moderately achieved	28.2%
Somewhat important	16.2%	small achievement	19.2%
Not important	6.1%	did not achieve	6.4%

**(f) leadership opportunities.**

Needs Assessment Survey.

Developing my leadership skills.

Need lot/medium amount of help	33.9%
Need a little help	38.2%
Need no help	26.4%

Items from “Clubs and Organizations section of T.

Looked in the student newspaper for notices about campus events and student organizations.

Very often	15.6%
Often	27.5%
Occasionally	41.5%
Never	14.3%

Attended program put on by student group.

Very often	12.3%
Often	19.1%
Occasionally	49.5%
Never	18.2%

Read or asked about club or organization.

Very often	7.9%
Often	20.2%
Occasionally	54.3%
Never	16.5%

Attended meeting of club or organization.

Very often	23.1%
Often	16.7%
Occasionally	32.5%
Never	26.4%

Voted in student election.

Very often	8.1%
Often	9.2%
Occasionally	22.4%
Never	59.3%

Discussed politics and issues.

Very often	5.9%
Often	10.5%
Occasionally	37.1%
Never	43.7%

Worked in some student organization.

Very often	15.4%
Often	8.4%
Occasionally	14.7%
Never	60.7%

Discussed success or failures of meetings.

Very often	10.3%
Often	11.0%
Occasionally	24.6%
Never	53.2%

Worked on a committee.

Very often	13.8%
Often	9.0%
Occasionally	13.8%
Never	62.0%



Met with faculty advisor of club.

Very often	6.6%
Often	5.7%
Occasionally	13.4%
Never	73.2%

**(g) become good citizens.**

ES#36 Question about attitude: Importance of influencing the political structure; influencing social values; helping others who are in difficulty; involvement in programs cleaning up the environment; participating in a community action program; helping to promote racial understanding; keeping up to date with political affairs; becoming a community leader.

GS#1 self understanding and service to society.

Extremely/very important	76.8%	definitely/largely achieved	67.9%
Important	16.2%	moderately achieved	26.6%
Somewhat important	5.2%	small achievement	4.1%
Not important	1.4%	did not achieve	0.7%

GS #5 Increase my knowledge of different philosophies, cultures, lifestyles.

Extremely/very important	46.2%	definitely/largely achieved	40.2%
Important	30.1%	moderately achieved	38.4%
Somewhat important	16.7%	small achievement	17.5%
Not important	6.5%	did not achieve	3.5%

**T - Estimate of gains section.**

Gain in knowledge about the world.

Very much	8.4%
Quite a bit	16.9%
Some	40.0%
Very little	33.6%

**N- career and life goals section.** Importance of:

#7 - To be active in politics.

Very/moderately important	19.9%
Somewhat important	29.3%
Not important	50.5%

**(h) decision making about life.**

GS #3 Explore career options and establish career goals.

Extremely/very important	84.4%	definitely/largely achieved	52.6%
Important	12.2%	moderately achieved	33.0%
Somewhat important	2.6%	small achievement	12.5%
Not important	0.5%	did not achieve	1.6%

**N- Educ and personal needs section.** Importance of:

#1 Deciding what to do with my life.

Need lot/medium amount of help	32.7%
Need a little help	37.7%
Need no help	27.9%

#2 Identifying career areas.	
Need lot/medium amount of help	38.6%
Need a little help	33.9%
Need no help	25.7%

**(i) social connections and connectedness.**

T - see section on personal experiences and on student acquaintances.

**(j) variety of opportunities.**

**(k) good education (include good grades)**

ES #28 In deciding to go to college, how important was “to learn about things that interest me”.

GS#48 Virginia Tech has an image as a strong academic institution.

Strongly agree/agree	64.6%	
Tend to agree	25.4%	all agreement 90.0%
No opinion	4.6%	
Tend to disagree	3.5%	
Disagree/strongly disagree	1.4%	

GS #10 Importance of being able to write well.

Extremely/very important	75.5%	definitely/largely achieved	56.3%
Important	17.8%	moderately achieved	33.6%
Somewhat important	5.6%	small achievement	7.9%
Not important	0.7%	did not achieve	1.7%

GS #16 Importance of ability to speak well and give oral presentations.

Extremely/very important	76.9%	definitely/largely achieved	52.4%
Important	17.5%	moderately achieved	31.2%
Somewhat important	4.3%	small achievement	13.5%
Not important	0.8%	did not achieve	2.2%

**N- Educ and personal needs section**

#9-13 are about services needed to facilitate obtaining a good education.

Selecting courses necessary for my program.

Need lot/medium amount of help	18.7%
Need a little help	40.2%
Need no help	34.4%

Getting counseling about my educational plans.

Need lot/medium amount of help	27.5%
Need a little help	39.9%
Need no help	27.1%

Getting remedial/tutorial assistance.

Need lot/medium amount of help	12.7%
Need a little help	23.8%
Need no help	44.3%

Coping with academic difficulties.

Need lot/medium amount of help	17.5%
Need a little help	22.3%
Need no help	38.7%

Learning about educational opportunities.

Need lot/medium amount of help	48.6%
Need a little help	29.3%
Need no help	15.1%

**(l) freedom.**

ES #28\_In deciding to go to college, how important was “wanted to get away from home”.

**(m) expect to be treated as a consumer.**

**(n) skills for lifelong learning.**

GS # 20 Gain knowledge for continued growth and self-development.

Extremely/very important	80.4%	definitely/largely achieved	71.0%
Important	13.8%	moderately achieved	21.5%
Somewhat important	4.1%	small achievement	5.4%
Not important	0.9%	did not achieve	1.3%

**T- Estimate of gains section.**

Gain in ability to learn on own.

Very much	29.2%
Quite a bit	43.5%
Some	22.6%
Very little	3.3%

**\*(o) preparation for graduate or professional school.**

ES #16 What is the highest academic degree that you intend to obtain?

GS #8 Prepare for graduate or professional school.

Extremely/very important	39.3%	definitely/largely achieved	33.0%
Important	23.3%	moderately achieved	31.4%
Somewhat important	18.4%	small achievement	16.3%
Not important	18.4%	did not achieve	17.6%

S- #E question

N - #18 learning about opportunities after graduation (e.g. grad or professional school)

#23-30 - skills related development.

**\*(p) general education.**

ES #28 In deciding to go to college, how important was “to gain a general education and appreciation of ideas” and “to make me a more cultured person”.

GS#9 Understanding and appreciation of the liberal arts and humanities.

Extremely/very important	25.9%	definitely/largely achieved	28.9%
Important	35.0%	moderately achieved	40.7%
Somewhat important	26.8%	small achievement	23.4%
Not important	11.8%	did not achieve	6.5%

GS#11 Understanding and appreciation of mathematical disciplines.

Extremely/very important	53.9%	definitely/largely achieved	50.5%
Important	30.0%	moderately achieved	32.5%
Somewhat important	11.9%	small achievement	13.2%
Not important	3.7%	did not achieve	3.4%

GS#13 Understanding and appreciation of the physical and life sciences.

Extremely/very important	47.6%	definitely/largely achieved	41.9%
Important	31.1%	moderately achieved	34.9%
Somewhat important	15.7%	small achievement	19.2%
Not important	5.2%	did not achieve	3.6%

GS#15 Understanding of the social and behavioral sciences.

Extremely/very important	33.4%	definitely/largely achieved	31.7%
Important	37.6%	moderately achieved	42.3%
Somewhat important	22.2%	small achievement	19.6%
Not important	6.0%	did not achieve	5.5%

GS#18 Awareness of the consequences (good and bad) of new applications of science and technology and their impacts on people and the environment.

Extremely/very important	63.6%	definitely/largely achieved	47.4%
Important	24.4%	moderately achieved	31.2%
Somewhat important	8.7%	small achievement	16.5%
Not important	2.0%	did not achieve	3.4%

GS# 19 Appreciation of art, music, drama and other cultural activities.

Extremely/very important	48.8%	definitely/largely achieved	30.6%
Important	27.9%	moderately achieved	30.0%
Somewhat important	21.1%	small achievement	26.4%
Not important	13.2%	did not achieve	12.4%

**\*(q) develop intellectual skills (critical thinking, problem solving etc).**

GS #2 Improve intellectual skills (critical thinking, logical reasoning, problem-solving).

Extremely/very important	88.9%	definitely/largely achieved	77.8%
Important	9.7%	moderately achieved	20.0%
Somewhat important	0.9%	small achievement	1.6%
Not important	0.1%	did not achieve	0.1%

T - Estimate of Gains section.

Gain in writing clearly and effectively.

Very much	9.5%
Quite a bit	38.5%
Some	40.7%
Very little	10.1%

Gain in quantitative thinking.

Very much	15.8%
Quite a bit	31.0%
Some	38.7%
Very little	12.7%

N- Student Needs Assessment.

Expressing my ideas in writing.

Need lot/medium amount of help	28.9%
Need a little help	41.6%
Need no help	27.9%

Developing my public speaking ability.	
Need lot/medium amount of help	51.6%
Need a little help	32.5%
Need no help	14.6%
Improving my understanding of what I read.	
Need lot/medium amount of help	29.0%
Need a little help	38.0%
Need no help	31.8%
Increasing my reading speed.	
Need lot/medium amount of help	39.4%
Need a little help	26.4%
Need no help	32.9%
Improving my study skills and habits.	
Need lot/medium amount of help	46.2%
Need a little help	29.5%
Need no help	23.1%
Improving my test-taking skills.	
Need lot/medium amount of help	45.4%
Need a little help	31.3%
Need no help	22.1%
Improving my problem solving abilities.	
Need lot/medium amount of help	29.6%
Need a little help	40.8%
Need no help	28.1%

**\*(r) computers** (see summary of computer related info)  
GS #12 Importance of skills in using computers.

#### **Parents:**

- (a) vocational outcomes.
- (b) safety and well-being.
- (c) maintaining contact between students and parents.
- (d) personal and social maturation.
- (e) the “collegiate experience”.
- (f) leadership opportunities.
- (g) become good citizens.
- (h) decision making about life.
- (i) social connections and connectedness.
- (j) variety of opportunities.
- (k) good education (include good grades)
- (l) freedom.
- (m) expect to be treated as a consumer.
- (n) skills for lifelong learning.

#### **Alumni**

We have the most recent alumni report (based on 1992 graduates).